

Data File : VV009045.D  
Acq On : 19 Dec 2018 11:02  
Operator : SY/MD  
Sample : VSTDCCC025  
Misc : 5.00 G/10ML/MSVOA\_V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02567

Quant Time: Dec 20 01:56:20 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
Quant Title : VOC Analysis  
QLast Update : Wed Dec 19 07:18:27 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 287237   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 249434   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 120813   | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 64943    | 21.85    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 87.40%  |
| 7) Chloroethane-d5             | 1.58   | 69    | 60168    | 27.40    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 109.60% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 183636   | 24.71    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 98.84%  |
| 20) 2-Butanone-d5              | 3.93   | 46    | 45359    | 41.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 83.82%  |
| 24) Chloroform-d               | 4.40   | 84    | 160059   | 23.18    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 92.72%  |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 86788    | 23.03    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 92.12%  |
| 29) Benzene-d6                 | 5.10   | 84    | 315522   | 22.65    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 90.60%  |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 91834    | 23.55    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 94.20%  |
| 37) Toluene-d8                 | 7.36   | 98    | 295332   | 22.91    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 91.64%  |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 41630    | 24.29    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 97.16%  |
| 39) 2-Hexanone-d5              | 8.14   | 63    | 27353    | 38.28    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 76.56%  |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 73868    | 22.58    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 90.32%  |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 103121   | 22.74    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 90.96%  |

#### Target Compounds

|                                |      |     |        |             | Qvalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 94371  | 20.043 ug/L | 100    |
| 3) Chloromethane               | 1.25 | 50  | 73280  | 22.649 ug/L | 98     |
| 5) Vinyl chloride              | 1.32 | 62  | 79306  | 21.956 ug/L | 100    |
| 6) Bromomethane                | 1.53 | 94  | 49764  | 28.656 ug/L | 98     |
| 8) Chloroethane                | 1.60 | 64  | 55984  | 27.674 ug/L | 98     |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 169576 | 27.410 ug/L | 99     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 102246 | 24.097 ug/L | 98     |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 88338  | 23.858 ug/L | 90     |
| 13) Acetone                    | 2.20 | 43  | 71851  | 45.064 ug/L | 99     |
| 14) Carbon disulfide           | 2.32 | 76  | 258943 | 21.779 ug/L | 100    |
| 15) Methyl Acetate             | 2.46 | 43  | 40743  | 20.152 ug/L | 98     |
| 16) Methylene chloride         | 2.53 | 84  | 90098  | 18.627 ug/L | 97     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 193133 | 22.959 ug/L | 97     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 91152  | 22.782 ug/L | 99     |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 150727 | 23.239 ug/L | 99     |
| 21) 2-Butanone                 | 4.02 | 43  | 68158  | 45.609 ug/L | 98     |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 97080  | 23.271 ug/L | 99     |

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ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02567

Quant Time: Dec 20 01:56:20 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
Quant Title : VOC Analysis  
QLast Update : Wed Dec 19 07:18:27 2018  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 4.29  | 128  | 44460    | 22.612 | ug/L  | 97       |
| 25) Chloroform                 | 4.42  | 83   | 164484   | 23.630 | ug/L  | 100      |
| 27) 1,2-Dichloroethane         | 5.17  | 62   | 110462   | 23.296 | ug/L  | 99       |
| 30) Cyclohexane                | 4.72  | 56   | 140623   | 22.389 | ug/L  | 99       |
| 31) 1,1,1-Trichloroethane      | 4.66  | 97   | 152845   | 23.767 | ug/L  | 99       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 137151   | 23.360 | ug/L  | 99       |
| 34) Benzene                    | 5.14  | 78   | 342221   | 22.900 | ug/L  | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 104977   | 23.300 | ug/L  | 99       |
| 36) Methylcyclohexane          | 6.17  | 83   | 163918   | 22.812 | ug/L  | 99       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 79649    | 22.207 | ug/L  | 100      |
| 41) Bromodichloromethane       | 6.55  | 83   | 112806   | 23.863 | ug/L  | 100      |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 133406   | 25.406 | ug/L  | 96       |
| 43) 4-Methyl-2-pentanone       | 7.27  | 43   | 97580    | 40.252 | ug/L  | 99       |
| 44) Toluene                    | 7.43  | 91   | 365085   | 23.295 | ug/L  | 98       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 111637   | 24.388 | ug/L  | 97       |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 69607    | 23.292 | ug/L  | 99       |
| 47) Tetrachloroethene          | 8.02  | 164  | 83424    | 22.769 | ug/L  | 97       |
| 49) 2-Hexanone                 | 8.19  | 43   | 80626    | 40.201 | ug/L  | 97       |
| 50) Dibromochloromethane       | 8.29  | 129  | 84483    | 24.662 | ug/L  | 99       |
| 51) 1,2-Dibromoethane          | 8.40  | 107  | 67821    | 22.599 | ug/L  | 100      |
| 52) Chlorobenzene              | 8.93  | 112  | 238163   | 23.338 | ug/L  | 98       |
| 53) Ethylbenzene               | 9.05  | 91   | 410188   | 24.126 | ug/L  | 98       |
| 54) m,p-Xylene                 | 9.18  | 106  | 153151   | 23.790 | ug/L  | 97       |
| 55) o-xylene                   | 9.59  | 106  | 146596   | 24.509 | ug/L  | 97       |
| 56) Styrene                    | 9.60  | 104  | 242901   | 25.173 | ug/L  | 99       |
| 57) Isopropylbenzene           | 9.97  | 105  | 405238   | 24.927 | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.29 | 83   | 73380    | 22.713 | ug/L  | 98       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 61438    | 21.978 | ug/L  | 100      |
| 62) Bromoform                  | 9.77  | 173  | 49218    | 22.564 | ug/L  | 98       |
| 63) 1,3-Dichlorobenzene        | 11.23 | 146  | 183579   | 23.581 | ug/L  | 98       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 185784   | 23.191 | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 167912   | 23.397 | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 11438    | 19.453 | ug/L  | 96       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 128066   | 22.775 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 93179    | 23.650 | ug/L  | 99       |
| 69) Naphthalene                | 13.55 | 128  | 149024   | 21.960 | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 82113    | 22.561 | ug/L  | 99       |

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

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Sample : VSTDCCC025

Misc : 5.00 G/10ML/MSVOA V/SOIL

```
ALS Vial      : 1      Sample Multiplier: 1
```

**Instrument :**  
MSVOA\_V  
**ClientSampleId :**  
VSTD02567

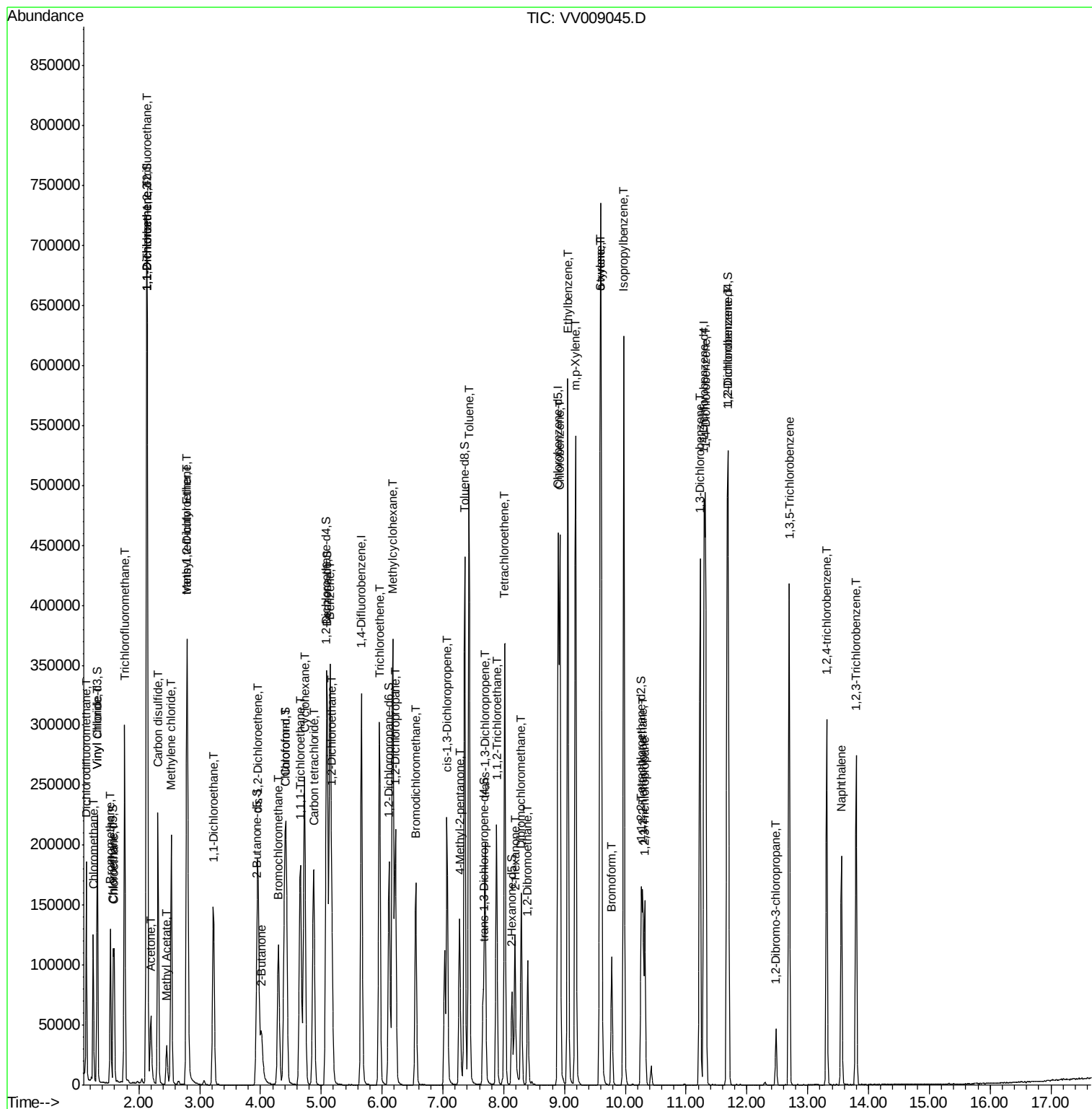
Quant Time: Dec 20 01:56:20 2018

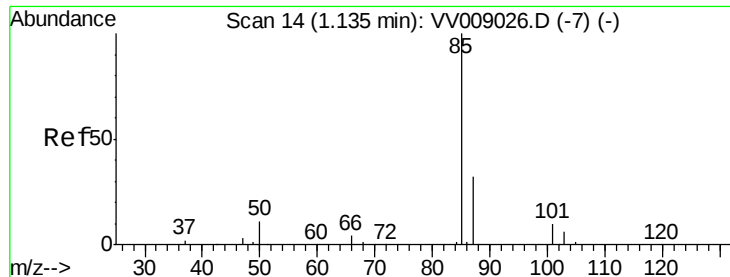
Quant Method : Z:\VOASRV\HPCHEM1\MSV0A\_V\METHOD\SOM2VLM120618S.M

Quant Title : VOC Analysis

QLast Update : Wed Dec 19 07:18:27 2018

Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 20.043 ug/L

RT: 1.14 min Scan# 14

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

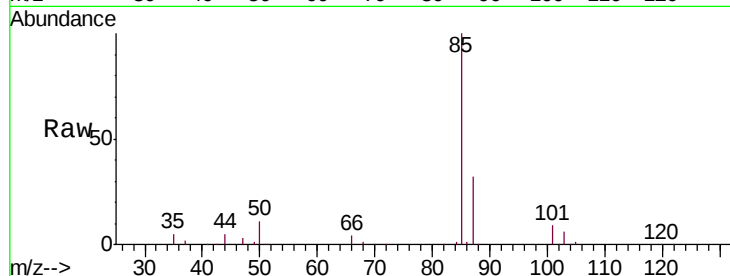
VSTD02567

Tgt Ion: 85 Resp: 94371

Ion Ratio Lower Upper

85 100

87 32.2 22.4 41.6



Abundance Ion 85.00 (84.70 to 85.70): VV009026.D (-7) (-)

Ion 87.00 (86.70 to 87.70): VV009026.D (-7) (-)

1.14

100000

80000

60000

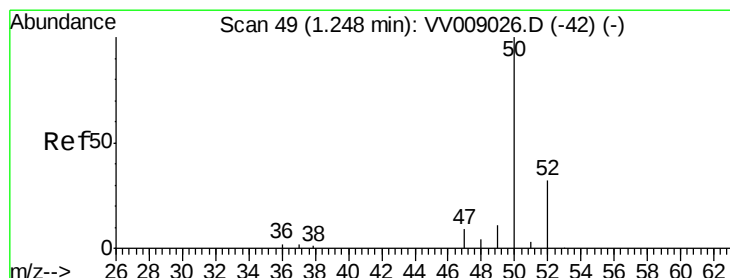
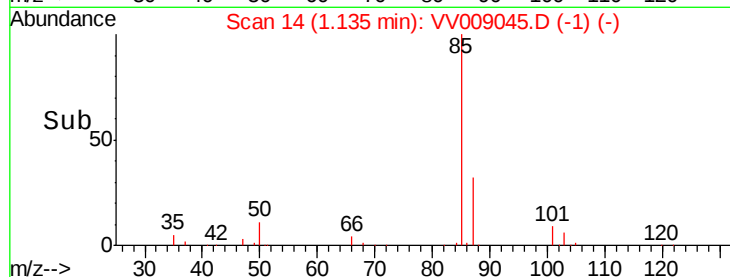
40000

20000

0

Time-->

1.10 1.15 1.20



#3

Chloromethane

Concen: 22.649 ug/L

RT: 1.25 min Scan# 49

Delta R.T. 0.00 min

Lab File: VV009045.D

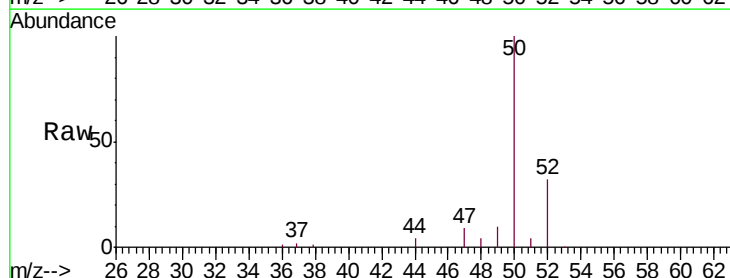
Acq: 19 Dec 2018 11:02

Tgt Ion: 50 Resp: 73280

Ion Ratio Lower Upper

50 100

52 32.1 23.2 43.2



Abundance Ion 50.00 (49.70 to 50.70): VV009026.D (-42) (-)

Ion 52.00 (51.70 to 52.70): VV009026.D (-42) (-)

1.25

80000

60000

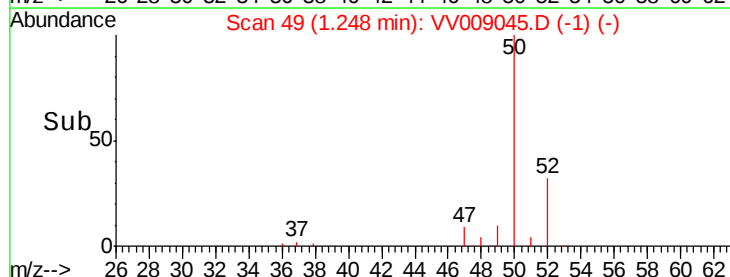
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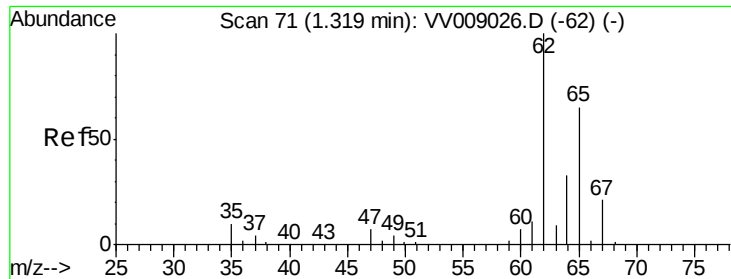
20000

0

Time-->

1.20 1.25 1.30





#5

Vinyl chloride

Concen: 21.956 ug/L

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

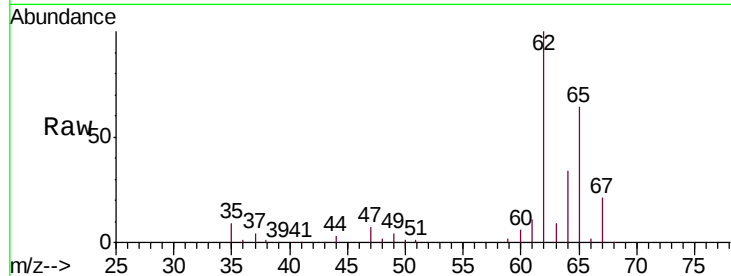
VSTD02567

Tgt Ion: 62 Resp: 79306

Ion Ratio Lower Upper

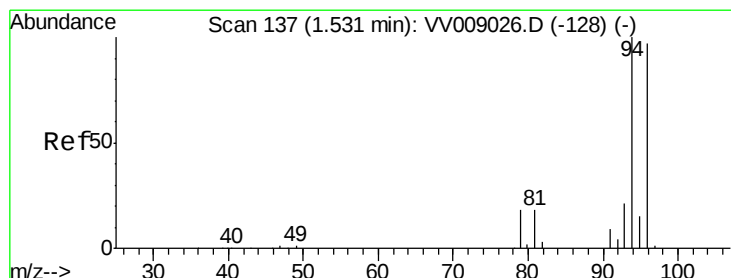
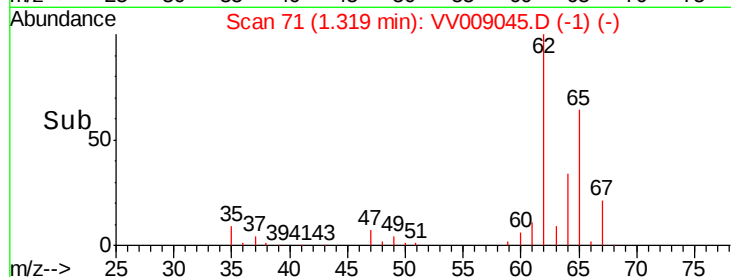
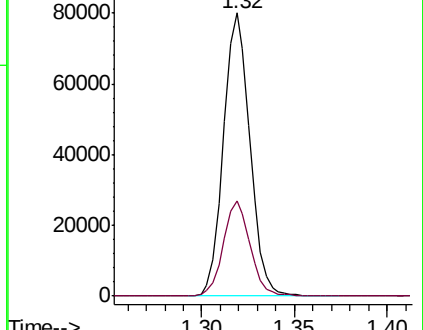
62 100

64 33.5 23.3 43.3



Abundance Ion 62.00 (61.70 to 62.70): VV009026.D (-62) (-)

Ion 64.00 (63.70 to 64.70): VV009026.D (-62) (-)



#6

Bromomethane

Concen: 28.656 ug/L

RT: 1.53 min Scan# 137

Delta R.T. 0.00 min

Lab File: VV009045.D

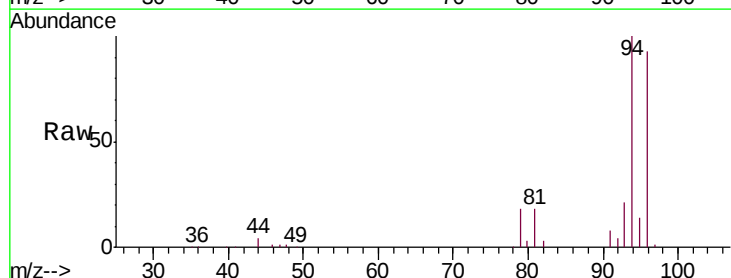
Acq: 19 Dec 2018 11:02

Tgt Ion: 94 Resp: 49764

Ion Ratio Lower Upper

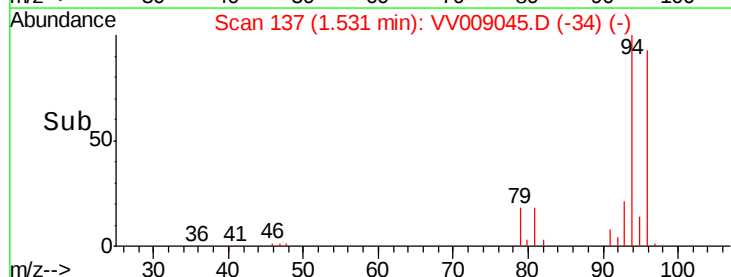
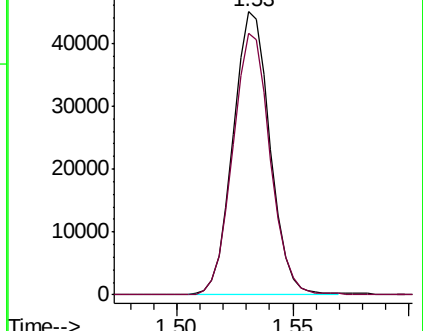
94 100

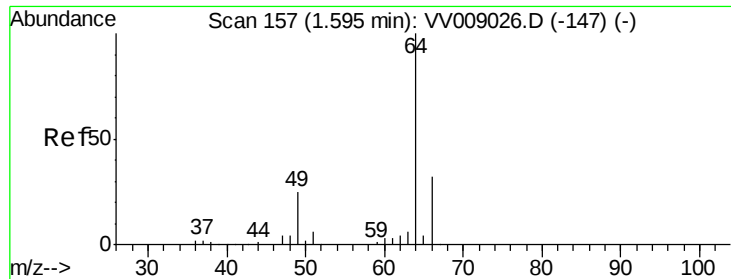
96 93.6 9.5 180.9



Abundance Ion 94.00 (93.70 to 94.70): VV009026.D (-128) (-)

Ion 96.00 (95.70 to 96.70): VV009026.D (-128) (-)





#8

Chloroethane

Concen: 27.674 ug/L

RT: 1.60 min Scan# 157

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

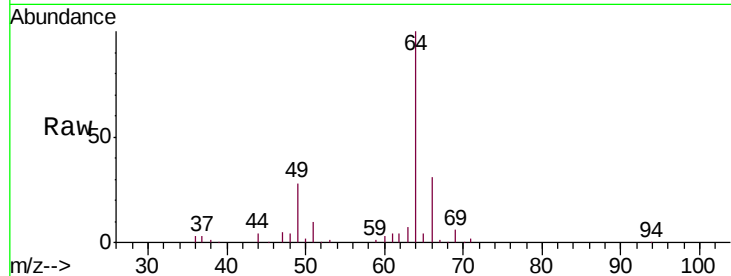
VSTD02567

Tgt Ion: 64 Resp: 55984

Ion Ratio Lower Upper

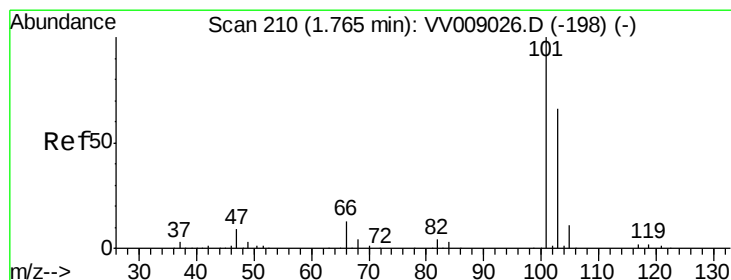
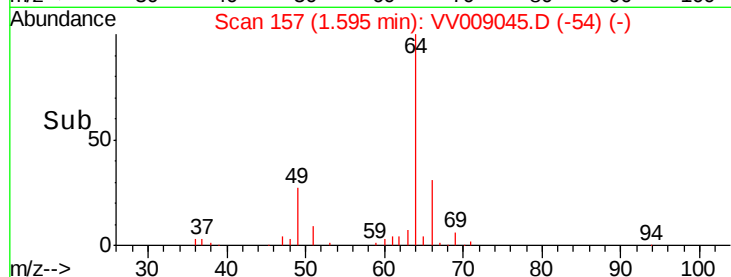
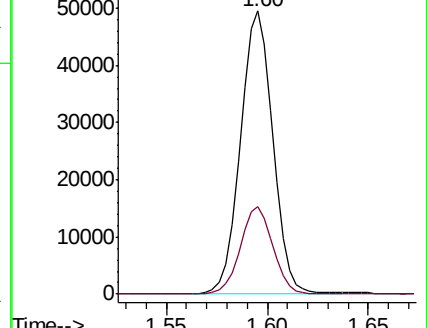
64 100

66 30.8 22.2 41.2



Abundance Ion 64.00 (63.70 to 64.70): VV009026.D (-147) (-)

Ion 66.00 (65.70 to 66.70): VV009026.D (-147) (-)



#9

Trichlorofluoromethane

Concen: 27.410 ug/L

RT: 1.77 min Scan# 210

Delta R.T. 0.00 min

Lab File: VV009045.D

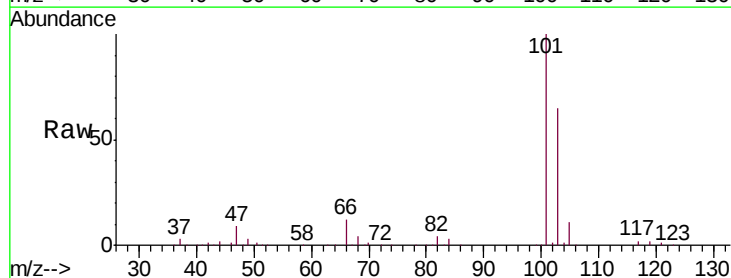
Acq: 19 Dec 2018 11:02

Tgt Ion: 101 Resp: 169576

Ion Ratio Lower Upper

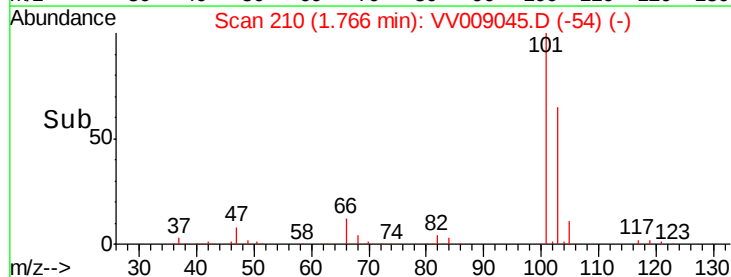
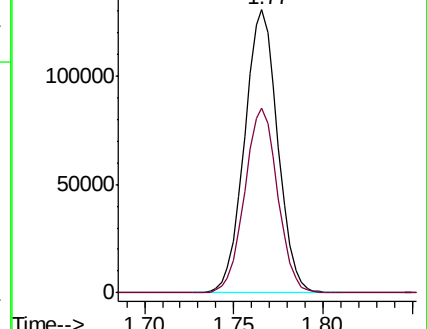
101 100

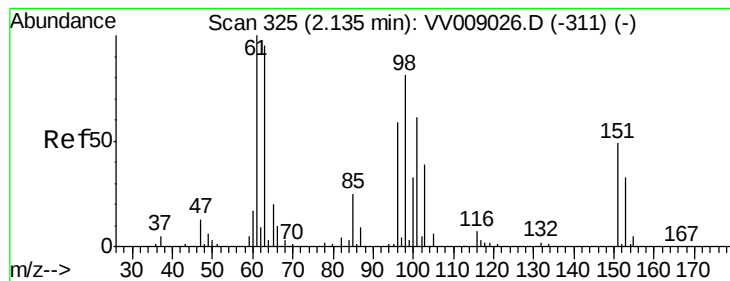
103 64.8 44.8 83.2



Abundance Ion 101.00 (100.70 to 101.70): VV009026.D (-198) (-)

Ion 103.00 (102.70 to 103.70): VV009026.D (-198) (-)





#11

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

Concen: 24.097 ug/L

RT: 2.14 min Scan# 325

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02567

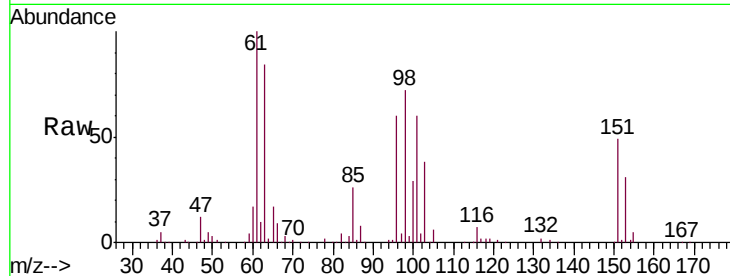
Tgt Ion: 101 Resp: 102246

Ion Ratio Lower Upper

101 100

85 42.4 32.5 48.7

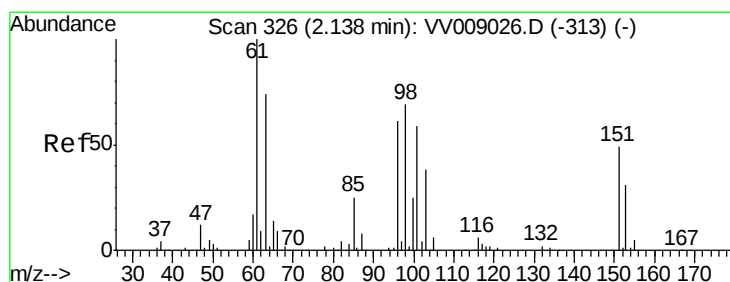
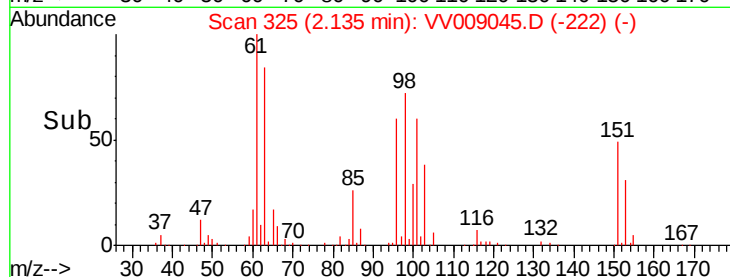
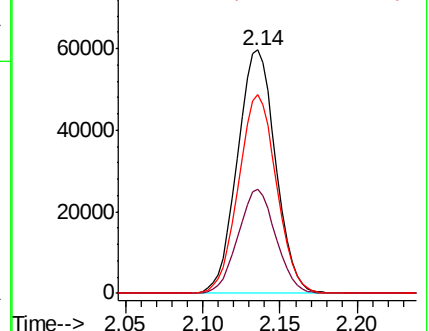
151 81.4 64.2 96.4



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: 23.858 ug/L

RT: 2.14 min Scan# 325

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

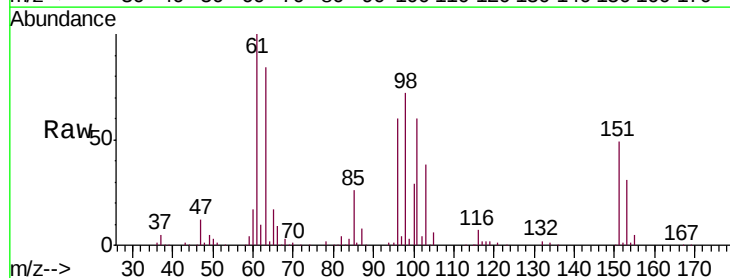
Tgt Ion: 96 Resp: 88338

Ion Ratio Lower Upper

96 100

61 166.8 114.0 211.6

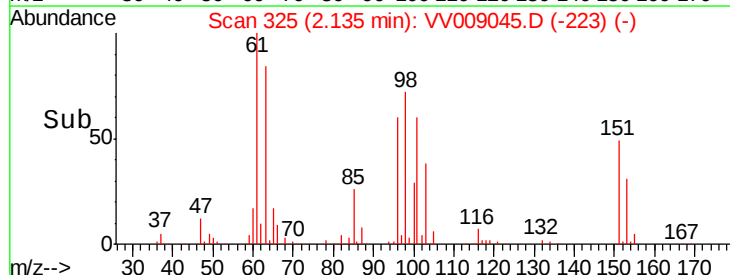
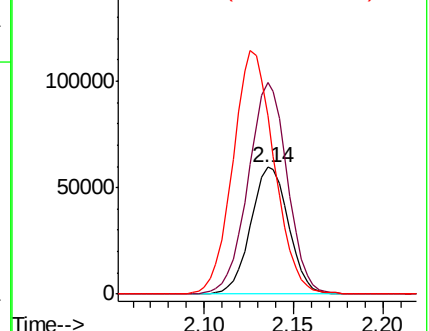
63 140.2 82.4 153.0

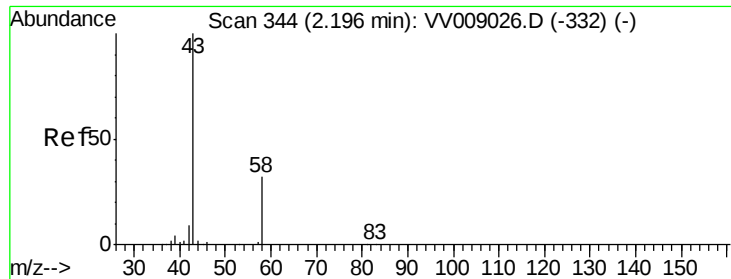


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.00 (60.70 to 61.70): VV0

Ion 63.00 (62.70 to 63.70): VV0





#13

Acetone

Concen: 45.064 ug/L

RT: 2.20 min Scan# 344

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

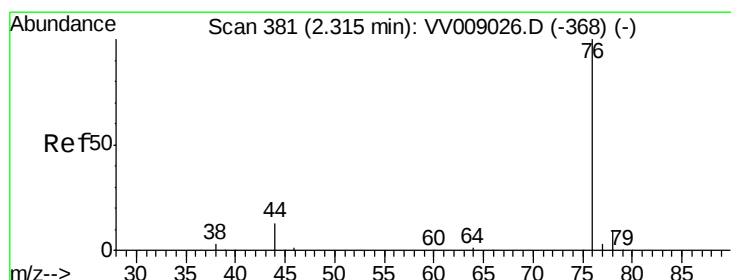
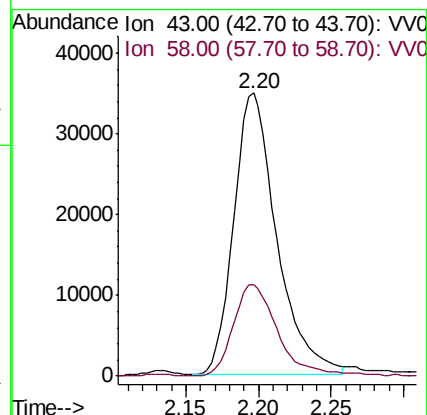
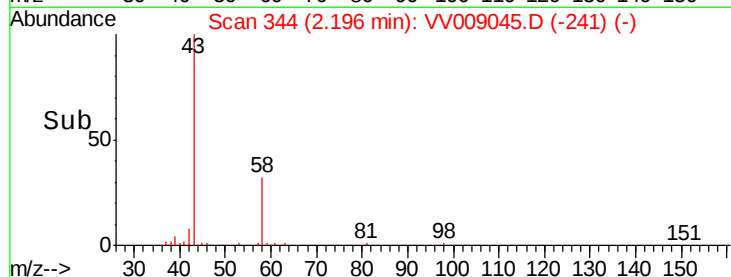
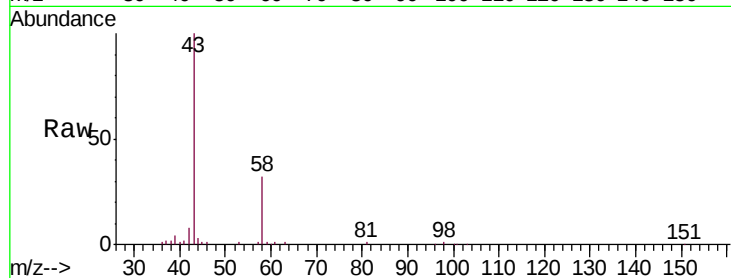
VSTD02567

Tgt Ion: 43 Resp: 71851

Ion Ratio Lower Upper

43 100

58 33.3 0.0 65.4



#14

Carbon disulfide

Concen: 21.779 ug/L

RT: 2.32 min Scan# 381

Delta R.T. 0.00 min

Lab File: VV009045.D

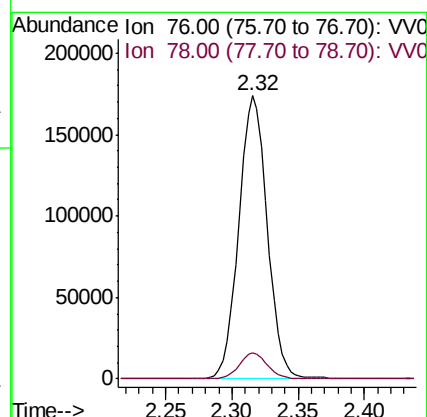
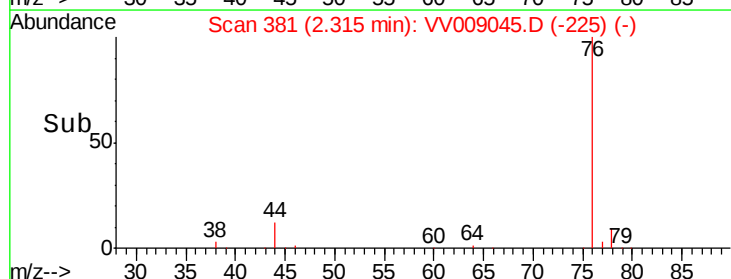
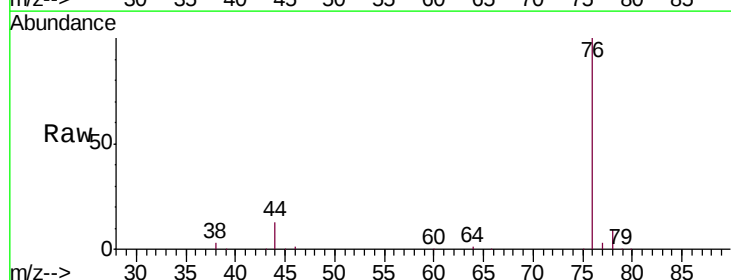
Acq: 19 Dec 2018 11:02

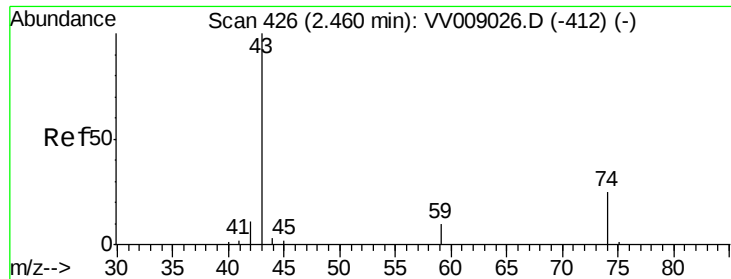
Tgt Ion: 76 Resp: 258943

Ion Ratio Lower Upper

76 100

78 9.2 7.4 11.0

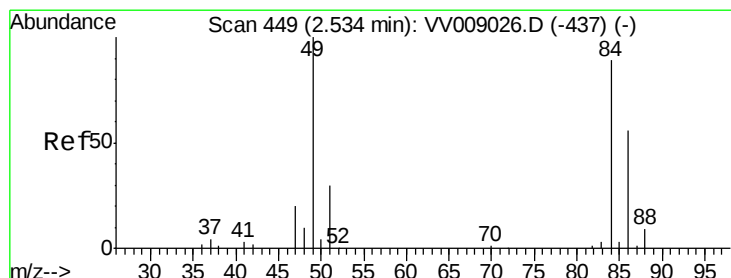
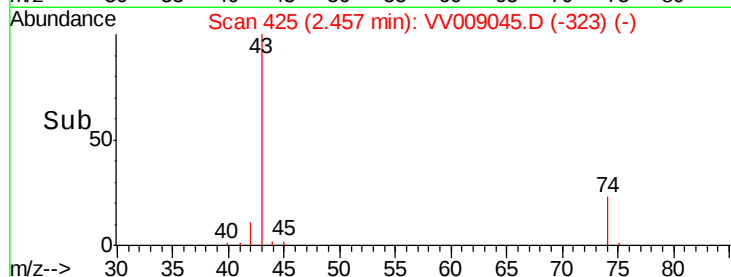
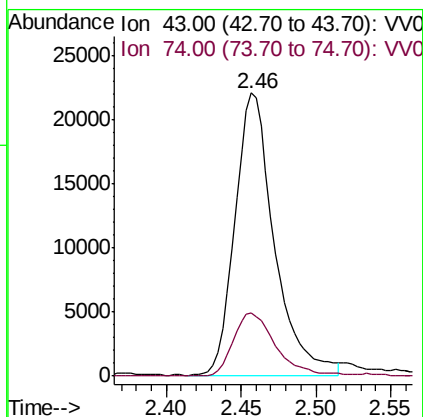
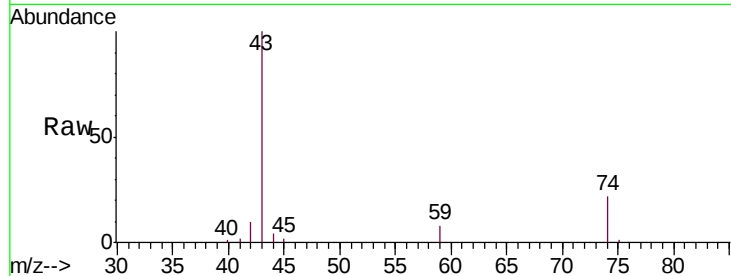




#15  
Methyl Acetate  
Concen: 20.152 ug/L  
RT: 2.46 min Scan# 425  
Delta R.T. -0.00 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

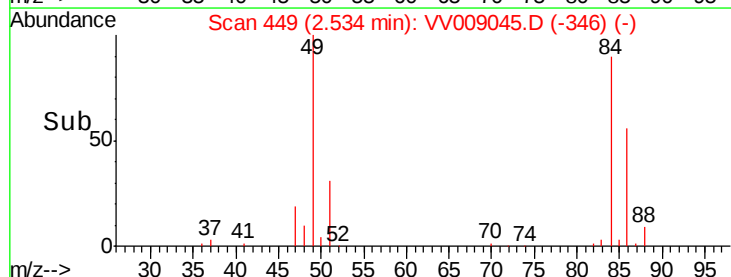
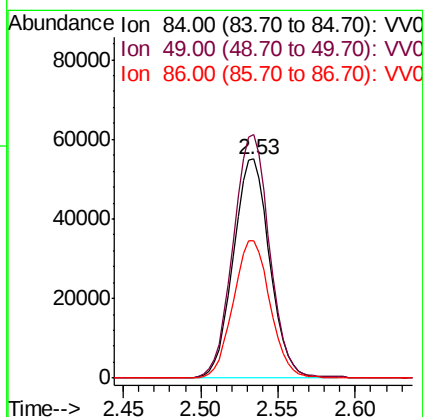
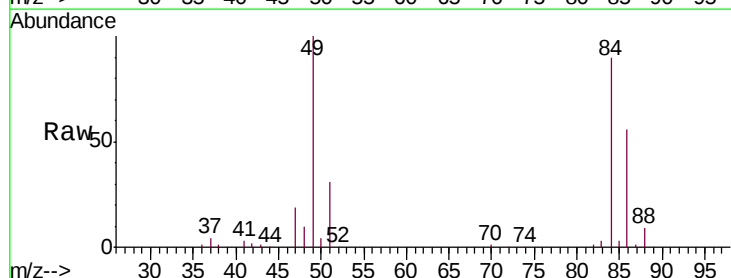
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02567

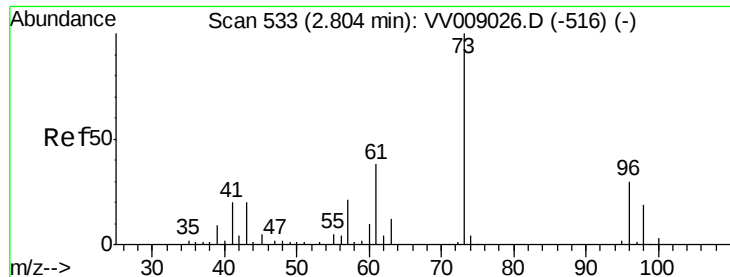
Tgt Ion: 43 Resp: 40743  
Ion Ratio Lower Upper  
43 100  
74 23.4 19.7 29.5



#16  
Methylene chloride  
Concen: 18.627 ug/L  
RT: 2.53 min Scan# 449  
Delta R.T. 0.00 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

Tgt Ion: 84 Resp: 90098  
Ion Ratio Lower Upper  
84 100  
49 111.1 80.5 149.5  
86 62.5 45.5 84.5

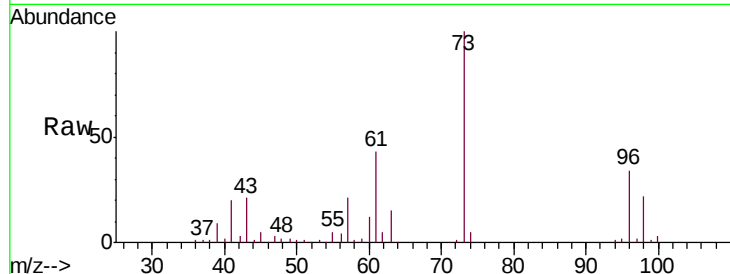




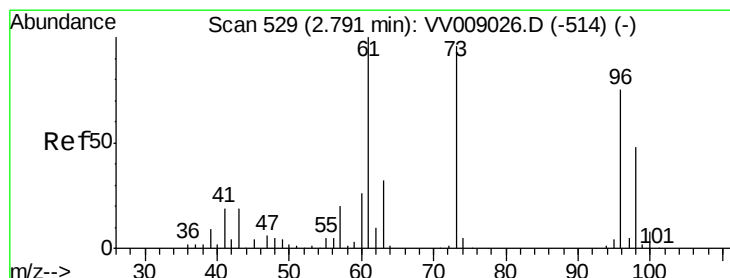
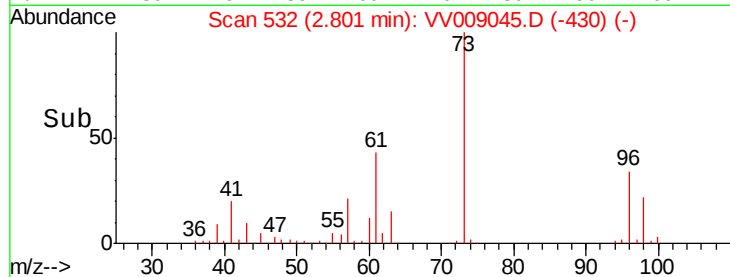
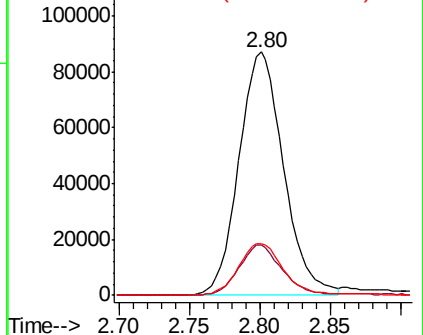
#17  
Methyl tert-butyl Ether  
Concen: 22.959 ug/L  
RT: 2.80 min Scan# 532  
Delta R.T. -0.00 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02567

Tgt Ion: 73 Resp: 193133  
Ion Ratio Lower Upper  
73 100  
43 20.5 14.9 22.3  
57 21.3 16.0 24.0

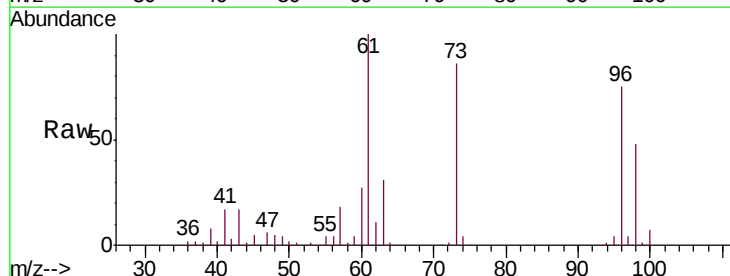


Abundance Ion 73.00 (72.70 to 73.70): VV0  
Ion 43.00 (42.70 to 43.70): VV0  
Ion 57.00 (56.70 to 57.70): VV0

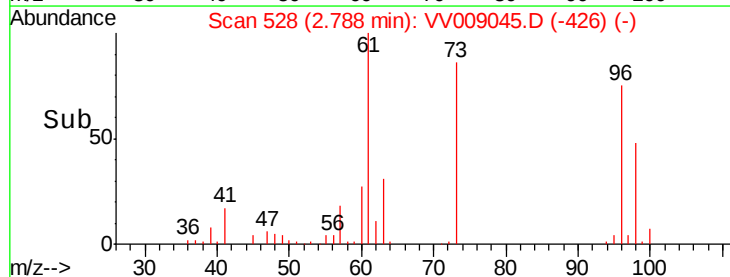
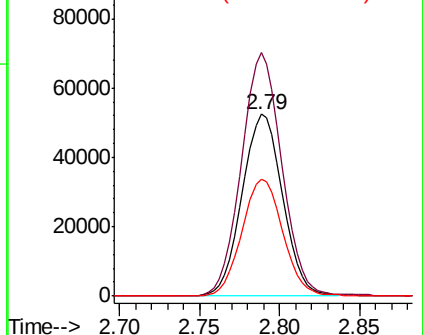


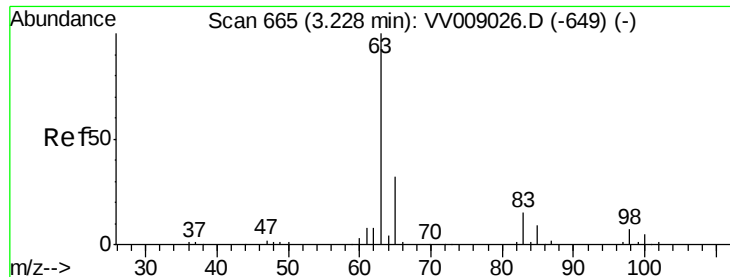
#18  
trans-1,2-Dichloroethene  
Concen: 22.782 ug/L  
RT: 2.79 min Scan# 528  
Delta R.T. -0.00 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

Tgt Ion: 96 Resp: 91152  
Ion Ratio Lower Upper  
96 100  
61 133.7 94.6 175.8  
98 64.4 45.3 84.1



Abundance Ion 96.00 (95.70 to 96.70): VV0  
Ion 61.00 (60.70 to 61.70): VV0  
Ion 98.00 (97.70 to 98.70): VV0

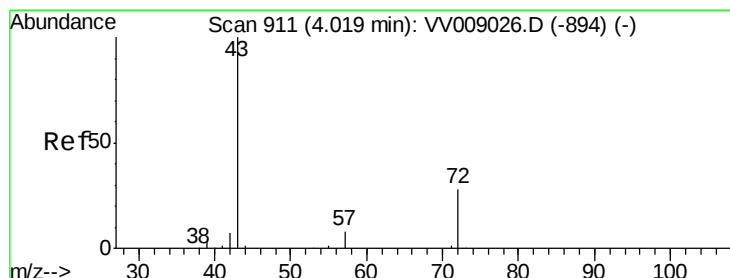
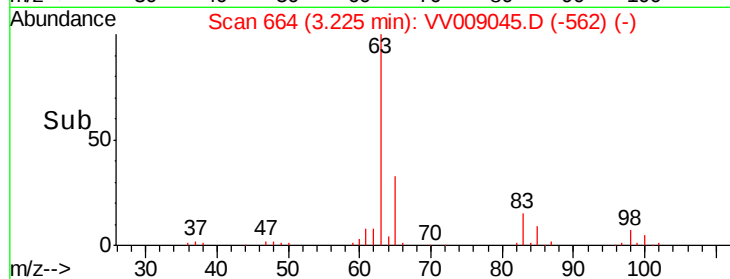
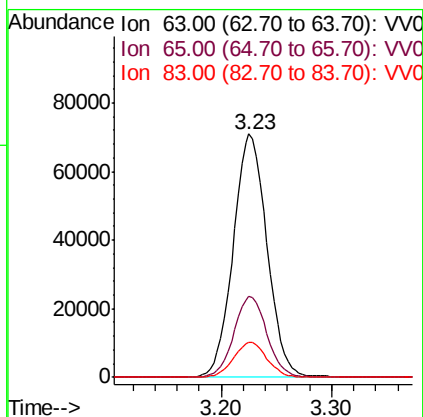
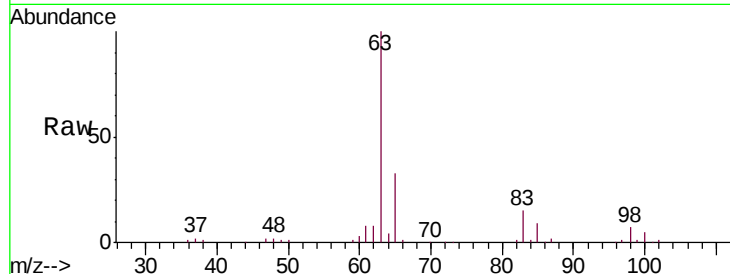




#19  
 1,1-Dichloroethane  
 Concen: 23.239 ug/L  
 RT: 3.23 min Scan# 664  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

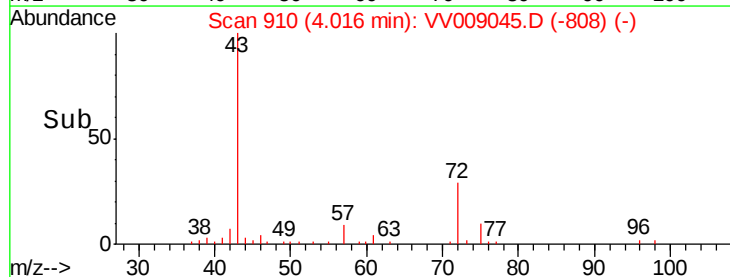
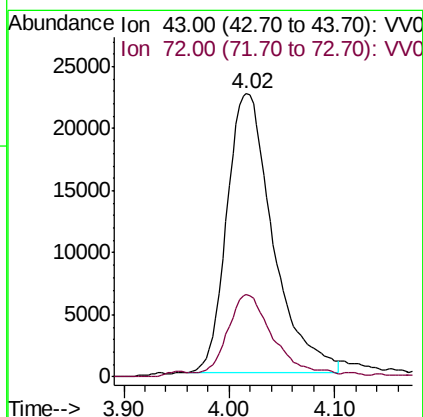
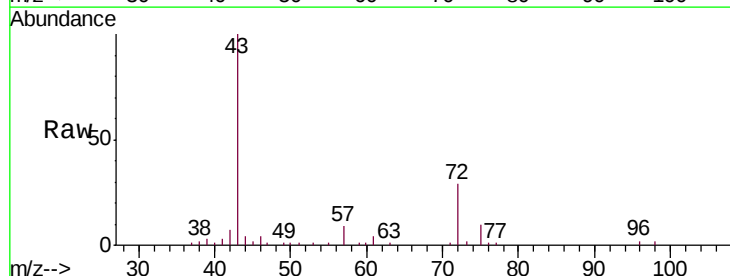
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

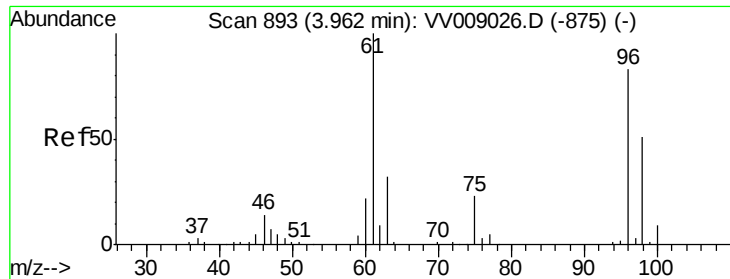
Tgt Ion: 63 Resp: 150727  
 Ion Ratio Lower Upper  
 63 100  
 65 33.1 22.7 42.1  
 83 14.6 10.2 19.0



#21  
 2-Butanone  
 Concen: 45.609 ug/L  
 RT: 4.02 min Scan# 910  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Tgt Ion: 43 Resp: 68158  
 Ion Ratio Lower Upper  
 43 100  
 72 26.5 13.7 41.1

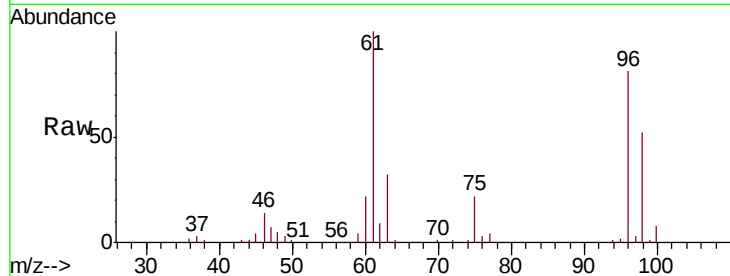




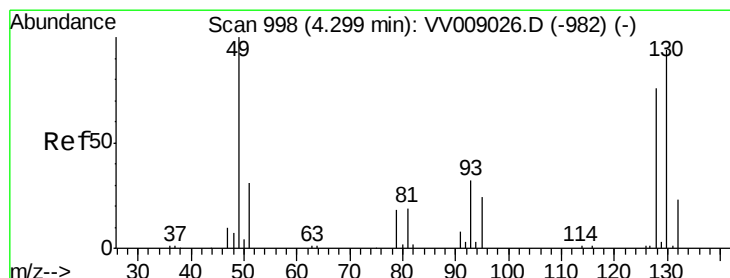
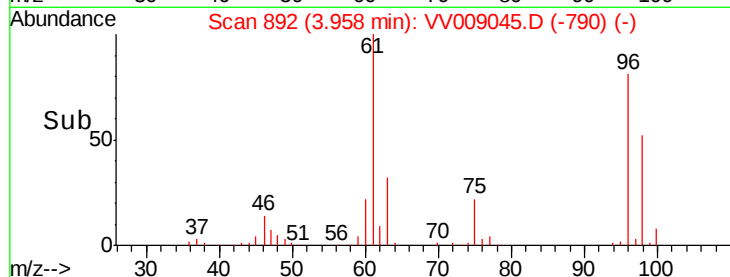
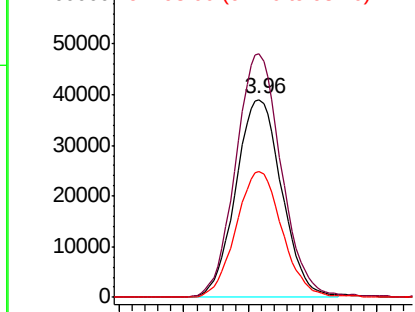
#22  
 cis-1,2-Dichloroethene  
 Concen: 23.271 ug/L  
 RT: 3.96 min Scan# 892  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

Tgt Ion: 96 Resp: 97080  
 Ion Ratio Lower Upper  
 96 100  
 61 123.1 86.2 160.0  
 98 63.9 45.6 84.6

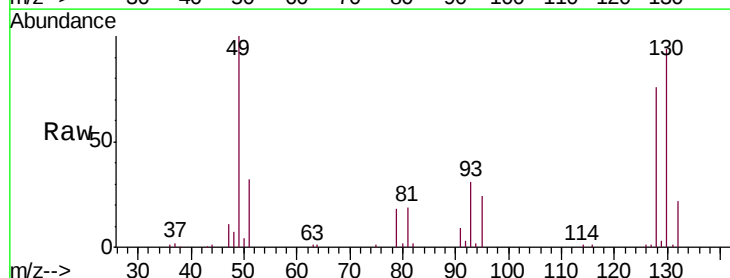


Abundance Ion 96.00 (95.70 to 96.70): VV0  
 Ion 61.00 (60.70 to 61.70): VV0  
 Ion 98.00 (97.70 to 98.70): VV0

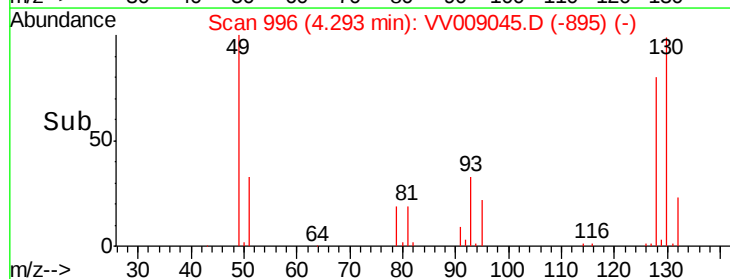
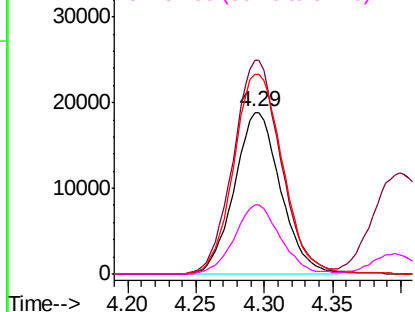


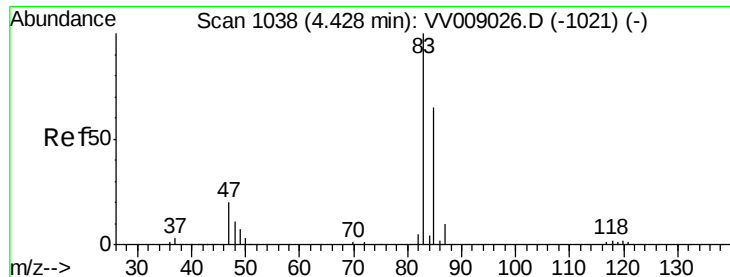
#23  
 Bromochloromethane  
 Concen: 22.612 ug/L  
 RT: 4.29 min Scan# 996  
 Delta R.T. -0.01 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Tgt Ion: 128 Resp: 44460  
 Ion Ratio Lower Upper  
 128 100  
 49 131.8 93.8 174.2  
 130 123.8 90.4 168.0  
 51 42.5 34.2 51.4



Abundance Ion 128.00 (127.70 to 128.70): V  
 Ion 49.00 (48.70 to 49.70): VV0  
 Ion 130.00 (129.70 to 130.70): V  
 Ion 51.00 (50.70 to 51.70): VV0

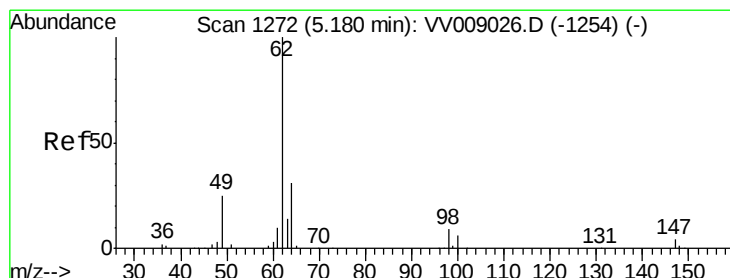
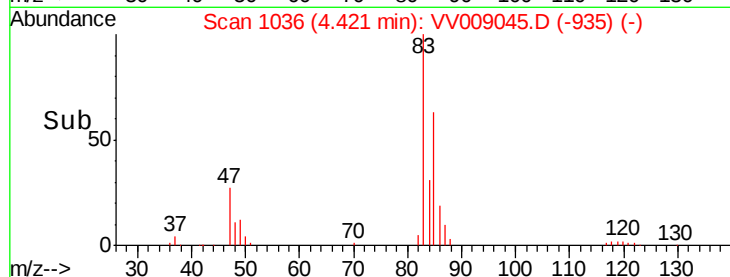
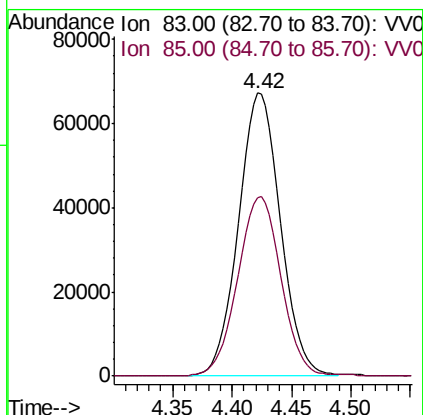
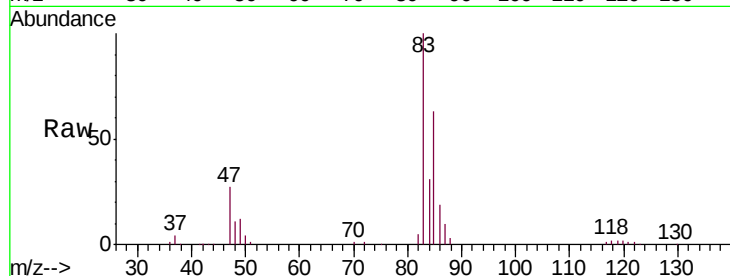




#25  
Chloroform  
Concen: 23.630 ug/L  
RT: 4.42 min Scan# 1036  
Delta R.T. -0.01 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

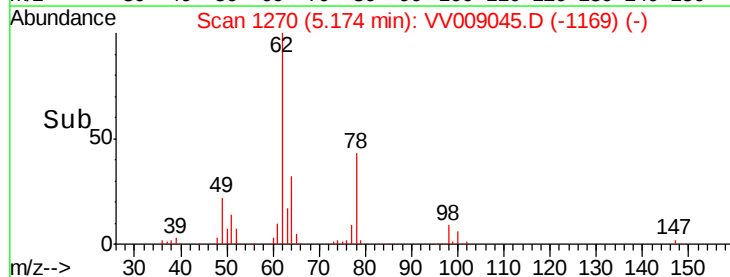
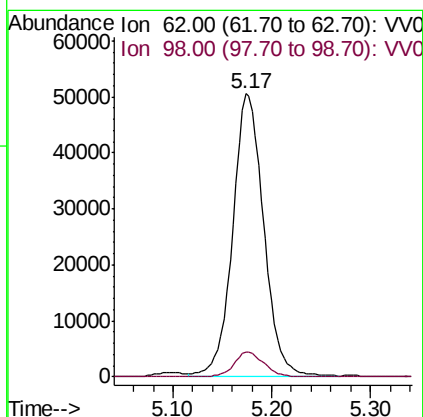
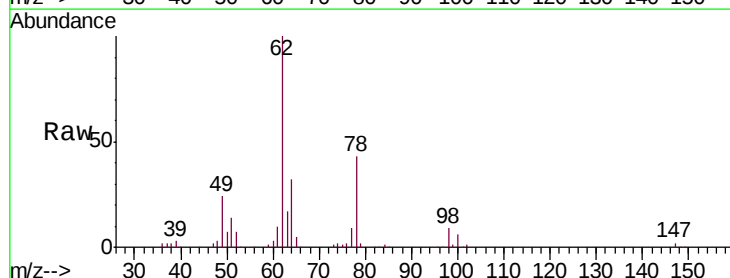
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02567

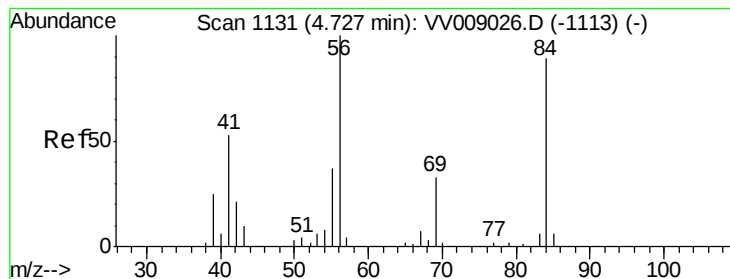
Tgt Ion: 83 Resp: 164484  
Ion Ratio Lower Upper  
83 100  
85 65.5 45.6 84.8



#27  
1,2-Dichloroethane  
Concen: 23.296 ug/L  
RT: 5.17 min Scan# 1270  
Delta R.T. -0.01 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

Tgt Ion: 62 Resp: 110462  
Ion Ratio Lower Upper  
62 100  
98 8.7 7.4 11.0





#30

Cyclohexane

Concen: 22.389 ug/L

RT: 4.72 min Scan# 1130

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02567

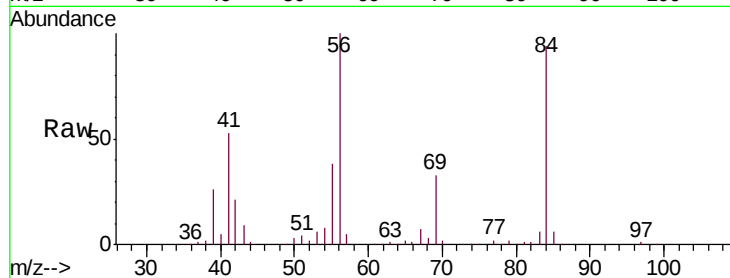
Tgt Ion: 56 Resp: 140623

Ion Ratio Lower Upper

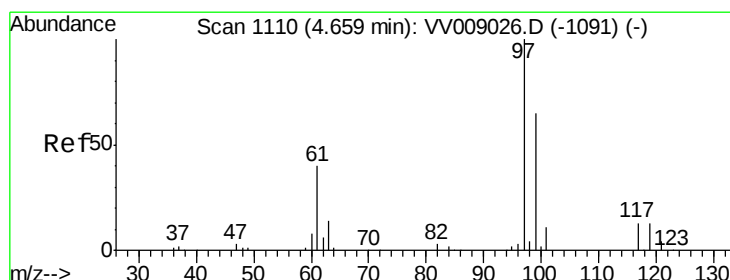
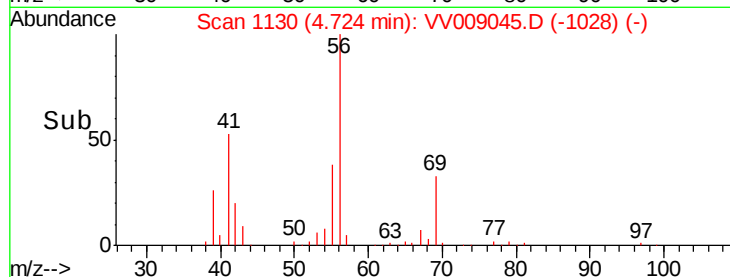
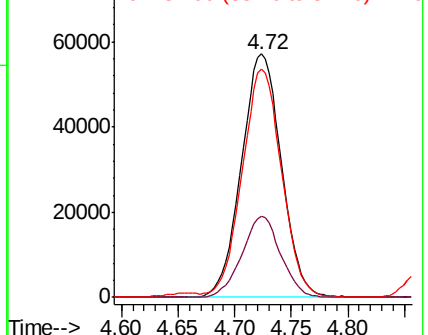
56 100

69 32.3 25.8 38.8

84 92.4 73.0 109.6



Abundance Ion 56.00 (55.70 to 56.70): VV0  
Ion 69.00 (68.70 to 69.70): VV0  
Ion 84.00 (83.70 to 84.70): VV0



#31

1,1,1-Trichloroethane

Concen: 23.767 ug/L

RT: 4.66 min Scan# 1109

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

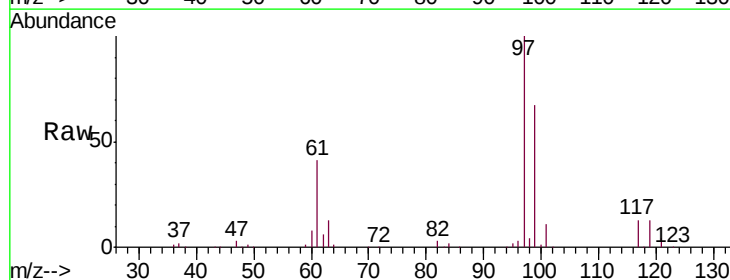
Tgt Ion: 97 Resp: 152845

Ion Ratio Lower Upper

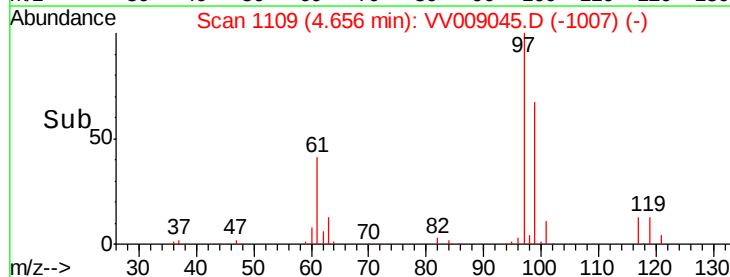
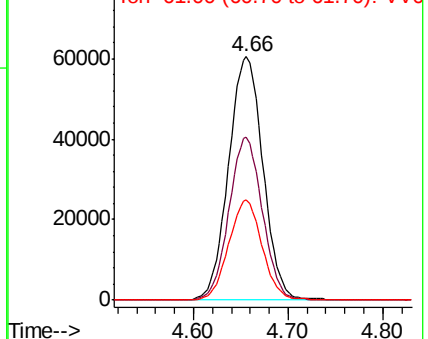
97 100

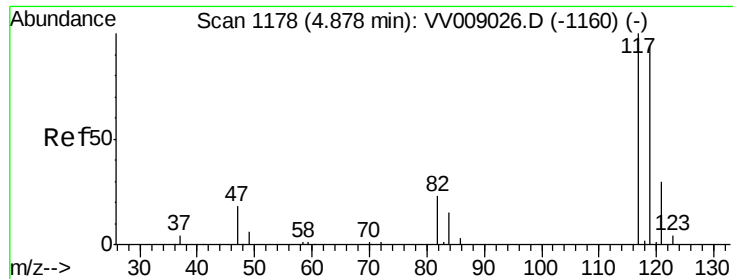
99 64.9 51.9 77.9

61 40.0 33.1 49.7



Abundance Ion 97.00 (96.70 to 97.70): VV0  
Ion 99.00 (98.70 to 99.70): VV0  
Ion 61.00 (60.70 to 61.70): VV0





#32

Carbon tetrachloride

Concen: 23.360 ug/L

RT: 4.87 min Scan# 1177

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

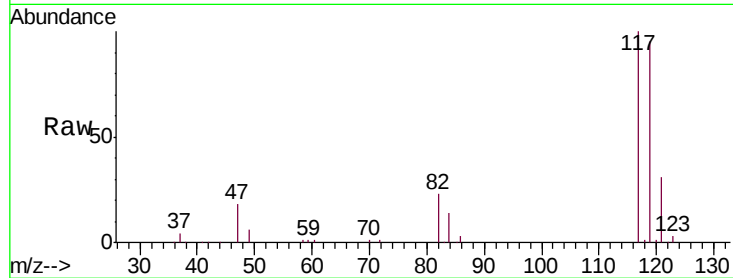
VSTD02567

Tgt Ion:117 Resp: 137151

Ion Ratio Lower Upper

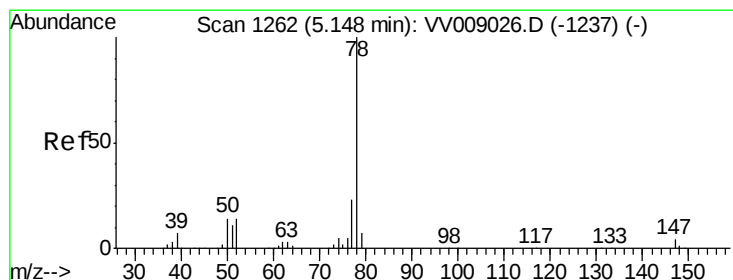
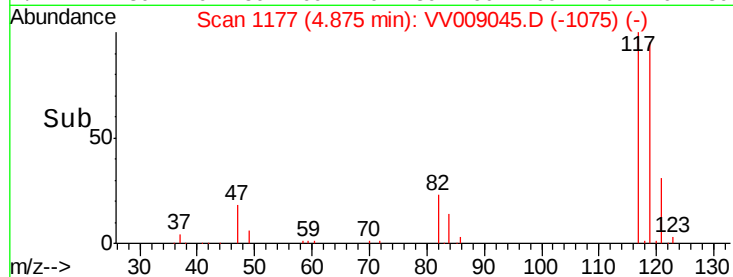
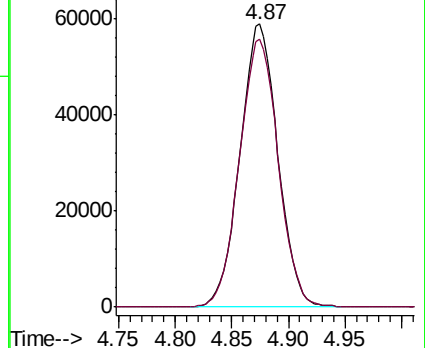
117 100

119 97.2 77.1 115.7



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#34

Benzene

Concen: 22.900 ug/L

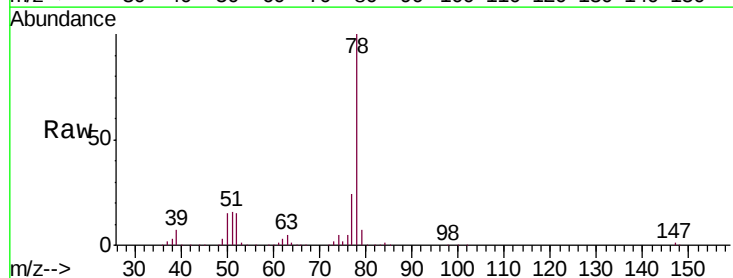
RT: 5.14 min Scan# 1261

Delta R.T. -0.00 min

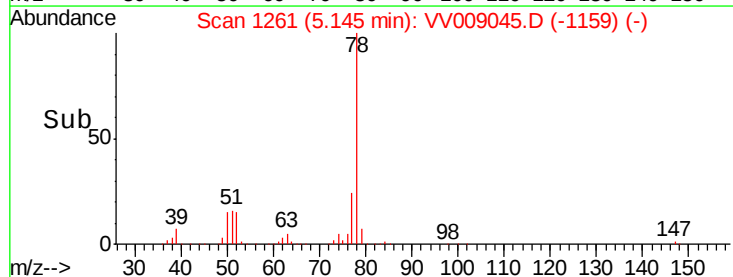
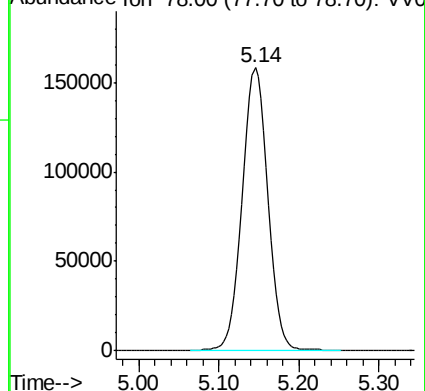
Lab File: VV009045.D

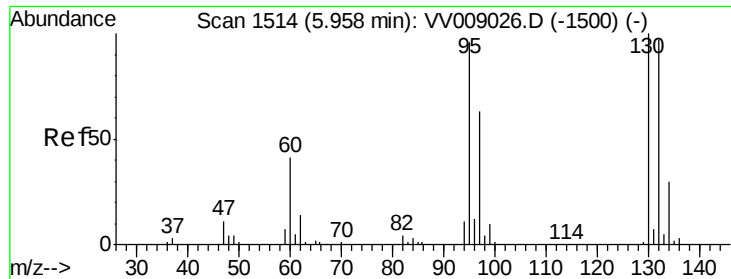
Acq: 19 Dec 2018 11:02

Tgt Ion: 78 Resp: 342221



Abundance Ion 78.00 (77.70 to 78.70): VV0

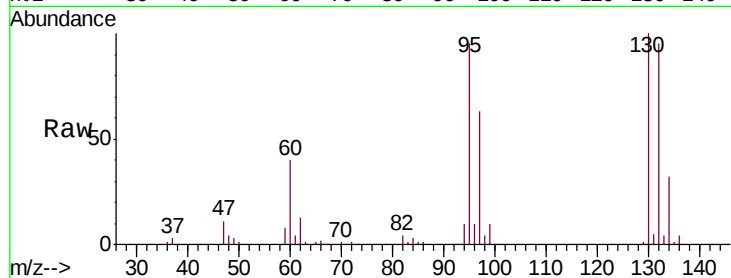




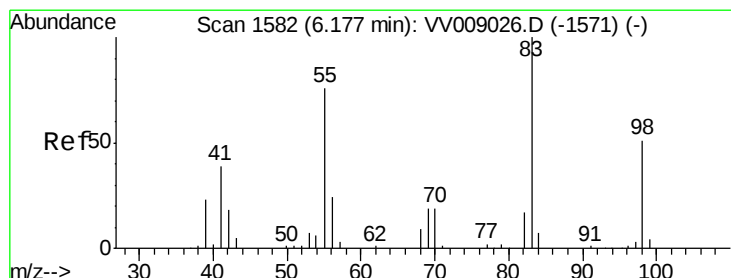
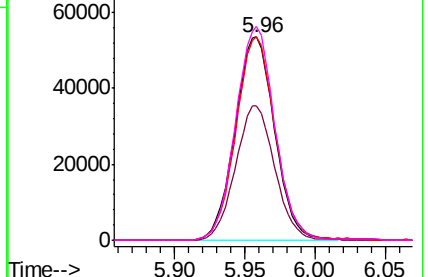
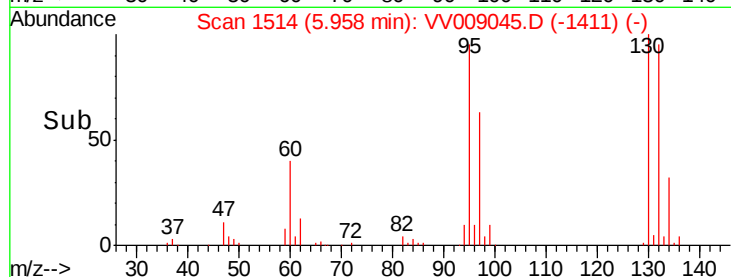
#35  
 Trichloroethene  
 Concen: 23.300 ug/L  
 RT: 5.96 min Scan# 1514  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

Tgt Ion: 95 Resp: 104977  
 Ion Ratio Lower Upper  
 95 100  
 97 65.8 45.3 84.1  
 132 99.4 70.0 130.0  
 130 104.7 73.4 136.4

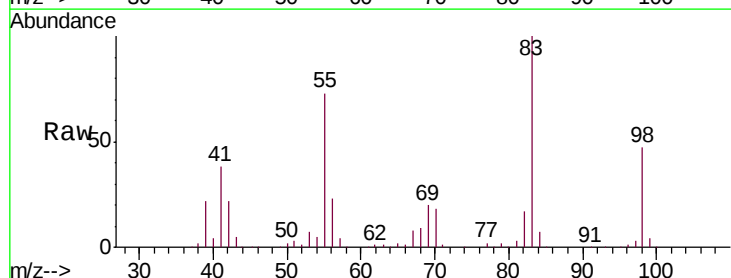


Abundance Ion 95.00 (94.70 to 95.70): VV0  
 Ion 97.00 (96.70 to 97.70): VV0  
 Ion 132.00 (131.70 to 132.70): VV0  
 Ion 130.00 (129.70 to 130.70): VV0

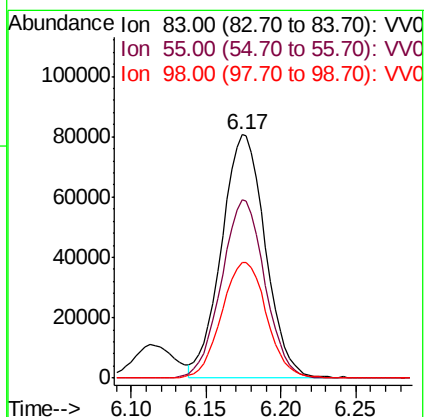
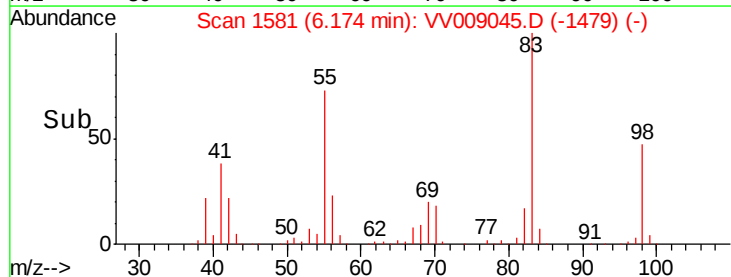


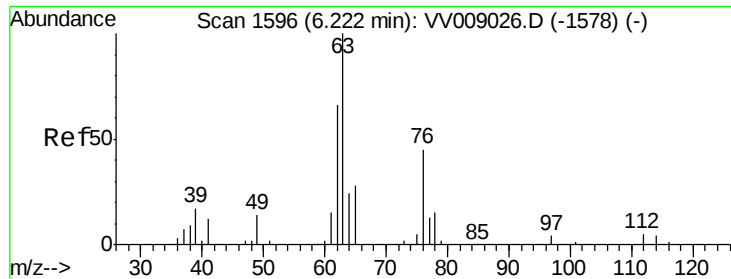
#36  
 Methylcyclohexane  
 Concen: 22.812 ug/L  
 RT: 6.17 min Scan# 1581  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Tgt Ion: 83 Resp: 163918  
 Ion Ratio Lower Upper  
 83 100  
 55 72.9 58.2 87.2  
 98 48.9 37.8 56.8



Abundance Ion 83.00 (82.70 to 83.70): VV0  
 Ion 55.00 (54.70 to 55.70): VV0  
 Ion 98.00 (97.70 to 98.70): VV0

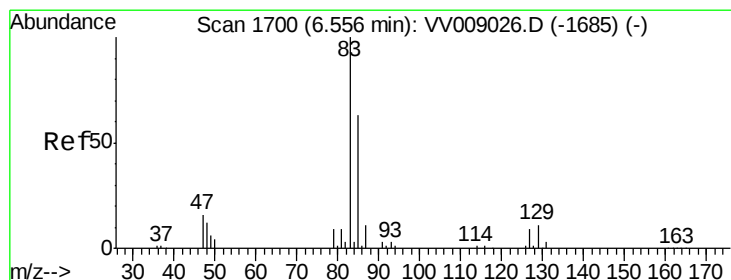
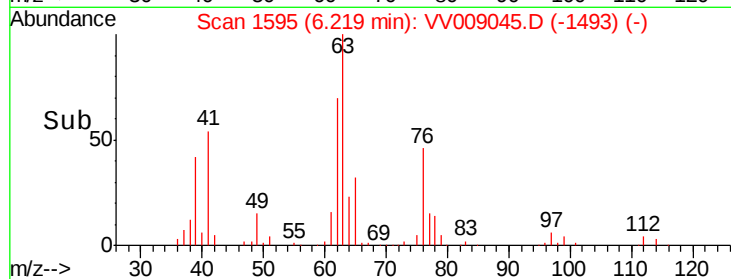
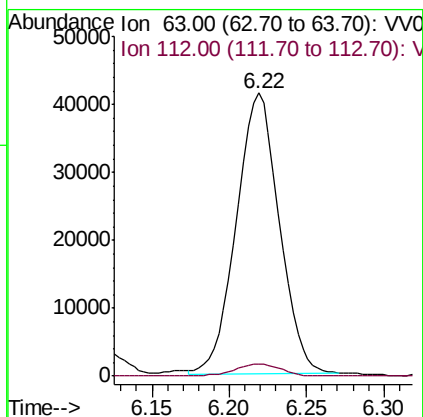
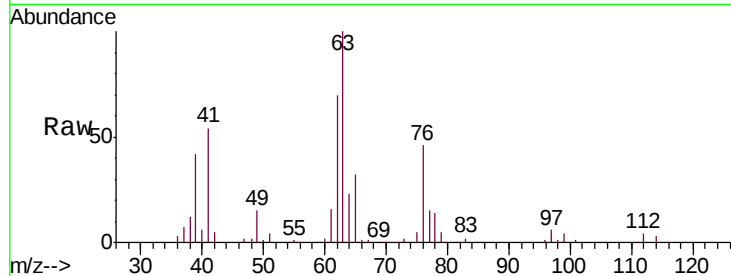




#40  
 1,2-Dichloropropane  
 Concen: 22.207 ug/L  
 RT: 6.22 min Scan# 1595  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

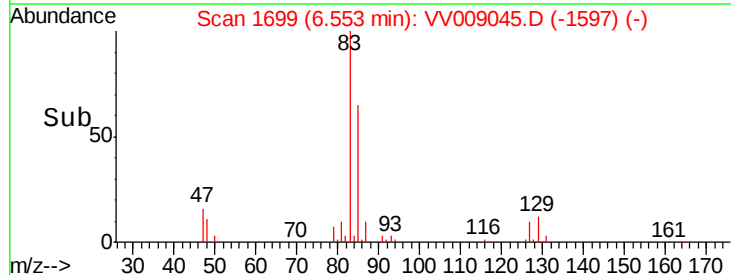
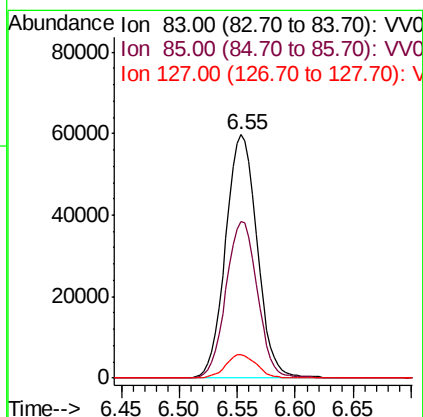
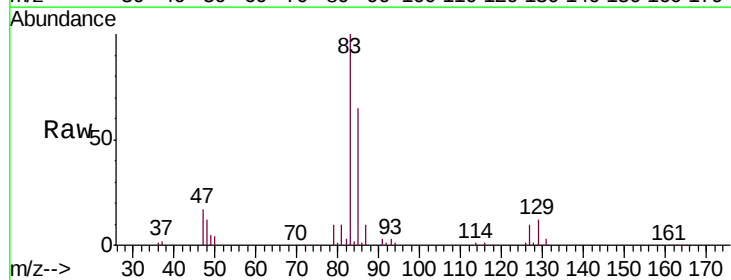
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

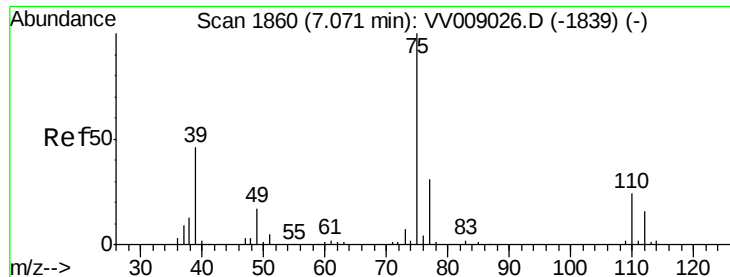
Tgt Ion: 63 Resp: 79649  
 Ion Ratio Lower Upper  
 63 100  
 112 4.6 3.8 5.8



#41  
 Bromodichloromethane  
 Concen: 23.863 ug/L  
 RT: 6.55 min Scan# 1699  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Tgt Ion: 83 Resp: 112806  
 Ion Ratio Lower Upper  
 83 100  
 85 64.5 45.3 84.1  
 127 9.7 7.2 10.8



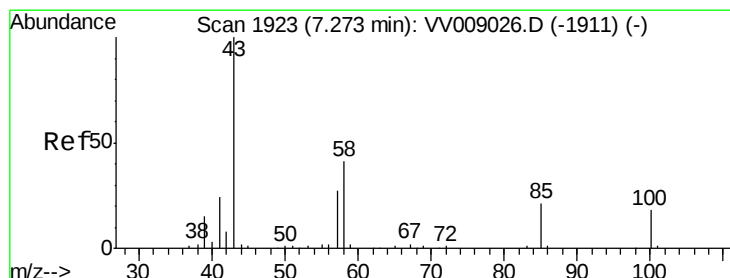
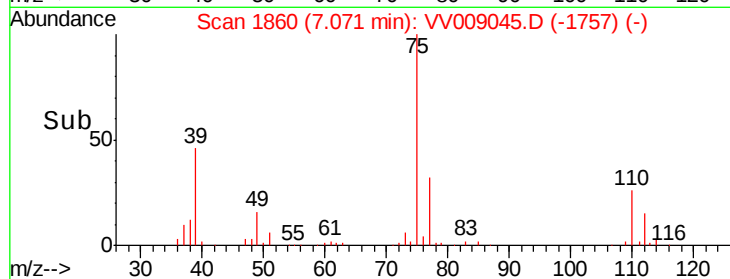
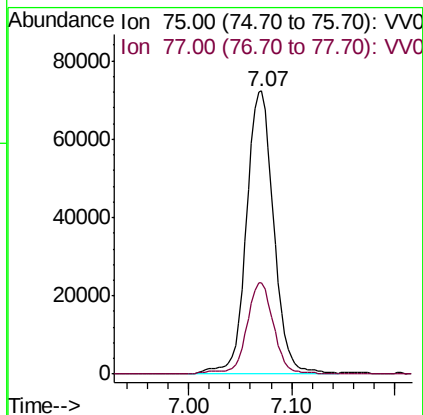
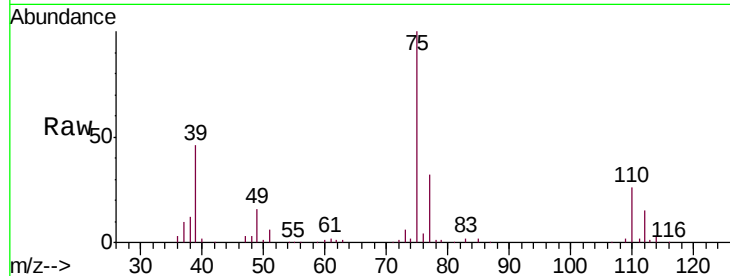


#42

cis-1,3-Dichloropropene  
 Concen: 25.406 ug/L  
 RT: 7.07 min Scan# 1860  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

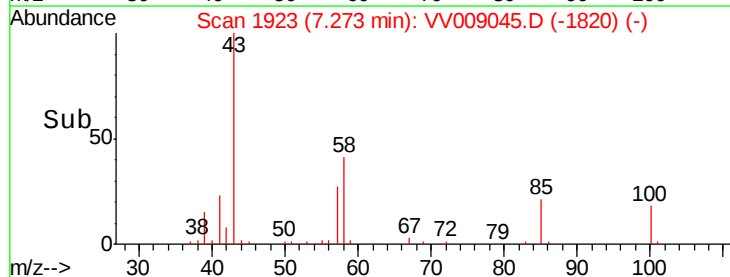
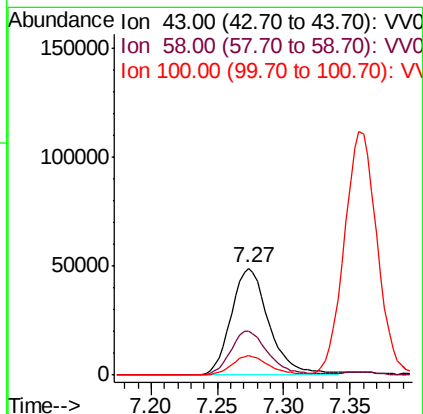
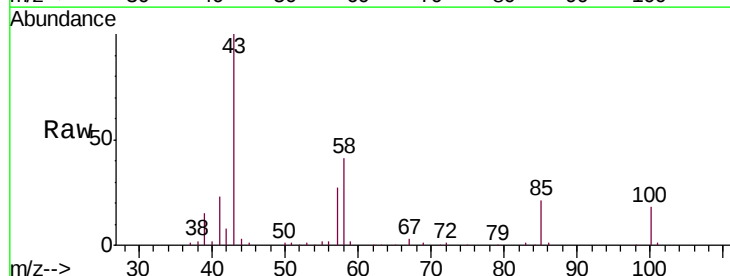
Tgt Ion: 75 Resp: 133406  
 Ion Ratio Lower Upper  
 75 100  
 77 32.4 21.3 39.6

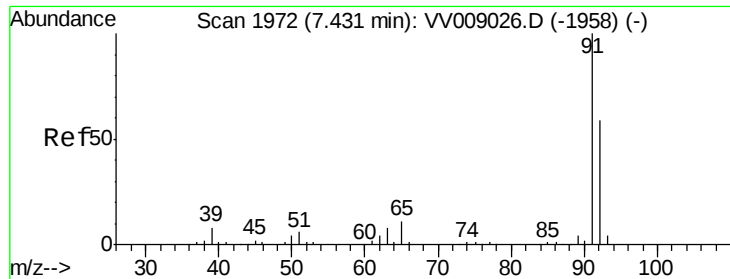


#43

4-Methyl-2-pentanone  
 Concen: 40.252 ug/L  
 RT: 7.27 min Scan# 1923  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Tgt Ion: 43 Resp: 97580  
 Ion Ratio Lower Upper  
 43 100  
 58 41.0 32.2 48.4  
 100 17.5 13.8 20.8





#44

Toluene

Concen: 23.295 ug/L

RT: 7.43 min Scan# 1972

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

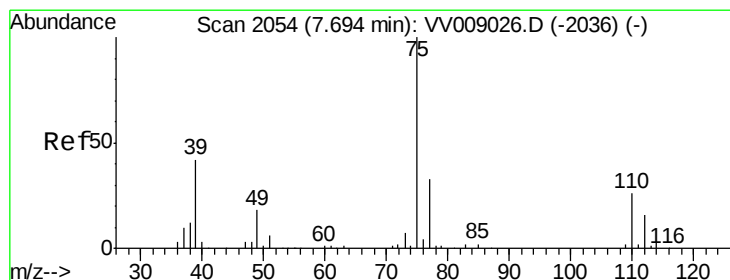
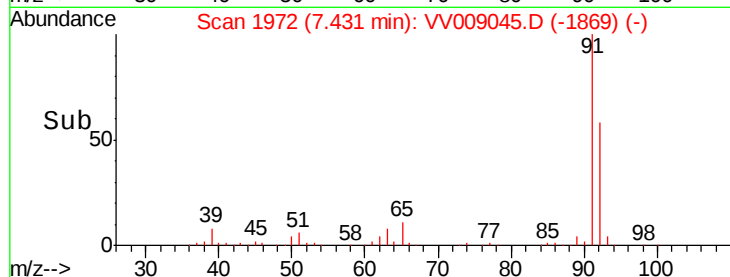
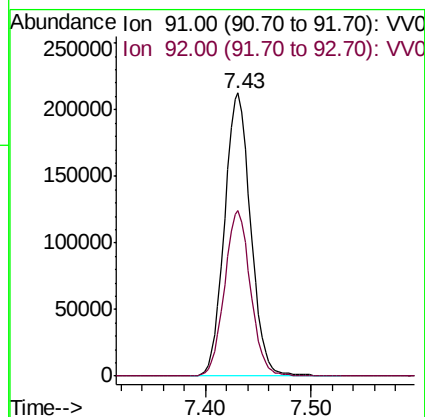
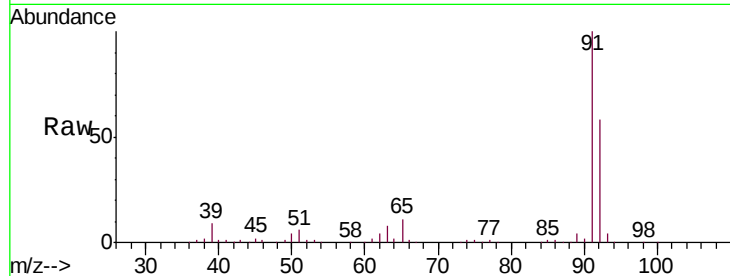
VSTD02567

Tgt Ion: 91 Resp: 365085

Ion Ratio Lower Upper

91 100

92 58.3 41.7 77.5



#45

trans-1,3-Dichloropropene

Concen: 24.388 ug/L

RT: 7.69 min Scan# 2053

Delta R.T. -0.00 min

Lab File: VV009045.D

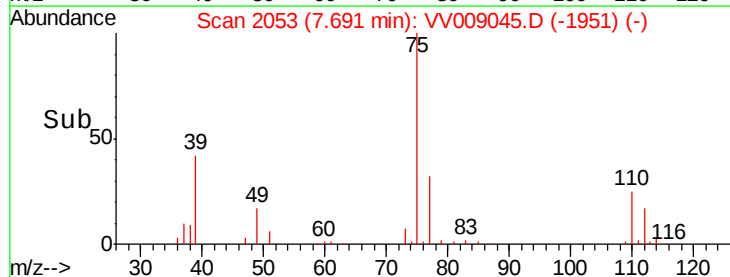
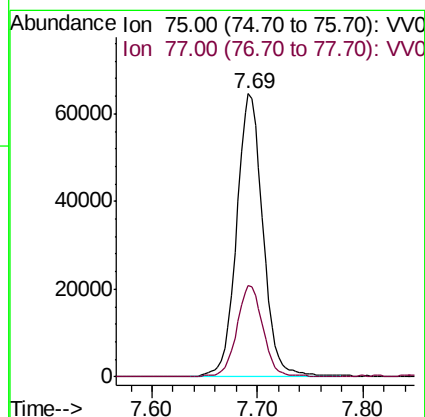
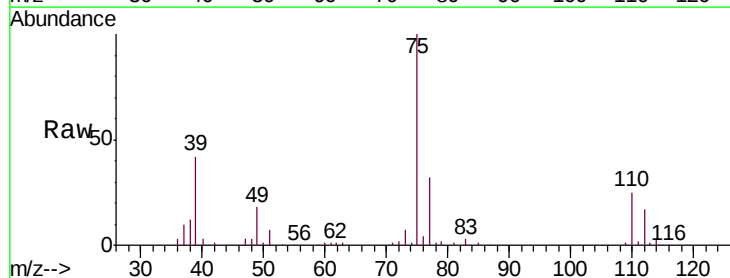
Acq: 19 Dec 2018 11:02

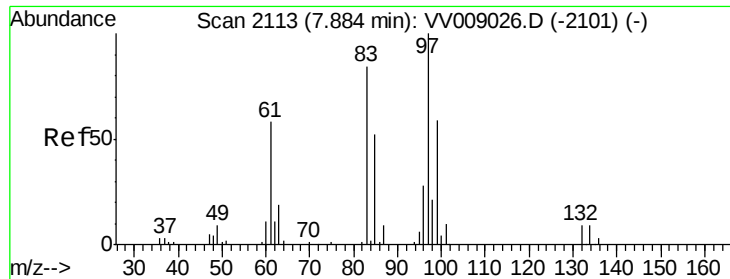
Tgt Ion: 75 Resp: 111637

Ion Ratio Lower Upper

75 100

77 32.2 23.6 43.8

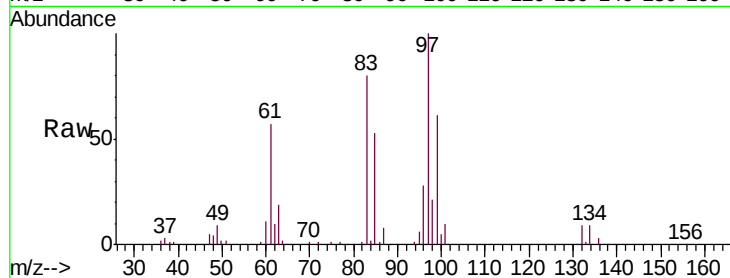




#46  
 1,1,2-Trichloroethane  
 Concen: 23.292 ug/L  
 RT: 7.88 min Scan# 2112  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

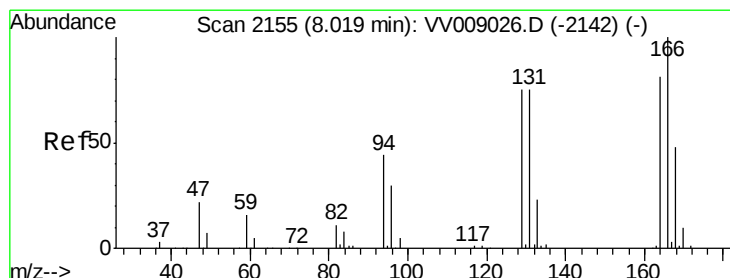
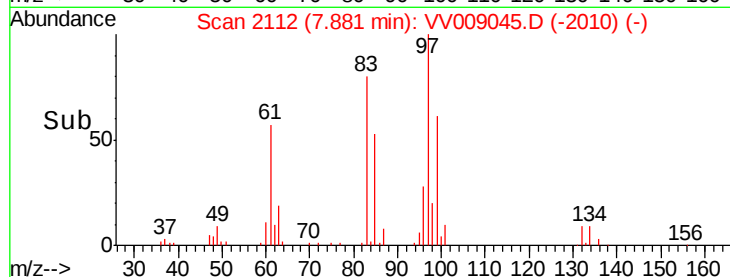
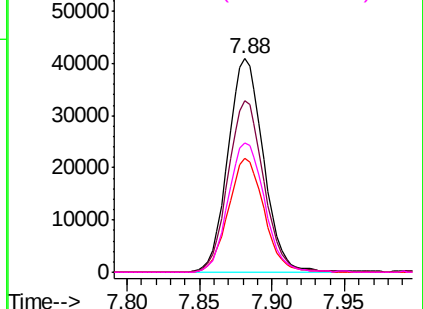
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 69607 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 83       | 80.4  | 56.6  | 105.2 |
| 85       | 53.1  | 36.6  | 68.0  |
| 99       | 60.8  | 43.2  | 80.2  |



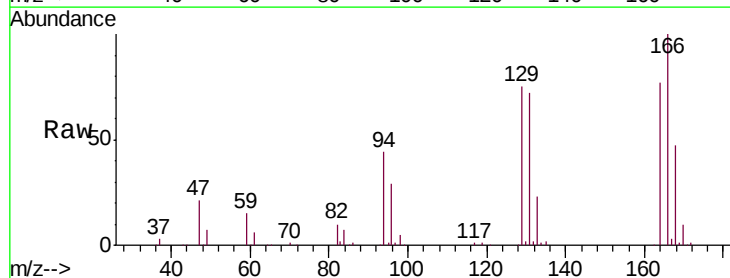
Abundance

Ion 97.00 (96.70 to 97.70): VV009045.D (-2101) (-)



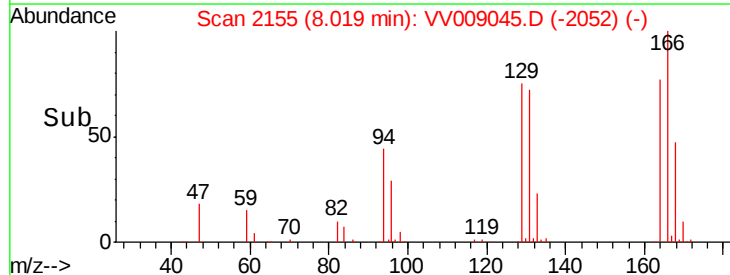
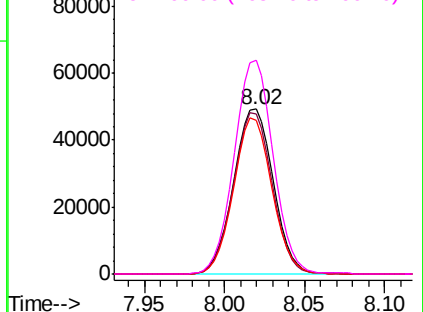
#47  
 Tetrachloroethene  
 Concen: 22.769 ug/L  
 RT: 8.02 min Scan# 2155  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

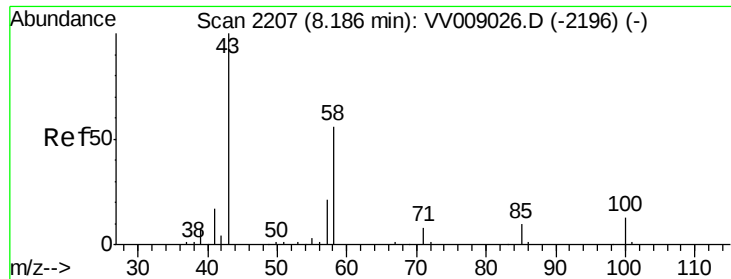
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 83424 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 97.6  | 64.6  | 120.0 |
| 131      | 93.4  | 64.5  | 119.7 |
| 166      | 129.8 | 88.7  | 164.7 |



Abundance

Ion 164.00 (163.70 to 164.70): VV009045.D (-2142) (-)

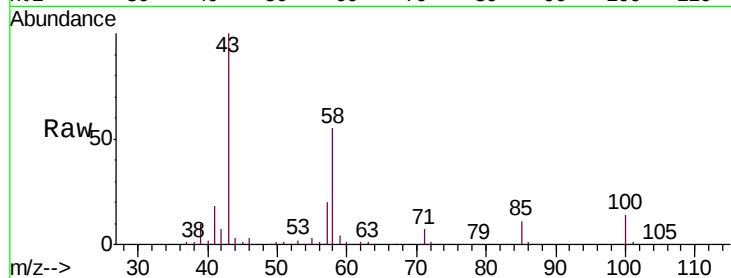




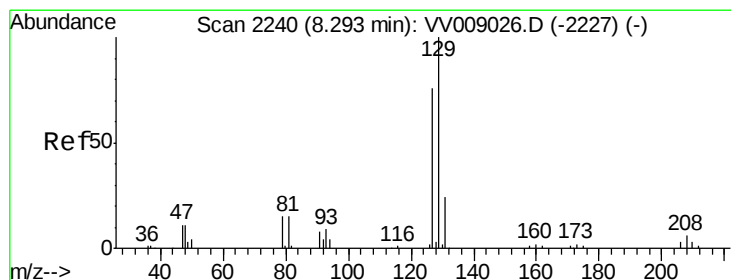
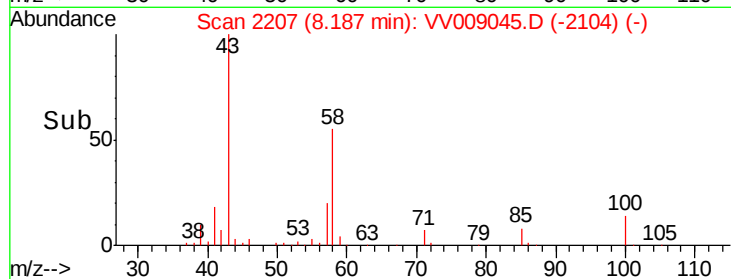
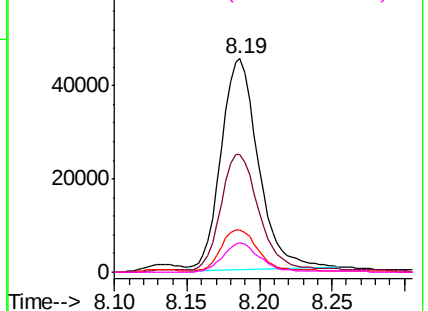
#49  
2-Hexanone  
Concen: 40.201 ug/L  
RT: 8.19 min Scan# 2207  
Delta R.T. 0.00 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02567

Tgt Ion: 43 Resp: 80626  
Ion Ratio Lower Upper  
43 100  
58 57.6 43.9 65.9  
57 19.3 15.7 23.5  
100 13.9 11.0 16.4

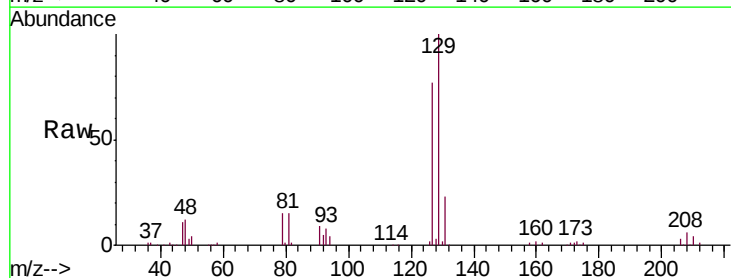


Abundance Ion 43.00 (42.70 to 43.70): VV009045.D (-2104) (-)  
Ion 58.00 (57.70 to 58.70): VV009045.D (-2104) (-)  
Ion 57.00 (56.70 to 57.70): VV009045.D (-2104) (-)  
Ion 100.00 (99.70 to 100.70): VV009045.D (-2104) (-)

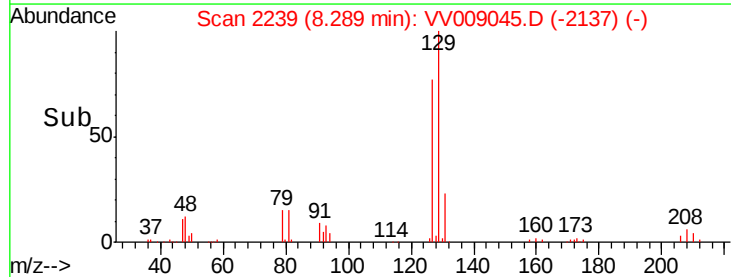
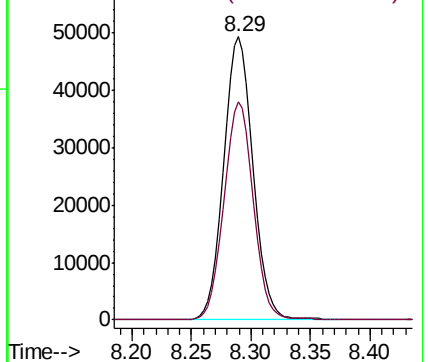


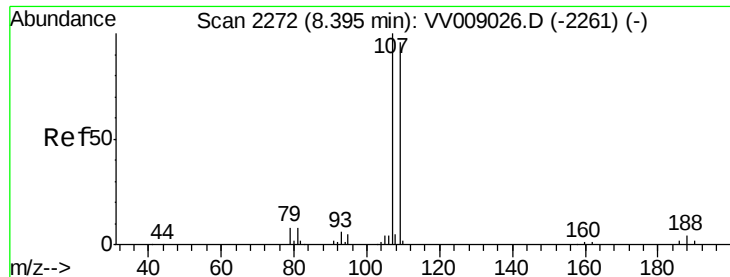
#50  
Dibromochloromethane  
Concen: 24.662 ug/L  
RT: 8.29 min Scan# 2239  
Delta R.T. -0.00 min  
Lab File: VV009045.D  
Acq: 19 Dec 2018 11:02

Tgt Ion: 129 Resp: 84483  
Ion Ratio Lower Upper  
129 100  
127 77.0 53.5 99.3



Abundance Ion 129.00 (128.70 to 129.70): VV009045.D (-2137) (-)  
Ion 127.00 (126.70 to 127.70): VV009045.D (-2137) (-)





#51

1,2-Dibromoethane

Concen: 22.599 ug/L

RT: 8.40 min Scan# 2272

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02567

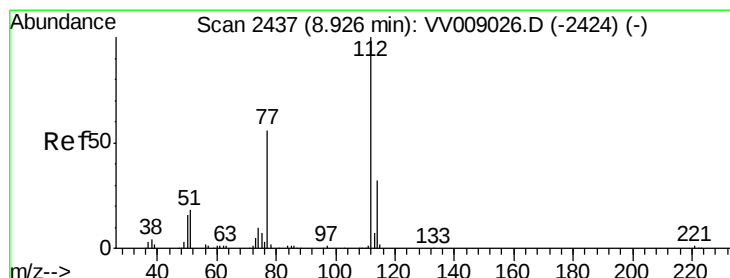
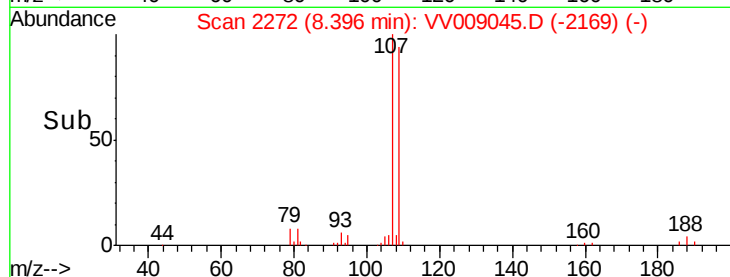
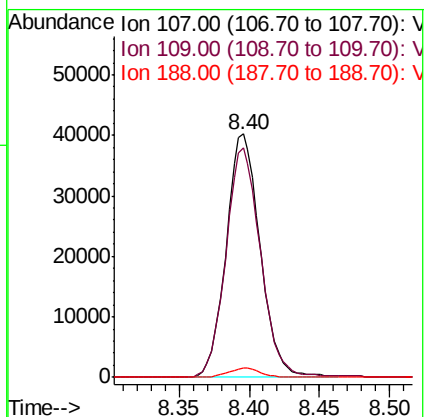
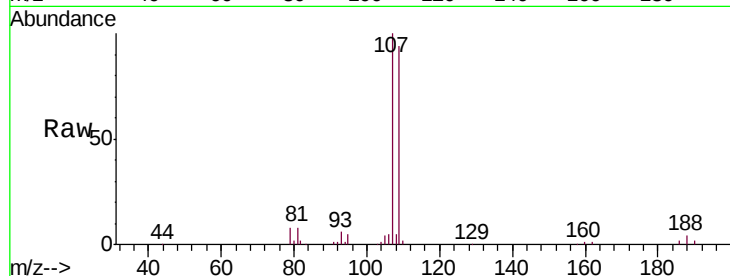
Tgt Ion:107 Resp: 67821

Ion Ratio Lower Upper

107 100

109 94.0 65.8 122.2

188 3.9 3.0 4.6



#52

Chlorobenzene

Concen: 23.338 ug/L

RT: 8.93 min Scan# 2437

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

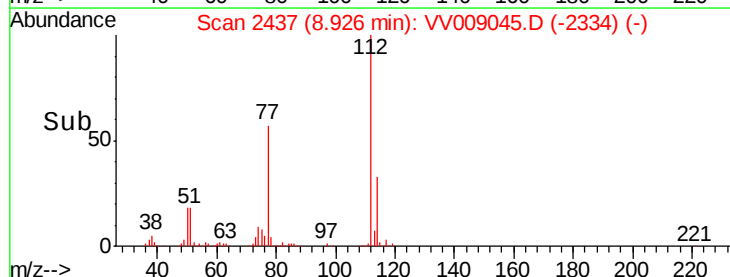
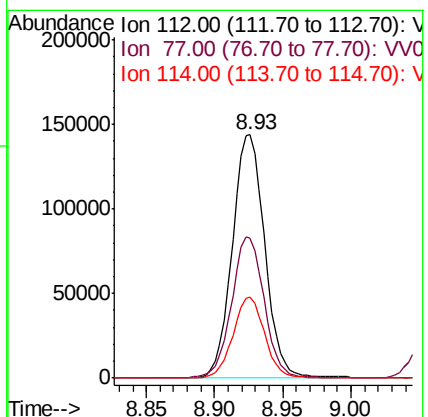
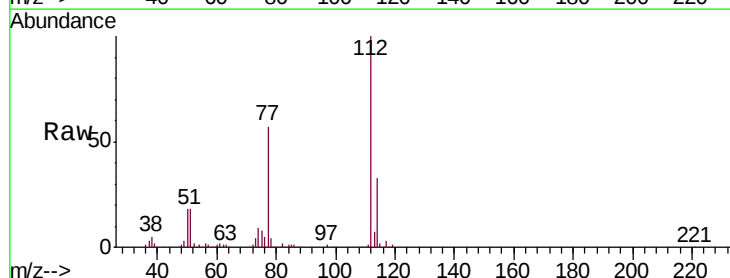
Tgt Ion:112 Resp: 238163

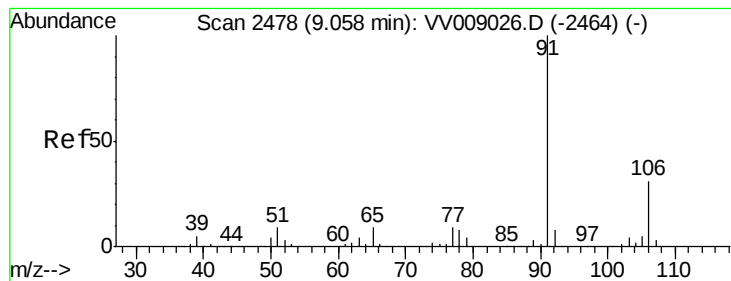
Ion Ratio Lower Upper

112 100

77 57.4 44.6 66.8

114 33.1 22.6 42.0





#53

Ethylbenzene

Concen: 24.126 ug/L

RT: 9.05 min Scan# 2477

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

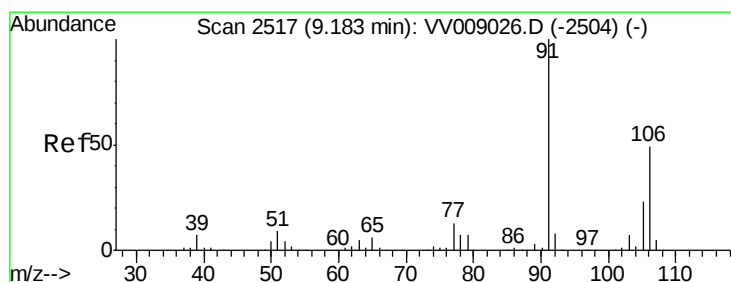
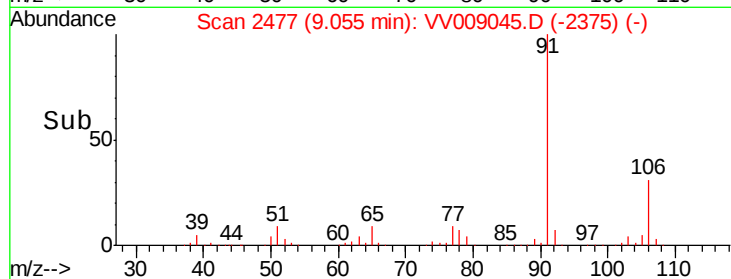
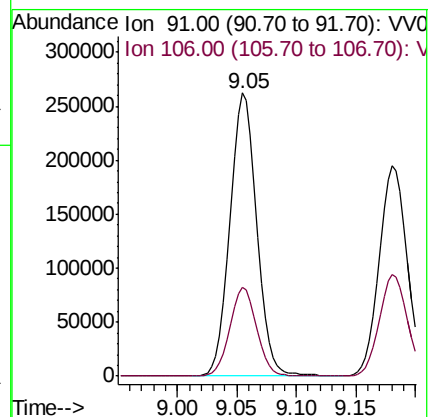
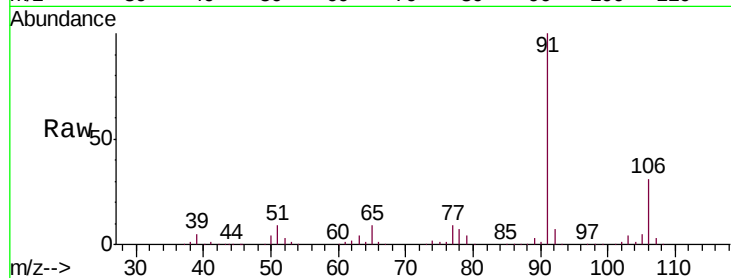
VSTD02567

Tgt Ion: 91 Resp: 410188

Ion Ratio Lower Upper

91 100

106 31.4 21.3 39.5



#54

m,p-Xylene

Concen: 23.790 ug/L

RT: 9.18 min Scan# 2516

Delta R.T. -0.00 min

Lab File: VV009045.D

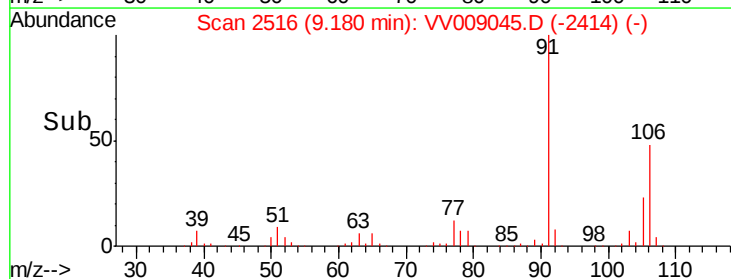
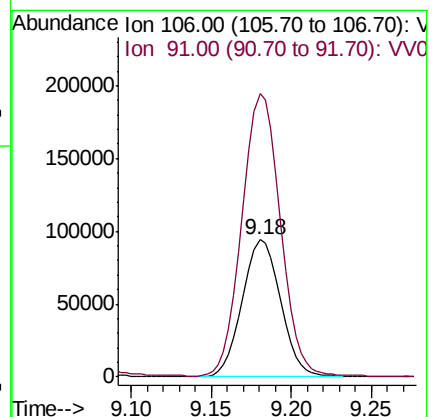
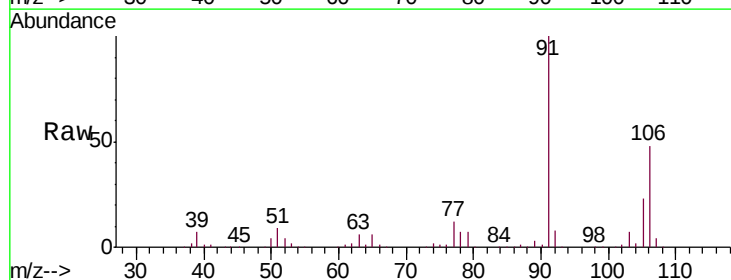
Acq: 19 Dec 2018 11:02

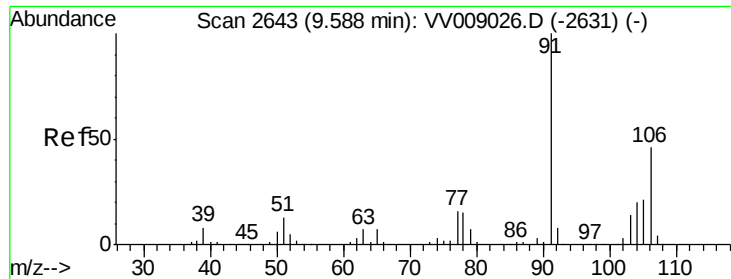
Tgt Ion: 106 Resp: 153151

Ion Ratio Lower Upper

106 100

91 206.9 141.3 262.3





#55

o-xylene

Concen: 24.509 ug/L

RT: 9.59 min Scan# 2643

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

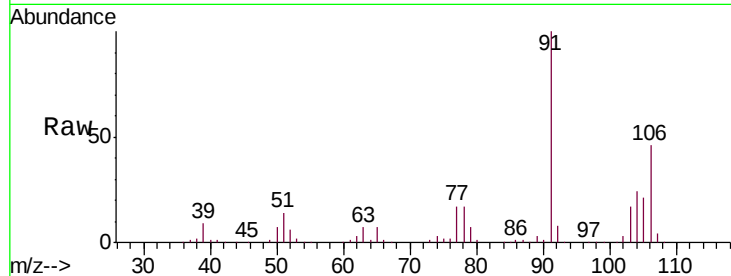
VSTD02567

Tgt Ion:106 Resp: 146596

Ion Ratio Lower Upper

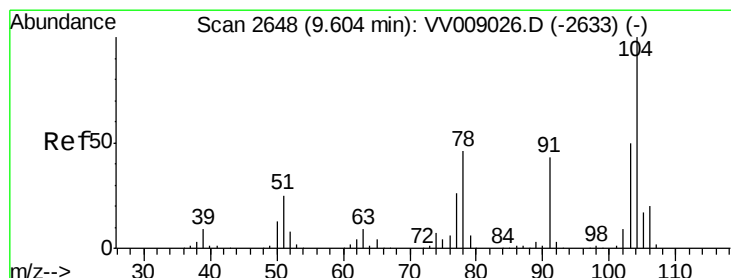
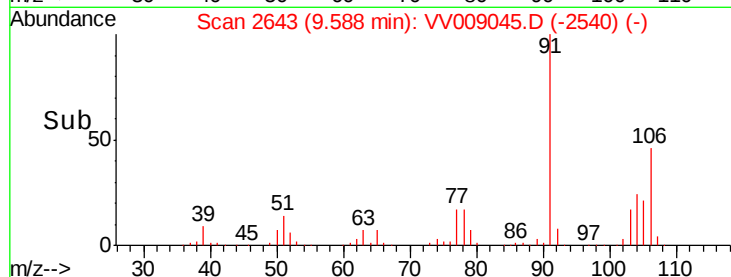
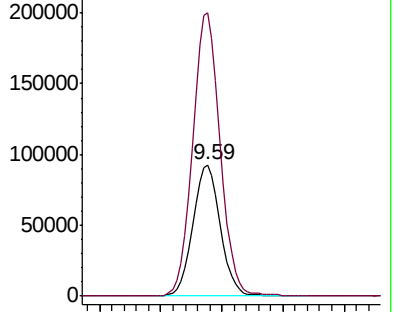
106 100

91 215.9 148.3 275.5



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VV0



#56

Styrene

Concen: 25.173 ug/L

RT: 9.60 min Scan# 2648

Delta R.T. 0.00 min

Lab File: VV009045.D

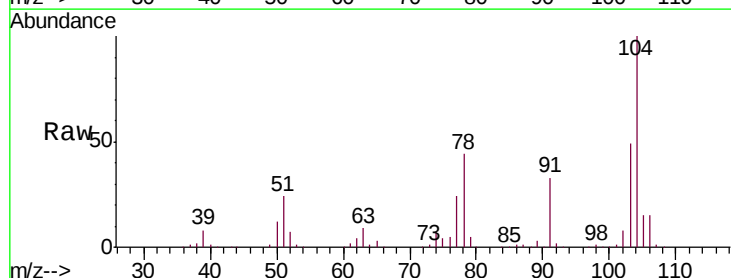
Acq: 19 Dec 2018 11:02

Tgt Ion:104 Resp: 242901

Ion Ratio Lower Upper

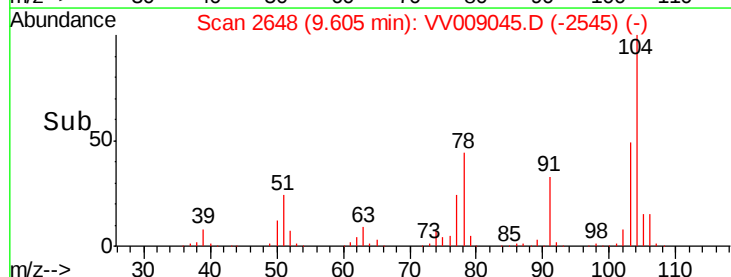
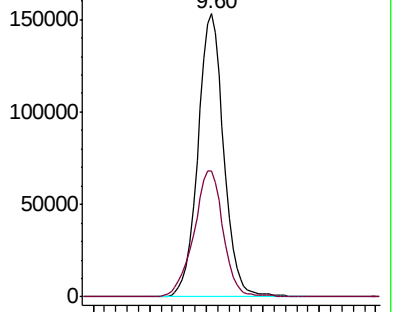
104 100

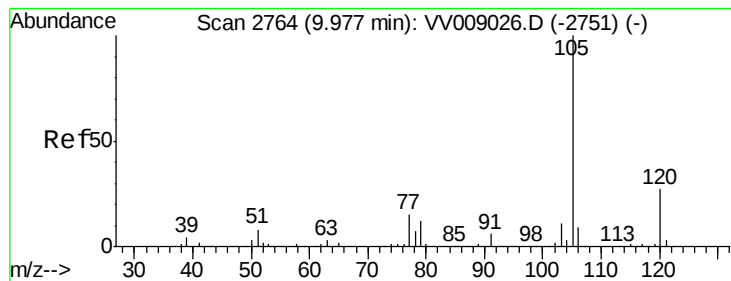
78 44.3 30.6 56.8



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VV0





#57

Isopropylbenzene

Concen: 24.927 ug/L

RT: 9.97 min Scan# 2763

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02567

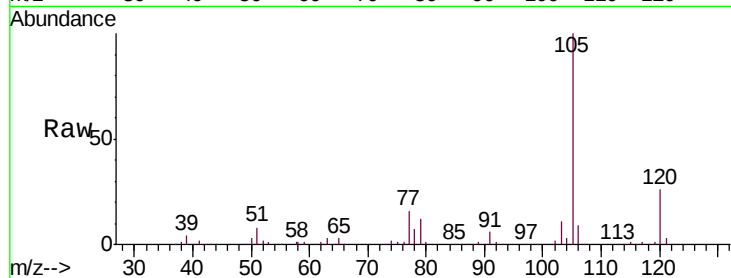
Tgt Ion: 105 Resp: 405238

Ion Ratio Lower Upper

105 100

120 26.5 21.7 32.5

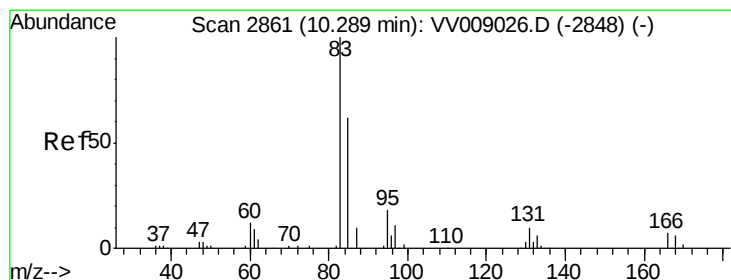
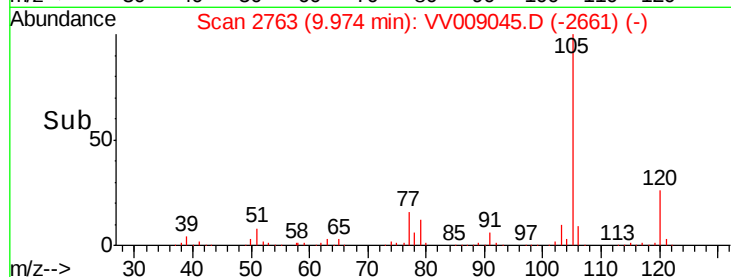
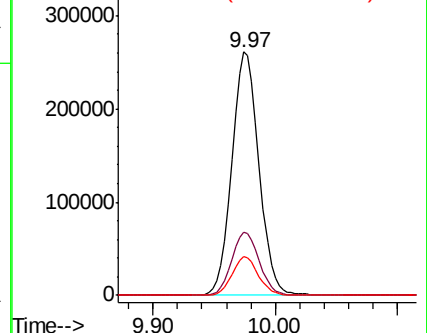
77 15.5 12.4 18.6



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 22.713 ug/L

RT: 10.29 min Scan# 2860

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

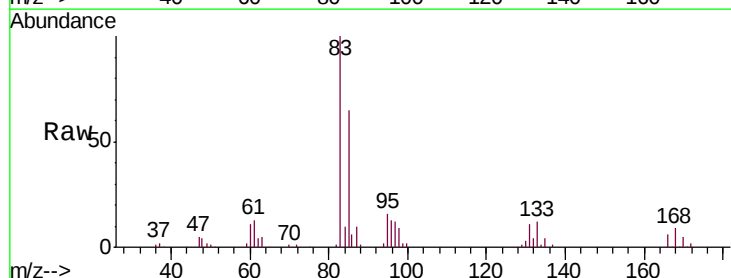
Tgt Ion: 83 Resp: 73380

Ion Ratio Lower Upper

83 100

85 64.6 44.3 82.3

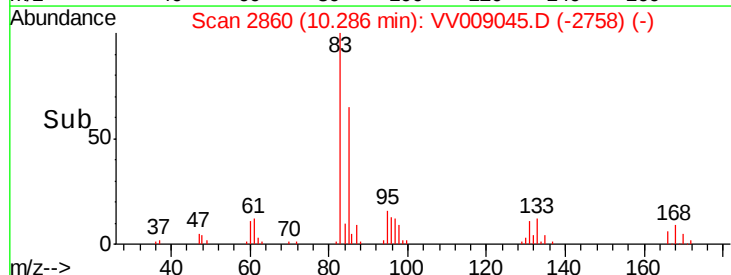
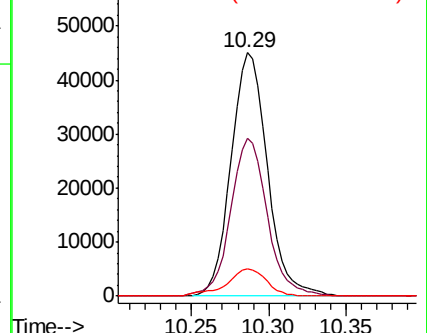
131 11.1 7.8 11.8

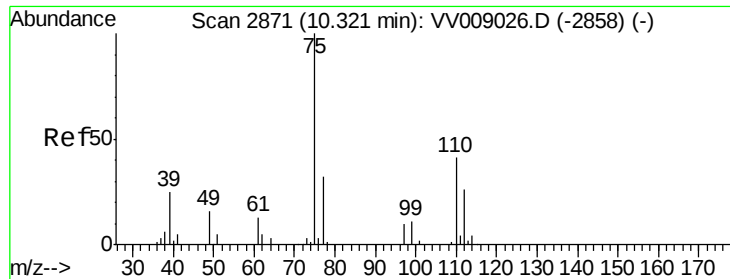


Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 21.978 ug/L

RT: 10.32 min Scan# 2870

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

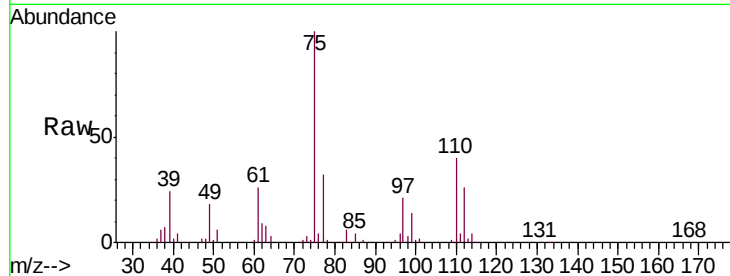
VSTD02567

Tgt Ion: 75 Resp: 61438

Ion Ratio Lower Upper

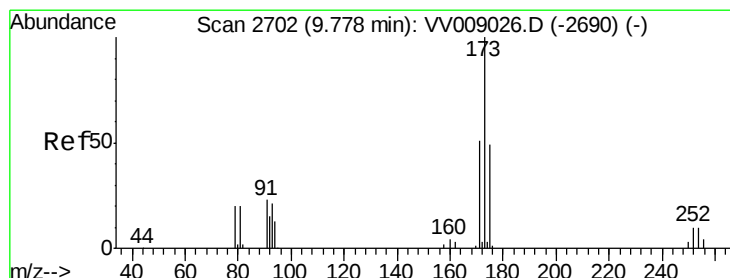
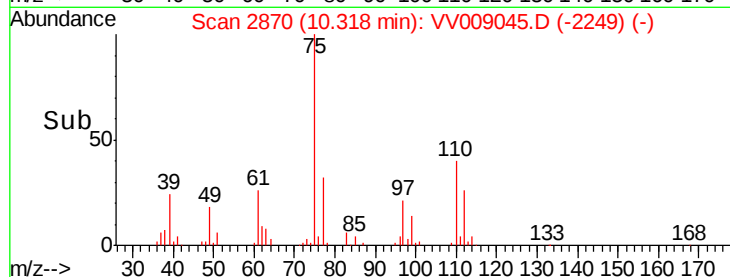
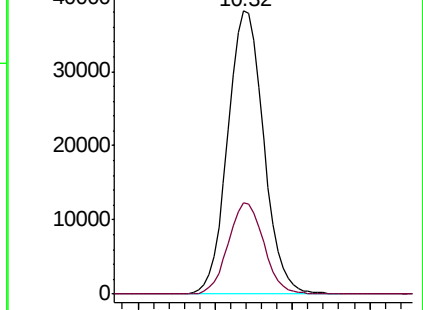
75 100

77 31.9 25.6 38.4



Abundance Ion 75.00 (74.70 to 75.70): VV009026.D (-2858) (-)

Ion 77.00 (76.70 to 77.70): VV009026.D (-2858) (-)



#62

Bromoform

Concen: 22.564 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

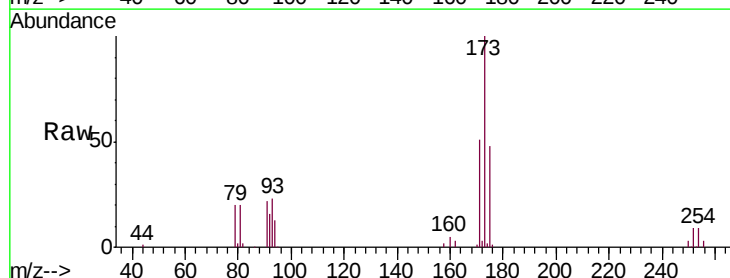
Tgt Ion: 173 Resp: 49218

Ion Ratio Lower Upper

173 100

175 48.3 37.7 56.5

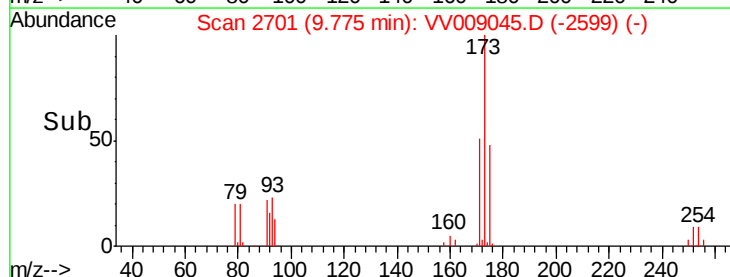
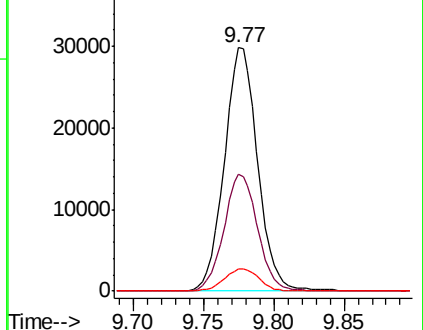
254 9.3 7.1 10.7

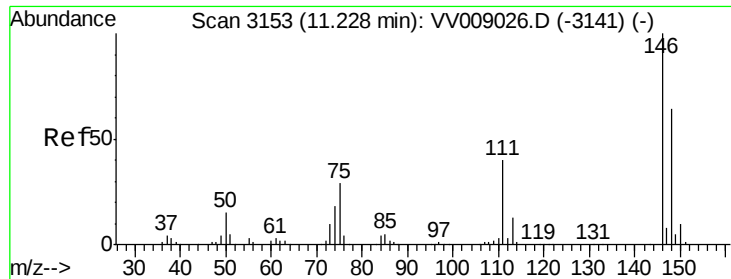


Abundance Ion 173.00 (172.70 to 173.70): VV009026.D (-2690) (-)

Ion 175.00 (174.70 to 175.70): VV009026.D (-2690) (-)

Ion 254.00 (253.70 to 254.70): VV009026.D (-2690) (-)

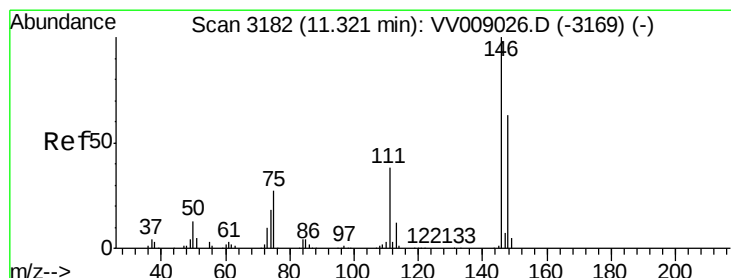
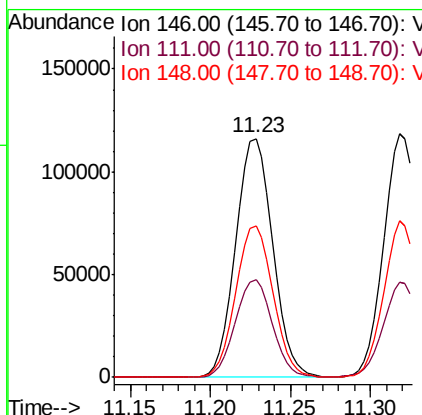
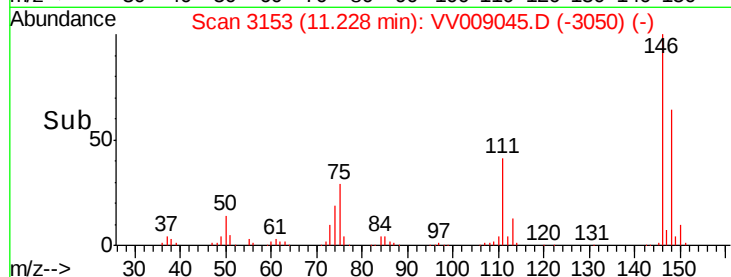
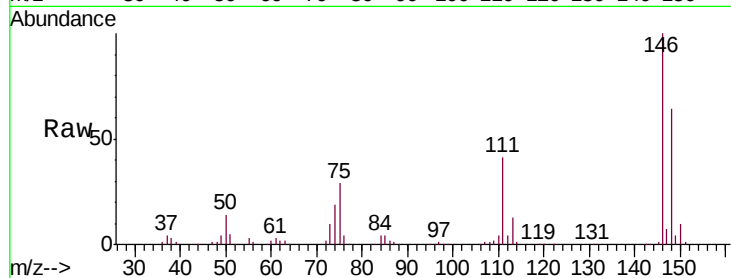




#63  
 1,3-Dichlorobenzene  
 Concen: 23.581 ug/L  
 RT: 11.23 min Scan# 3153  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

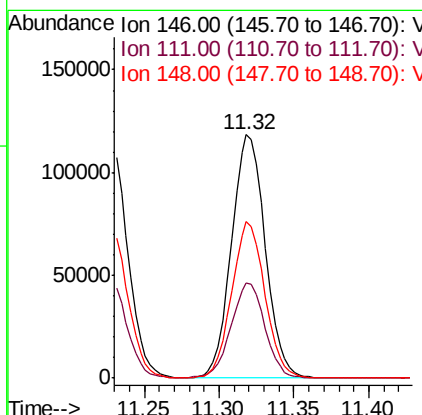
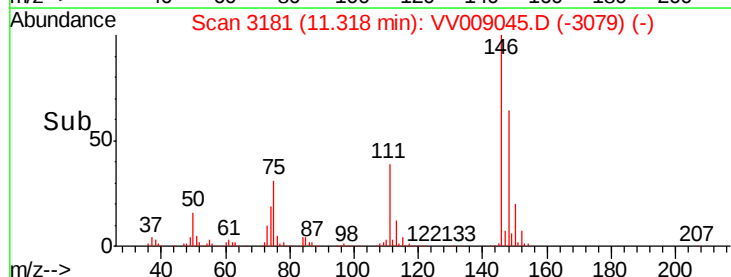
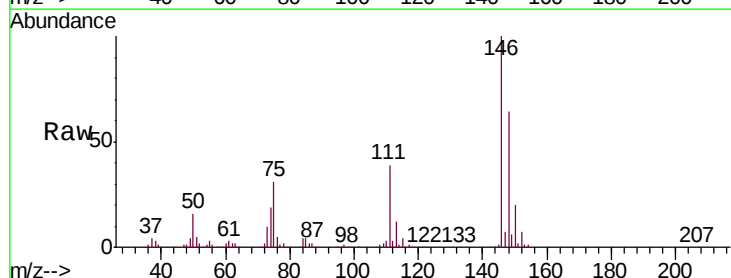
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

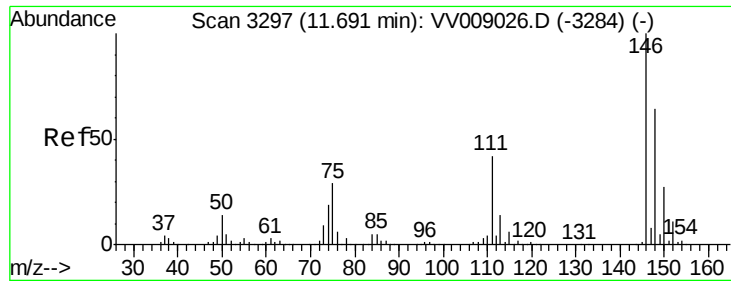
Tgt Ion:146 Resp: 183579  
 Ion Ratio Lower Upper  
 146 100  
 111 40.9 27.5 51.1  
 148 63.5 44.0 81.8



#64  
 1,4-Dichlorobenzene  
 Concen: 23.191 ug/L  
 RT: 11.32 min Scan# 3181  
 Delta R.T. -0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Tgt Ion:146 Resp: 185784  
 Ion Ratio Lower Upper  
 146 100  
 111 39.2 26.8 49.8  
 148 64.1 45.8 85.0





#65

1,2-Dichlorobenzene

Concen: 23.397 ug/L

RT: 11.69 min Scan# 3297

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02567

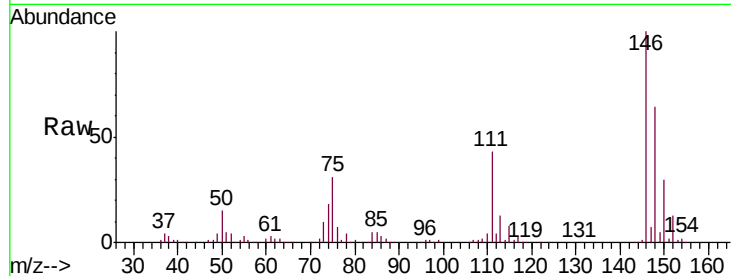
Tgt Ion:146 Resp: 167912

Ion Ratio Lower Upper

146 100

111 42.7 34.2 51.4

148 63.9 51.0 76.6

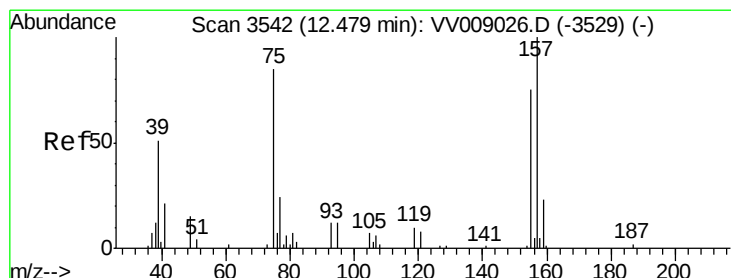
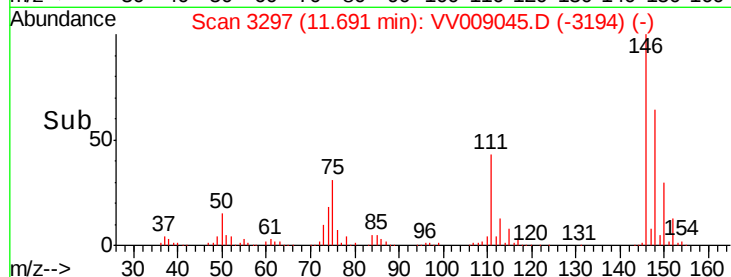
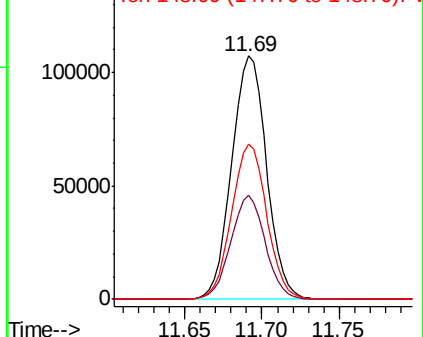


Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 19.453 ug/L

RT: 12.48 min Scan# 3542

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

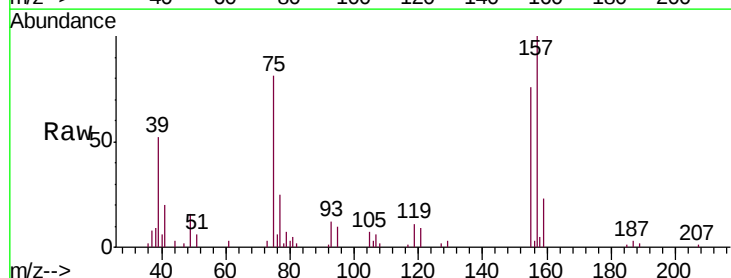
Tgt Ion: 75 Resp: 11438

Ion Ratio Lower Upper

75 100

157 123.2 95.8 143.6

155 94.0 71.4 107.2

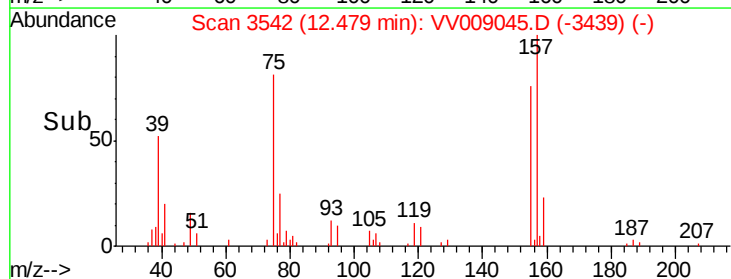
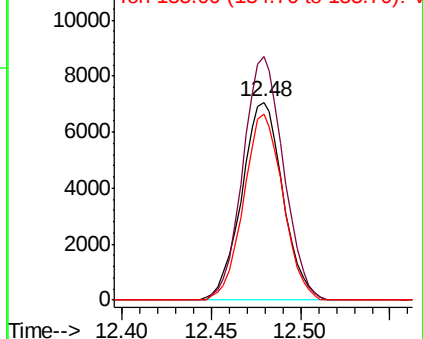


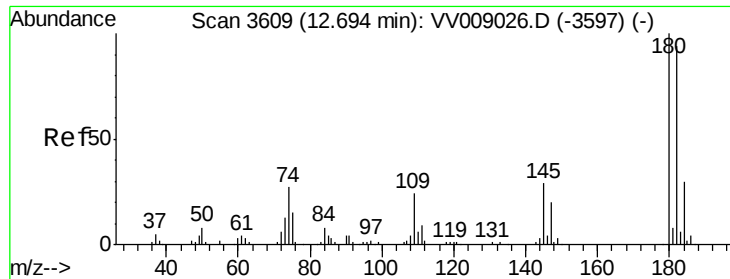
Abundance

Ion 75.00 (74.70 to 75.70): VV0

Ion 157.00 (156.70 to 157.70): V

Ion 155.00 (154.70 to 155.70): V

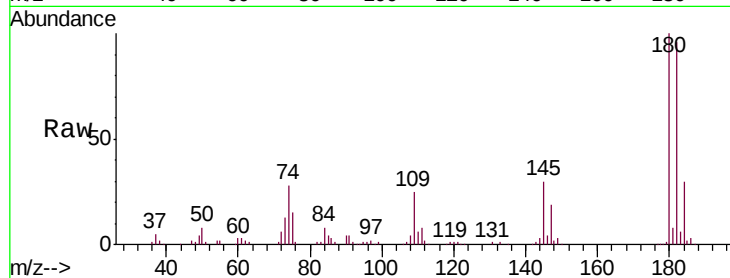




#67  
 1,3,5-Trichlorobenzene  
 Concen: 22.775 ug/L  
 RT: 12.69 min Scan# 3609  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02567

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.2  | 75.9  | 113.9 |
| 184     | 30.3  | 23.8  | 35.6  |
| 145     | 30.6  | 24.2  | 36.4  |



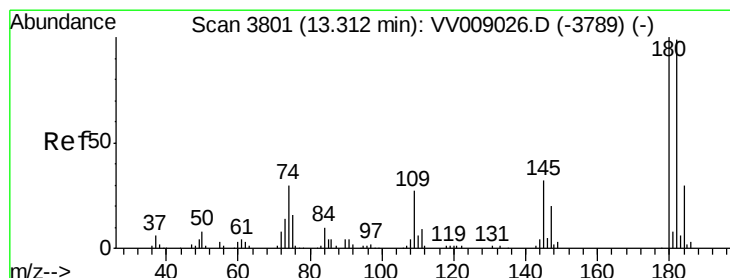
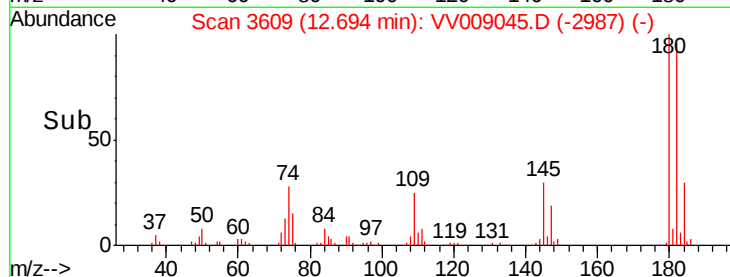
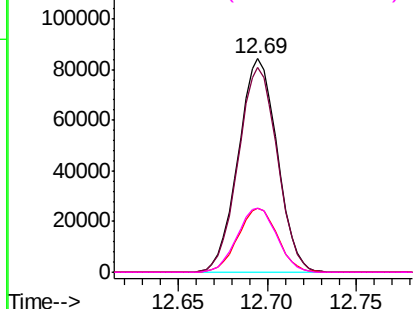
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

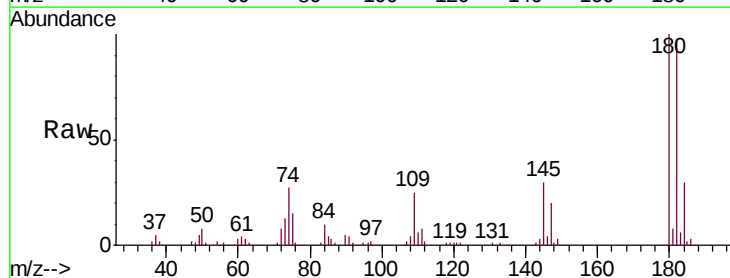
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 23.650 ug/L  
 RT: 13.31 min Scan# 3801  
 Delta R.T. 0.00 min  
 Lab File: VV009045.D  
 Acq: 19 Dec 2018 11:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.3  | 77.4  | 116.0 |
| 145     | 31.2  | 25.6  | 38.4  |

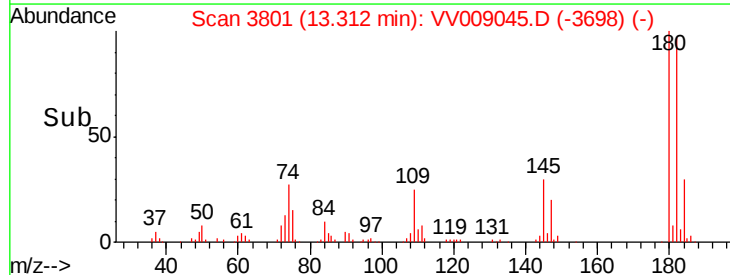
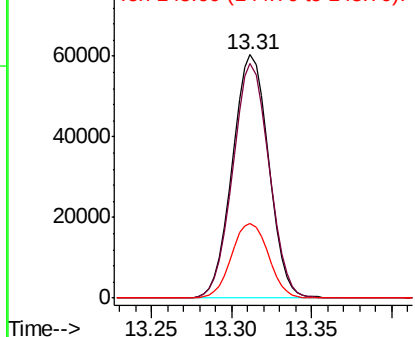


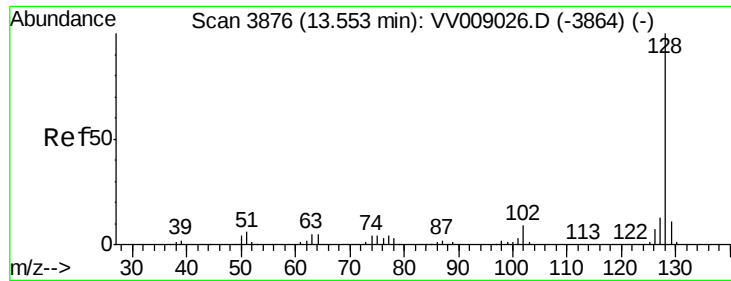
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 21.960 ug/L

RT: 13.55 min Scan# 3876

Delta R.T. 0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02567

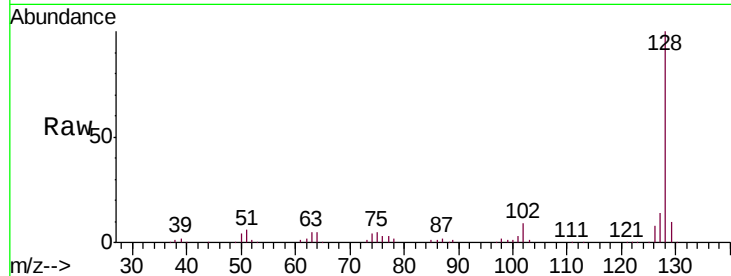
Tgt Ion:128 Resp: 149024

Ion Ratio Lower Upper

128 100

129 10.8 8.6 13.0

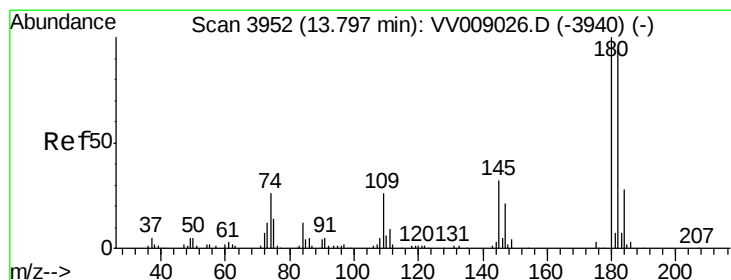
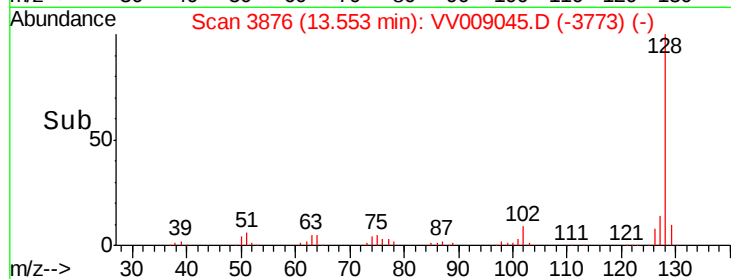
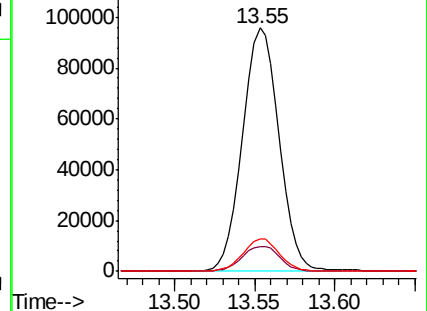
127 13.3 10.0 15.0



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: 22.561 ug/L

RT: 13.79 min Scan# 3951

Delta R.T. -0.00 min

Lab File: VV009045.D

Acq: 19 Dec 2018 11:02

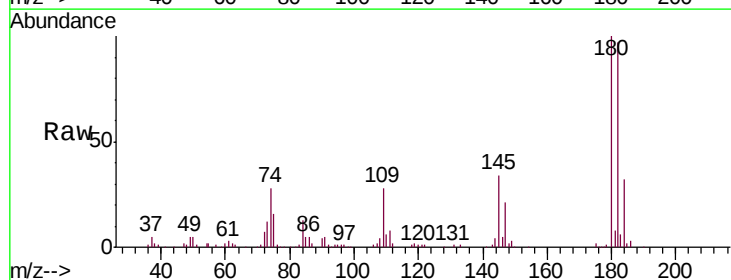
Tgt Ion:180 Resp: 82113

Ion Ratio Lower Upper

180 100

182 96.0 76.1 114.1

145 33.4 26.7 40.1



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

