

Data File : VV008891.D  
Acq On : 11 Dec 2018 10:13  
Operator : SY/MD  
Sample : VSTDCCC025  
Misc : 5.00g/10.0mL/MSVOA\_V/SOIL  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02575

Quant Time: Dec 12 04:30:57 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
Quant Title : VOC Analysis  
QLast Update : Fri Dec 07 01:37:11 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 192406   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 166194   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 74947    | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 55336    | 27.79    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 111.16% |
| 7) Chloroethane-d5             | 1.58   | 69    | 41393    | 28.14    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 112.56% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 131222   | 26.36    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 105.44% |
| 20) 2-Butanone-d5              | 3.93   | 46    | 37358    | 51.53    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 103.06% |
| 24) Chloroform-d               | 4.40   | 84    | 121432   | 26.25    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 105.00% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 65522    | 25.96    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 103.84% |
| 29) Benzene-d6                 | 5.10   | 84    | 242222   | 26.10    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 104.40% |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 66762    | 25.69    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 102.76% |
| 37) Toluene-d8                 | 7.36   | 98    | 224789   | 26.17    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 104.68% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 30359    | 26.59    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 106.36% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 24076    | 50.57    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 101.14% |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 56032    | 25.70    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 102.80% |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 72041    | 25.61    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 102.44% |

#### Target Compounds

|                                |      |     |        |             | Qvalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 72098  | 22.859 ug/L | 99     |
| 3) Chloromethane               | 1.25 | 50  | 50887  | 23.479 ug/L | 98     |
| 5) Vinyl chloride              | 1.32 | 62  | 57761  | 23.873 ug/L | 98     |
| 6) Bromomethane                | 1.53 | 94  | 32196  | 27.677 ug/L | 97     |
| 8) Chloroethane                | 1.60 | 64  | 36197  | 26.712 ug/L | 98     |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 119583 | 28.856 ug/L | 99     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 71310  | 25.089 ug/L | 100    |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 61642  | 24.853 ug/L | 96     |
| 13) Acetone                    | 2.19 | 43  | 57543  | 53.878 ug/L | 99     |
| 14) Carbon disulfide           | 2.32 | 76  | 198460 | 24.919 ug/L | 100    |
| 15) Methyl Acetate             | 2.46 | 43  | 30628  | 22.615 ug/L | 96     |
| 16) Methylene chloride         | 2.53 | 84  | 65603  | 20.248 ug/L | 99     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 136697 | 24.260 ug/L | 99     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 67239  | 25.088 ug/L | 96     |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 107317 | 24.701 ug/L | 99     |
| 21) 2-Butanone                 | 4.01 | 43  | 52808  | 52.754 ug/L | 98     |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 67483  | 24.149 ug/L | 97     |

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VSTD02575

Quant Time: Dec 12 04:30:57 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
Quant Title : VOC Analysis  
QLast Update : Fri Dec 07 01:37:11 2018  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane         | 4.30  | 128  | 31094    | 23.608 | ug/L   | 93       |
| 25) Chloroform                 | 4.42  | 83   | 114819   | 24.625 | ug/L   | 99       |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 75112    | 23.648 | ug/L   | 98       |
| 30) Cyclohexane                | 4.72  | 56   | 102492   | 24.491 | ug/L   | 100      |
| 31) 1,1,1-Trichloroethane      | 4.66  | 97   | 109976   | 25.666 | ug/L   | 99       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 103380   | 26.427 | ug/L   | 98       |
| 34) Benzene                    | 5.14  | 78   | 244493   | 24.555 | ug/L   | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 74837    | 24.930 | ug/L   | 99       |
| 36) Methylcyclohexane          | 6.17  | 83   | 118613   | 24.775 | ug/L   | 99       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 56657    | 23.709 | ug/L   | 100      |
| 41) Bromodichloromethane       | 6.55  | 83   | 78786    | 25.014 | ug/L   | 98       |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 89294    | 25.522 | ug/L   | 99       |
| 43) 4-Methyl-2-pentanone       | 7.27  | 43   | 76349    | 47.269 | ug/L   | 100      |
| 44) Toluene                    | 7.43  | 91   | 257905   | 24.698 | ug/L   | 97       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 76859    | 25.200 | ug/L   | 97       |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 47517    | 23.864 | ug/L   | 97       |
| 47) Tetrachloroethene          | 8.02  | 164  | 59698    | 24.454 | ug/L   | 97       |
| 49) 2-Hexanone                 | 8.18  | 43   | 67634    | 50.614 | ug/L   | 99       |
| 50) Dibromochloromethane       | 8.29  | 129  | 59785    | 26.194 | ug/L   | 95       |
| 51) 1,2-Dibromoethane          | 8.40  | 107  | 49106    | 24.558 | ug/L   | 97       |
| 52) Chlorobenzene              | 8.93  | 112  | 166554   | 24.495 | ug/L   | 99       |
| 53) Ethylbenzene               | 9.05  | 91   | 276215   | 24.383 | ug/L   | 98       |
| 54) m,p-Xylene                 | 9.18  | 106  | 106425   | 24.811 | ug/L   | 99       |
| 55) o-xylene                   | 9.59  | 106  | 97550    | 24.477 | ug/L   | 97       |
| 56) Styrene                    | 9.60  | 104  | 160518   | 24.968 | ug/L   | 96       |
| 57) Isopropylbenzene           | 9.97  | 105  | 268538   | 24.792 | ug/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.29 | 83   | 52779    | 24.519 | ug/L # | 98       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 45092    | 24.210 | ug/L   | 99       |
| 62) Bromoform                  | 9.78  | 173  | 35983    | 26.591 | ug/L   | 96       |
| 63) 1,3-Dichlorobenzene        | 11.23 | 146  | 116868   | 24.199 | ug/L   | 99       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 119766   | 24.099 | ug/L   | 98       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 108282   | 24.321 | ug/L   | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 9264     | 25.398 | ug/L   | 97       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 82623    | 23.686 | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 57359    | 23.468 | ug/L   | 97       |
| 69) Naphthalene                | 13.55 | 128  | 88140    | 20.937 | ug/L   | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 53179    | 23.553 | ug/L   | 99       |

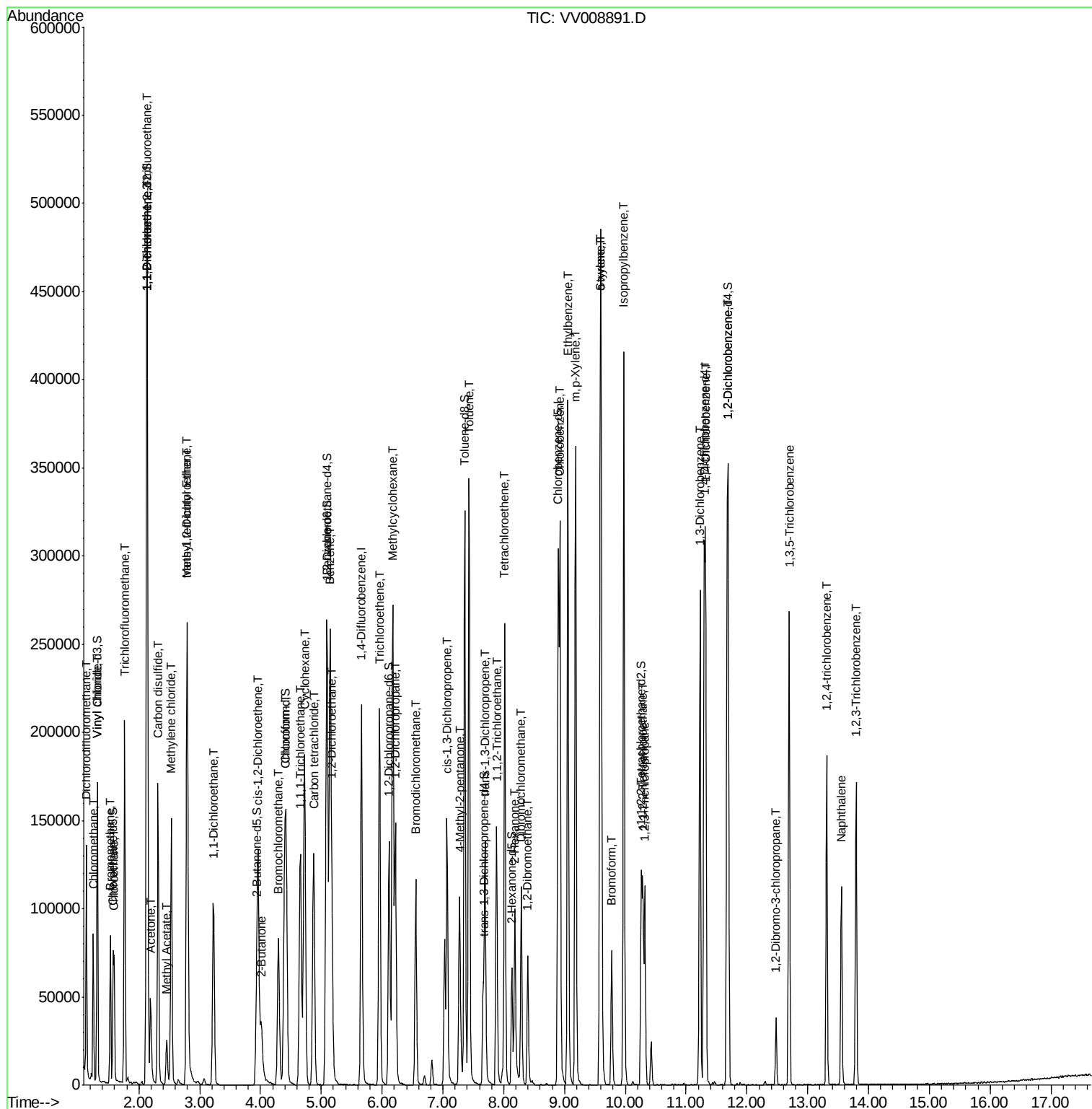
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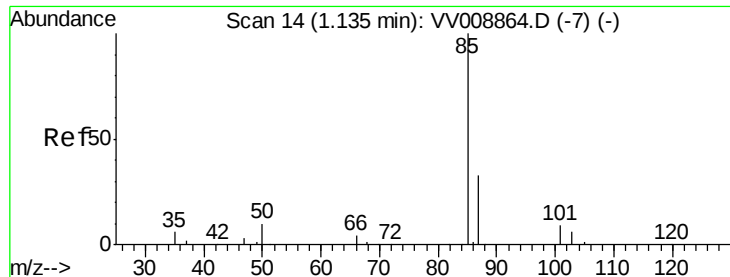
Data File : VV008891.D

```
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Misc        : 5.00g/10.0mL/MSVOA_V/SOIL
ALS Vial    : 2      Sample Multiplier: 1
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**Instrument :**  
MSVOA\_V  
**ClientSampleId :**  
VSTD02575

Quant Time: Dec 12 04:30:57 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSV0A\_V\METHOD\SOM2VLM120618S.M  
Quant Title : VOC Analysis  
QLast Update : Fri Dec 07 01:37:11 2018  
Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 22.859 ug/L

RT: 1.14 min Scan# 14

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

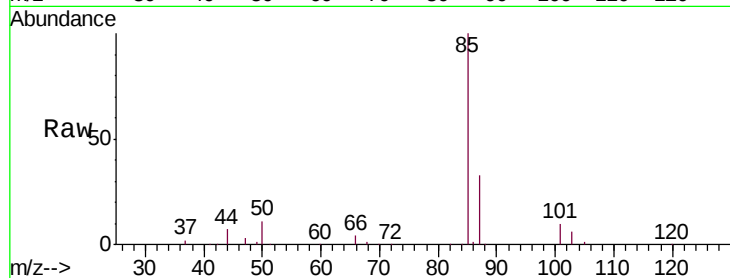
VSTD02575

Tgt Ion: 85 Resp: 72098

Ion Ratio Lower Upper

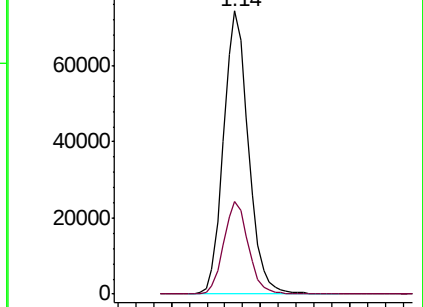
85 100

87 32.4 22.4 41.6

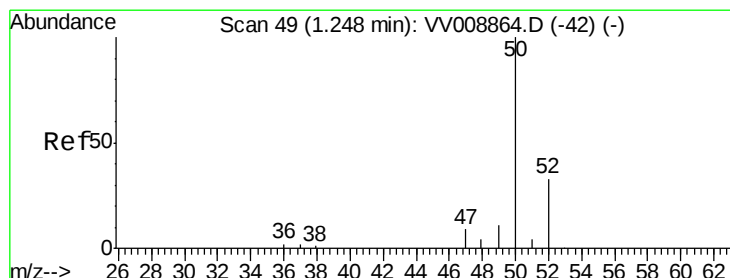
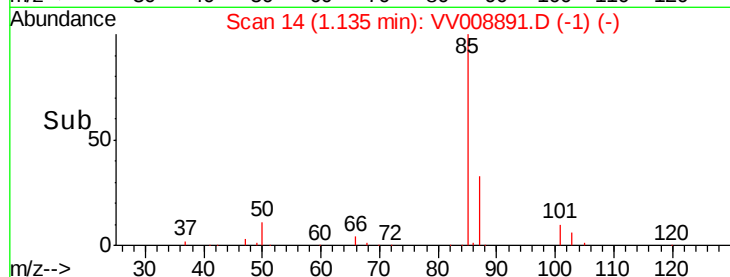


Abundance Ion 85.00 (84.70 to 85.70): VV008864.D (-7) (-)

Ion 87.00 (86.70 to 87.70): VV008891.D (-1) (-)



Time-->



#3

Chloromethane

Concen: 23.479 ug/L

RT: 1.25 min Scan# 49

Delta R.T. 0.00 min

Lab File: VV008891.D

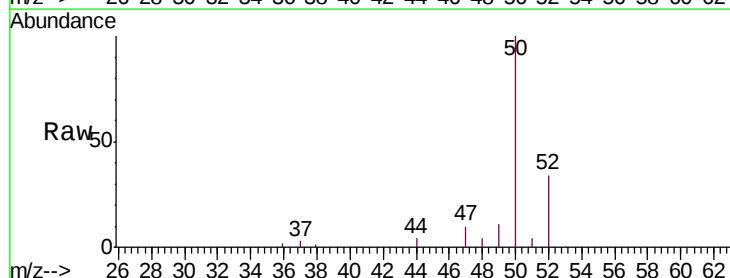
Acq: 11 Dec 2018 10:13

Tgt Ion: 50 Resp: 50887

Ion Ratio Lower Upper

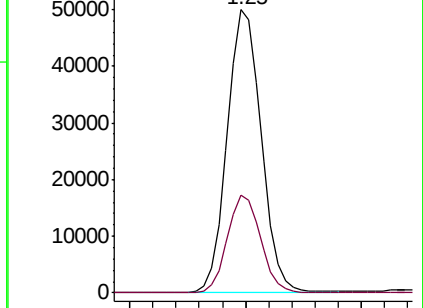
50 100

52 34.5 23.2 43.2

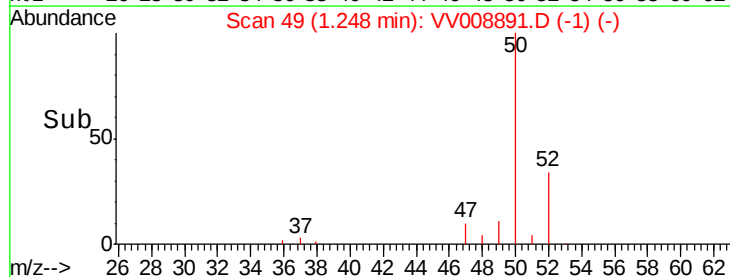


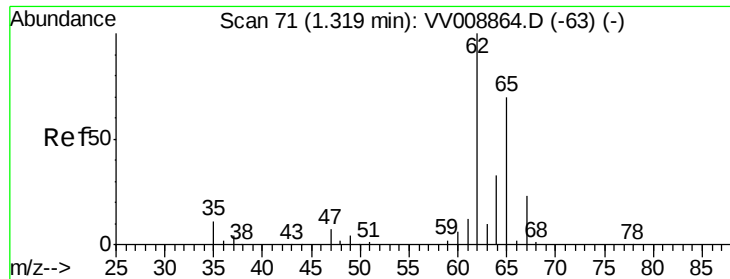
Abundance Ion 50.00 (49.70 to 50.70): VV008864.D (-42) (-)

Ion 52.00 (51.70 to 52.70): VV008891.D (-1) (-)



Time-->





#5

Vinyl chloride

Concen: 23.873 ug/L

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

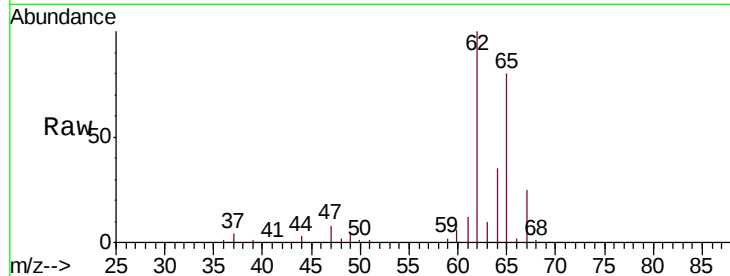
VSTD02575

Tgt Ion: 62 Resp: 57761

Ion Ratio Lower Upper

62 100

64 34.7 23.3 43.3



Abundance Ion 62.00 (61.70 to 62.70): VV008864.D (-63) (-)

Ion 64.00 (63.70 to 64.70): VV008864.D (-63) (-)

1.32

60000

50000

40000

30000

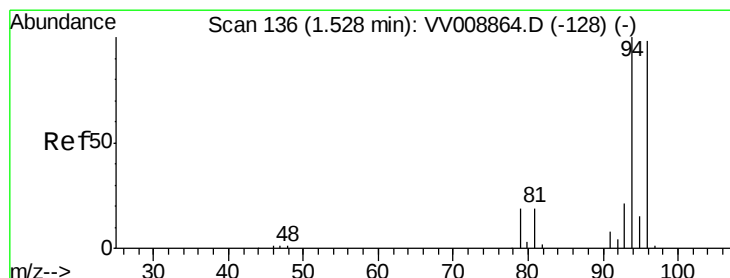
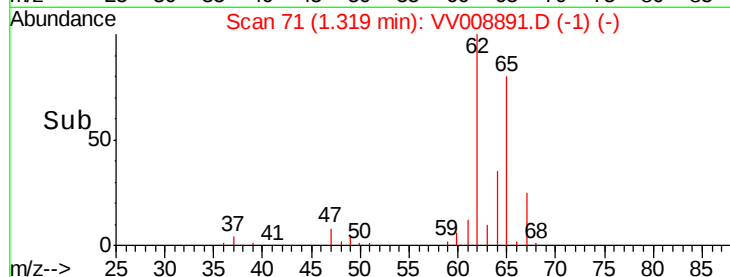
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10000

0

Time-->

1.25 1.30 1.35 1.40



#6

Bromomethane

Concen: 27.677 ug/L

RT: 1.53 min Scan# 137

Delta R.T. 0.00 min

Lab File: VV008891.D

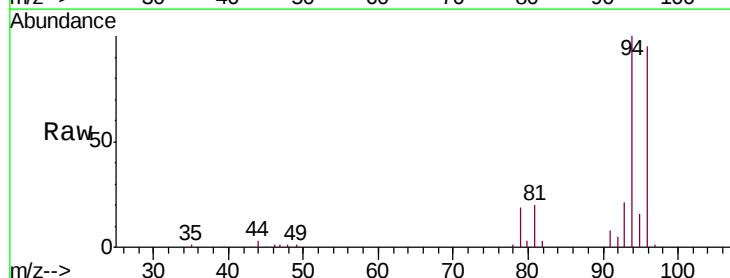
Acq: 11 Dec 2018 10:13

Tgt Ion: 94 Resp: 32196

Ion Ratio Lower Upper

94 100

96 92.5 9.5 180.9



Abundance Ion 94.00 (93.70 to 94.70): VV008864.D (-128) (-)

Ion 96.00 (95.70 to 96.70): VV008864.D (-128) (-)

1.53

30000

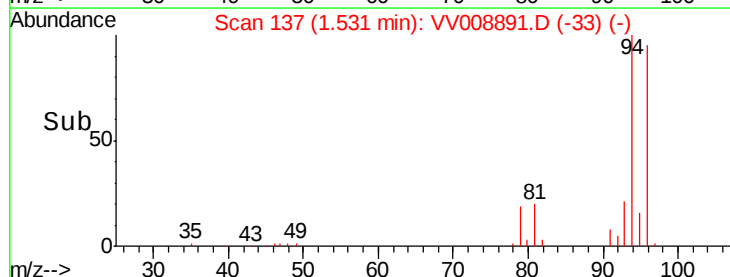
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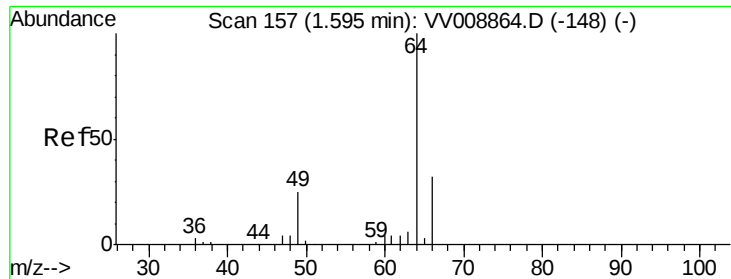
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0

Time-->

1.50 1.55 1.60

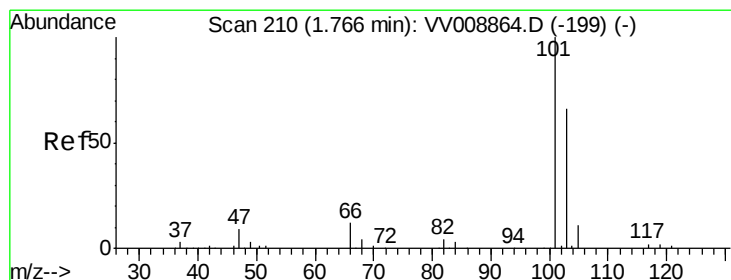
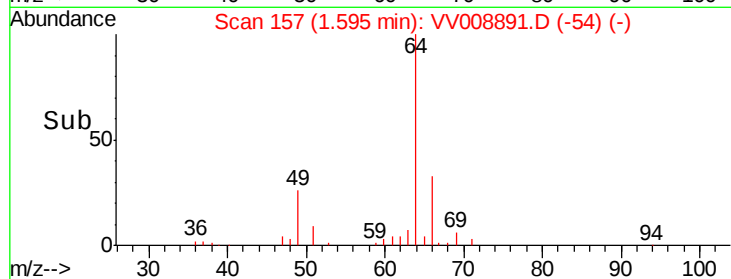
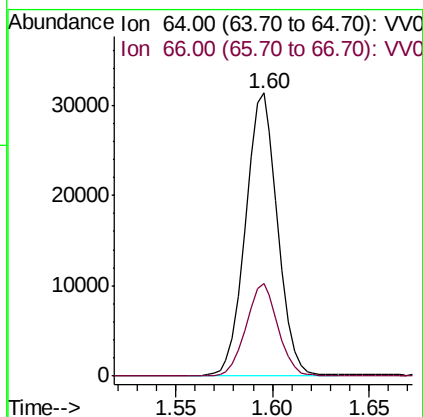
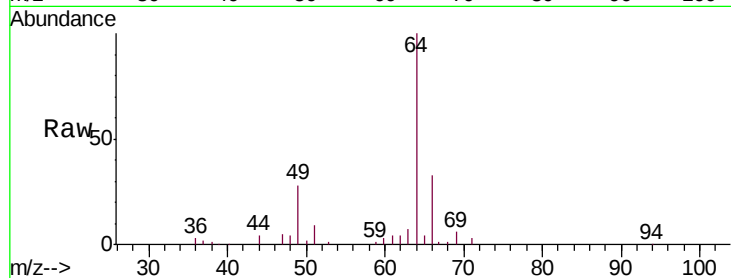




#8  
Chloroethane  
Concen: 26.712 ug/L  
RT: 1.60 min Scan# 157  
Delta R.T. 0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

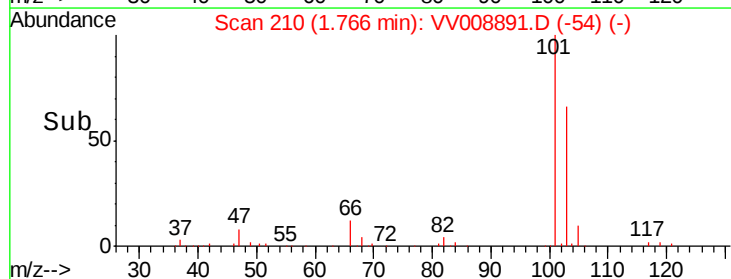
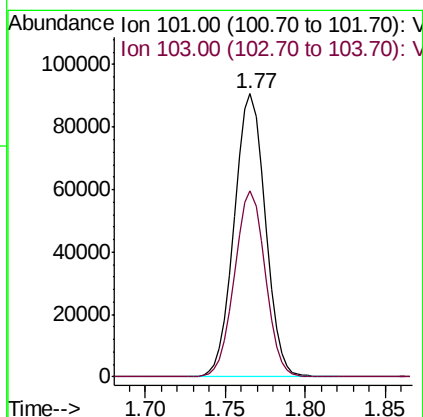
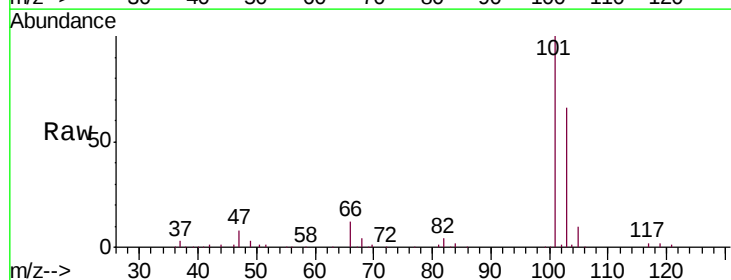
Instrument :  
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ClientSampleId :  
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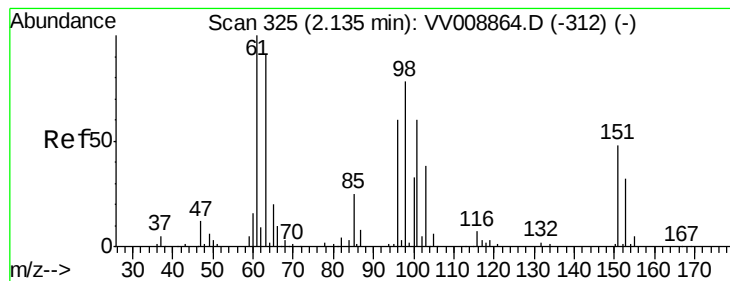
Tgt Ion: 64 Resp: 36197  
Ion Ratio Lower Upper  
64 100  
66 32.7 22.2 41.2



#9  
Trichlorofluoromethane  
Concen: 28.856 ug/L  
RT: 1.77 min Scan# 210  
Delta R.T. 0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Tgt Ion: 101 Resp: 119583  
Ion Ratio Lower Upper  
101 100  
103 64.7 44.8 83.2





#11

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

Concen: 25.089 ug/L

RT: 2.14 min Scan# 325

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampled :

VSTD02575

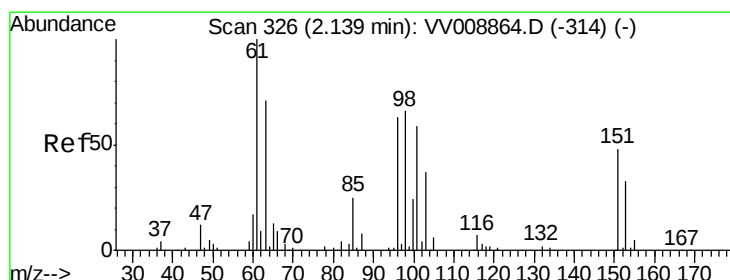
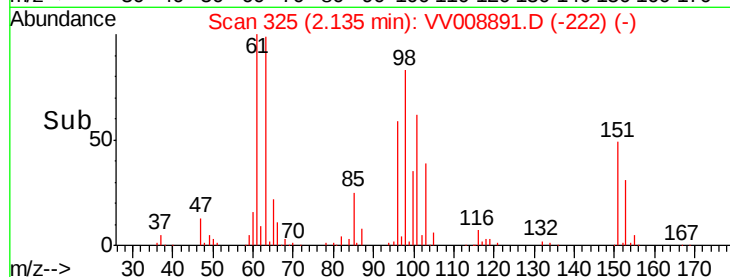
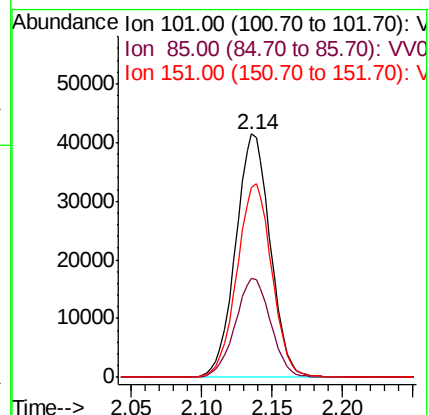
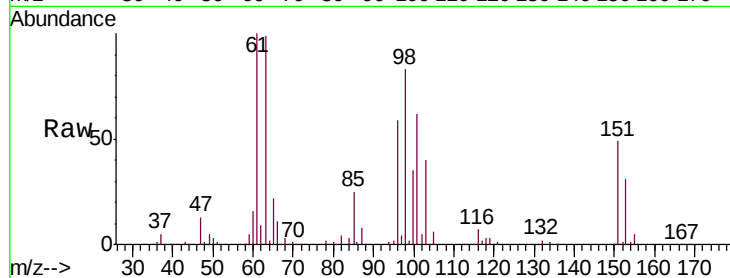
Tgt Ion:101 Resp: 71310

Ion Ratio Lower Upper

101 100

85 41.4 32.5 48.7

151 80.2 64.2 96.4



#12

1,1-Dichloroethene

Concen: 24.853 ug/L

RT: 2.14 min Scan# 326

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

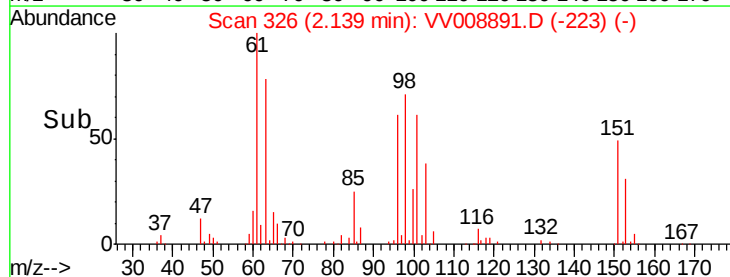
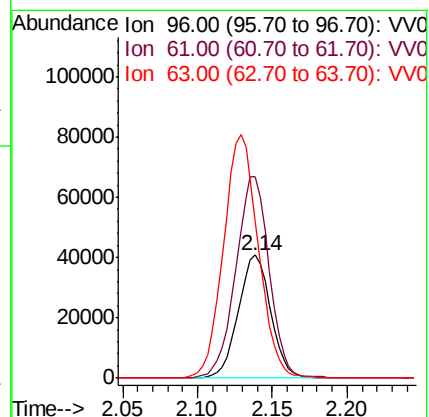
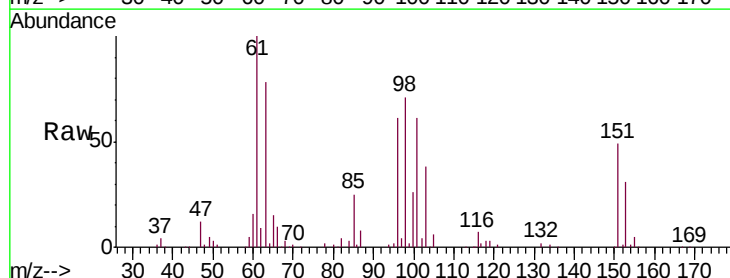
Tgt Ion: 96 Resp: 61642

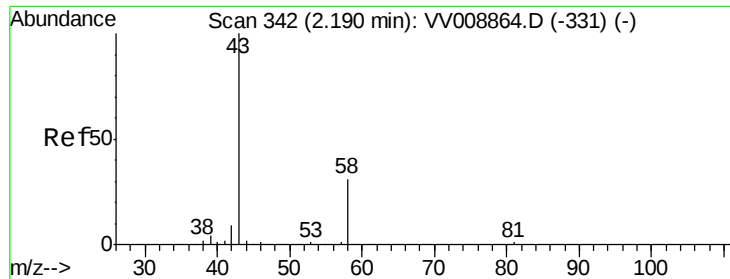
Ion Ratio Lower Upper

96 100

61 163.8 114.0 211.6

63 127.6 82.4 153.0





#13

Acetone

Concen: 53.878 ug/L

RT: 2.19 min Scan# 342

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

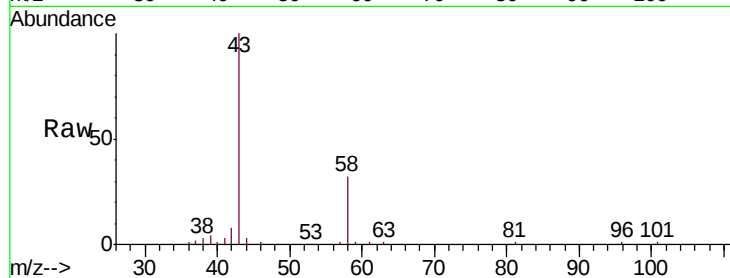
VSTD02575

Tgt Ion: 43 Resp: 57543

Ion Ratio Lower Upper

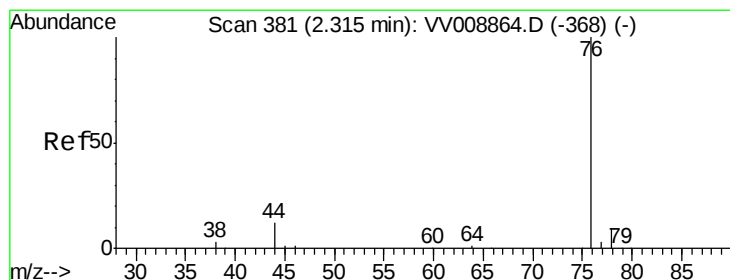
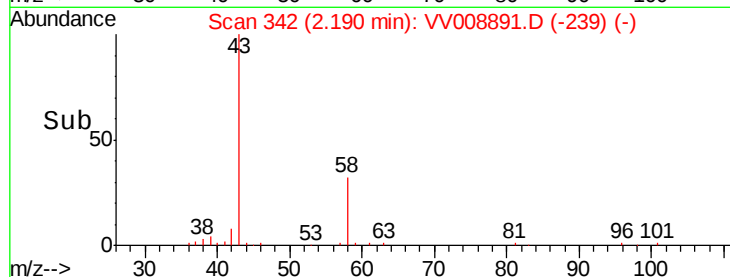
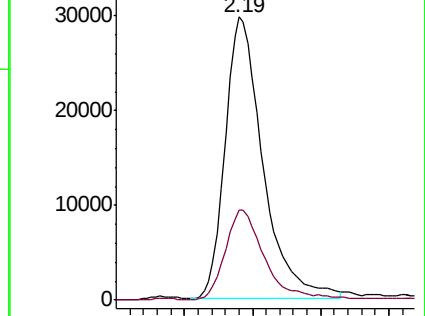
43 100

58 32.4 0.0 65.4



Abundance Ion 43.00 (42.70 to 43.70): VV008891.D (-239) (-)

Ion 58.00 (57.70 to 58.70): VV008891.D (-239) (-)



#14

Carbon disulfide

Concen: 24.919 ug/L

RT: 2.32 min Scan# 381

Delta R.T. 0.00 min

Lab File: VV008891.D

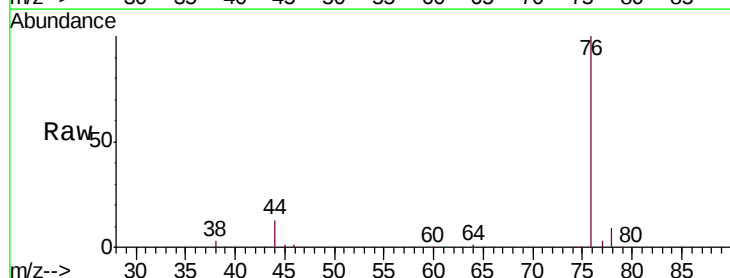
Acq: 11 Dec 2018 10:13

Tgt Ion: 76 Resp: 198460

Ion Ratio Lower Upper

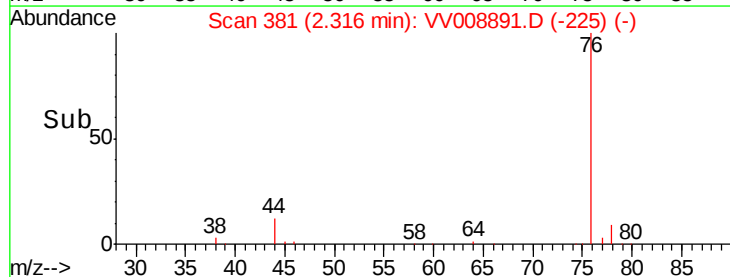
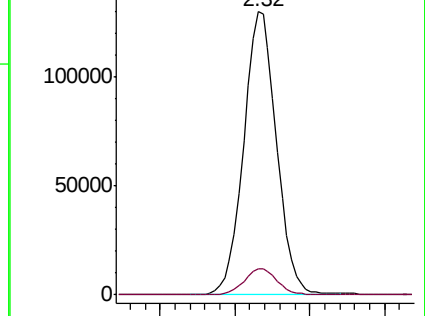
76 100

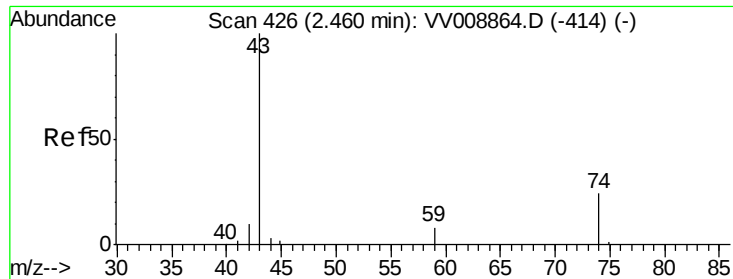
78 9.3 7.4 11.0



Abundance Ion 76.00 (75.70 to 76.70): VV008891.D (-225) (-)

Ion 78.00 (77.70 to 78.70): VV008891.D (-225) (-)

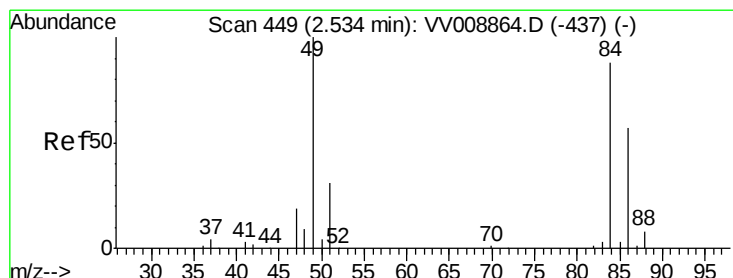
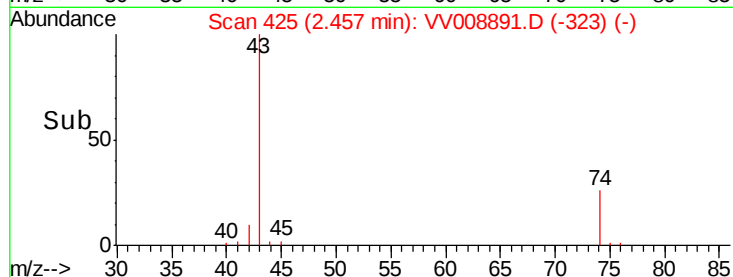
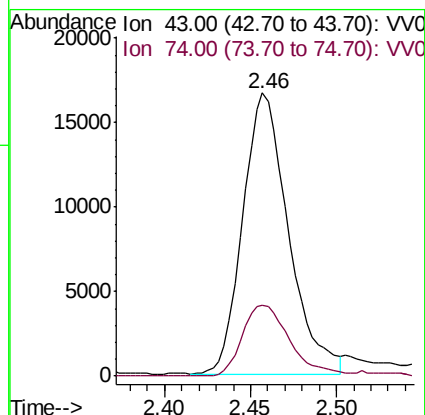
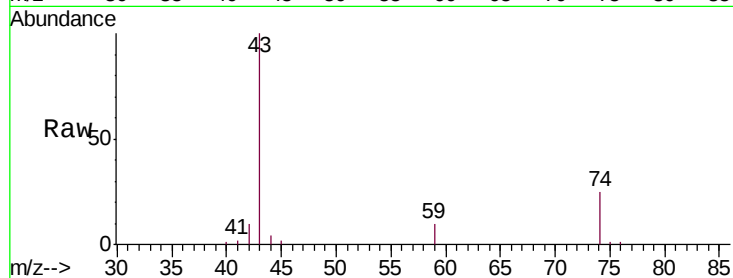




#15  
Methyl Acetate  
Concen: 22.615 ug/L  
RT: 2.46 min Scan# 425  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

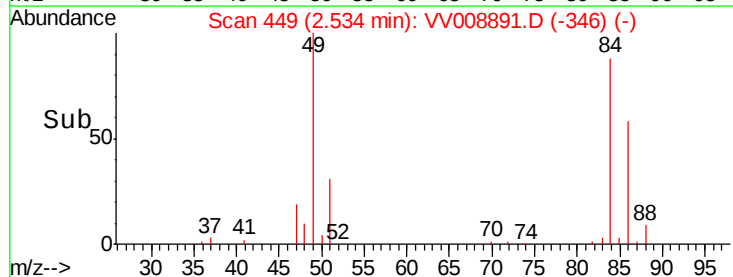
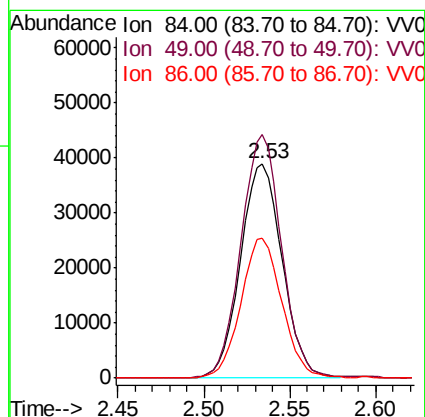
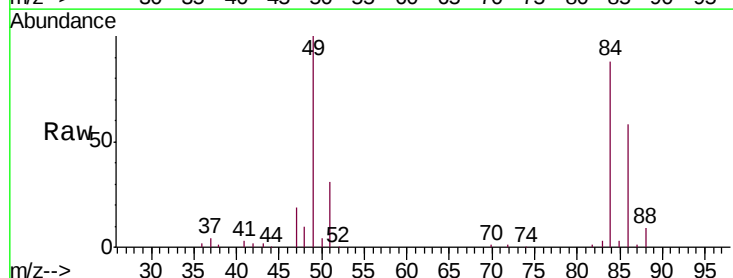
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02575

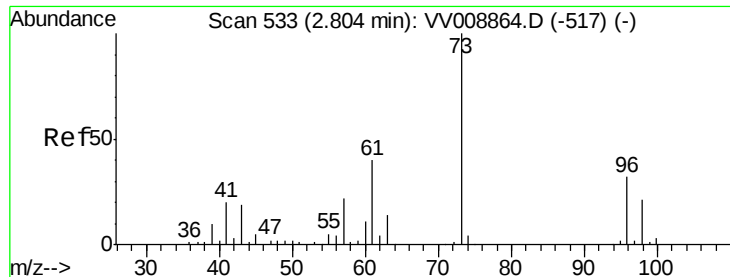
Tgt Ion: 43 Resp: 30628  
Ion Ratio Lower Upper  
43 100  
74 26.4 19.7 29.5



#16  
Methylene chloride  
Concen: 20.248 ug/L  
RT: 2.53 min Scan# 449  
Delta R.T. 0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Tgt Ion: 84 Resp: 65603  
Ion Ratio Lower Upper  
84 100  
49 113.6 80.5 149.5  
86 65.4 45.5 84.5

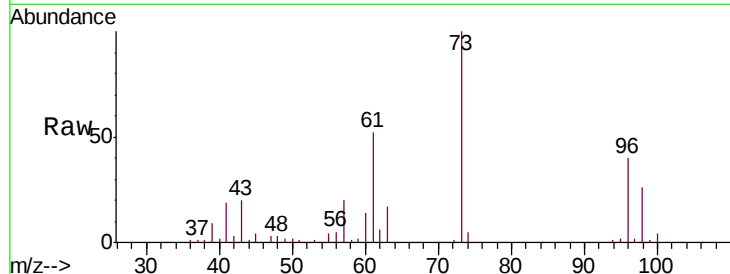




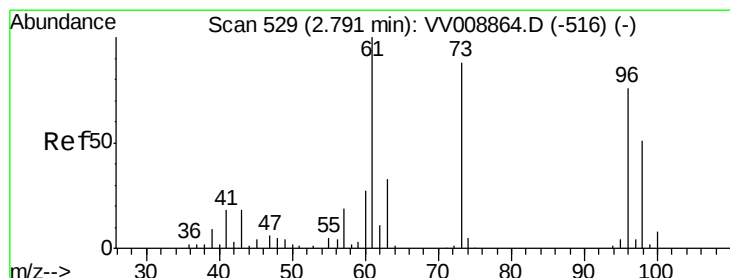
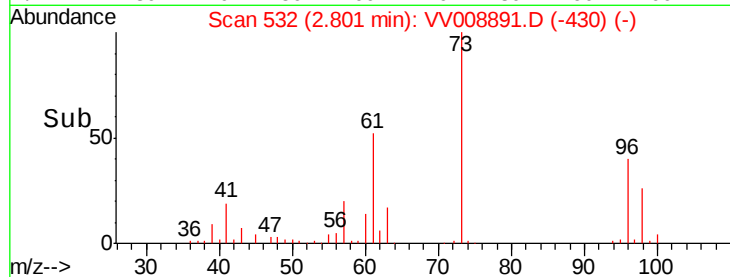
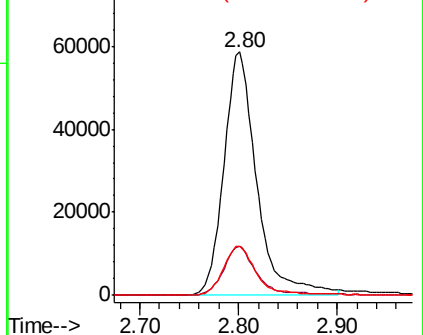
#17  
Methyl tert-butyl Ether  
Concen: 24.260 ug/L  
RT: 2.80 min Scan# 532  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02575

Tgt Ion: 73 Resp: 136697  
Ion Ratio Lower Upper  
73 100  
43 19.4 14.9 22.3  
57 20.0 16.0 24.0

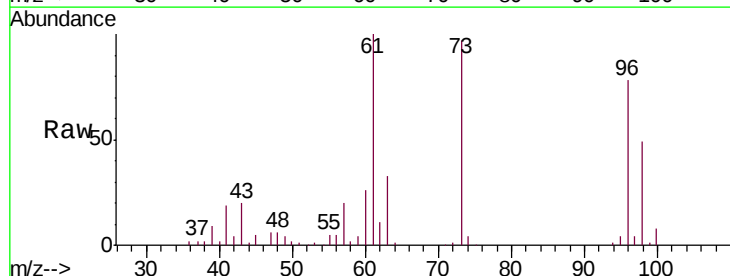


Abundance Ion 73.00 (72.70 to 73.70): VV0  
Ion 43.00 (42.70 to 43.70): VV0  
Ion 57.00 (56.70 to 57.70): VV0

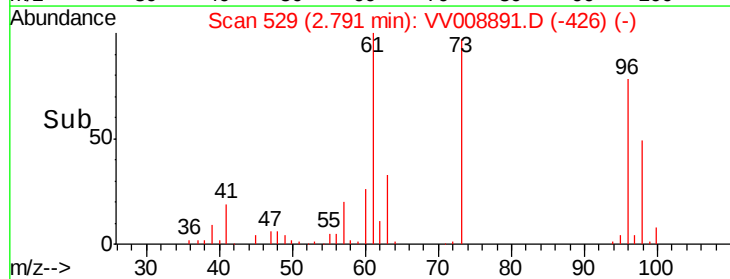
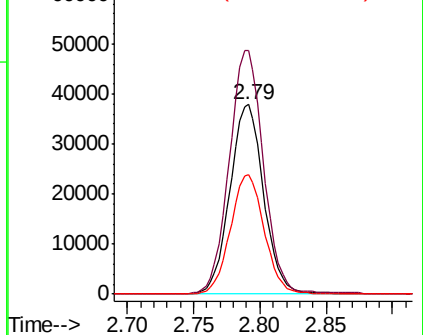


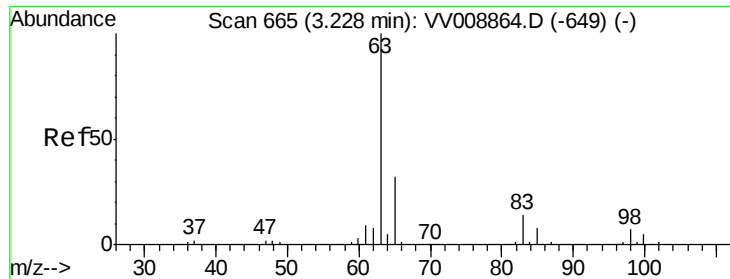
#18  
trans-1,2-Dichloroethene  
Concen: 25.088 ug/L  
RT: 2.79 min Scan# 529  
Delta R.T. 0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Tgt Ion: 96 Resp: 67239  
Ion Ratio Lower Upper  
96 100  
61 128.5 94.6 175.8  
98 63.2 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

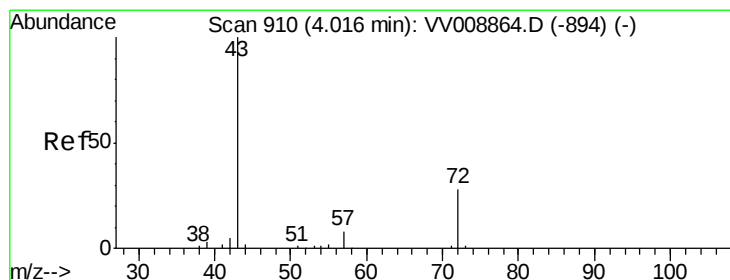
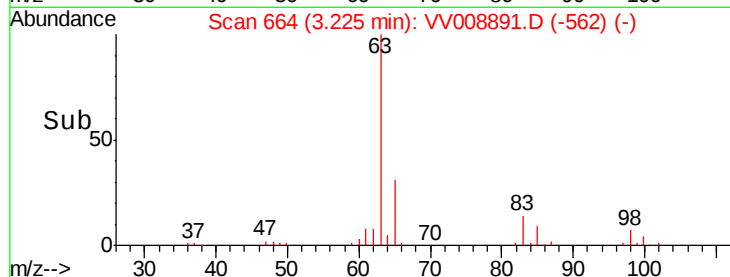
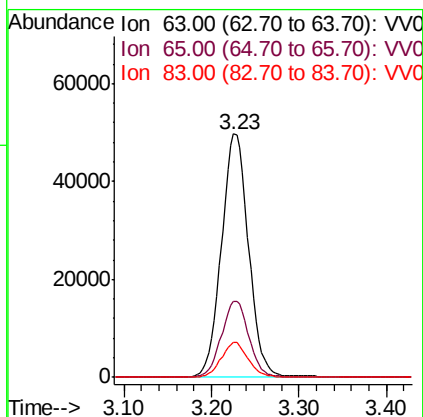
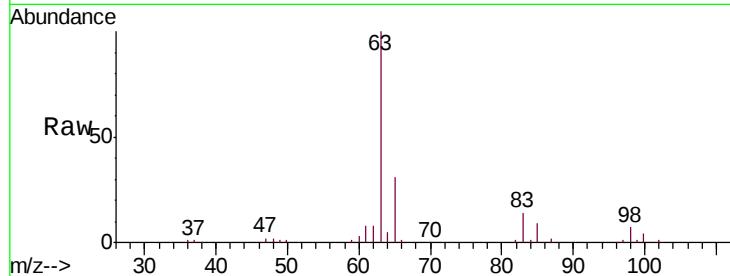




#19  
 1,1-Dichloroethane  
 Concen: 24.701 ug/L  
 RT: 3.23 min Scan# 664  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

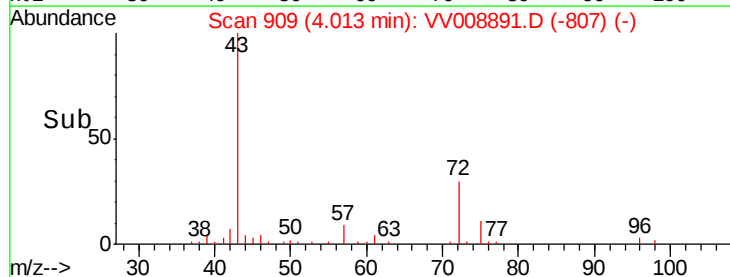
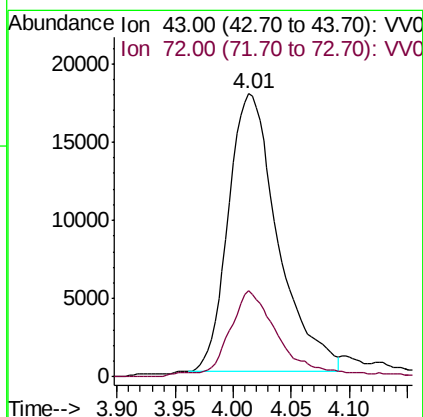
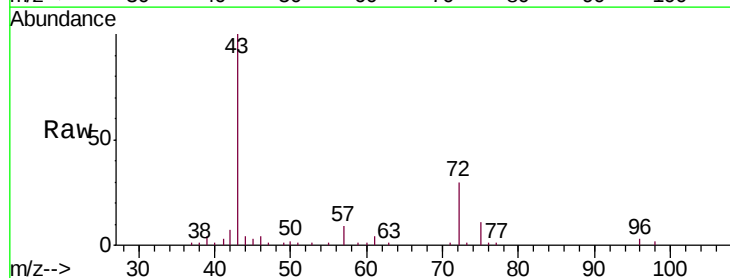
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

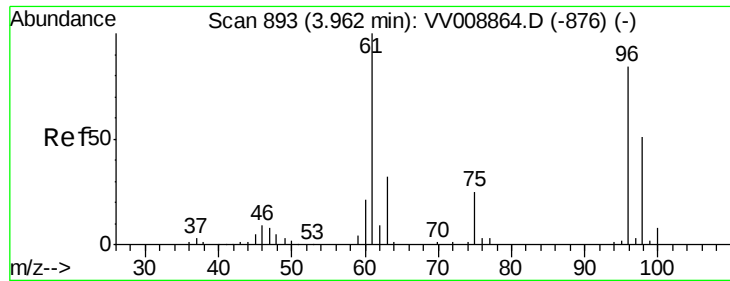
Tgt Ion: 63 Resp: 107317  
 Ion Ratio Lower Upper  
 63 100  
 65 31.4 22.7 42.1  
 83 14.3 10.2 19.0



#21  
 2-Butanone  
 Concen: 52.754 ug/L  
 RT: 4.01 min Scan# 909  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion: 43 Resp: 52808  
 Ion Ratio Lower Upper  
 43 100  
 72 28.3 13.7 41.1



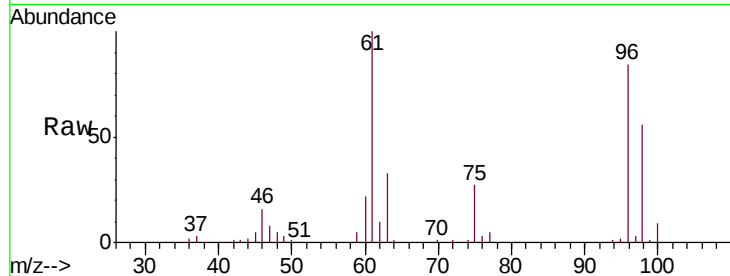


#22

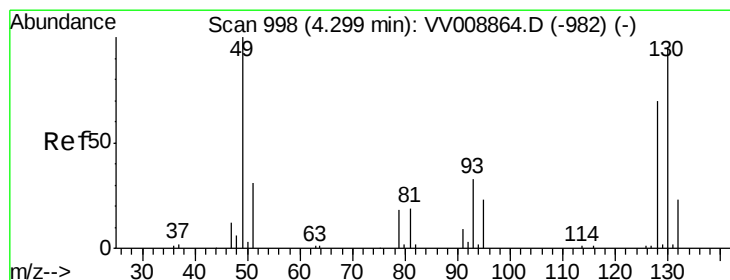
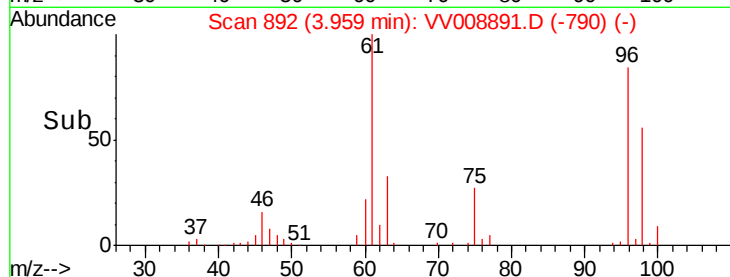
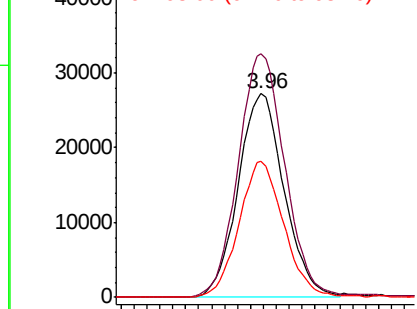
cis-1,2-Dichloroethene  
 Concen: 24.149 ug/L  
 RT: 3.96 min Scan# 892  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

Tgt Ion: 96 Resp: 67483  
 Ion Ratio Lower Upper  
 96 100  
 61 119.7 86.2 160.0  
 98 67.2 45.6 84.6



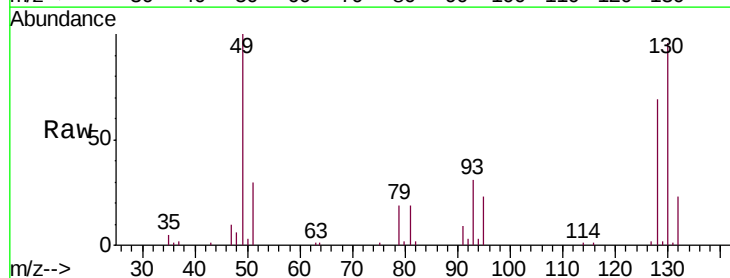
Abundance Ion 96.00 (95.70 to 96.70): VV0  
 Ion 61.00 (60.70 to 61.70): VV0  
 Ion 98.00 (97.70 to 98.70): VV0



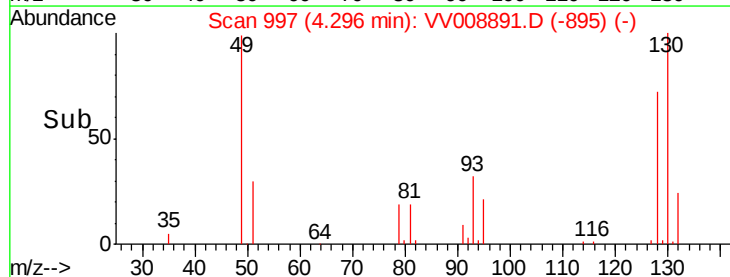
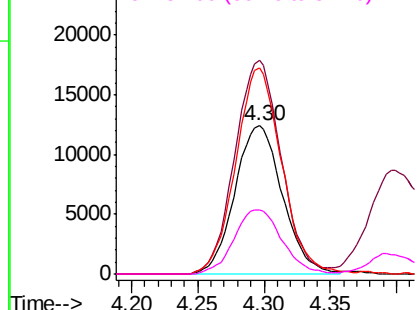
#23

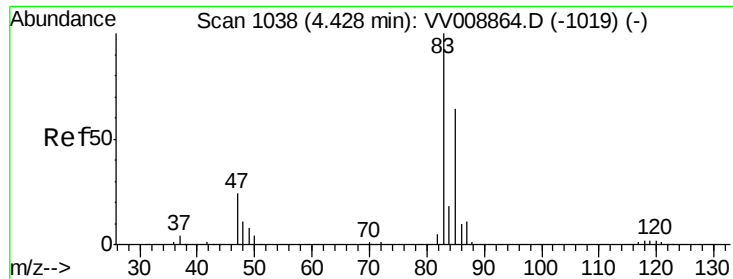
Bromochloromethane  
 Concen: 23.608 ug/L  
 RT: 4.30 min Scan# 997  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion: 128 Resp: 31094  
 Ion Ratio Lower Upper  
 128 100  
 49 144.2 93.8 174.2  
 130 139.1 90.4 168.0  
 51 43.1 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

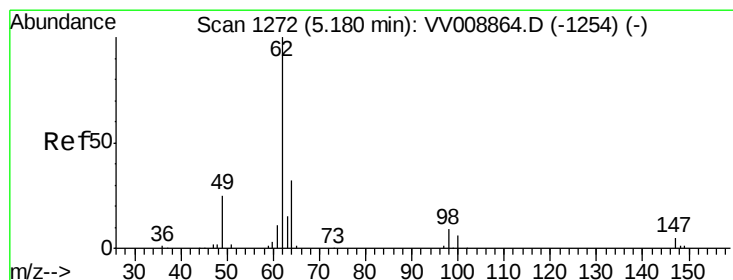
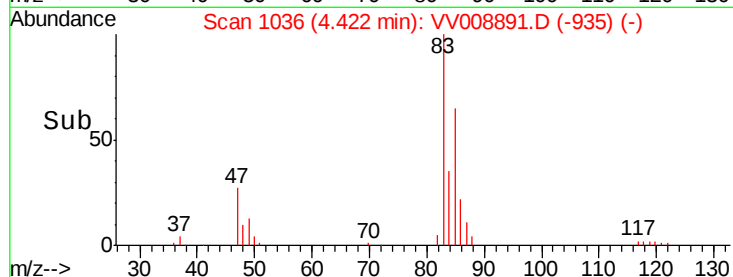
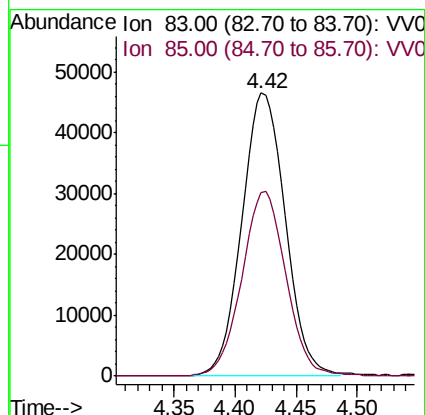
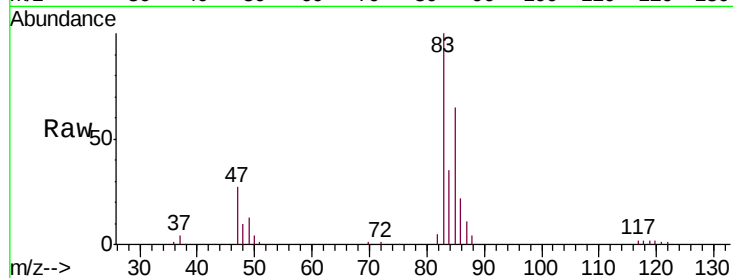




#25  
Chloroform  
Concen: 24.625 ug/L  
RT: 4.42 min Scan# 1036  
Delta R.T. -0.01 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

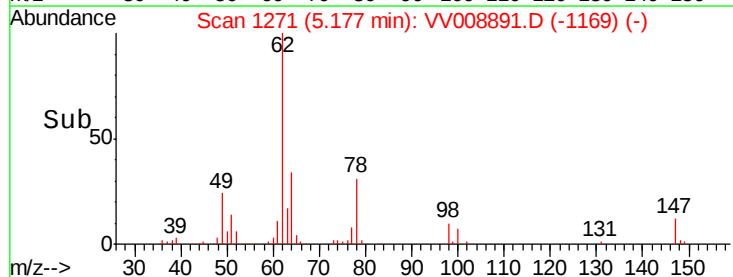
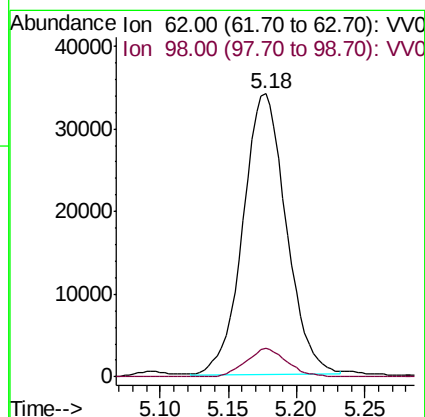
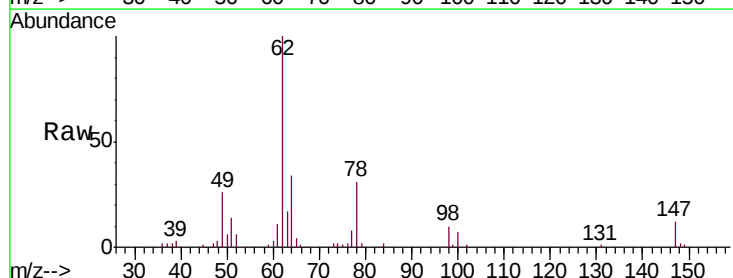
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02575

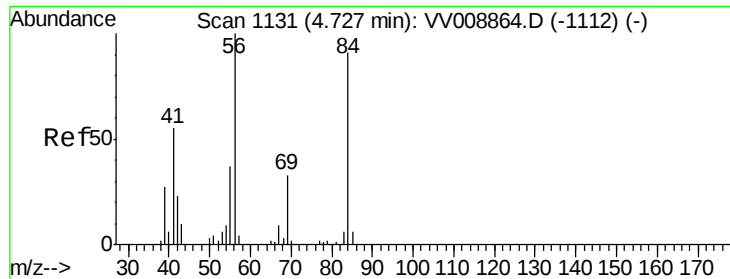
Tgt Ion: 83 Resp: 114819  
Ion Ratio Lower Upper  
83 100  
85 66.3 45.6 84.8



#27  
1,2-Dichloroethane  
Concen: 23.648 ug/L  
RT: 5.18 min Scan# 1271  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Tgt Ion: 62 Resp: 75112  
Ion Ratio Lower Upper  
62 100  
98 9.9 7.4 11.0

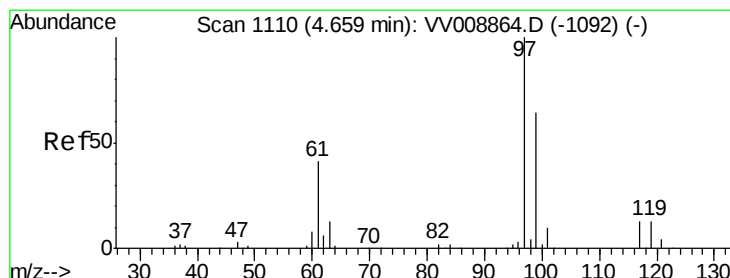
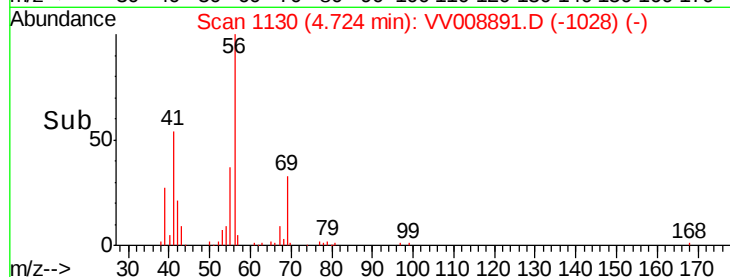
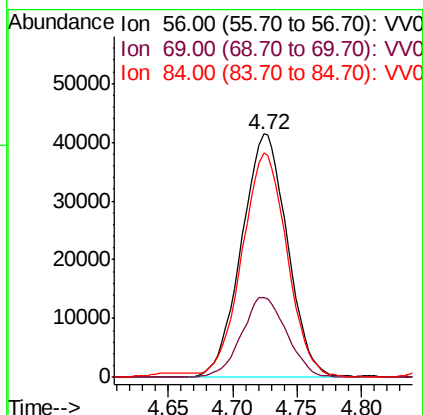
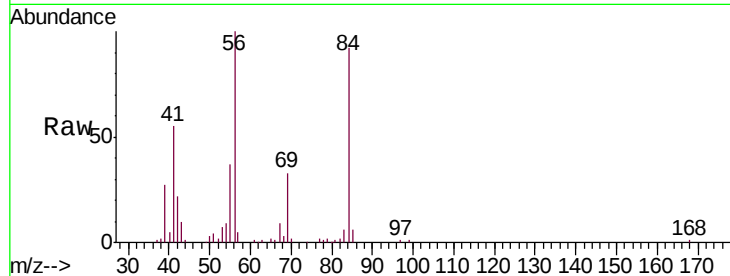




#30  
Cyclohexane  
Concen: 24.491 ug/L  
RT: 4.72 min Scan# 1130  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

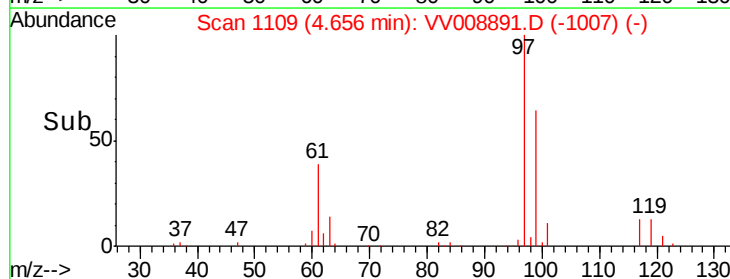
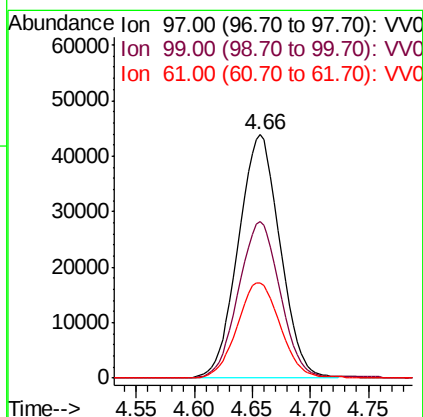
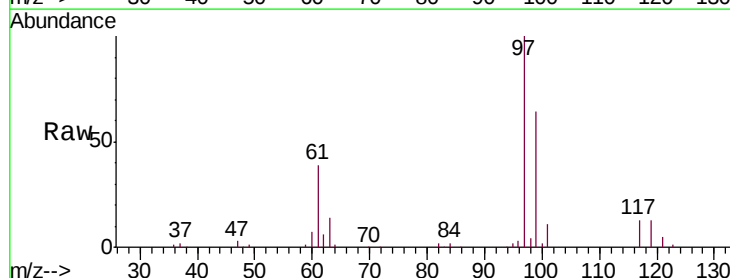
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02575

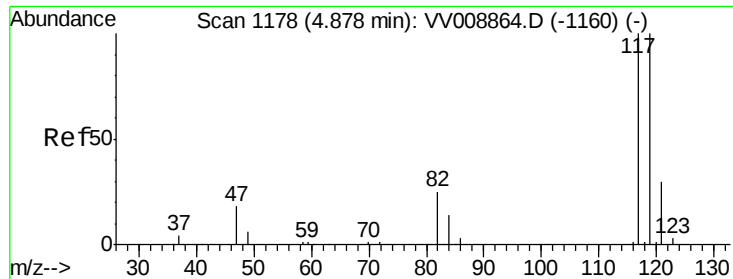
Tgt Ion: 56 Resp: 102492  
Ion Ratio Lower Upper  
56 100  
69 32.5 25.8 38.8  
84 91.0 73.0 109.6



#31  
1,1,1-Trichloroethane  
Concen: 25.666 ug/L  
RT: 4.66 min Scan# 1109  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Tgt Ion: 97 Resp: 109976  
Ion Ratio Lower Upper  
97 100  
99 64.1 51.9 77.9  
61 40.5 33.1 49.7





#32

Carbon tetrachloride

Concen: 26.427 ug/L

RT: 4.87 min Scan# 1177

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

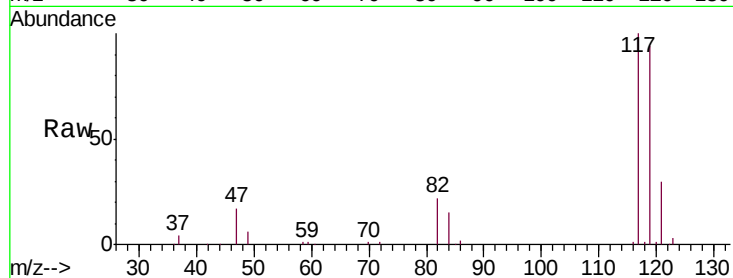
VSTD02575

Tgt Ion:117 Resp: 103380

Ion Ratio Lower Upper

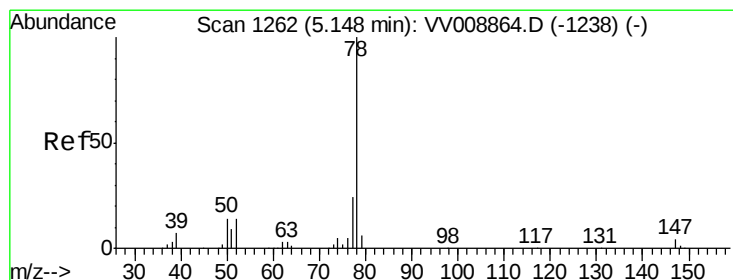
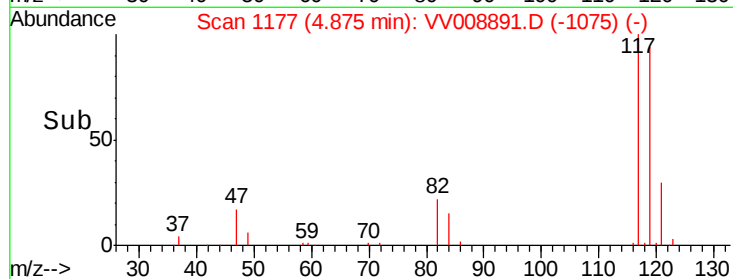
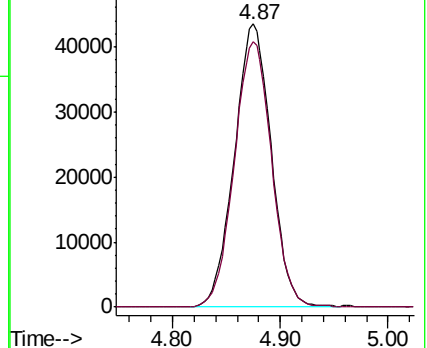
117 100

119 94.9 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: 24.555 ug/L

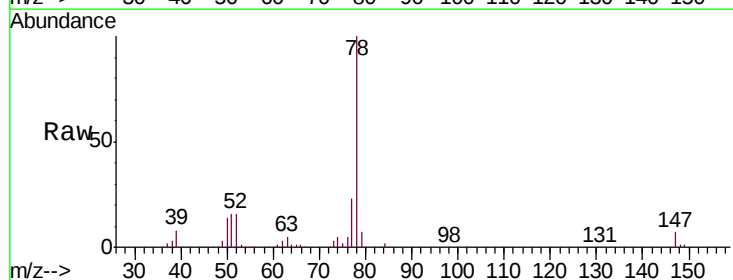
RT: 5.14 min Scan# 1261

Delta R.T. -0.00 min

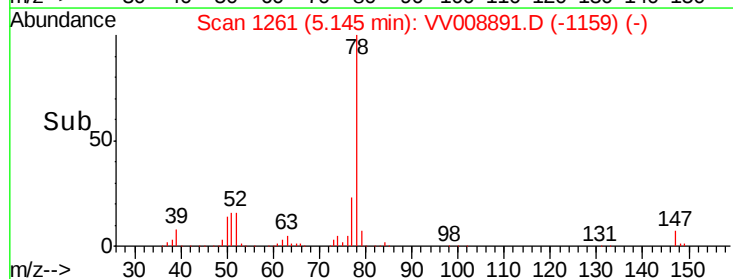
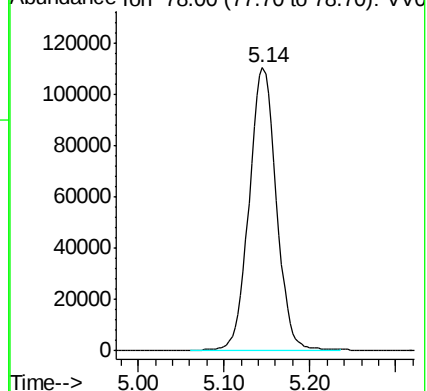
Lab File: VV008891.D

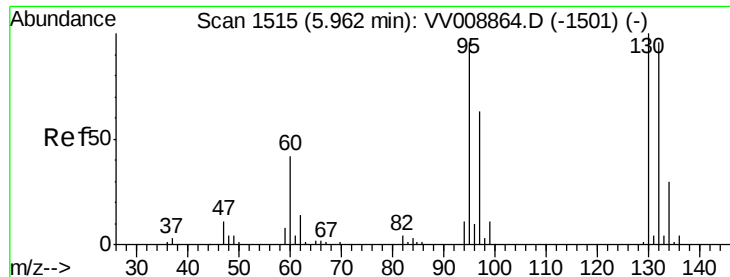
Acq: 11 Dec 2018 10:13

Tgt Ion: 78 Resp: 244493



Abundance Ion 78.00 (77.70 to 78.70): VV0





#35

Trichloroethene

Concen: 24.930 ug/L

RT: 5.96 min Scan# 1513

Delta R.T. -0.01 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02575

Tgt Ion: 95 Resp: 74837

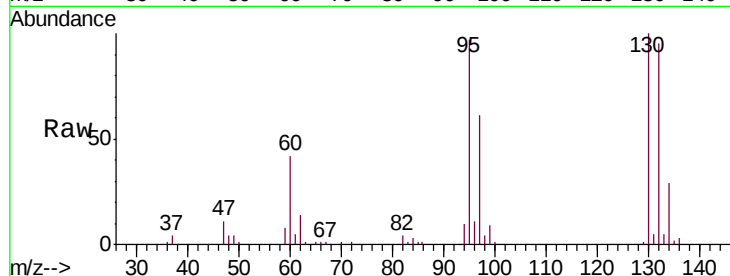
Ion Ratio Lower Upper

95 100

97 63.2 45.3 84.1

132 99.8 70.0 130.0

130 104.5 73.4 136.4

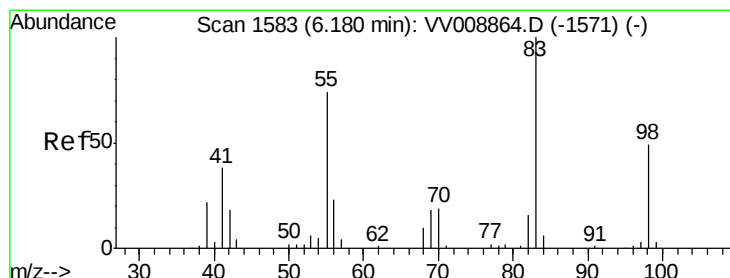
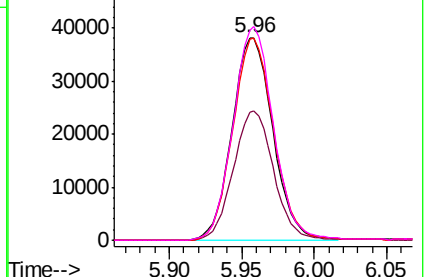
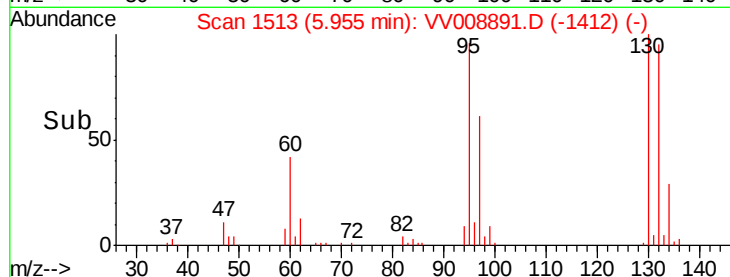


Abundance Ion 95.00 (94.70 to 95.70): VV0

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: 24.775 ug/L

RT: 6.17 min Scan# 1581

Delta R.T. -0.01 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

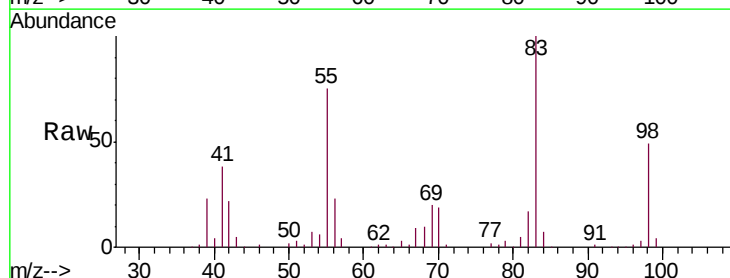
Tgt Ion: 83 Resp: 118613

Ion Ratio Lower Upper

83 100

55 73.6 58.2 87.2

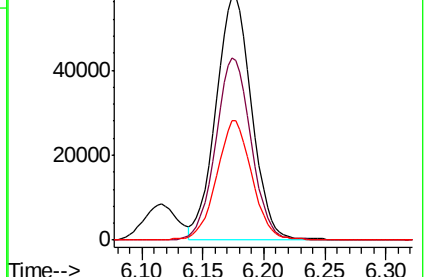
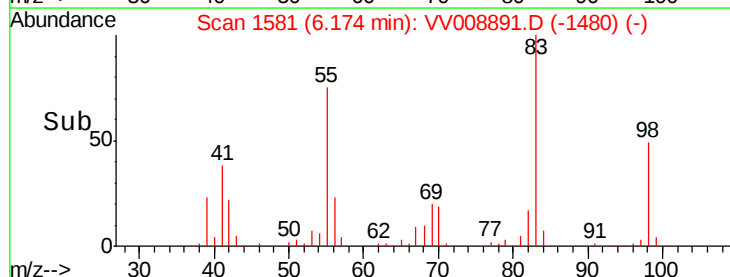
98 48.0 37.8 56.8

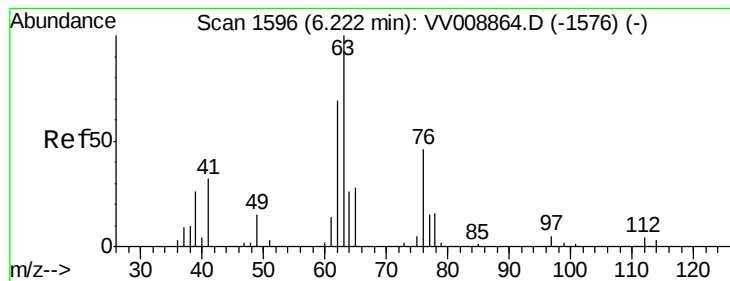


Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 55.00 (54.70 to 55.70): VV0

Ion 98.00 (97.70 to 98.70): VV0





#40

1,2-Dichloropropane

Concen: 23.709 ug/L

RT: 6.22 min Scan# 1595

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

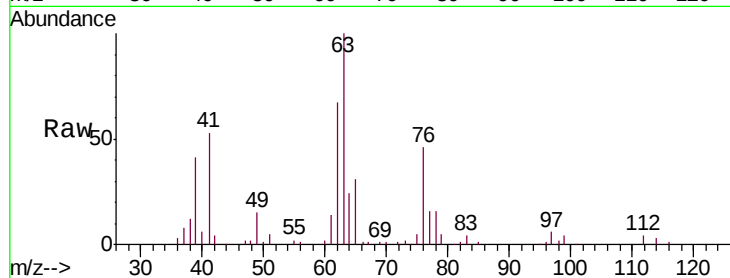
VSTD02575

Tgt Ion: 63 Resp: 56657

Ion Ratio Lower Upper

63 100

112 4.8 3.8 5.8



Abundance Ion 63.00 (62.70 to 63.70): VV008864.D (-1576) (-)

Ion 112.00 (111.70 to 112.70): VV008864.D (-1576) (-)

30000

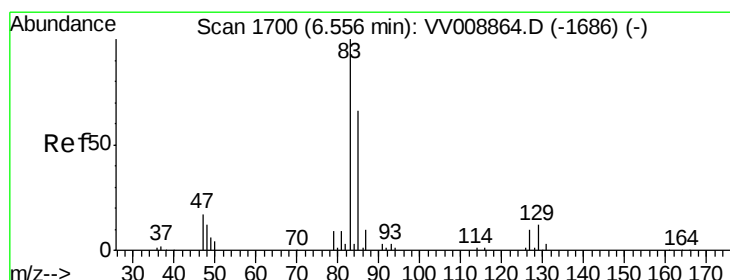
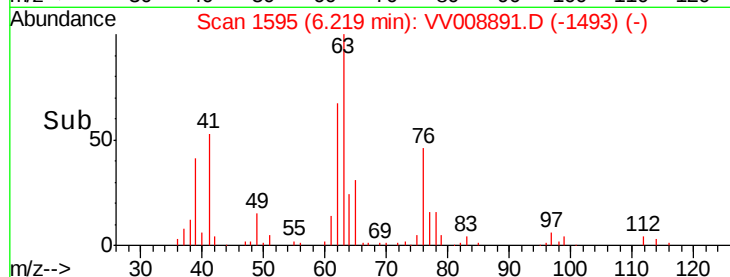
20000

10000

0

Time--> 6.10 6.15 6.20 6.25 6.30

6.22



#41

Bromodichloromethane

Concen: 25.014 ug/L

RT: 6.55 min Scan# 1699

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

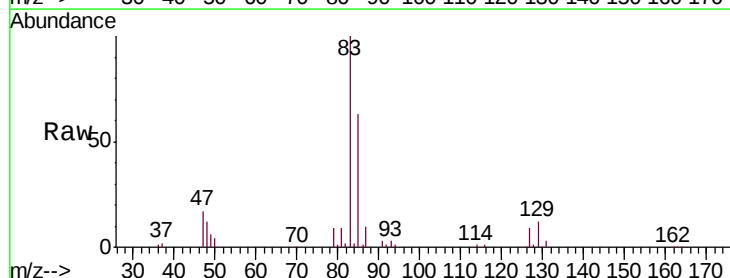
Tgt Ion: 83 Resp: 78786

Ion Ratio Lower Upper

83 100

85 63.1 45.3 84.1

127 9.3 7.2 10.8



Abundance Ion 83.00 (82.70 to 83.70): VV008864.D (-1686) (-)

Ion 85.00 (84.70 to 85.70): VV008864.D (-1686) (-)

Ion 127.00 (126.70 to 127.70): VV008864.D (-1686) (-)

50000

40000

30000

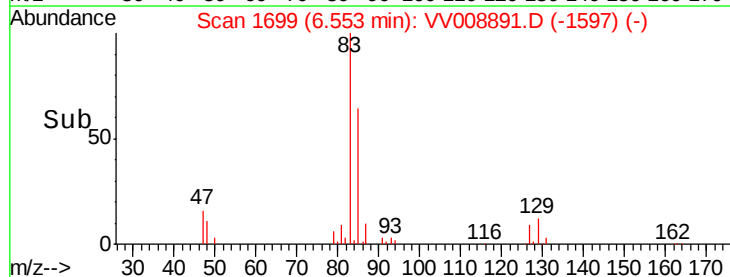
20000

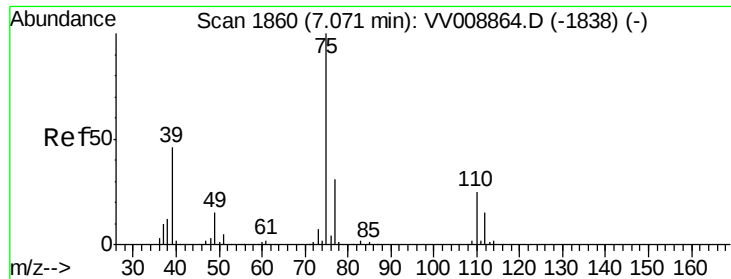
10000

0

Time--> 6.50 6.55 6.60 6.65

6.55



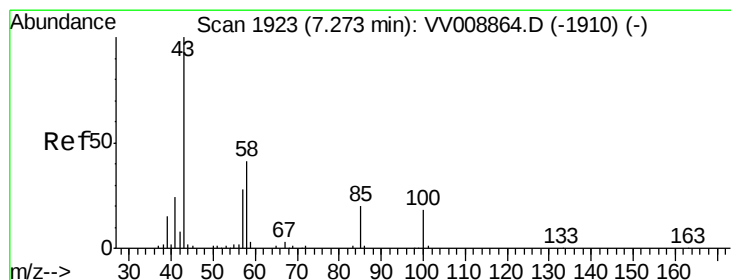
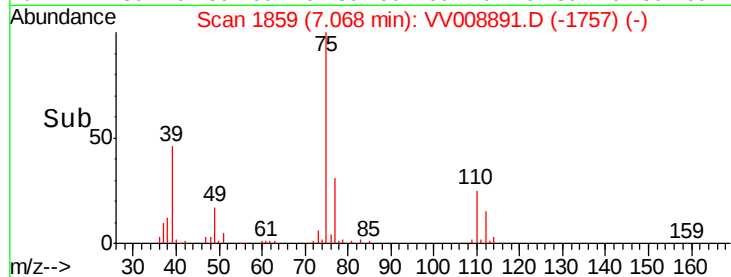
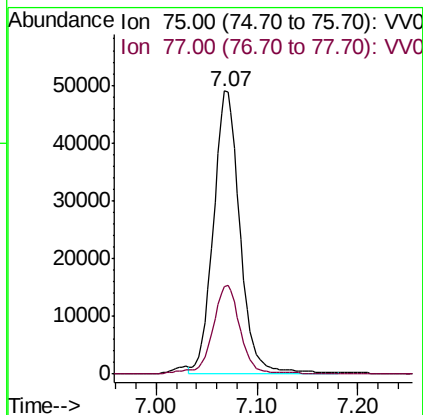
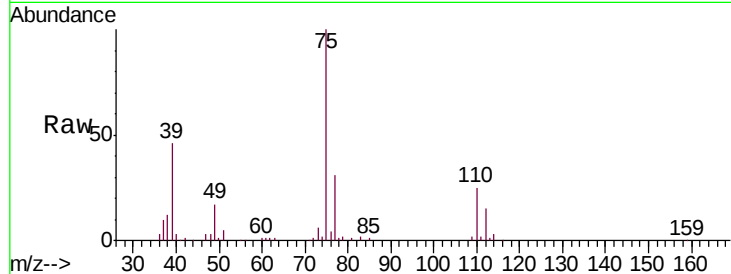


#42

cis-1,3-Dichloropropene  
 Concen: 25.522 ug/L  
 RT: 7.07 min Scan# 1859  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Instrument :  
 MSVOA\_V  
 ClientSampled :  
 VSTD02575

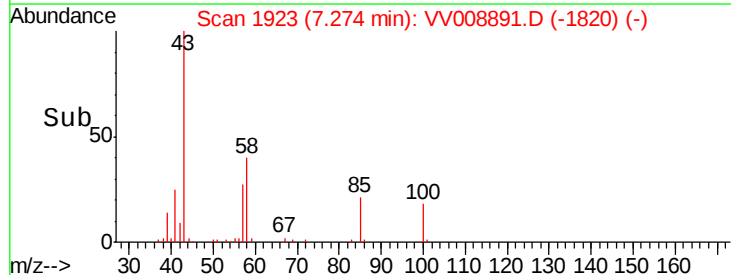
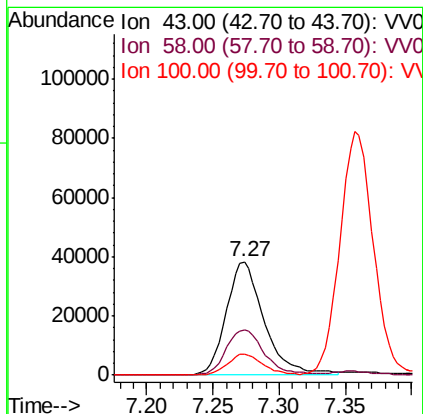
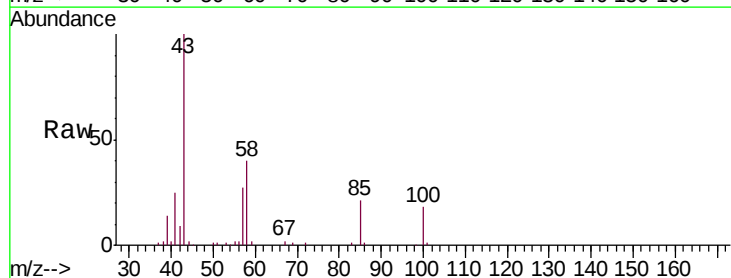
Tgt Ion: 75 Resp: 89294  
 Ion Ratio Lower Upper  
 75 100  
 77 30.9 21.3 39.6

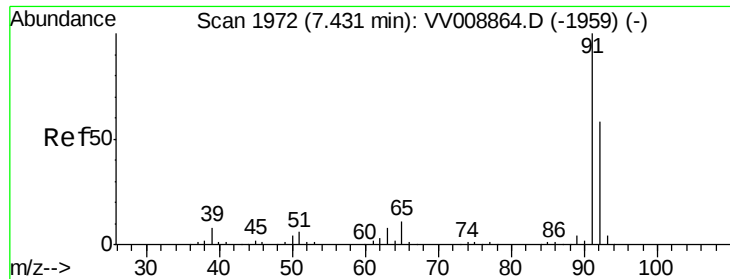


#43

4-Methyl-2-pentanone  
 Concen: 47.269 ug/L  
 RT: 7.27 min Scan# 1923  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion: 43 Resp: 76349  
 Ion Ratio Lower Upper  
 43 100  
 58 40.4 32.2 48.4  
 100 17.3 13.8 20.8





#44

Toluene

Concen: 24.698 ug/L

RT: 7.43 min Scan# 1972

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

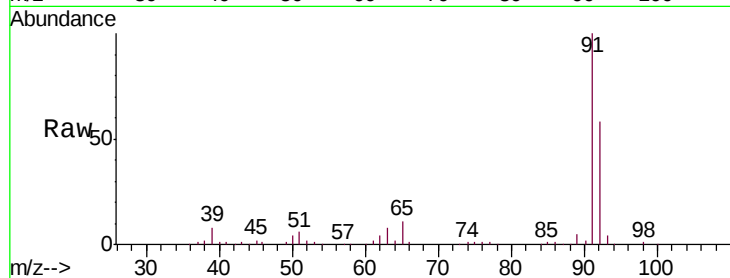
VSTD02575

Tgt Ion: 91 Resp: 257905

Ion Ratio Lower Upper

91 100

92 57.5 41.7 77.5



Abundance Ion 91.00 (90.70 to 91.70): VV008864.D (-1959) (-)

Ion 92.00 (91.70 to 92.70): VV008891.D (-1869) (-)

7.43

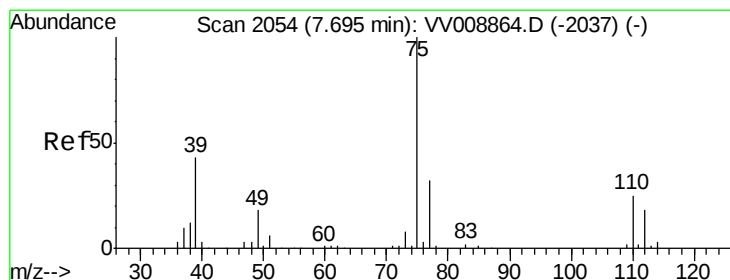
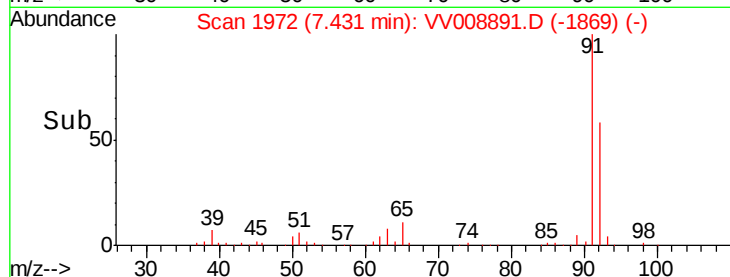
150000

100000

50000

0

Time-->



#45

trans-1,3-Dichloropropene

Concen: 25.200 ug/L

RT: 7.69 min Scan# 2053

Delta R.T. -0.00 min

Lab File: VV008891.D

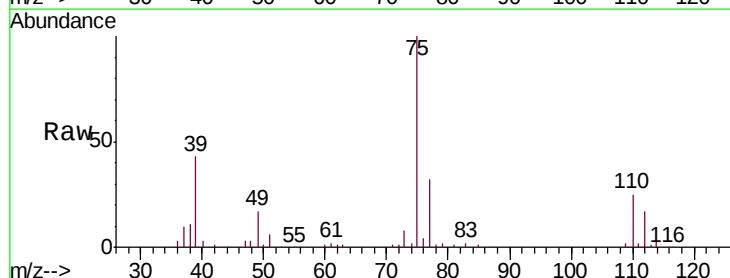
Acq: 11 Dec 2018 10:13

Tgt Ion: 75 Resp: 76859

Ion Ratio Lower Upper

75 100

77 32.0 23.6 43.8



Abundance Ion 75.00 (74.70 to 75.70): VV008864.D (-2037) (-)

Ion 77.00 (76.70 to 77.70): VV008891.D (-1951) (-)

7.69

50000

40000

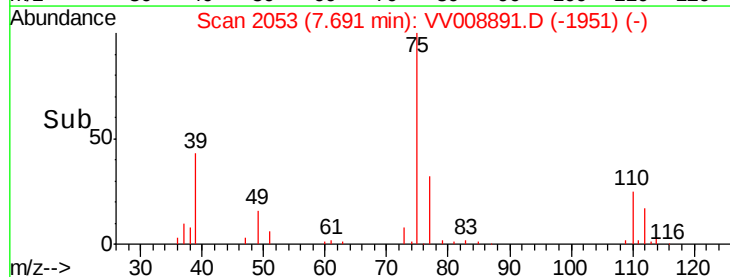
30000

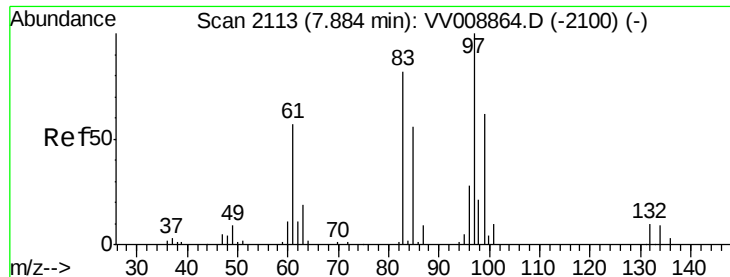
20000

10000

0

Time-->

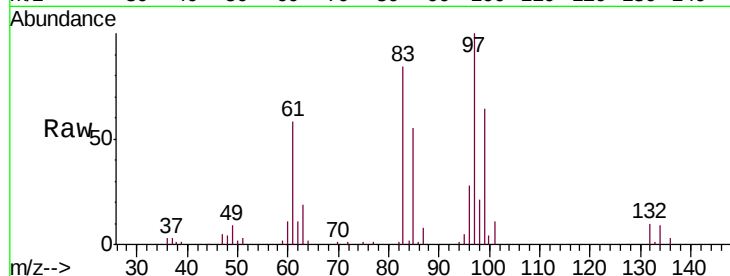




#46  
 1,1,2-Trichloroethane  
 Concen: 23.864 ug/L  
 RT: 7.88 min Scan# 2112  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

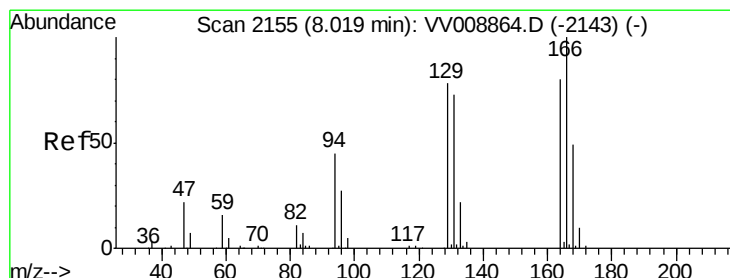
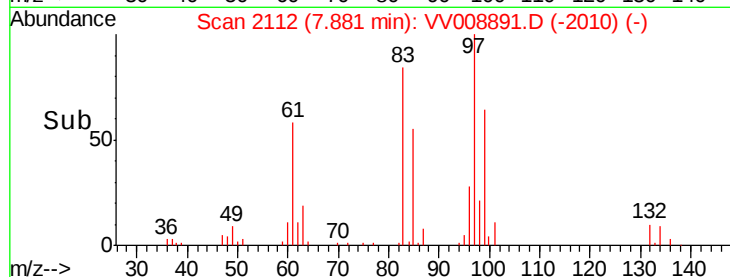
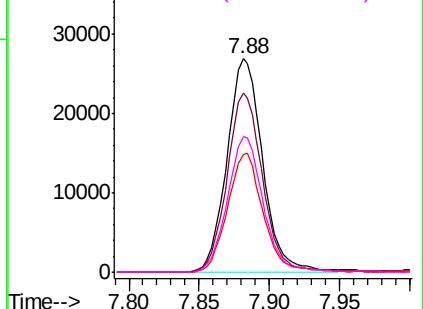
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 47517 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 83       | 84.0  | 56.6  | 105.2 |
| 85       | 55.4  | 36.6  | 68.0  |
| 99       | 63.7  | 43.2  | 80.2  |



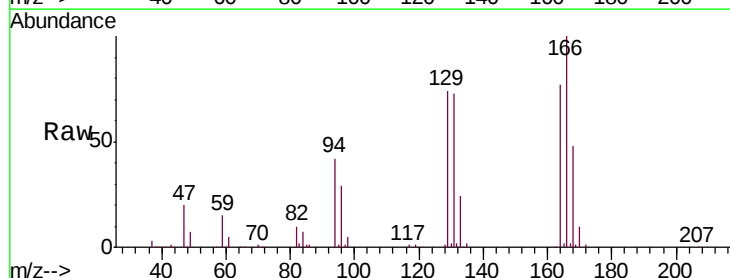
Abundance

Ion 97.00 (96.70 to 97.70): VV008891.D (-2100) (-)



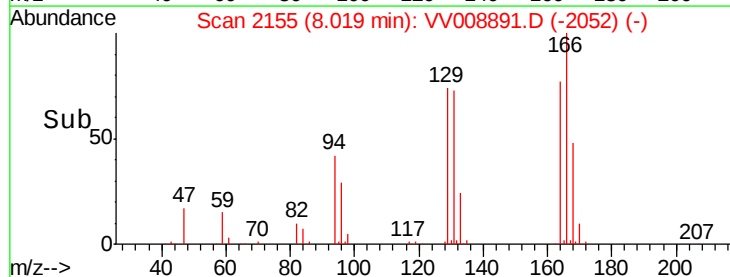
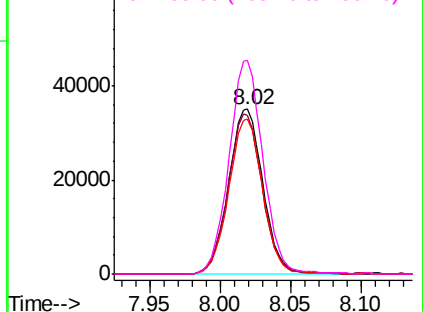
#47  
 Tetrachloroethene  
 Concen: 24.454 ug/L  
 RT: 8.02 min Scan# 2155  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

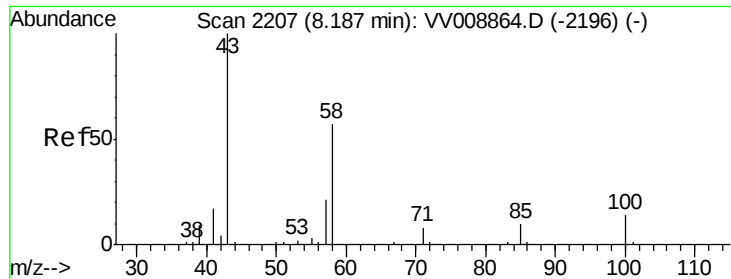
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 59698 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 96.2  | 64.6  | 120.0 |
| 131      | 94.4  | 64.5  | 119.7 |
| 166      | 129.8 | 88.7  | 164.7 |



Abundance

Ion 164.00 (163.70 to 164.70): VV008891.D (-2052) (-)

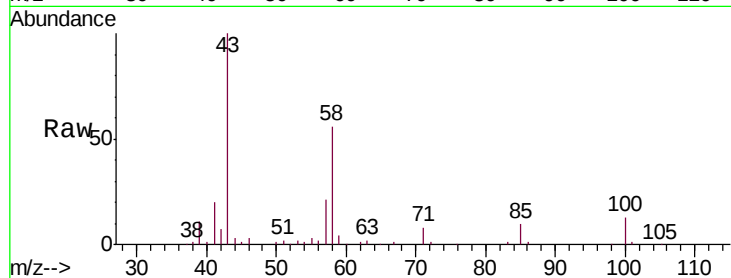




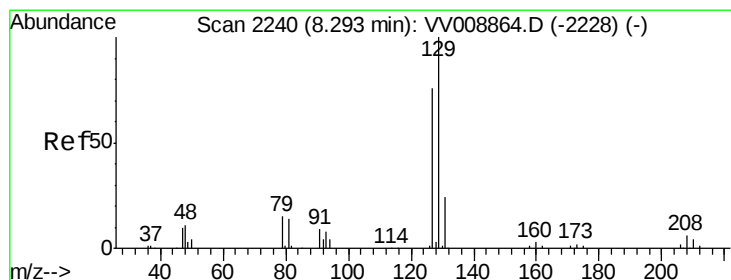
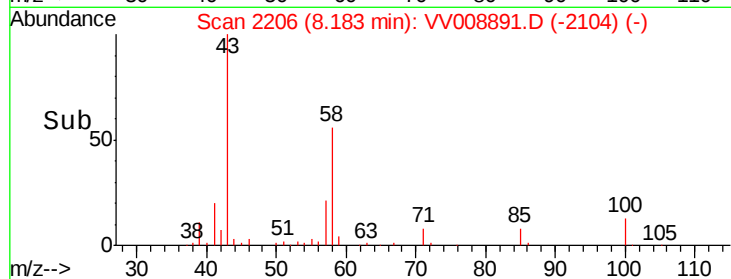
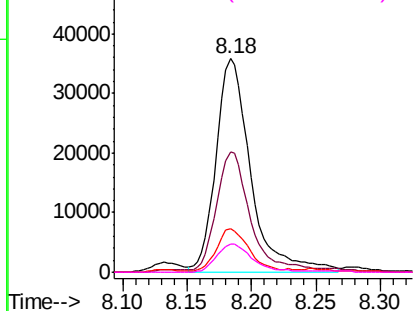
#49  
2-Hexanone  
Concen: 50.614 ug/L  
RT: 8.18 min Scan# 2206  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD02575

Tgt Ion: 43 Resp: 67634  
Ion Ratio Lower Upper  
43 100  
58 54.5 43.9 65.9  
57 19.3 15.7 23.5  
100 12.8 11.0 16.4

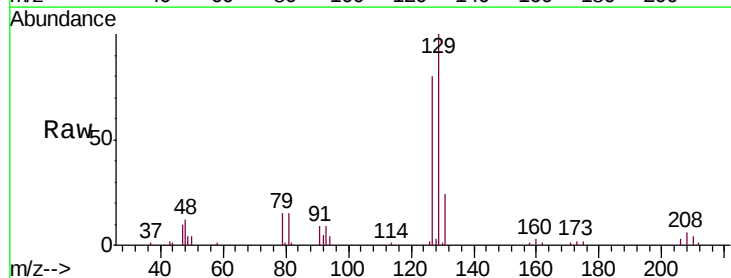


Abundance Ion 43.00 (42.70 to 43.70): VV0  
Ion 58.00 (57.70 to 58.70): VV0  
Ion 57.00 (56.70 to 57.70): VV0  
Ion 100.00 (99.70 to 100.70): VV0

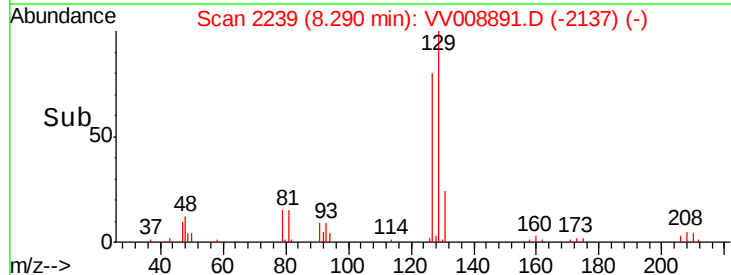
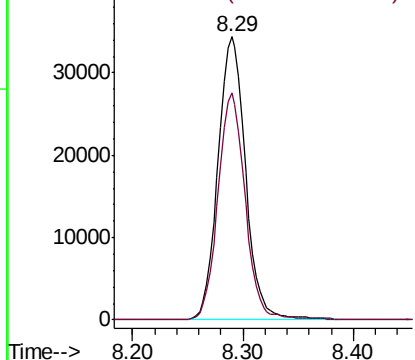


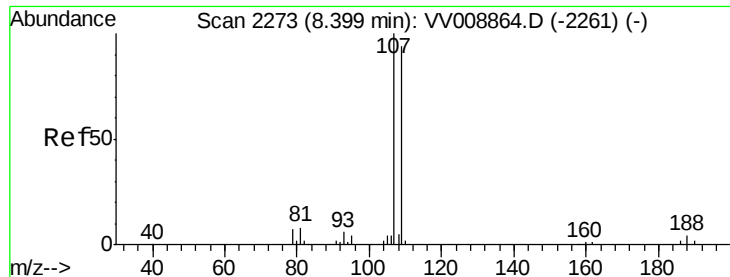
#50  
Dibromochloromethane  
Concen: 26.194 ug/L  
RT: 8.29 min Scan# 2239  
Delta R.T. -0.00 min  
Lab File: VV008891.D  
Acq: 11 Dec 2018 10:13

Tgt Ion: 129 Resp: 59785  
Ion Ratio Lower Upper  
129 100  
127 80.3 53.5 99.3



Abundance Ion 129.00 (128.70 to 129.70): V  
Ion 127.00 (126.70 to 127.70): V

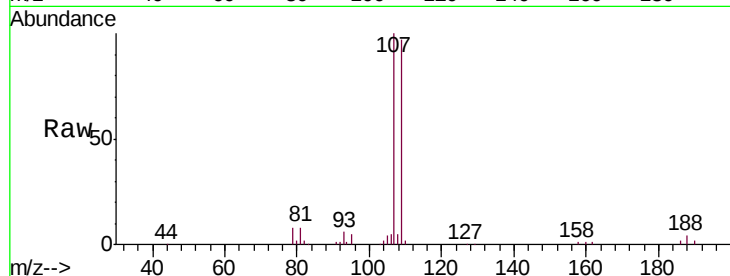




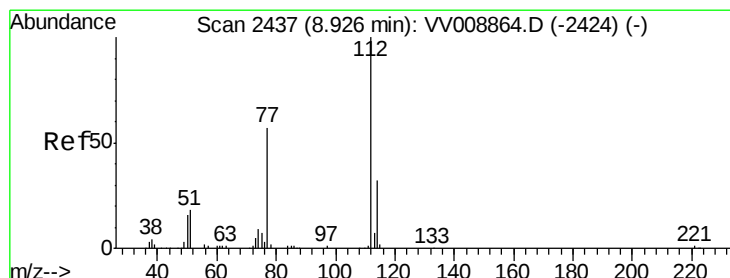
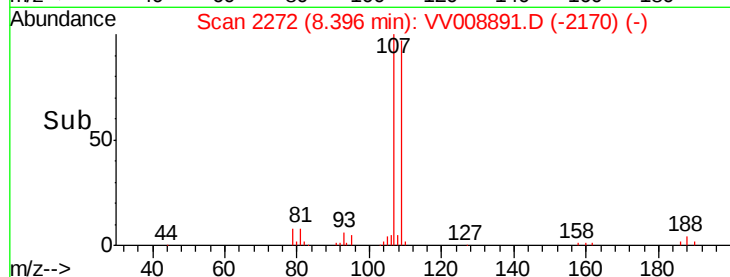
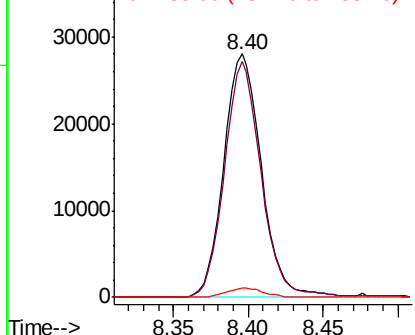
#51  
 1,2-Dibromoethane  
 Concen: 24.558 ug/L  
 RT: 8.40 min Scan# 2272  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

Tgt Ion:107 Resp: 49106  
 Ion Ratio Lower Upper  
 107 100  
 109 97.0 65.8 122.2  
 188 3.8 3.0 4.6

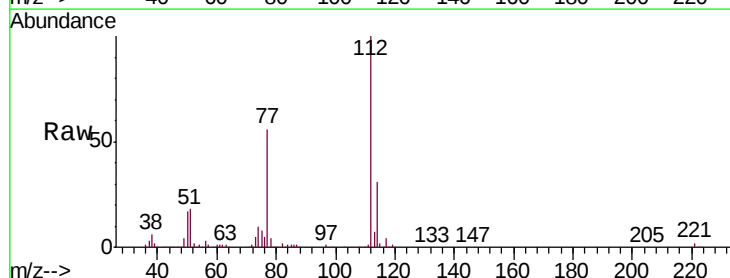


Abundance Ion 107.00 (106.70 to 107.70): V  
 Ion 109.00 (108.70 to 109.70): V  
 Ion 188.00 (187.70 to 188.70): V

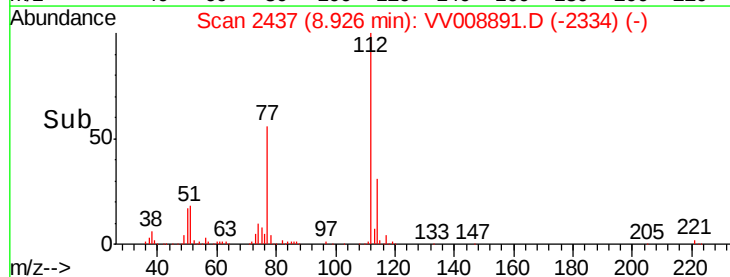
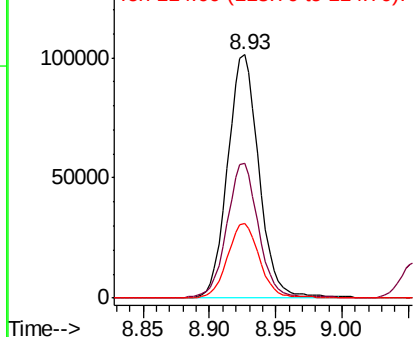


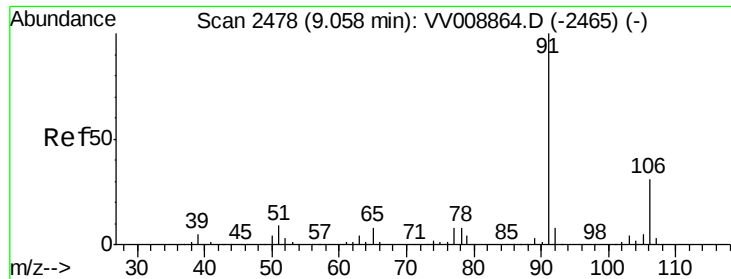
#52  
 Chlorobenzene  
 Concen: 24.495 ug/L  
 RT: 8.93 min Scan# 2437  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion:112 Resp: 166554  
 Ion Ratio Lower Upper  
 112 100  
 77 55.5 44.6 66.8  
 114 30.6 22.6 42.0



Abundance Ion 112.00 (111.70 to 112.70): V  
 Ion 77.00 (76.70 to 77.70): V  
 Ion 114.00 (113.70 to 114.70): V





#53

Ethylbenzene

Concen: 24.383 ug/L

RT: 9.05 min Scan# 2477

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

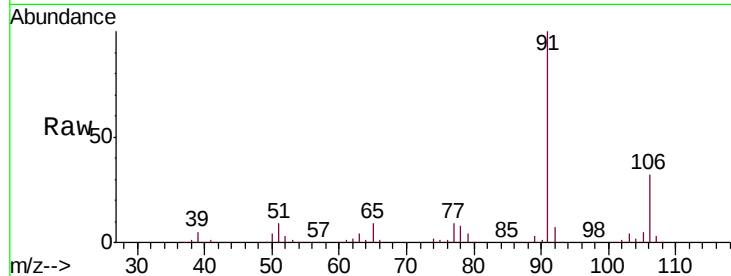
VSTD02575

Tgt Ion: 91 Resp: 276215

Ion Ratio Lower Upper

91 100

106 31.7 21.3 39.5



Abundance Ion 91.00 (90.70 to 91.70): VV008891.D (-2375) (-)

Ion 106.00 (105.70 to 106.70): VV008891.D (-2375) (-)

200000

150000

100000

50000

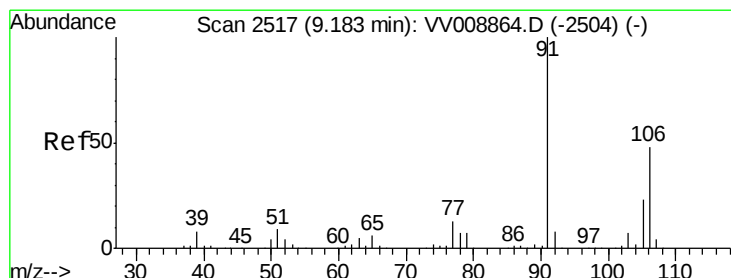
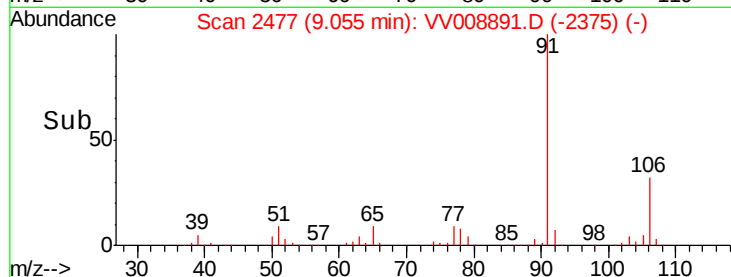
0

9.05

9.10

9.15

Time-->



#54

m,p-Xylene

Concen: 24.811 ug/L

RT: 9.18 min Scan# 2516

Delta R.T. -0.00 min

Lab File: VV008891.D

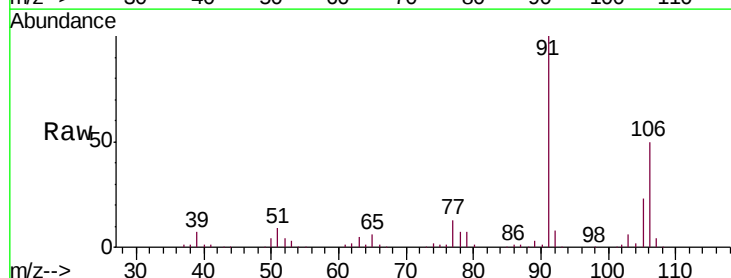
Acq: 11 Dec 2018 10:13

Tgt Ion: 106 Resp: 106425

Ion Ratio Lower Upper

106 100

91 199.8 141.3 262.3



Abundance Ion 106.00 (105.70 to 106.70): VV008891.D (-2414) (-)

Ion 91.00 (90.70 to 91.70): VV008891.D (-2414) (-)

150000

100000

50000

0

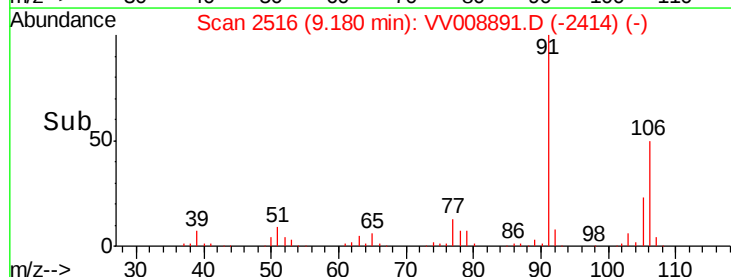
9.18

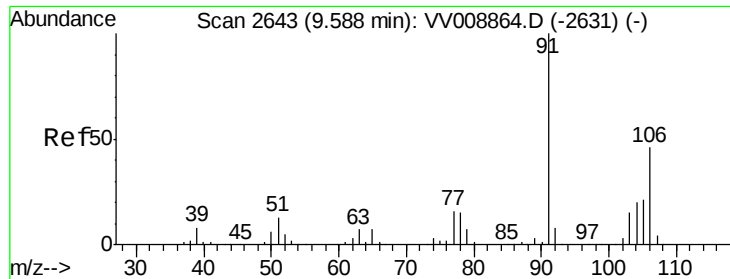
9.20

9.25

9.30

Time-->





#55

o-xylene

Concen: 24.477 ug/L

RT: 9.59 min Scan# 2643

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

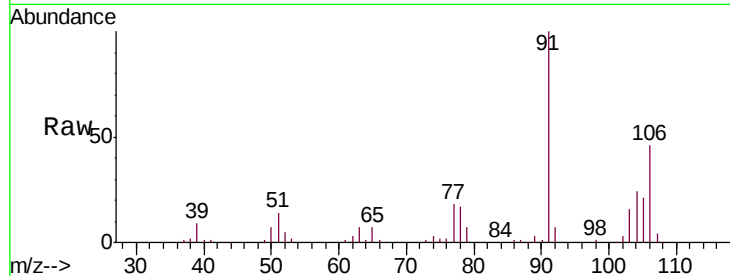
VSTD02575

Tgt Ion:106 Resp: 97550

Ion Ratio Lower Upper

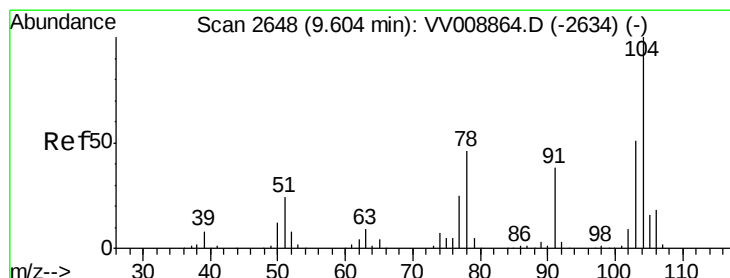
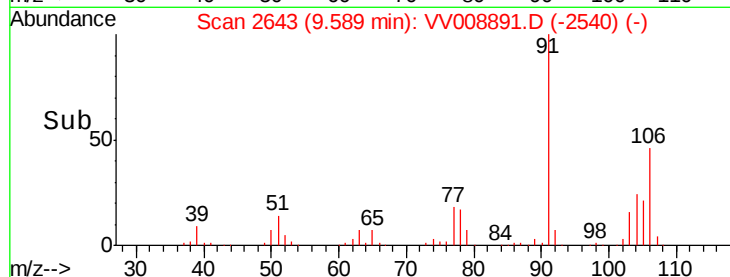
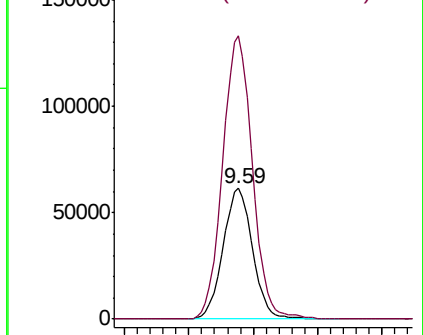
106 100

91 216.5 148.3 275.5



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VV0



#56

Styrene

Concen: 24.968 ug/L

RT: 9.60 min Scan# 2648

Delta R.T. 0.00 min

Lab File: VV008891.D

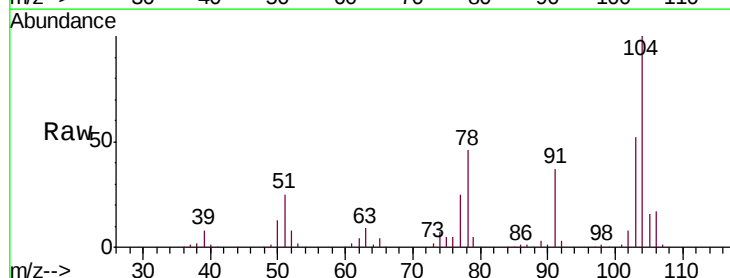
Acq: 11 Dec 2018 10:13

Tgt Ion:104 Resp: 160518

Ion Ratio Lower Upper

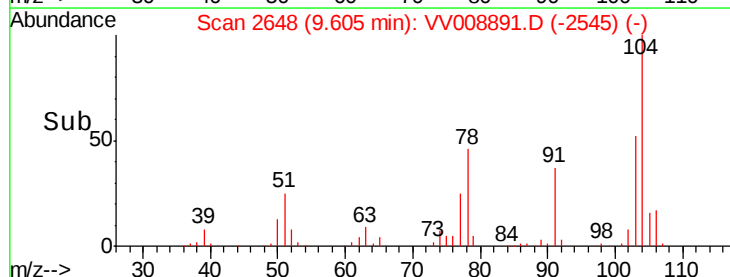
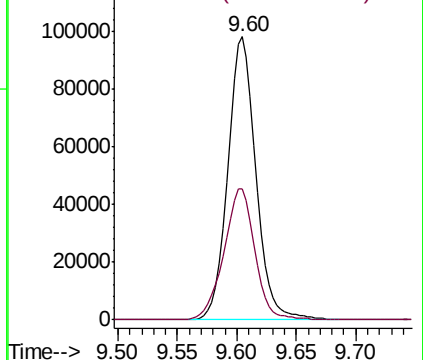
104 100

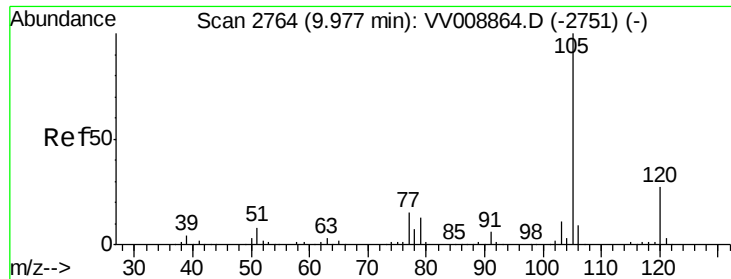
78 46.2 30.6 56.8



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VV0





#57

Isopropylbenzene

Concen: 24.792 ug/L

RT: 9.97 min Scan# 2763

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02575

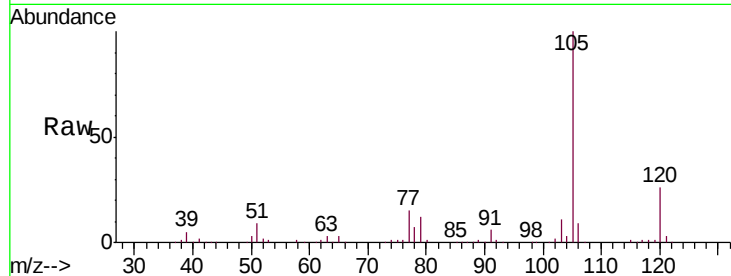
Tgt Ion: 105 Resp: 268538

Ion Ratio Lower Upper

105 100

120 26.6 21.7 32.5

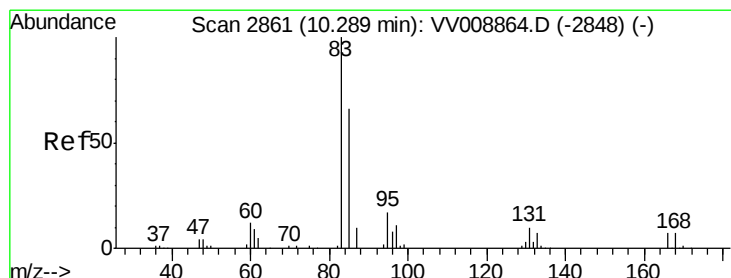
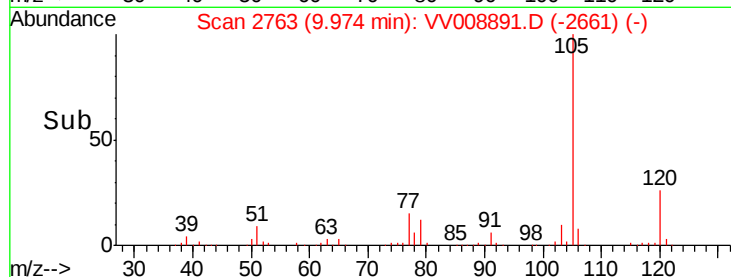
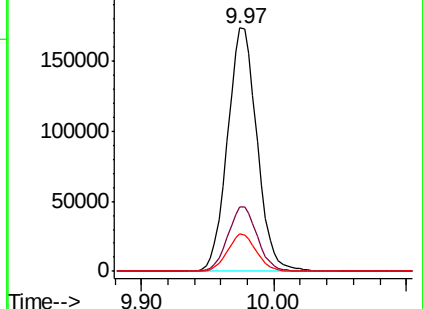
77 15.1 12.4 18.6



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: 24.519 ug/L

RT: 10.29 min Scan# 2860

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

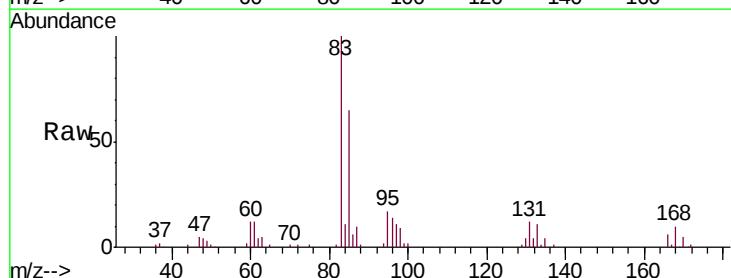
Tgt Ion: 83 Resp: 52779

Ion Ratio Lower Upper

83 100

85 64.6 44.3 82.3

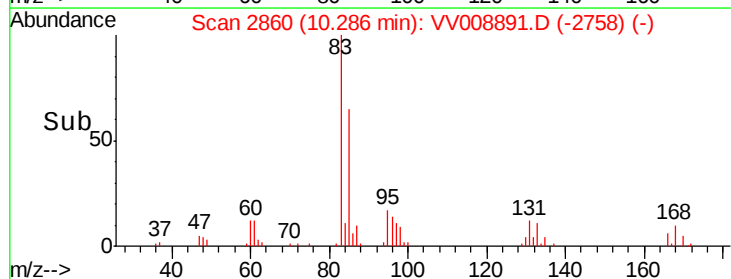
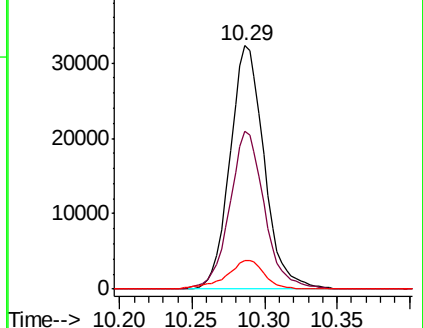
131 11.8 7.8 11.8#

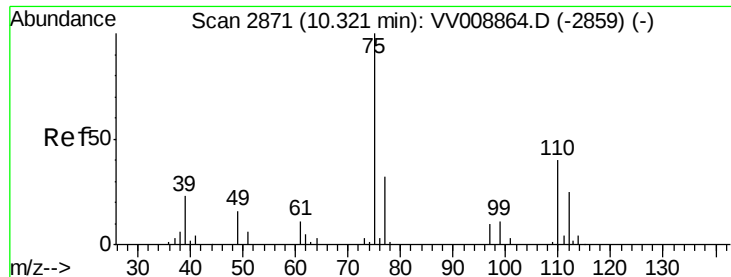


Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 131.00 (130.70 to 131.70): V

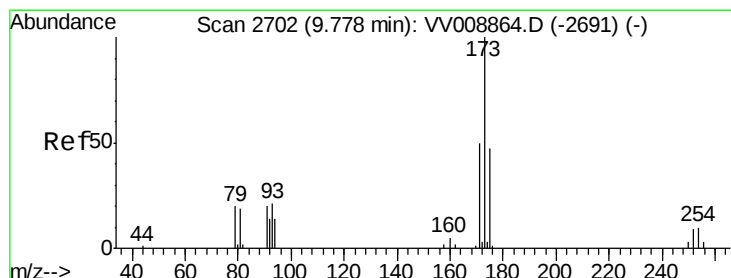
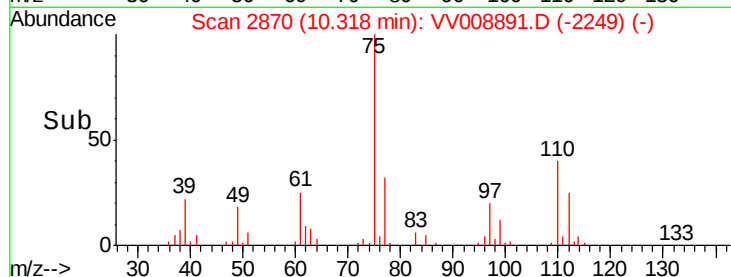
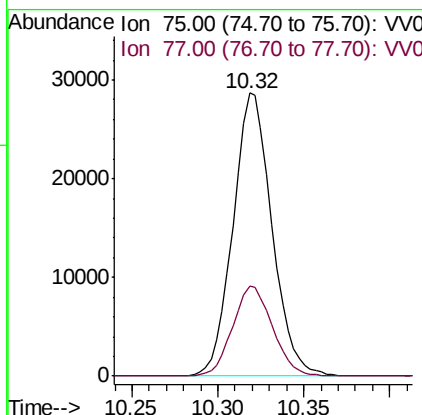
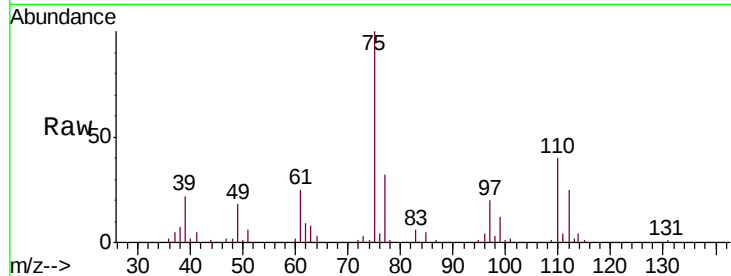




#59  
 1,2,3-Trichloropropane  
 Concen: 24.210 ug/L  
 RT: 10.32 min Scan# 2870  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

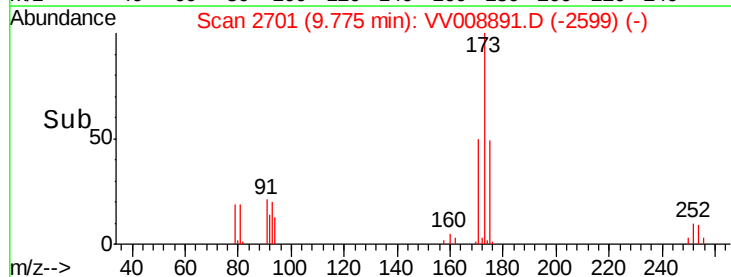
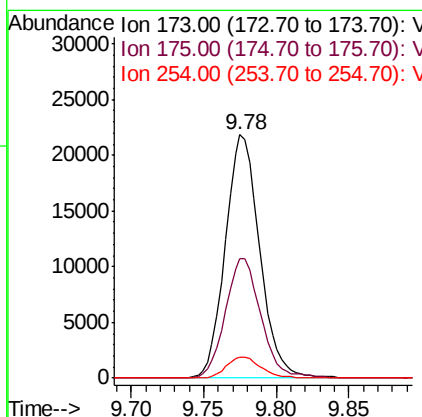
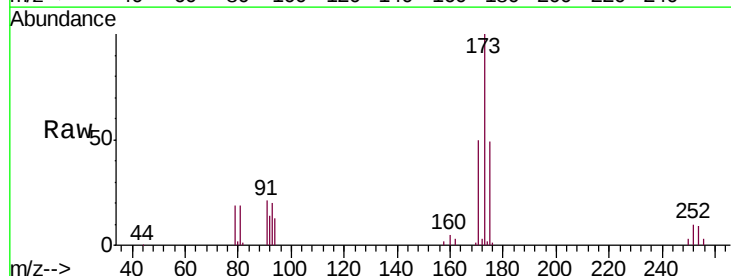
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

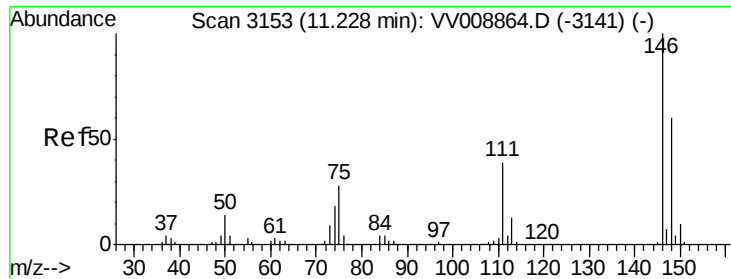
Tgt Ion: 75 Resp: 45092  
 Ion Ratio Lower Upper  
 75 100  
 77 32.3 25.6 38.4



#62  
 Bromoform  
 Concen: 26.591 ug/L  
 RT: 9.78 min Scan# 2701  
 Delta R.T. -0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion: 173 Resp: 35983  
 Ion Ratio Lower Upper  
 173 100  
 175 50.5 37.7 56.5  
 254 8.5 7.1 10.7





#63

1,3-Dichlorobenzene

Concen: 24.199 ug/L

RT: 11.23 min Scan# 3153

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02575

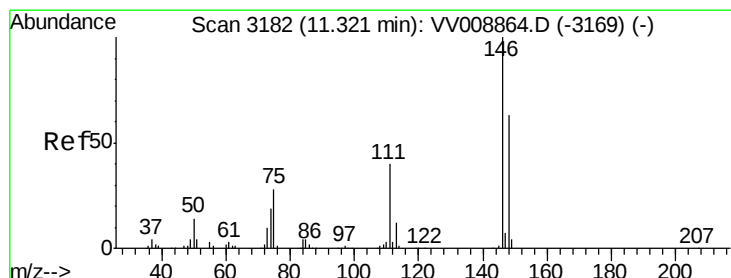
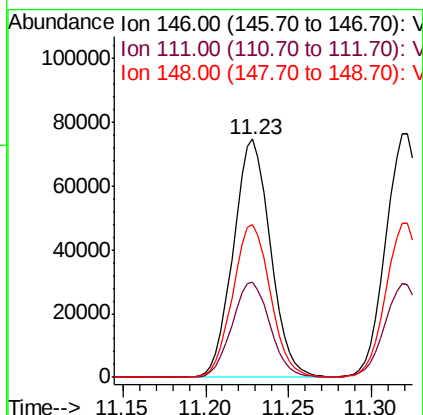
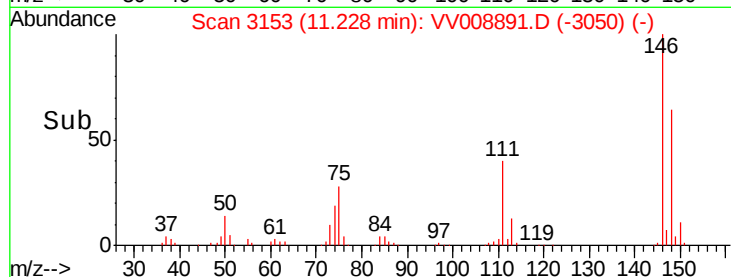
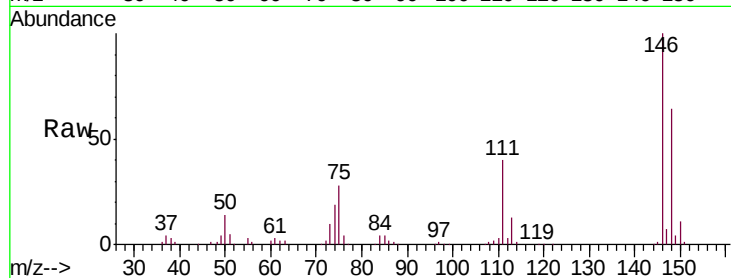
Tgt Ion:146 Resp: 116868

Ion Ratio Lower Upper

146 100

111 39.9 27.5 51.1

148 64.2 44.0 81.8



#64

1,4-Dichlorobenzene

Concen: 24.099 ug/L

RT: 11.32 min Scan# 3181

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

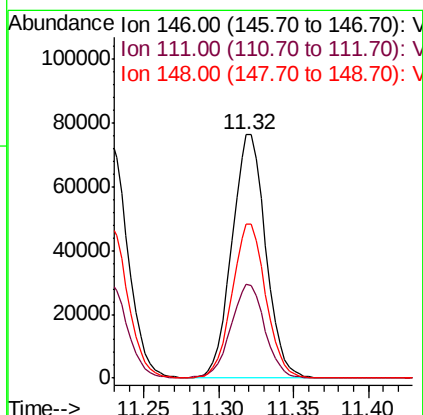
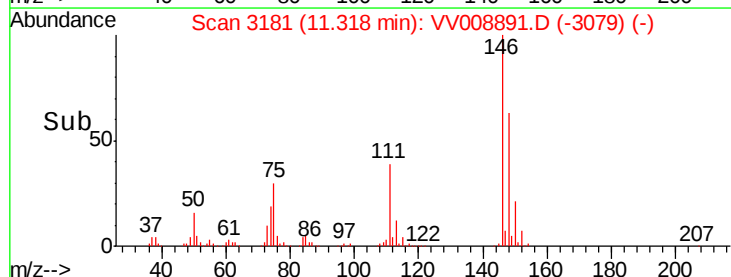
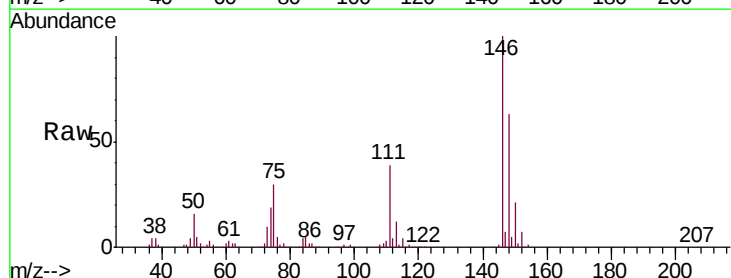
Tgt Ion:146 Resp: 119766

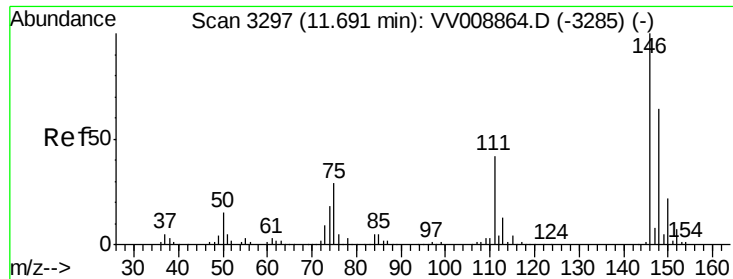
Ion Ratio Lower Upper

146 100

111 38.7 26.8 49.8

148 63.2 45.8 85.0

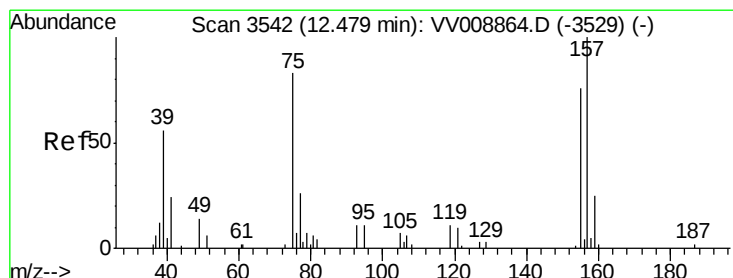
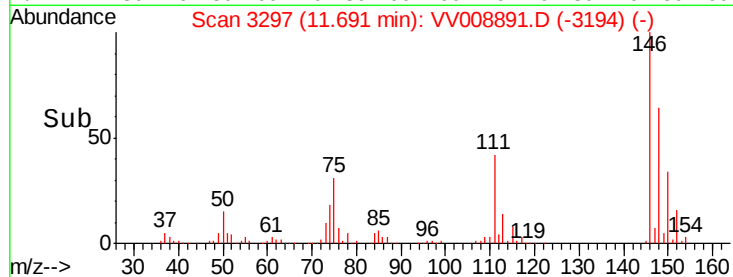
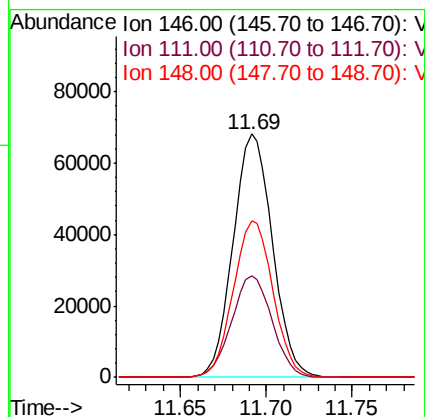
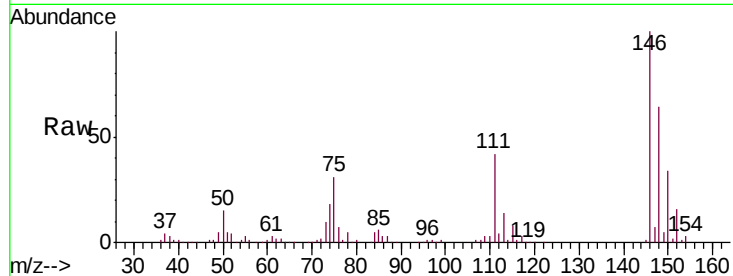




#65  
 1,2-Dichlorobenzene  
 Concen: 24.321 ug/L  
 RT: 11.69 min Scan# 3297  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

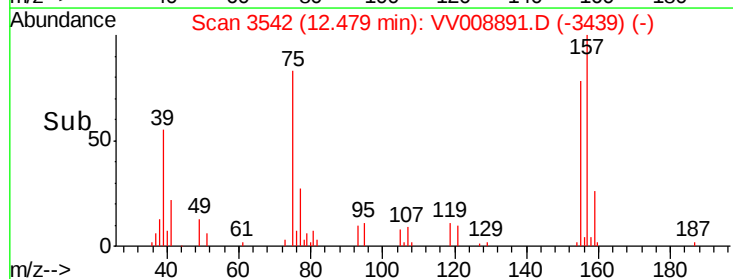
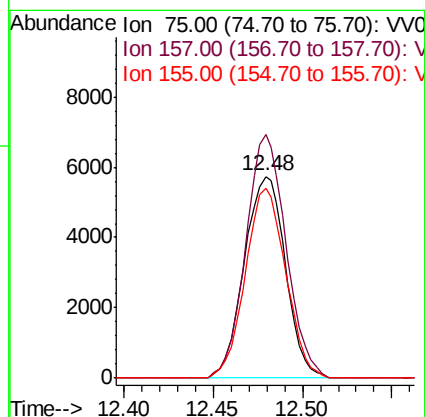
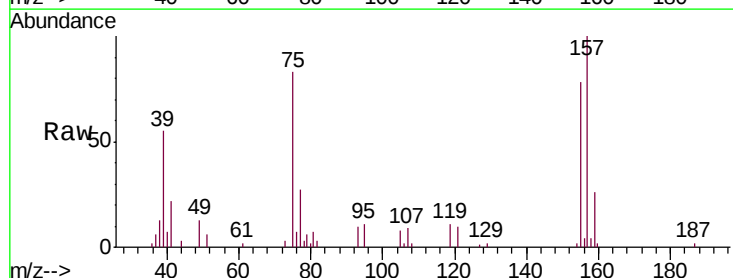
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

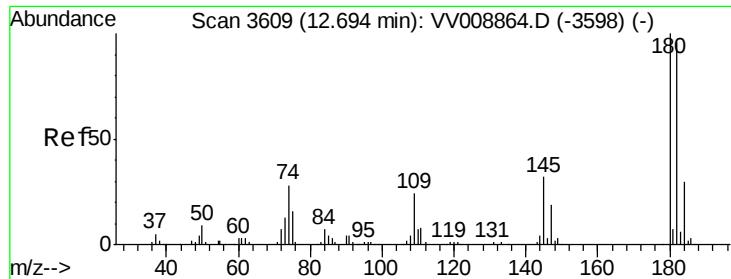
Tgt Ion: 146 Resp: 108282  
 Ion Ratio Lower Upper  
 146 100  
 111 41.6 34.2 51.4  
 148 64.4 51.0 76.6



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 25.398 ug/L  
 RT: 12.48 min Scan# 3542  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion: 75 Resp: 9264  
 Ion Ratio Lower Upper  
 75 100  
 157 120.7 95.8 143.6  
 155 94.4 71.4 107.2

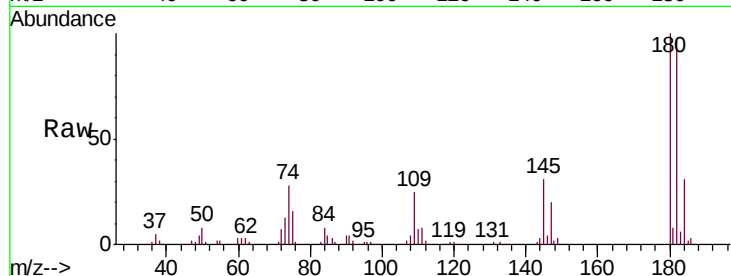




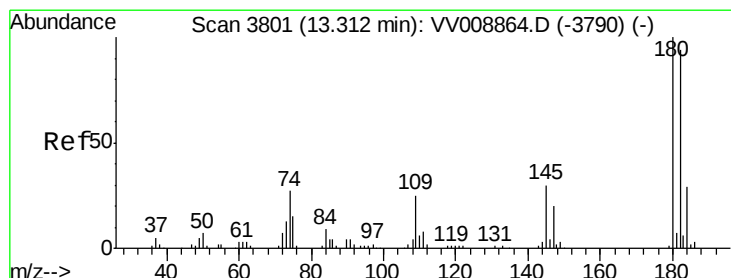
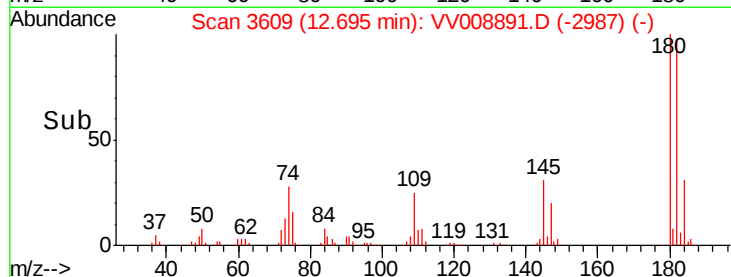
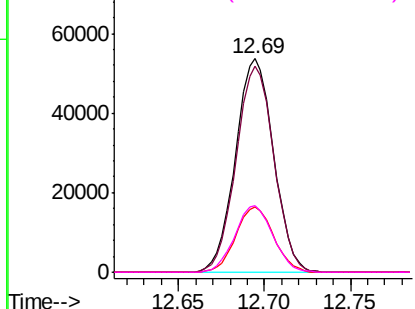
#67  
 1,3,5-Trichlorobenzene  
 Concen: 23.686 ug/L  
 RT: 12.69 min Scan# 3609  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02575

Tgt Ion:180 Resp: 82623  
 Ion Ratio Lower Upper  
 180 100  
 182 95.8 75.9 113.9  
 184 30.2 23.8 35.6  
 145 31.0 24.2 36.4

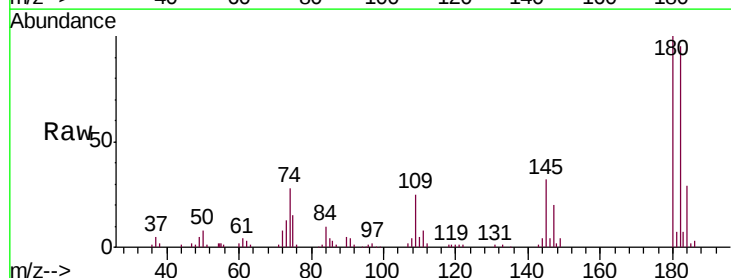


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

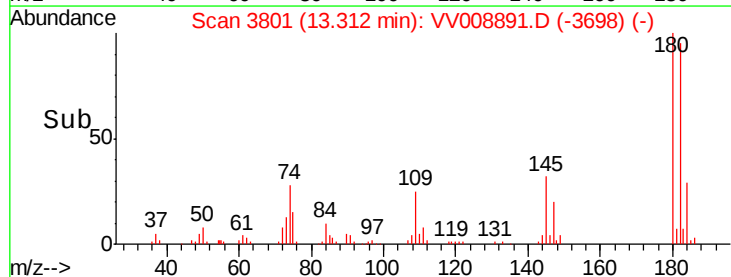
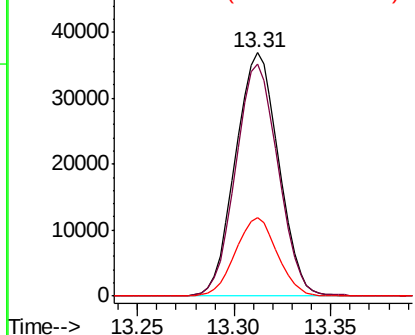


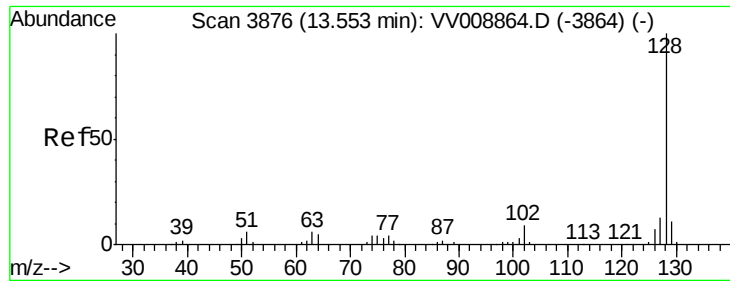
#68  
 1,2,4-trichlorobenzene  
 Concen: 23.468 ug/L  
 RT: 13.31 min Scan# 3801  
 Delta R.T. 0.00 min  
 Lab File: VV008891.D  
 Acq: 11 Dec 2018 10:13

Tgt Ion:180 Resp: 57359  
 Ion Ratio Lower Upper  
 180 100  
 182 93.9 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: 20.937 ug/L

RT: 13.55 min Scan# 3876

Delta R.T. 0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

Instrument :

MSVOA\_V

ClientSampleId :

VSTD02575

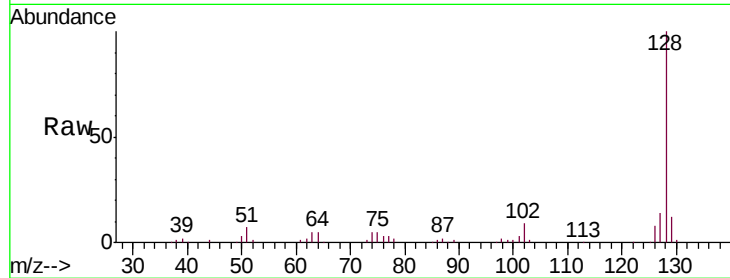
Tgt Ion:128 Resp: 88140

Ion Ratio Lower Upper

128 100

129 10.9 8.6 13.0

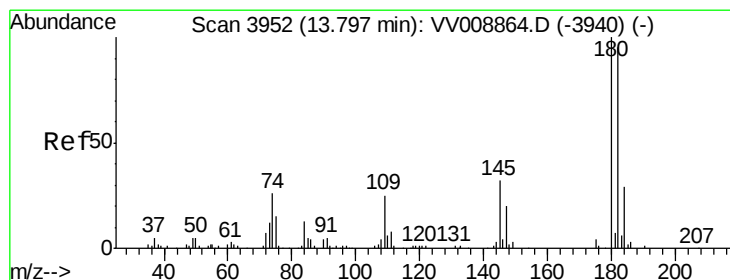
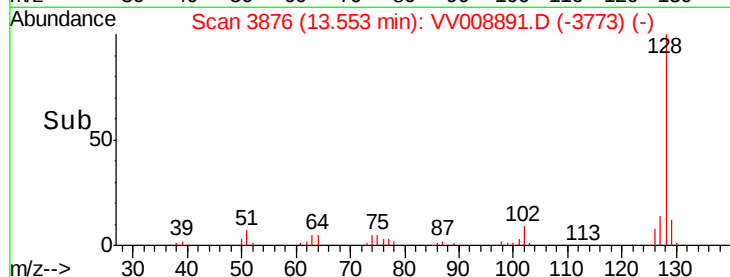
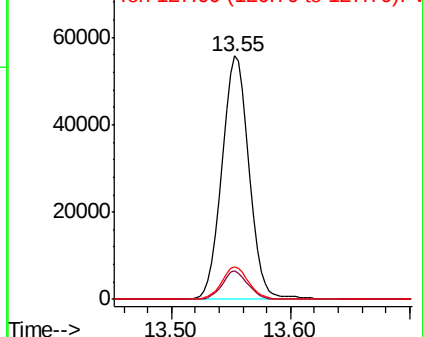
127 13.2 10.0 15.0



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: 23.553 ug/L

RT: 13.79 min Scan# 3951

Delta R.T. -0.00 min

Lab File: VV008891.D

Acq: 11 Dec 2018 10:13

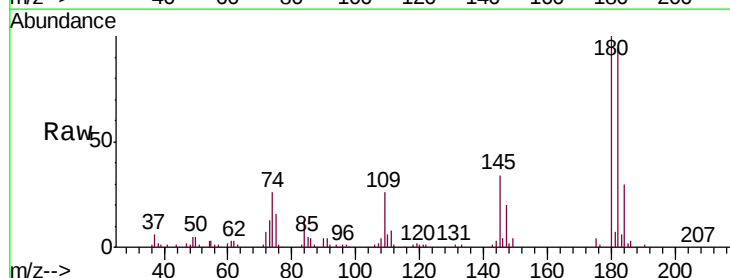
Tgt Ion:180 Resp: 53179

Ion Ratio Lower Upper

180 100

182 94.2 76.1 114.1

145 32.9 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

