

Data File : VV011137.D  
Acq On : 30 May 2019 15:02  
Operator : SY/MD  
Sample : VSTDICV025  
Misc : 5.00G/10ML/MSVOA\_V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

Quant Time: May 31 01:41:28 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM053019S.M  
Quant Title : VOC Analysis  
QLast Update : Thu May 30 14:54:22 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 328171   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 324428   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 158574   | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 106827   | 24.06    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 96.24%  |
| 7) Chloroethane-d5             | 1.56   | 69    | 86080    | 25.22    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 100.88% |
| 10) 1,1-Dichloroethene-d2      | 2.12   | 63    | 218975   | 24.02    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 96.08%  |
| 20) 2-Butanone-d5              | 3.93   | 46    | 104684   | 64.51    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 129.02% |
| 24) Chloroform-d               | 4.39   | 84    | 218950   | 27.29    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 109.16% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 146209   | 27.97    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 111.88% |
| 29) Benzene-d6                 | 5.09   | 84    | 460428   | 26.13    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 104.52% |
| 33) 1,2-Dichloropropane-d6     | 6.11   | 67    | 151034   | 26.75    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 107.00% |
| 37) Toluene-d8                 | 7.36   | 98    | 427766   | 25.73    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 102.92% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 70034    | 27.41    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 109.64% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 76760    | 59.83    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 119.66% |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 149475   | 29.38    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 117.52% |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 162368   | 27.36    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 109.44% |

#### Target Compounds

|                                |      |     |        |             | Qvalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 122801 | 23.173 ug/L | 99     |
| 3) Chloromethane               | 1.25 | 50  | 128233 | 24.749 ug/L | 100    |
| 5) Vinyl chloride              | 1.32 | 62  | 118416 | 22.924 ug/L | 100    |
| 6) Bromomethane                | 1.51 | 94  | 65976  | 23.693 ug/L | 98     |
| 8) Chloroethane                | 1.58 | 64  | 69608  | 23.290 ug/L | 99     |
| 9) Trichlorofluoromethane      | 1.75 | 101 | 168022 | 22.607 ug/L | 100    |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.13 | 101 | 85310  | 21.431 ug/L | 99     |
| 12) 1,1-Dichloroethene         | 2.13 | 96  | 82259  | 22.308 ug/L | 98     |
| 13) Acetone                    | 2.19 | 43  | 95947  | 50.821 ug/L | 100    |
| 14) Carbon disulfide           | 2.31 | 76  | 267390 | 22.579 ug/L | 99     |
| 15) Methyl Acetate             | 2.45 | 43  | 72966  | 25.685 ug/L | 98     |
| 16) Methylene chloride         | 2.53 | 84  | 114605 | 22.916 ug/L | 98     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 312350 | 24.434 ug/L | 99     |
| 18) trans-1,2-Dichloroethene   | 2.78 | 96  | 101359 | 22.566 ug/L | 98     |
| 19) 1,1-Dichloroethane         | 3.22 | 63  | 202231 | 23.269 ug/L | 99     |
| 21) 2-Butanone                 | 4.02 | 43  | 117067 | 52.854 ug/L | 99     |
| 22) cis-1,2-Dichloroethene     | 3.95 | 96  | 119508 | 23.822 ug/L | 99     |

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Misc : 5.00G/10ML/MSVOA\_V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

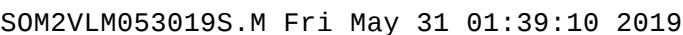
Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

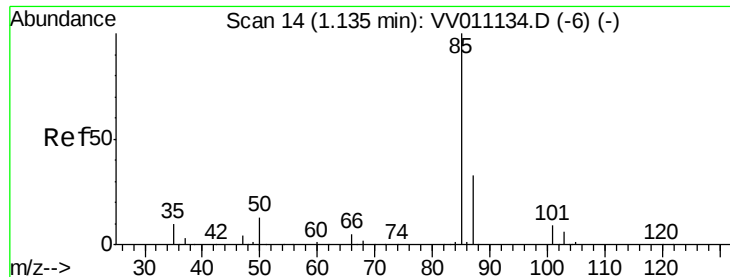
Quant Time: May 31 01:41:28 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM053019S.M  
Quant Title : VOC Analysis  
QLast Update : Thu May 30 14:54:22 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 4.29  | 128  | 52788    | 23.914 | ug/L  | 92       |
| 25) Chloroform                 | 4.42  | 83   | 215587   | 23.218 | ug/L  | 100      |
| 27) 1,2-Dichloroethane         | 5.17  | 62   | 160131   | 24.628 | ug/L  | 98       |
| 30) Cyclohexane                | 4.71  | 56   | 186173   | 21.459 | ug/L  | 100      |
| 31) 1,1,1-Trichloroethane      | 4.65  | 97   | 165659   | 22.296 | ug/L  | 99       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 139333   | 22.120 | ug/L  | 99       |
| 34) Benzene                    | 5.14  | 78   | 440491   | 22.904 | ug/L  | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 113095   | 22.426 | ug/L  | 99       |
| 36) Methylcyclohexane          | 6.17  | 83   | 182141   | 21.343 | ug/L  | 99       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 117219   | 23.186 | ug/L  | 100      |
| 41) Bromodichloromethane       | 6.55  | 83   | 154519   | 23.465 | ug/L  | 100      |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 191819   | 23.865 | ug/L  | 99       |
| 43) 4-Methyl-2-pentanone       | 7.27  | 43   | 235168   | 51.205 | ug/L  | 100      |
| 44) Toluene                    | 7.43  | 91   | 478405   | 22.788 | ug/L  | 98       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 165121   | 24.069 | ug/L  | 100      |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 94623    | 23.996 | ug/L  | 98       |
| 47) Tetrachloroethene          | 8.02  | 164  | 80626    | 21.575 | ug/L  | 98       |
| 49) 2-Hexanone                 | 8.18  | 43   | 171779   | 51.912 | ug/L  | 98       |
| 50) Dibromochloromethane       | 8.29  | 129  | 108435   | 24.333 | ug/L  | 98       |
| 51) 1,2-Dibromoethane          | 8.39  | 107  | 94015    | 24.582 | ug/L  | 99       |
| 52) Chlorobenzene              | 8.92  | 112  | 308492   | 22.956 | ug/L  | 98       |
| 53) Ethylbenzene               | 9.05  | 91   | 545963   | 22.665 | ug/L  | 99       |
| 54) m,p-Xylene                 | 9.18  | 106  | 201964   | 22.541 | ug/L  | 98       |
| 55) o-xylene                   | 9.59  | 106  | 202766   | 23.010 | ug/L  | 98       |
| 56) Styrene                    | 9.60  | 104  | 353635   | 23.892 | ug/L  | 96       |
| 57) Isopropylbenzene           | 9.97  | 105  | 530139   | 22.531 | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.28 | 83   | 132319   | 24.693 | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 105044   | 25.925 | ug/L  | 97       |
| 62) Bromoform                  | 9.78  | 173  | 61722    | 24.967 | ug/L  | 100      |
| 63) 1,3-Dichlorobenzene        | 11.23 | 146  | 240610   | 23.424 | ug/L  | 99       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 240239   | 23.048 | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 232021   | 23.857 | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 24488    | 25.951 | ug/L  | 95       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 178334   | 23.226 | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 148538   | 24.107 | ug/L  | 99       |
| 69) Naphthalene                | 13.55 | 128  | 348386   | 27.504 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 143738   | 25.153 | ug/L  | 98       |

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

Quant Time: May 31 01:41:28 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSV0A\_V\METHOD\SOM2VLM053019S.M  
Quant Title : VOC Analysis  
QLast Update : Thu May 30 14:54:22 2019  
Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 23.173 ug/L

RT: 1.14 min Scan# 14

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

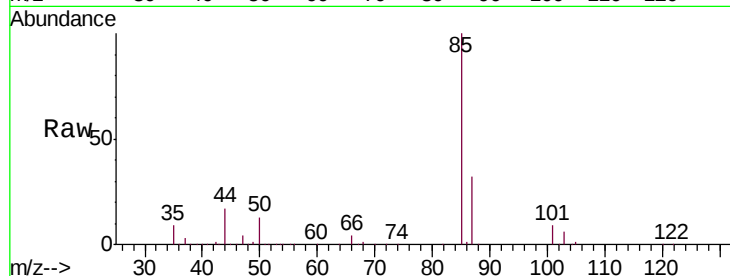
VICV72

Tgt Ion: 85 Resp: 122801

Ion Ratio Lower Upper

85 100

87 31.9 22.8 42.4



Abundance Ion 85.00 (84.70 to 85.70): VV011137.D (-6) (-)

Ion 87.00 (86.70 to 87.70): VV011137.D (-6) (-)

1.14

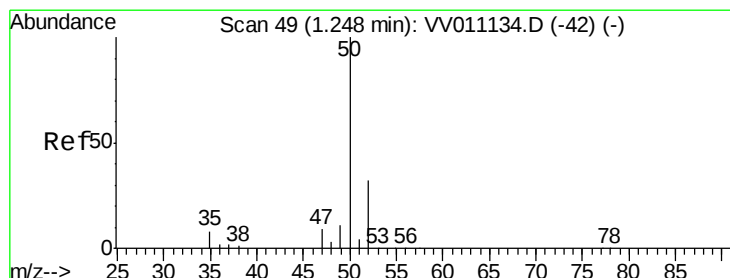
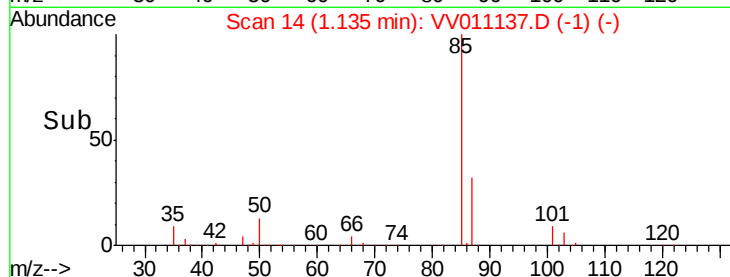
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 24.749 ug/L

RT: 1.25 min Scan# 49

Delta R.T. 0.00 min

Lab File: VV011137.D

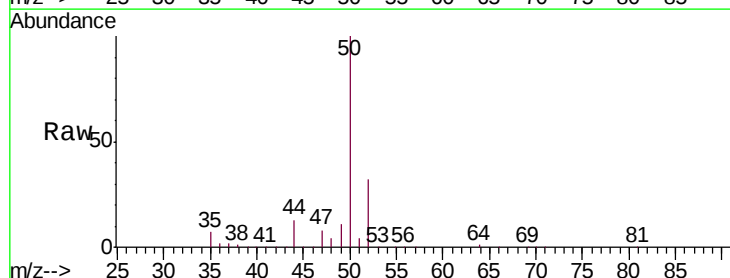
Acq: 30 May 2019 15:02

Tgt Ion: 50 Resp: 128233

Ion Ratio Lower Upper

50 100

52 32.1 22.5 41.9



Abundance Ion 50.00 (49.70 to 50.70): VV011137.D (-42) (-)

Ion 52.00 (51.70 to 52.70): VV011137.D (-42) (-)

1.25

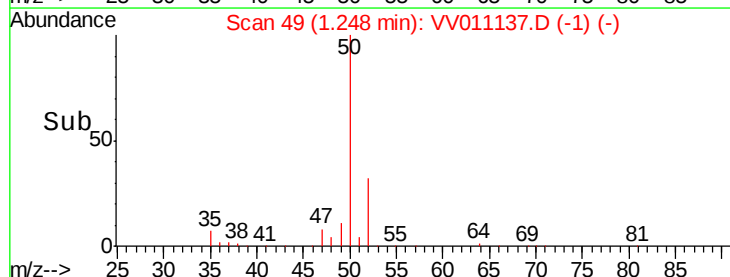
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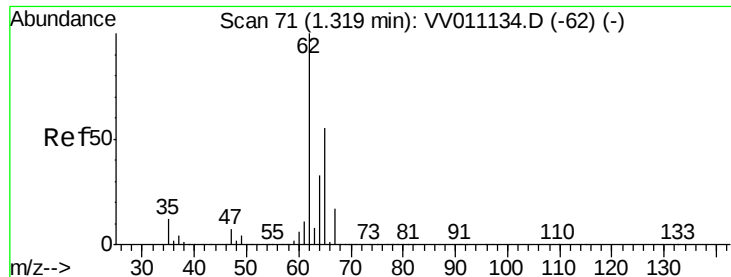
100000

50000

0

Time-->





#5

Vinyl chloride

Concen: 22.924 ug/L

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

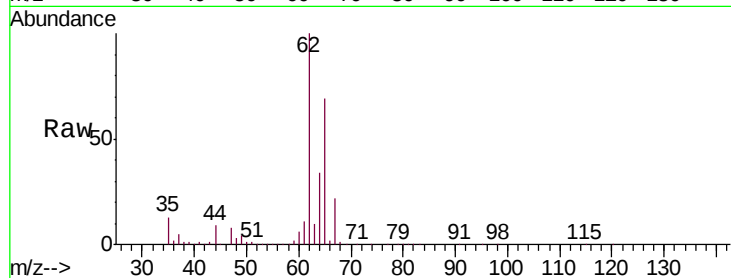
VICV72

Tgt Ion: 62 Resp: 118416

Ion Ratio Lower Upper

62 100

64 33.8 23.7 44.1



Abundance Ion 62.00 (61.70 to 62.70): VV0

Ion 64.00 (63.70 to 64.70): VV0

150000

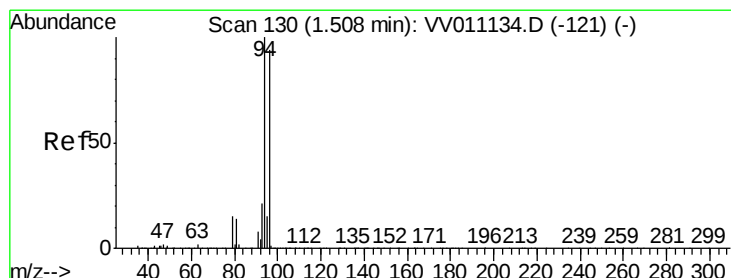
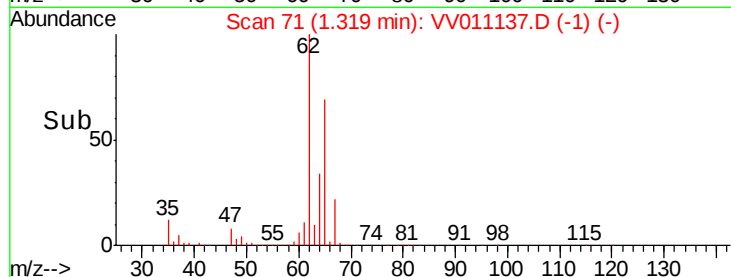
100000

50000

0

1.30 1.35

Time-->



#6

Bromomethane

Concen: 23.693 ug/L

RT: 1.51 min Scan# 130

Delta R.T. 0.00 min

Lab File: VV011137.D

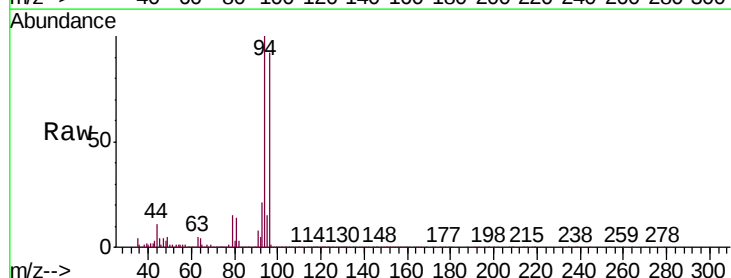
Acq: 30 May 2019 15:02

Tgt Ion: 94 Resp: 65976

Ion Ratio Lower Upper

94 100

96 92.3 9.4 179.5



Abundance Ion 94.00 (93.70 to 94.70): VV0

Ion 96.00 (95.70 to 96.70): VV0

80000

60000

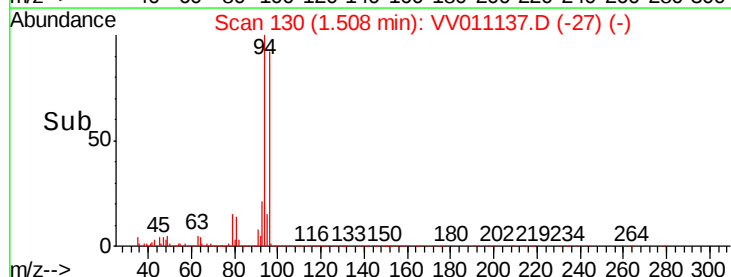
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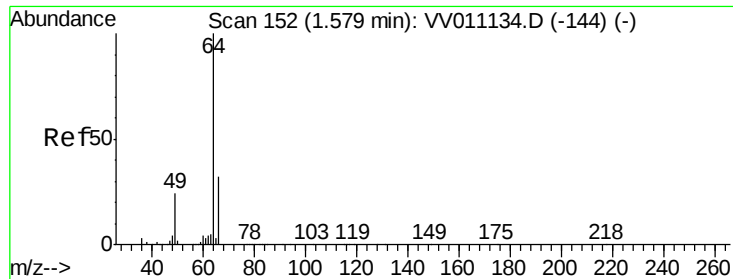
20000

0

1.50 1.55

Time-->





#8

Chloroethane

Concen: 23.290 ug/L

RT: 1.58 min Scan# 151

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

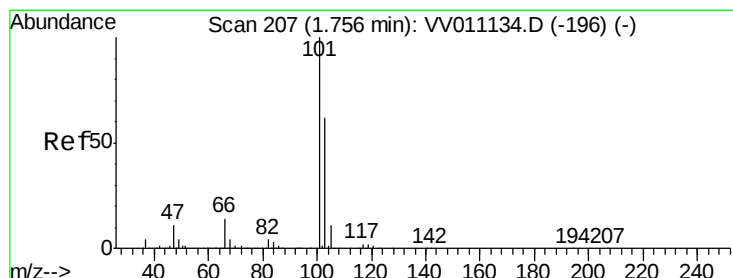
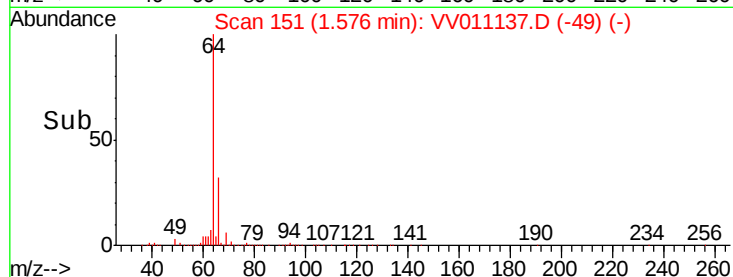
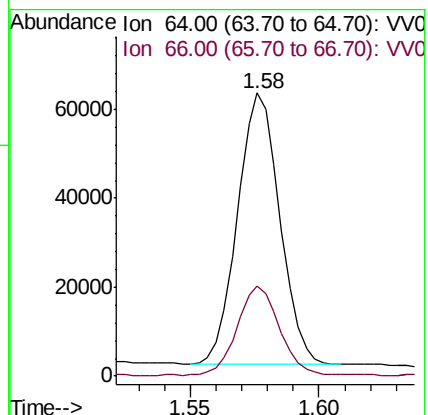
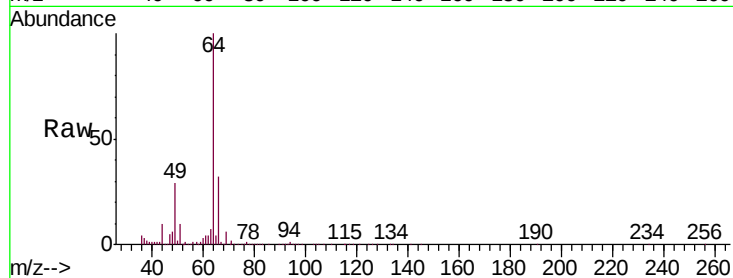
VICV72

Tgt Ion: 64 Resp: 69608

Ion Ratio Lower Upper

64 100

66 31.7 21.7 40.3



#9

Trichlorofluoromethane

Concen: 22.607 ug/L

RT: 1.75 min Scan# 206

Delta R.T. -0.00 min

Lab File: VV011137.D

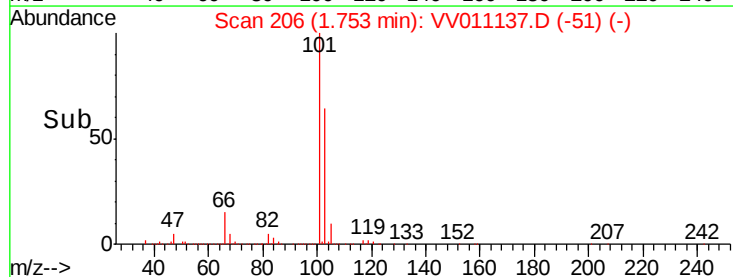
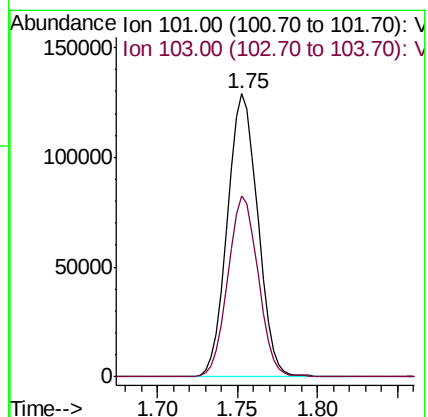
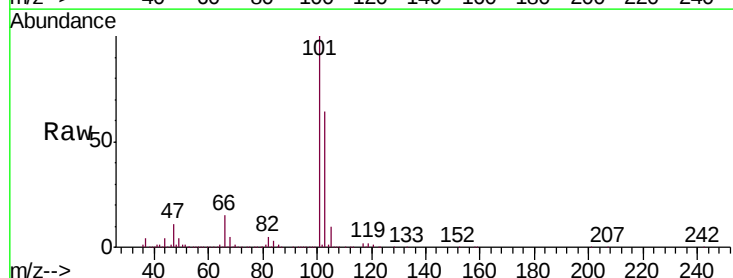
Acq: 30 May 2019 15:02

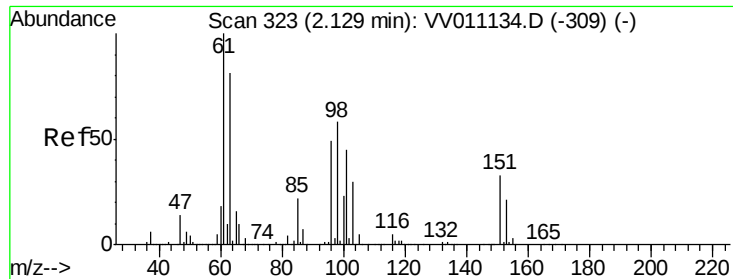
Tgt Ion: 101 Resp: 168022

Ion Ratio Lower Upper

101 100

103 63.6 44.4 82.4





#11

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

Concen: 21.431 ug/L

RT: 2.13 min Scan# 322

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampled :

VICV72

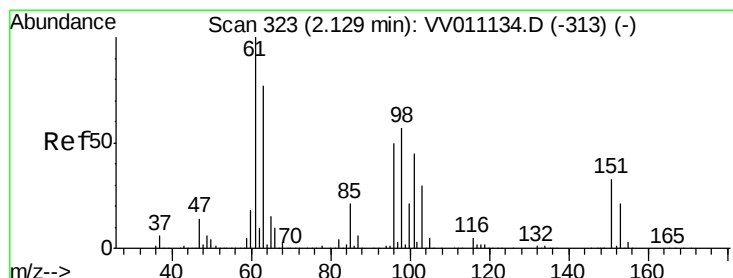
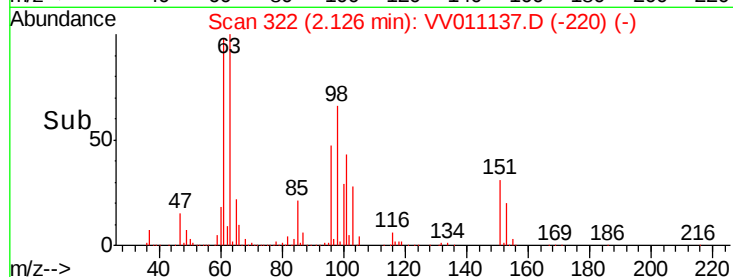
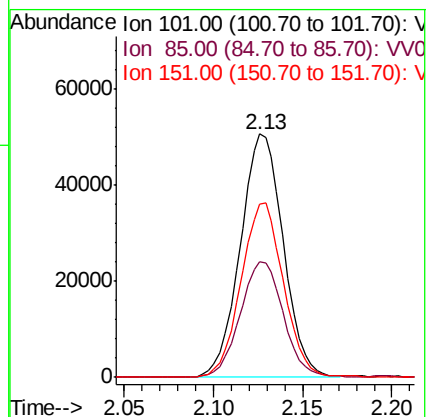
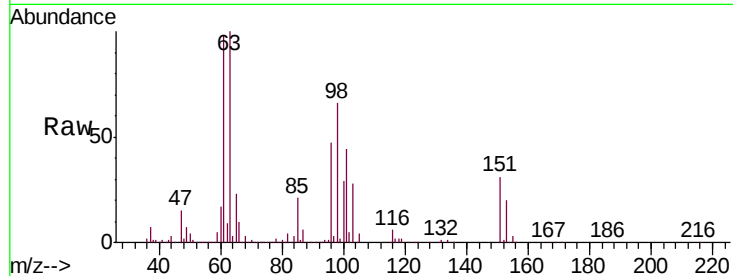
Tgt Ion: 101 Resp: 85310

Ion Ratio Lower Upper

101 100

85 47.6 37.4 56.2

151 70.6 57.1 85.7



#12

1,1-Dichloroethene

Concen: 22.308 ug/L

RT: 2.13 min Scan# 323

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

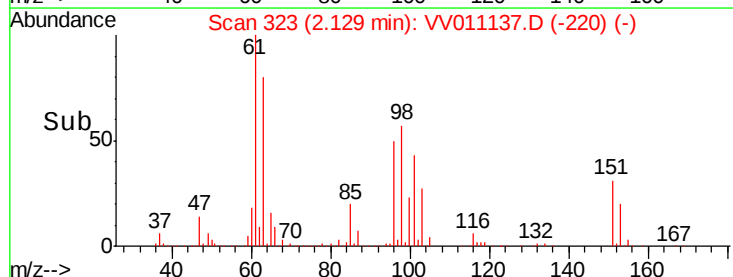
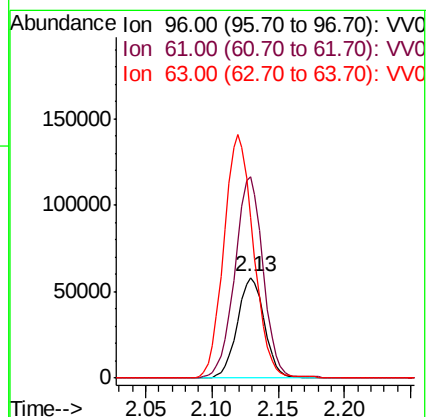
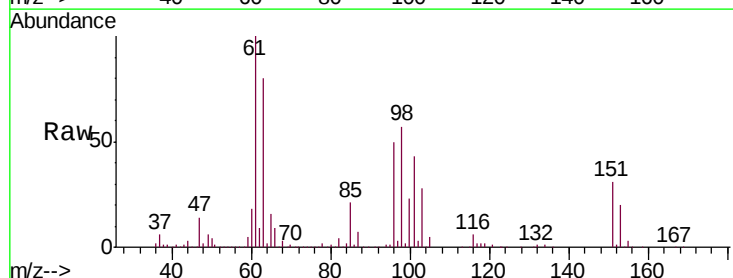
Tgt Ion: 96 Resp: 82259

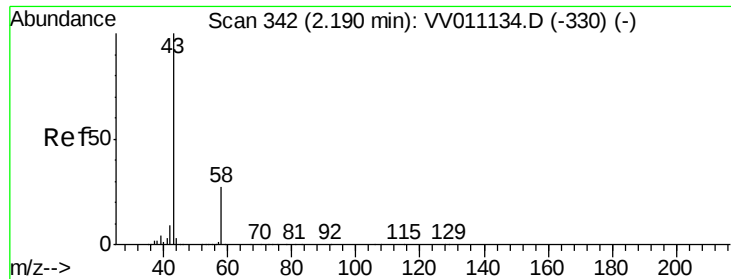
Ion Ratio Lower Upper

96 100

61 200.3 141.6 263.0

63 159.6 114.4 212.4





#13

Acetone

Concen: 50.821 ug/L

RT: 2.19 min Scan# 341

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

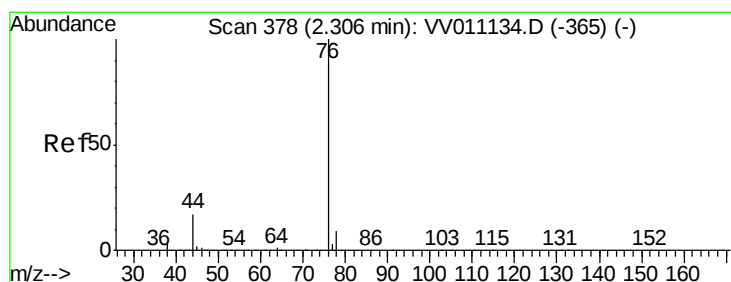
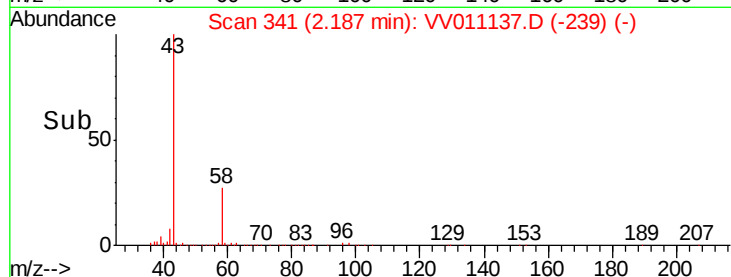
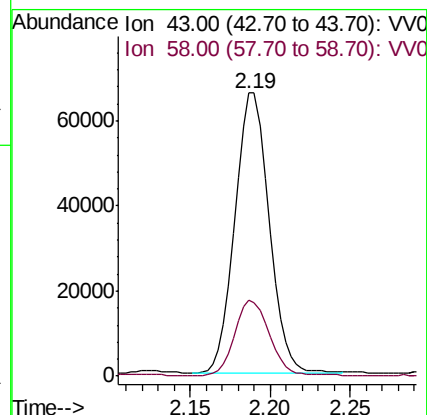
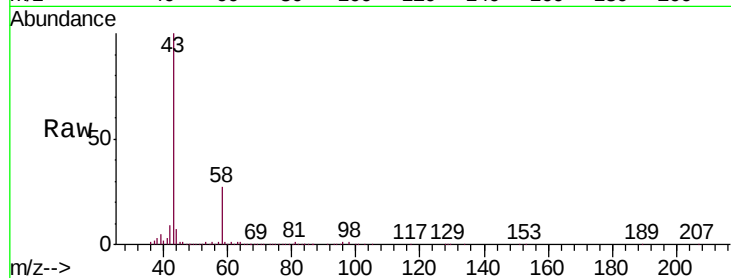
VICV72

Tgt Ion: 43 Resp: 95947

Ion Ratio Lower Upper

43 100

58 26.8 0.0 53.8



#14

Carbon disulfide

Concen: 22.579 ug/L

RT: 2.31 min Scan# 378

Delta R.T. 0.00 min

Lab File: VV011137.D

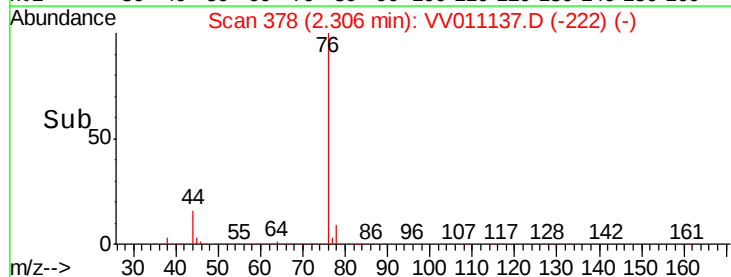
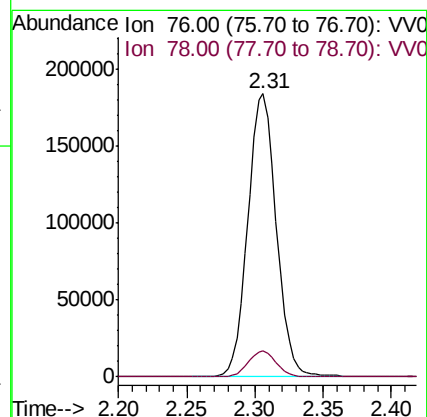
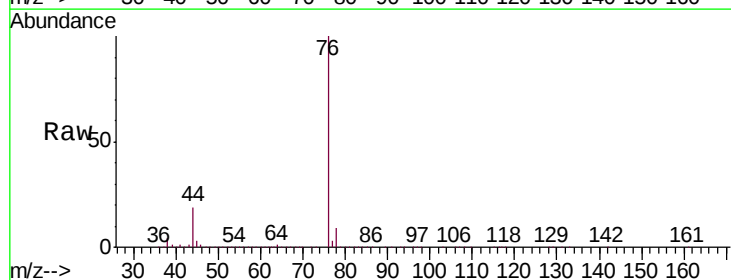
Acq: 30 May 2019 15:02

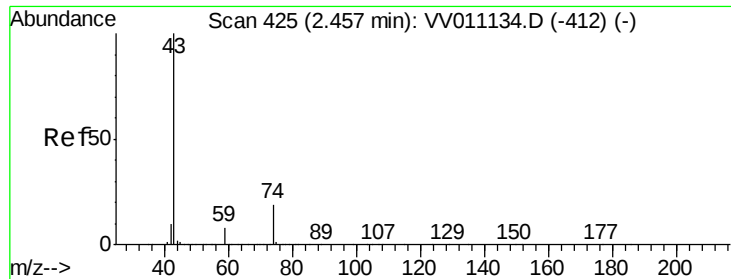
Tgt Ion: 76 Resp: 267390

Ion Ratio Lower Upper

76 100

78 9.2 7.2 10.8

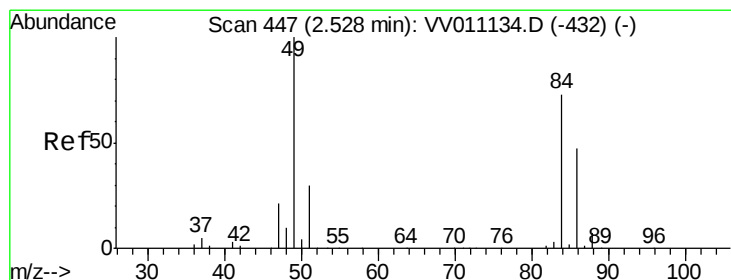
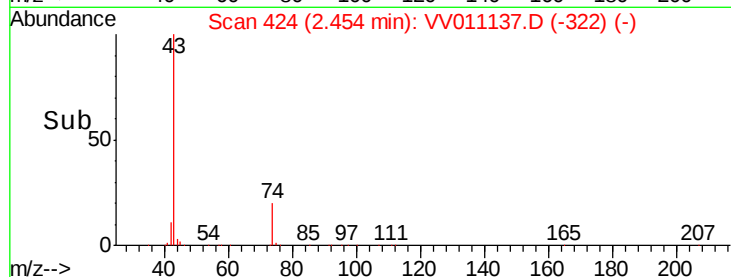
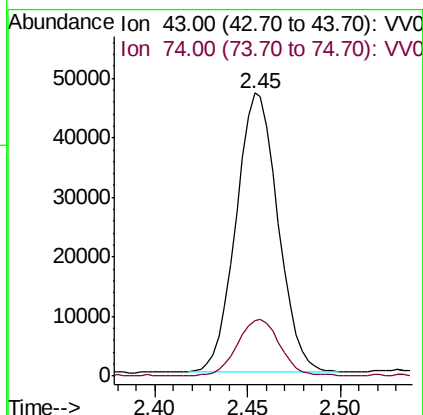
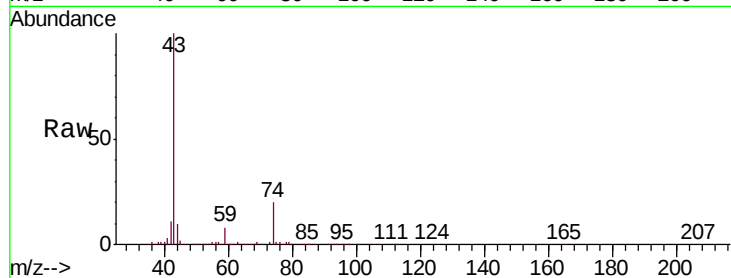




#15  
Methyl Acetate  
Concen: 25.685 ug/L  
RT: 2.45 min Scan# 424  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

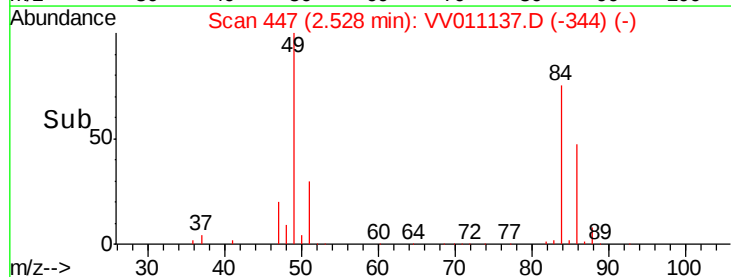
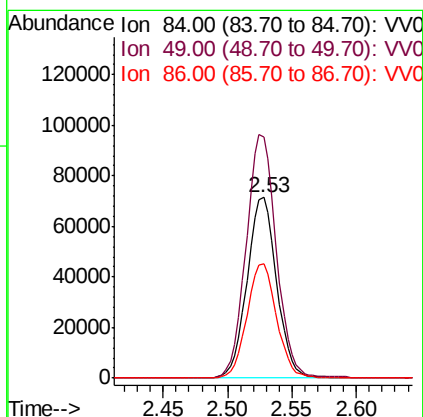
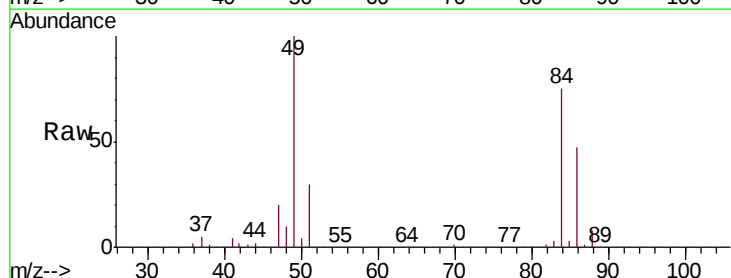
Instrument :  
MSVOA\_V  
ClientSampled :  
VICV72

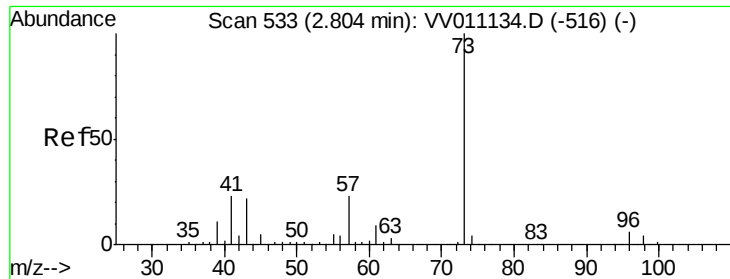
Tgt Ion: 43 Resp: 72966  
Ion Ratio Lower Upper  
43 100  
74 21.1 16.2 24.4



#16  
Methylene chloride  
Concen: 22.916 ug/L  
RT: 2.53 min Scan# 447  
Delta R.T. 0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Tgt Ion: 84 Resp: 114605  
Ion Ratio Lower Upper  
84 100  
49 133.8 96.1 178.5  
86 63.2 45.0 83.6

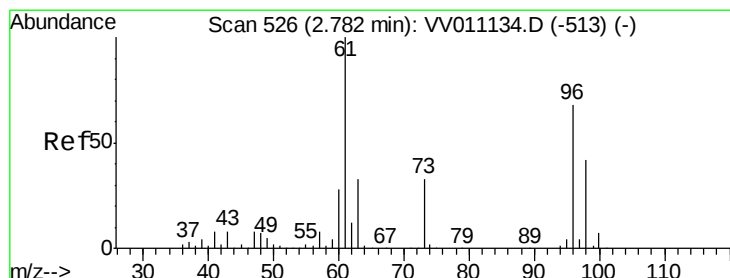
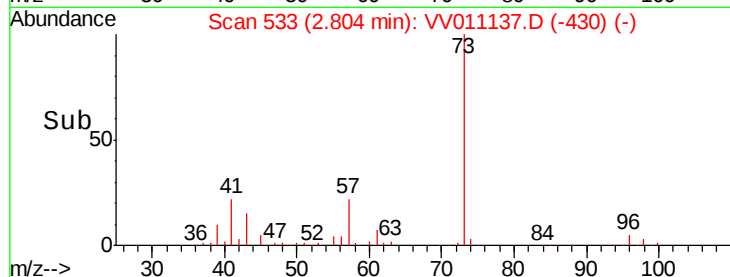
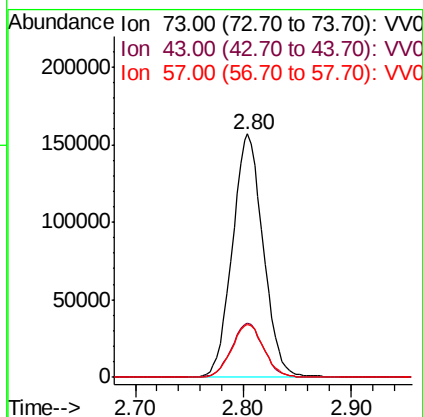
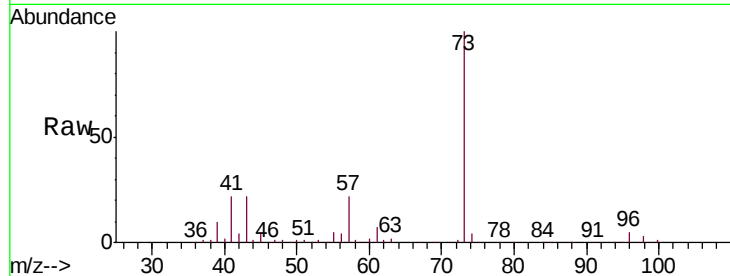




#17  
Methyl tert-butyl Ether  
Concen: 24.434 ug/L  
RT: 2.80 min Scan# 533  
Delta R.T. 0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

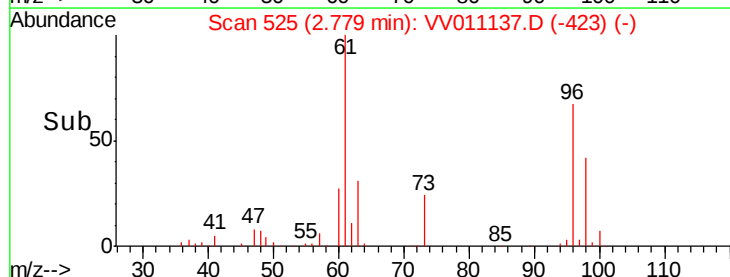
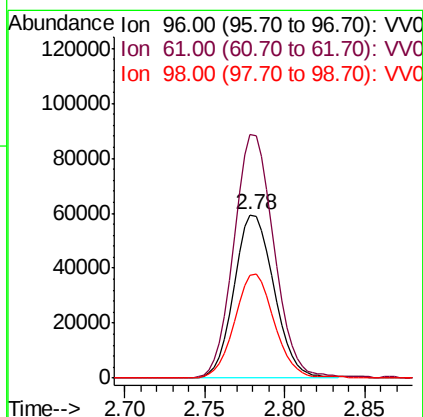
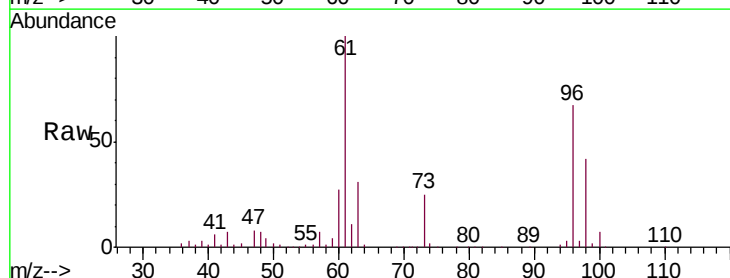
Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

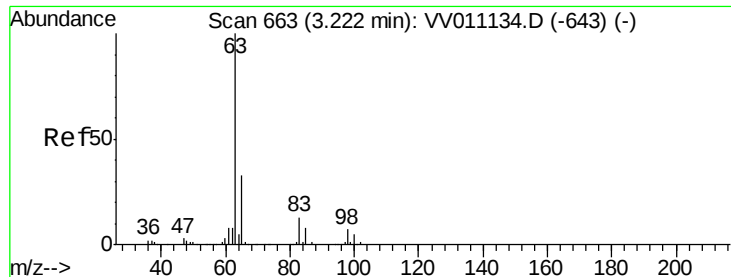
Tgt Ion: 73 Resp: 312350  
Ion Ratio Lower Upper  
73 100  
43 22.4 17.5 26.3  
57 22.6 18.2 27.4



#18  
trans-1,2-Dichloroethene  
Concen: 22.566 ug/L  
RT: 2.78 min Scan# 525  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Tgt Ion: 96 Resp: 101359  
Ion Ratio Lower Upper  
96 100  
61 149.2 102.6 190.5  
98 62.7 43.3 80.3





#19

1,1-Dichloroethane

Concen: 23.269 ug/L

RT: 3.22 min Scan# 662

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

VICV72

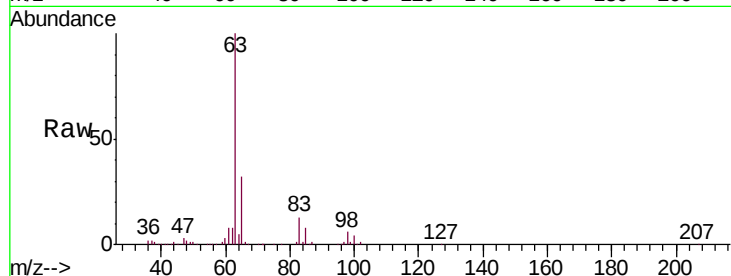
Tgt Ion: 63 Resp: 202231

Ion Ratio Lower Upper

63 100

65 31.9 22.7 42.3

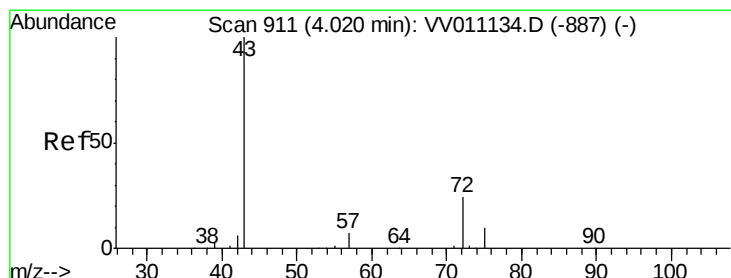
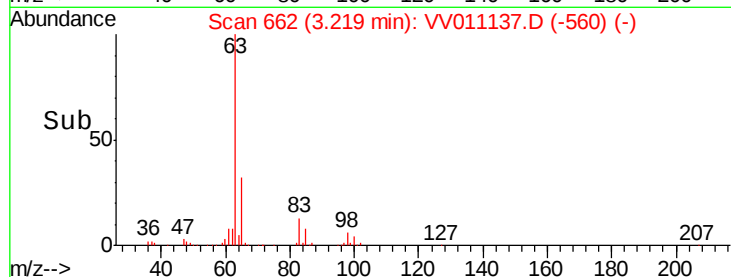
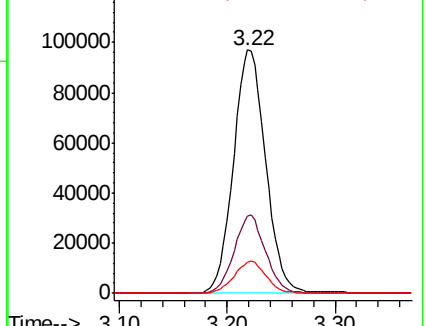
83 12.8 9.2 17.0



Abundance Ion 63.00 (62.70 to 63.70): VV0

Ion 65.00 (64.70 to 65.70): VV0

Ion 83.00 (82.70 to 83.70): VV0



#21

2-Butanone

Concen: 52.854 ug/L

RT: 4.02 min Scan# 910

Delta R.T. -0.00 min

Lab File: VV011137.D

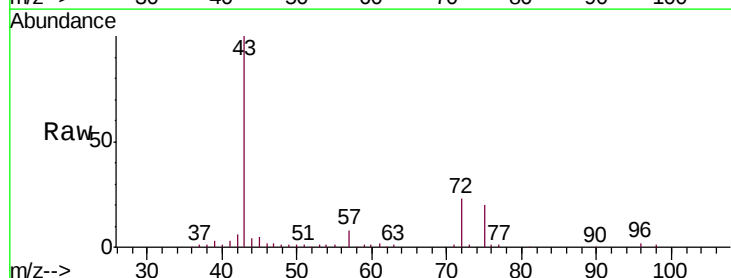
Acq: 30 May 2019 15:02

Tgt Ion: 43 Resp: 117067

Ion Ratio Lower Upper

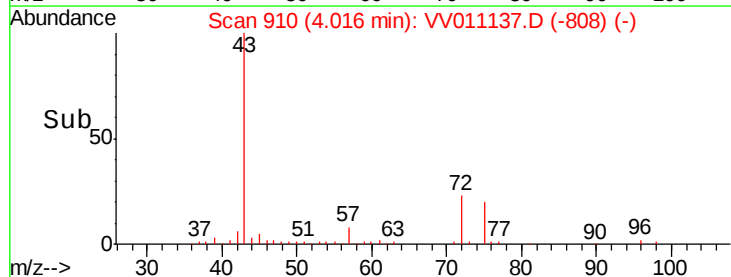
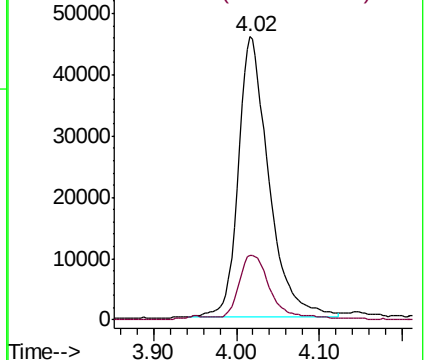
43 100

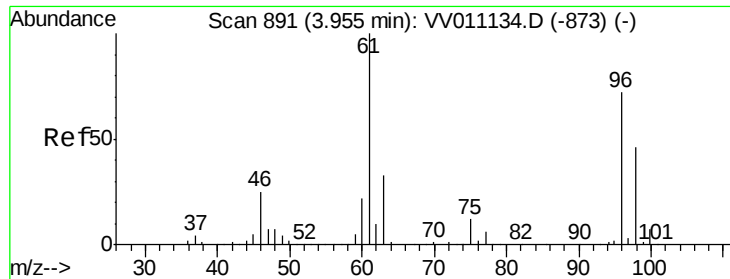
72 21.9 11.1 33.3



Abundance Ion 43.00 (42.70 to 43.70): VV0

Ion 72.00 (71.70 to 72.70): VV0



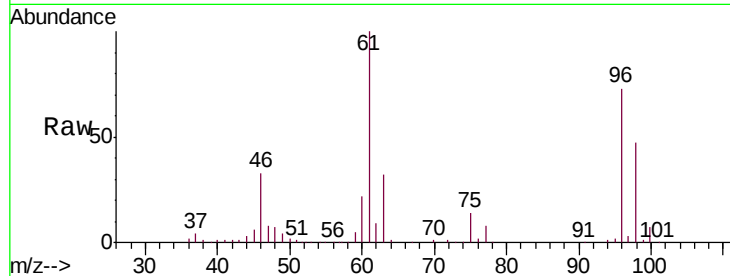


#22

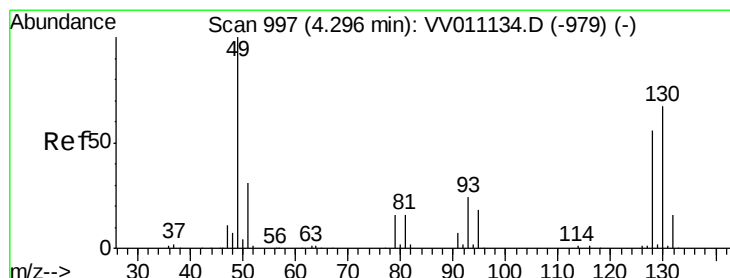
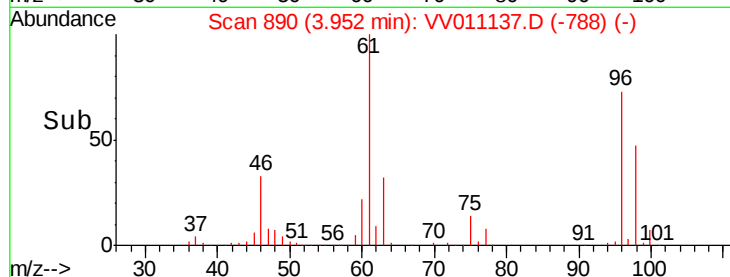
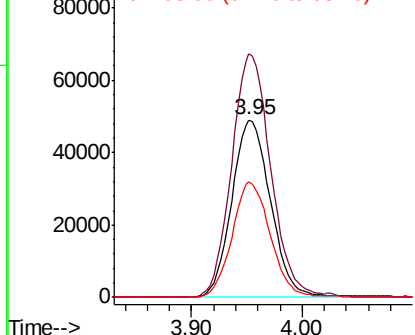
cis-1,2-Dichloroethene  
Concen: 23.822 ug/L  
RT: 3.95 min Scan# 890  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

Tgt Ion: 96 Resp: 119508  
Ion Ratio Lower Upper  
96 100  
61 137.4 97.4 181.0  
98 65.2 45.0 83.6



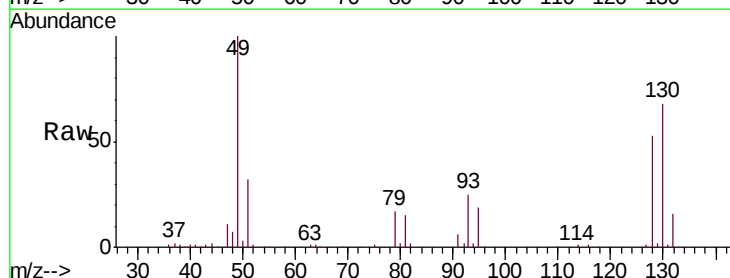
Abundance Ion 96.00 (95.70 to 96.70): VV0  
Ion 61.00 (60.70 to 61.70): VV0  
Ion 98.00 (97.70 to 98.70): VV0



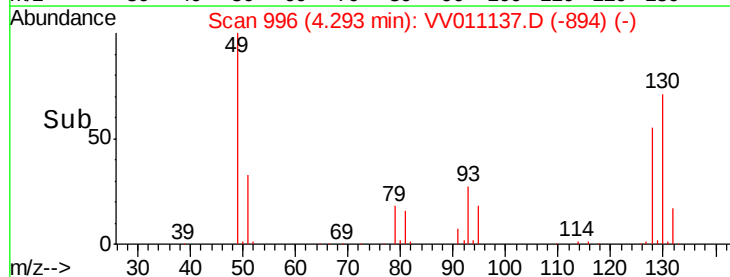
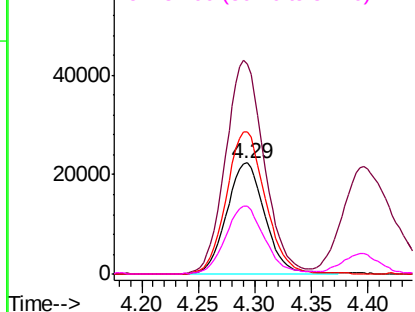
#23

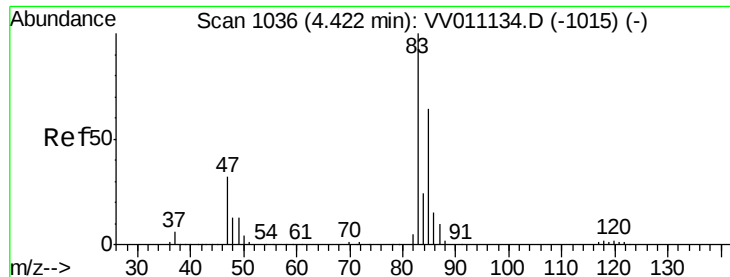
Bromochloromethane  
Concen: 23.914 ug/L  
RT: 4.29 min Scan# 996  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Tgt Ion: 128 Resp: 52788  
Ion Ratio Lower Upper  
128 100  
49 189.8 125.4 233.0  
130 128.4 83.3 154.7  
51 60.7 44.8 67.2



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: 23.218 ug/L

RT: 4.42 min Scan# 1036

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampled :

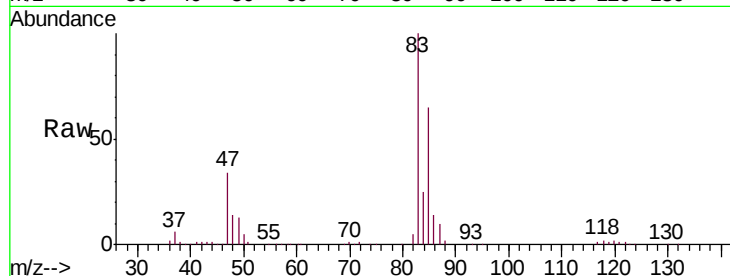
VICV72

Tgt Ion: 83 Resp: 215587

Ion Ratio Lower Upper

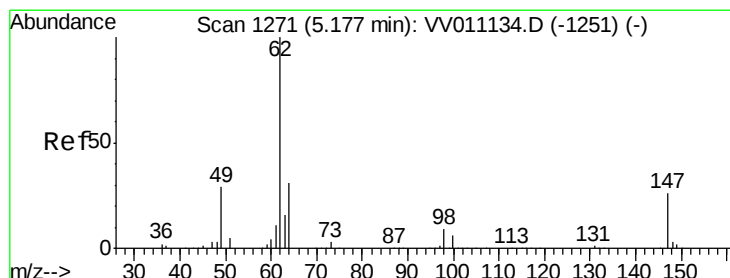
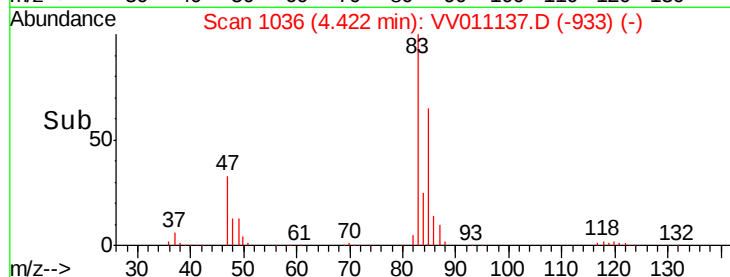
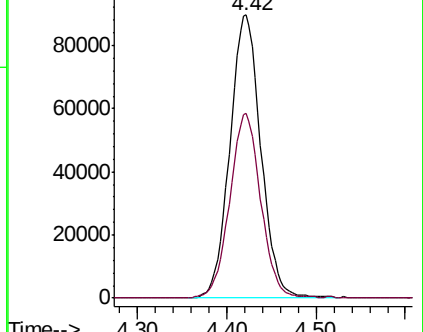
83 100

85 65.1 45.6 84.6



Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0



#27

1,2-Dichloroethane

Concen: 24.628 ug/L

RT: 5.17 min Scan# 1270

Delta R.T. -0.00 min

Lab File: VV011137.D

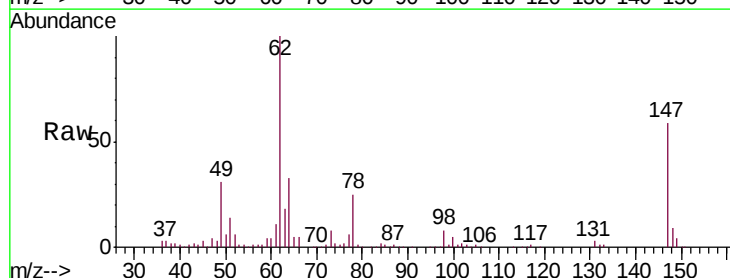
Acq: 30 May 2019 15:02

Tgt Ion: 62 Resp: 160131

Ion Ratio Lower Upper

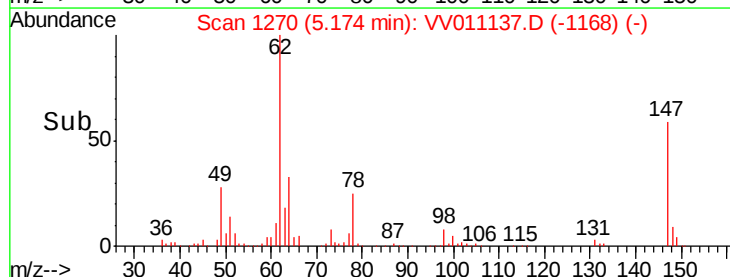
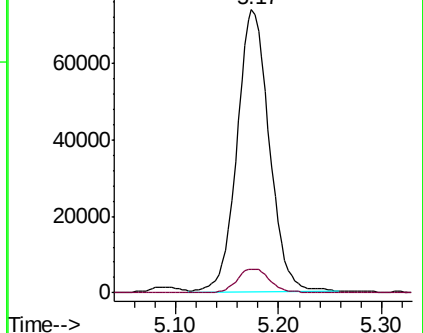
62 100

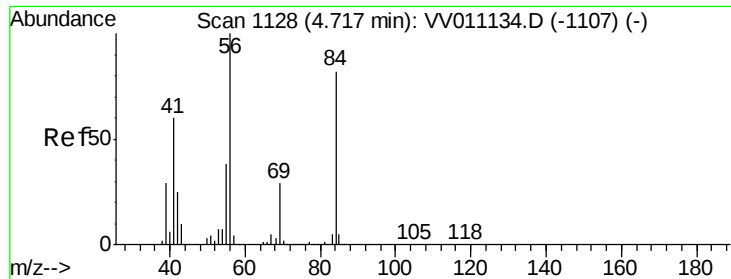
98 8.3 7.4 11.0



Abundance Ion 62.00 (61.70 to 62.70): VV0

Ion 98.00 (97.70 to 98.70): VV0

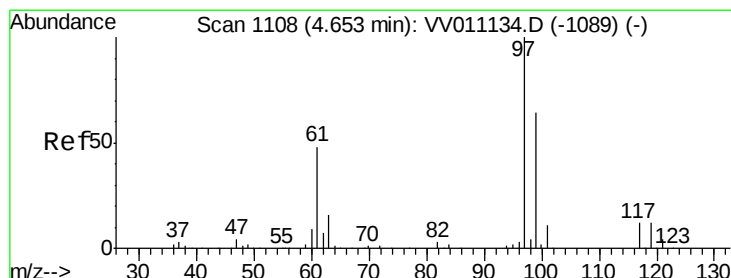
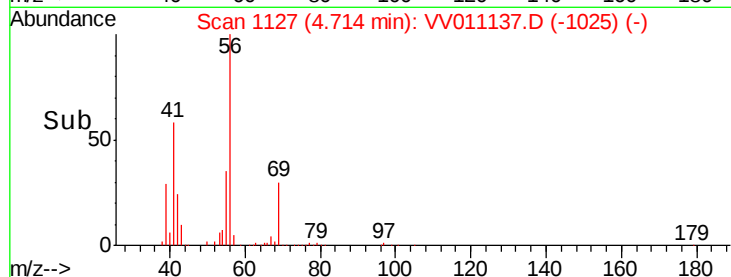
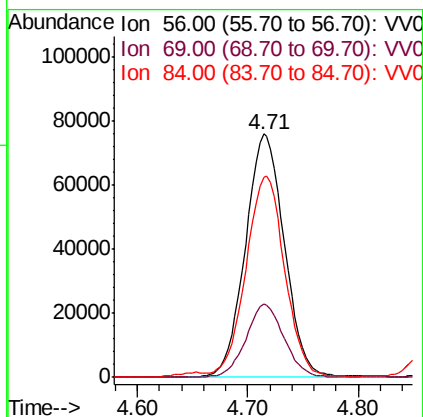
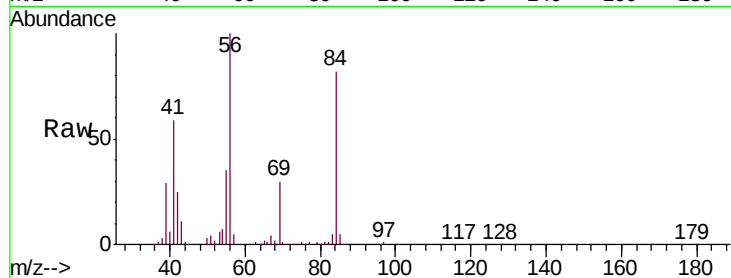




#30  
Cyclohexane  
Concen: 21.459 ug/L  
RT: 4.71 min Scan# 1127  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

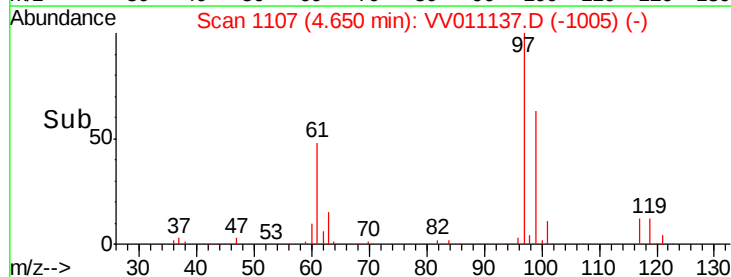
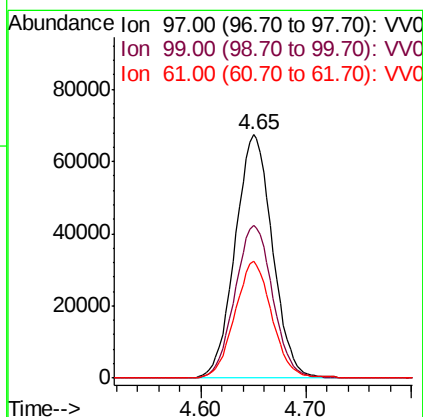
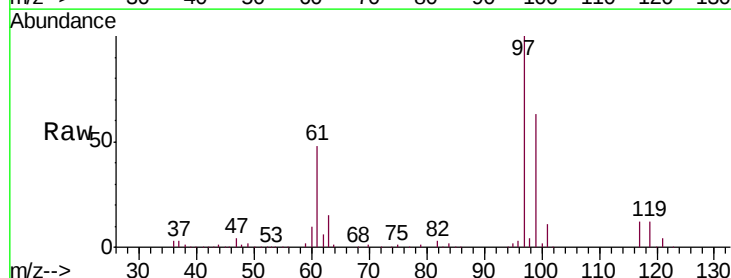
Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

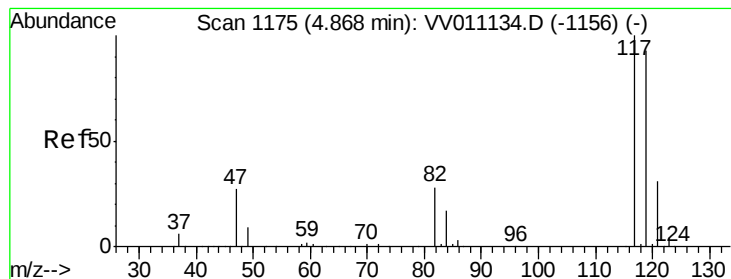
Tgt Ion: 56 Resp: 186173  
Ion Ratio Lower Upper  
56 100  
69 29.5 23.4 35.0  
84 82.6 65.8 98.8



#31  
1,1,1-Trichloroethane  
Concen: 22.296 ug/L  
RT: 4.65 min Scan# 1107  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Tgt Ion: 97 Resp: 165659  
Ion Ratio Lower Upper  
97 100  
99 63.5 51.3 76.9  
61 47.0 38.4 57.6





#32

Carbon tetrachloride

Concen: 22.120 ug/L

RT: 4.87 min Scan# 1175

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

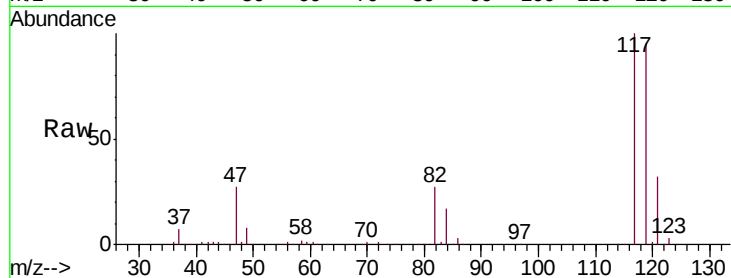
VICV72

Tgt Ion:117 Resp: 139333

Ion Ratio Lower Upper

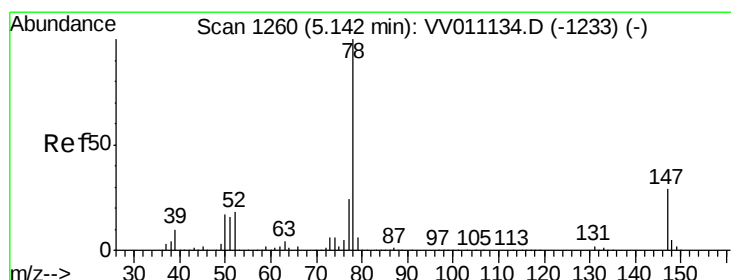
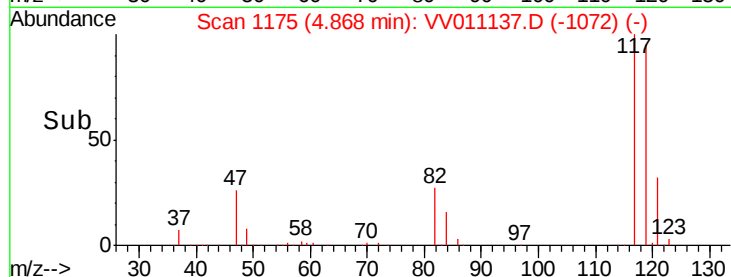
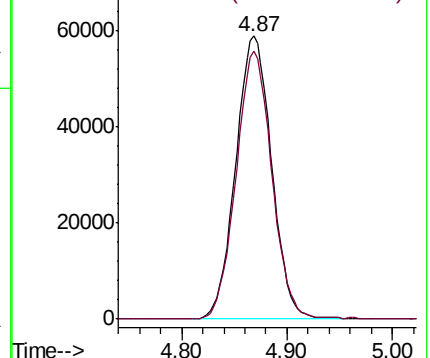
117 100

119 94.0 76.3 114.5



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#34

Benzene

Concen: 22.904 ug/L

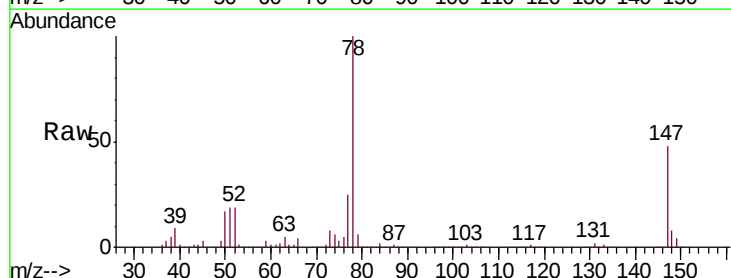
RT: 5.14 min Scan# 1260

Delta R.T. 0.00 min

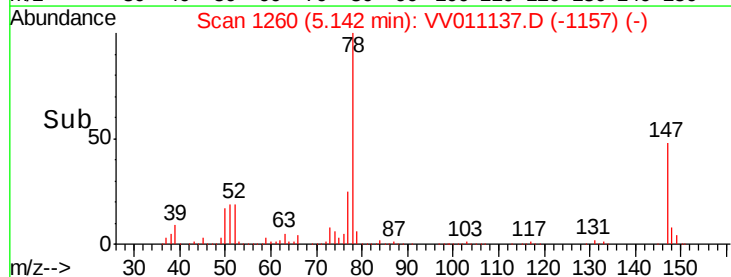
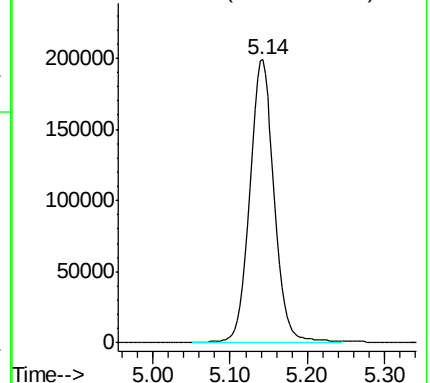
Lab File: VV011137.D

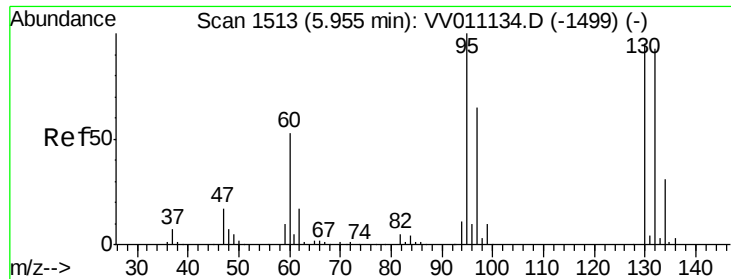
Acq: 30 May 2019 15:02

Tgt Ion: 78 Resp: 440491



Abundance Ion 78.00 (77.70 to 78.70): VV0





#35

Trichloroethene

Concen: 22.426 ug/L

RT: 5.96 min Scan# 1513

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

VICV72

Tgt Ion: 95 Resp: 113095

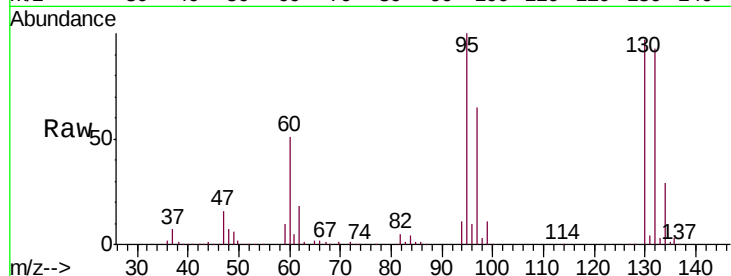
Ion Ratio Lower Upper

95 100

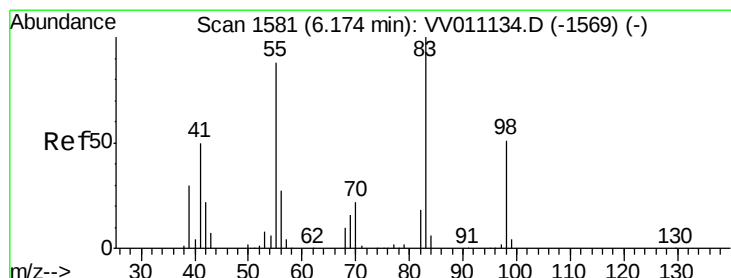
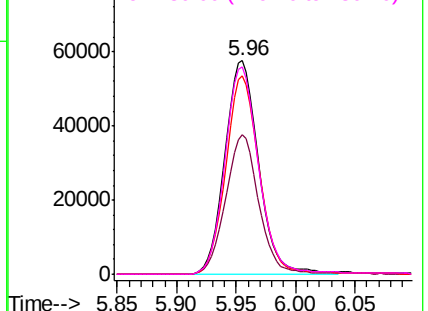
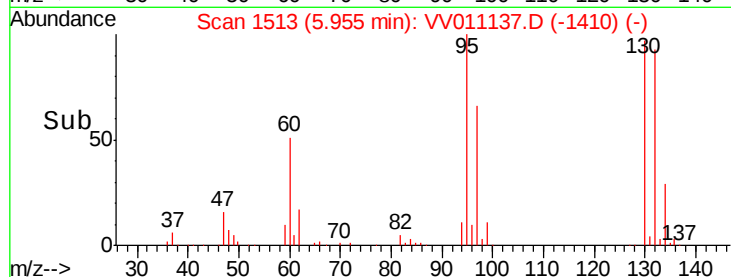
97 64.4 44.4 82.5

132 92.5 66.0 122.6

130 96.6 67.4 125.2



Abundance Ion 95.00 (94.70 to 95.70): VV011137.D (-1410) (-)



#36

Methylcyclohexane

Concen: 21.343 ug/L

RT: 6.17 min Scan# 1580

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

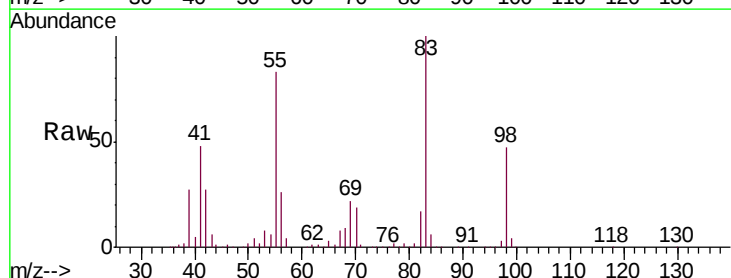
Tgt Ion: 83 Resp: 182141

Ion Ratio Lower Upper

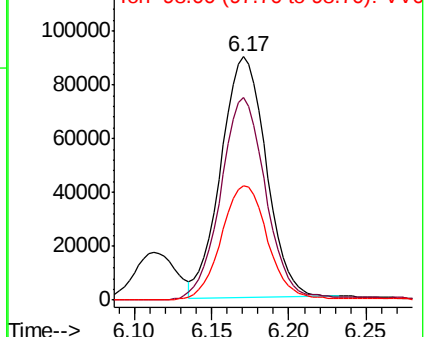
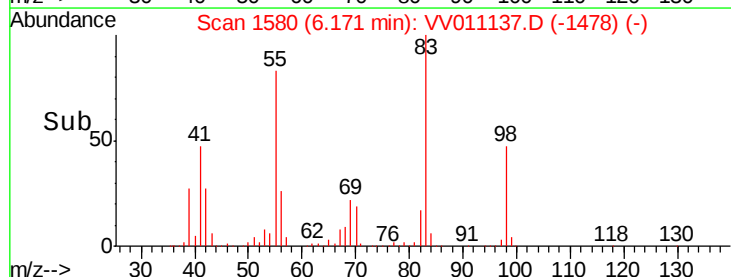
83 100

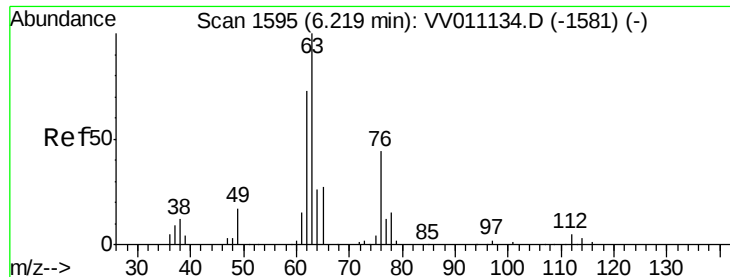
55 83.7 66.4 99.6

98 47.9 37.9 56.9



Abundance Ion 83.00 (82.70 to 83.70): VV011137.D (-1478) (-)

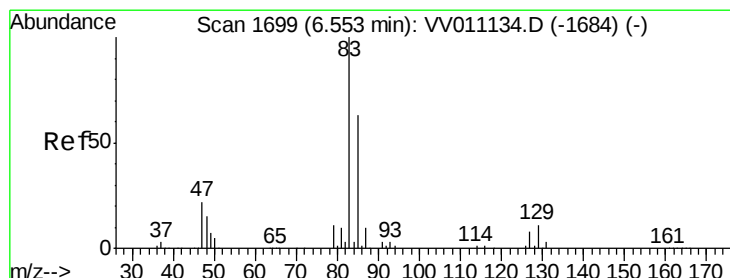
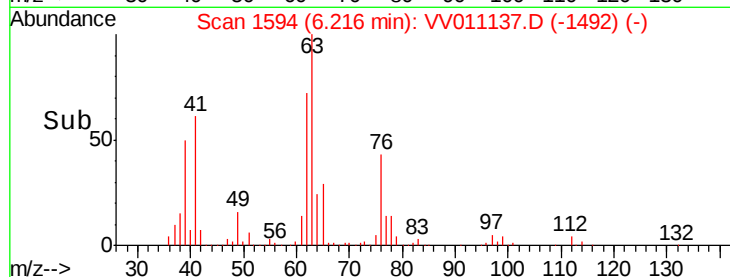
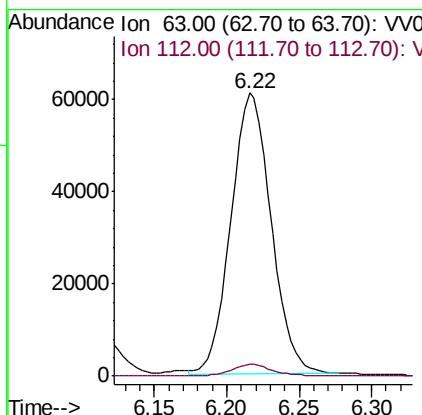
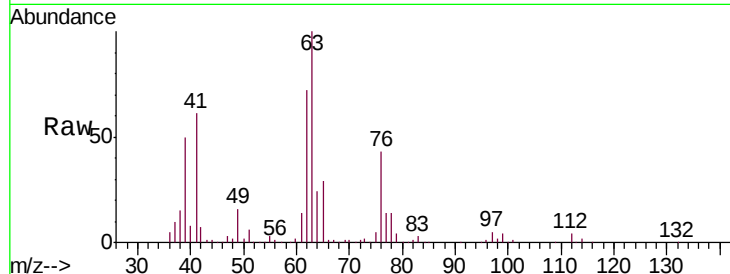




#40  
 1,2-Dichloropropane  
 Concen: 23.186 ug/L  
 RT: 6.22 min Scan# 1594  
 Delta R.T. -0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

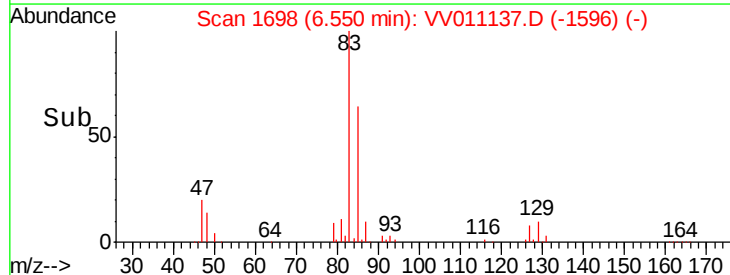
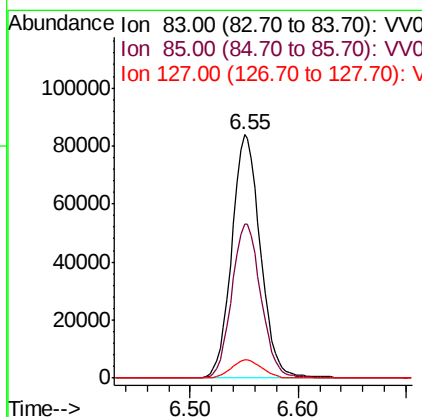
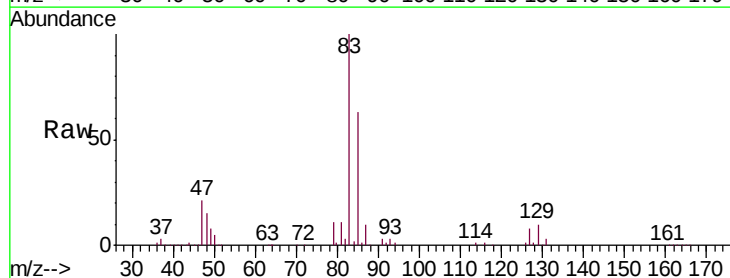
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VICV72

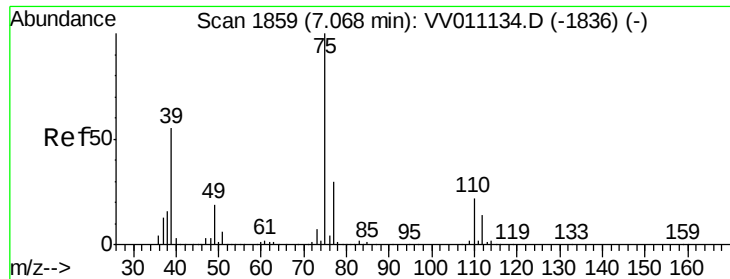
Tgt Ion: 63 Resp: 117219  
 Ion Ratio Lower Upper  
 63 100  
 112 4.4 3.6 5.4



#41  
 Bromodichloromethane  
 Concen: 23.465 ug/L  
 RT: 6.55 min Scan# 1698  
 Delta R.T. -0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

Tgt Ion: 83 Resp: 154519  
 Ion Ratio Lower Upper  
 83 100  
 85 63.2 44.1 81.9  
 127 7.6 6.3 9.5



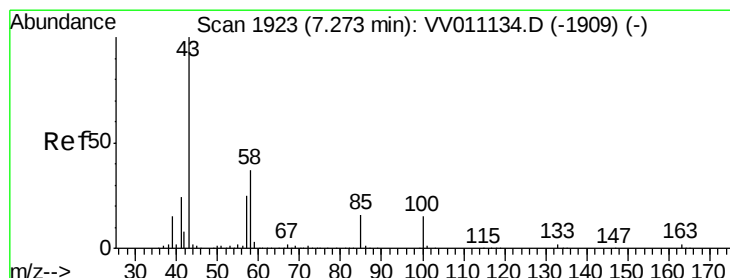
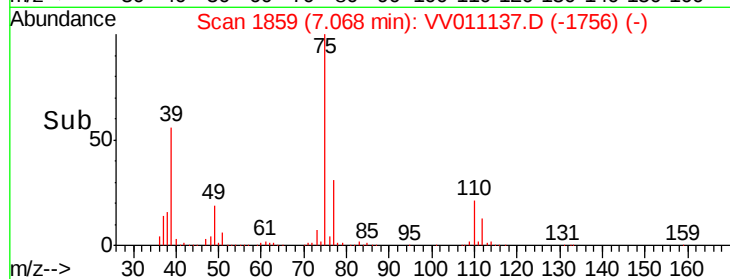
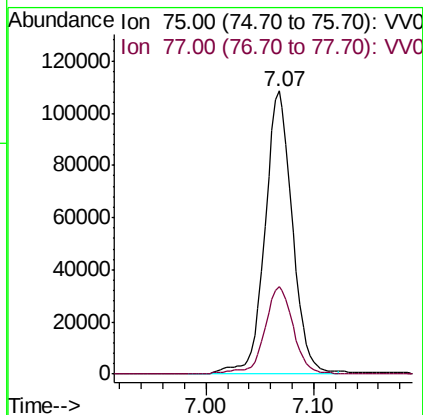
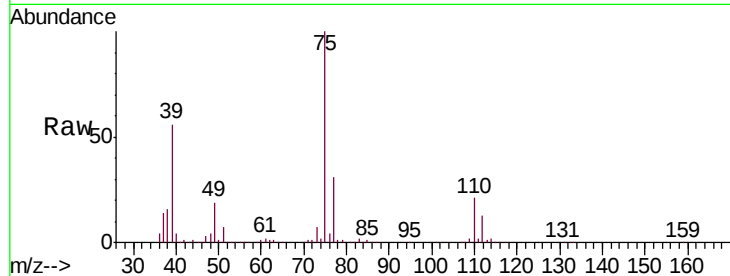


#42

cis-1,3-Dichloropropene  
 Concen: 23.865 ug/L  
 RT: 7.07 min Scan# 1859  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VICV72

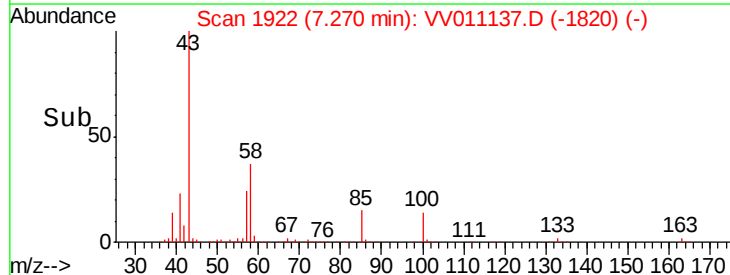
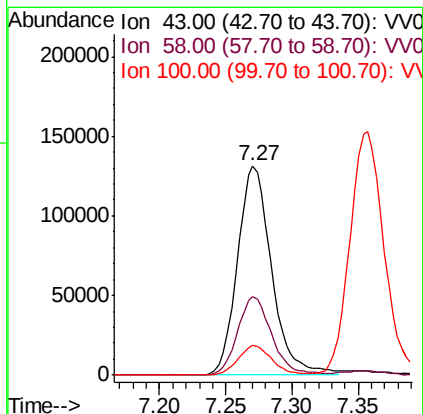
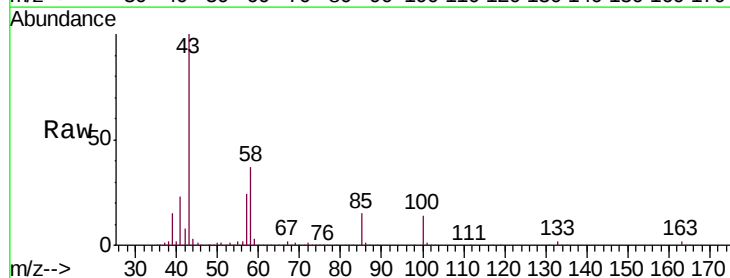
Tgt Ion: 75 Resp: 191819  
 Ion Ratio Lower Upper  
 75 100  
 77 31.0 21.3 39.6

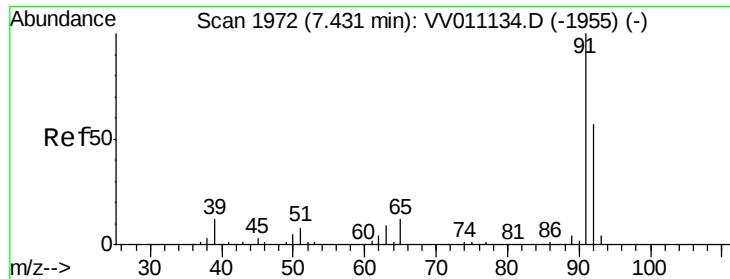


#43

4-Methyl-2-pentanone  
 Concen: 51.205 ug/L  
 RT: 7.27 min Scan# 1922  
 Delta R.T. -0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

Tgt Ion: 43 Resp: 235168  
 Ion Ratio Lower Upper  
 43 100  
 58 37.6 30.2 45.4  
 100 14.0 11.3 16.9





#44

Toluene

Concen: 22.788 ug/L

RT: 7.43 min Scan# 1971

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

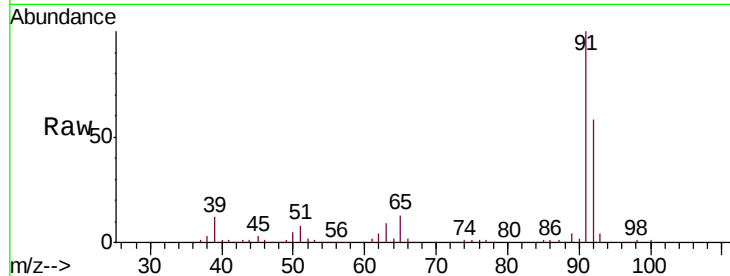
VICV72

Tgt Ion: 91 Resp: 478405

Ion Ratio Lower Upper

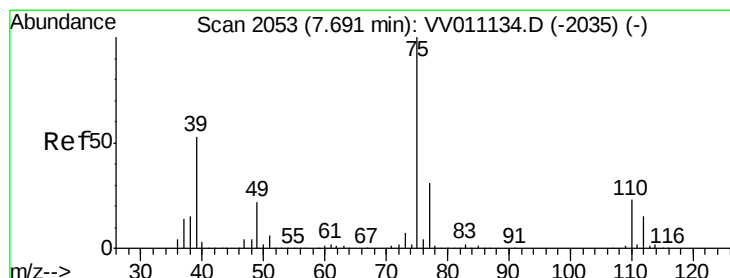
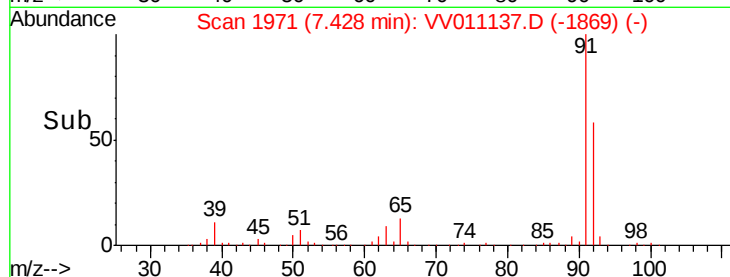
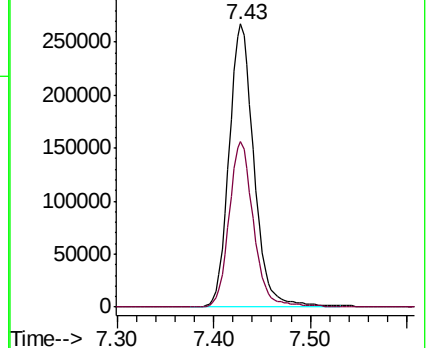
91 100

92 58.5 39.9 74.1



Abundance Ion 91.00 (90.70 to 91.70): VV0

Ion 92.00 (91.70 to 92.70): VV0



#45

trans-1,3-Dichloropropene

Concen: 24.069 ug/L

RT: 7.69 min Scan# 2053

Delta R.T. 0.00 min

Lab File: VV011137.D

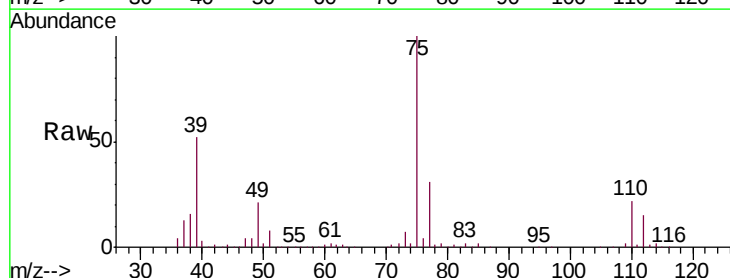
Acq: 30 May 2019 15:02

Tgt Ion: 75 Resp: 165121

Ion Ratio Lower Upper

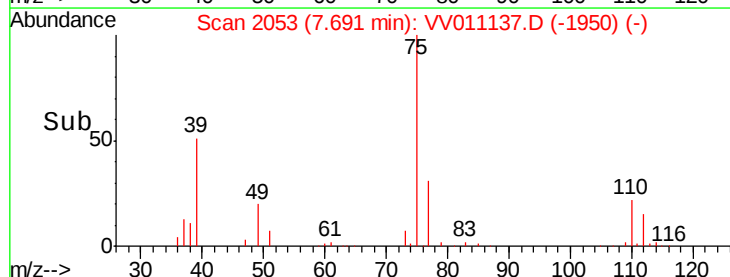
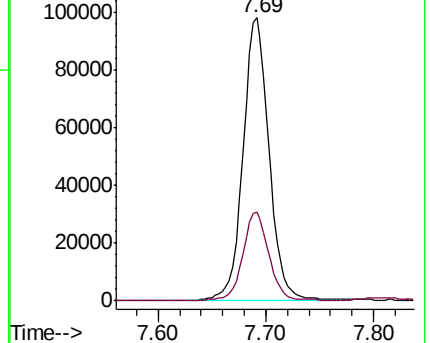
75 100

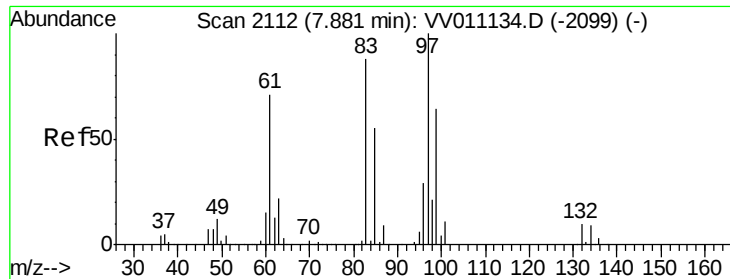
77 31.5 22.1 41.1



Abundance Ion 75.00 (74.70 to 75.70): VV0

Ion 77.00 (76.70 to 77.70): VV0

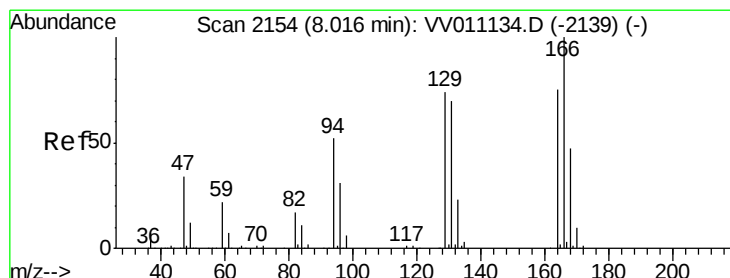
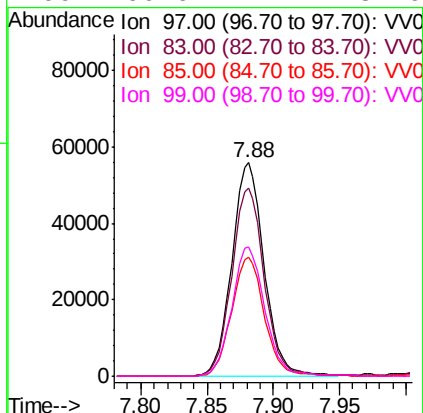
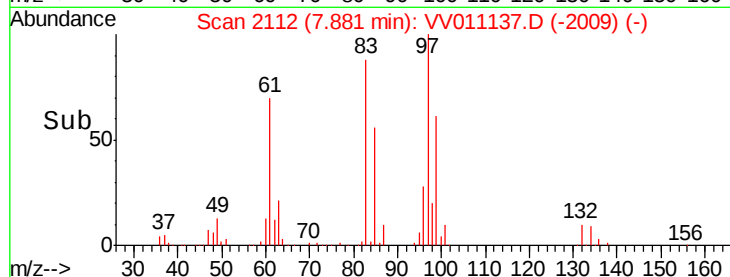
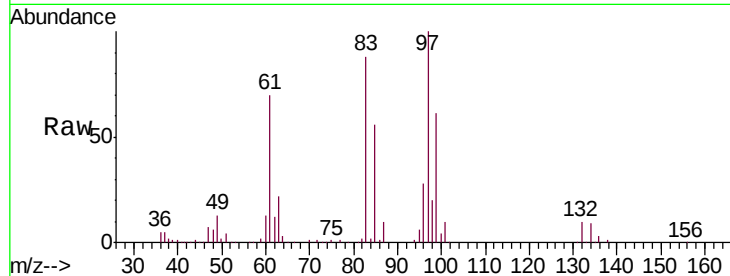




#46  
 1,1,2-Trichloroethane  
 Concen: 23.996 ug/L  
 RT: 7.88 min Scan# 2112  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

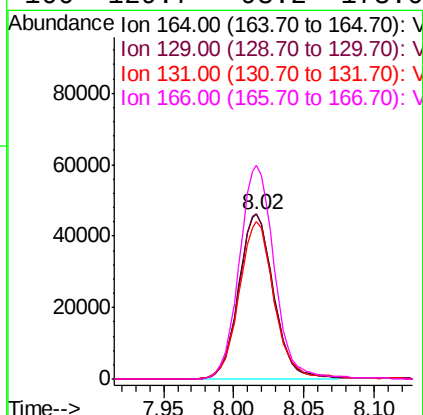
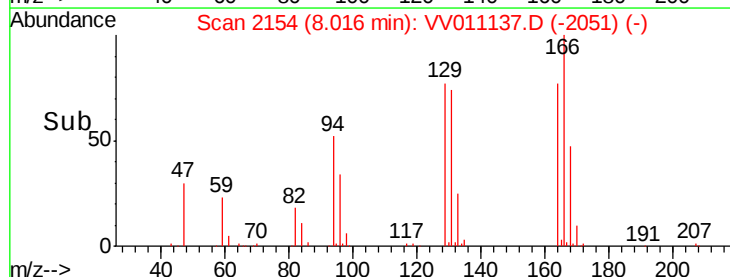
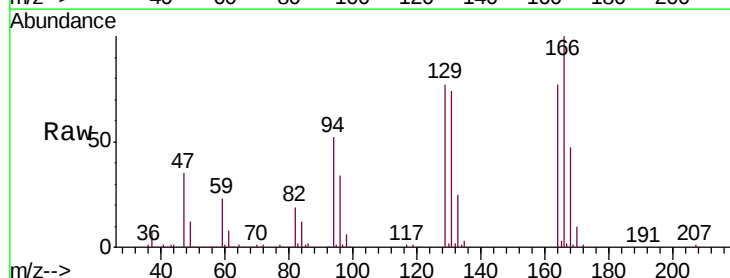
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VICV72

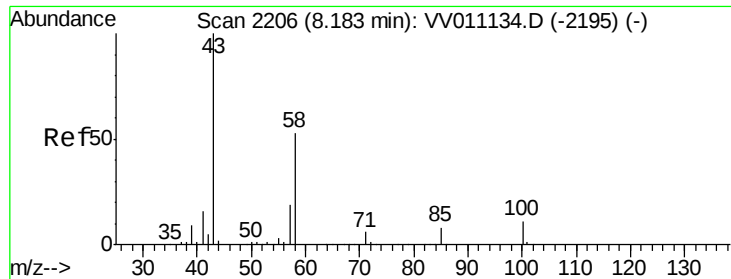
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 94623 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 83       | 87.9  | 61.9  | 115.1 |
| 85       | 55.9  | 38.6  | 71.8  |
| 99       | 60.6  | 44.7  | 82.9  |



#47  
 Tetrachloroethene  
 Concen: 21.575 ug/L  
 RT: 8.02 min Scan# 2154  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 80626 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 100.1 | 69.1  | 128.3 |
| 131      | 95.7  | 65.5  | 121.6 |
| 166      | 129.7 | 93.2  | 173.0 |

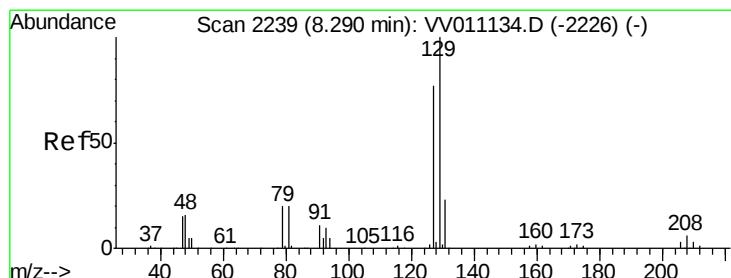
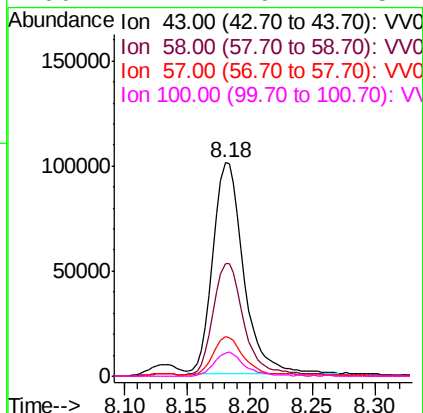
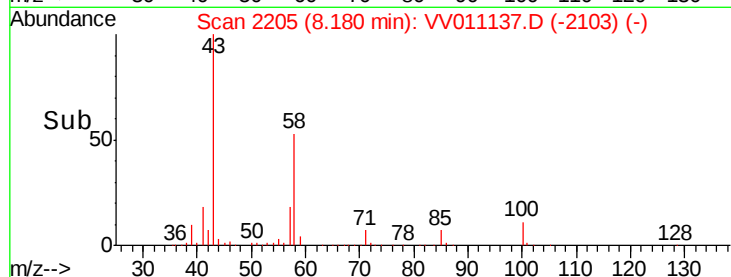
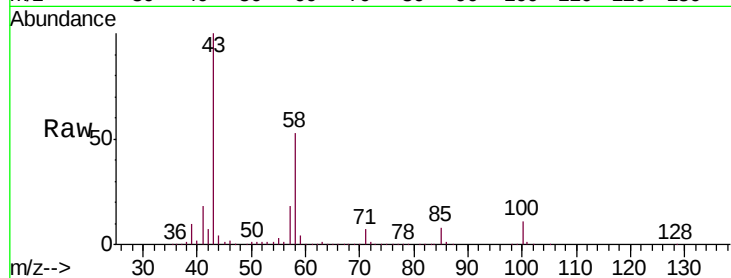




#49  
2-Hexanone  
Concen: 51.912 ug/L  
RT: 8.18 min Scan# 2205  
Delta R.T. -0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

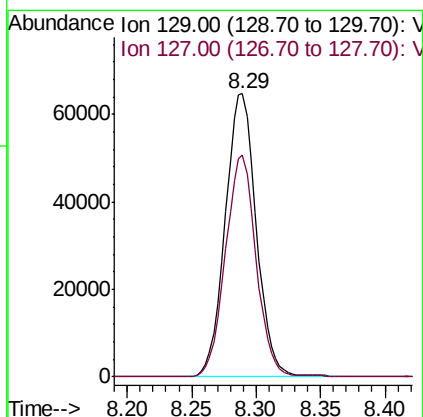
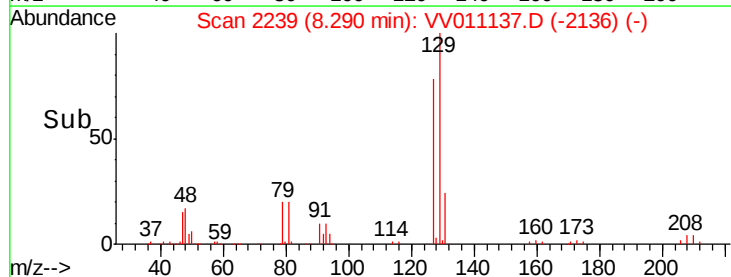
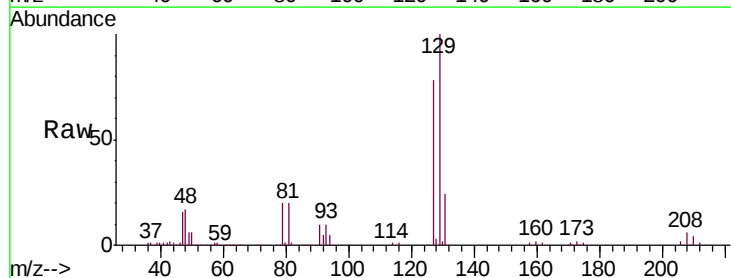
Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

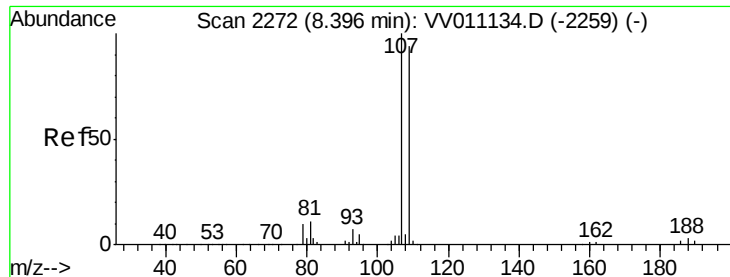
Tgt Ion: 43 Resp: 171779  
Ion Ratio Lower Upper  
43 100  
58 53.5 41.2 61.8  
57 18.4 14.3 21.5  
100 11.2 9.1 13.7



#50  
Dibromochloromethane  
Concen: 24.333 ug/L  
RT: 8.29 min Scan# 2239  
Delta R.T. 0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Tgt Ion: 129 Resp: 108435  
Ion Ratio Lower Upper  
129 100  
127 78.2 53.8 99.8





#51

1,2-Dibromoethane

Concen: 24.582 ug/L

RT: 8.39 min Scan# 2271

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampled :

VICV72

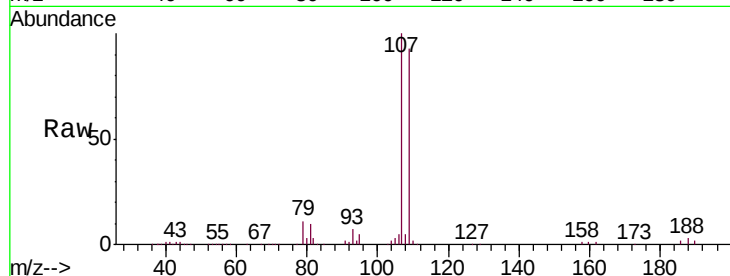
Tgt Ion:107 Resp: 94015

Ion Ratio Lower Upper

107 100

109 92.6 65.5 121.7

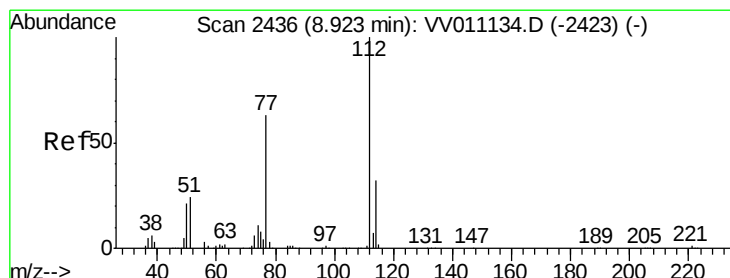
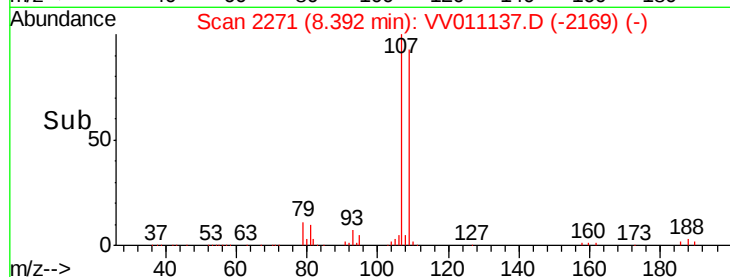
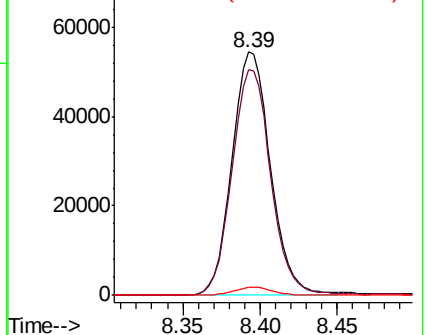
188 3.2 2.6 3.8



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: 22.956 ug/L

RT: 8.92 min Scan# 2436

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

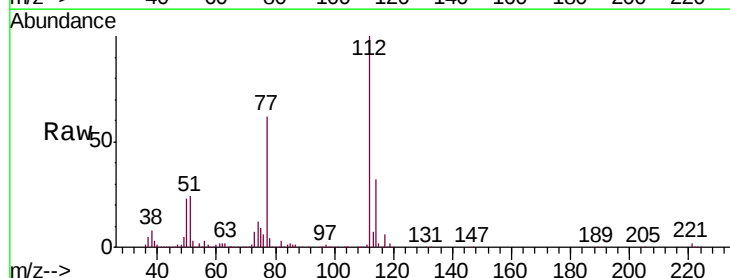
Tgt Ion:112 Resp: 308492

Ion Ratio Lower Upper

112 100

77 62.2 50.8 76.2

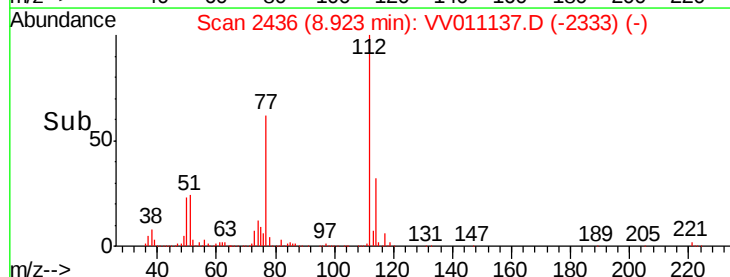
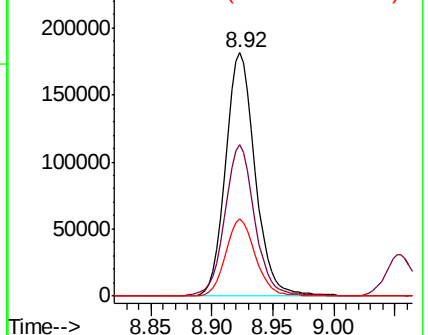
114 31.5 22.6 42.0

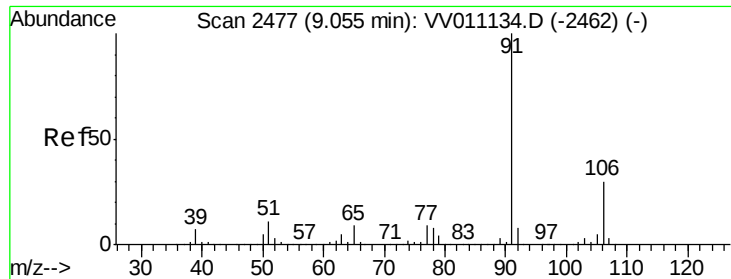


Abundance Ion 112.00 (111.70 to 112.70): V

Ion 77.00 (76.70 to 77.70): VV0

Ion 114.00 (113.70 to 114.70): V

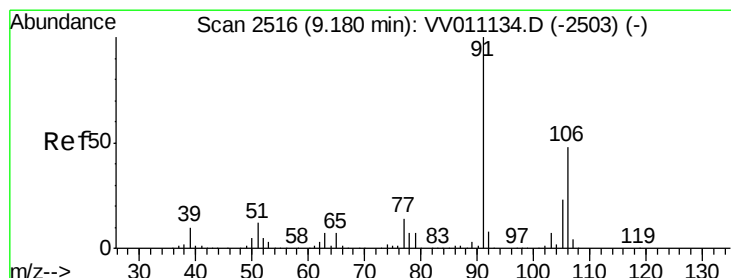
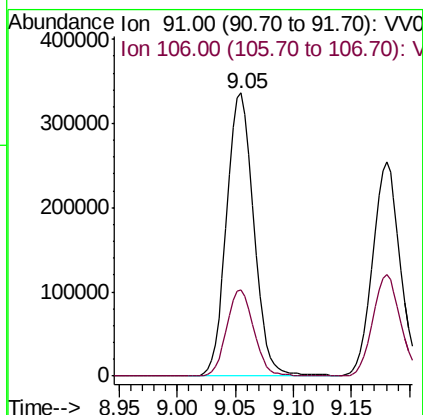
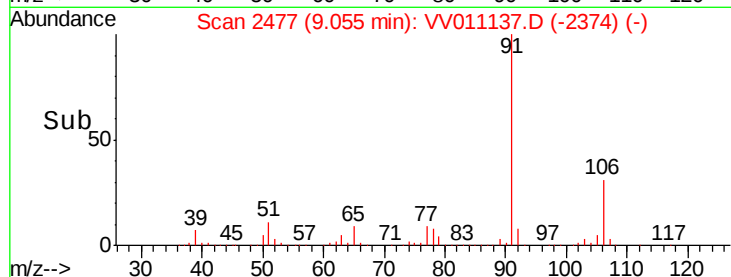
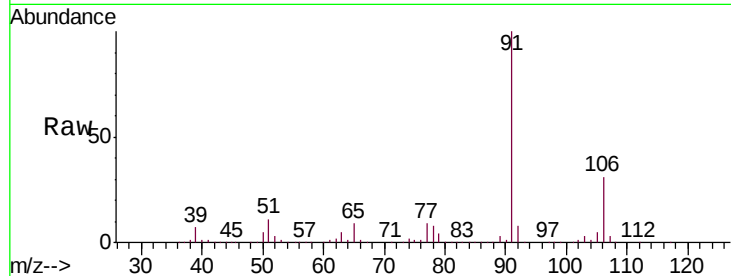




#53  
Ethylbenzene  
Concen: 22.665 ug/L  
RT: 9.05 min Scan# 2477  
Delta R.T. 0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

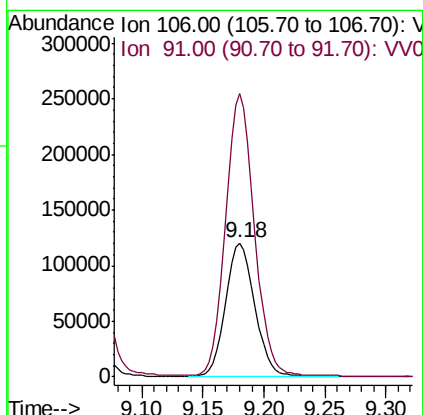
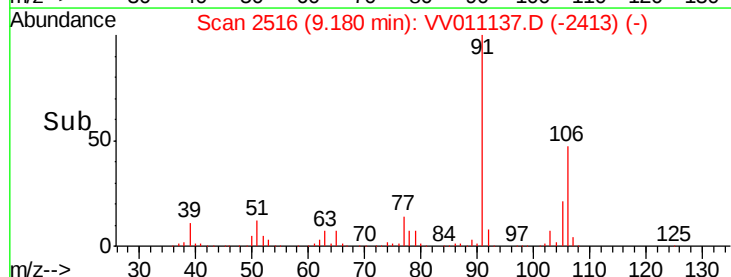
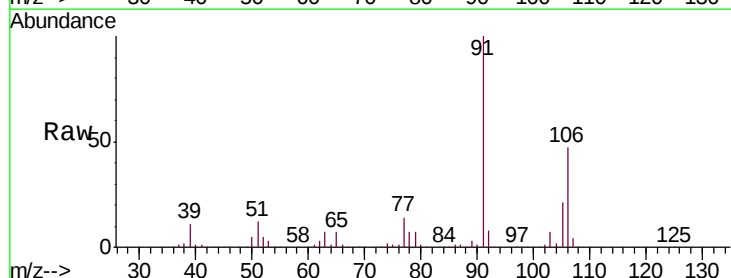
Instrument :  
MSVOA\_V  
ClientSampleId :  
VICV72

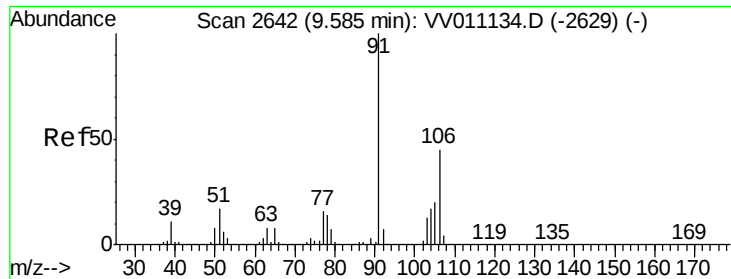
Tgt Ion: 91 Resp: 545963  
Ion Ratio Lower Upper  
91 100  
106 30.6 21.2 39.4



#54  
m,p-Xylene  
Concen: 22.541 ug/L  
RT: 9.18 min Scan# 2516  
Delta R.T. 0.00 min  
Lab File: VV011137.D  
Acq: 30 May 2019 15:02

Tgt Ion: 106 Resp: 201964  
Ion Ratio Lower Upper  
106 100  
91 211.2 145.3 269.9





#55

o-xylene

Concen: 23.010 ug/L

RT: 9.59 min Scan# 2642

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

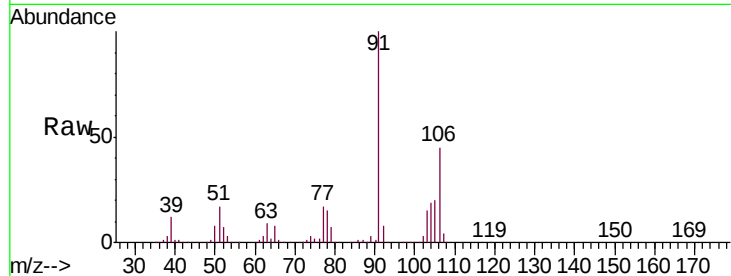
VICV72

Tgt Ion:106 Resp: 202766

Ion Ratio Lower Upper

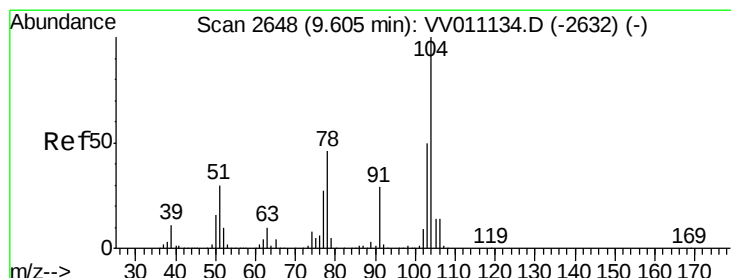
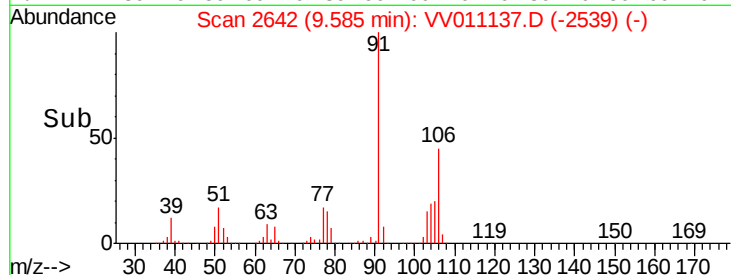
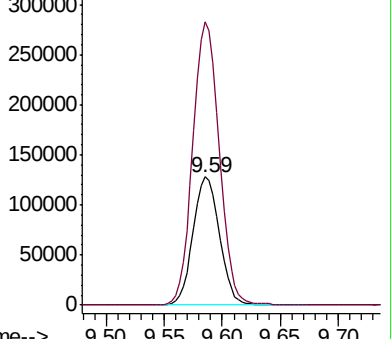
106 100

91 221.0 156.4 290.6



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VV0



#56

Styrene

Concen: 23.892 ug/L

RT: 9.60 min Scan# 2647

Delta R.T. -0.00 min

Lab File: VV011137.D

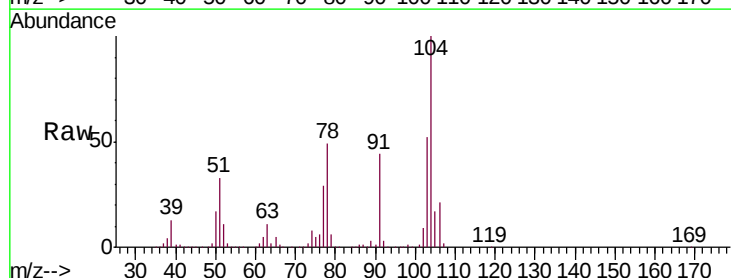
Acq: 30 May 2019 15:02

Tgt Ion:104 Resp: 353635

Ion Ratio Lower Upper

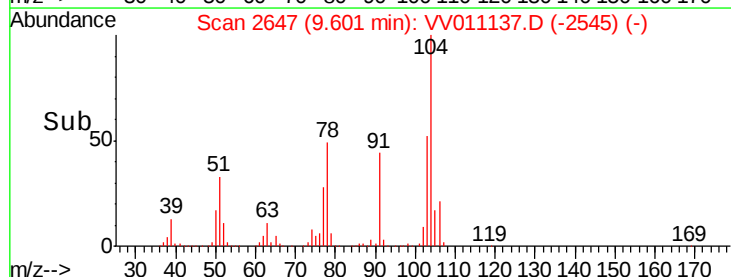
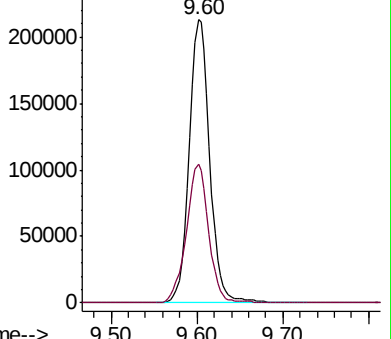
104 100

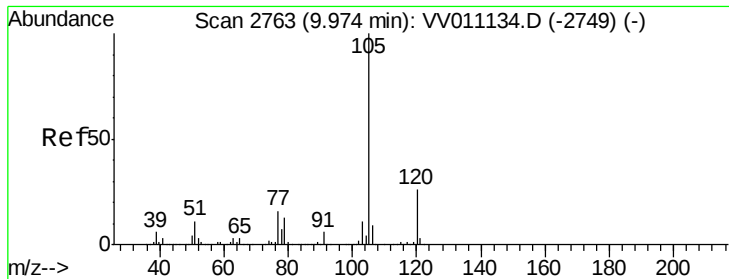
78 49.1 32.3 60.1



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VV0





#57

Isopropylbenzene

Concen: 22.531 ug/L

RT: 9.97 min Scan# 2763

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

VICV72

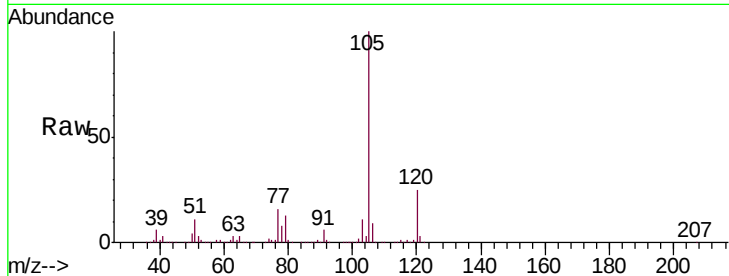
Tgt Ion: 105 Resp: 530139

Ion Ratio Lower Upper

105 100

120 25.4 20.6 31.0

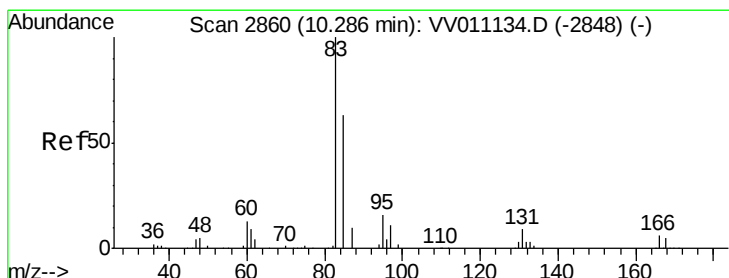
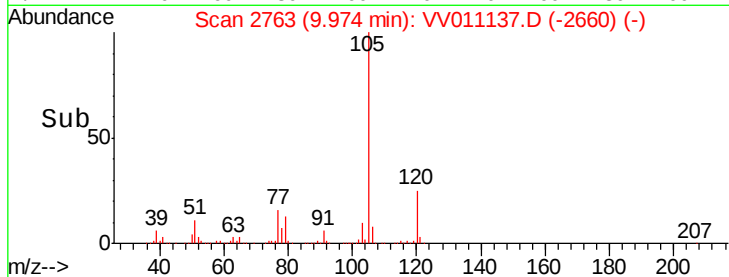
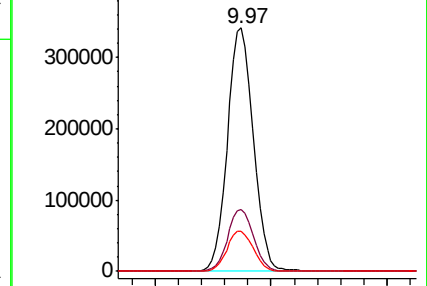
77 17.0 13.3 19.9



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: 24.693 ug/L

RT: 10.28 min Scan# 2859

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

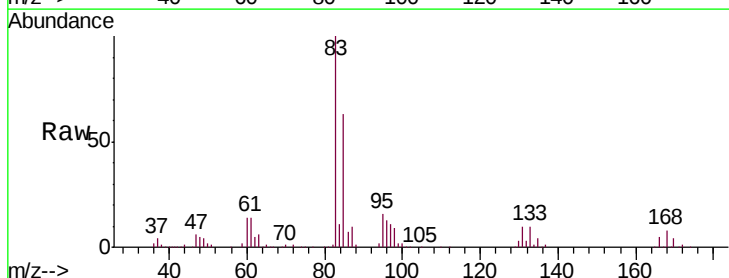
Tgt Ion: 83 Resp: 132319

Ion Ratio Lower Upper

83 100

85 63.4 44.4 82.4

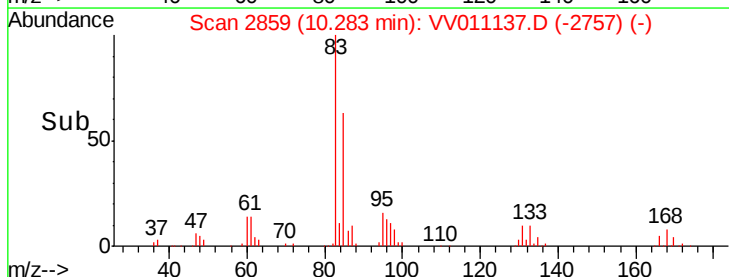
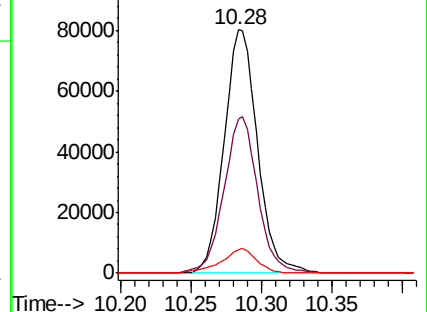
131 9.8 7.5 11.3

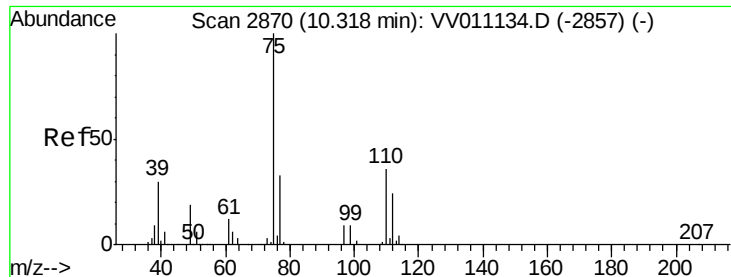


Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 25.925 ug/L

RT: 10.32 min Scan# 2870

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

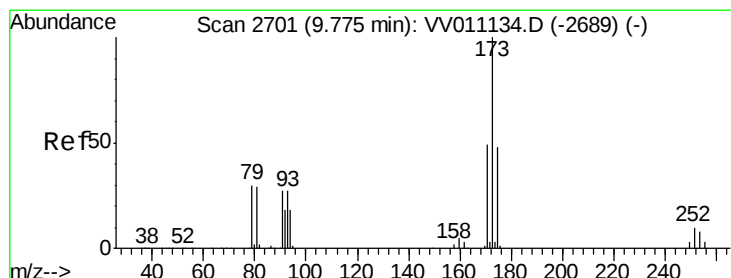
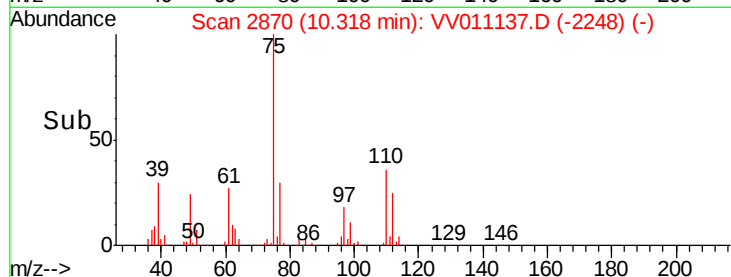
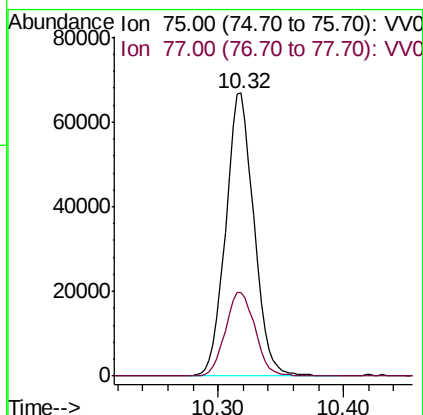
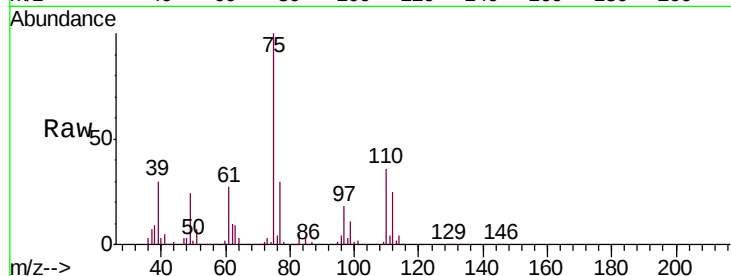
VICV72

Tgt Ion: 75 Resp: 105044

Ion Ratio Lower Upper

75 100

77 30.4 25.7 38.5



#62

Bromoform

Concen: 24.967 ug/L

RT: 9.78 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

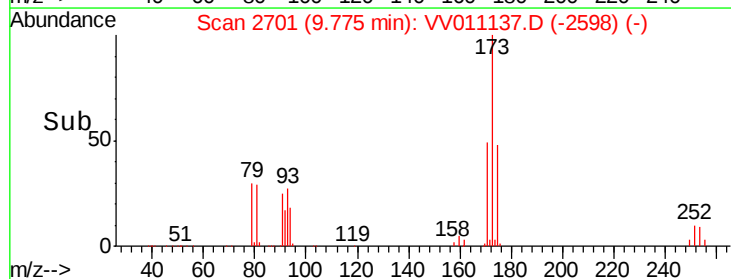
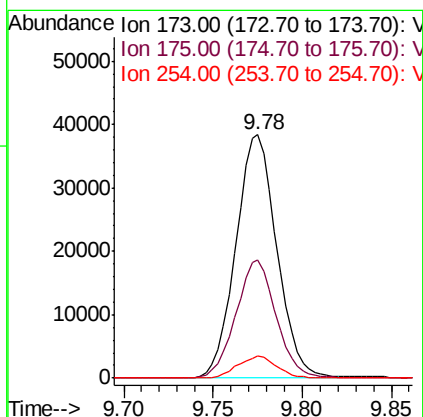
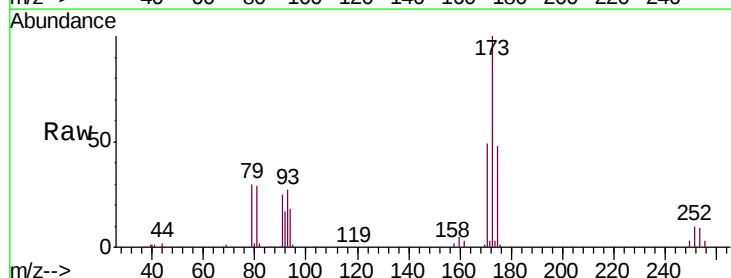
Tgt Ion: 173 Resp: 61722

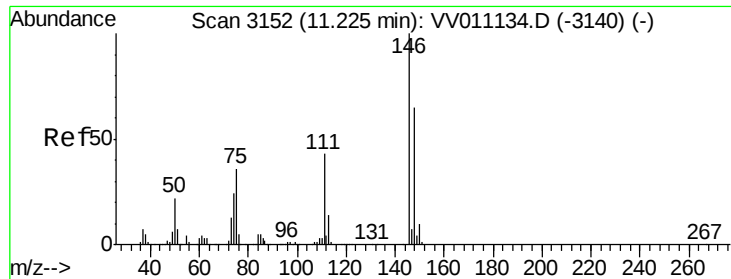
Ion Ratio Lower Upper

173 100

175 47.7 38.1 57.1

254 8.6 6.9 10.3

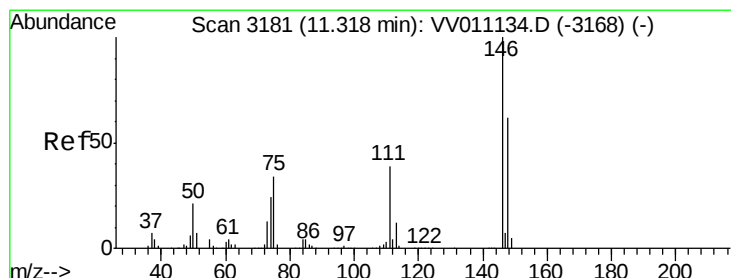
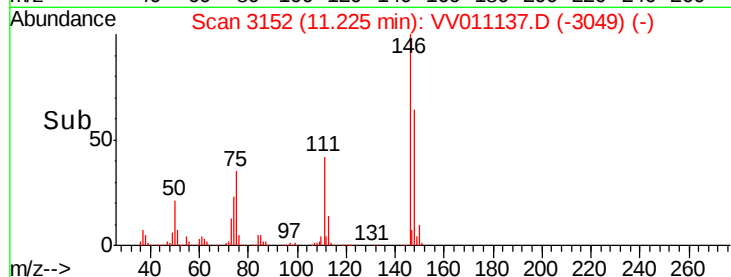
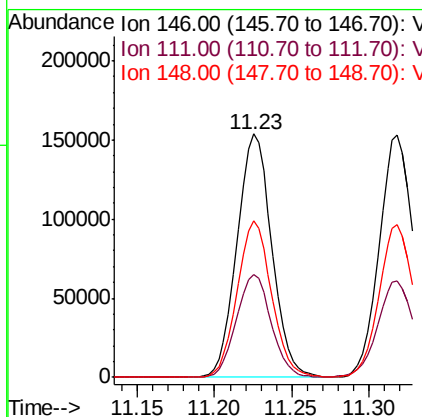
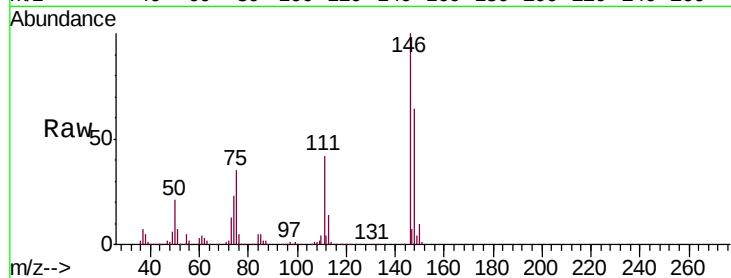




#63  
 1,3-Dichlorobenzene  
 Concen: 23.424 ug/L  
 RT: 11.23 min Scan# 3152  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

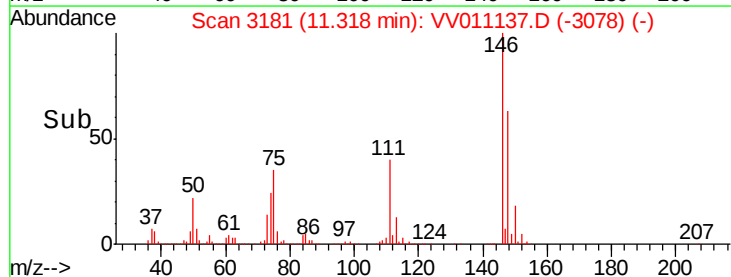
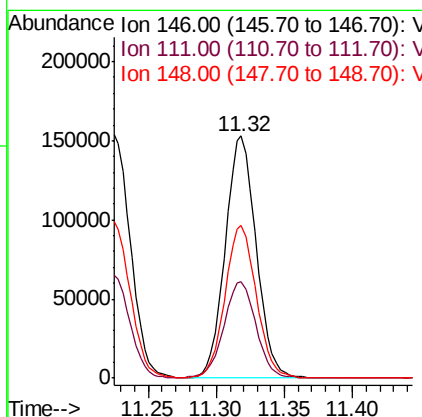
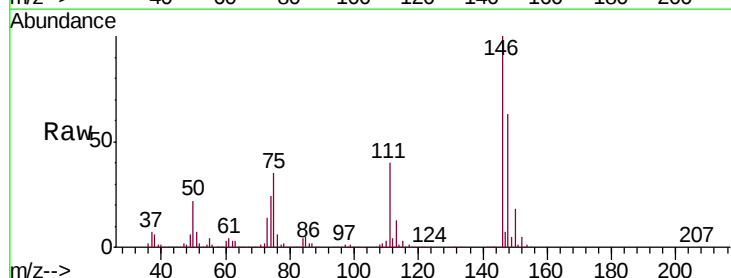
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VICV72

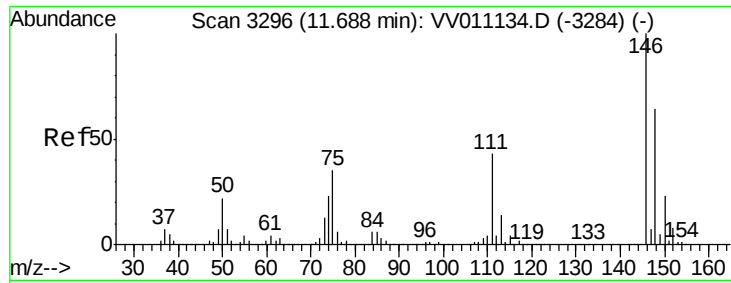
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 42.4  | 29.9  | 55.5  |
| 148     | 64.0  | 45.4  | 84.2  |



#64  
 1,4-Dichlorobenzene  
 Concen: 23.048 ug/L  
 RT: 11.32 min Scan# 3181  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 39.7  | 27.4  | 51.0  |
| 148     | 62.9  | 43.7  | 81.1  |

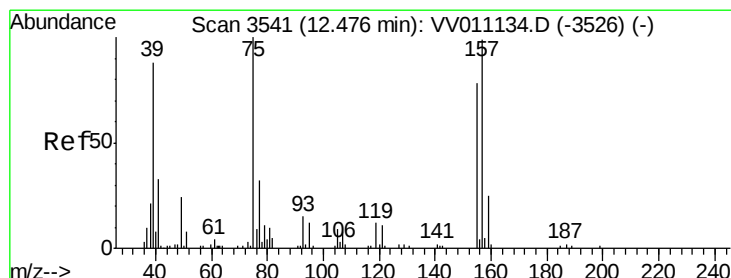
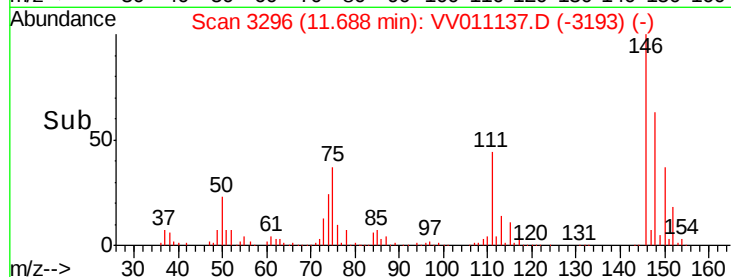
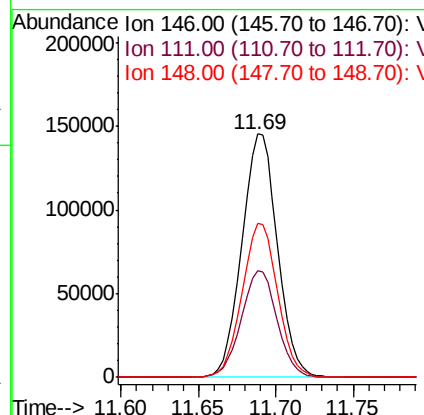
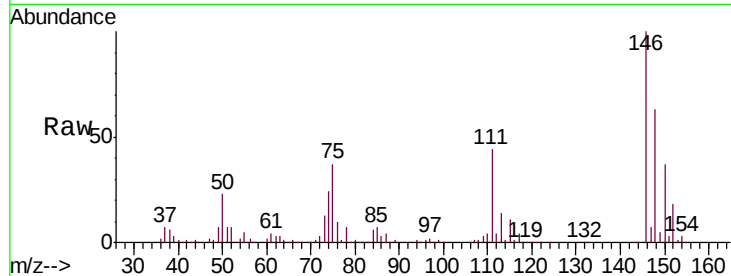




#65  
 1,2-Dichlorobenzene  
 Concen: 23.857 ug/L  
 RT: 11.69 min Scan# 3296  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

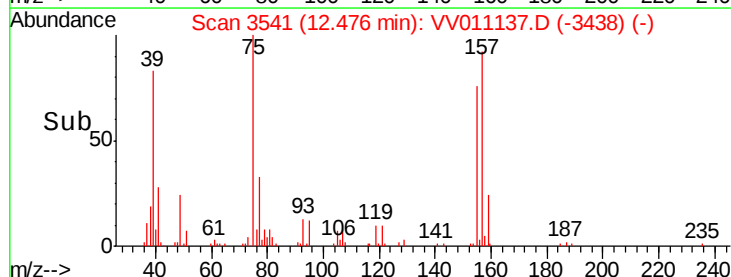
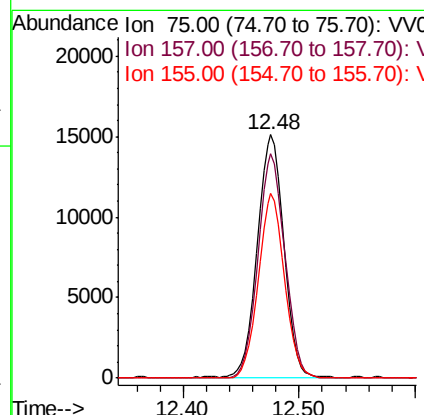
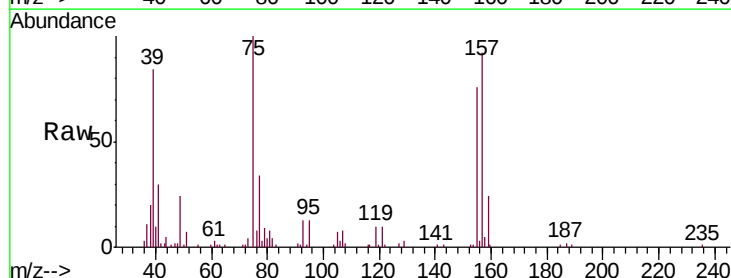
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VICV72

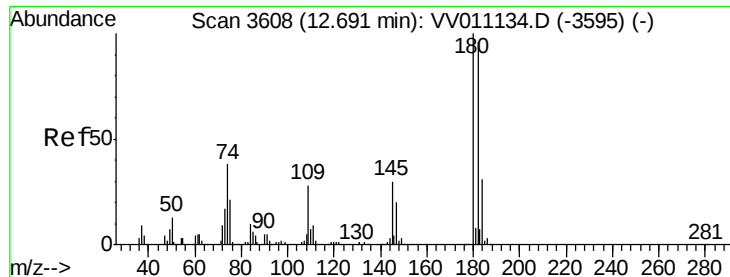
Tgt Ion: 146 Resp: 232021  
 Ion Ratio Lower Upper  
 146 100  
 111 44.0 34.8 52.2  
 148 63.1 51.0 76.6



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 25.951 ug/L  
 RT: 12.48 min Scan# 3541  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

Tgt Ion: 75 Resp: 24488  
 Ion Ratio Lower Upper  
 75 100  
 157 92.1 79.6 119.4  
 155 76.0 62.4 93.6

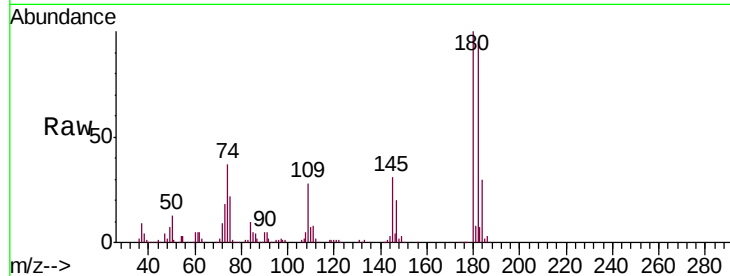




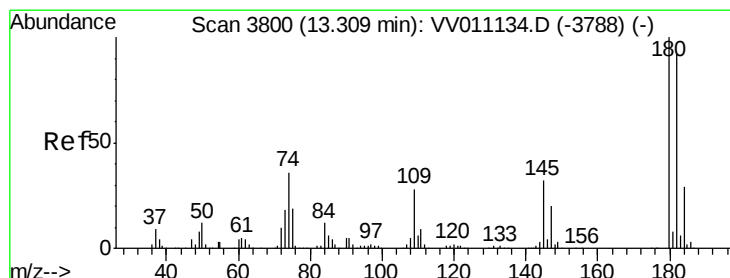
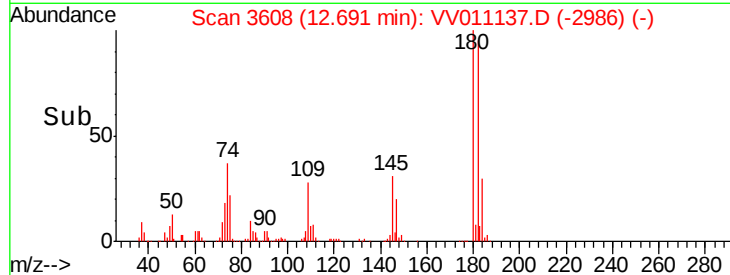
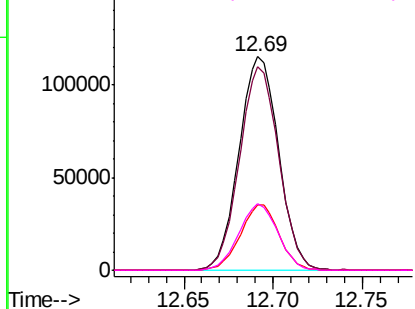
#67  
 1,3,5-Trichlorobenzene  
 Concen: 23.226 ug/L  
 RT: 12.69 min Scan# 3608  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VICV72

Tgt Ion:180 Resp: 178334  
 Ion Ratio Lower Upper  
 180 100  
 182 94.1 75.3 112.9  
 184 29.9 24.3 36.5  
 145 30.7 24.2 36.4

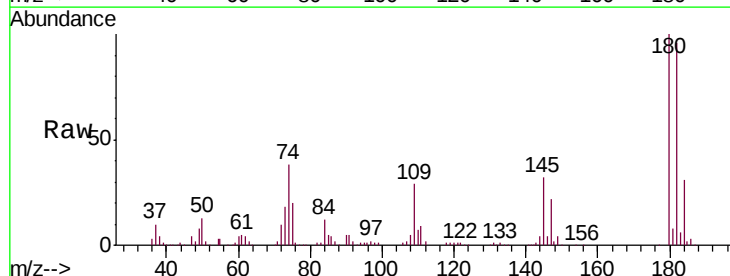


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

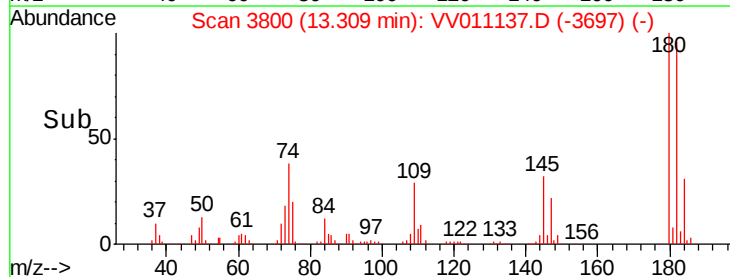
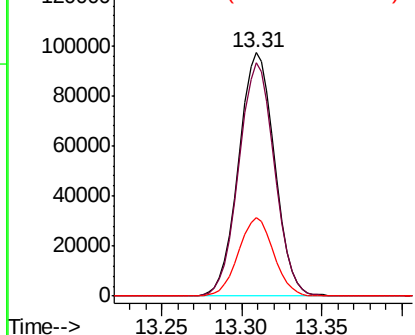


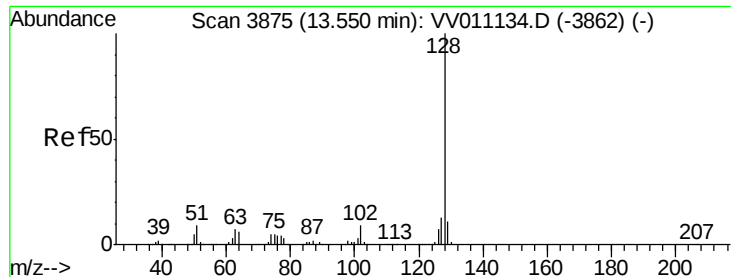
#68  
 1,2,4-trichlorobenzene  
 Concen: 24.107 ug/L  
 RT: 13.31 min Scan# 3800  
 Delta R.T. 0.00 min  
 Lab File: VV011137.D  
 Acq: 30 May 2019 15:02

Tgt Ion:180 Resp: 148538  
 Ion Ratio Lower Upper  
 180 100  
 182 95.4 75.4 113.0  
 145 31.6 25.7 38.5



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: 27.504 ug/L

RT: 13.55 min Scan# 3875

Delta R.T. 0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

Instrument :

MSVOA\_V

ClientSampleId :

VICV72

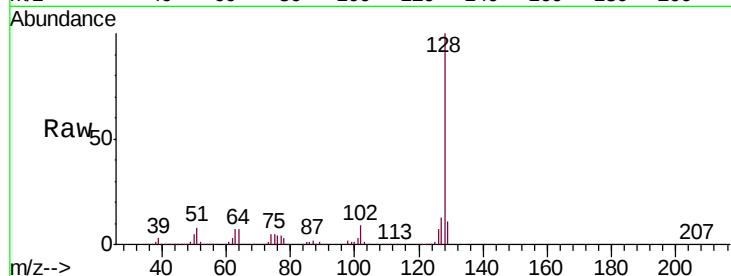
Tgt Ion:128 Resp: 348386

Ion Ratio Lower Upper

128 100

129 10.6 8.6 13.0

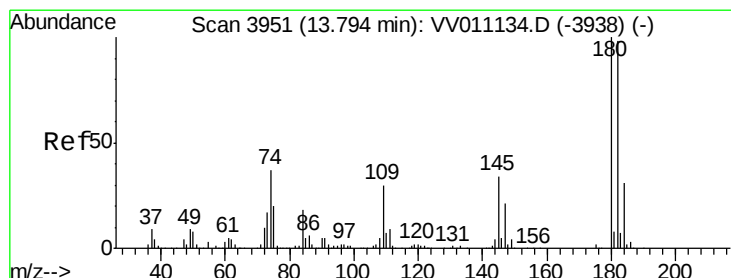
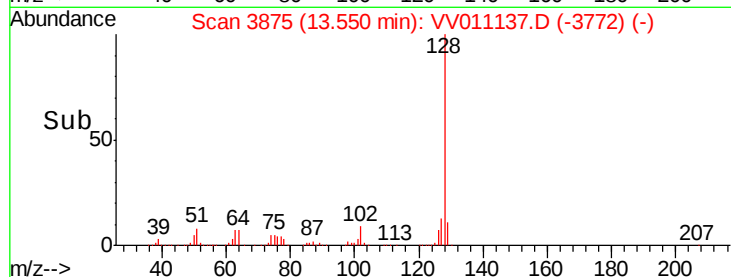
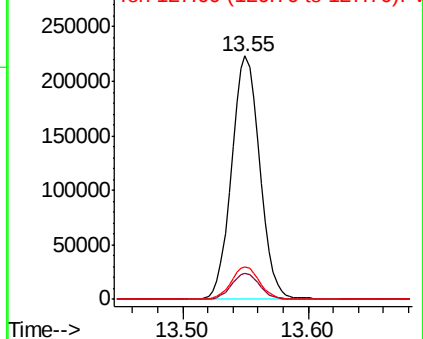
127 13.3 10.6 16.0



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: 25.153 ug/L

RT: 13.79 min Scan# 3950

Delta R.T. -0.00 min

Lab File: VV011137.D

Acq: 30 May 2019 15:02

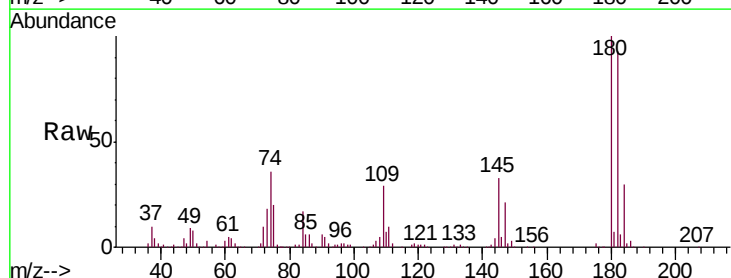
Tgt Ion:180 Resp: 143738

Ion Ratio Lower Upper

180 100

182 94.4 77.4 116.0

145 33.8 27.5 41.3



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

