

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX053119\  
 Data File : VX009977.D  
 Acq On : 31 May 2019 11:37  
 Operator : JC/SP  
 Sample : K3128-01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S32-0659

Quant Time: Jun 01 04:43:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X052819W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed May 29 04:00:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 173916   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 275369   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 246849   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 107419   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 118383   | 48.19 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.38%  |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 85275    | 49.26 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.52%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 351974   | 50.07 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.14% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 117385   | 46.49 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.98%  |          |

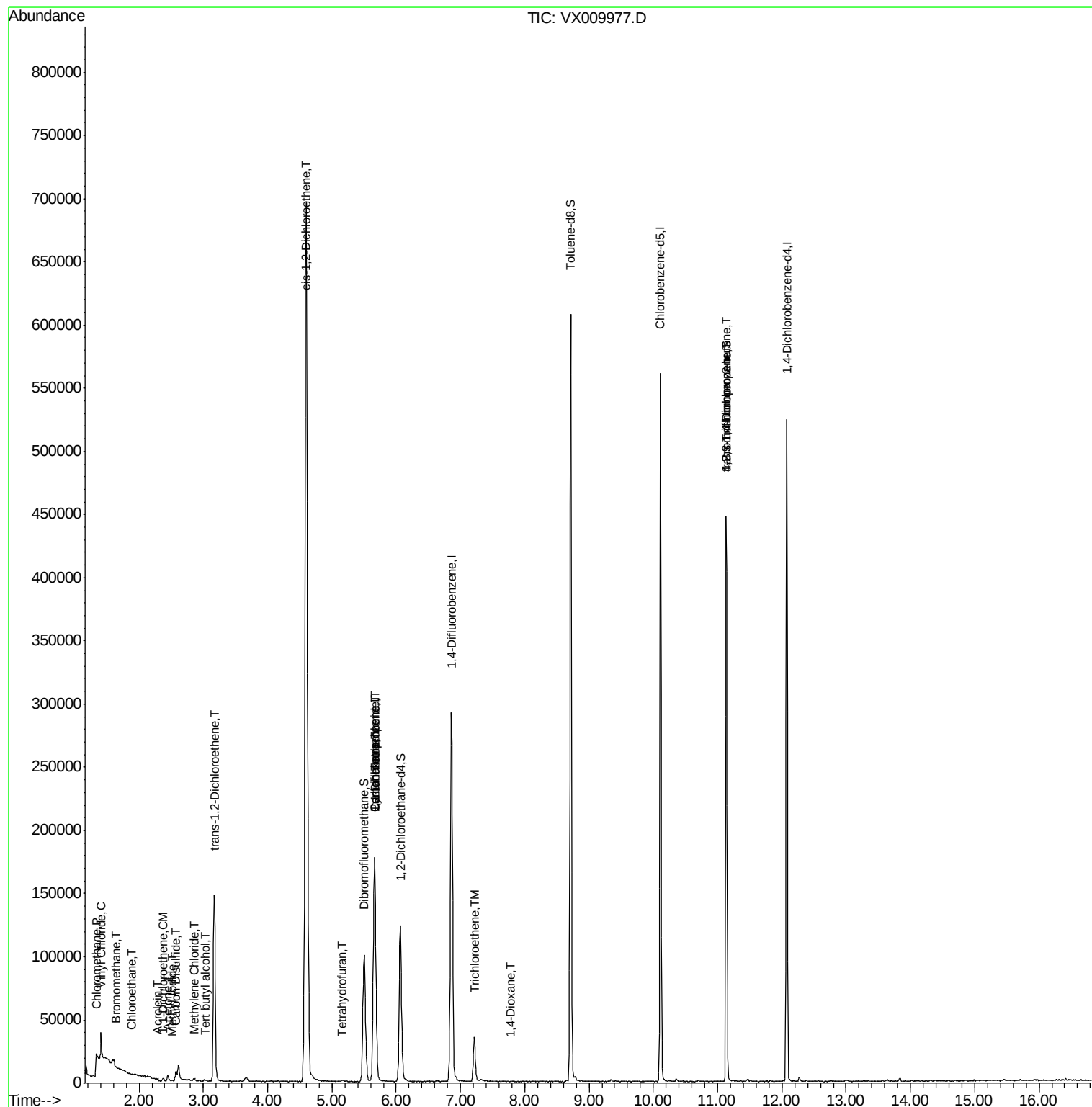
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 3) Chloromethane               | 1.33  | 50   | 1458     | 0.510   | ug/l   | 92     |
| 4) Vinyl Chloride              | 1.41  | 62   | 12606    | 4.894   | ug/l   | 99     |
| 5) Bromomethane                | 1.65  | 94   | 371      | 0.238   | ug/l # | 56     |
| 6) Chloroethane                | 1.89  | 64   | 663      | 0.418   | ug/l # | 46     |
| 10) Methyl Iodide              | 2.51  | 142  | 279      | 4.776   | ug/l # | 81     |
| 11) Tert butyl alcohol         | 3.03  | 59   | 822      | 1.360   | ug/l # | 86     |
| 12) 1,1-Dichloroethene         | 2.38  | 96   | 692      | 0.393   | ug/l   | 92     |
| 13) Acrolein                   | 2.29  | 56   | 159      | 21.437  | ug/l   | 90     |
| 16) Acetone                    | 2.45  | 43   | 5235     | 3.688   | ug/l   | 97     |
| 17) Carbon Disulfide           | 2.57  | 76   | 10900    | 2.413   | ug/l   | 98     |
| 20) Methylene Chloride         | 2.86  | 84   | 597      | 0.275   | ug/l # | 80     |
| 21) trans-1,2-Dichloroethene   | 3.17  | 96   | 57895    | 29.542  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 423328   | 187.132 | ug/l   | 89     |
| 29) Tetrahydrofuran            | 5.15  | 42   | 599      | 0.422   | ug/l   | 92     |
| 31) Cyclohexane                | 5.66  | 56   | 3957     | 1.058   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 13685    | 4.898   | ug/l # | 46     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 16092    | 6.665   | ug/l # | 17     |
| 44) Trichloroethene            | 7.21  | 130  | 12827    | 6.371   | ug/l   | 96     |
| 49) 1,4-Dioxane                | 7.78  | 88   | 22       | 0.380   | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 61631    | 23.993  | ug/l # | 34     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 61631    | 59.362  | ug/l # | 10     |

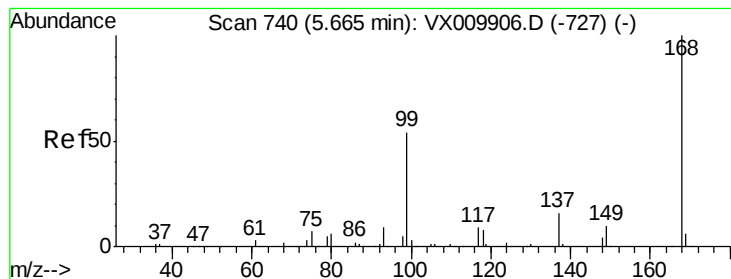
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed May 29 04:00:56 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

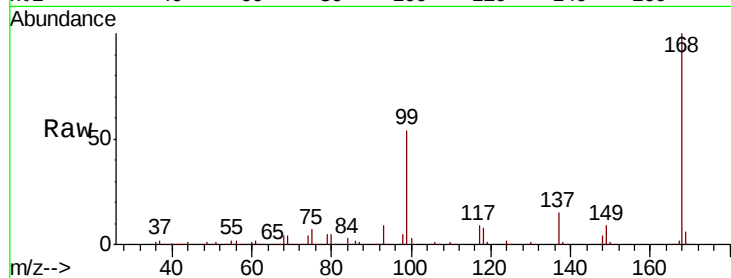
S32-0659

Tot Ion:168 Resp: 173916

Ion Ratio Lower Upper

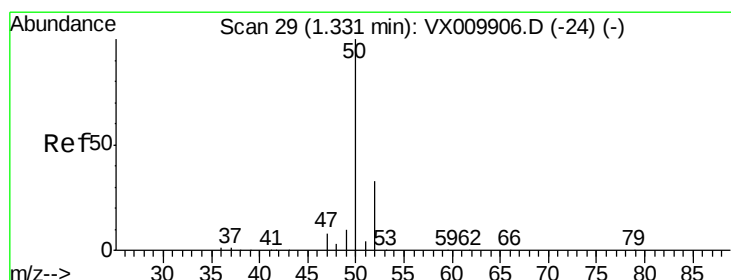
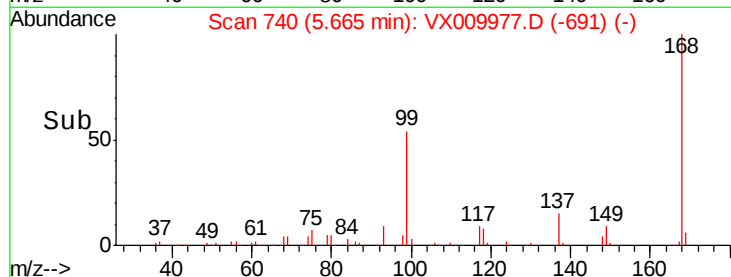
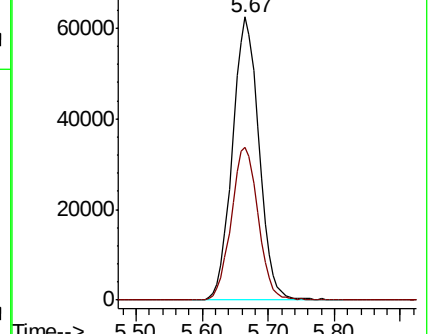
168 100

99 53.9 43.0 64.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#3

Chloromethane

Concen: 0.510 ug/l

RT: 1.33 min Scan# 29

Delta R.T. -0.00 min

Lab File: VX009977.D

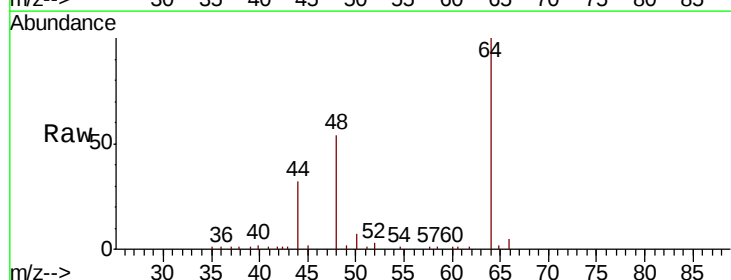
Acq: 31 May 2019 11:37

Tgt Ion: 50 Resp: 1458

Ion Ratio Lower Upper

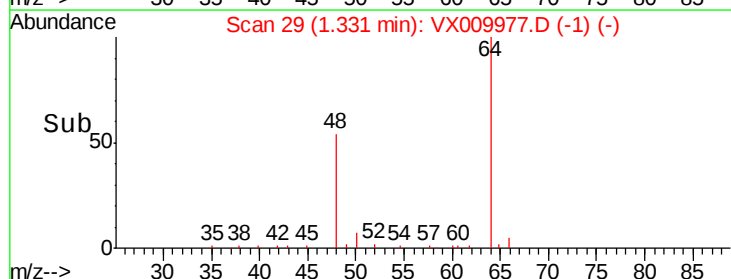
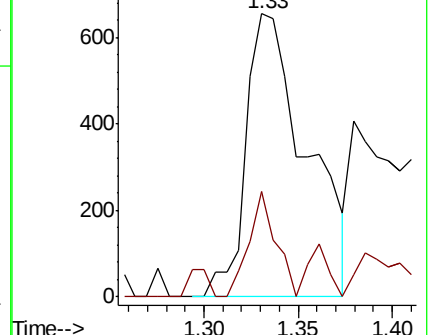
50 100

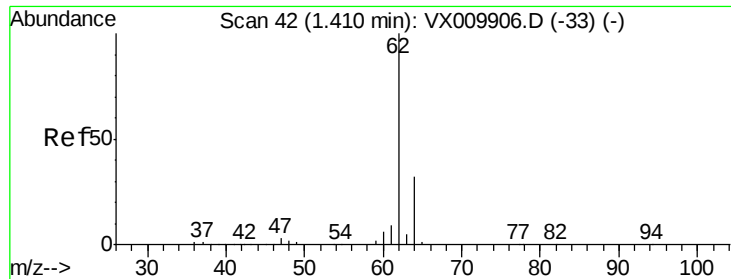
52 37.2 26.0 39.0



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0





#4

Vinyl Chloride

Concen: 4.894 ug/l

RT: 1.41 min Scan# 42

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampled :

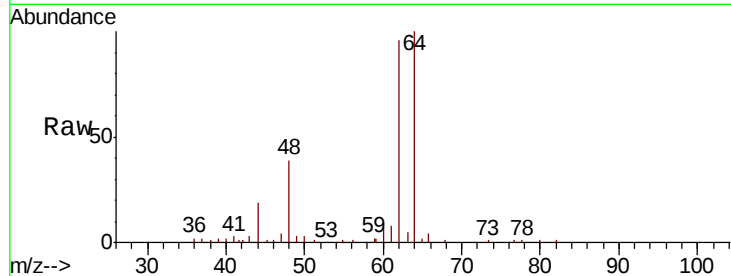
S32-0659

Tot Ion: 62 Resp: 12606

Ion Ratio Lower Upper

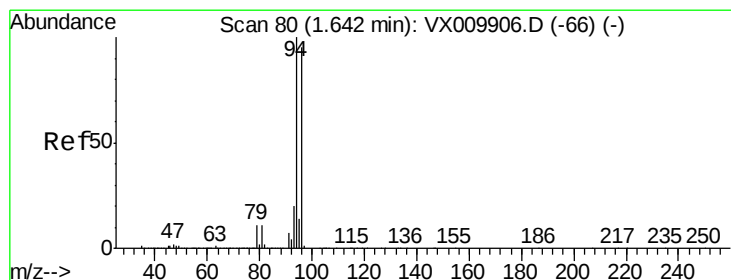
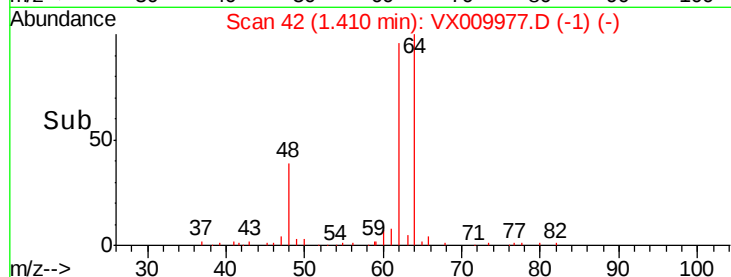
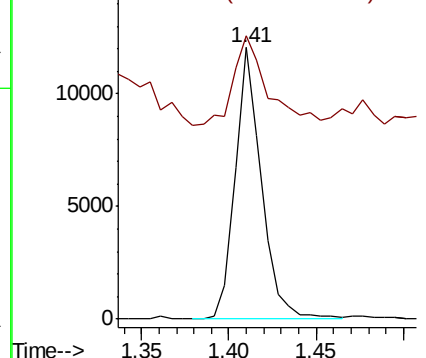
62 100

64 32.9 25.7 38.5



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0



#5

Bromomethane

Concen: 0.238 ug/l

RT: 1.65 min Scan# 82

Delta R.T. 0.01 min

Lab File: VX009977.D

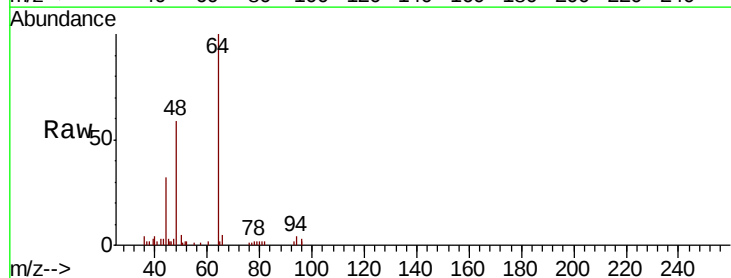
Acq: 31 May 2019 11:37

Tgt Ion: 94 Resp: 371

Ion Ratio Lower Upper

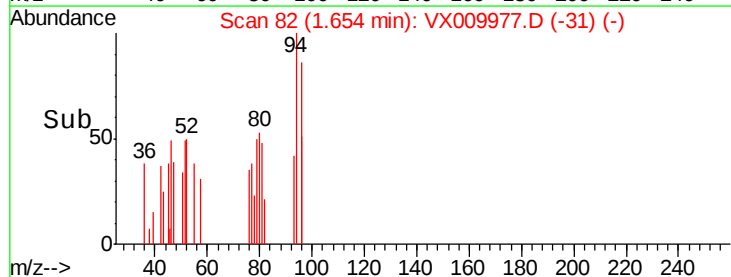
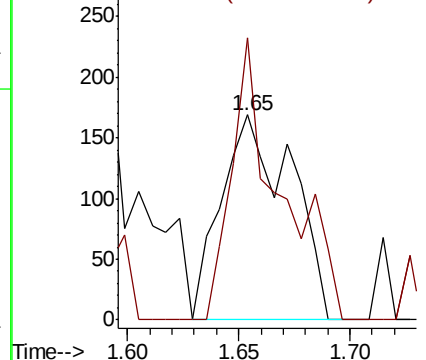
94 100

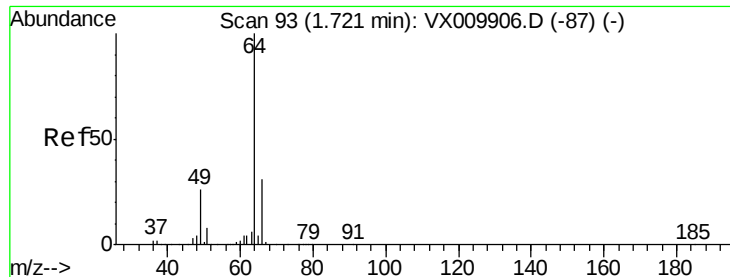
96 137.9 76.2 114.4#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0





#6

Chloroethane

Concen: 0.418 ug/l

RT: 1.89 min Scan# 120

Delta R.T. 0.16 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

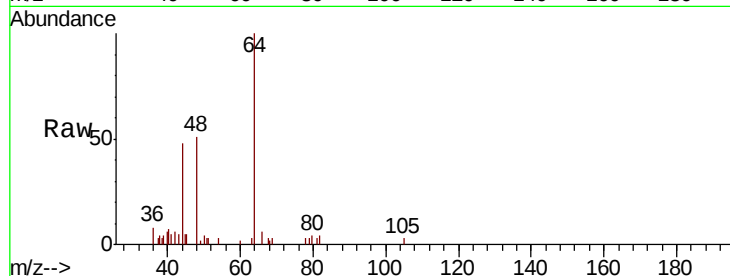
S32-0659

Tot Ion: 64 Resp: 663

Ion Ratio Lower Upper

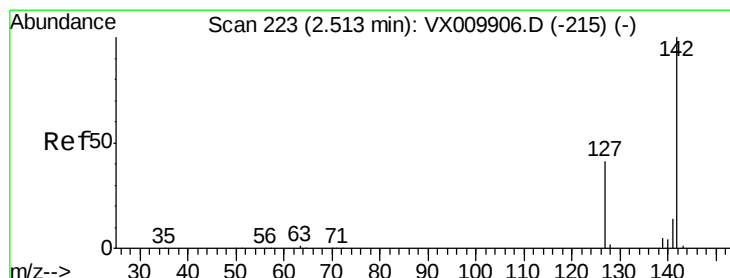
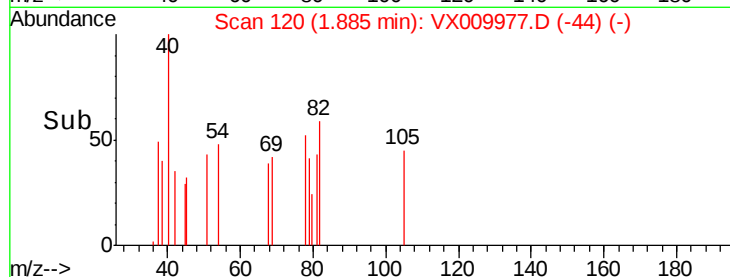
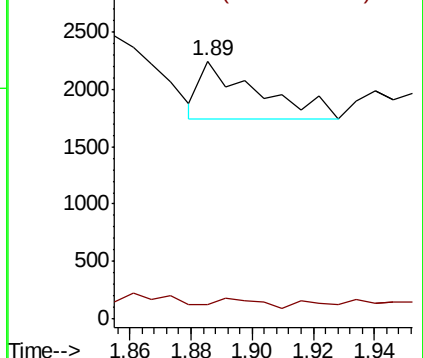
64 100

66 1.4 25.1 37.7#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0



#10

Methyl Iodide

Concen: 4.776 ug/l

RT: 2.51 min Scan# 223

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

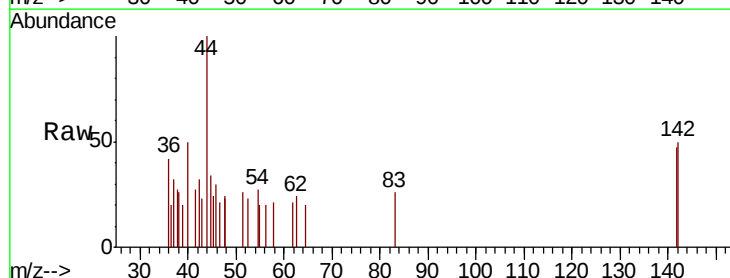
Tgt Ion: 142 Resp: 279

Ion Ratio Lower Upper

142 100

127 29.4 33.0 49.4#

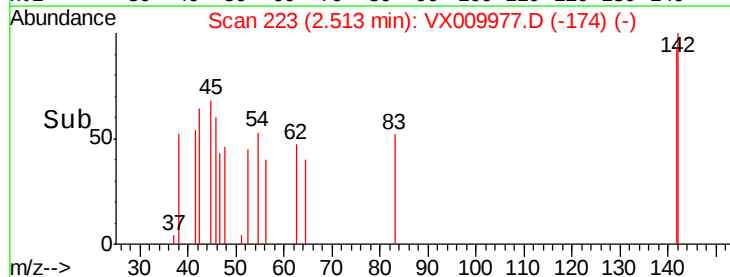
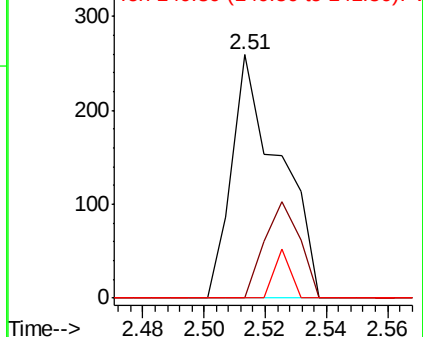
141 6.8 11.4 17.0#

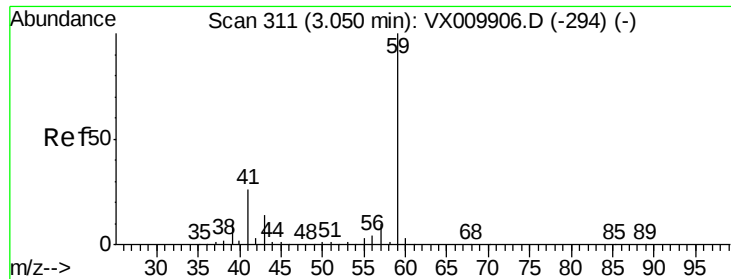


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

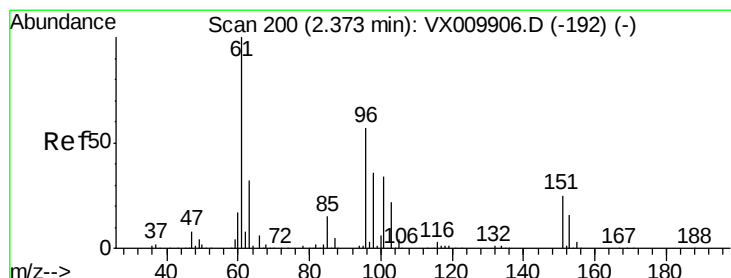
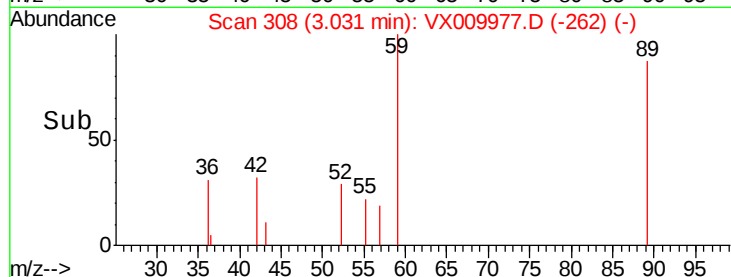
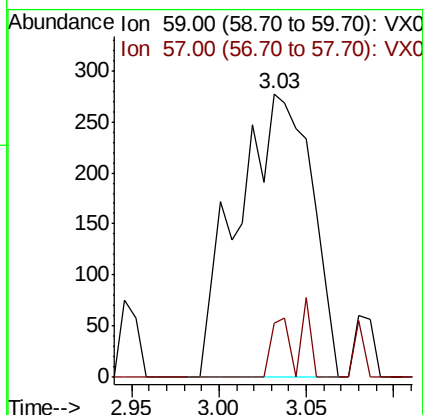
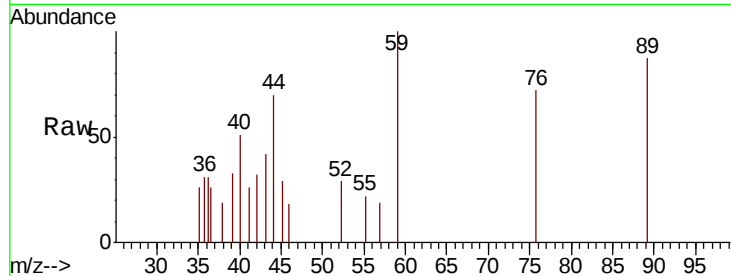




#11  
Tert butyl alcohol  
Concen: 1.360 ug/l  
RT: 3.03 min Scan# 308  
Delta R.T. -0.02 min  
Lab File: VX009977.D  
Acq: 31 May 2019 11:37

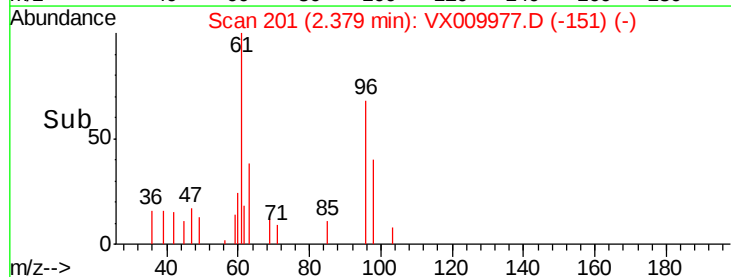
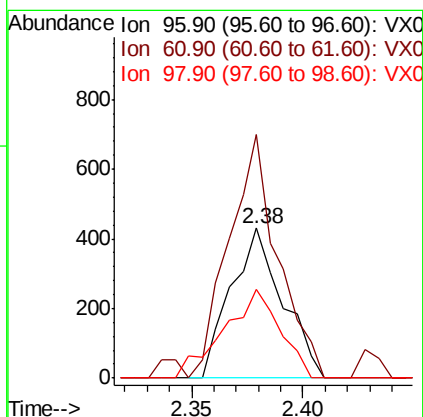
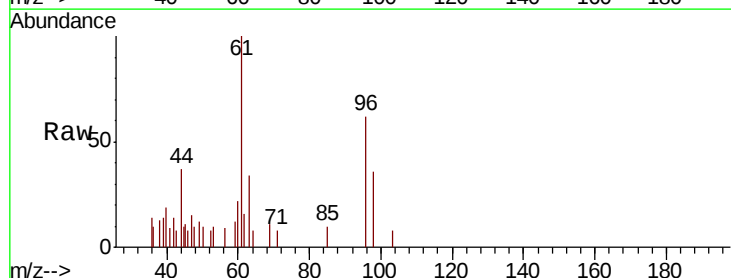
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0659

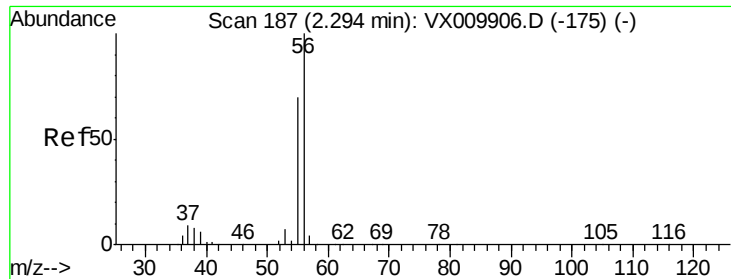
Tot Ion: 59 Resp: 822  
Ion Ratio Lower Upper  
59 100  
57 4.9 8.2 12.2#



#12  
1,1-Dichloroethene  
Concen: 0.393 ug/l  
RT: 2.38 min Scan# 201  
Delta R.T. 0.01 min  
Lab File: VX009977.D  
Acq: 31 May 2019 11:37

Tgt Ion: 96 Resp: 692  
Ion Ratio Lower Upper  
96 100  
61 162.6 140.7 211.1  
98 59.3 50.1 75.1





#13

Acrolein

Concen: 21.437 ug/l

RT: 2.29 min Scan# 186

Delta R.T. -0.01 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

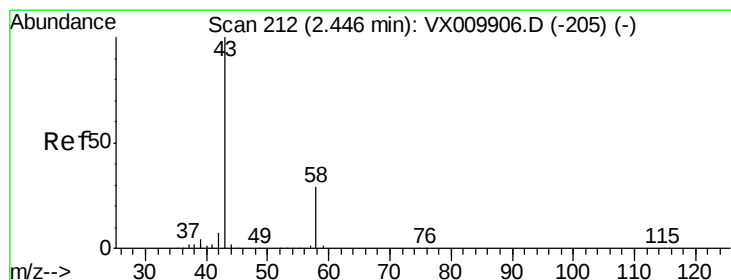
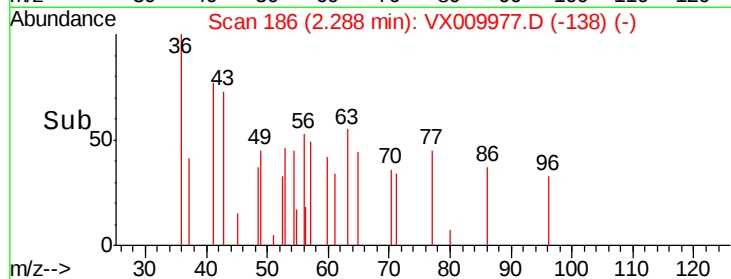
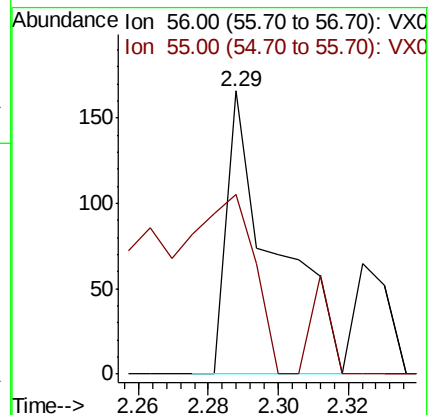
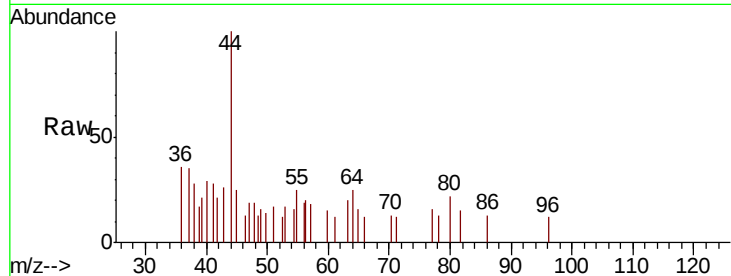
S32-0659

Tot Ion: 56 Resp: 159

Ion Ratio Lower Upper

56 100

55 79.9 57.0 85.4



#16

Acetone

Concen: 3.688 ug/l

RT: 2.45 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX009977.D

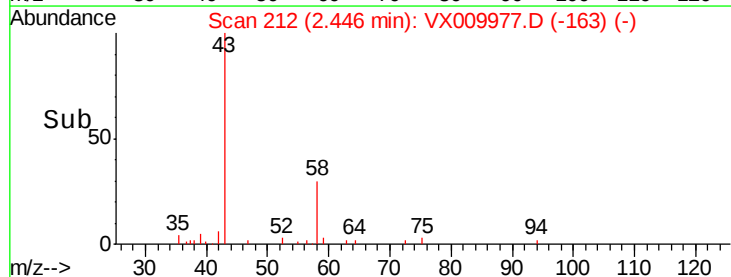
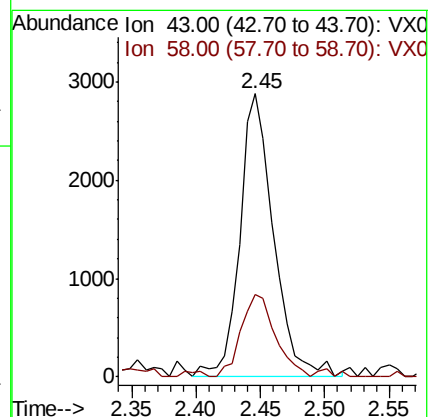
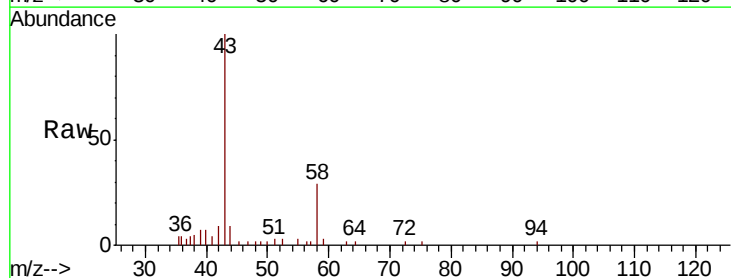
Acq: 31 May 2019 11:37

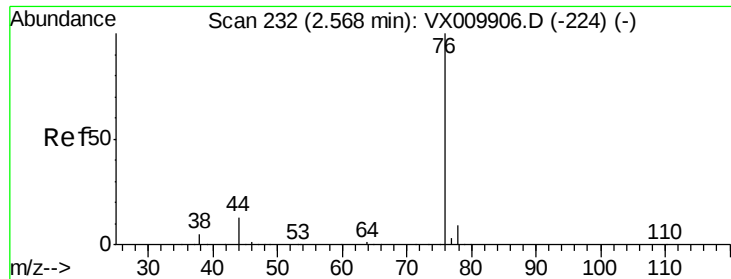
Tgt Ion: 43 Resp: 5235

Ion Ratio Lower Upper

43 100

58 27.2 23.2 34.8





#17

Carbon Disulfide

Concen: 2.413 ug/l

RT: 2.57 min Scan# 233

Delta R.T. 0.01 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

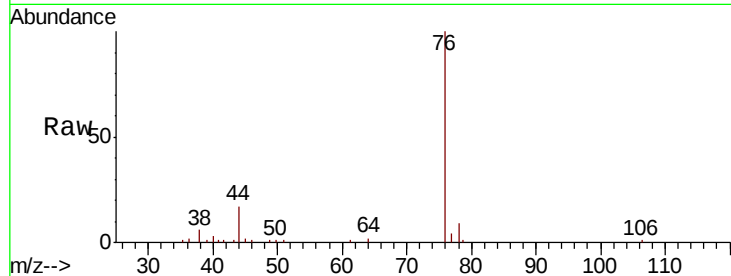
S32-0659

Tot Ion: 76 Resp: 10900

Ion Ratio Lower Upper

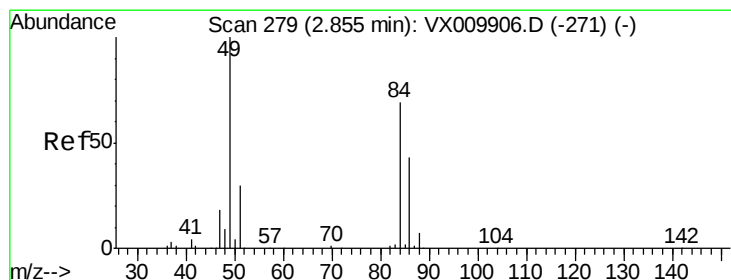
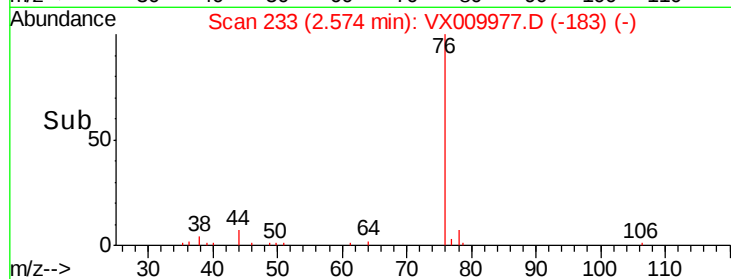
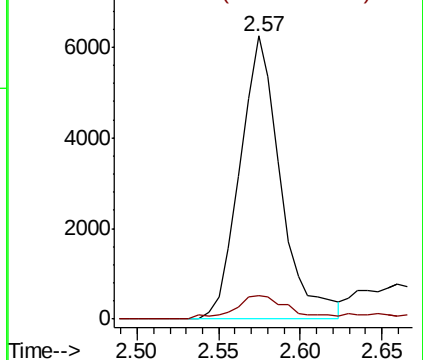
76 100

78 9.4 7.0 10.6



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0



#20

Methylene Chloride

Concen: 0.275 ug/l

RT: 2.86 min Scan# 280

Delta R.T. 0.01 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Tgt Ion: 84 Resp: 597

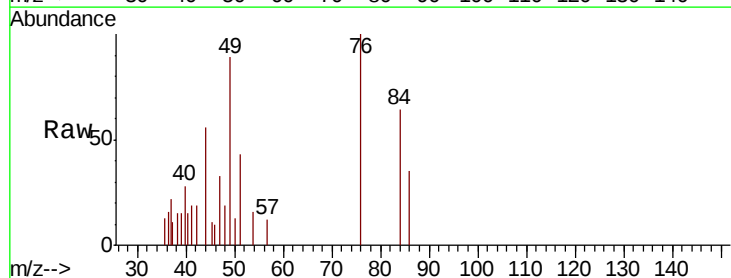
Ion Ratio Lower Upper

84 100

49 122.2 115.8 173.6

51 67.0 34.4 51.6#

86 54.0 49.7 74.5

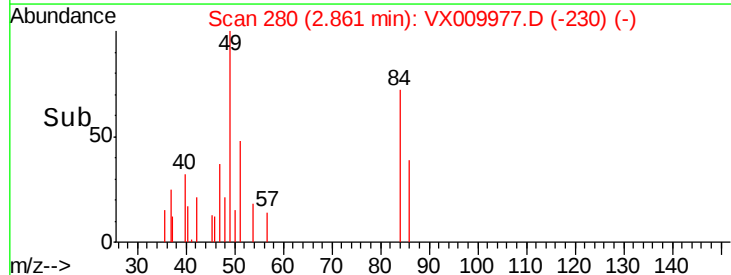
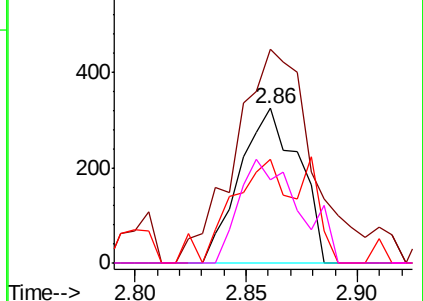


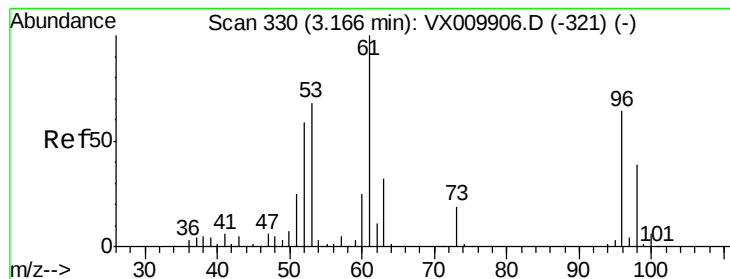
Abundance Ion 83.90 (83.60 to 84.60): VX0

Ion 48.90 (48.60 to 49.60): VX0

Ion 50.90 (50.60 to 51.60): VX0

Ion 85.90 (85.60 to 86.60): VX0





#21

trans-1,2-Dichloroethene

Concen: 29.542 ug/l

RT: 3.17 min Scan# 330

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

S32-0659

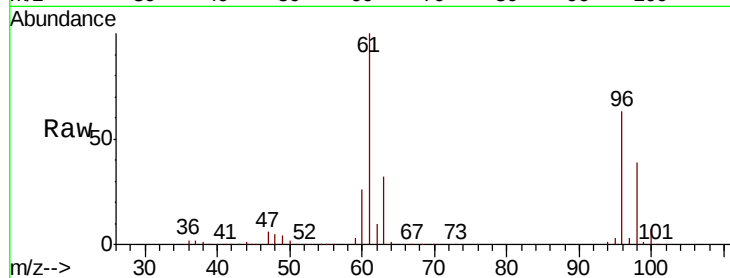
Tot Ion: 96 Resp: 57895

Ion Ratio Lower Upper

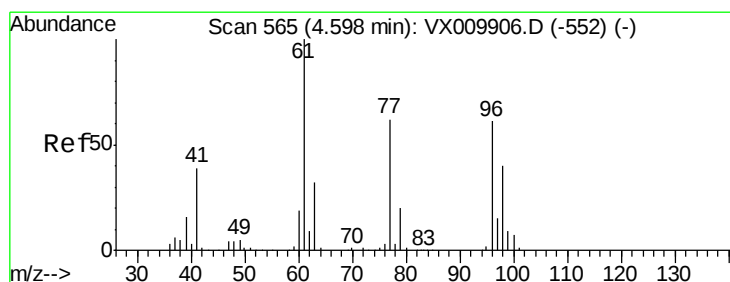
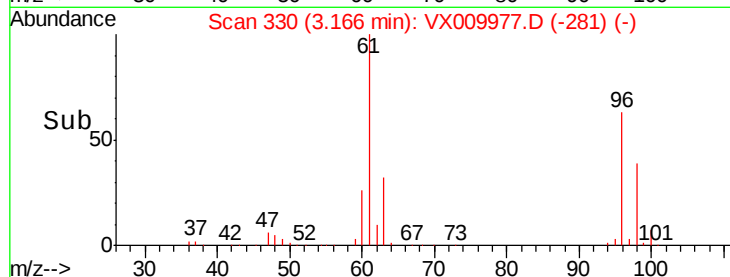
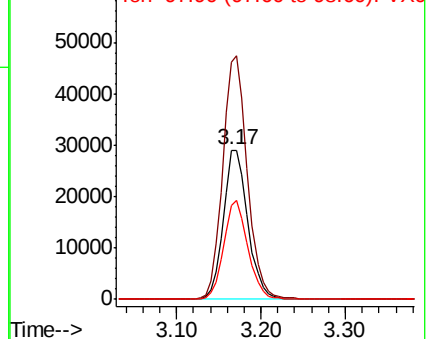
96 100

61 158.8 125.7 188.5

98 62.6 49.0 73.6



Abundance Ion 95.90 (95.60 to 96.60): VX0  
Ion 60.90 (60.60 to 61.60): VX0  
Ion 97.90 (97.60 to 98.60): VX0



#27

cis-1,2-Dichloroethene

Concen: 187.132 ug/l

RT: 4.60 min Scan# 565

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

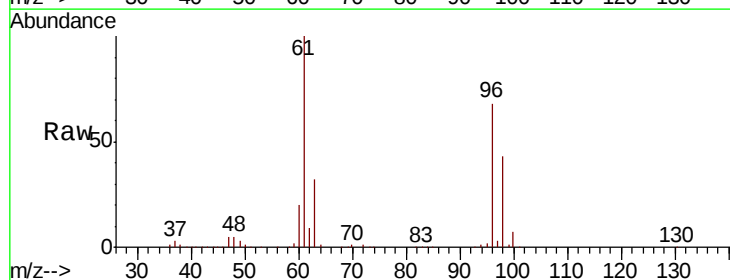
Tgt Ion: 96 Resp: 423328

Ion Ratio Lower Upper

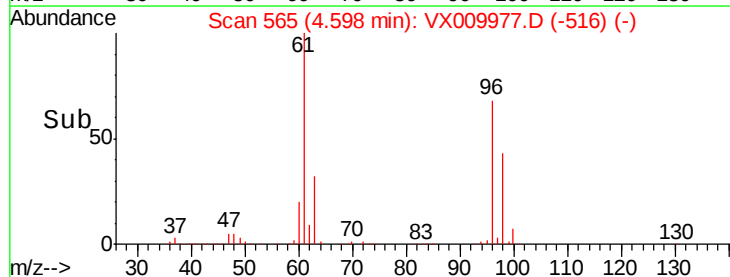
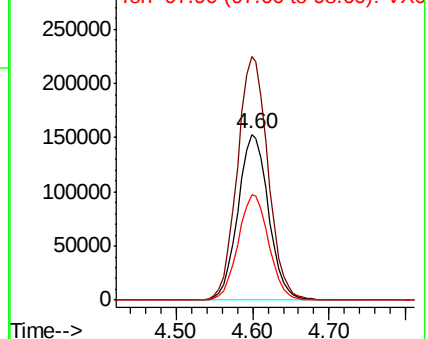
96 100

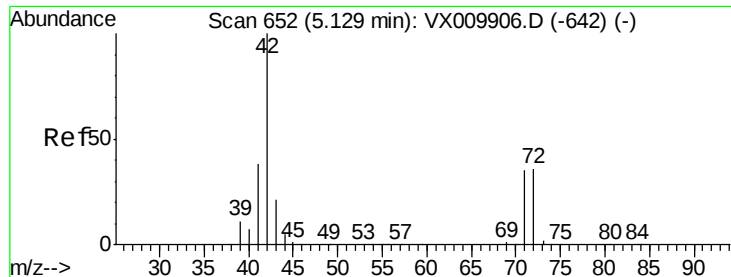
61 147.9 0.0 334.0

98 64.0 0.0 131.6



Abundance Ion 95.90 (95.60 to 96.60): VX0  
Ion 60.90 (60.60 to 61.60): VX0  
Ion 97.90 (97.60 to 98.60): VX0

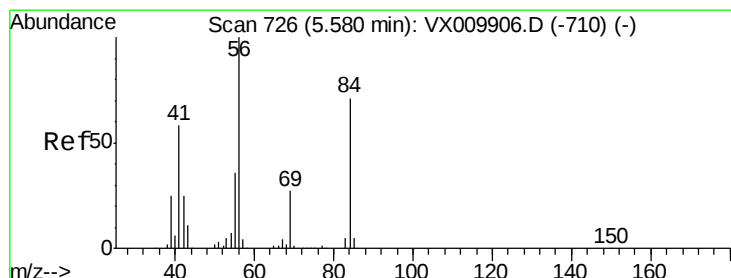
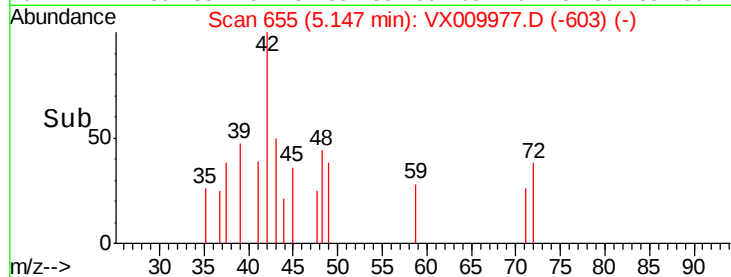
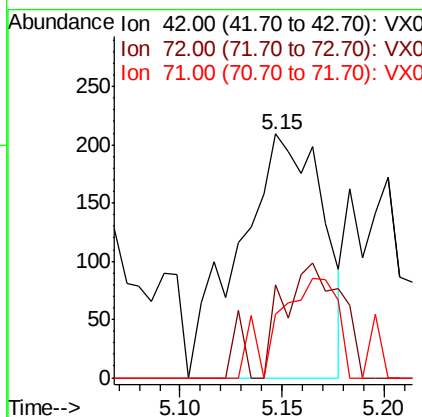
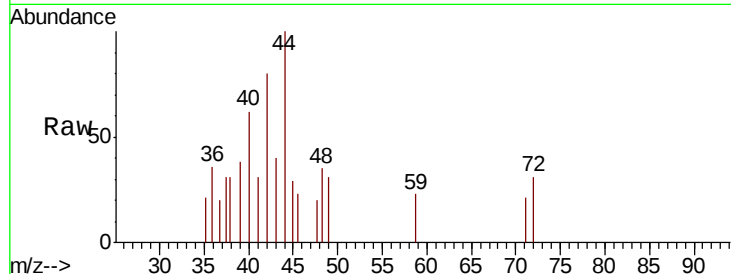




#29  
Tetrahydrofuran  
Concen: 0.422 ug/l  
RT: 5.15 min Scan# 655  
Delta R.T. 0.02 min  
Lab File: VX009977.D  
Acq: 31 May 2019 11:37

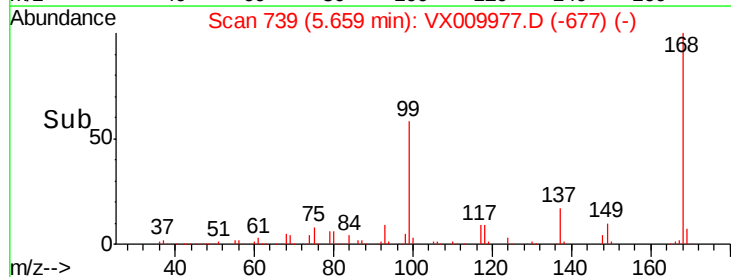
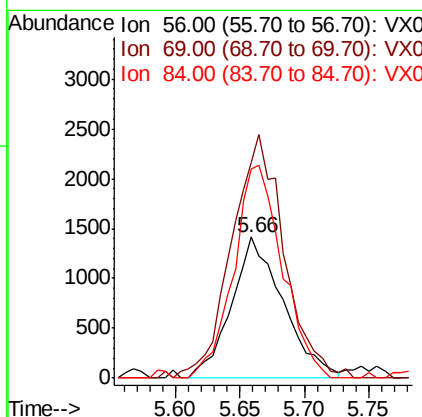
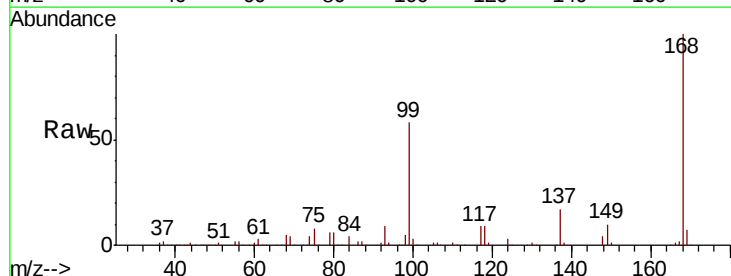
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0659

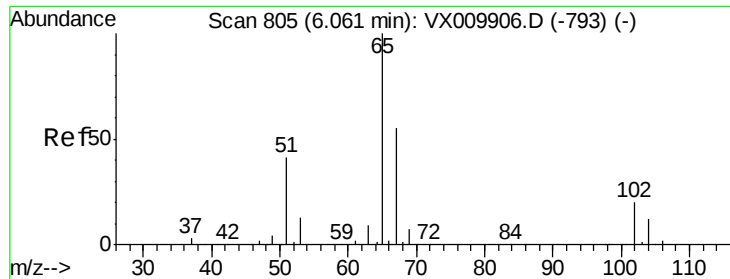
Tot Ion: 42 Resp: 599  
Ion Ratio Lower Upper  
42 100  
72 32.4 29.2 43.8  
71 29.0 27.6 41.4



#31  
Cyclohexane  
Concen: 1.058 ug/l  
RT: 5.66 min Scan# 739  
Delta R.T. 0.08 min  
Lab File: VX009977.D  
Acq: 31 May 2019 11:37

Tgt Ion: 56 Resp: 3957  
Ion Ratio Lower Upper  
56 100  
69 148.7 21.6 32.4#  
84 148.4 56.8 85.2#

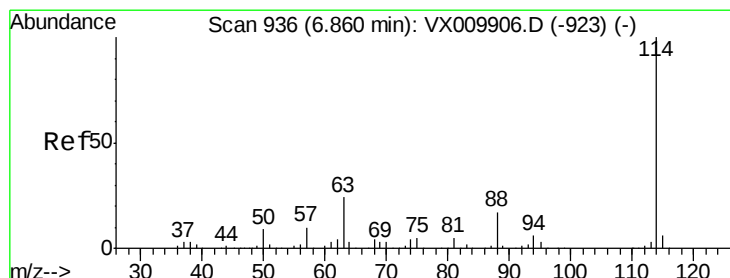
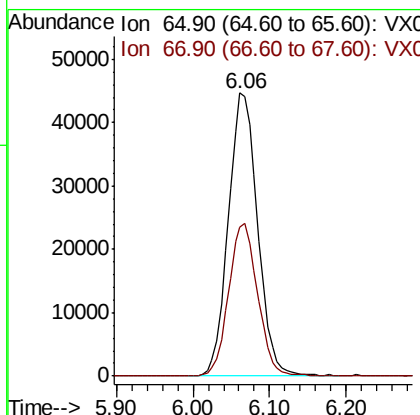
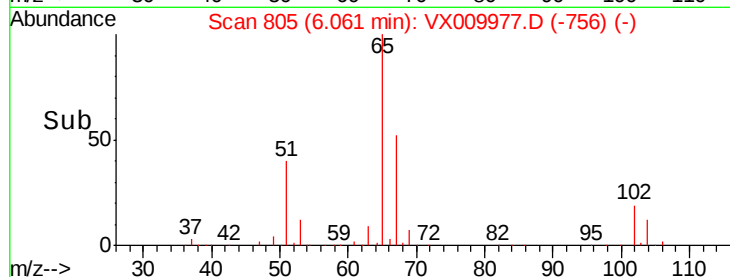
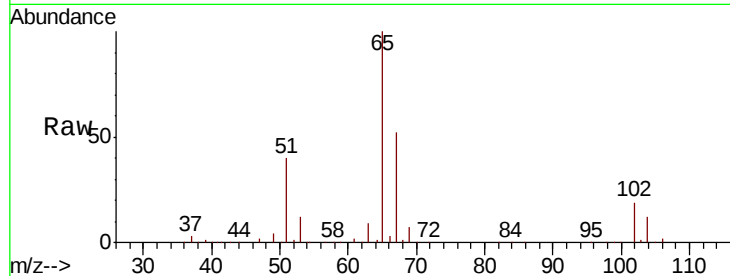




#33  
 1,2-Dichloroethane-d4  
 Concen: 48.188 ug/l  
 RT: 6.06 min Scan# 805  
 Delta R.T. 0.00 min  
 Lab File: VX009977.D  
 Acq: 31 May 2019 11:37

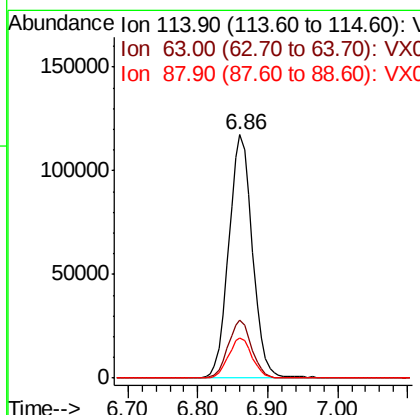
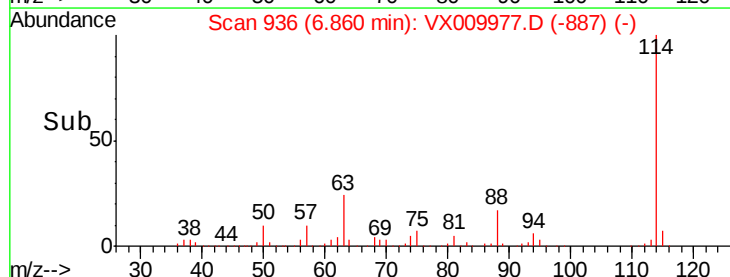
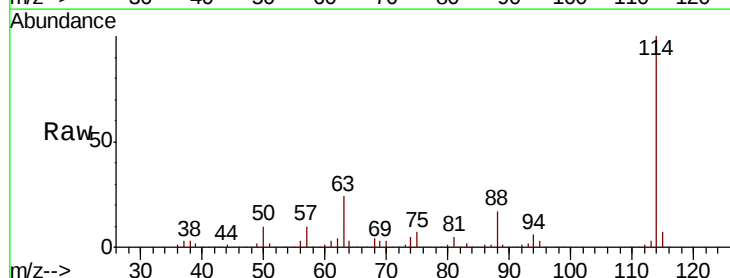
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S32-0659

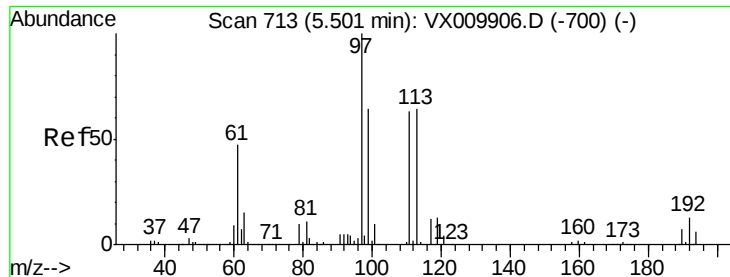
Tot Ion: 65 Resp: 118383  
 Ion Ratio Lower Upper  
 65 100  
 67 53.2 0.0 108.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. 0.00 min  
 Lab File: VX009977.D  
 Acq: 31 May 2019 11:37

Tgt Ion: 114 Resp: 275369  
 Ion Ratio Lower Upper  
 114 100  
 63 23.5 0.0 47.4  
 88 16.5 0.0 33.0

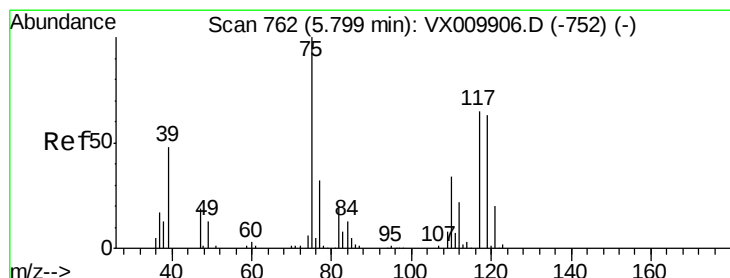
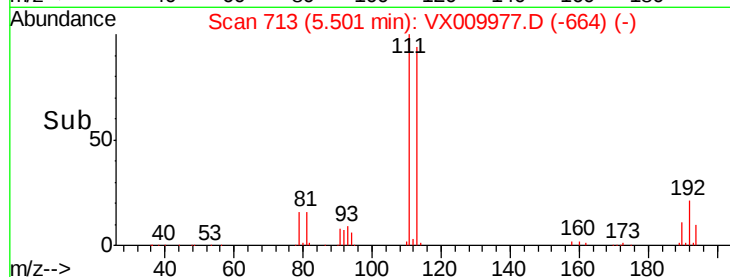
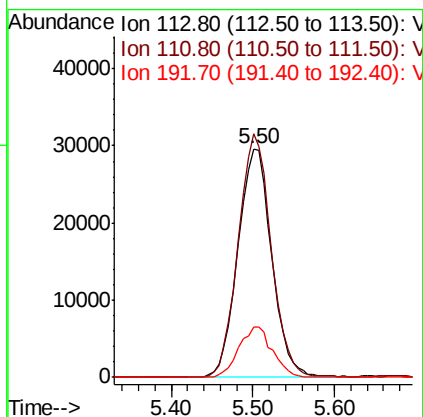
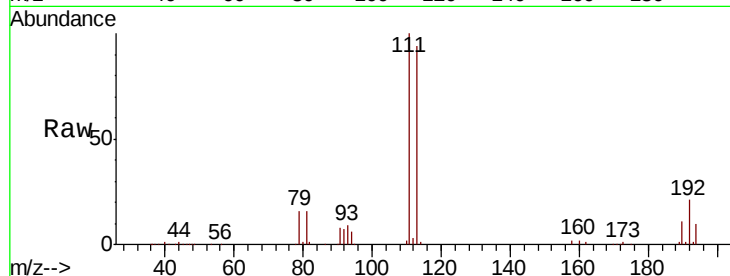




#35  
 Dibromofluoromethane  
 Concen: 49.256 ug/l  
 RT: 5.50 min Scan# 713  
 Delta R.T. 0.00 min  
 Lab File: VX009977.D  
 Acq: 31 May 2019 11:37

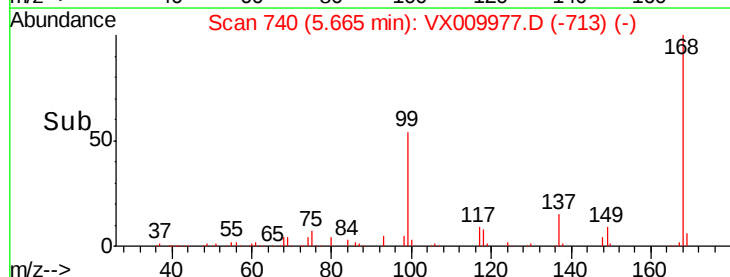
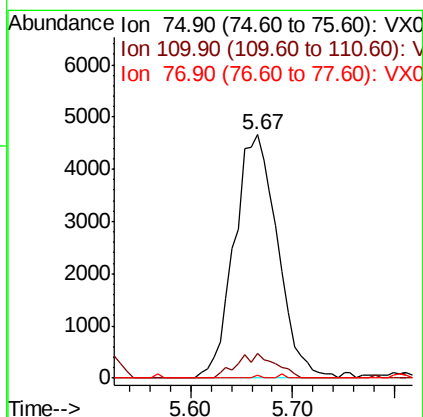
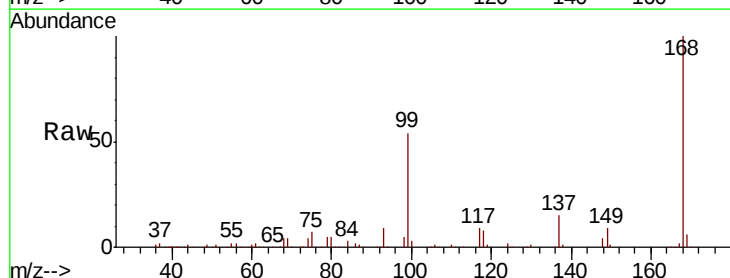
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S32-0659

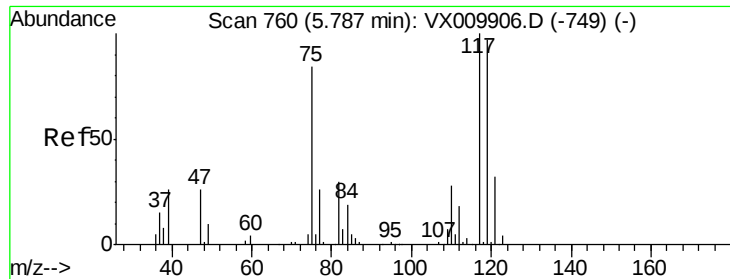
Tot Ion:113 Resp: 85275  
 Ion Ratio Lower Upper  
 113 100  
 111 104.1 82.2 123.2  
 192 21.8 17.1 25.7



#36  
 1,1-Dichloropropene  
 Concen: 4.898 ug/l  
 RT: 5.67 min Scan# 740  
 Delta R.T. -0.13 min  
 Lab File: VX009977.D  
 Acq: 31 May 2019 11:37

Tgt Ion: 75 Resp: 13685  
 Ion Ratio Lower Upper  
 75 100  
 110 4.0 16.7 50.1#  
 77 0.2 25.0 37.4#





#38

Carbon Tetrachloride

Concen: 6.665 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

S32-0659

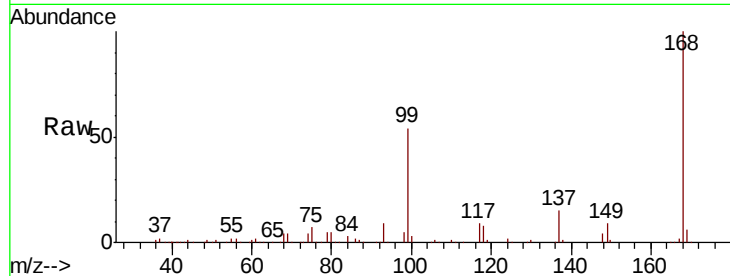
Tot Ion:117 Resp: 16092

Ion Ratio Lower Upper

117 100

119 6.4 77.3 115.9#

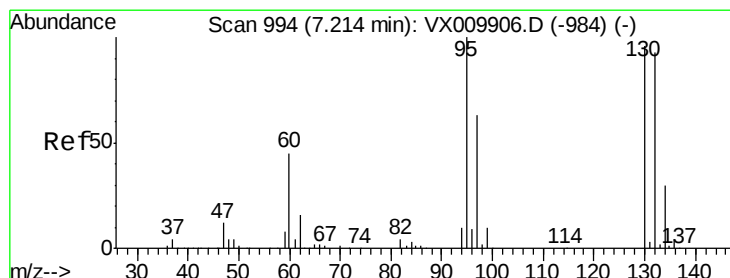
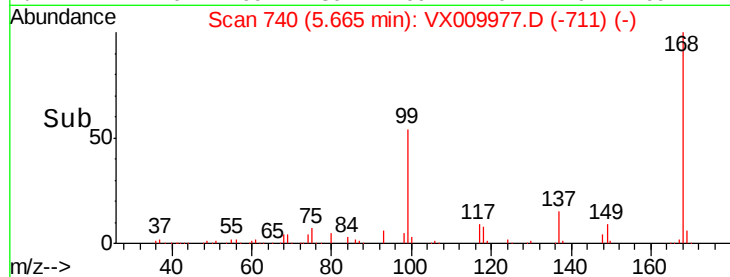
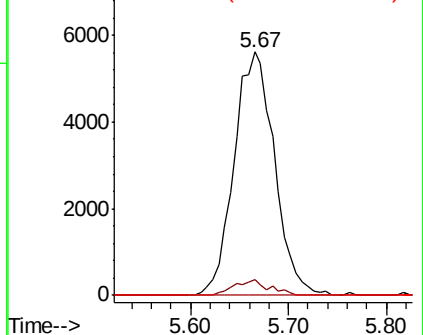
121 0.0 25.4 38.0#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#44

Trichloroethene

Concen: 6.371 ug/l

RT: 7.21 min Scan# 994

Delta R.T. 0.00 min

Lab File: VX009977.D

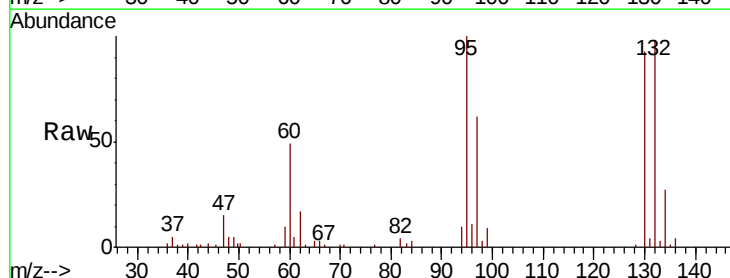
Acq: 31 May 2019 11:37

Tgt Ion:130 Resp: 12827

Ion Ratio Lower Upper

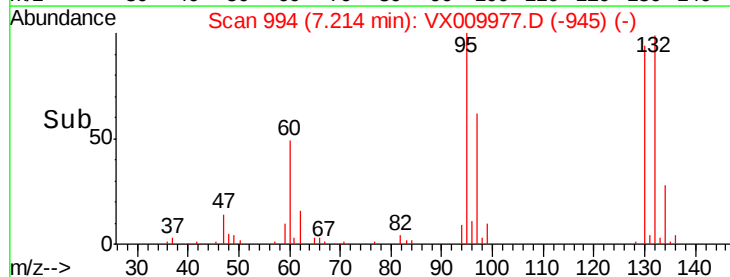
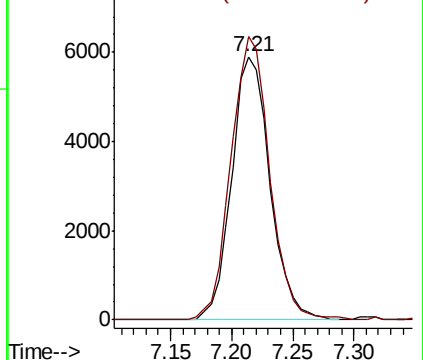
130 100

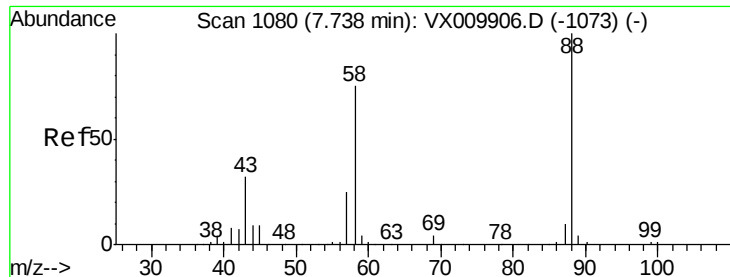
95 107.6 0.0 207.4



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

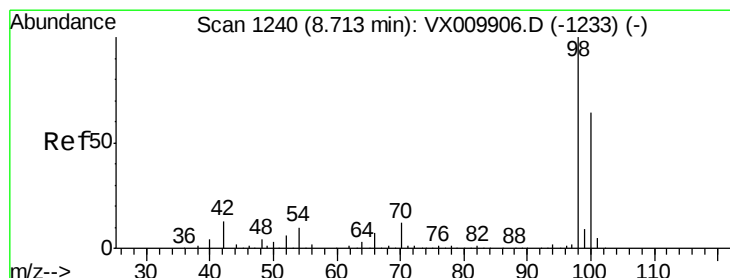
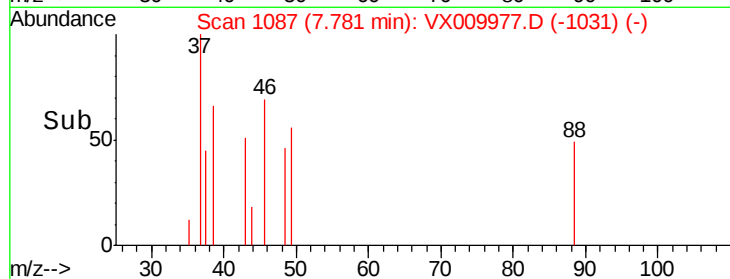
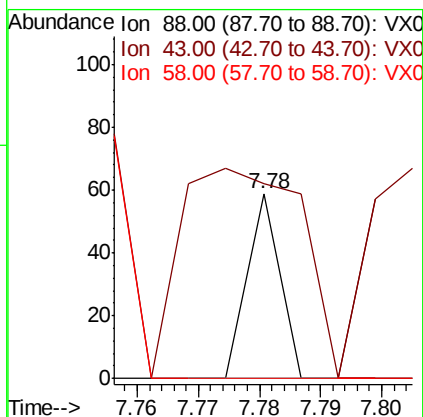
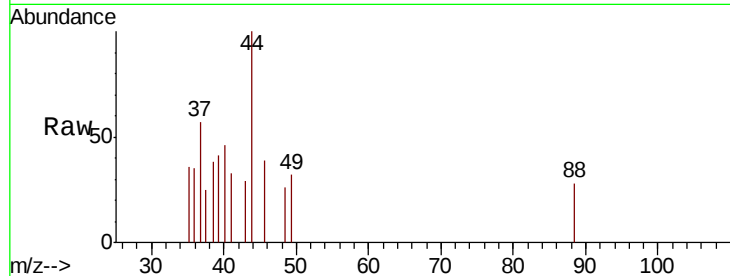




#49  
1,4-Dioxane  
Concen: 0.380 ug/l  
RT: 7.78 min Scan# 1087  
Delta R.T. 0.04 min  
Lab File: VX009977.D  
Acq: 31 May 2019 11:37

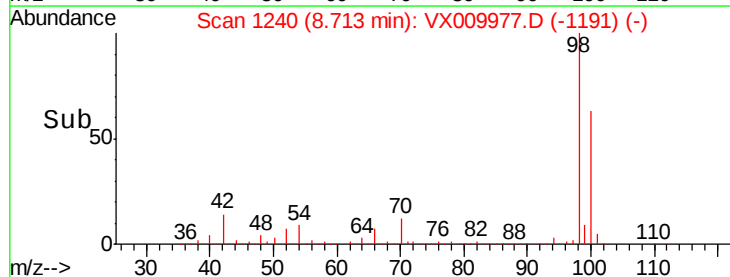
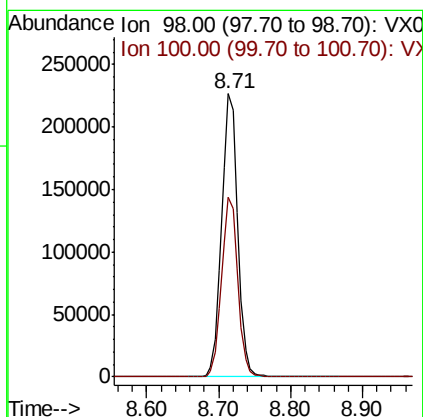
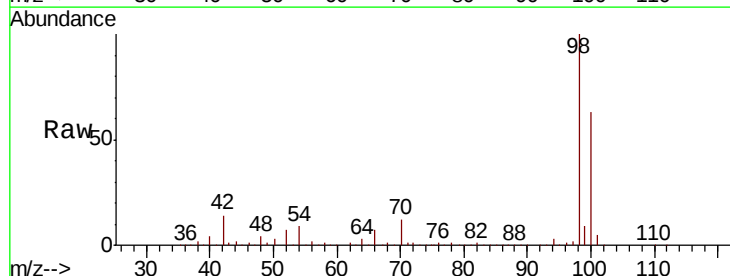
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0659

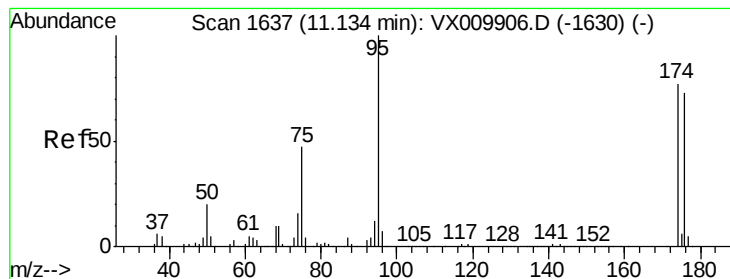
Tot Ion: 88 Resp: 22  
Ion Ratio Lower Upper  
88 100  
43 413.6 30.2 45.4#  
58 0.0 64.0 96.0#



#50  
Toluene-d8  
Concen: 50.066 ug/l  
RT: 8.71 min Scan# 1240  
Delta R.T. 0.00 min  
Lab File: VX009977.D  
Acq: 31 May 2019 11:37

Tgt Ion: 98 Resp: 351974  
Ion Ratio Lower Upper  
98 100  
100 64.0 51.5 77.3





#62

4-Bromofluorobenzene

Concen: 46.487 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

S32-0659

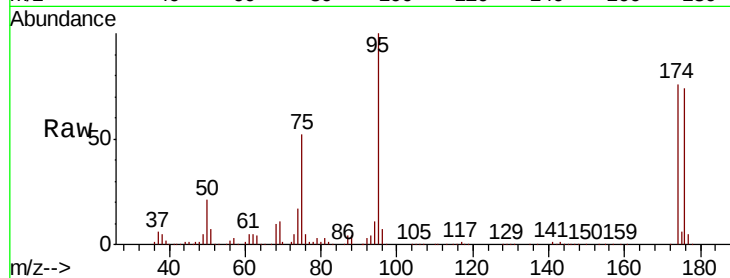
Tot Ion: 95 Resp: 117385

Ion Ratio Lower Upper

95 100

174 81.1 0.0 160.4

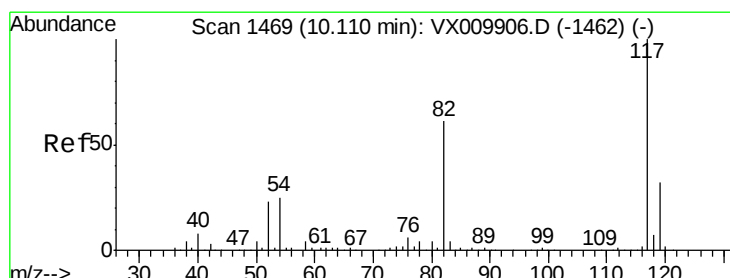
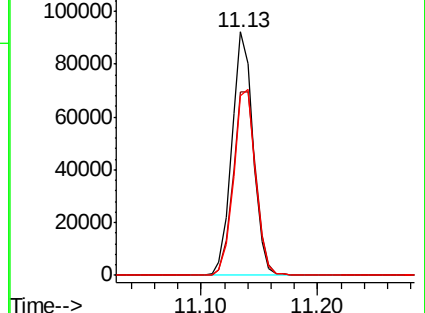
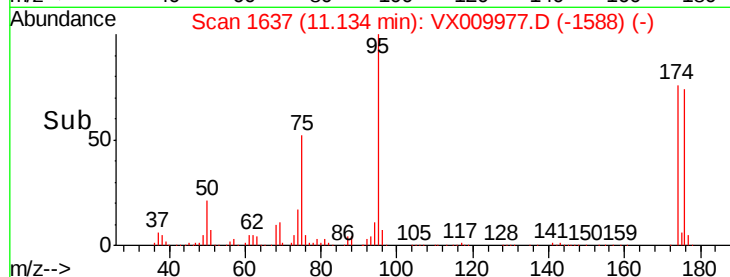
176 78.6 0.0 154.6



Abundance Ion 94.90 (94.60 to 95.60): VX009977.D (-1588) (-)

Ion 173.80 (173.50 to 174.50): VX009977.D (-1588) (-)

Ion 175.80 (175.50 to 176.50): VX009977.D (-1588) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

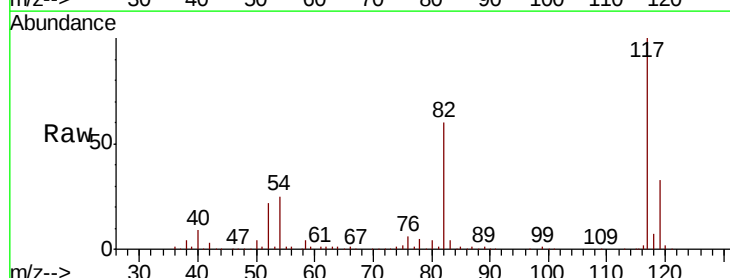
Tgt Ion: 117 Resp: 246849

Ion Ratio Lower Upper

117 100

82 60.3 49.2 73.8

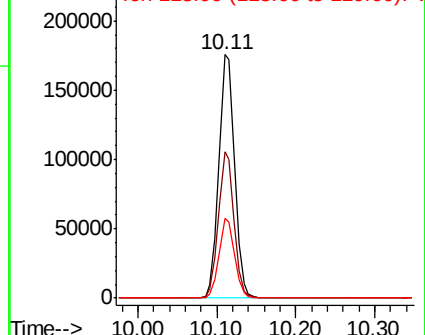
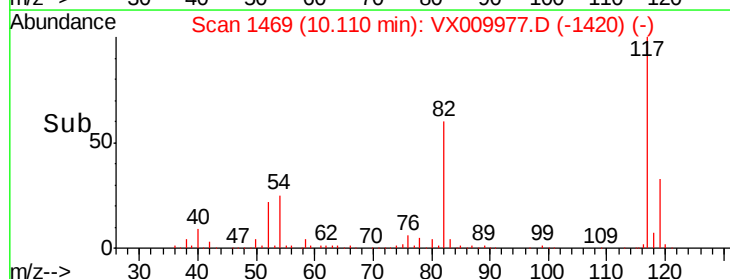
119 32.8 25.2 37.8

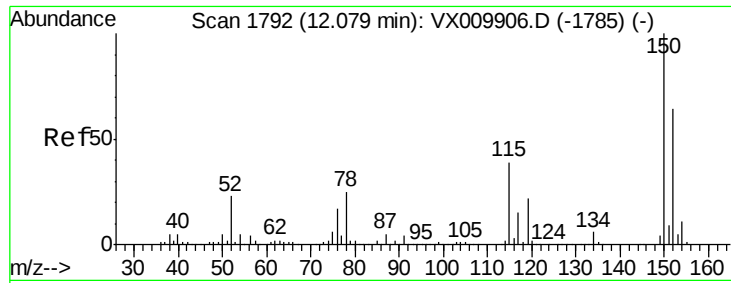


Abundance Ion 116.90 (116.60 to 117.60): VX009977.D (-1420) (-)

Ion 82.00 (81.70 to 82.70): VX009977.D (-1420) (-)

Ion 118.90 (118.60 to 119.60): VX009977.D (-1420) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. 0.00 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

S32-0659

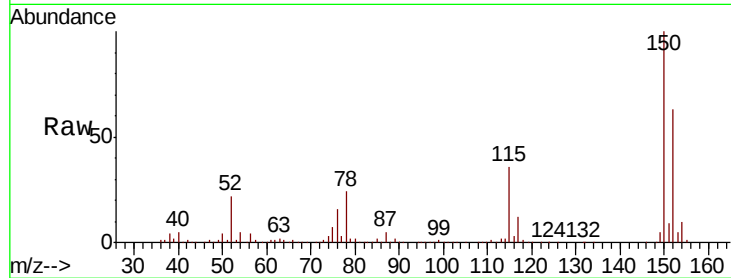
Tot Ion:152 Resp: 107419

Ion Ratio Lower Upper

152 100

115 58.8 41.4 124.2

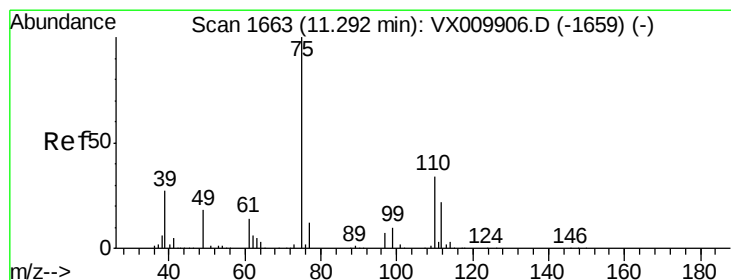
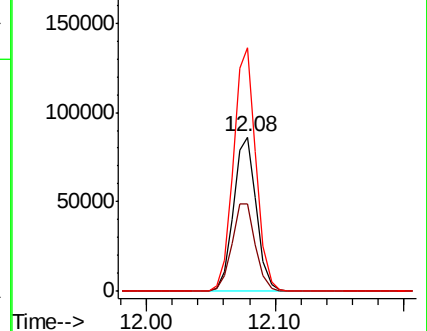
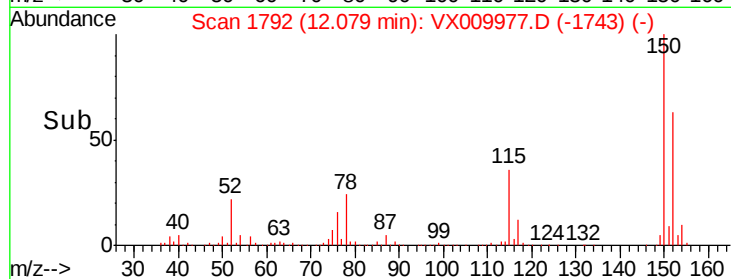
150 156.0 0.0 345.2



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 23.993 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX009977.D

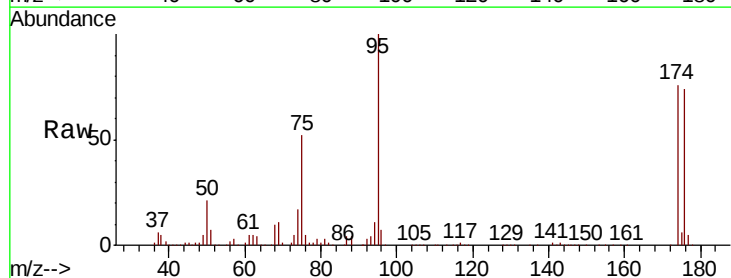
Acq: 31 May 2019 11:37

Tgt Ion: 75 Resp: 61631

Ion Ratio Lower Upper

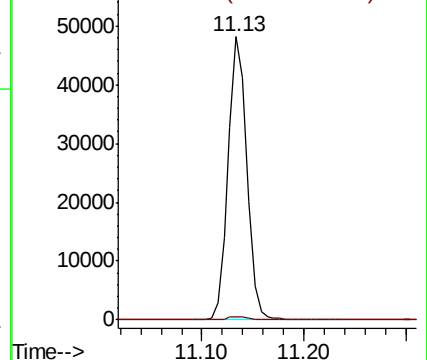
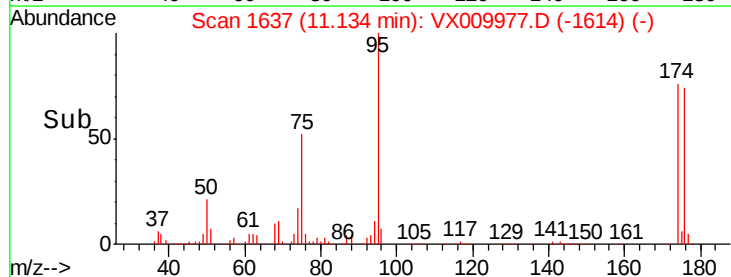
75 100

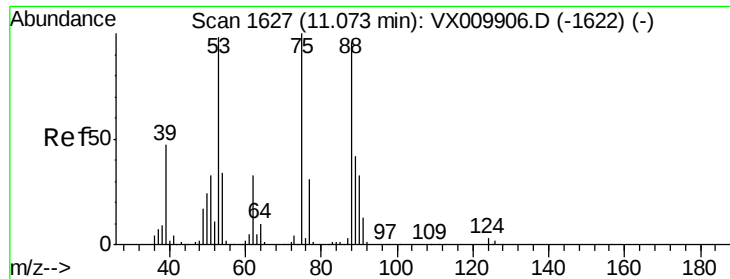
77 1.3 22.1 66.1#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 59.362 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009977.D

Acq: 31 May 2019 11:37

Instrument :

MSVOA\_X

ClientSampleId :

S32-0659

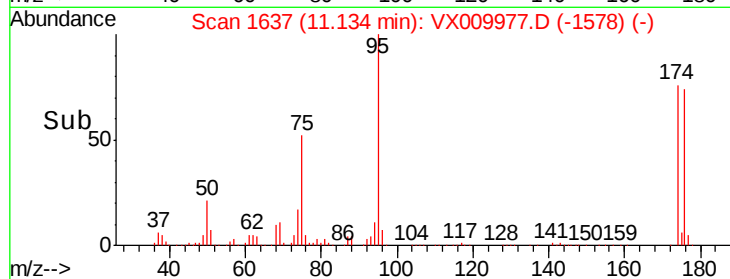
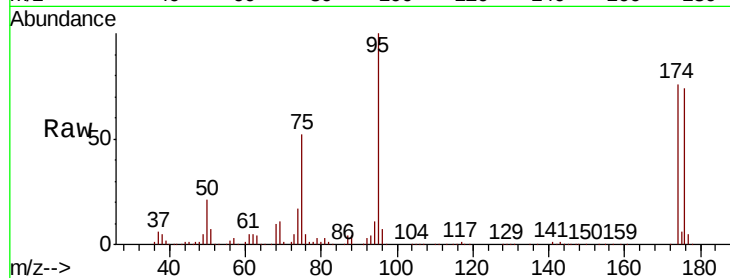
Tot Ion: 75 Resp: 61631

Ion Ratio Lower Upper

75 100

53 0.2 79.8 119.6#

89 0.0 34.2 51.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

