

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX042219\  
 Data File : VX009097.D  
 Acq On : 22 Apr 2019 15:12  
 Operator : JC/SP  
 Sample : K2482-01 10X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 AU-041819DL

Quant Time: Apr 23 02:33:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X041519W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 17 06:47:58 2019  
 Response via : Initial Calibration

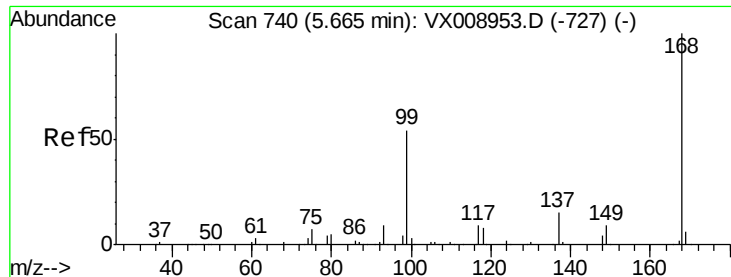
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.66  | 168  | 247147   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 396543   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 348722   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 150720   | 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   | 163079   | 46.82 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.64% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 120412   | 47.31 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.62% |          |
| 50) Toluene-d8              | 8.71  | 98   | 496274   | 48.90 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.80% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 166364   | 46.44 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.88% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 1.65  | 94   | 714      | 4.158     | ug/l   | 99     |
| 6) Chloroethane                | 1.73  | 64   | 442      | 0.221     | ug/l # | 60     |
| 10) Methyl Iodide              | 2.52  | 142  | 409      | 4.549     | ug/l # | 70     |
| 11) Tert butyl alcohol         | 3.04  | 59   | 607      | 0.785     | ug/l # | 81     |
| 13) Acrolein                   | 2.29  | 56   | 10642    | 15.931    | ug/l   | 100    |
| 16) Acetone                    | 2.44  | 43   | 91877    | 50.867    | ug/l   | 98     |
| 17) Carbon Disulfide           | 2.57  | 76   | 890      | 1.364     | ug/l # | 75     |
| 20) Methylene Chloride         | 2.85  | 84   | 796      | 0.258     | ug/l # | 96     |
| 25) 2-Butanone                 | 4.67  | 43   | 106057   | 36.735    | ug/l   | 98     |
| 28) Bromochloromethane         | 5.00  | 49   | 56       | Below Cal | #      | 21     |
| 29) Tetrahydrofuran            | 5.13  | 42   | 2828     | 1.463     | ug/l # | 85     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 19287    | 4.703     | ug/l # | 49     |
| 37) Ethyl Acetate              | 4.67  | 43   | 106057   | 20.097    | ug/l # | 70     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 22839    | 6.569     | ug/l # | 19     |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 7244     | 1.337     | ug/l   | 99     |
| 52) Toluene                    | 8.79  | 92   | 233943   | 32.264    | ug/l   | 100    |
| 59) 2-Hexanone                 | 9.59  | 43   | 1021     | 0.244     | ug/l   | 68     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 83627    | 22.723    | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 83627    | 58.336    | ug/l # | 11     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.01 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampleId :

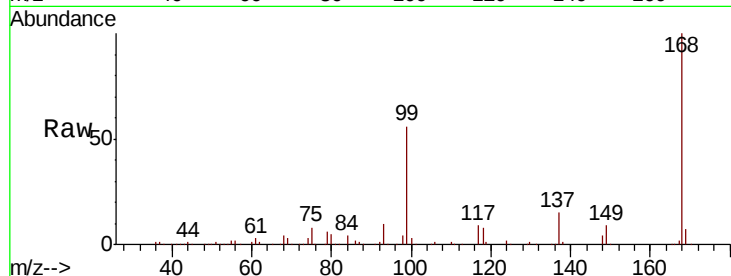
AU-041819DL

Tot Ion:168 Resp: 247147

Ion Ratio Lower Upper

168 100

99 56.4 43.0 64.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.66

80000

60000

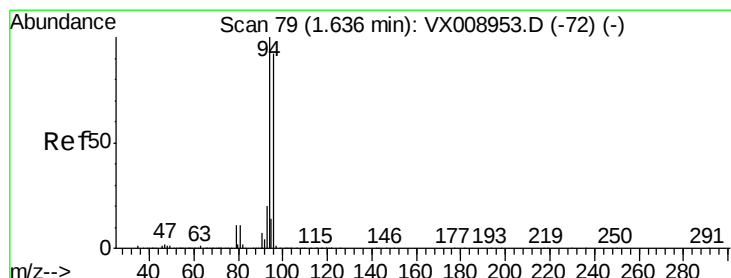
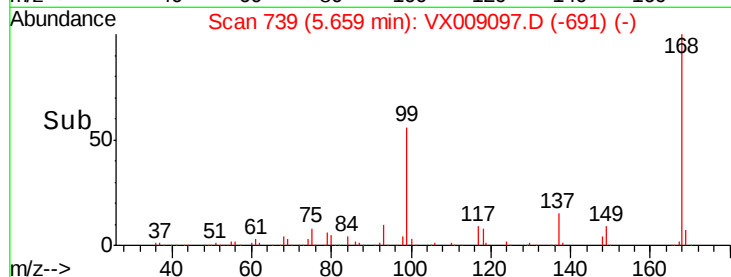
40000

20000

0

Time-->

5.50 5.60 5.70 5.80



#5

Bromomethane

Concen: 4.158 ug/l

RT: 1.65 min Scan# 81

Delta R.T. 0.01 min

Lab File: VX009097.D

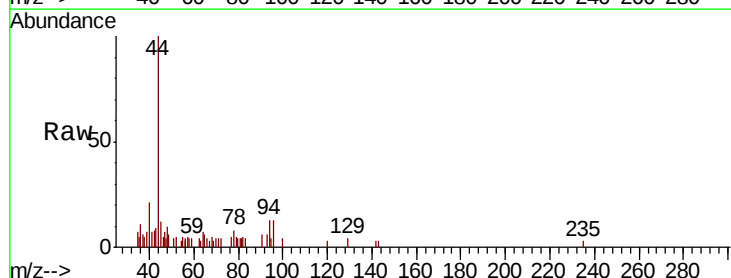
Acq: 22 Apr 2019 15:12

Tgt Ion: 94 Resp: 714

Ion Ratio Lower Upper

94 100

96 93.6 73.9 110.9



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.65

300

250

200

150

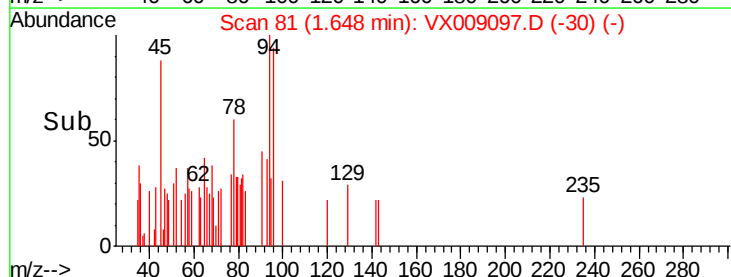
100

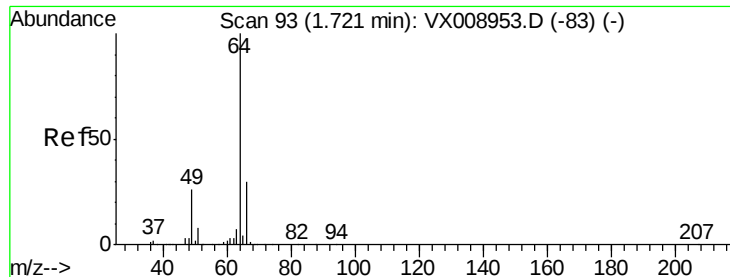
50

0

Time-->

1.55 1.60 1.65





#6

Chloroethane

Concen: 0.221 ug/l

RT: 1.73 min Scan# 94

Delta R.T. 0.01 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampled :

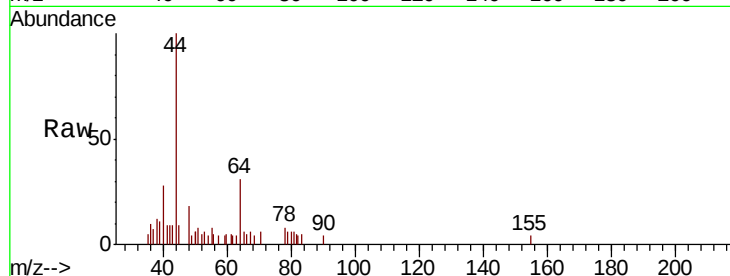
AU-041819DL

Tot Ion: 64 Resp: 442

Ion Ratio Lower Upper

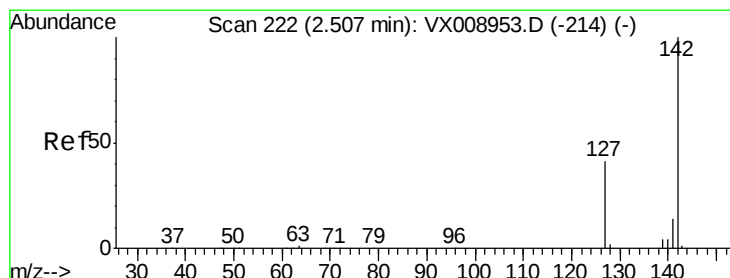
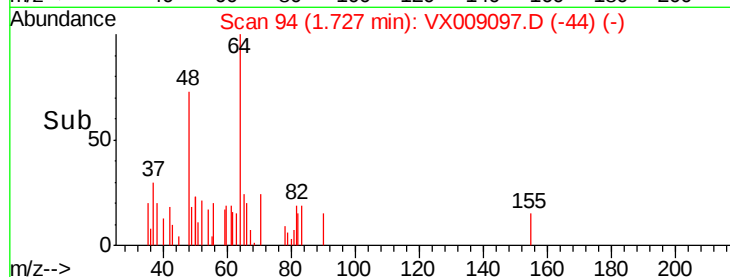
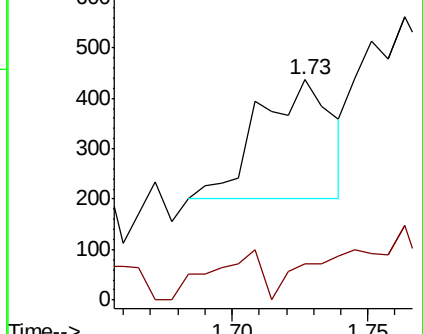
64 100

66 8.5 24.2 36.2#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0



#10

Methyl Iodide

Concen: 4.549 ug/l

RT: 2.52 min Scan# 224

Delta R.T. 0.01 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

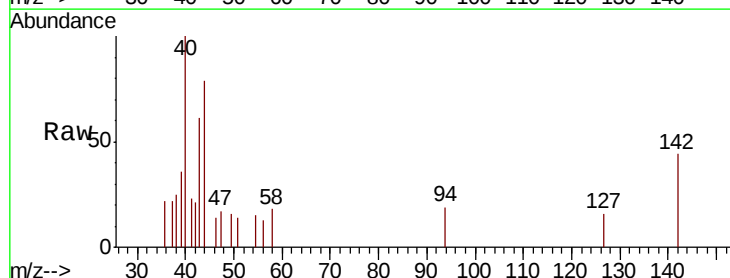
Tgt Ion: 142 Resp: 409

Ion Ratio Lower Upper

142 100

127 23.5 32.8 49.2#

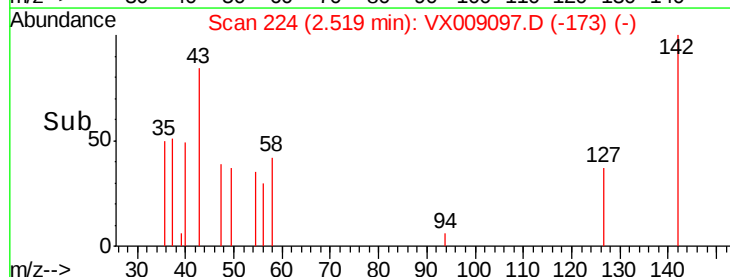
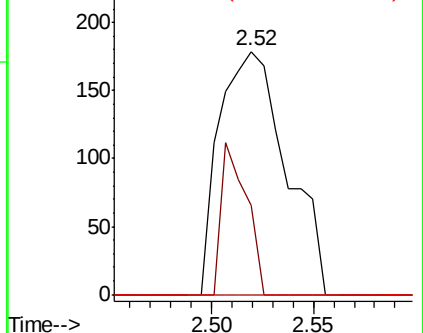
141 0.0 11.4 17.2#

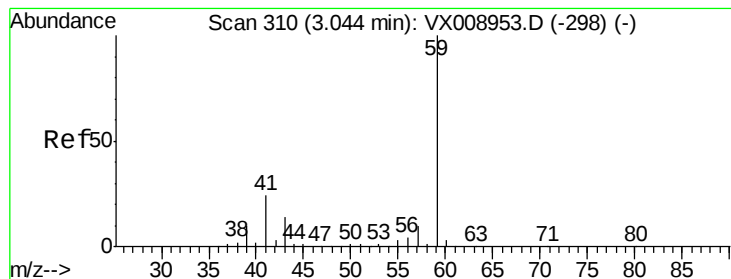


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



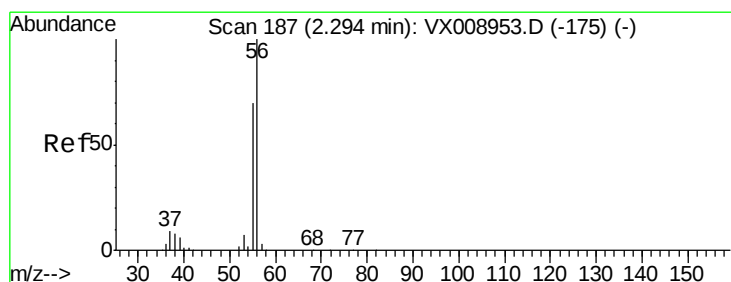
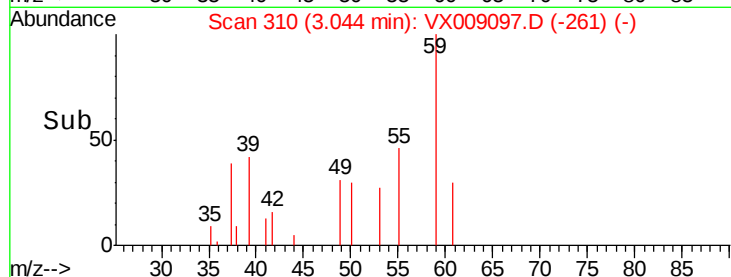
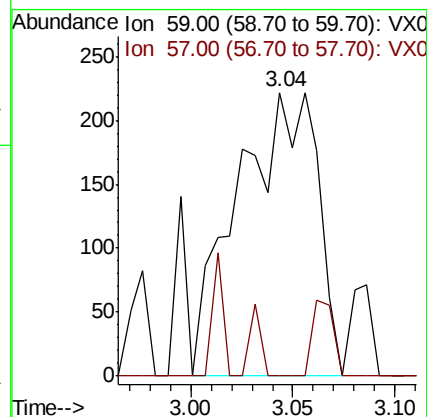
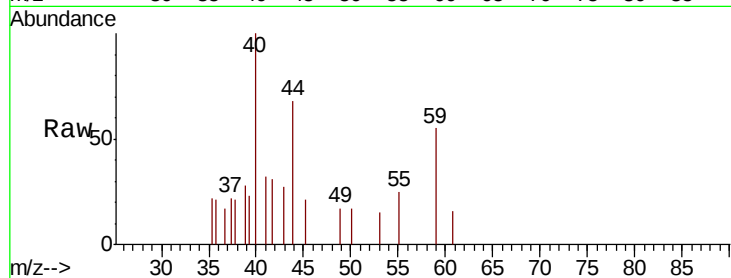


#11

Tert butyl alcohol  
 Concen: 0.785 ug/l  
 RT: 3.04 min Scan# 310  
 Delta R.T. -0.00 min  
 Lab File: VX009097.D  
 Acq: 22 Apr 2019 15:12

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 AU-041819DL

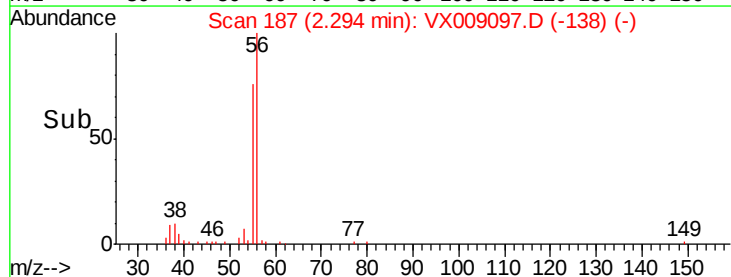
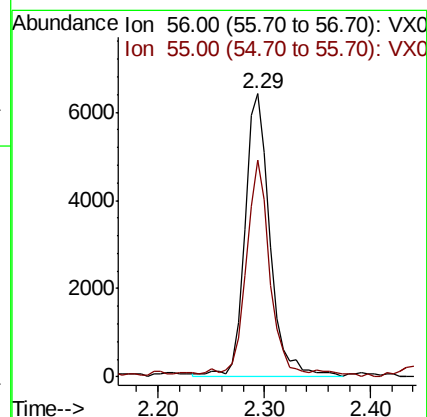
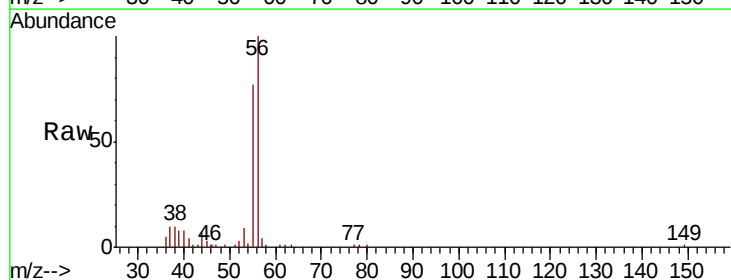
Tot Ion: 59 Resp: 607  
 Ion Ratio Lower Upper  
 59 100  
 57 3.3 8.4 12.6#

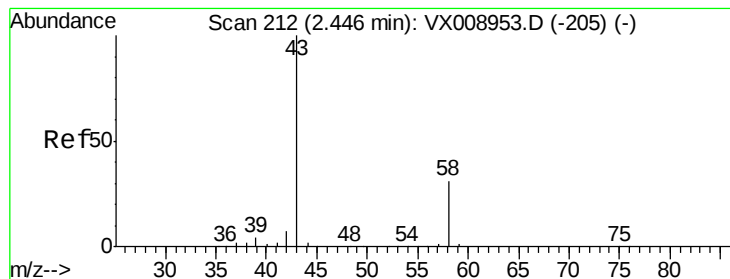


#13

Acrolein  
 Concen: 15.931 ug/l  
 RT: 2.29 min Scan# 187  
 Delta R.T. -0.00 min  
 Lab File: VX009097.D  
 Acq: 22 Apr 2019 15:12

Tgt Ion: 56 Resp: 10642  
 Ion Ratio Lower Upper  
 56 100  
 55 70.8 56.6 84.8





#16

Acetone

Concen: 50.867 ug/l

RT: 2.44 min Scan# 211

Delta R.T. -0.01 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampleID :

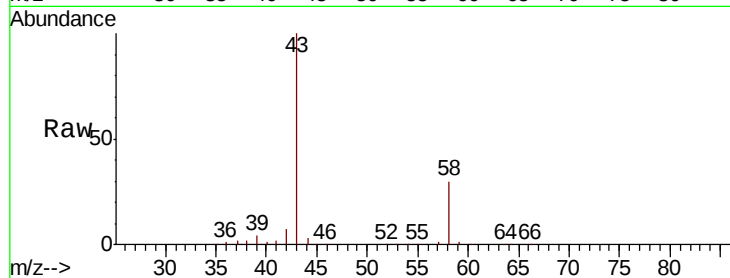
AU-041819DL

Tot Ion: 43 Resp: 91877

Ion Ratio Lower Upper

43 100

58 29.7 24.8 37.2



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2.44

60000

50000

40000

30000

20000

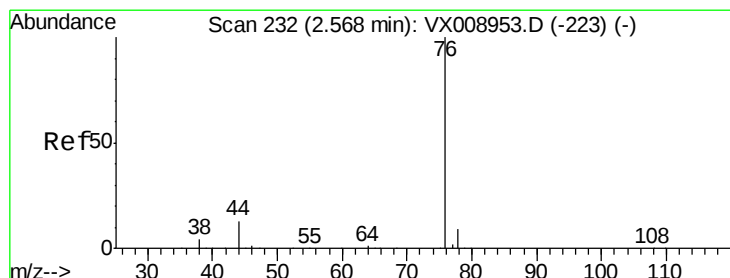
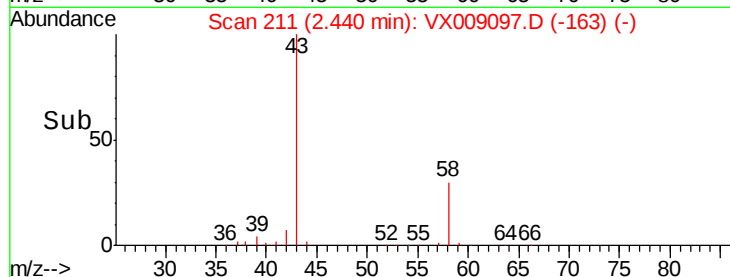
10000

0

Time-->

2.40

2.50



#17

Carbon Disulfide

Concen: 1.364 ug/l

RT: 2.57 min Scan# 232

Delta R.T. 0.00 min

Lab File: VX009097.D

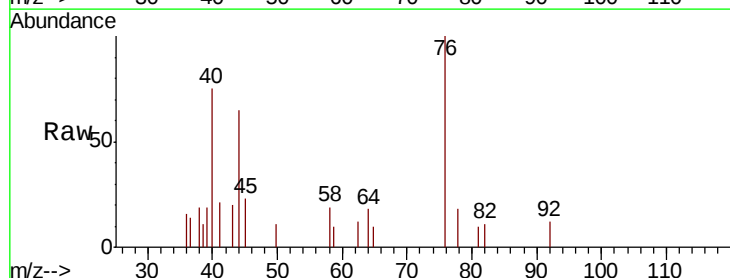
Acq: 22 Apr 2019 15:12

Tgt Ion: 76 Resp: 890

Ion Ratio Lower Upper

76 100

78 18.1 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

2.57

600

500

400

300

200

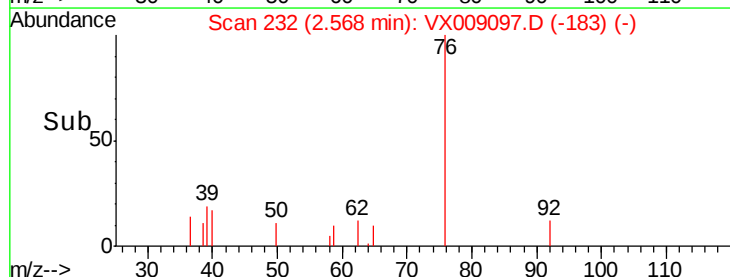
100

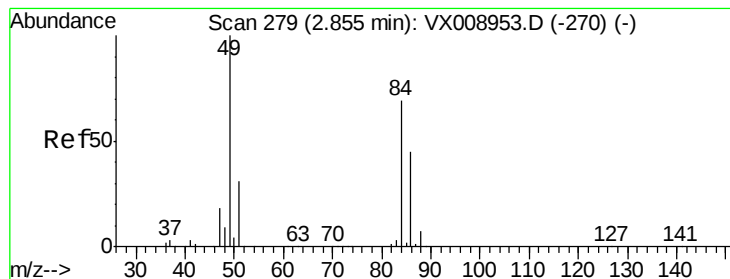
0

Time-->

2.55

2.60





#20

Methylene Chloride

Concen: 0.258 ug/l

RT: 2.85 min Scan# 279

Delta R.T. -0.00 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampleId :

AU-041819DL

Tot Ion: 84 Resp: 796

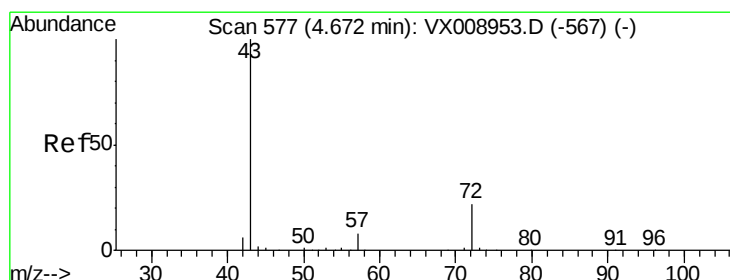
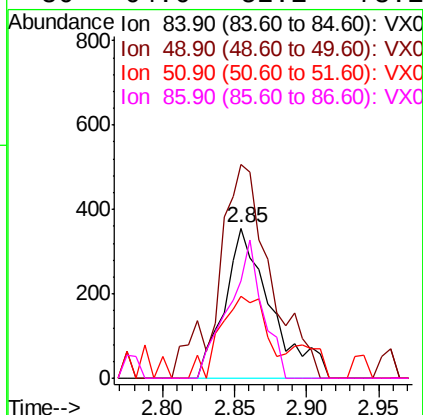
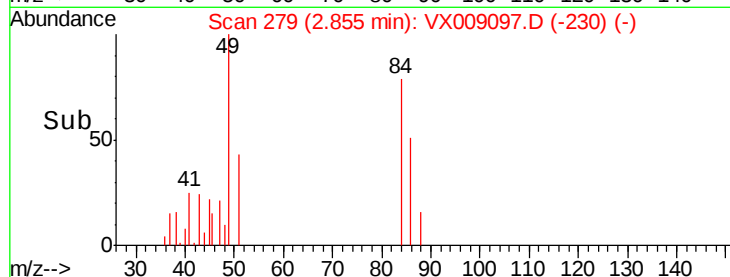
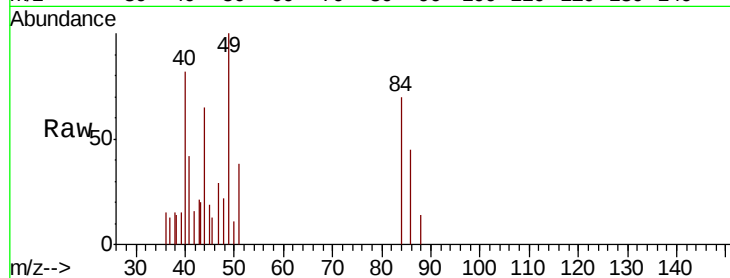
Ion Ratio Lower Upper

84 100

49 142.1 115.4 173.0

51 54.2 35.8 53.6#

86 64.6 52.1 78.1



#25

2-Butanone

Concen: 36.735 ug/l

RT: 4.67 min Scan# 577

Delta R.T. -0.00 min

Lab File: VX009097.D

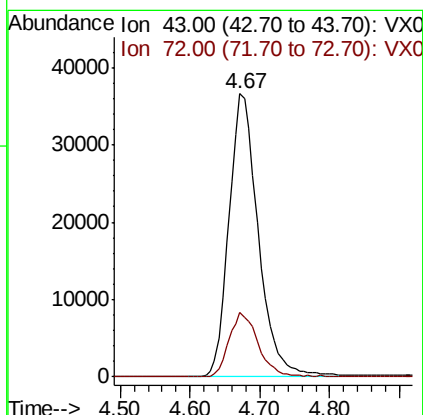
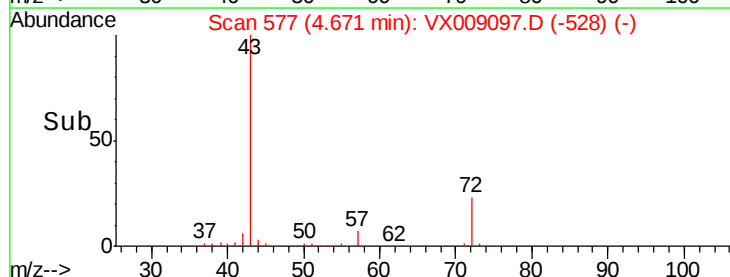
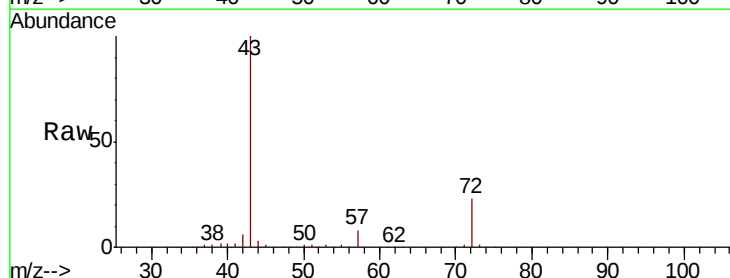
Acq: 22 Apr 2019 15:12

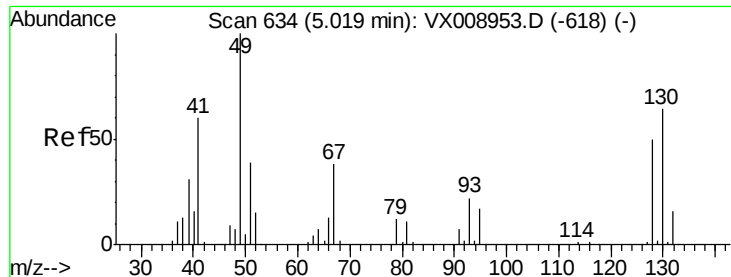
Tgt Ion: 43 Resp: 106057

Ion Ratio Lower Upper

43 100

72 22.9 17.5 26.3





#28

Bromochloromethane

Concen: Below Cal

RT: 5.00 min Scan# 631

Delta R.T. -0.02 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampled :

AU-041819DL

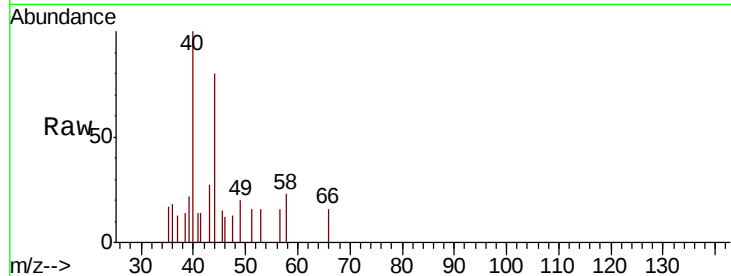
Tot Ion: 49 Resp: 56

Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.6

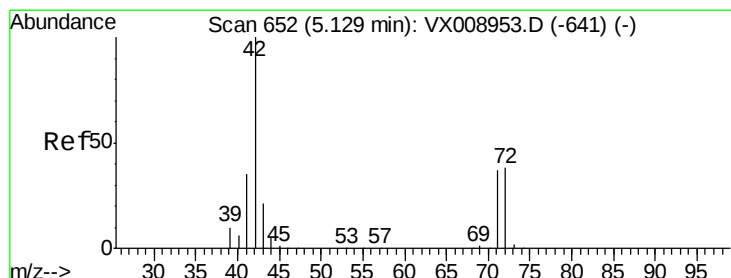
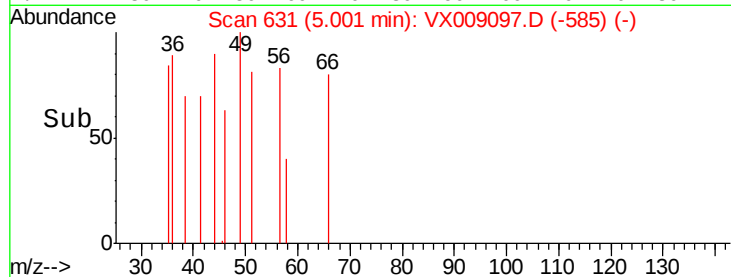
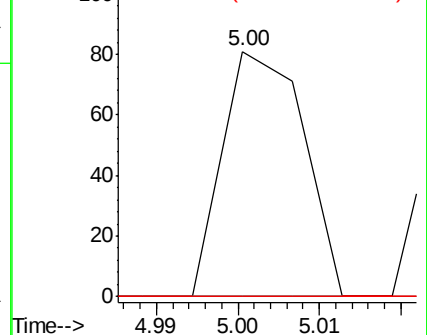
130 0.0 50.4 75.6#



Abundance Ion 48.90 (48.60 to 49.60): VX0

Ion 128.80 (128.50 to 129.50): V

Ion 129.80 (129.50 to 130.50): V



#29

Tetrahydrofuran

Concen: 1.463 ug/l

RT: 5.13 min Scan# 653

Delta R.T. 0.01 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

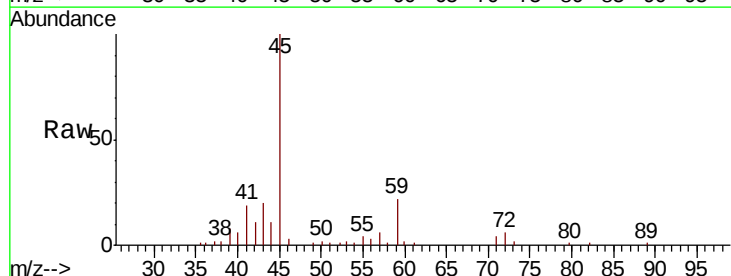
Tgt Ion: 42 Resp: 2828

Ion Ratio Lower Upper

42 100

72 51.0 30.6 45.8#

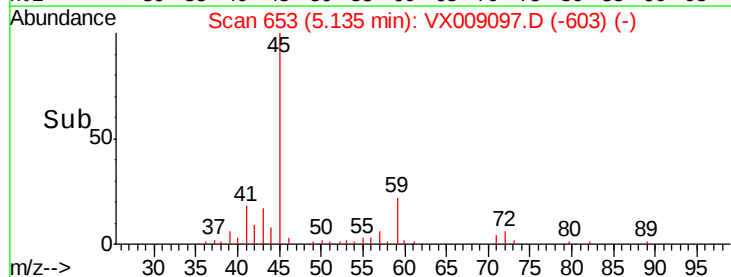
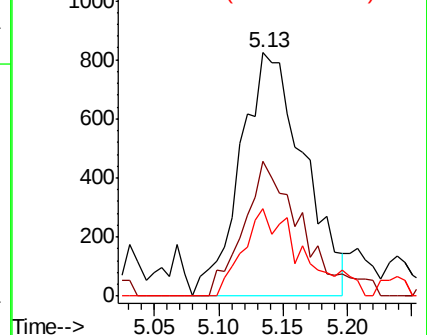
71 30.6 28.8 43.2

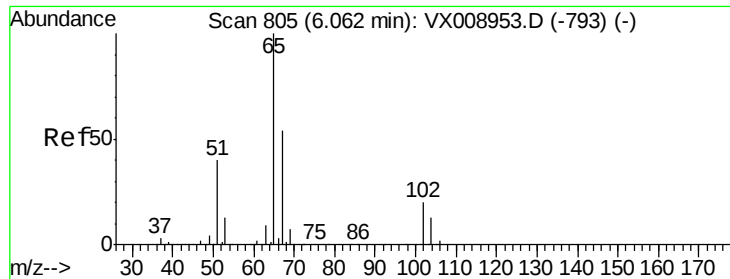


Abundance Ion 42.00 (41.70 to 42.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

Ion 71.00 (70.70 to 71.70): VX0

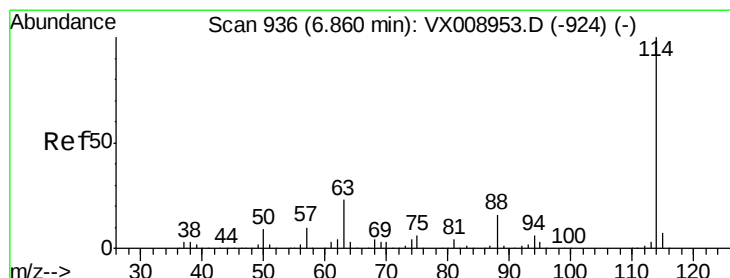
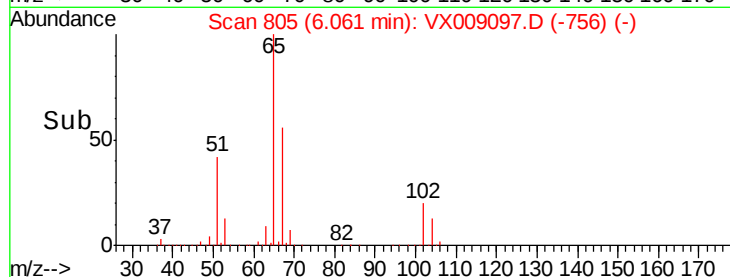
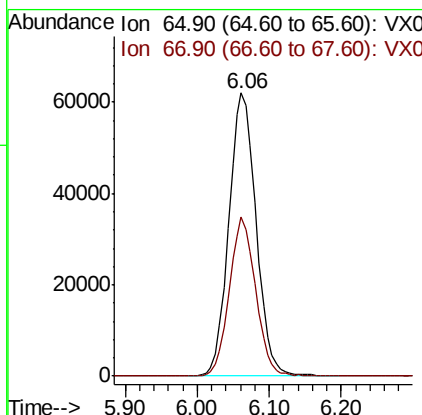
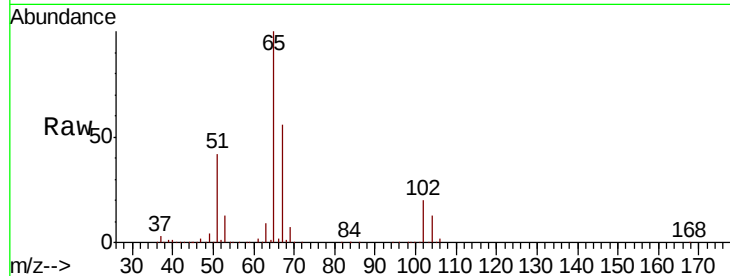




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.821 ug/l  
 RT: 6.06 min Scan# 805  
 Delta R.T. -0.00 min  
 Lab File: VX009097.D  
 Acq: 22 Apr 2019 15:12

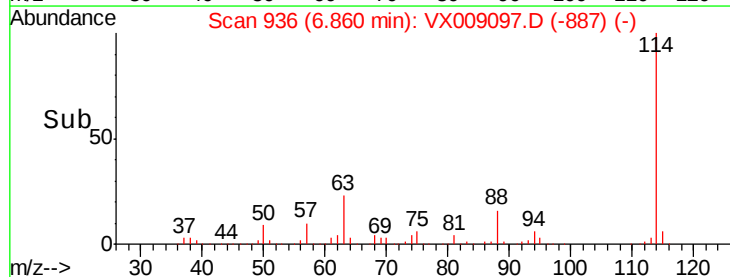
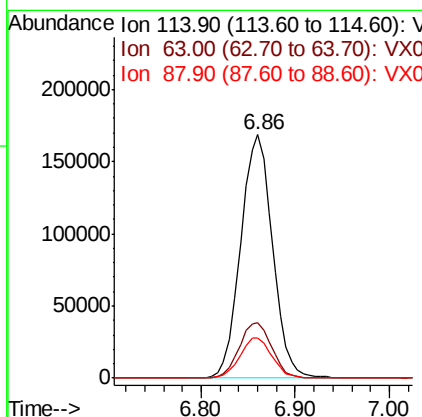
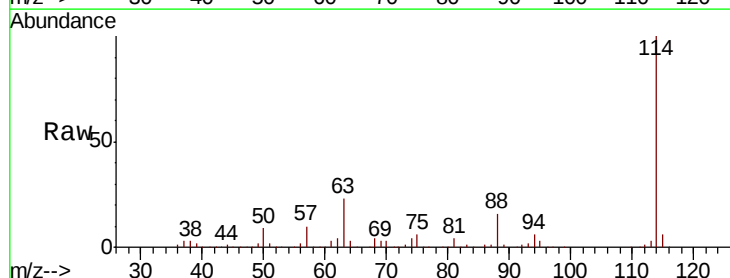
Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 AU-041819DL

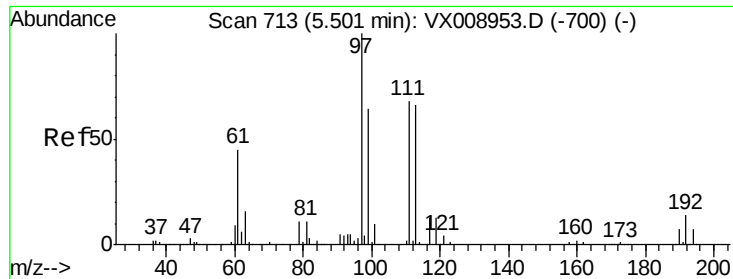
Tot Ion: 65 Resp: 163079  
 Ion Ratio Lower Upper  
 65 100  
 67 54.4 0.0 108.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. -0.00 min  
 Lab File: VX009097.D  
 Acq: 22 Apr 2019 15:12

Tgt Ion:114 Resp: 396543  
 Ion Ratio Lower Upper  
 114 100  
 63 22.6 0.0 46.0  
 88 16.2 0.0 32.6

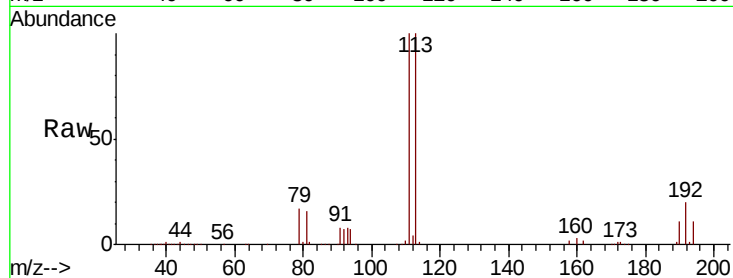




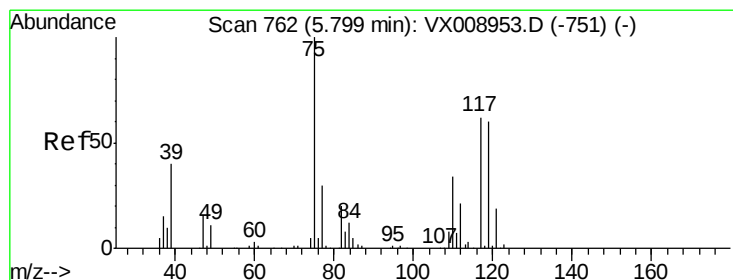
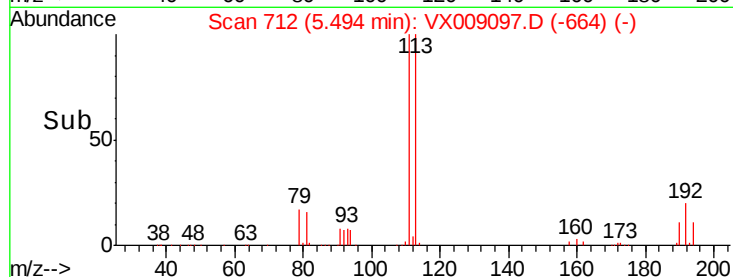
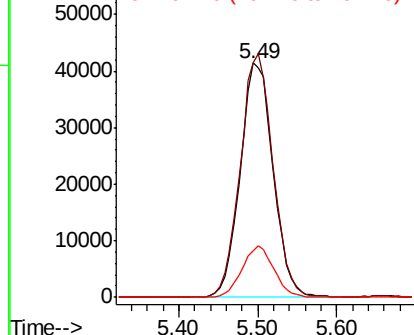
#35  
Dibromofluoromethane  
Concen: 47.315 ug/l  
RT: 5.49 min Scan# 712  
Delta R.T. -0.01 min  
Lab File: VX009097.D  
Acq: 22 Apr 2019 15:12

Instrument :  
MSVOA\_X  
ClientSampleId :  
AU-041819DL

Tot Ion:113 Resp: 120412  
Ion Ratio Lower Upper  
113 100  
111 103.0 82.9 124.3  
192 21.2 17.4 26.0

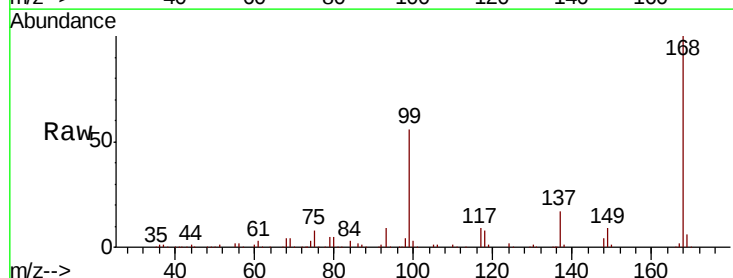


Abundance Ion 112.80 (112.50 to 113.50): V  
Ion 110.80 (110.50 to 111.50): V  
Ion 191.70 (191.40 to 192.40): V

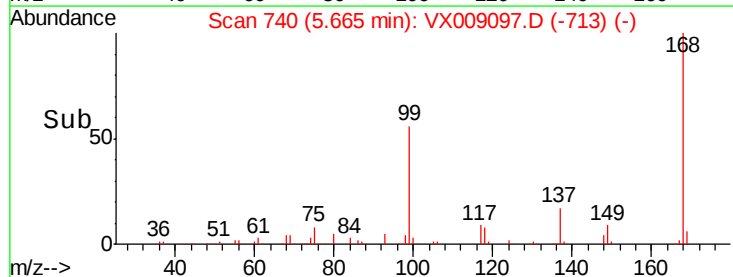
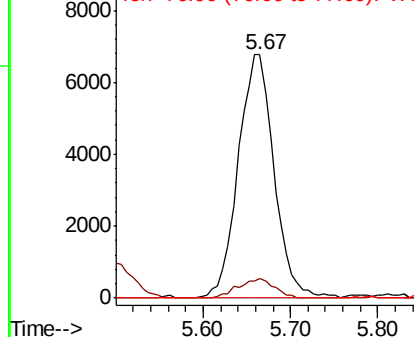


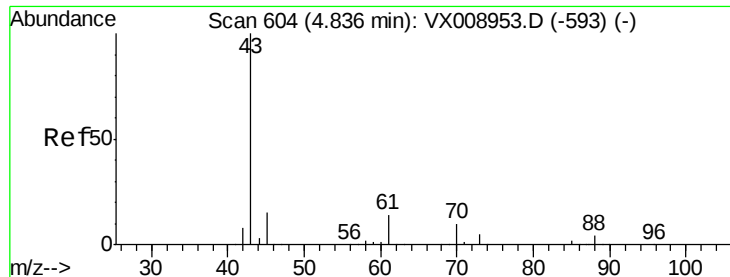
#36  
1,1-Dichloropropene  
Concen: 4.703 ug/l  
RT: 5.67 min Scan# 740  
Delta R.T. -0.13 min  
Lab File: VX009097.D  
Acq: 22 Apr 2019 15:12

Tgt Ion: 75 Resp: 19287  
Ion Ratio Lower Upper  
75 100  
110 8.1 16.9 50.7#  
77 0.0 25.0 37.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0  
Ion 109.90 (109.60 to 110.60): V  
Ion 76.90 (76.60 to 77.60): VX0





#37

Ethyl Acetate

Concen: 20.097 ug/l

RT: 4.67 min Scan# 577

Delta R.T. -0.16 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampleID :

AU-041819DL

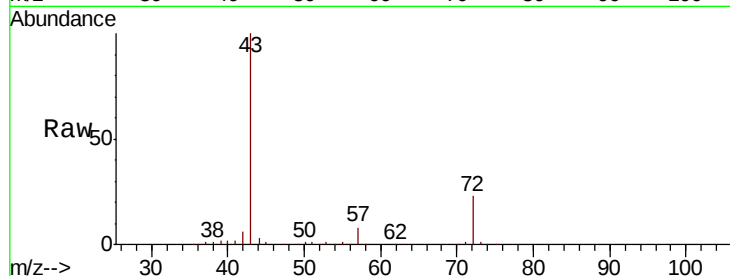
Tot Ion: 43 Resp: 106057

Ion Ratio Lower Upper

43 100

61 0.0 10.6 15.8#

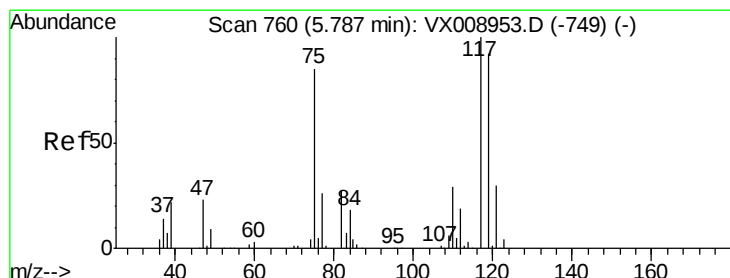
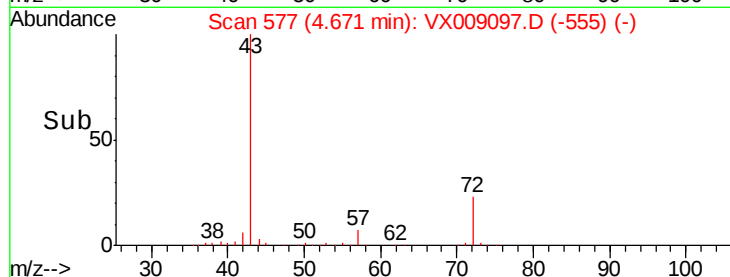
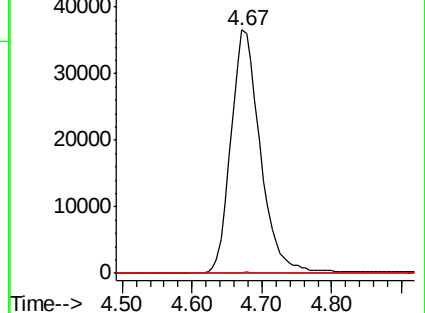
70 0.2 7.7 11.5#



Abundance Ion 43.00 (42.70 to 43.70): VX008953.D (-593) (-)

Ion 60.90 (60.60 to 61.60): VX008953.D (-593) (-)

Ion 70.00 (69.70 to 70.70): VX008953.D (-593) (-)



#38

Carbon Tetrachloride

Concen: 6.569 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

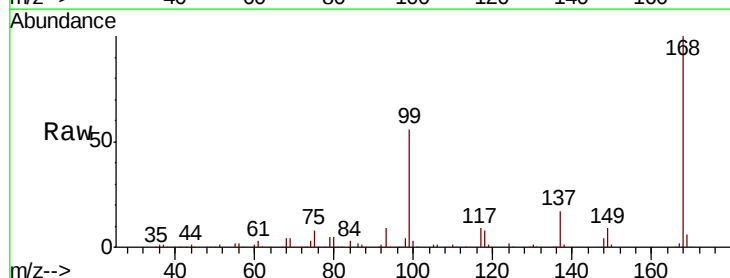
Tgt Ion: 117 Resp: 22839

Ion Ratio Lower Upper

117 100

119 6.6 73.8 110.8#

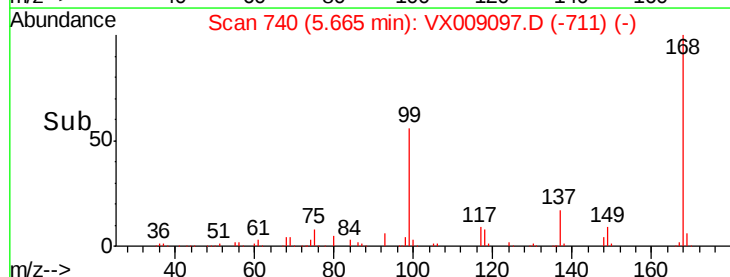
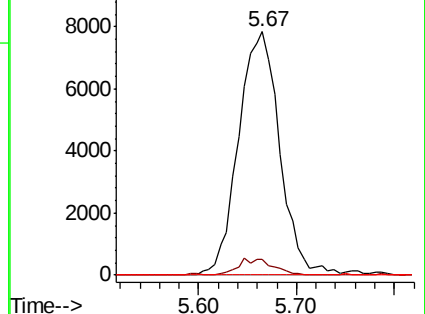
121 0.0 23.6 35.4#

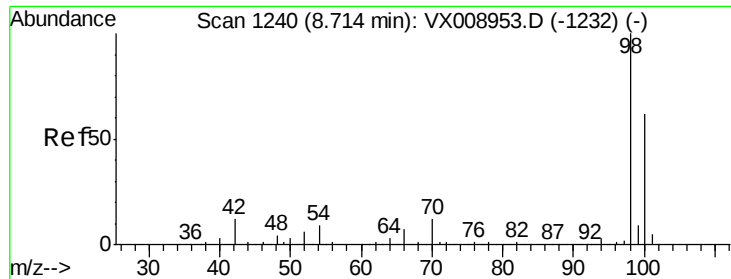


Abundance Ion 116.80 (116.50 to 117.50): VX008953.D (-749) (-)

Ion 118.80 (118.50 to 119.50): VX008953.D (-749) (-)

Ion 120.80 (120.50 to 121.50): VX008953.D (-749) (-)

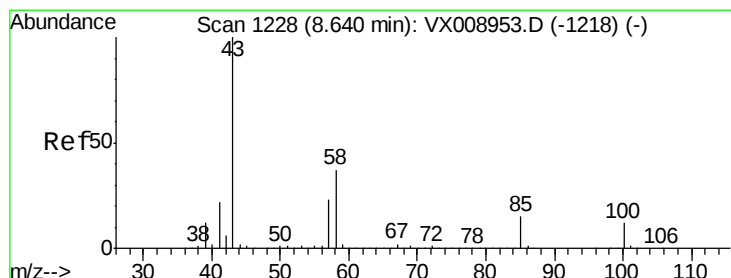
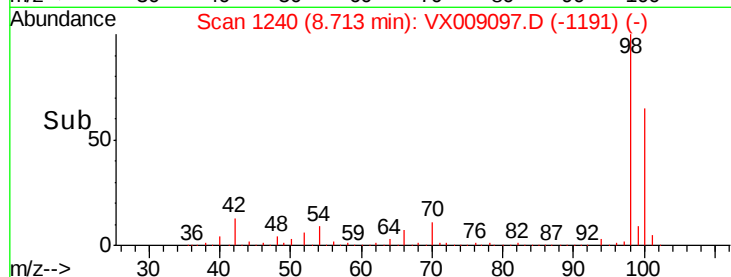
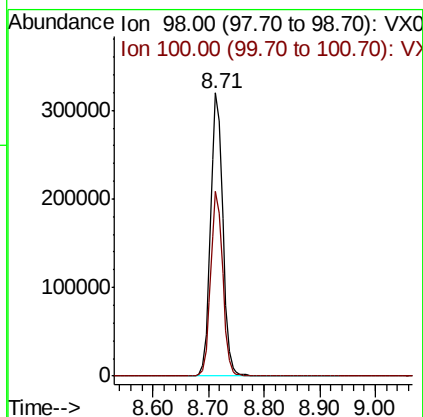
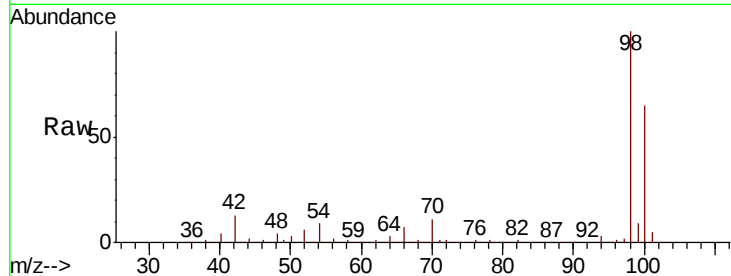




#50  
Toluene-d8  
Concen: 48.897 ug/l  
RT: 8.71 min Scan# 1240  
Delta R.T. -0.00 min  
Lab File: VX009097.D  
Acq: 22 Apr 2019 15:12

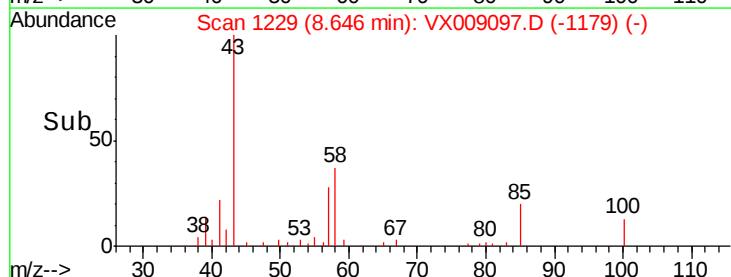
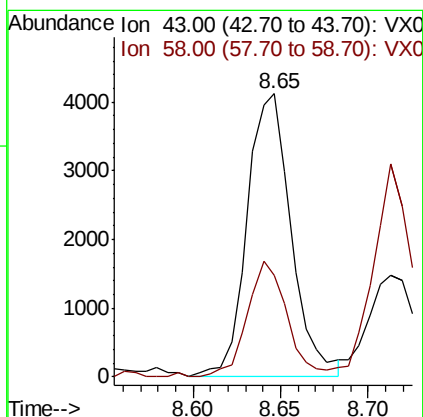
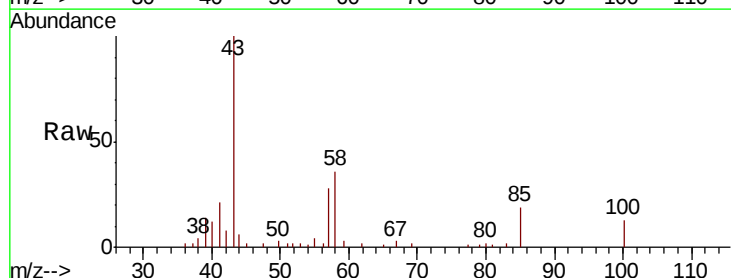
Instrument :  
MSVOA\_X  
ClientSampleID :  
AU-041819DL

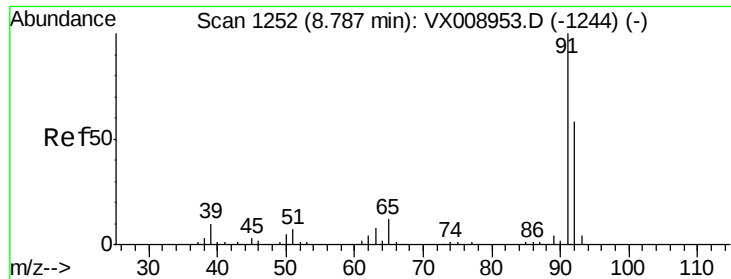
Tot Ion: 98 Resp: 496274  
Ion Ratio Lower Upper  
98 100  
100 64.2 51.4 77.2



#51  
4-Methyl-2-Pentanone  
Concen: 1.337 ug/l  
RT: 8.65 min Scan# 1229  
Delta R.T. 0.01 min  
Lab File: VX009097.D  
Acq: 22 Apr 2019 15:12

Tgt Ion: 43 Resp: 7244  
Ion Ratio Lower Upper  
43 100  
58 36.6 29.8 44.6





#52

Toluene

Concen: 32.264 ug/l

RT: 8.79 min Scan# 1252

Delta R.T. -0.00 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampled :

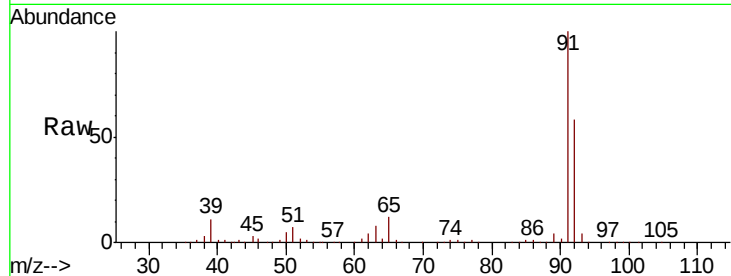
AU-041819DL

Tot Ion: 92 Resp: 233943

Ion Ratio Lower Upper

92 100

91 173.4 138.5 207.7



Abundance Ion 92.00 (91.70 to 92.70): VX0

Ion 91.00 (90.70 to 91.70): VX0

300000

250000

200000

150000

100000

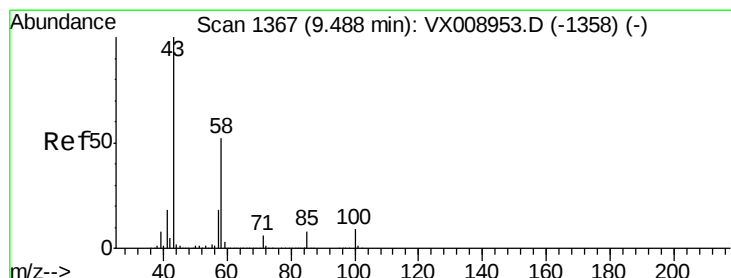
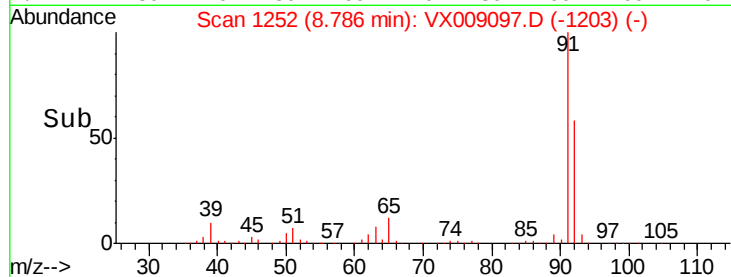
50000

0

8.79

8.70 8.80 8.90

Time-->



#59

2-Hexanone

Concen: 0.244 ug/l

RT: 9.59 min Scan# 1383

Delta R.T. 0.10 min

Lab File: VX009097.D

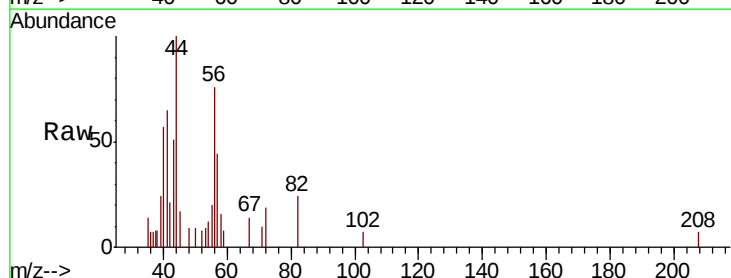
Acq: 22 Apr 2019 15:12

Tgt Ion: 43 Resp: 1021

Ion Ratio Lower Upper

43 100

58 29.1 25.9 77.8



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

500

400

300

200

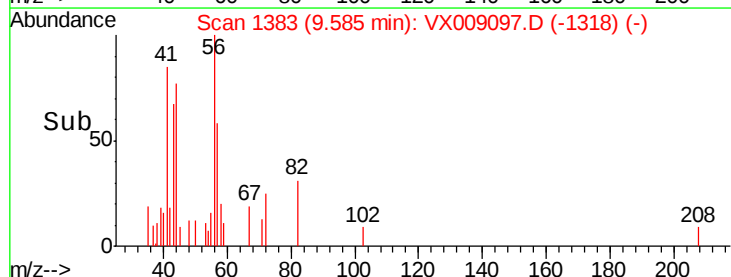
100

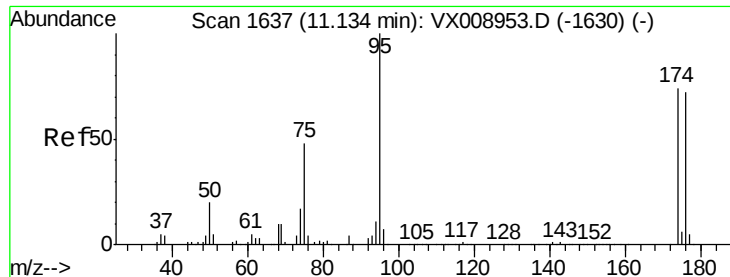
0

9.59

9.50 9.55 9.60 9.65

Time-->

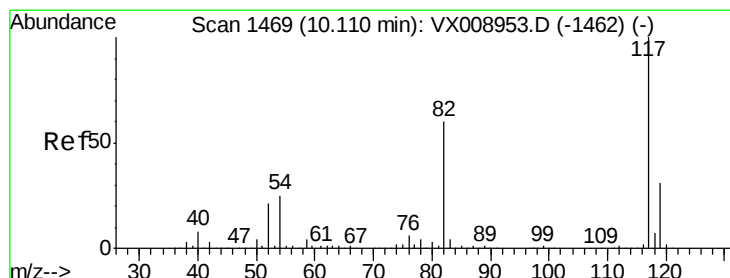
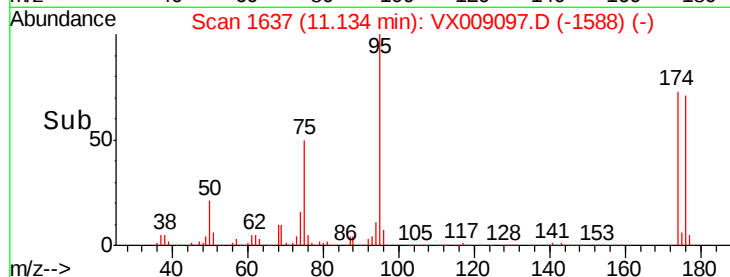
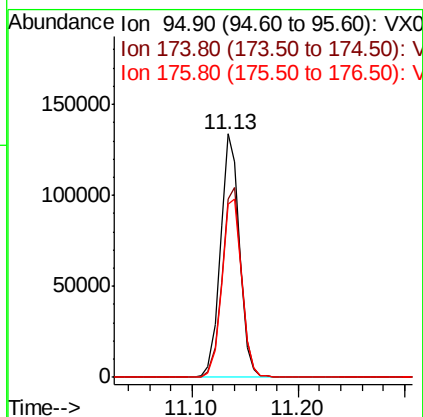
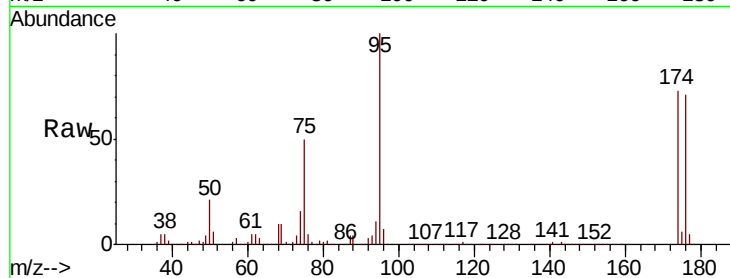




#62  
 4-Bromofluorobenzene  
 Concen: 46.435 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.00 min  
 Lab File: VX009097.D  
 Acq: 22 Apr 2019 15:12

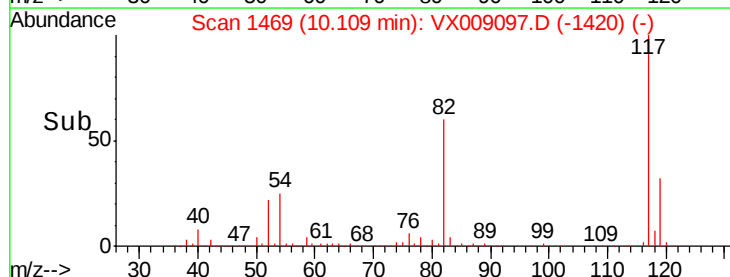
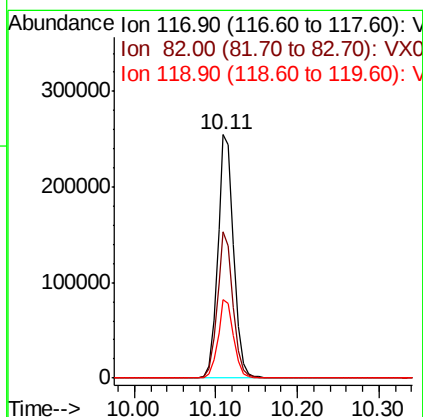
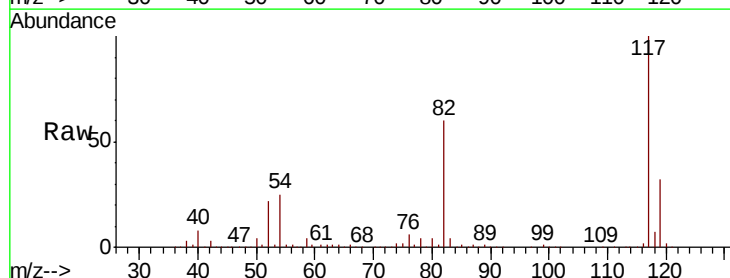
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 AU-041819DL

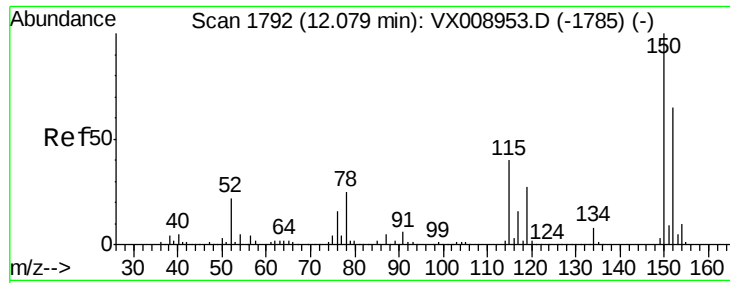
Tot Ion: 95 Resp: 166364  
 Ion Ratio Lower Upper  
 95 100  
 174 79.9 0.0 159.6  
 176 76.7 0.0 154.8



#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 10.11 min Scan# 1469  
 Delta R.T. -0.00 min  
 Lab File: VX009097.D  
 Acq: 22 Apr 2019 15:12

Tgt Ion: 117 Resp: 348722  
 Ion Ratio Lower Upper  
 117 100  
 82 60.1 48.2 72.4  
 119 32.1 25.0 37.6





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. -0.00 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampled :

AU-041819DL

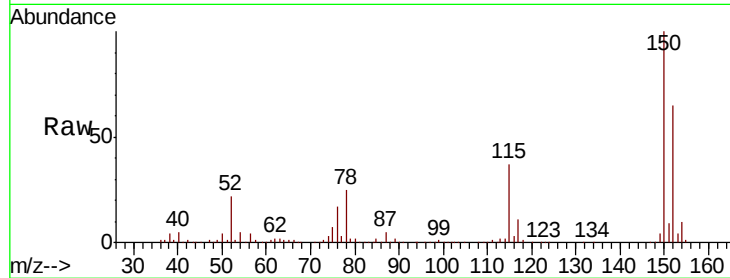
Tot Ion:152 Resp: 150720

Ion Ratio Lower Upper

152 100

115 58.7 41.4 124.2

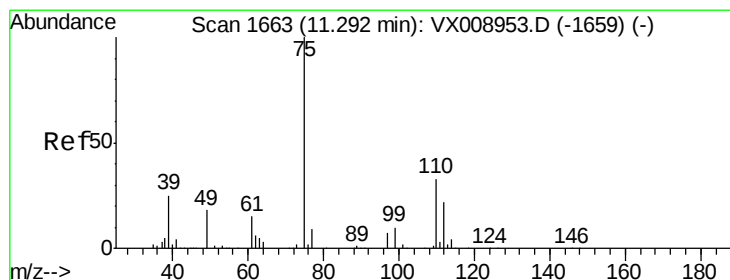
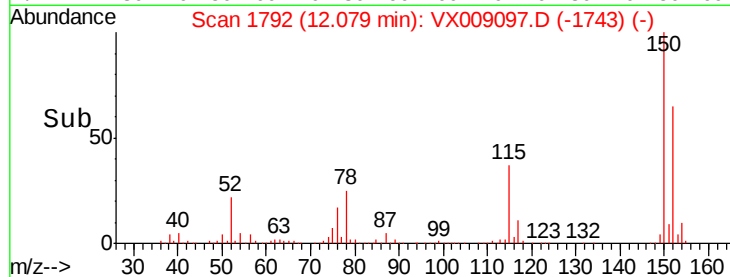
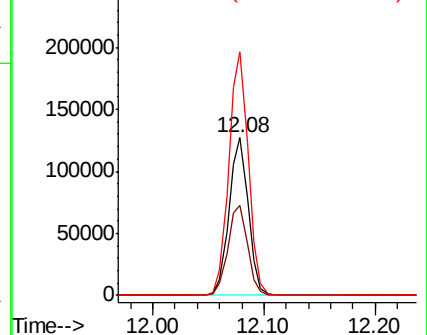
150 156.7 0.0 349.8



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: 22.723 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX009097.D

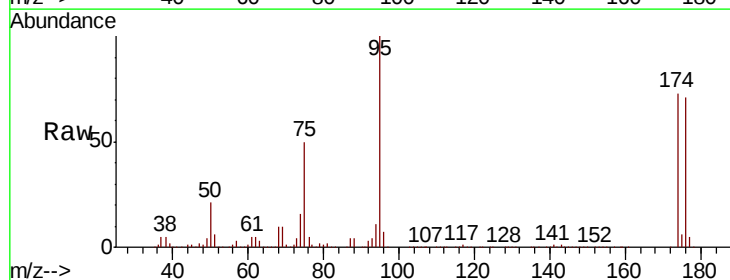
Acq: 22 Apr 2019 15:12

Tgt Ion: 75 Resp: 83627

Ion Ratio Lower Upper

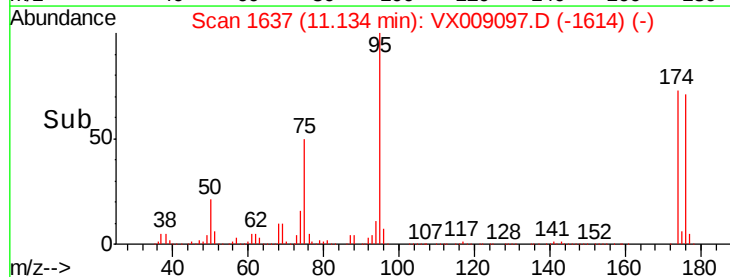
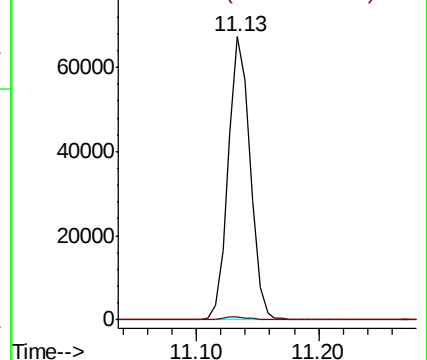
75 100

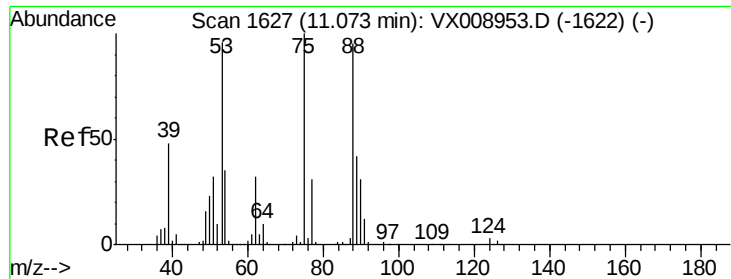
77 1.3 22.7 68.0#



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: 58.336 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009097.D

Acq: 22 Apr 2019 15:12

Instrument :

MSVOA\_X

ClientSampleId :

AU-041819DL

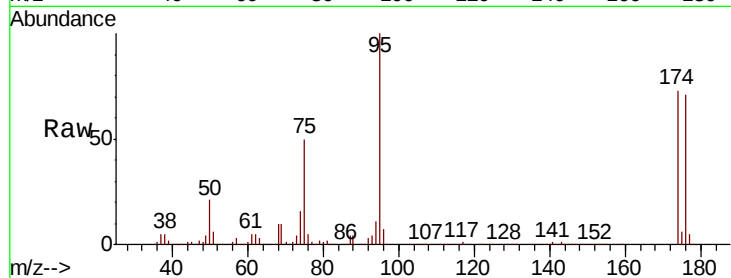
Tot Ion: 75 Resp: 83627

Ion Ratio Lower Upper

75 100

53 0.1 78.2 117.4#

89 0.0 36.0 54.0#



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

