

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\WX030619\  
 Data File : VX007869.D  
 Acq On : 06 Mar 2019 19:20  
 Operator : JC/SP  
 Sample : K1759-04  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 BP-VPB201-GW-580-582

Quant Time: Mar 07 07:52:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X030619W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Mar 07 07:33:26 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc      | Units   | Dev(Min) |
|--------------------------------|-------|------|----------|-----------|---------|----------|
| 1) Pentafluorobenzene          | 5.67  | 168  | 303634   | 50.00     | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene        | 6.86  | 114  | 473623   | 50.00     | ug/l    | 0.00     |
| 63) Chlorobenzene-d5           | 10.11 | 117  | 441028   | 50.00     | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.08 | 152  | 212211   | 50.00     | ug/l    | 0.00     |
| System Monitoring Compounds    |       |      |          |           |         |          |
| 33) 1,2-Dichloroethane-d4      | 6.07  | 65   | 167798   | 52.39     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 104.78% |          |
| 35) Dibromofluoromethane       | 5.51  | 113  | 155115   | 51.20     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 102.40% |          |
| 50) Toluene-d8                 | 8.71  | 98   | 571888   | 51.40     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 102.80% |          |
| 62) 4-Bromofluorobenzene       | 11.13 | 95   | 208984   | 53.57     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 107.14% |          |
| Target Compounds               |       |      |          |           |         |          |
|                                |       |      |          |           | Qvalue  |          |
| 3) Chloromethane               | 1.33  | 50   | 748      | 0.224     | ug/l #  | 81       |
| 5) Bromomethane                | 1.65  | 94   | 372      | Below Cal |         | 88       |
| 6) Chloroethane                | 1.56  | 64   | 9821     | 4.451     | ug/l #  | 59       |
| 11) Tert butyl alcohol         | 3.02  | 59   | 7195     | 10.045    | ug/l #  | 73       |
| 13) Acrolein                   | 2.30  | 56   | 242      | 2.135     | ug/l    | 88       |
| 16) Acetone                    | 2.45  | 43   | 21551    | 11.624    | ug/l    | 99       |
| 17) Carbon Disulfide           | 2.57  | 76   | 1470     | Below Cal | #       | 93       |
| 18) Methyl Acetate             | 2.78  | 43   | 1025     | 0.260     | ug/l #  | 84       |
| 25) 2-Butanone                 | 4.71  | 43   | 8520     | 3.246     | ug/l    | 98       |
| 31) Cyclohexane                | 5.66  | 56   | 5164     | 1.049     | ug/l #  | 1        |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 18491    | 4.312     | ug/l #  | 49       |
| 37) Ethyl Acetate              | 4.71  | 43   | 8520     | 1.674     | ug/l #  | 70       |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 25518    | 6.268     | ug/l #  | 17       |
| 49) 1,4-Dioxane                | 7.77  | 88   | 46       | 0.565     | ug/l #  | 1        |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 1929     | 0.398     | ug/l    | 89       |
| 52) Toluene                    | 8.78  | 92   | 9451     | 1.212     | ug/l    | 98       |
| 59) 2-Hexanone                 | 9.50  | 43   | 1449     | 0.385     | ug/l    | 90       |
| 60) Dibromochloromethane       | 9.34  | 129  | 1219     | 0.370     | ug/l #  | 11       |
| 64) Tetrachloroethene          | 9.34  | 164  | 1501     | 0.411     | ug/l #  | 84       |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 96682    | 21.711    | ug/l #  | 39       |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 96682    | 69.400    | ug/l #  | 12       |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

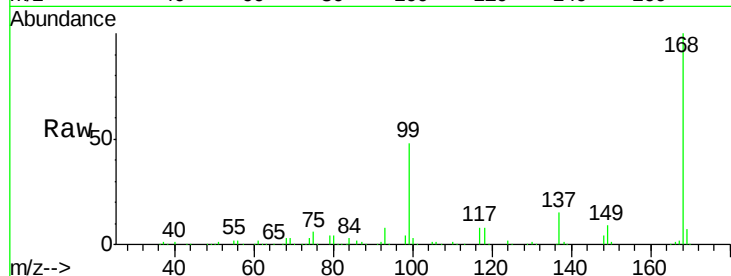
BP-VPB201-GW-580-582

Tgt Ion:168 Resp: 303634

Ion Ratio Lower Upper

168 100

99 48.3 37.6 56.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

120000

100000

80000

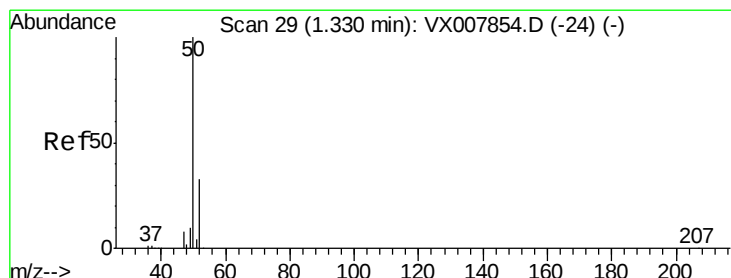
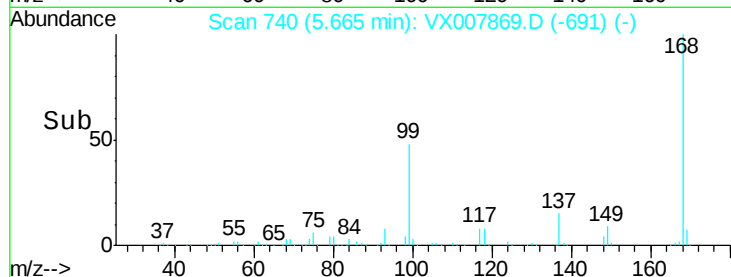
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: 0.224 ug/l

RT: 1.33 min Scan# 29

Delta R.T. 0.00 min

Lab File: VX007869.D

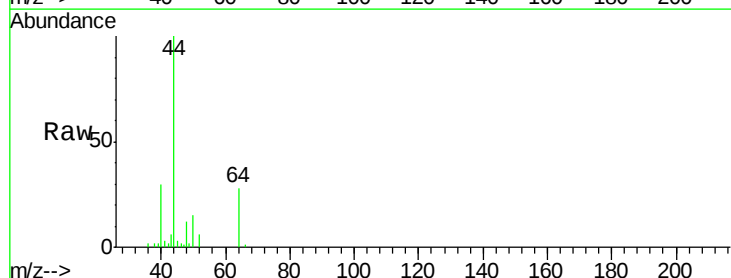
Acq: 06 Mar 2019 19:20

Tgt Ion: 50 Resp: 748

Ion Ratio Lower Upper

50 100

52 44.0 26.5 39.7#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.33

800

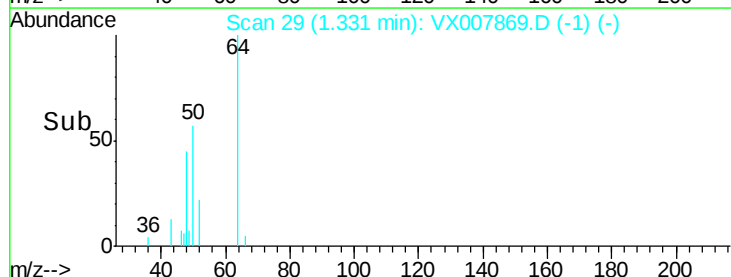
600

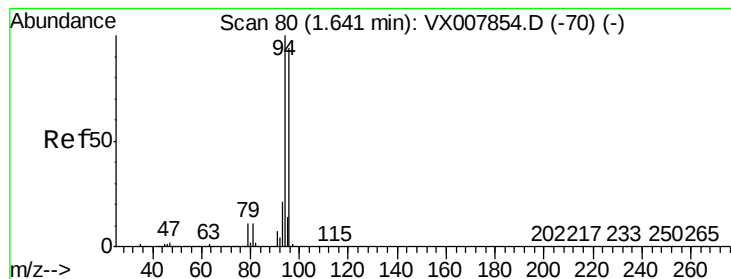
400

200

0

Time--> 1.30 1.32 1.34 1.36





#5

Bromomethane

Concen: Below Cal

RT: 1.65 min Scan# 82

Delta R.T. 0.01 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

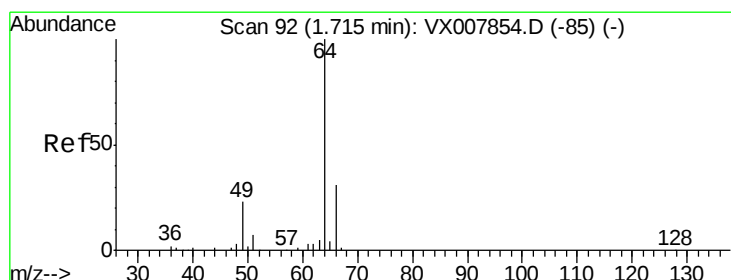
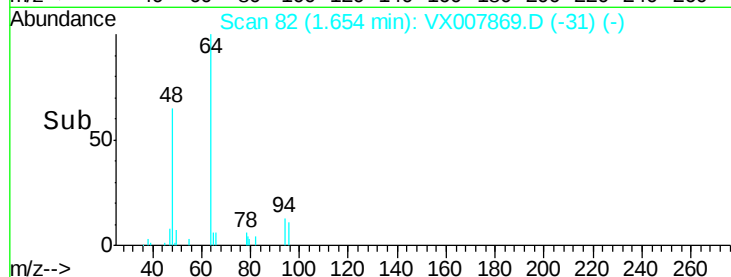
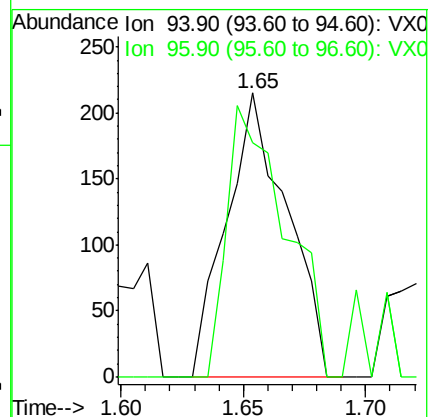
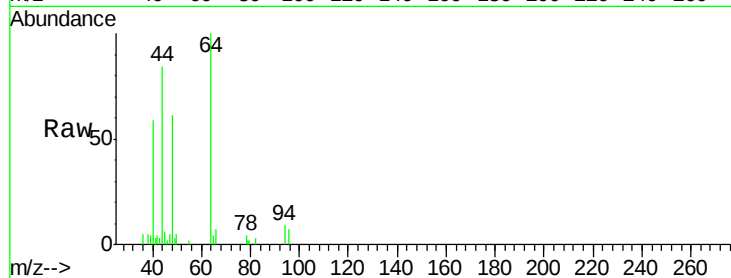
BP-VPB201-GW-580-582

Tgt Ion: 94 Resp: 372

Ion Ratio Lower Upper

94 100

96 82.3 75.5 113.3



#6

Chloroethane

Concen: 4.451 ug/l

RT: 1.56 min Scan# 66

Delta R.T. -0.16 min

Lab File: VX007869.D

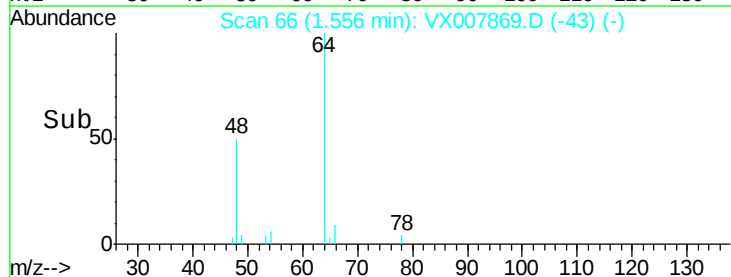
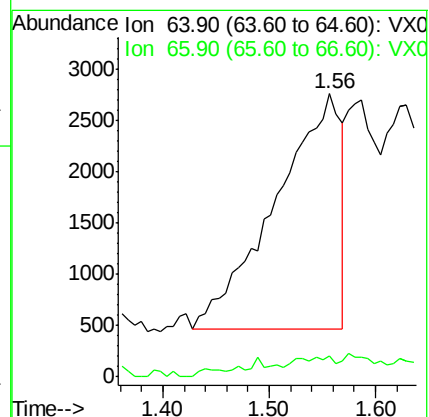
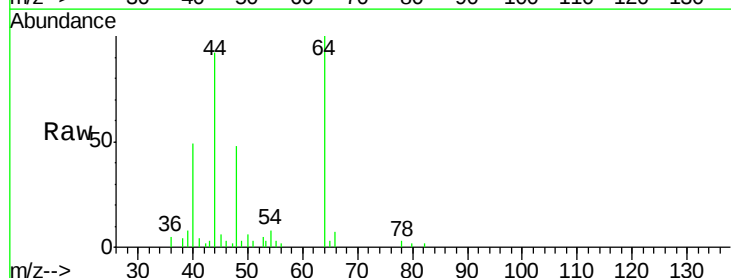
Acq: 06 Mar 2019 19:20

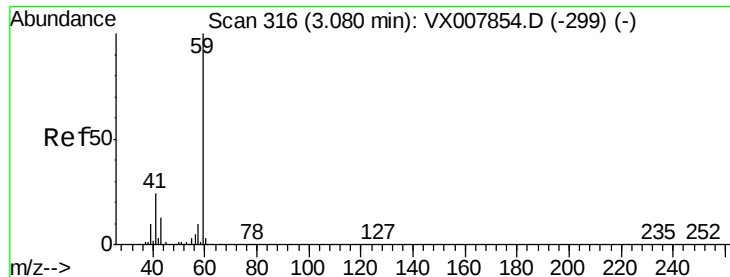
Tgt Ion: 64 Resp: 9821

Ion Ratio Lower Upper

64 100

66 8.9 25.2 37.8#

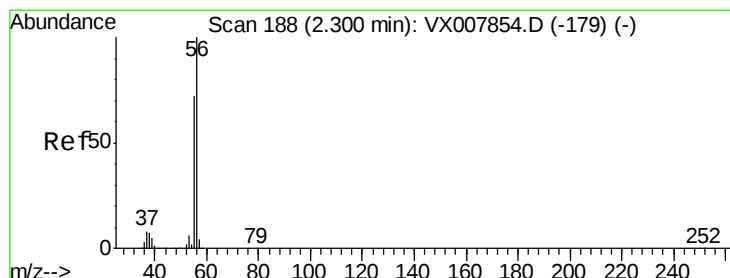
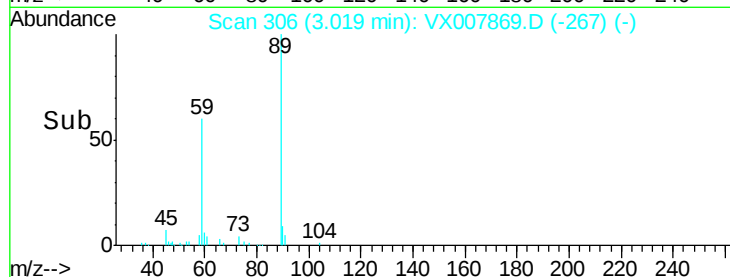
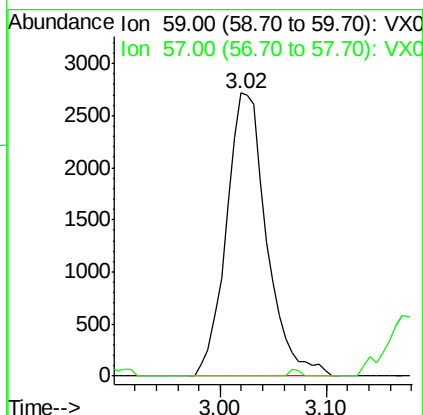
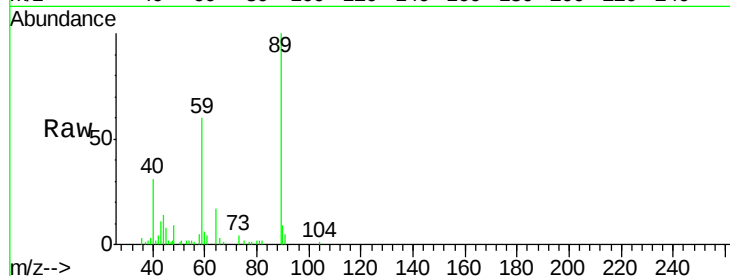




#11  
Tert butyl alcohol  
Concen: 10.045 ug/l  
RT: 3.02 min Scan# 306  
Delta R.T. -0.06 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

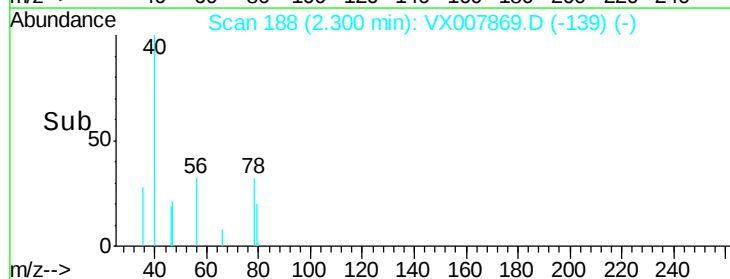
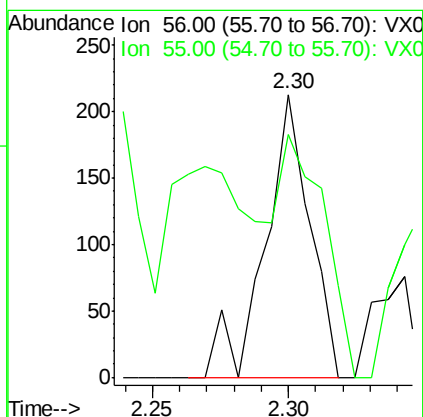
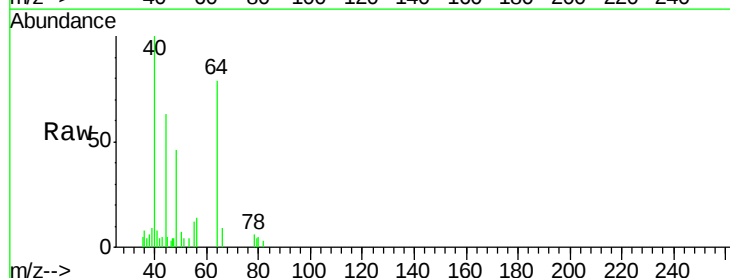
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-VPB201-GW-580-582

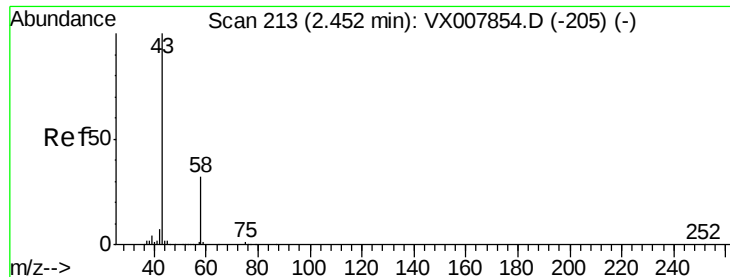
Tgt Ion: 59 Resp: 7195  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.2 12.2#



#13  
Acrolein  
Concen: 2.135 ug/l  
RT: 2.30 min Scan# 188  
Delta R.T. 0.00 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

Tgt Ion: 56 Resp: 242  
Ion Ratio Lower Upper  
56 100  
55 82.2 57.8 86.6





#16

Acetone

Concen: 11.624 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.01 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

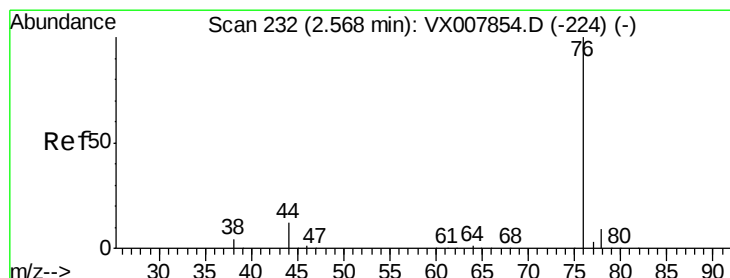
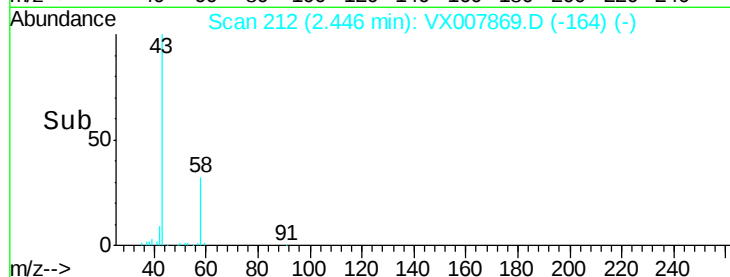
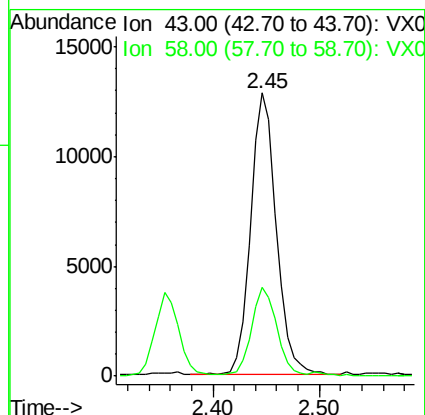
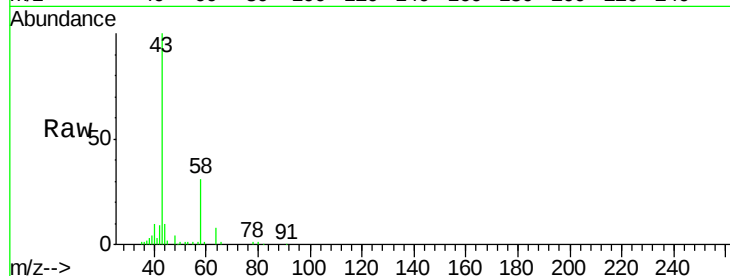
BP-VPB201-GW-580-582

Tgt Ion: 43 Resp: 21551

Ion Ratio Lower Upper

43 100

58 31.5 25.5 38.3



#17

Carbon Disulfide

Concen: Below Cal

RT: 2.57 min Scan# 233

Delta R.T. 0.01 min

Lab File: VX007869.D

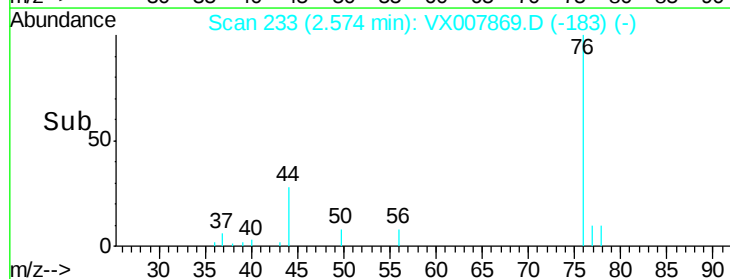
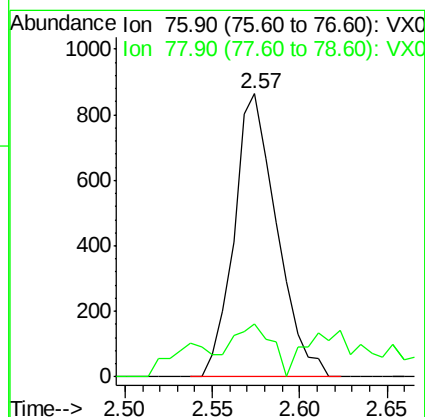
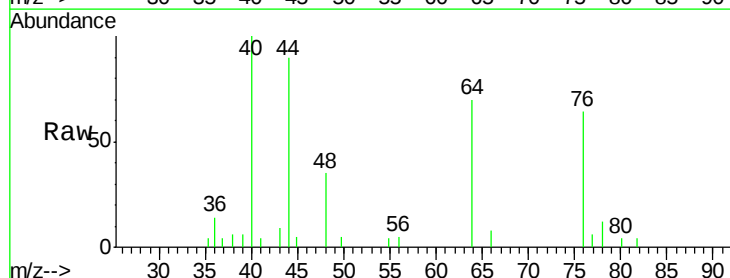
Acq: 06 Mar 2019 19:20

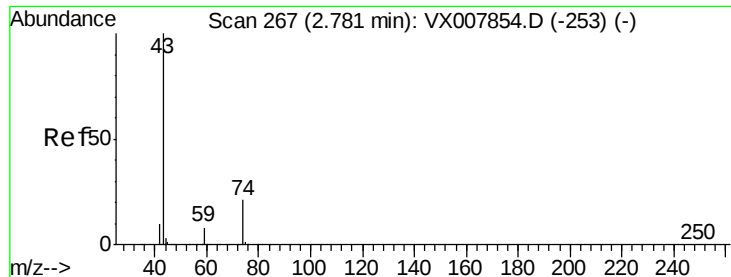
Tgt Ion: 76 Resp: 1470

Ion Ratio Lower Upper

76 100

78 6.6 7.2 10.8#

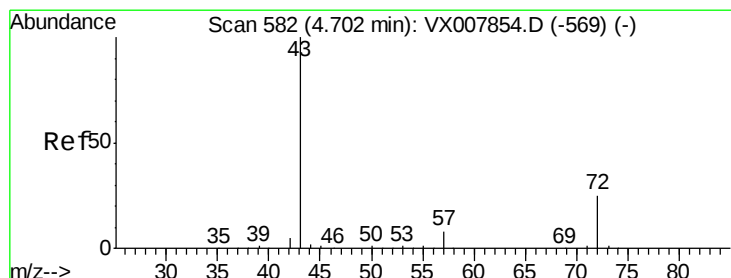
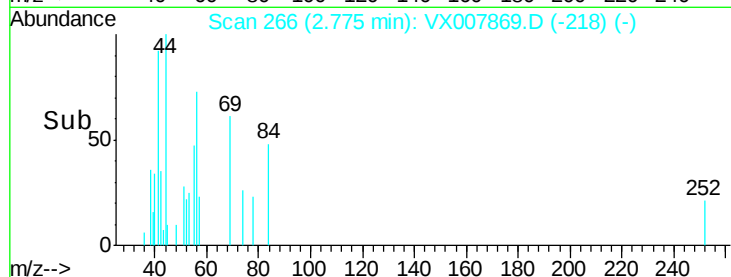
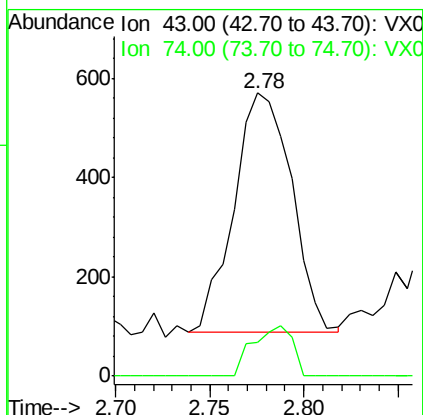
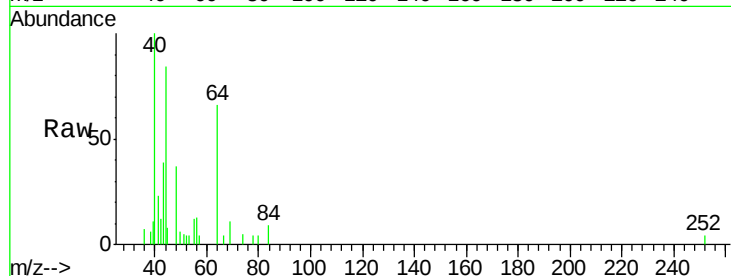




#18  
Methyl Acetate  
Concen: 0.260 ug/l  
RT: 2.78 min Scan# 266  
Delta R.T. -0.01 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

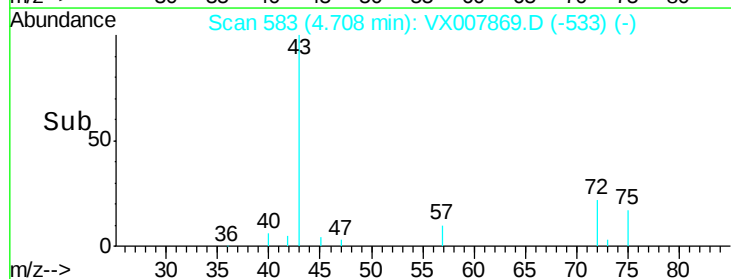
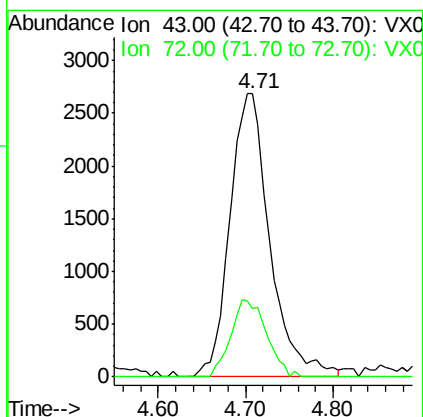
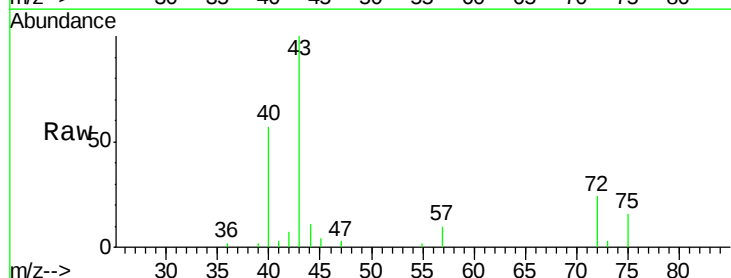
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-VPB201-GW-580-582

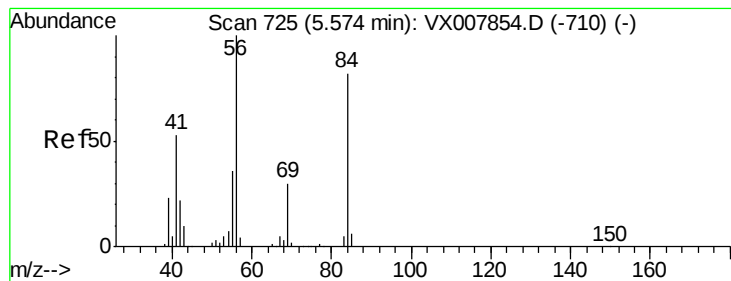
Tgt Ion: 43 Resp: 1025  
Ion Ratio Lower Upper  
43 100  
74 14.3 17.8 26.6#



#25  
2-Butanone  
Concen: 3.246 ug/l  
RT: 4.71 min Scan# 583  
Delta R.T. 0.01 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

Tgt Ion: 43 Resp: 8520  
Ion Ratio Lower Upper  
43 100  
72 24.0 19.9 29.9





#31

Cyclohexane

Concen: 1.049 ug/l

RT: 5.66 min Scan# 739

Delta R.T. 0.09 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

BP-VPB201-GW-580-582

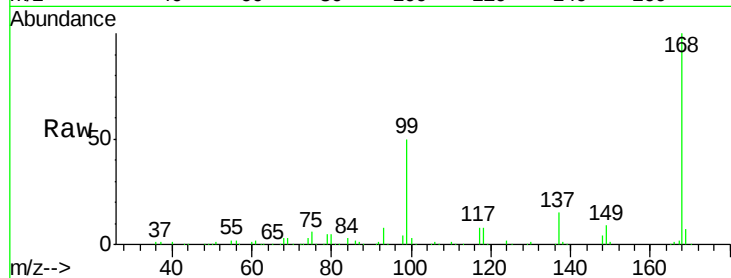
Tgt Ion: 56 Resp: 5164

Ion Ratio Lower Upper

56 100

69 196.0 24.0 36.0#

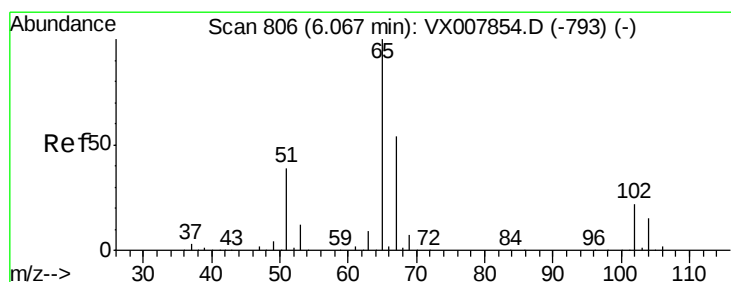
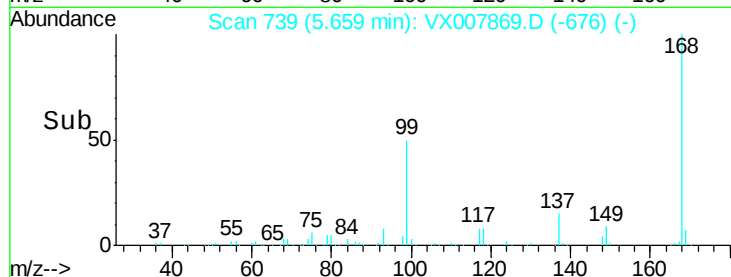
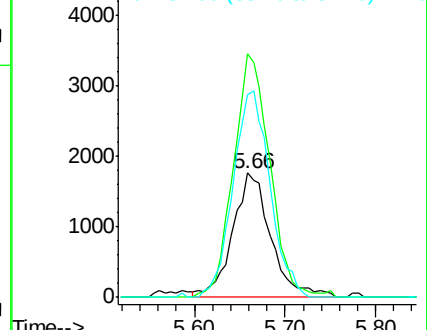
84 162.7 65.3 97.9#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0



#33

1,2-Dichloroethane-d4

Concen: 52.387 ug/l

RT: 6.07 min Scan# 806

Delta R.T. 0.00 min

Lab File: VX007869.D

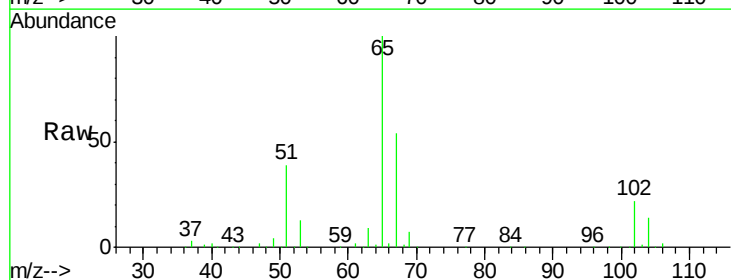
Acq: 06 Mar 2019 19:20

Tgt Ion: 65 Resp: 167798

Ion Ratio Lower Upper

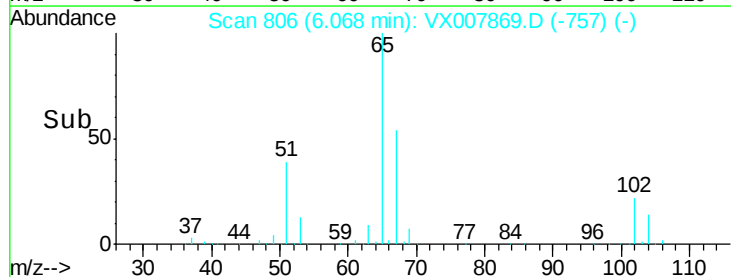
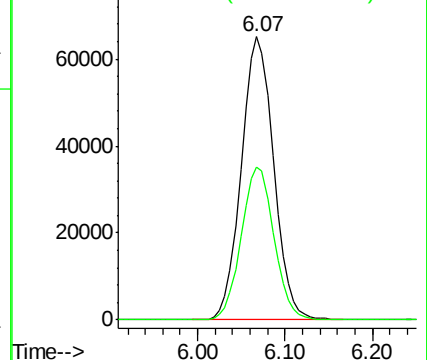
65 100

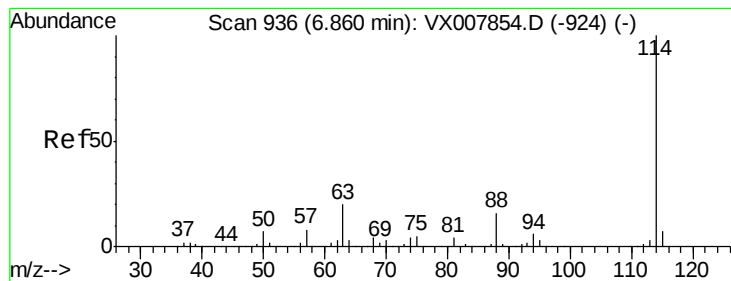
67 54.5 0.0 110.0



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

BP-VPB201-GW-580-582

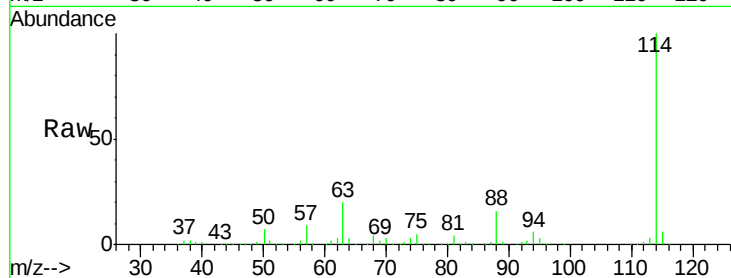
Tgt Ion:114 Resp: 473623

Ion Ratio Lower Upper

114 100

63 19.8 0.0 39.8

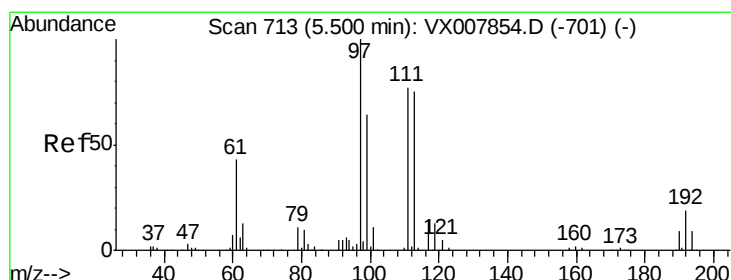
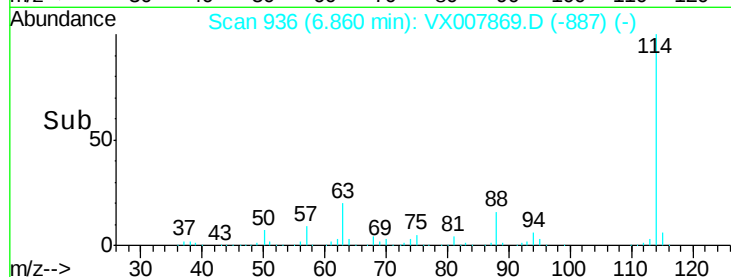
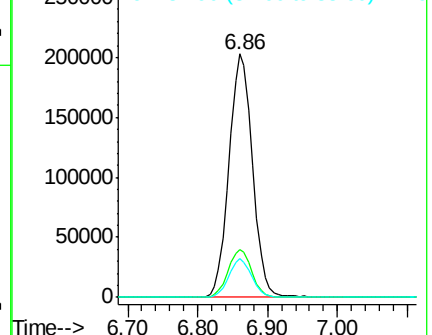
88 15.8 0.0 31.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 51.200 ug/l

RT: 5.51 min Scan# 714

Delta R.T. 0.01 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

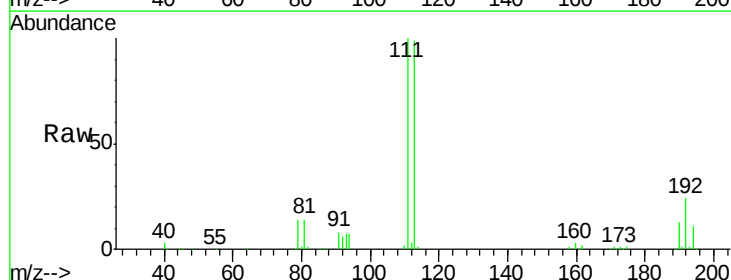
Tgt Ion:113 Resp: 155115

Ion Ratio Lower Upper

113 100

111 101.6 81.4 122.0

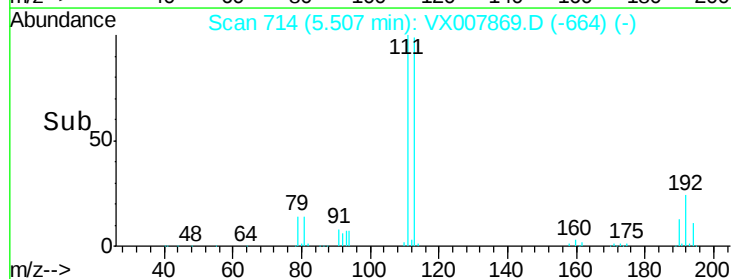
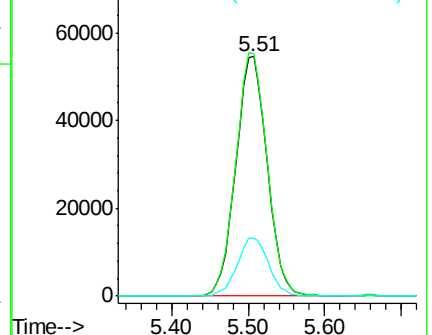
192 24.3 19.4 29.0

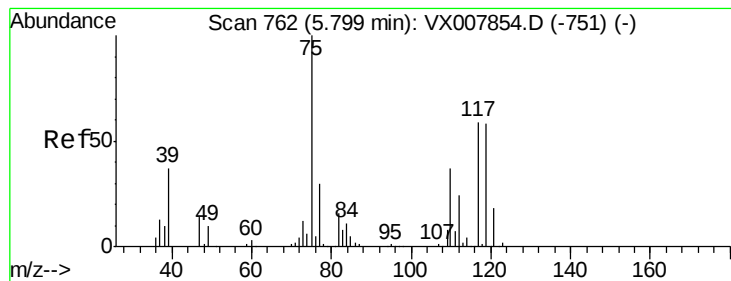


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.312 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.14 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

BP-VPB201-GW-580-582

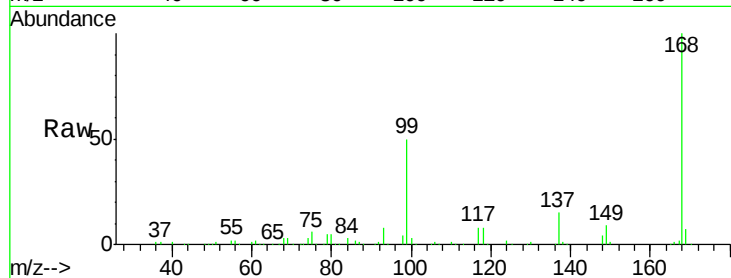
Tgt Ion: 75 Resp: 18491

Ion Ratio Lower Upper

75 100

110 9.2 18.4 55.0#

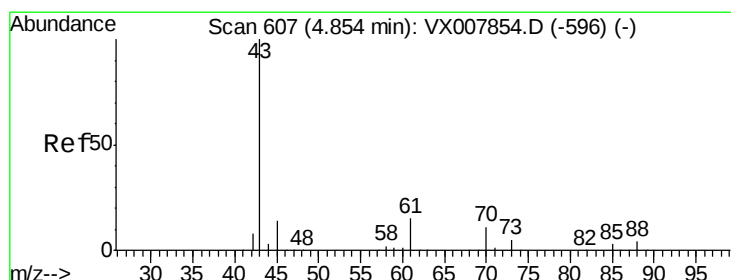
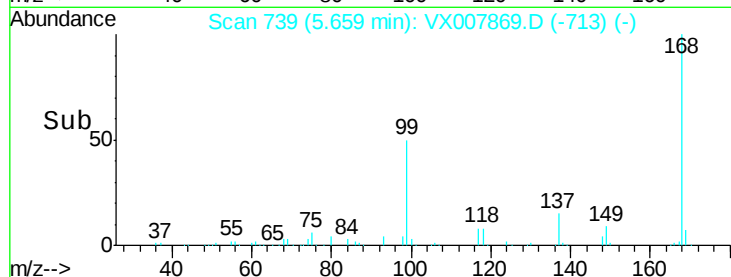
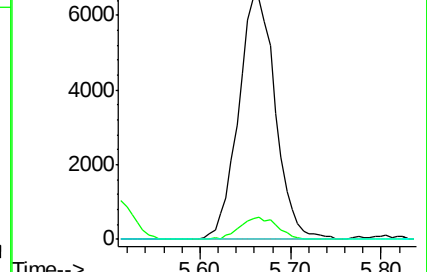
77 0.0 25.0 37.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): VX0

Ion 76.90 (76.60 to 77.60): VX0



#37

Ethyl Acetate

Concen: 1.674 ug/l

RT: 4.71 min Scan# 583

Delta R.T. -0.15 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

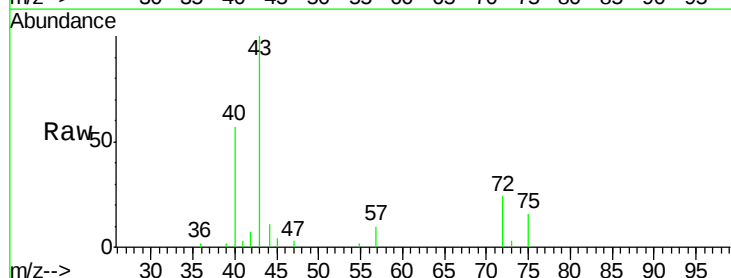
Tgt Ion: 43 Resp: 8520

Ion Ratio Lower Upper

43 100

61 1.3 11.3 16.9#

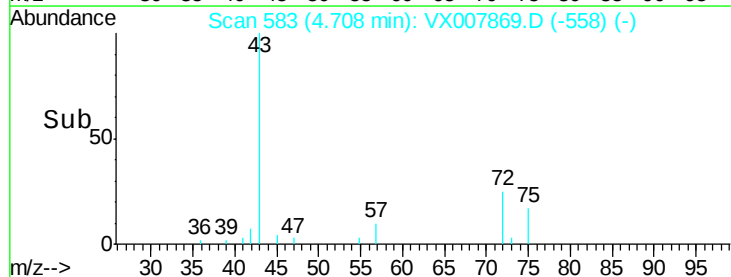
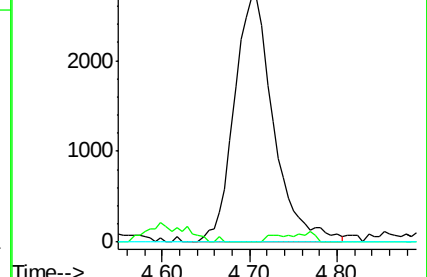
70 0.0 8.5 12.7#

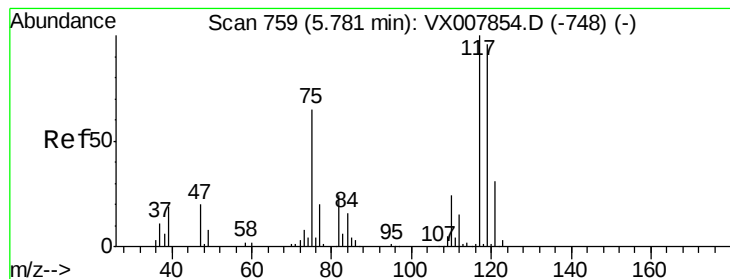


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 70.00 (69.70 to 70.70): VX0





#38

Carbon Tetrachloride

Concen: 6.268 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

BP-VPB201-GW-580-582

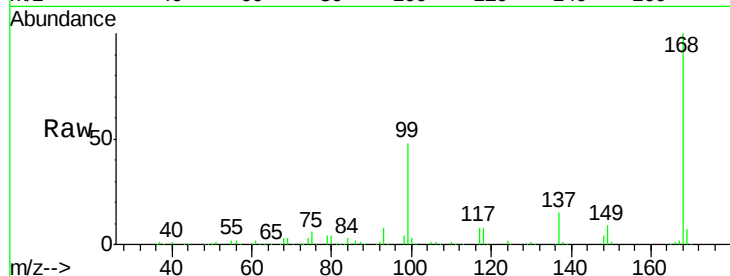
Tgt Ion: 117 Resp: 25518

Ion Ratio Lower Upper

117 100

119 5.4 76.2 114.2#

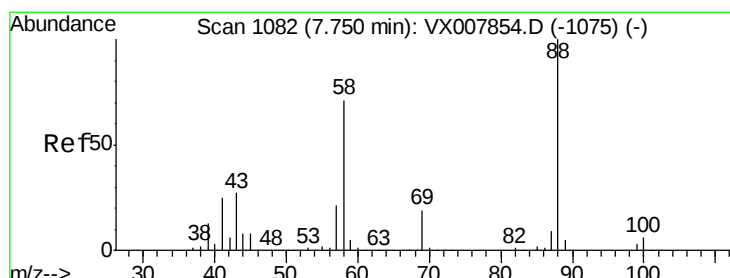
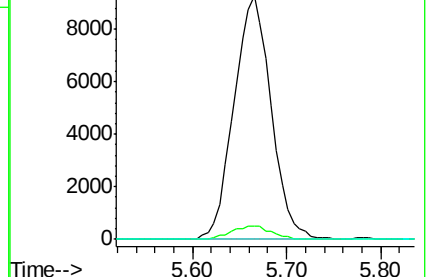
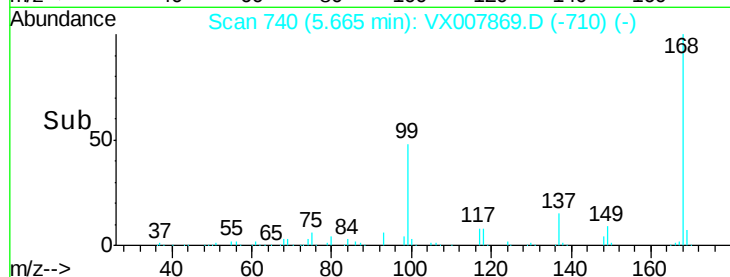
121 0.0 24.6 36.8#



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



#49

1,4-Dioxane

Concen: 0.565 ug/l

RT: 7.77 min Scan# 1085

Delta R.T. 0.02 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

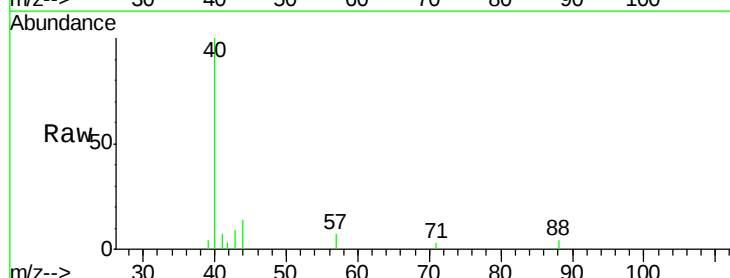
Tgt Ion: 88 Resp: 46

Ion Ratio Lower Upper

88 100

43 560.9 25.1 37.7#

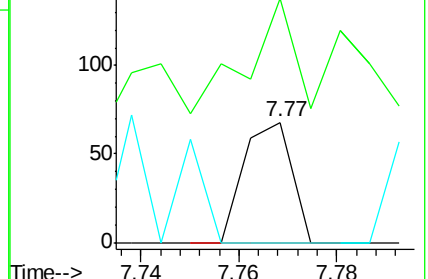
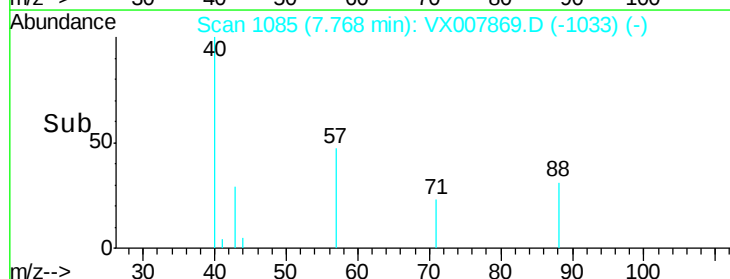
58 0.0 57.8 86.6#

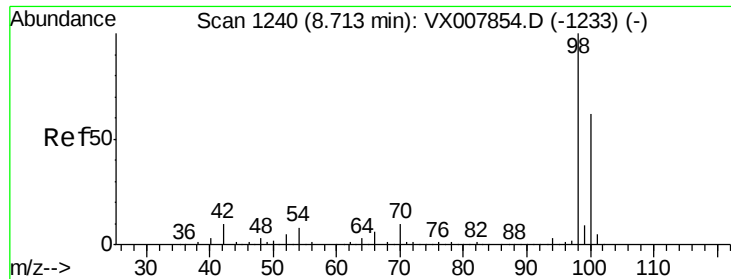


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

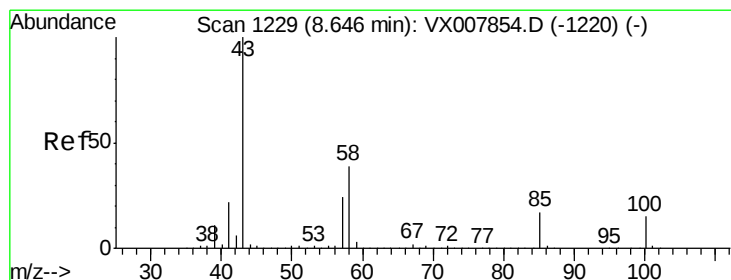
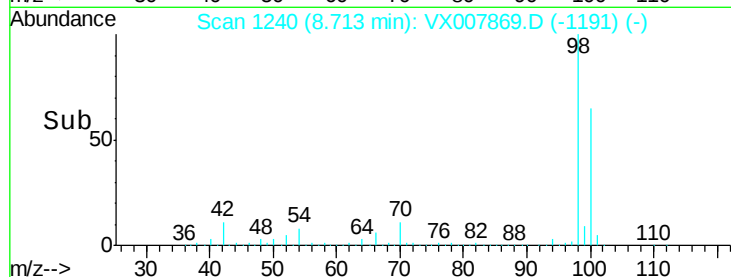
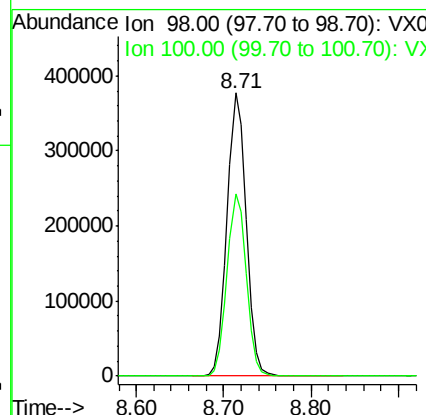
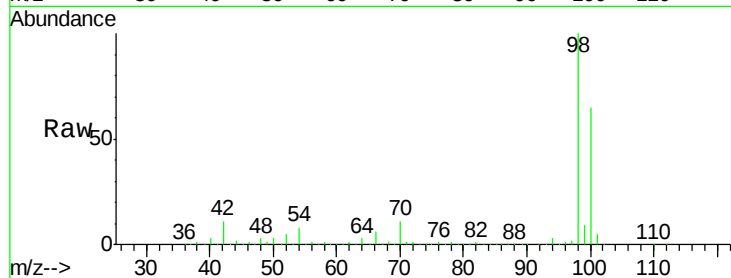




#50  
Toluene-d8  
Concen: 51.399 ug/l  
RT: 8.71 min Scan# 1240  
Delta R.T. 0.00 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

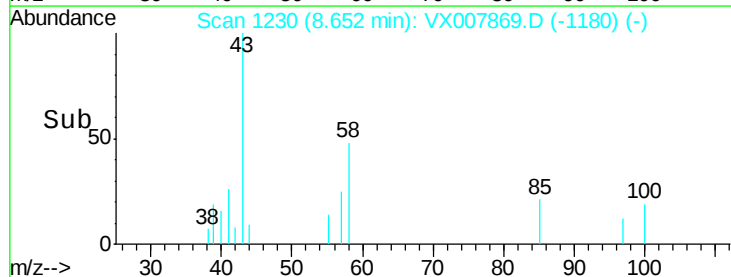
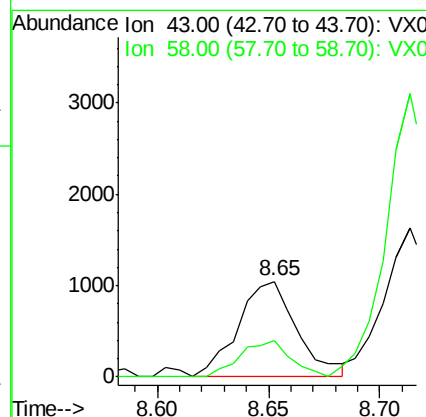
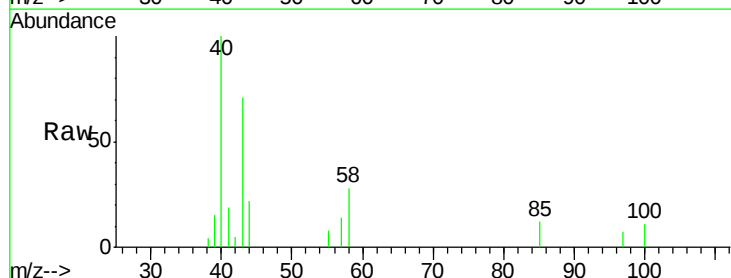
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-VPB201-GW-580-582

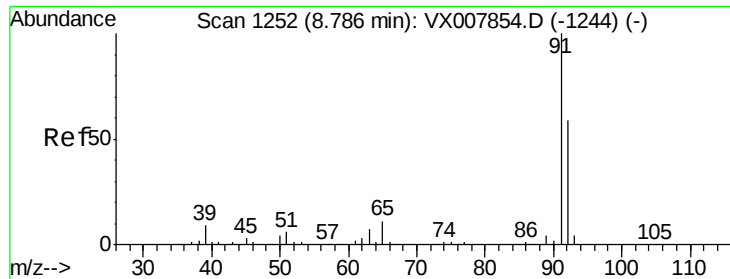
Tgt Ion: 98 Resp: 571888  
Ion Ratio Lower Upper  
98 100  
100 65.2 51.7 77.5



#51  
4-Methyl-2-Pentanone  
Concen: 0.398 ug/l  
RT: 8.65 min Scan# 1230  
Delta R.T. 0.01 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

Tgt Ion: 43 Resp: 1929  
Ion Ratio Lower Upper  
43 100  
58 32.6 31.3 46.9





#52

Toluene

Concen: 1.212 ug/l

RT: 8.78 min Scan# 1251

Delta R.T. -0.01 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

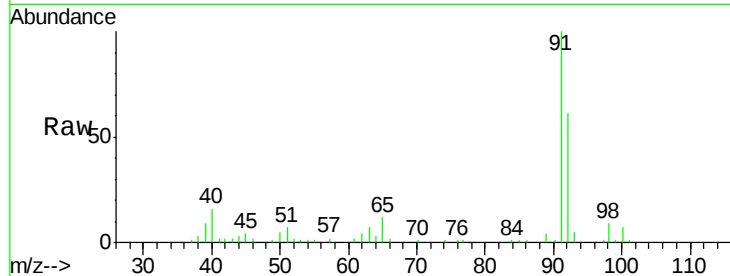
BP-VPB201-GW-580-582

Tgt Ion: 92 Resp: 9451

Ion Ratio Lower Upper

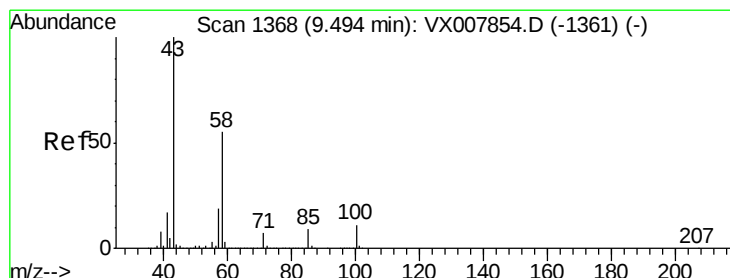
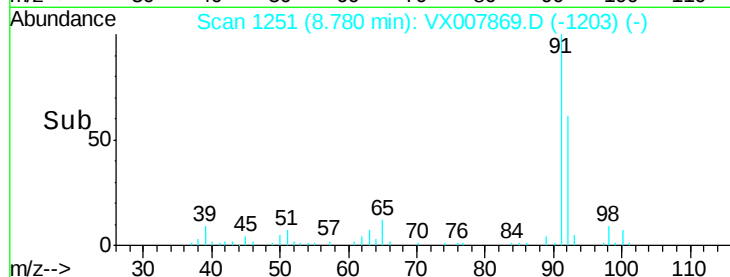
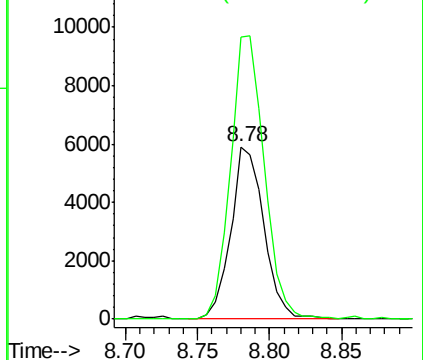
92 100

91 168.3 137.4 206.0



Abundance Ion 92.00 (91.70 to 92.70): VX0

Ion 91.00 (90.70 to 91.70): VX0



#59

2-Hexanone

Concen: 0.385 ug/l

RT: 9.50 min Scan# 1369

Delta R.T. 0.01 min

Lab File: VX007869.D

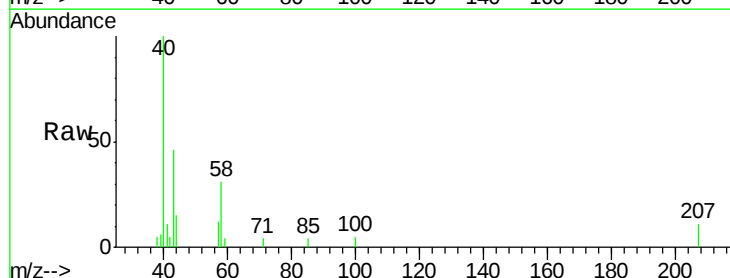
Acq: 06 Mar 2019 19:20

Tgt Ion: 43 Resp: 1449

Ion Ratio Lower Upper

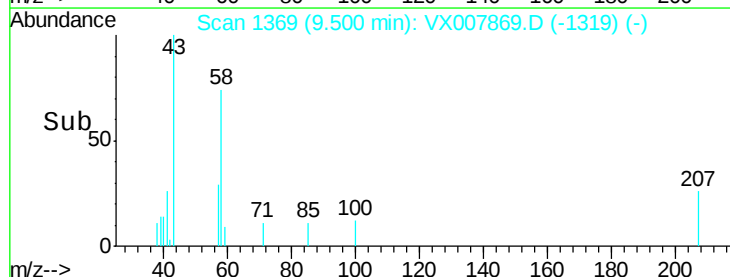
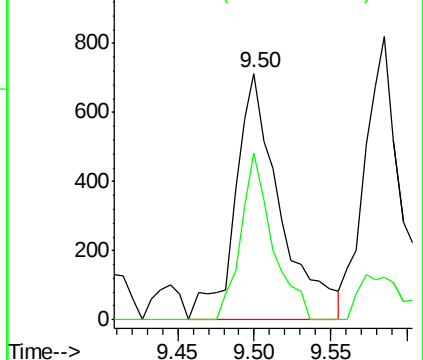
43 100

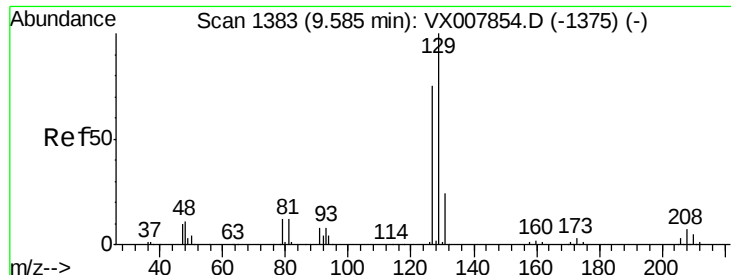
58 47.8 27.6 82.7



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#60

Dibromochloromethane

Concen: 0.370 ug/l

RT: 9.34 min Scan# 1342

Delta R.T. -0.25 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

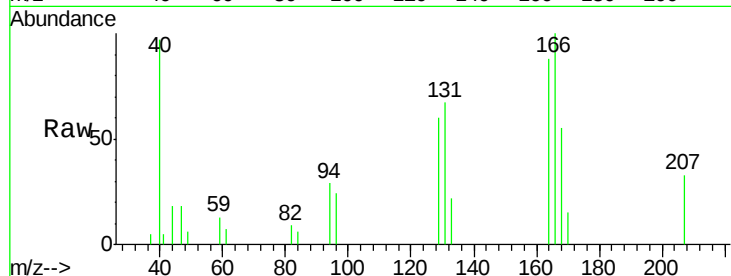
BP-VPB201-GW-580-582

Tgt Ion:129 Resp: 1219

Ion Ratio Lower Upper

129 100

127 0.0 38.3 114.8#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V

9.34

800

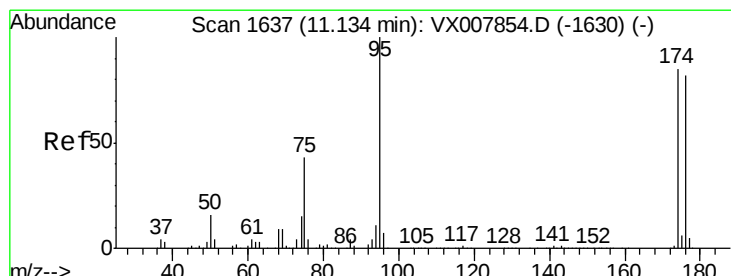
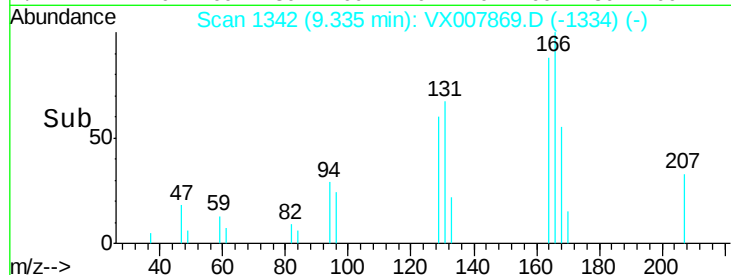
600

400

200

0

Time-->



#62

4-Bromofluorobenzene

Concen: 53.573 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

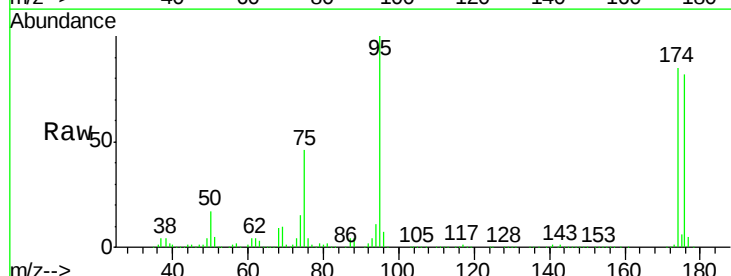
Tgt Ion: 95 Resp: 208984

Ion Ratio Lower Upper

95 100

174 91.4 0.0 182.8

176 89.2 0.0 178.0



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

200000

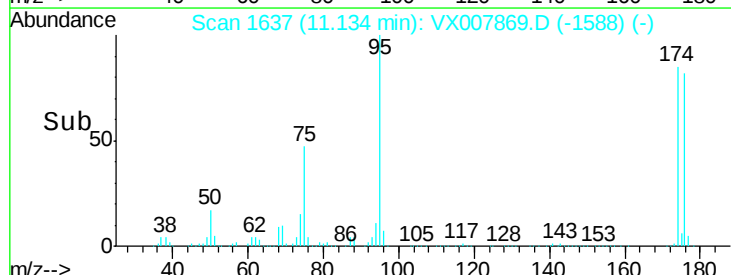
150000

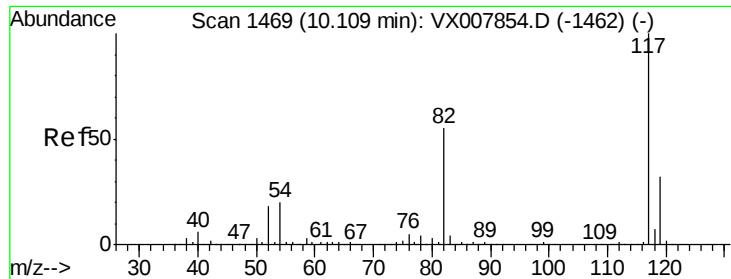
100000

50000

0

Time-->

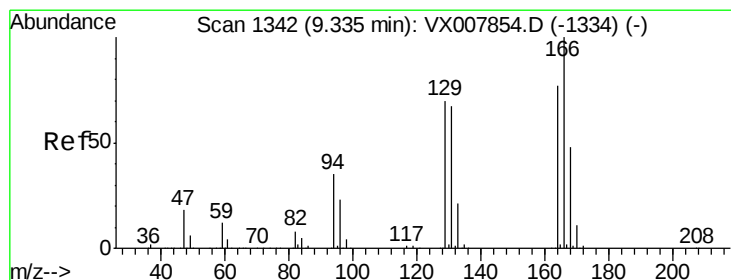
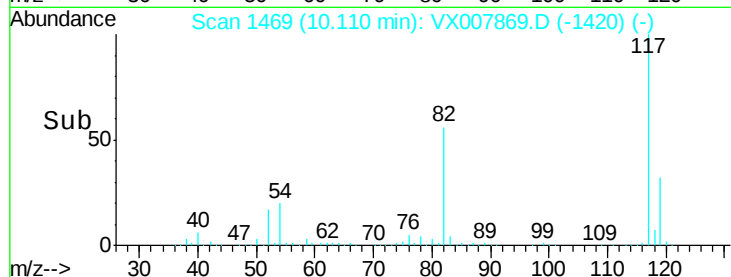
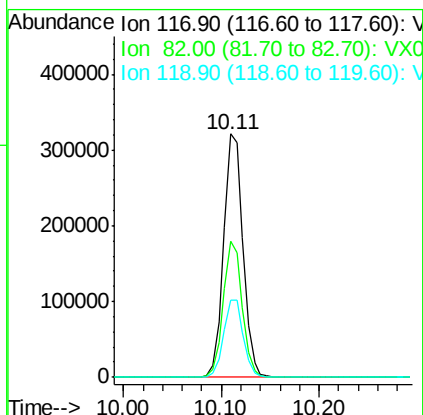
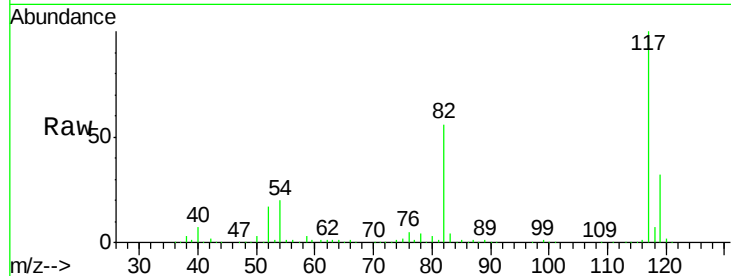




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. 0.00 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

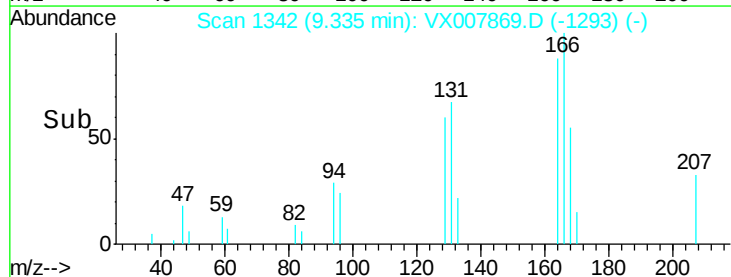
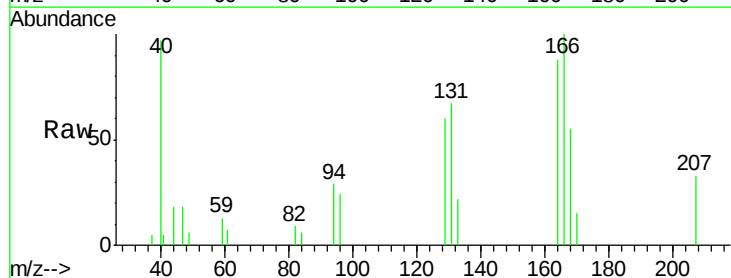
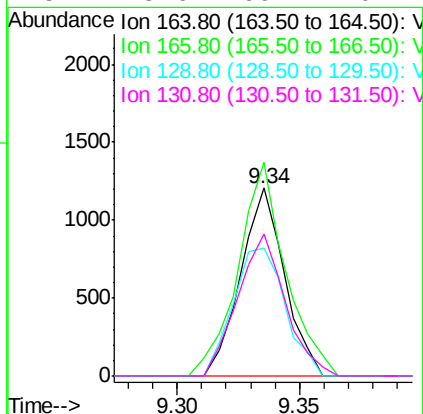
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-VPB201-GW-580-582

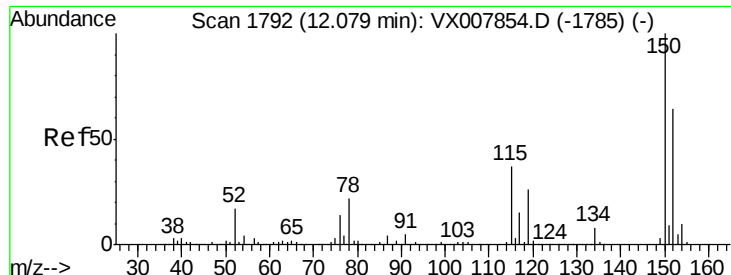
Tgt Ion:117 Resp: 441028  
Ion Ratio Lower Upper  
117 100  
82 56.1 44.3 66.5  
119 31.6 25.3 37.9



#64  
Tetrachloroethene  
Concen: 0.411 ug/l  
RT: 9.34 min Scan# 1342  
Delta R.T. 0.00 min  
Lab File: VX007869.D  
Acq: 06 Mar 2019 19:20

Tgt Ion:164 Resp: 1501  
Ion Ratio Lower Upper  
164 100  
166 113.6 103.4 155.0  
129 67.9 72.2 108.4#  
131 75.6 69.4 104.2





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. 0.00 min

Lab File: VX007869.D

Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

BP-VPB201-GW-580-582

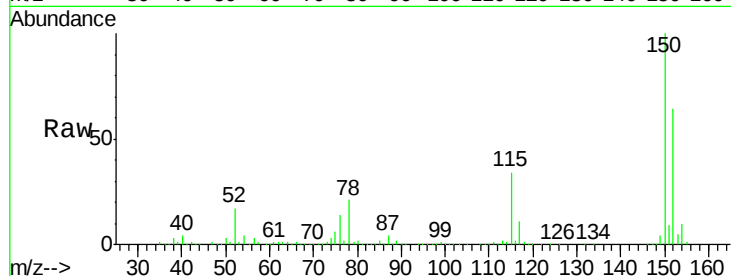
Tgt Ion:152 Resp: 212211

Ion Ratio Lower Upper

152 100

115 55.4 38.6 115.7

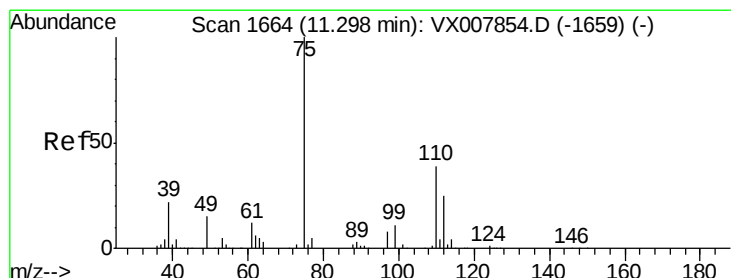
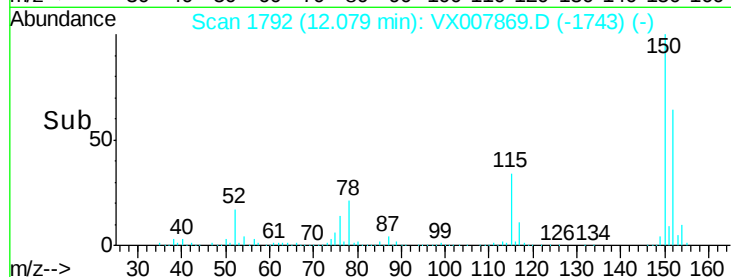
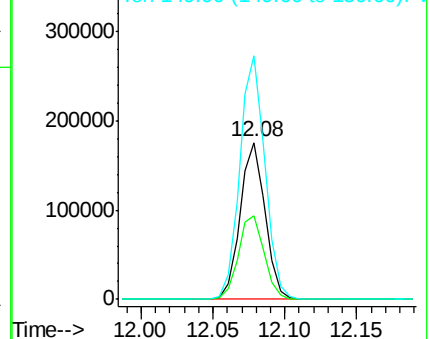
150 156.8 0.0 348.4



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: 21.711 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX007869.D

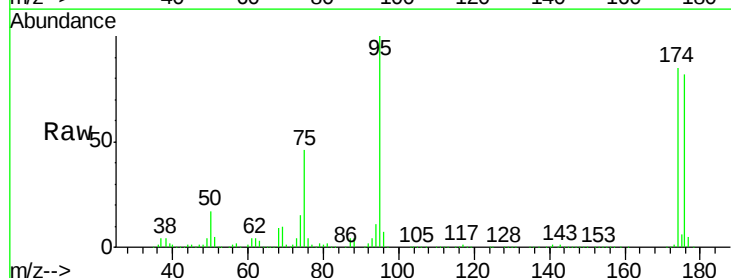
Acq: 06 Mar 2019 19:20

Tgt Ion: 75 Resp: 96682

Ion Ratio Lower Upper

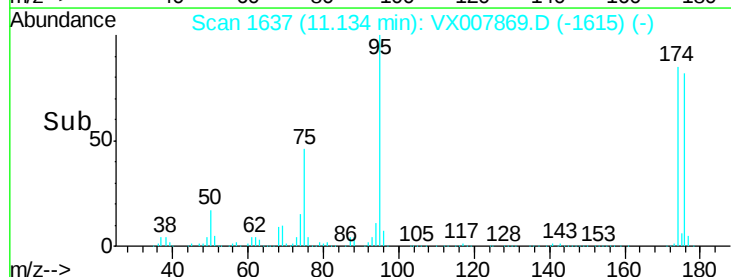
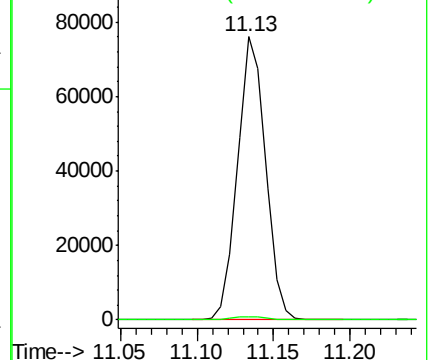
75 100

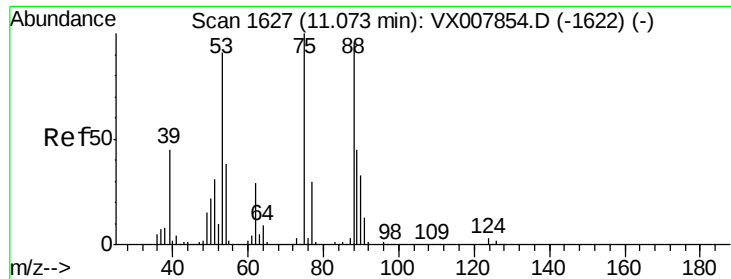
77 1.3 18.9 56.7#



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: 69.400 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX007869.D

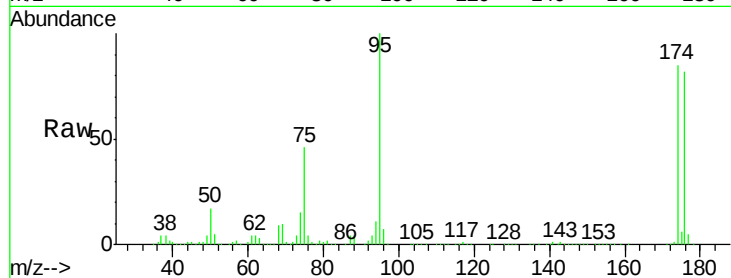
Acq: 06 Mar 2019 19:20

Instrument :

MSVOA\_X

ClientSampleId :

BP-VPB201-GW-580-582



Tgt Ion: 75 Resp: 96682

Ion Ratio Lower Upper

75 100

53 0.1 76.1 114.1#

89 0.0 36.3 54.5#

