

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX071420\  
 Data File : VX017381.D  
 Acq On : 14 Jul 2020 16:05  
 Operator : JC/SP  
 Sample : L3181-05  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CL-02-070920

Quant Time: Jul 15 01:25:28 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X071320W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 14 02:59:51 2020  
 Response via : Initial Calibration

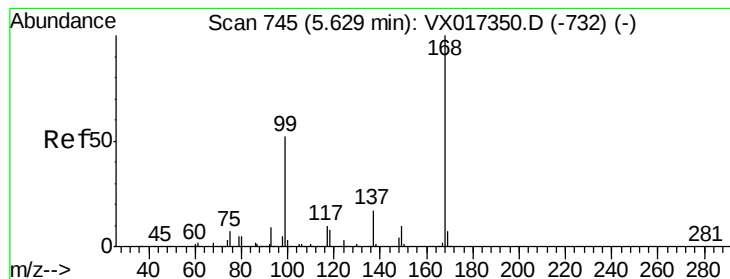
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 252501   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 424032   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 466761   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 244910   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.03  | 65   | 160586   | 50.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.34% |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 141639   | 49.59 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.18%  |          |
| 50) Toluene-d8              | 8.70  | 98   | 538167   | 52.23 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.46% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 229228   | 56.01 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 112.02% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 8) Diethyl Ether               | 2.18  | 74   | 567      | 0.399  | ug/l   | 80     |
| 10) Methyl Iodide              | 2.50  | 142  | 175      | 2.429  | ug/l # | 39     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 1193     | 2.234  | ug/l # | 89     |
| 13) Acrolein                   | 2.27  | 56   | 221      | 0.755  | ug/l   | 99     |
| 16) Acetone                    | 2.42  | 43   | 29078    | 25.719 | ug/l   | 99     |
| 18) Methyl Acetate             | 2.75  | 43   | 3173     | 1.136  | ug/l   | 99     |
| 20) Methylene Chloride         | 2.84  | 84   | 26441    | 9.585  | ug/l   | 97     |
| 25) 2-Butanone                 | 4.64  | 43   | 7597     | 4.231  | ug/l   | 96     |
| 29) Tetrahydrofuran            | 5.10  | 42   | 338      | 0.291  | ug/l # | 3      |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 17660    | 4.528  | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 24562    | 5.379  | ug/l # | 18     |
| 43) Isopropyl Acetate          | 6.42  | 43   | 51343    | 7.966  | ug/l   | 99     |
| 48) Methyl methacrylate        | 7.65  | 41   | 3332     | 1.077  | ug/l # | 13     |
| 49) 1,4-Dioxane                | 7.65  | 88   | 27       | 0.427  | ug/l # | 25     |
| 51) 4-Methyl-2-Pentanone       | 8.59  | 43   | 51371    | 13.071 | ug/l # | 46     |
| 54) cis-1,3-Dichloropropene    | 8.60  | 75   | 22190    | 4.466  | ug/l # | 64     |
| 56) Ethyl methacrylate         | 9.29  | 69   | 1278     | 0.300  | ug/l # | 1      |
| 57) 1,3-Dichloropropane        | 9.52  | 76   | 3526     | 0.707  | ug/l # | 45     |
| 59) 2-Hexanone                 | 9.42  | 43   | 60625    | 20.439 | ug/l # | 23     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 114209   | 25.237 | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 114209   | 64.020 | ug/l # | 11     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 745

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

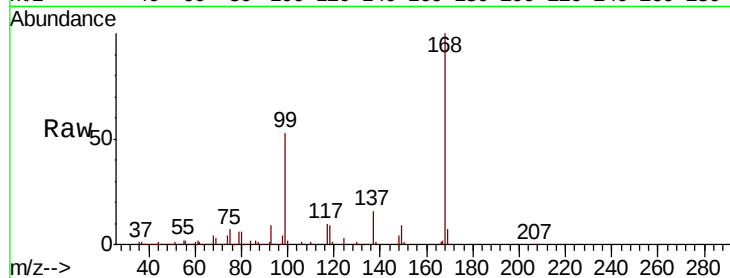
CL-02-070920

Tot Ion:168 Resp: 252501

Ion Ratio Lower Upper

168 100

99 52.9 41.6 62.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

100000

80000

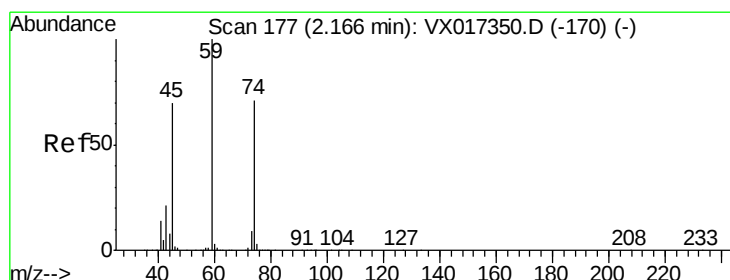
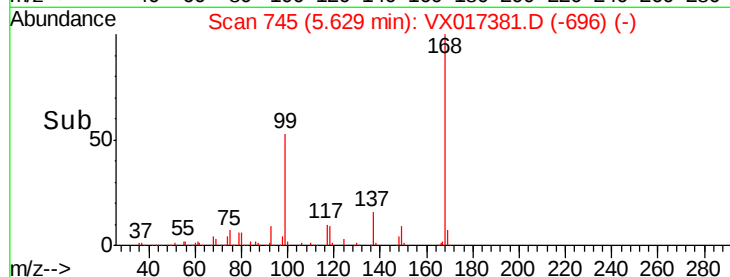
60000

40000

20000

0

Time-->



#8

Diethyl Ether

Concen: 0.399 ug/l

RT: 2.18 min Scan# 180

Delta R.T. 0.02 min

Lab File: VX017381.D

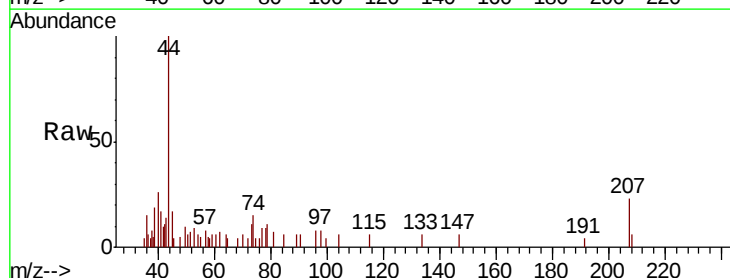
Acq: 14 Jul 2020 16:05

Tgt Ion: 74 Resp: 567

Ion Ratio Lower Upper

74 100

45 75.5 47.2 141.6



Abundance Ion 74.00 (73.70 to 74.70): VX0

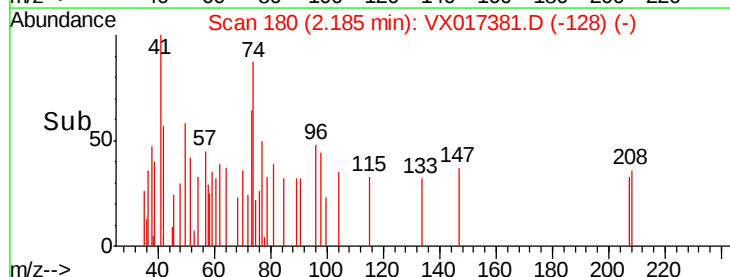
Ion 45.00 (44.70 to 45.70): VX0

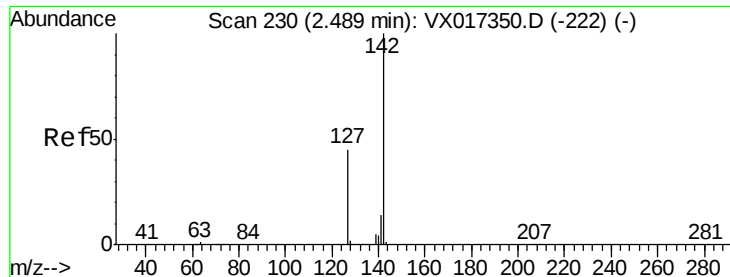
1000

500

0

Time-->

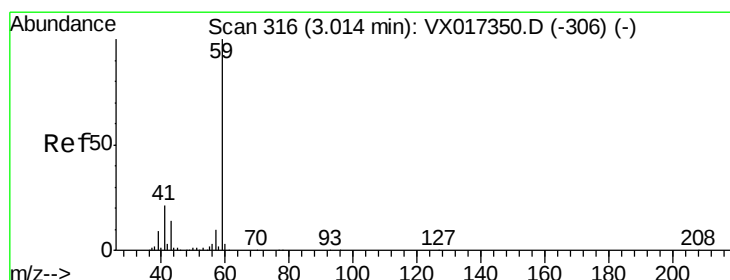
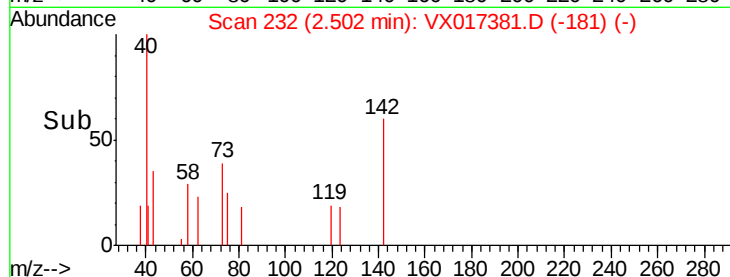
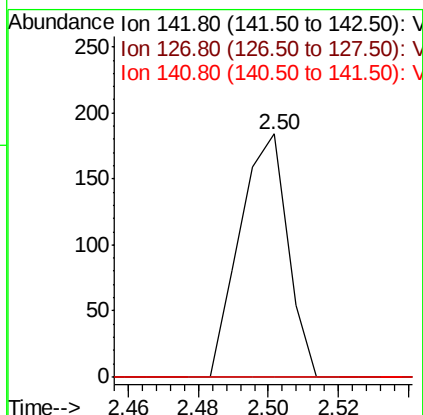
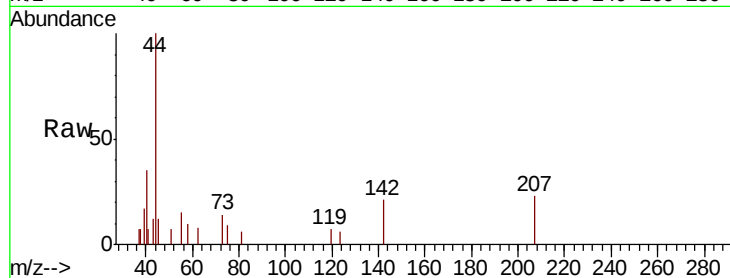




#10  
Methyl Iodide  
Concen: 2.429 ug/l  
RT: 2.50 min Scan# 232  
Delta R.T. 0.01 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

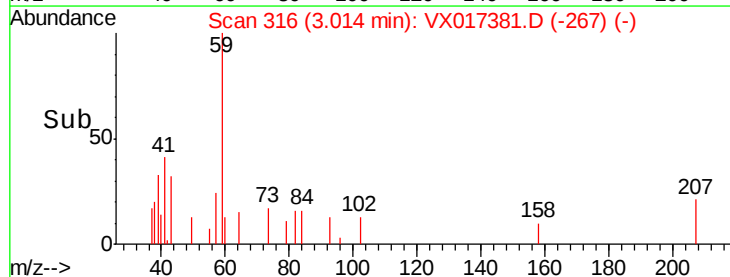
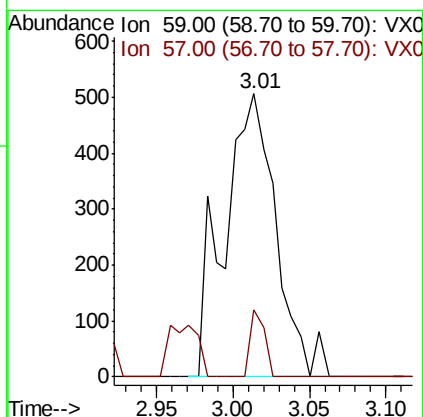
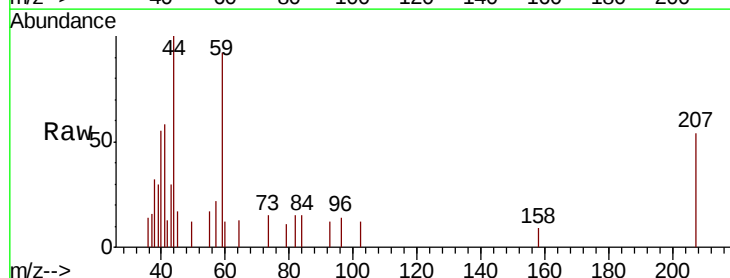
Instrument :  
MSVOA\_X  
ClientSampleId :  
CL-02-070920

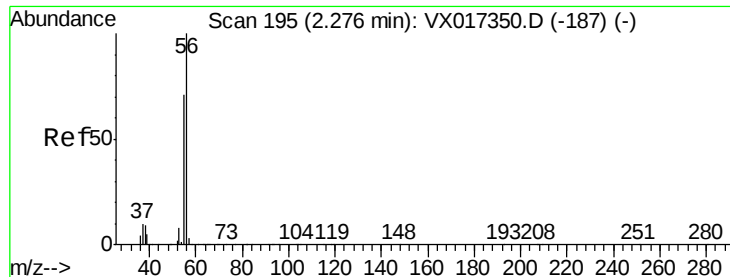
Tot Ion:142 Resp: 175  
Ion Ratio Lower Upper  
142 100  
127 0.0 36.8 55.2#  
141 0.0 11.4 17.0#



#11  
Tert butyl alcohol  
Concen: 2.234 ug/l  
RT: 3.01 min Scan# 316  
Delta R.T. 0.00 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

Tgt Ion: 59 Resp: 1193  
Ion Ratio Lower Upper  
59 100  
57 6.4 8.3 12.5#





#13

Acrolein

Concen: 0.755 ug/l

RT: 2.27 min Scan# 194

Delta R.T. -0.01 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampled :

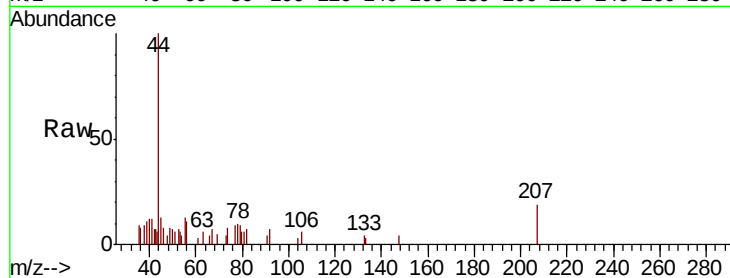
CL-02-070920

Tot Ion: 56 Resp: 221

Ion Ratio Lower Upper

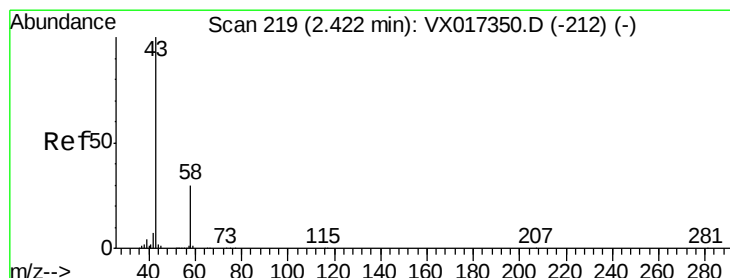
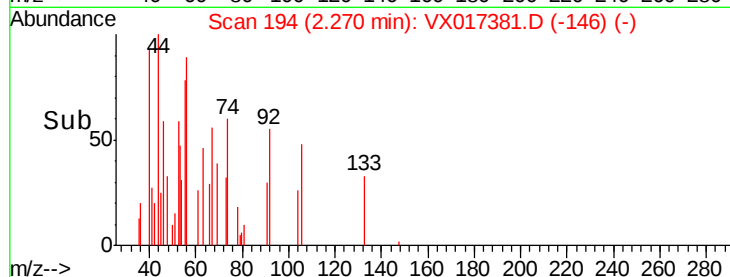
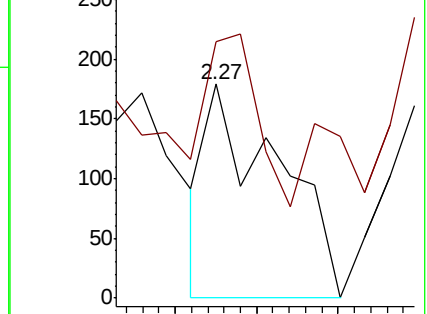
56 100

55 72.4 57.1 85.7



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#16

Acetone

Concen: 25.719 ug/l

RT: 2.42 min Scan# 218

Delta R.T. -0.01 min

Lab File: VX017381.D

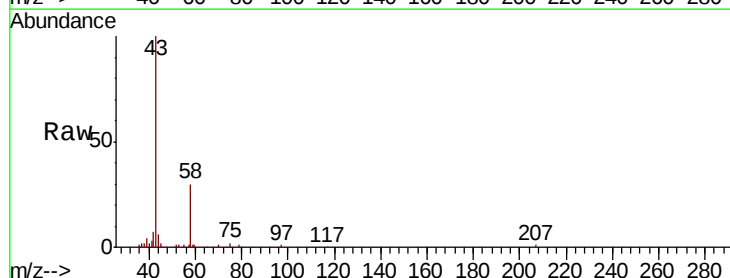
Acq: 14 Jul 2020 16:05

Tgt Ion: 43 Resp: 29078

Ion Ratio Lower Upper

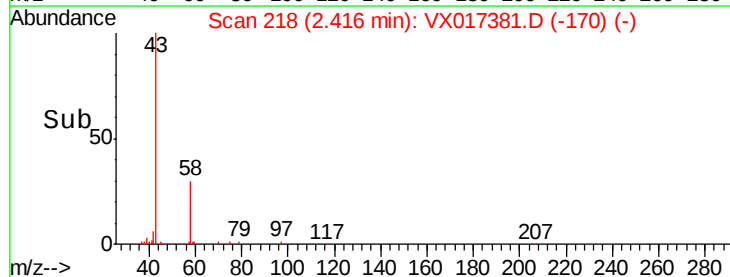
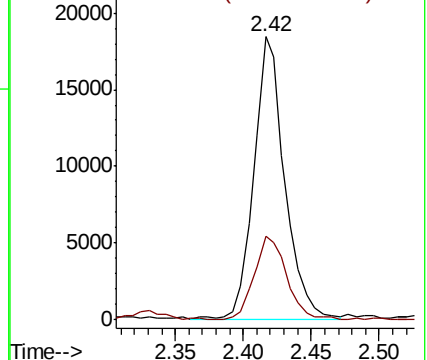
43 100

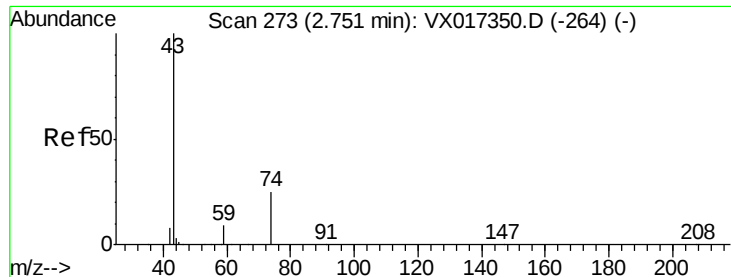
58 29.8 24.2 36.2



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

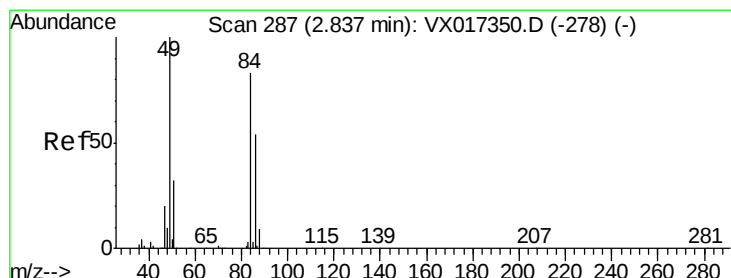
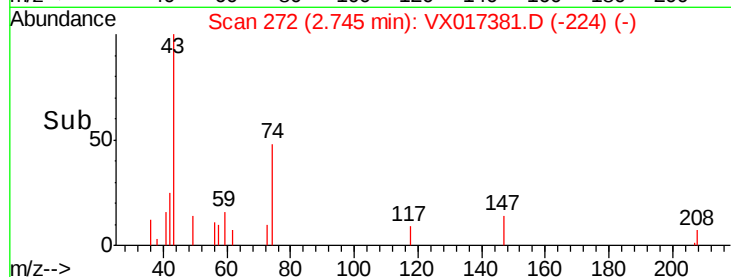
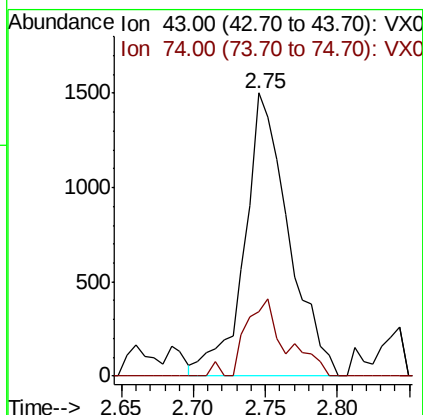
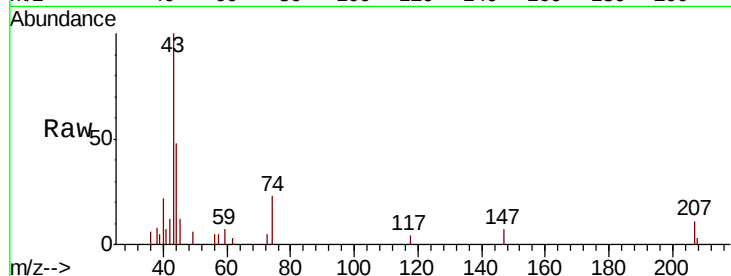




#18  
Methvl Acetate  
Concen: 1.136 ug/l  
RT: 2.75 min Scan# 272  
Delta R.T. -0.01 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

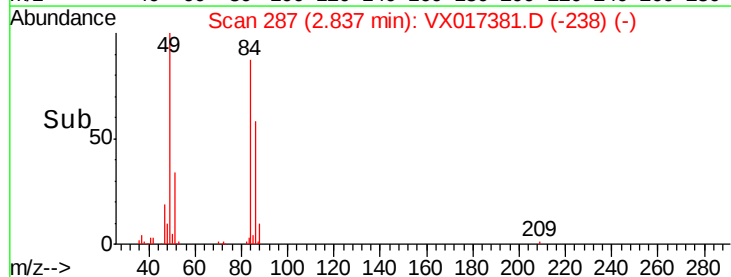
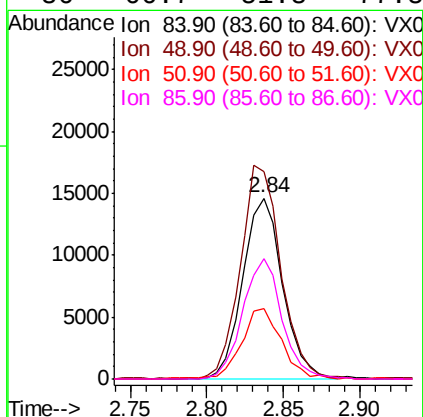
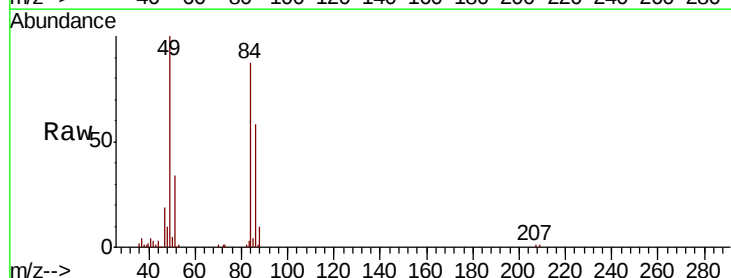
Instrument :  
MSVOA\_X  
ClientSampleId :  
CL-02-070920

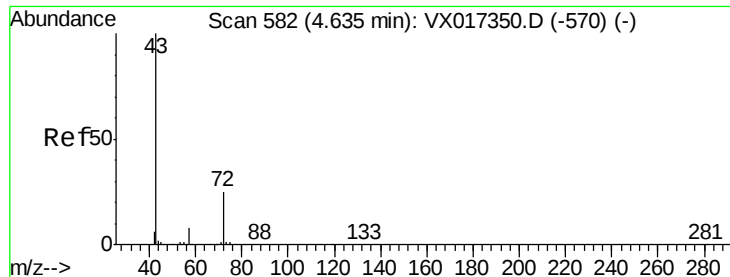
Tot Ion: 43 Resp: 3173  
Ion Ratio Lower Upper  
43 100  
74 25.0 19.4 29.2



#20  
Methylene Chloride  
Concen: 9.585 ug/l  
RT: 2.84 min Scan# 287  
Delta R.T. 0.00 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

Tgt Ion: 84 Resp: 26441  
Ion Ratio Lower Upper  
84 100  
49 114.7 95.8 143.8  
51 39.1 31.0 46.4  
86 66.7 51.8 77.8





#25

2-Butanone

Concen: 4.231 ug/l

RT: 4.64 min Scan# 582

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampled :

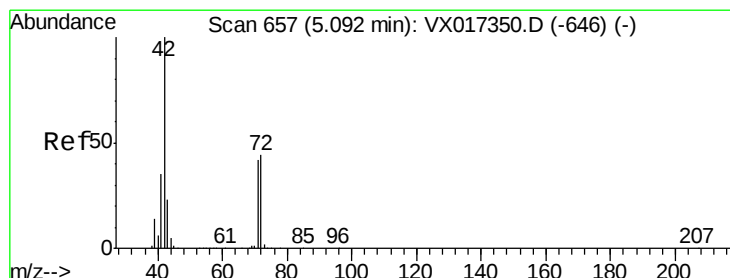
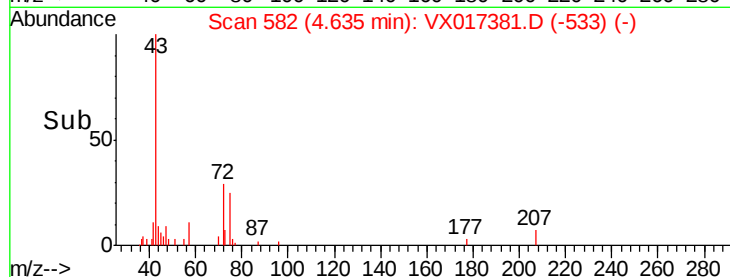
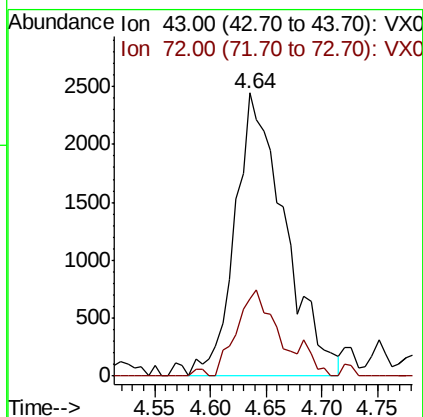
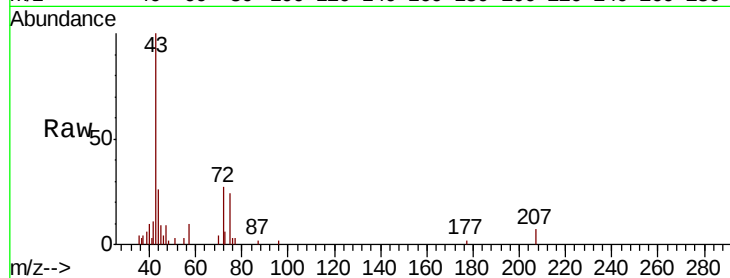
CL-02-070920

Tot Ion: 43 Resp: 7597

Ion Ratio Lower Upper

43 100

72 27.4 20.4 30.6



#29

Tetrahydrofuran

Concen: 0.291 ug/l

RT: 5.10 min Scan# 659

Delta R.T. 0.01 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

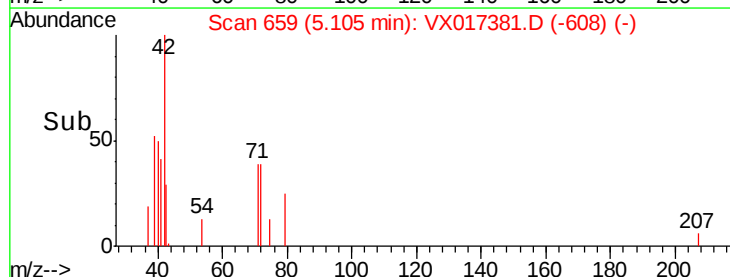
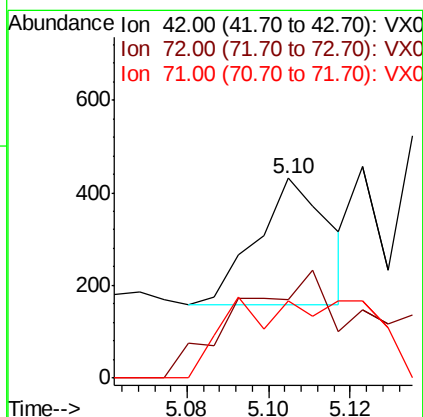
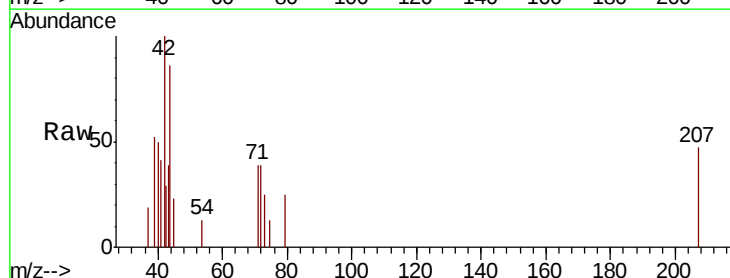
Tgt Ion: 42 Resp: 338

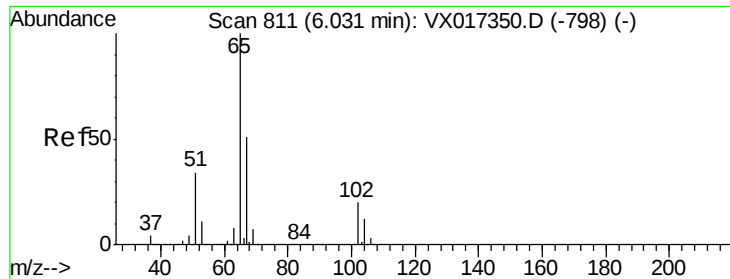
Ion Ratio Lower Upper

42 100

72 168.0 37.2 55.8#

71 40.5 34.4 51.6

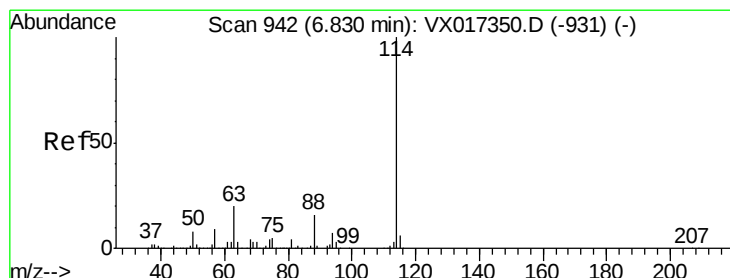
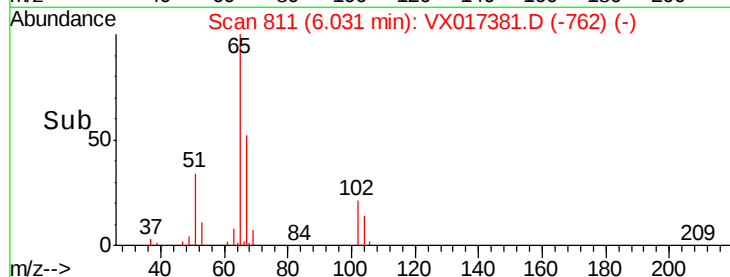
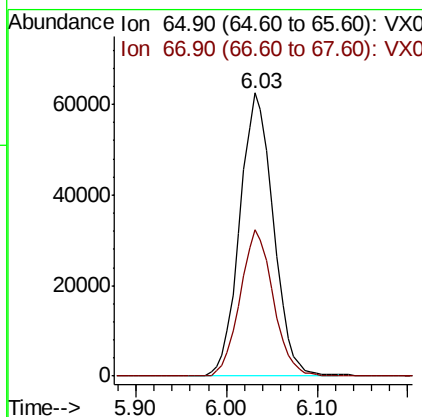
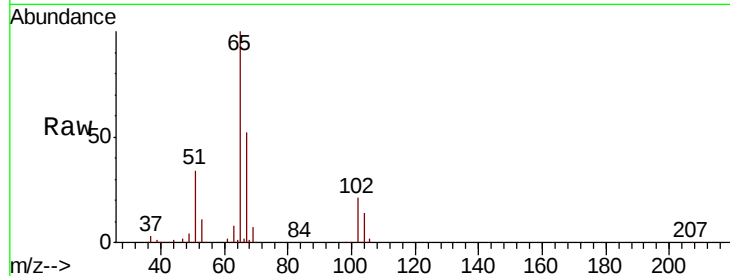




#33  
 1,2-Dichloroethane-d4  
 Concen: 50.672 ug/l  
 RT: 6.03 min Scan# 811  
 Delta R.T. 0.00 min  
 Lab File: VX017381.D  
 Acq: 14 Jul 2020 16:05

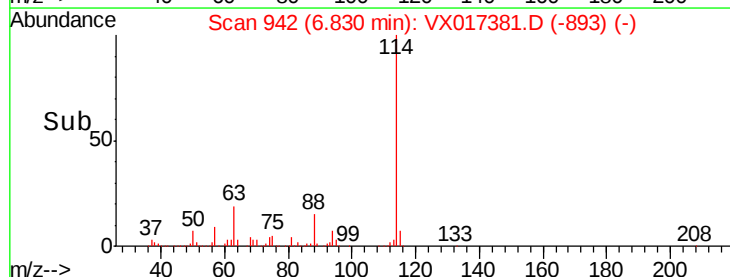
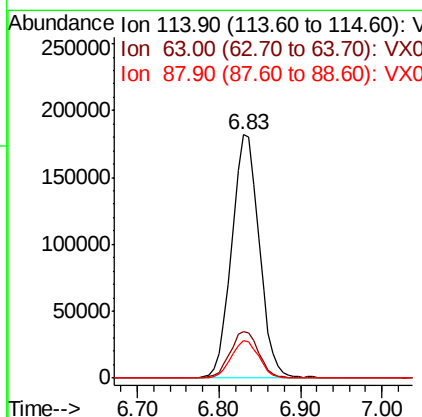
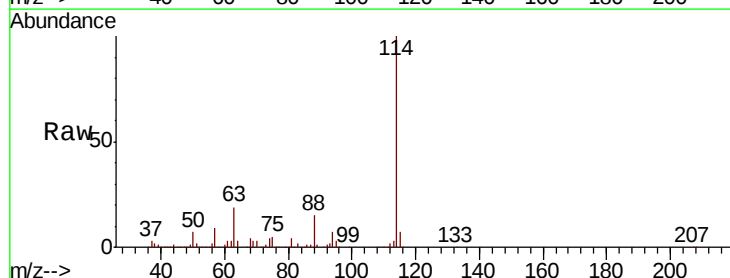
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CL-02-070920

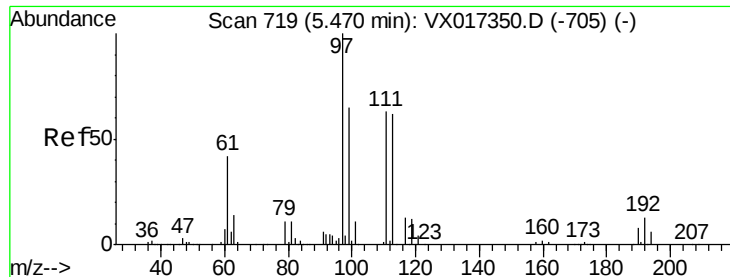
Tot Ion: 65 Resp: 160586  
 Ion Ratio Lower Upper  
 65 100  
 67 51.1 0.0 101.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.83 min Scan# 942  
 Delta R.T. 0.00 min  
 Lab File: VX017381.D  
 Acq: 14 Jul 2020 16:05

Tgt Ion: 114 Resp: 424032  
 Ion Ratio Lower Upper  
 114 100  
 63 19.0 0.0 40.0  
 88 15.2 0.0 32.8





#35

Dibromofluoromethane

Concen: 49.587 ug/l

RT: 5.46 min Scan# 718

Delta R.T. -0.01 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

CL-02-070920

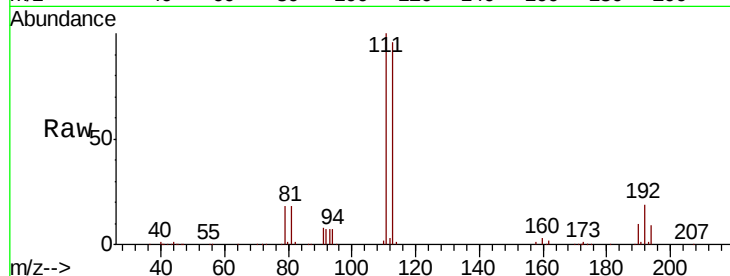
Tot Ion:113 Resp: 141639

Ion Ratio Lower Upper

113 100

111 102.0 82.4 123.6

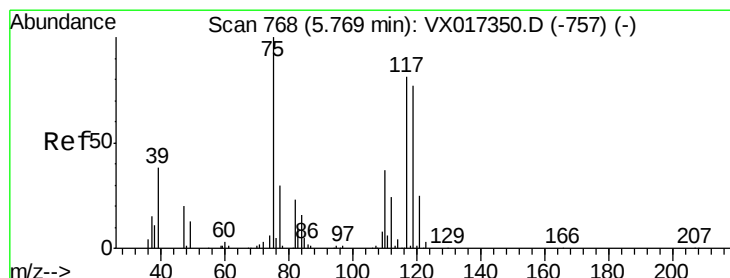
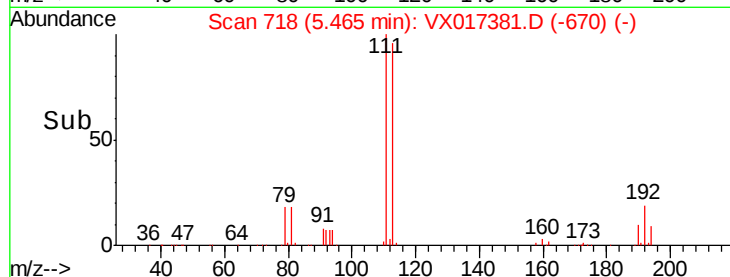
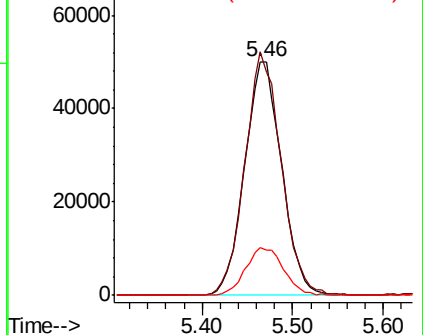
192 21.0 17.2 25.8



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: 4.528 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.14 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

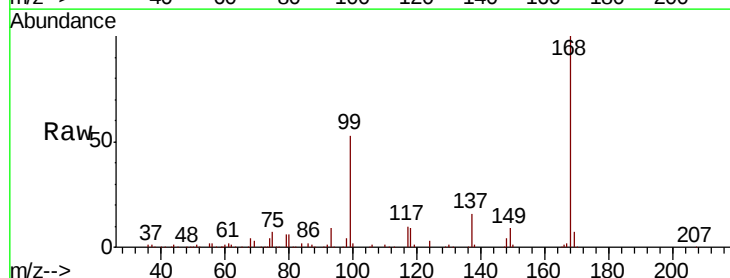
Tgt Ion: 75 Resp: 17660

Ion Ratio Lower Upper

75 100

110 10.6 18.6 55.8#

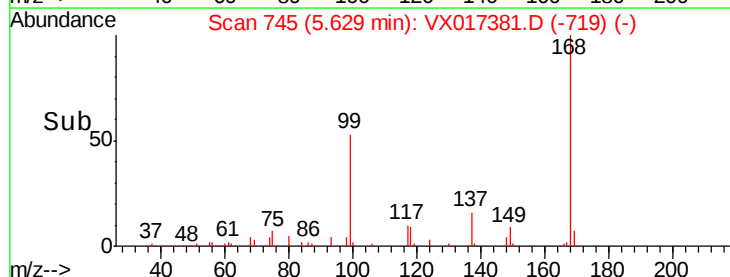
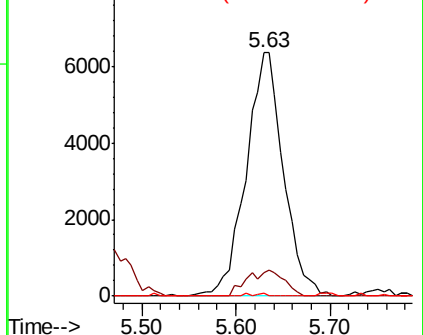
77 0.2 24.9 37.3#

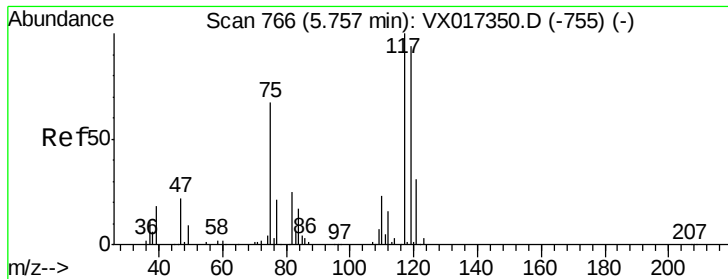


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 5.379 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.13 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

CL-02-070920

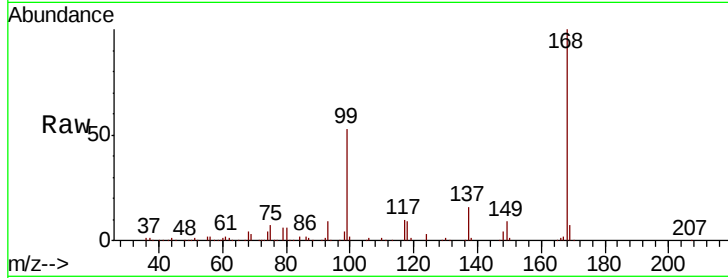
Tot Ion:117 Resp: 24562

Ion Ratio Lower Upper

117 100

119 6.2 74.7 112.1#

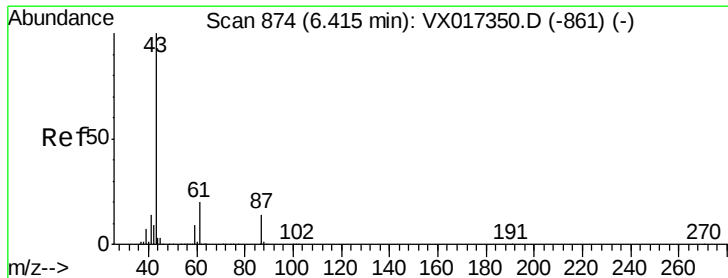
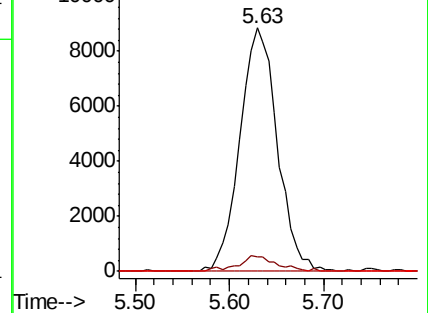
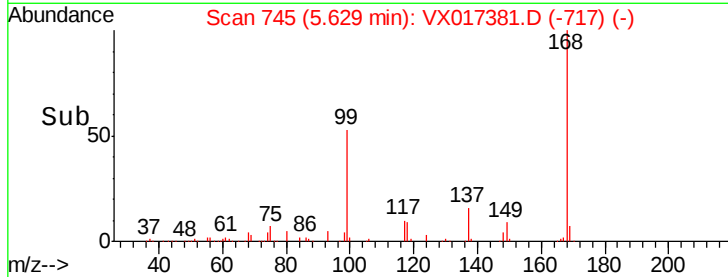
121 0.0 24.5 36.7#



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



#43

Isopropyl Acetate

Concen: 7.966 ug/l

RT: 6.42 min Scan# 874

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

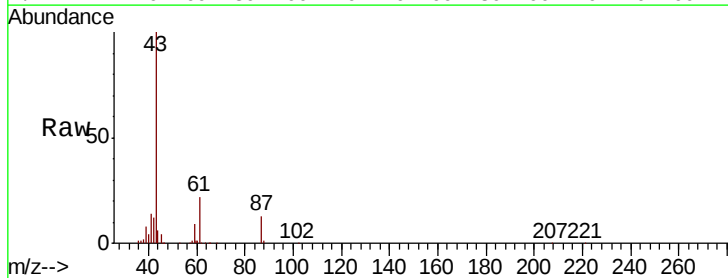
Tgt Ion: 43 Resp: 51343

Ion Ratio Lower Upper

43 100

61 21.2 16.4 24.6

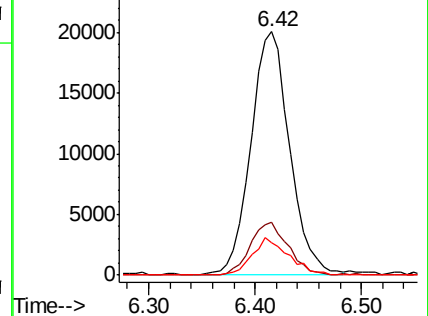
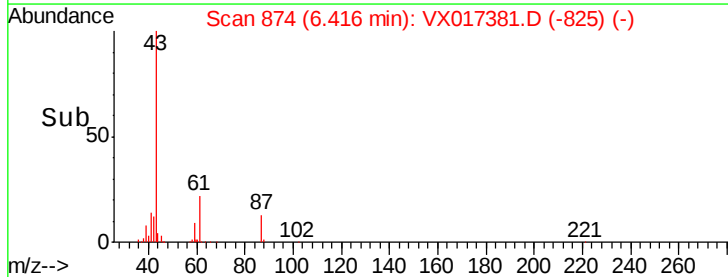
87 14.3 11.2 16.8

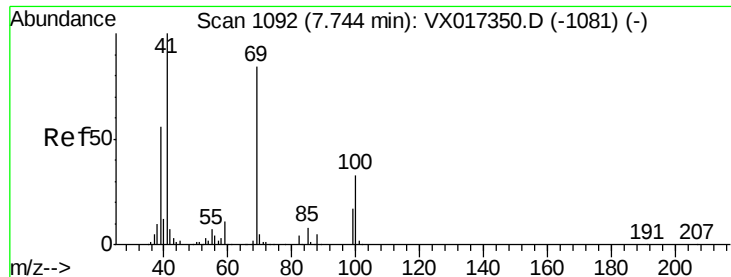


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0

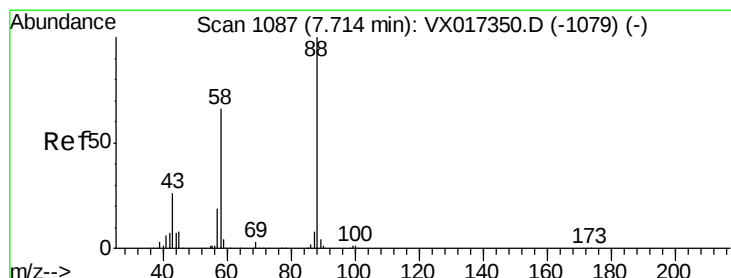
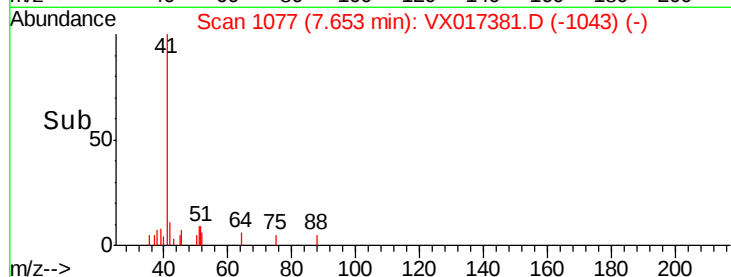
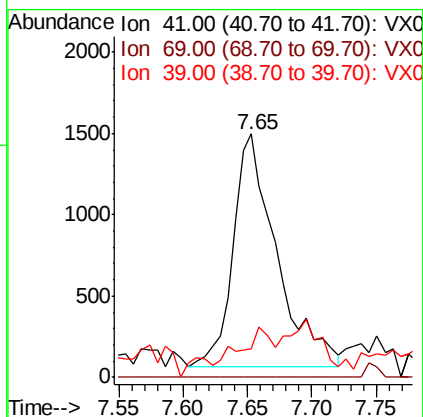
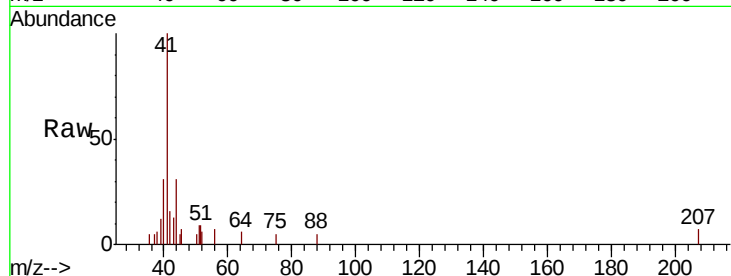




#48  
Methyl methacrylate  
Concen: 1.077 ug/l  
RT: 7.65 min Scan# 1077  
Delta R.T. -0.09 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

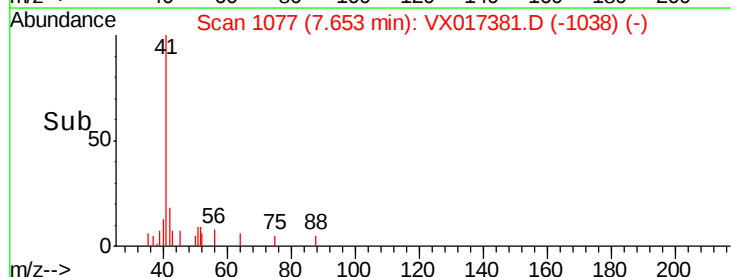
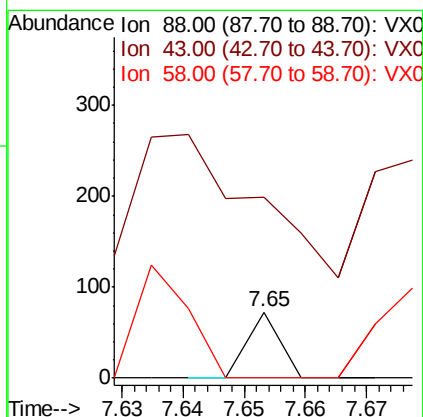
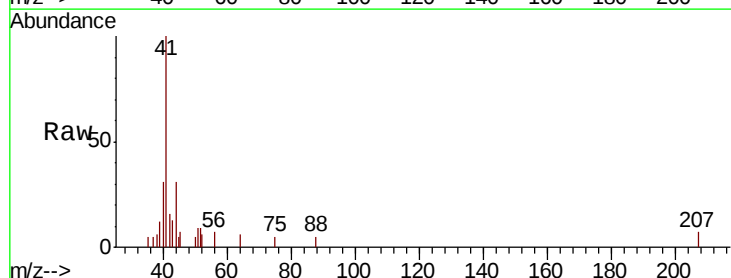
Instrument :  
MSVOA\_X  
ClientSampleId :  
CL-02-070920

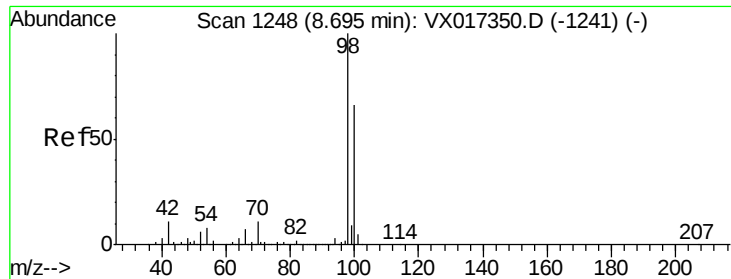
Tot Ion: 41 Resp: 3332  
Ion Ratio Lower Upper  
41 100  
69 0.0 67.8 101.6#  
39 0.0 45.1 67.7#



#49  
1,4-Dioxane  
Concen: 0.427 ug/l  
RT: 7.65 min Scan# 1077  
Delta R.T. -0.06 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

Tgt Ion: 88 Resp: 27  
Ion Ratio Lower Upper  
88 100  
43 0.0 25.6 38.4#  
58 0.0 53.9 80.9#





#50

Toluene-d8

Concen: 52.233 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

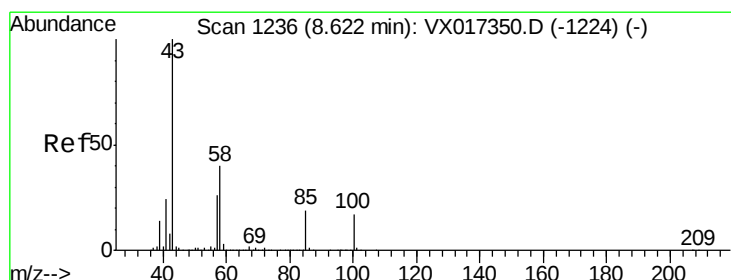
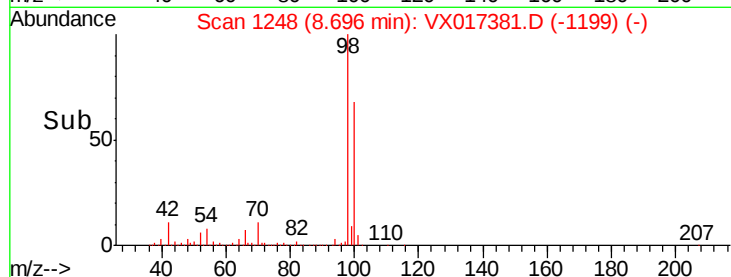
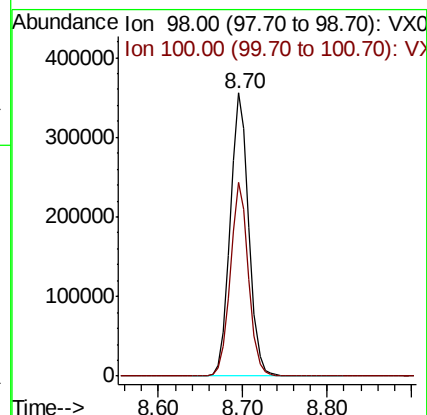
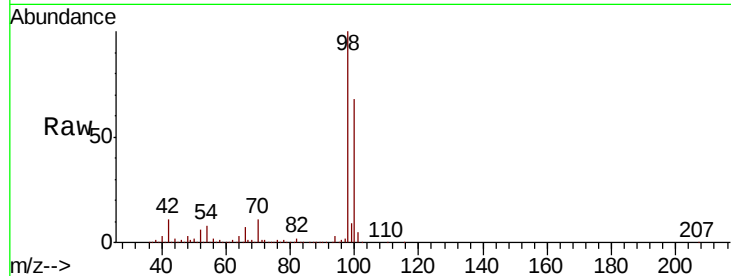
CL-02-070920

Tot Ion: 98 Resp: 538167

Ion Ratio Lower Upper

98 100

100 66.7 53.4 80.2



#51

4-Methyl-2-Pentanone

Concen: 13.071 ug/l

RT: 8.59 min Scan# 1231

Delta R.T. -0.03 min

Lab File: VX017381.D

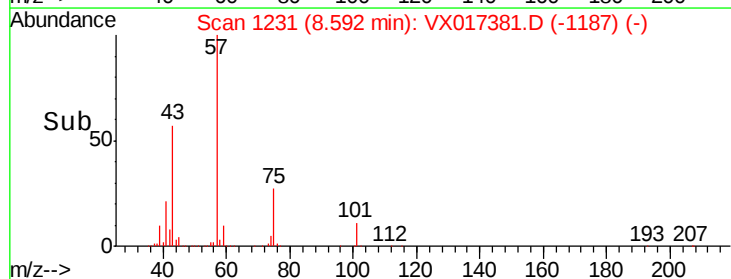
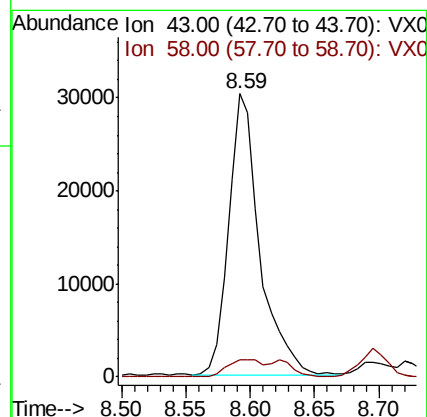
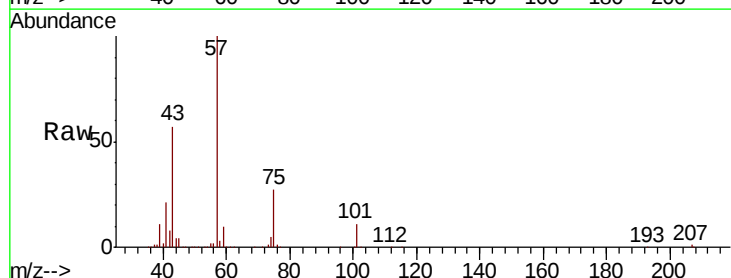
Acq: 14 Jul 2020 16:05

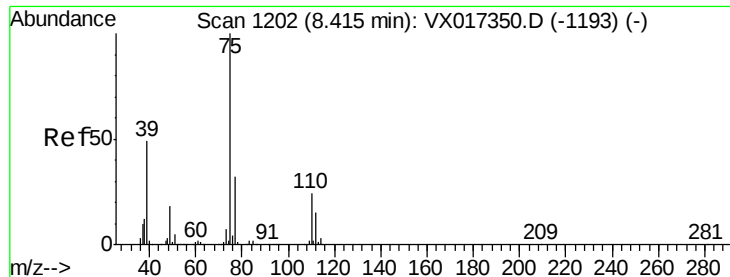
Tgt Ion: 43 Resp: 51371

Ion Ratio Lower Upper

43 100

58 7.1 32.2 48.2#





#54

cis-1,3-Dichloropropene

Concen: 4.466 ug/l

RT: 8.60 min Scan# 1232

Delta R.T. 0.18 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

CL-02-070920

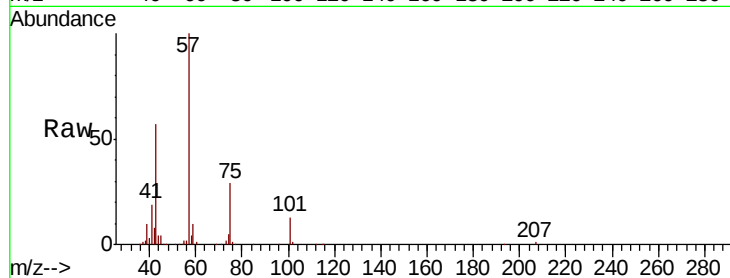
Tot Ion: 75 Resp: 22190

Ion Ratio Lower Upper

75 100

77 1.5 25.3 37.9#

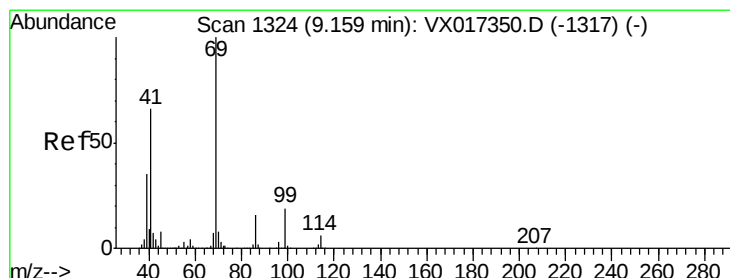
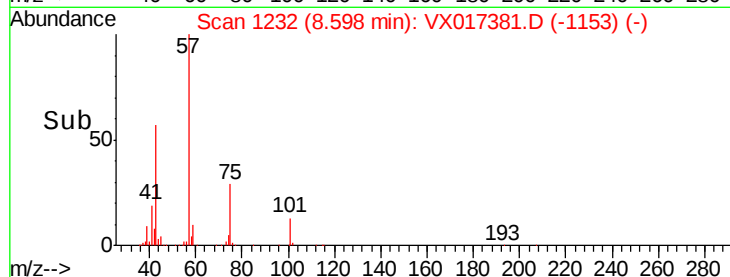
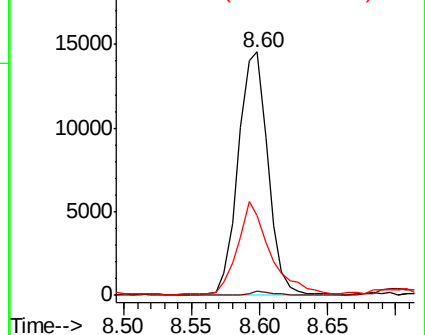
39 32.2 38.9 58.3#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 76.90 (76.60 to 77.60): VX0

Ion 39.00 (38.70 to 39.70): VX0



#56

Ethyl methacrylate

Concen: 0.300 ug/l

RT: 9.29 min Scan# 1345

Delta R.T. 0.13 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

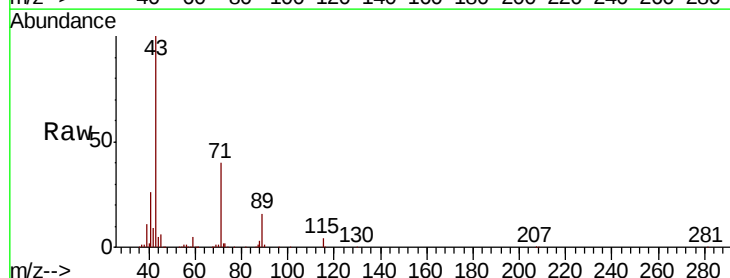
Tgt Ion: 69 Resp: 1278

Ion Ratio Lower Upper

69 100

41 3080.0 52.6 78.8#

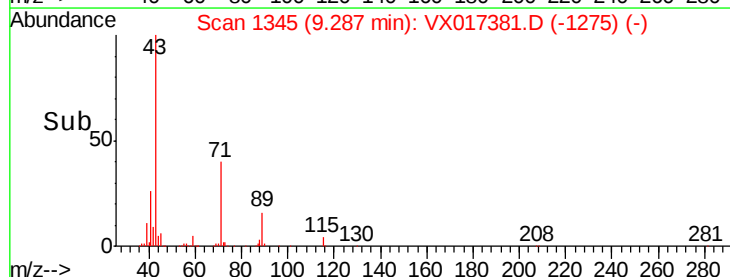
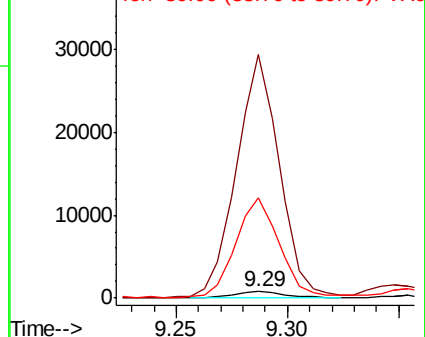
39 1329.6 28.8 43.2#

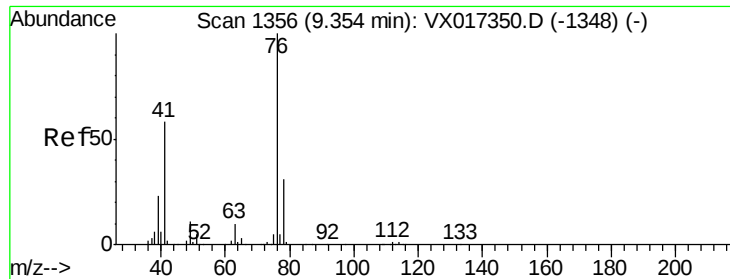


Abundance Ion 69.00 (68.70 to 69.70): VX0

Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0





#57

1,3-Dichloropropane

Concen: 0.707 ug/l

RT: 9.52 min Scan# 1384

Delta R.T. 0.17 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

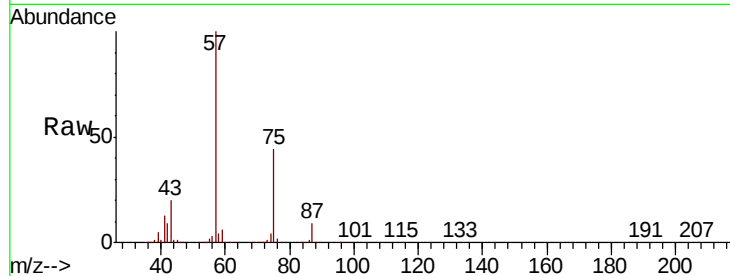
CL-02-070920

Tot Ion: 76 Resp: 3526

Ion Ratio Lower Upper

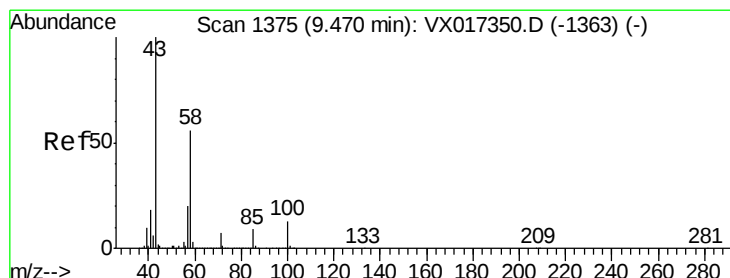
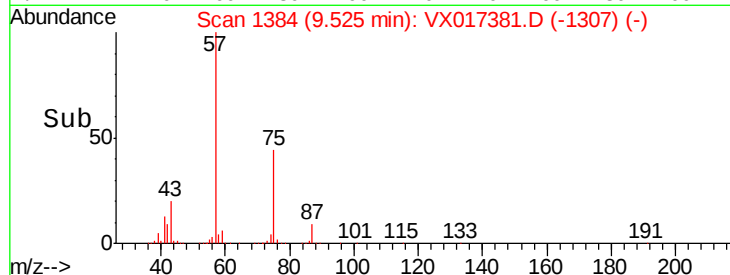
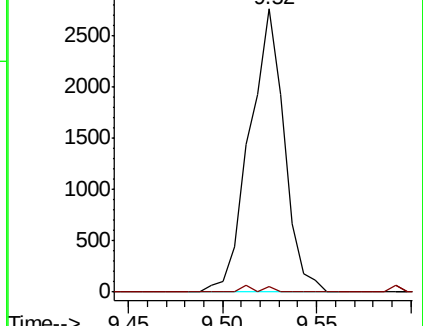
76 100

78 1.2 25.8 38.6#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0



#59

2-Hexanone

Concen: 20.439 ug/l

RT: 9.42 min Scan# 1367

Delta R.T. -0.05 min

Lab File: VX017381.D

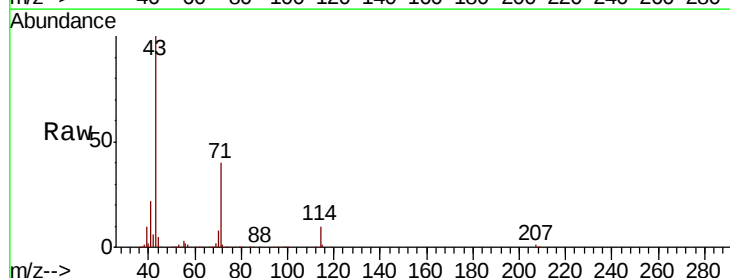
Acq: 14 Jul 2020 16:05

Tgt Ion: 43 Resp: 60625

Ion Ratio Lower Upper

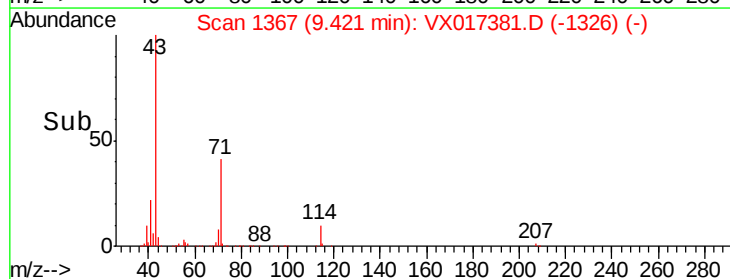
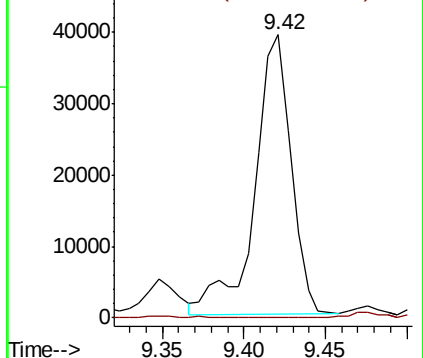
43 100

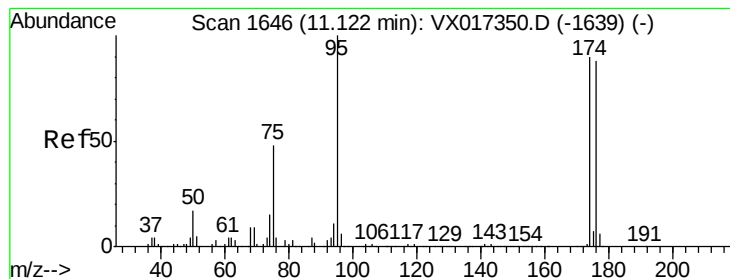
58 0.0 28.1 84.3#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#62

4-Bromofluorobenzene

Concen: 56.010 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampleId :

CL-02-070920

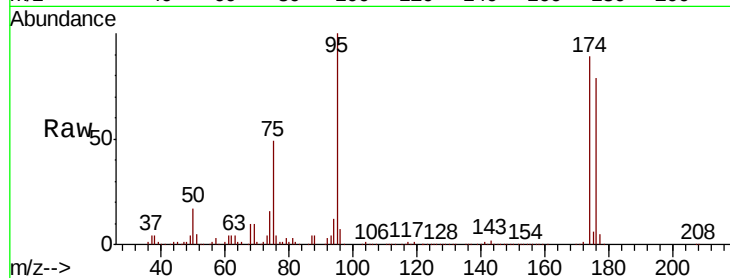
Tot Ion: 95 Resp: 229228

Ion Ratio Lower Upper

95 100

174 85.9 0.0 175.8

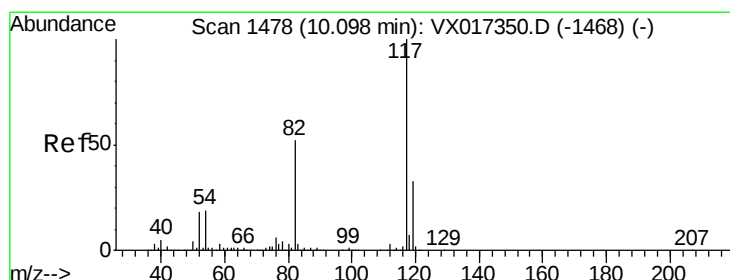
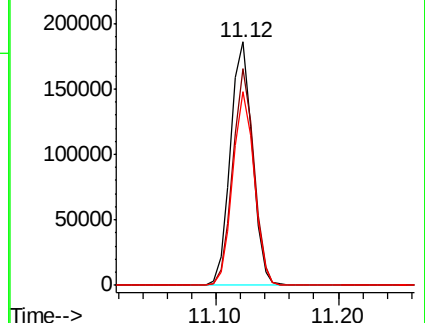
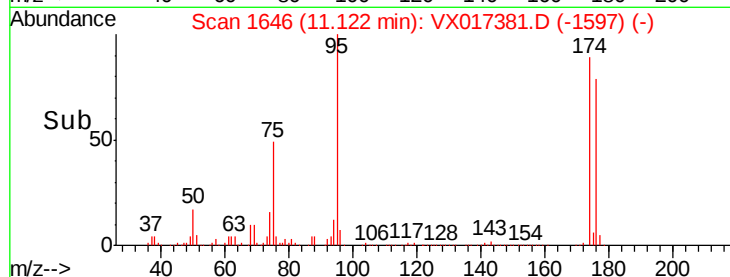
176 78.1 0.0 164.6



Abundance Ion 94.90 (94.60 to 95.60): VX017381.D (-1597) (-)

Ion 173.80 (173.50 to 174.50): VX017381.D (-1597) (-)

Ion 175.80 (175.50 to 176.50): VX017381.D (-1597) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1478

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

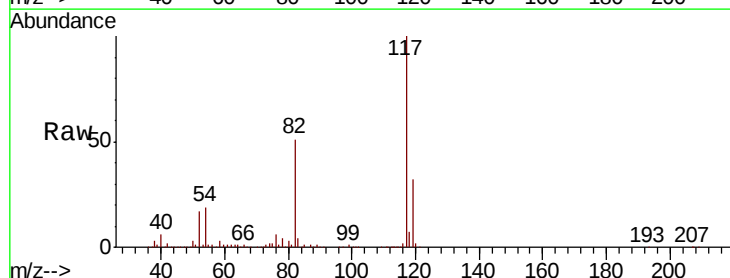
Tgt Ion: 117 Resp: 466761

Ion Ratio Lower Upper

117 100

82 50.9 42.0 63.0

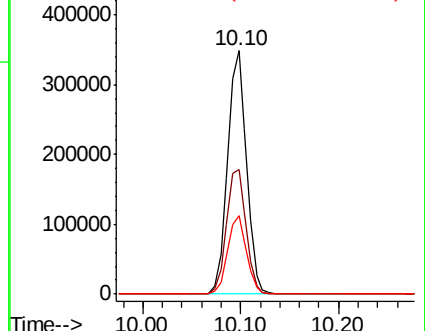
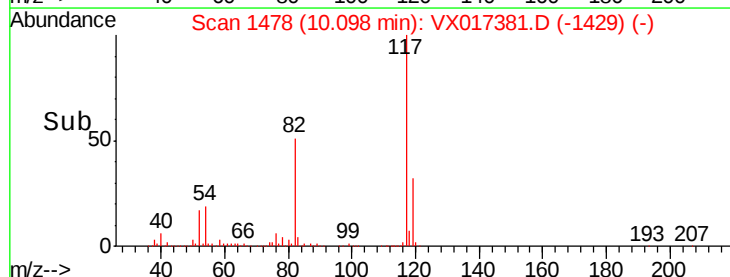
119 32.2 26.3 39.5

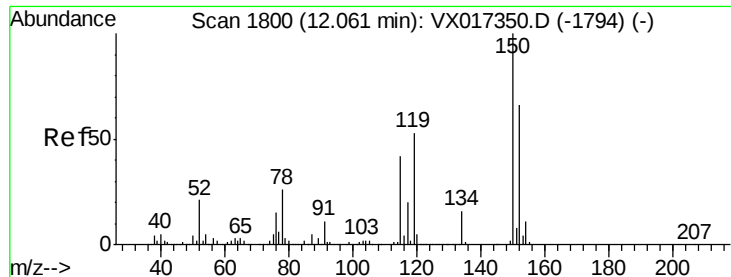


Abundance Ion 116.90 (116.60 to 117.60): VX017381.D (-1429) (-)

Ion 82.00 (81.70 to 82.70): VX017381.D (-1429) (-)

Ion 118.90 (118.60 to 119.60): VX017381.D (-1429) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. 0.00 min

Lab File: VX017381.D

Acq: 14 Jul 2020 16:05

Instrument :

MSVOA\_X

ClientSampled :

CL-02-070920

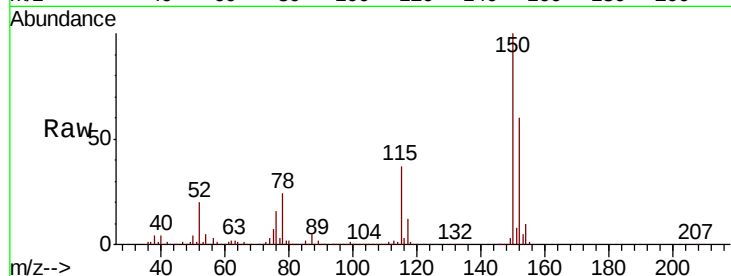
Tot Ion:152 Resp: 244910

Ion Ratio Lower Upper

152 100

115 58.2 39.9 119.7

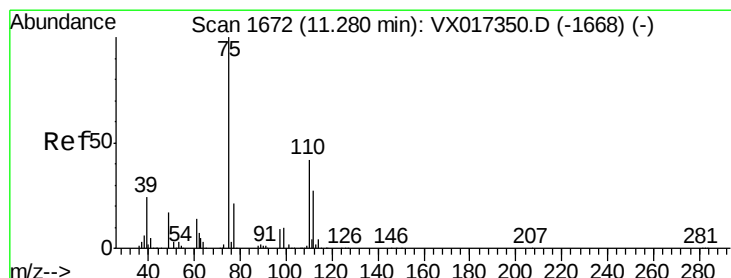
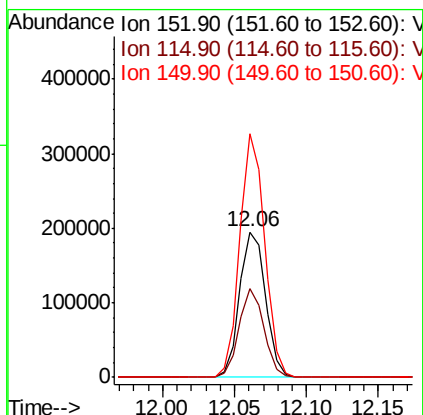
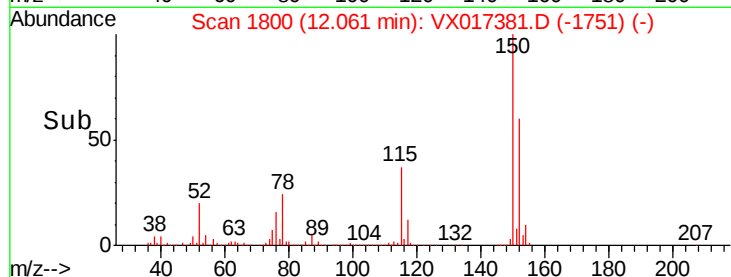
150 160.1 0.0 343.4



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: 25.237 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX017381.D

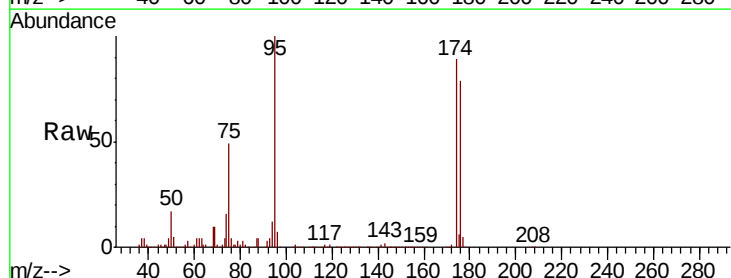
Acq: 14 Jul 2020 16:05

Tgt Ion: 75 Resp: 114209

Ion Ratio Lower Upper

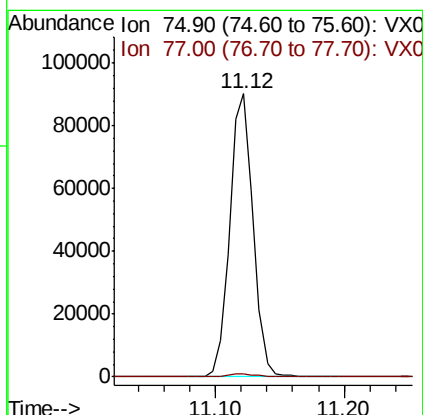
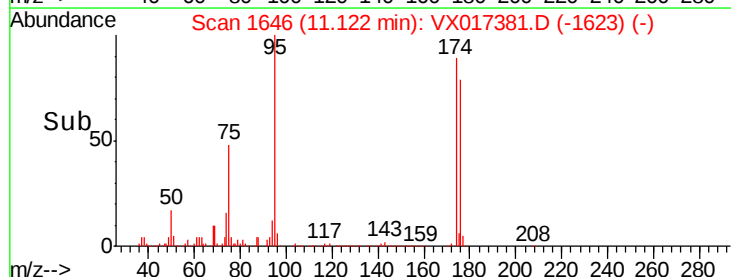
75 100

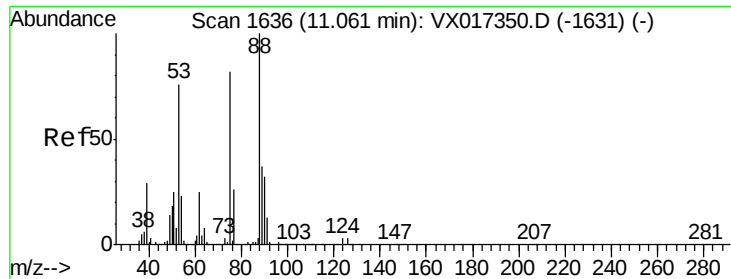
77 1.3 20.3 60.9#



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: 64.020 ug/l  
RT: 11.12 min Scan# 1646  
Delta R.T. 0.06 min  
Lab File: VX017381.D  
Acq: 14 Jul 2020 16:05

Instrument :  
MSVOA\_X  
ClientSampleId :  
CL-02-070920

Tot Ion: 75 Resp: 114209  
Ion Ratio Lower Upper  
75 100  
53 0.3 76.5 114.7#  
89 0.0 38.1 57.1#

