

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX120920\  
 Data File : VX019780.D  
 Acq On : 09 Dec 2020 15:47  
 Operator : JC/MD  
 Sample : L4971-05  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 5S1-A-BOTTOM

Quant Time: Dec 10 05:40:49 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X120420W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 04 15:32:53 2020  
 Response via : Initial Calibration

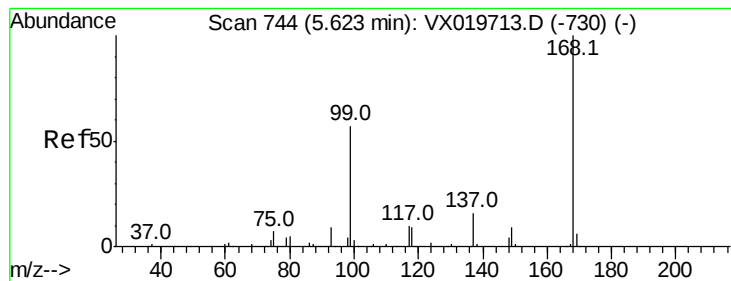
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.62  | 168  | 337560   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 553671   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 506644   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 222237   | 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       | 208169   | 46.92 | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 61 - 141 | Recovery | =     | 93.84% |          |
| 35) Dibromofluoromethane    |        | 5.46  | 113      | 169821   | 47.46 | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 69 - 133 | Recovery | =     | 94.92% |          |
| 50) Toluene-d8              |        | 8.70  | 98       | 667845   | 48.89 | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 65 - 126 | Recovery | =     | 97.78% |          |
| 62) 4-Bromofluorobenzene    |        | 11.12 | 95       | 238424   | 45.85 | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 58 - 135 | Recovery | =     | 91.70% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 501      | 0.394  | ug/l # | 67     |
| 11) Tert butyl alcohol         | 2.99  | 59   | 6691     | 4.773  | ug/l # | 79     |
| 13) Acrolein                   | 2.27  | 56   | 135      | 0.276  | ug/l # | 64     |
| 16) Acetone                    | 2.42  | 43   | 13091    | 7.850  | ug/l   | 98     |
| 18) Methyl Acetate             | 2.75  | 43   | 2559     | 0.627  | ug/l # | 71     |
| 20) Methylene Chloride         | 2.84  | 84   | 11643    | 1.684  | ug/l   | 94     |
| 25) 2-Butanone                 | 4.64  | 43   | 6181     | 2.412  | ug/l # | 89     |
| 29) Tetrahydrofuran            | 5.09  | 42   | 3001     | 1.818  | ug/l # | 59     |
| 31) Cyclohexane                | 5.62  | 56   | 6070     | 1.100  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.62  | 75   | 24684    | 4.934  | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.62  | 117  | 32653    | 6.665  | ug/l # | 16     |
| 41) Methacrylonitrile          | 5.10  | 41   | 1916     | 0.691  | ug/l # | 41     |
| 43) Isopropyl Acetate          | 6.41  | 43   | 27582    | 3.358  | ug/l   | 99     |
| 48) Methyl methacrylate        | 7.65  | 41   | 7839     | 1.941  | ug/l # | 10     |
| 49) 1,4-Dioxane                | 7.84  | 88   | 294      | 3.005  | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.59  | 43   | 97615    | 19.468 | ug/l # | 47     |
| 54) cis-1,3-Dichloropropene    | 8.59  | 75   | 52230    | 8.464  | ug/l # | 58     |
| 57) 1,3-Dichloropropane        | 9.52  | 76   | 31437    | 4.780  | ug/l # | 43     |
| 59) 2-Hexanone                 | 9.52  | 43   | 373786   | 96.172 | ug/l # | 46     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 114183   | 22.908 | ug/l # | 39     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 114183   | 66.223 | ug/l # | 12     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.62 min Scan# 744

Delta R.T. 0.00 min

Lab File: VX019780.D

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Instrument :

MSVOA\_X

ClientSampleId :

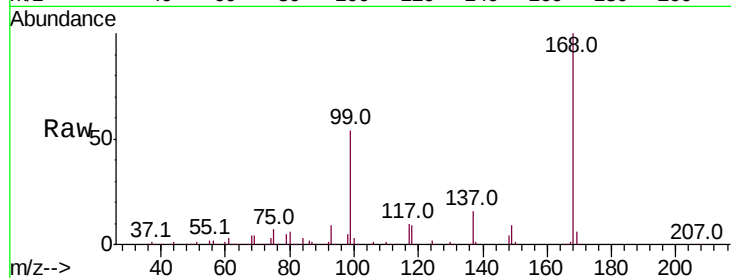
5S1-A-BOTTOM

Tot Ion:168 Resp: 337560

Ion Ratio Lower Upper

168 100

99 54.3 45.8 68.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

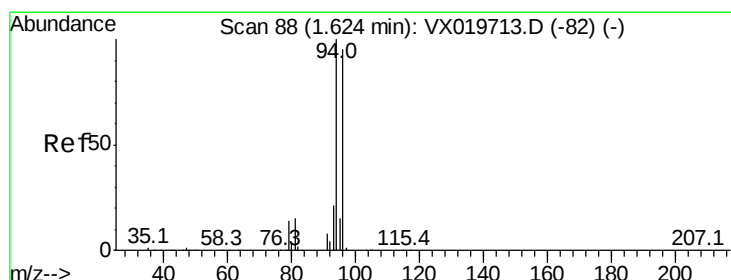
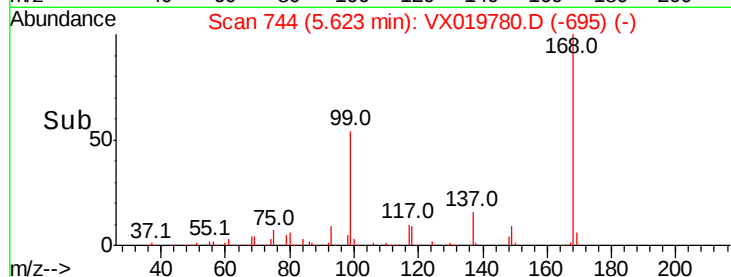
5.62

100000

50000

0

Time-->



#5

Bromomethane

Concen: 0.394 ug/l

RT: 1.64 min Scan# 90

Delta R.T. 0.01 min

Lab File: VX019780.D

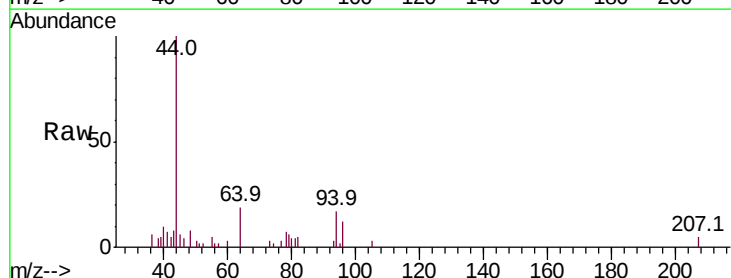
Acq: 09 Dec 2020 15:47

Tgt Ion: 94 Resp: 501

Ion Ratio Lower Upper

94 100

96 63.7 76.4 114.6#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

500

400

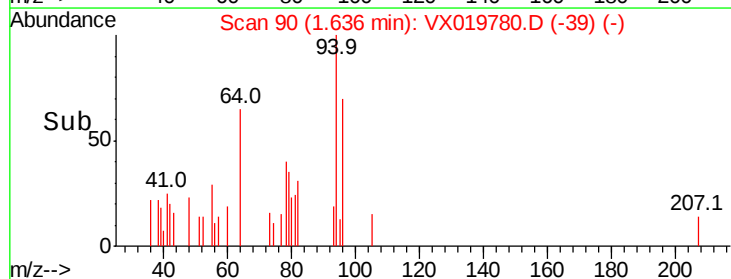
300

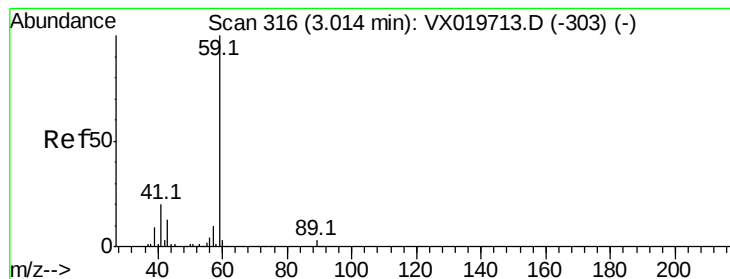
200

100

0

Time-->



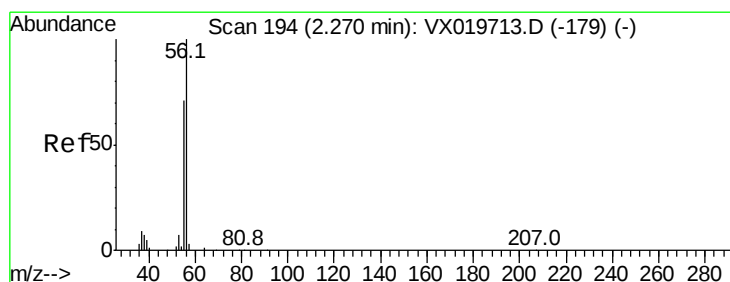
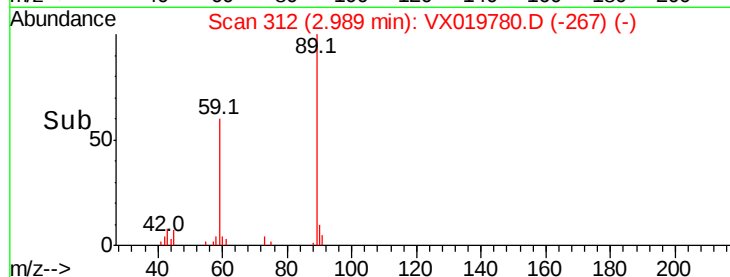
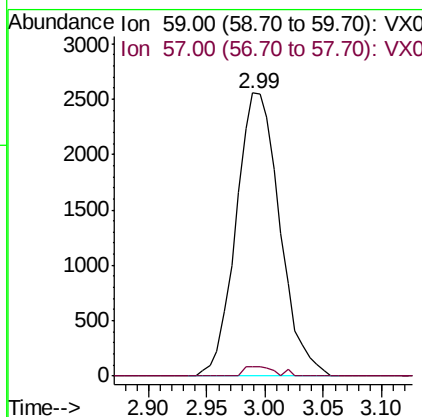
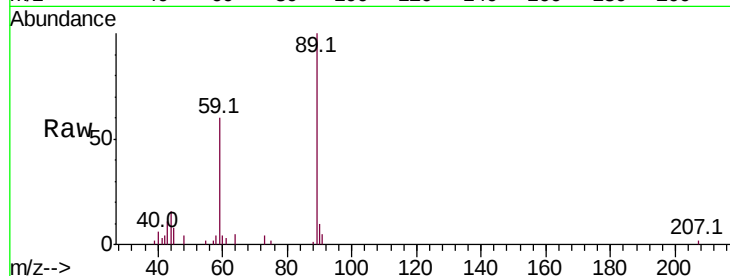


#11

Tert butyl alcohol  
 Concen: 4.773 ug/l  
 RT: 2.99 min Scan# 312  
 Delta R.T. -0.02 min  
 Lab File: VX019780.D  
 Acq: 09 Dec 2020 15:47

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 5S1-A-BOTTOM

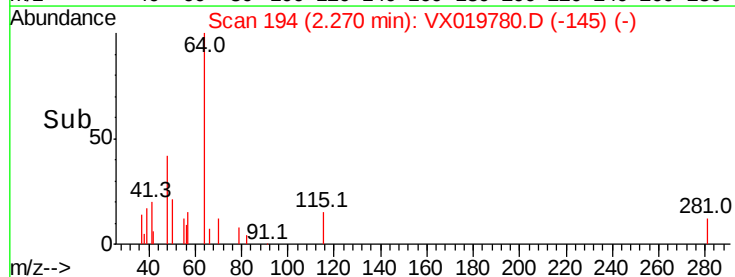
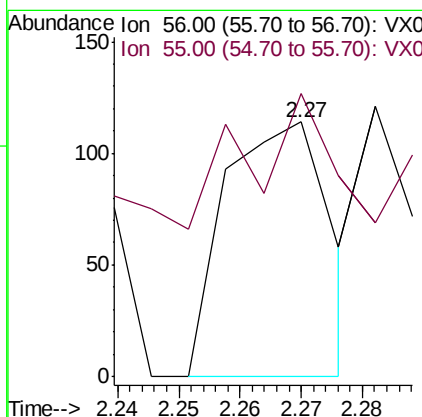
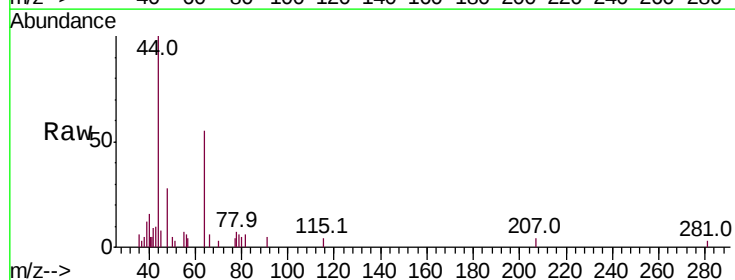
Tot Ion: 59 Resp: 6691  
 Ion Ratio Lower Upper  
 59 100  
 57 2.0 7.8 11.8#

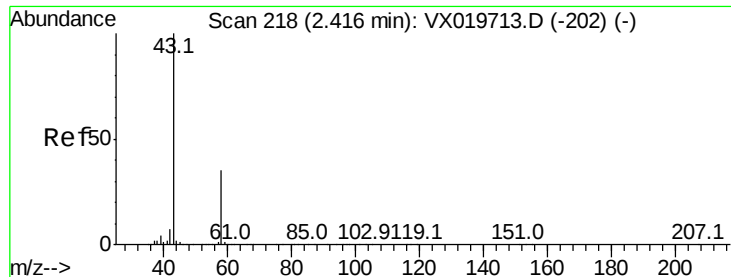


#13

Acrolein  
 Concen: 0.276 ug/l  
 RT: 2.27 min Scan# 194  
 Delta R.T. 0.00 min  
 Lab File: VX019780.D  
 Acq: 09 Dec 2020 15:47

Tgt Ion: 56 Resp: 135  
 Ion Ratio Lower Upper  
 56 100  
 55 40.7 56.4 84.6#





#16

Acetone

Concen: 7.850 ug/l

RT: 2.42 min Scan# 218

Delta R.T. 0.00 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

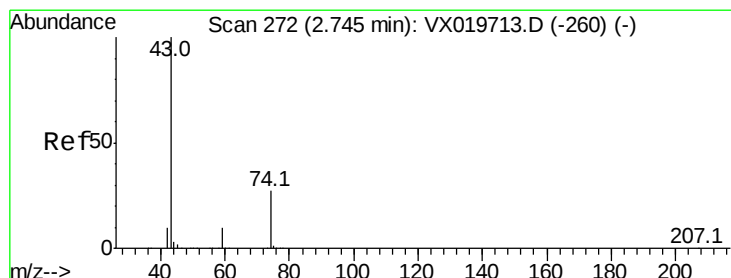
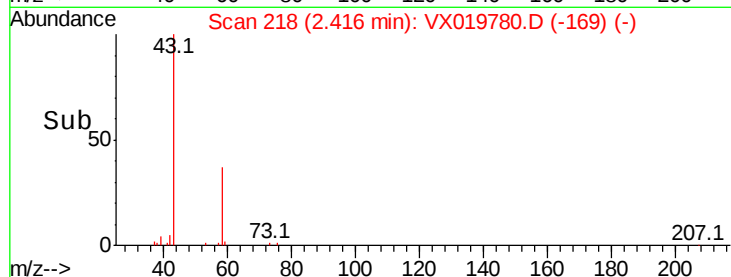
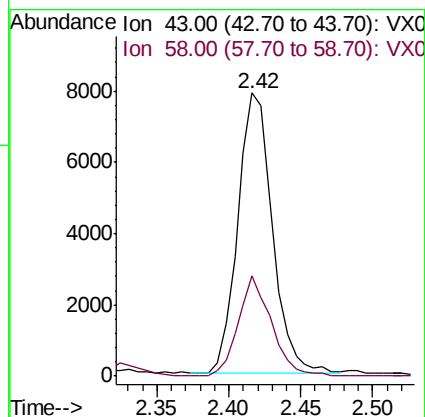
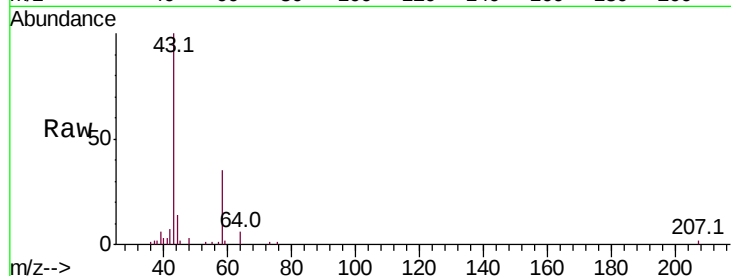
5S1-A-BOTTOM

Tot Ion: 43 Resp: 13091

Ion Ratio Lower Upper

43 100

58 35.8 27.8 41.8



#18

Methyl Acetate

Concen: 0.627 ug/l

RT: 2.75 min Scan# 272

Delta R.T. 0.00 min

Lab File: VX019780.D

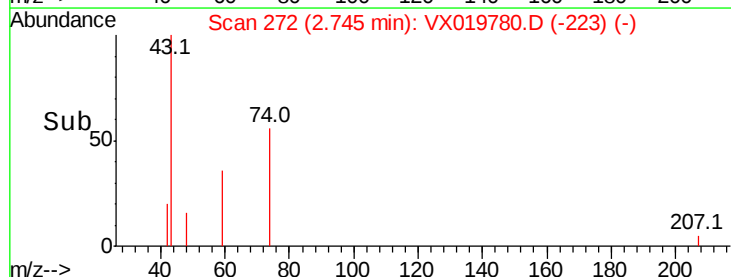
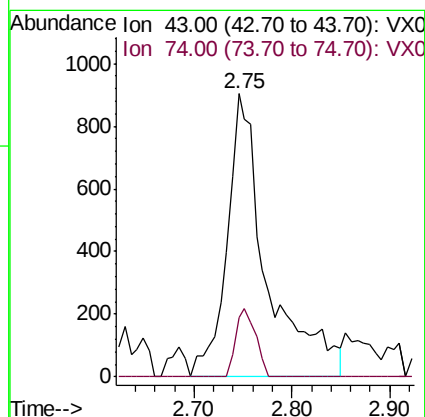
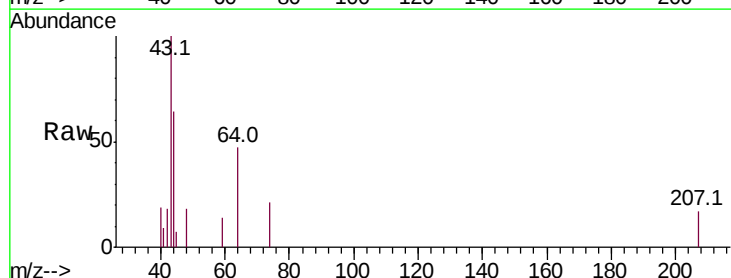
Acq: 09 Dec 2020 15:47

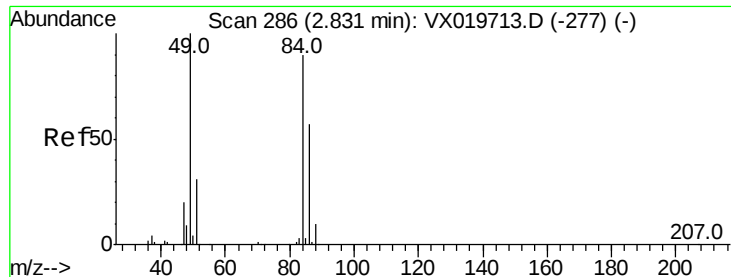
Tgt Ion: 43 Resp: 2559

Ion Ratio Lower Upper

43 100

74 12.0 21.9 32.9#

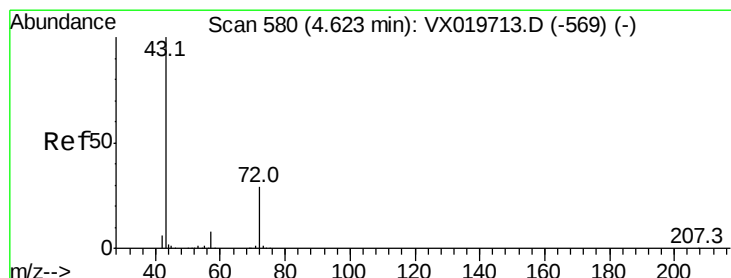
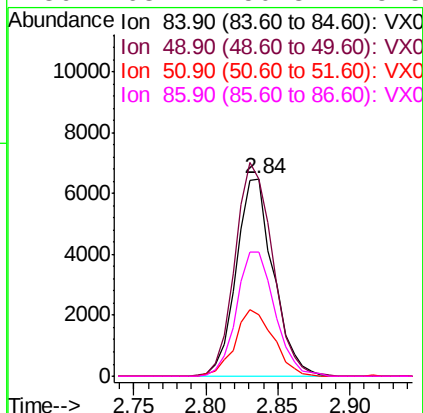
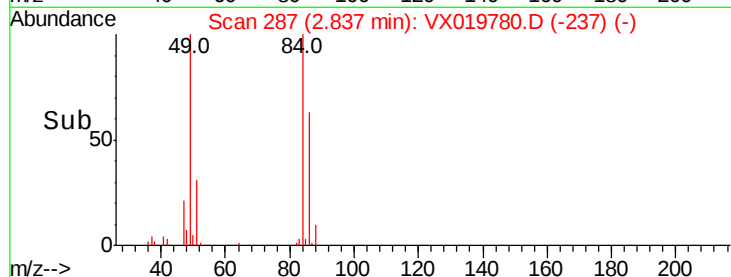
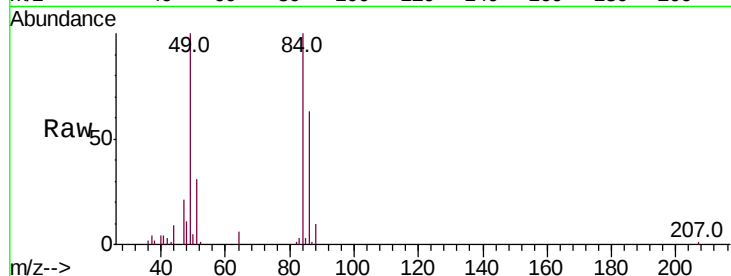




#20  
Methvlene Chloride  
Concen: 1.684 ug/l  
RT: 2.84 min Scan# 287  
Delta R.T. 0.01 min  
Lab File: VX019780.D  
Acq: 09 Dec 2020 15:47

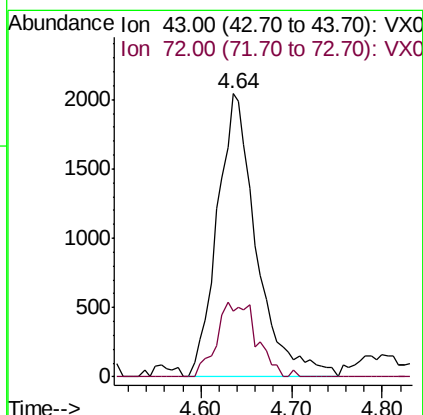
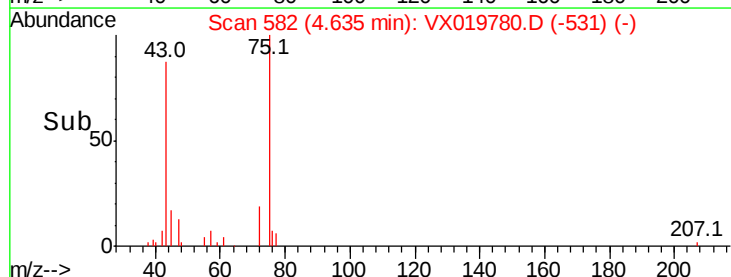
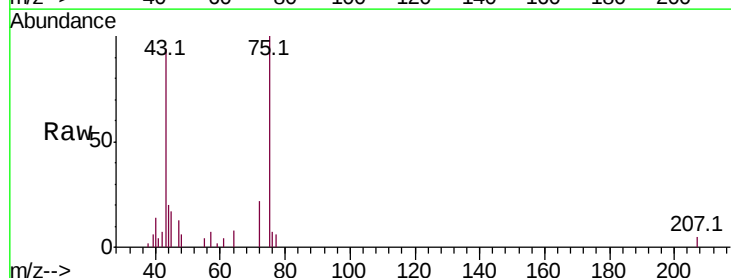
Instrument :  
MSVOA\_X  
ClientSampleId :  
5S1-A-BOTTOM

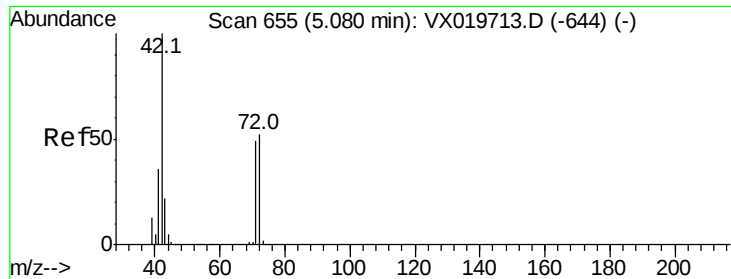
Tot Ion: 84 Resp: 11643  
Ion Ratio Lower Upper  
84 100  
49 100.0 88.6 132.8  
51 31.1 27.0 40.6  
86 63.1 50.3 75.5



#25  
2-Butanone  
Concen: 2.412 ug/l  
RT: 4.64 min Scan# 582  
Delta R.T. 0.01 min  
Lab File: VX019780.D  
Acq: 09 Dec 2020 15:47

Tgt Ion: 43 Resp: 6181  
Ion Ratio Lower Upper  
43 100  
72 23.5 23.7 35.5#





#29

Tetrahydrofuran

Concen: 1.818 ug/l

RT: 5.09 min Scan# 657

Delta R.T. 0.01 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

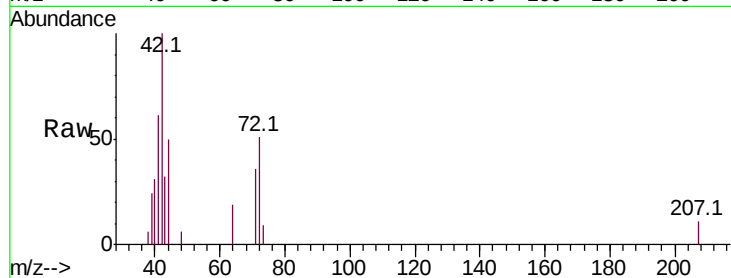
Tot Ion: 42 Resp: 3001

Ion Ratio Lower Upper

42 100

72 43.0 41.7 62.5

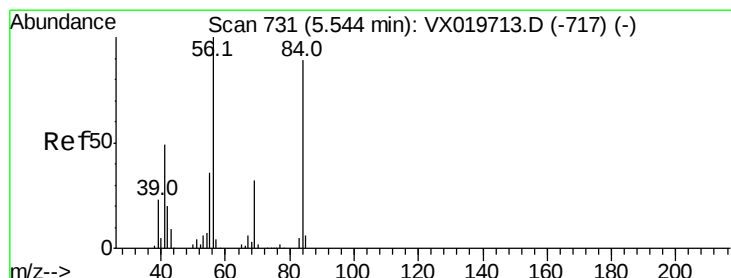
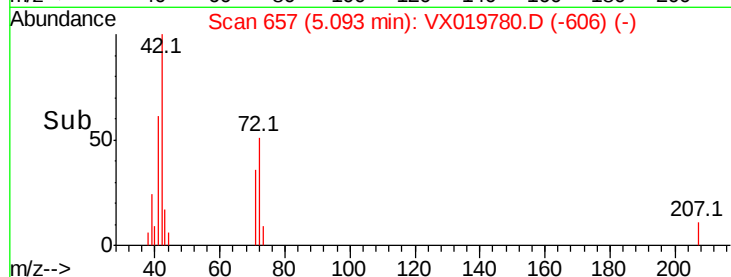
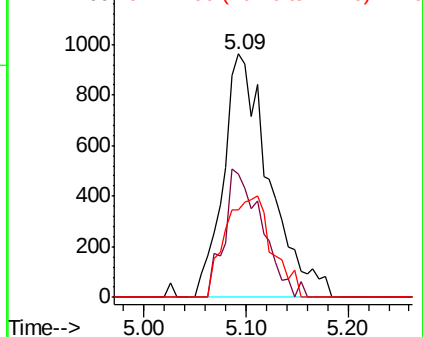
71 0.0 38.4 57.6#



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



#31

Cyclohexane

Concen: 1.100 ug/l

RT: 5.62 min Scan# 744

Delta R.T. 0.08 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

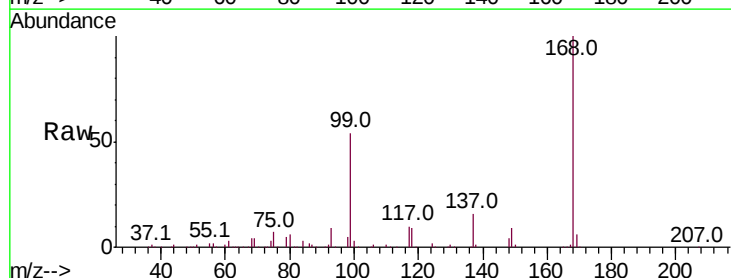
Tgt Ion: 56 Resp: 6070

Ion Ratio Lower Upper

56 100

69 203.2 25.3 37.9#

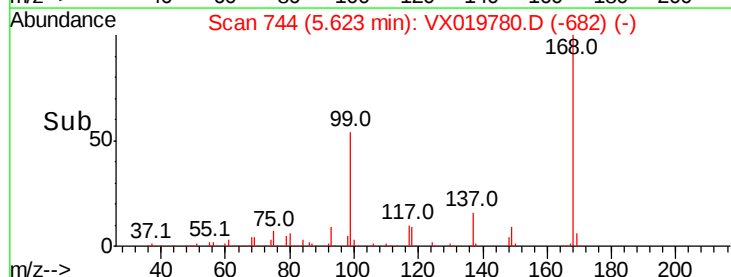
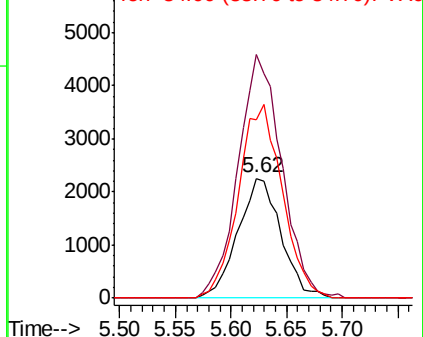
84 149.2 71.4 107.0#

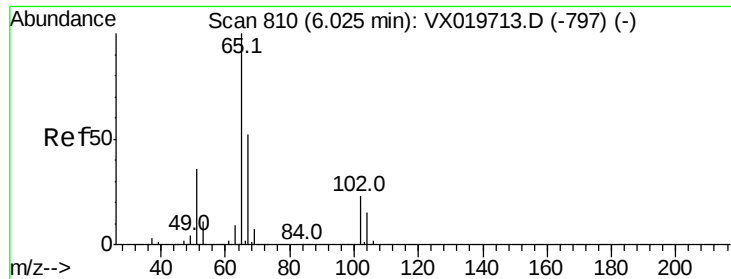


Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0

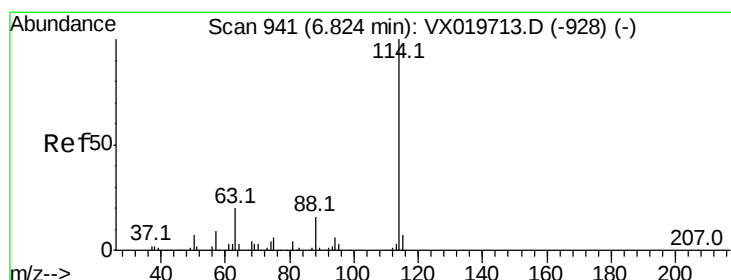
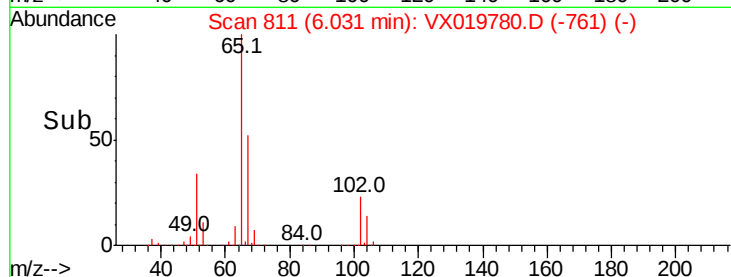
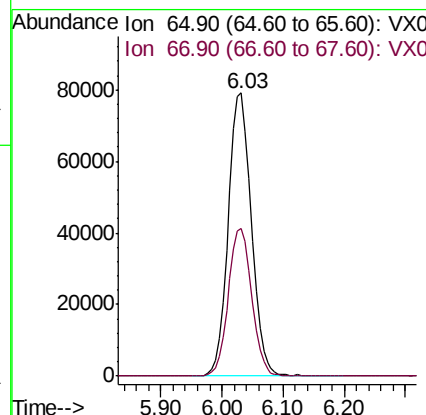
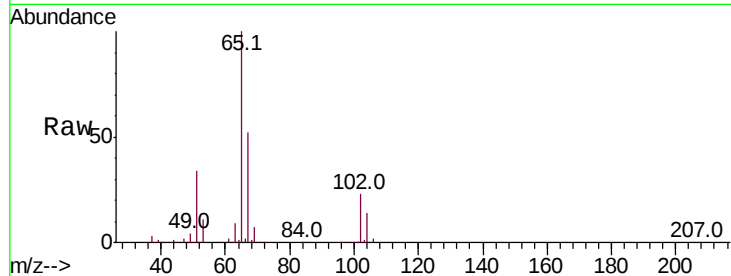




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.922 ug/l  
 RT: 6.03 min Scan# 811  
 Delta R.T. 0.01 min  
 Lab File: VX019780.D  
 Acq: 09 Dec 2020 15:47

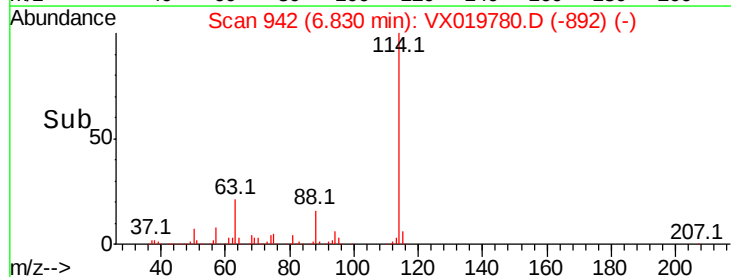
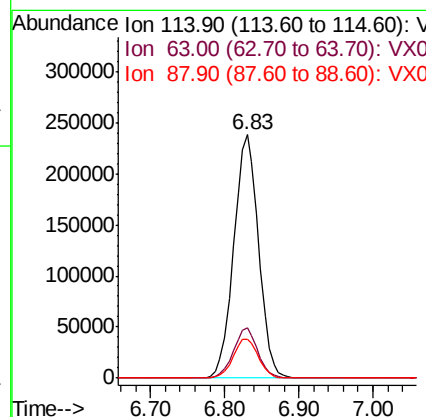
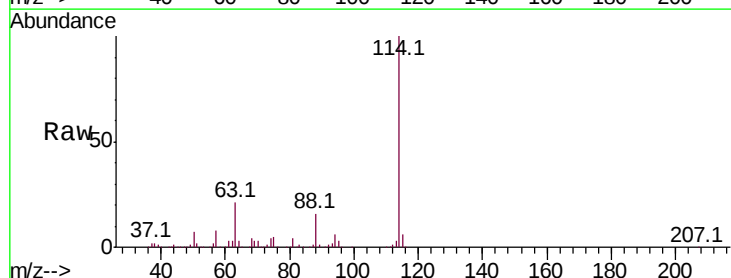
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 5S1-A-BOTTOM

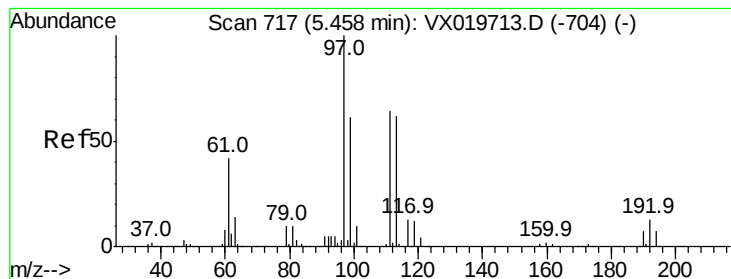
Tot Ion: 65 Resp: 208169  
 Ion Ratio Lower Upper  
 65 100  
 67 52.8 0.0 105.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.83 min Scan# 942  
 Delta R.T. 0.01 min  
 Lab File: VX019780.D  
 Acq: 09 Dec 2020 15:47

Tgt Ion: 114 Resp: 553671  
 Ion Ratio Lower Upper  
 114 100  
 63 20.8 0.0 40.8  
 88 15.9 0.0 32.8





#35

Dibromofluoromethane

Concen: 47.459 ug/l

RT: 5.46 min Scan# 718

Delta R.T. 0.01 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

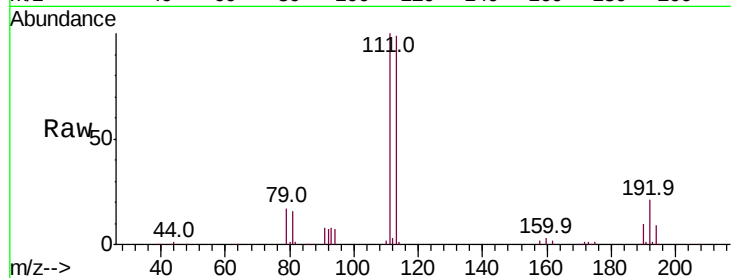
Tot Ion:113 Resp: 169821

Ion Ratio Lower Upper

113 100

111 101.9 81.9 122.9

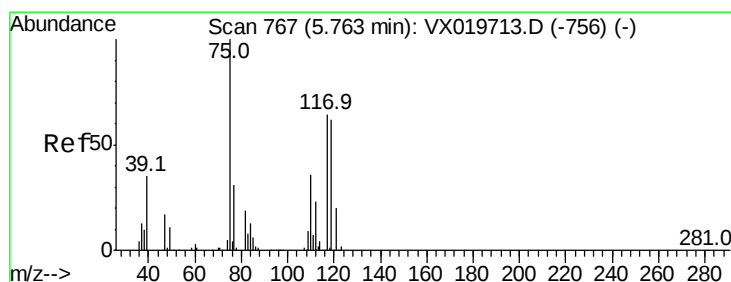
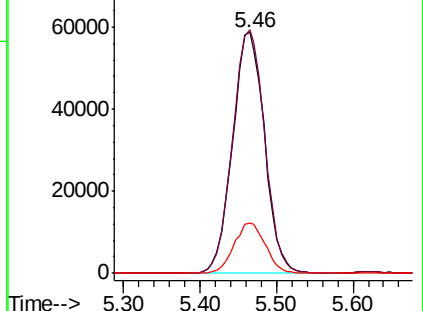
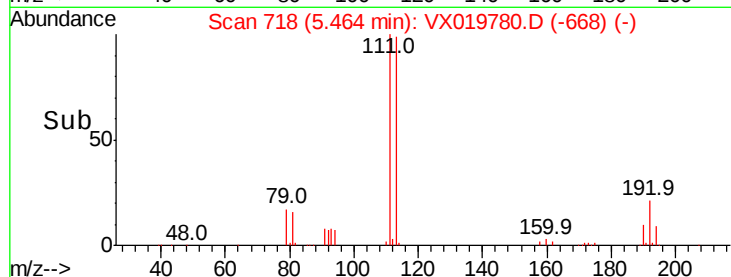
192 20.7 16.7 25.1



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: 4.934 ug/l

RT: 5.62 min Scan# 744

Delta R.T. -0.14 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

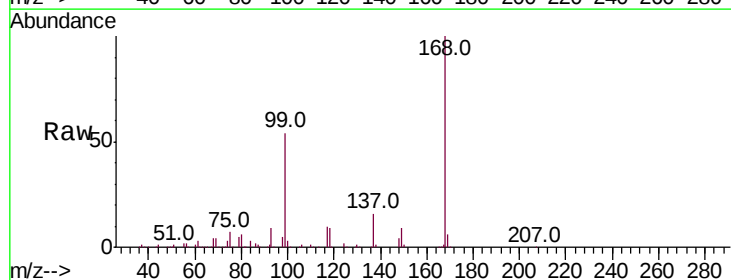
Tgt Ion: 75 Resp: 24684

Ion Ratio Lower Upper

75 100

110 8.9 18.1 54.4#

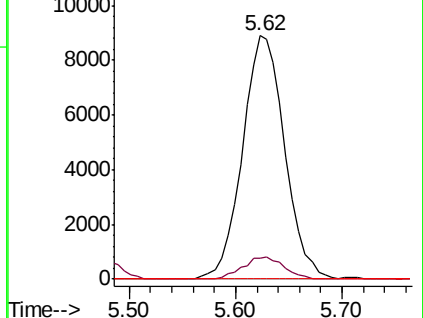
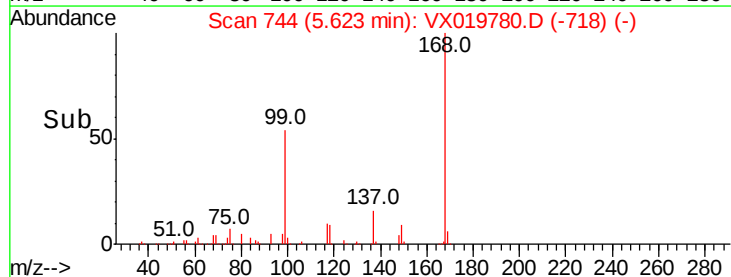
77 0.0 25.3 37.9#

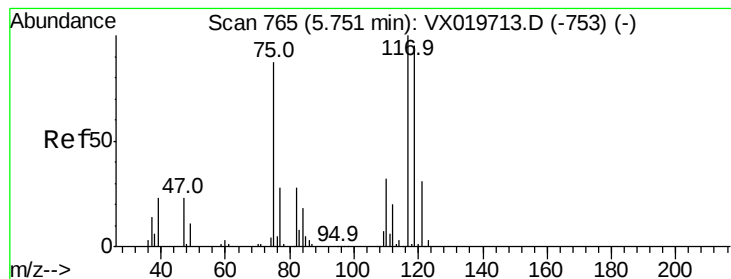


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.665 ug/l

RT: 5.62 min Scan# 744

Delta R.T. -0.13 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

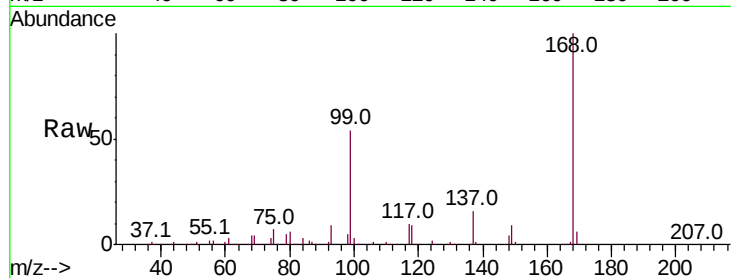
Tot Ion:117 Resp: 32653

Ion Ratio Lower Upper

117 100

119 5.1 76.2 114.2#

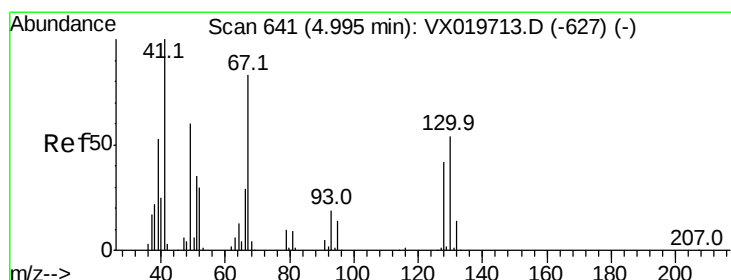
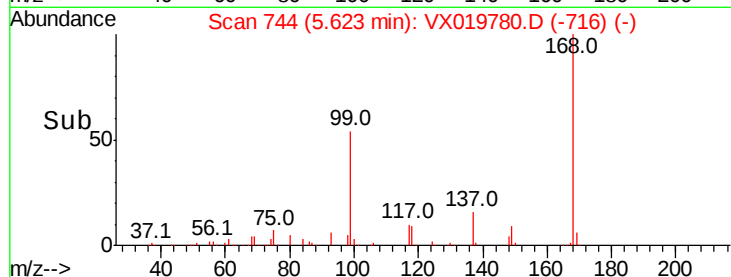
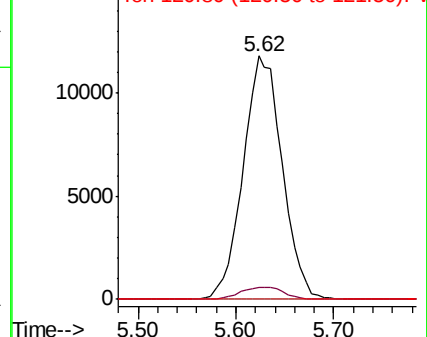
121 0.0 24.8 37.2#



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



#41

Methacrylonitrile

Concen: 0.691 ug/l

RT: 5.10 min Scan# 659

Delta R.T. 0.11 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Tgt Ion: 41 Resp: 1916

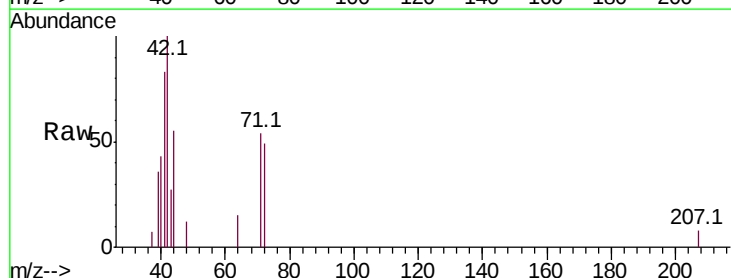
Ion Ratio Lower Upper

41 100

39 44.9 42.5 63.7

67 0.0 65.0 97.6#

52 0.0 25.3 37.9#

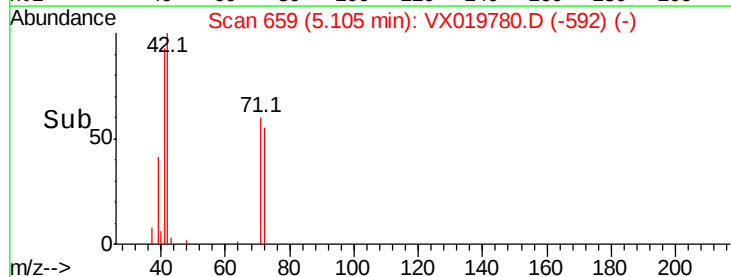
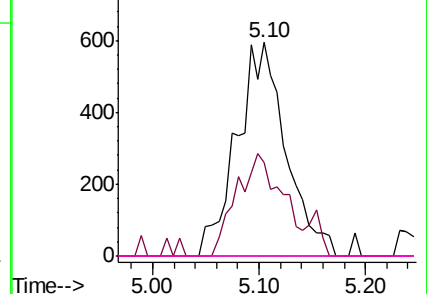


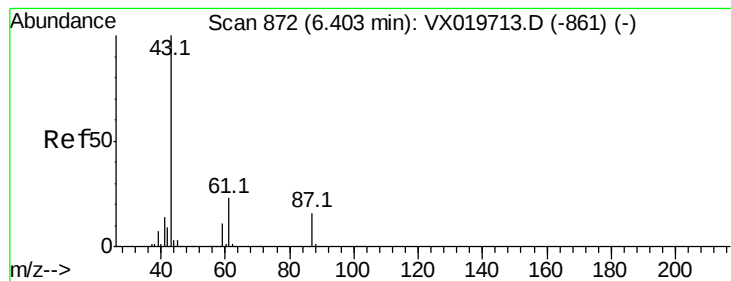
Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

Ion 67.00 (66.70 to 67.70): VX0

Ion 52.00 (51.70 to 52.70): VX0





#43

Isopropyl Acetate

Concen: 3.358 ug/l

RT: 6.41 min Scan# 873

Delta R.T. 0.01 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

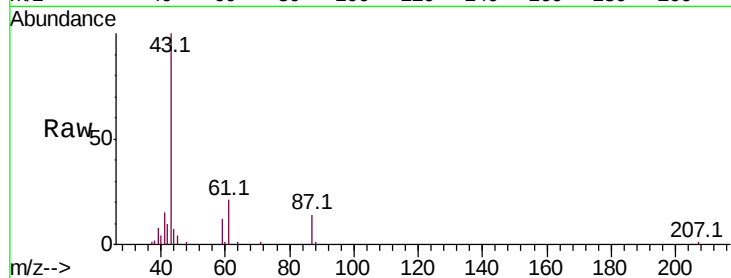
Tot Ion: 43 Resp: 27582

Ion Ratio Lower Upper

43 100

61 22.2 18.2 27.4

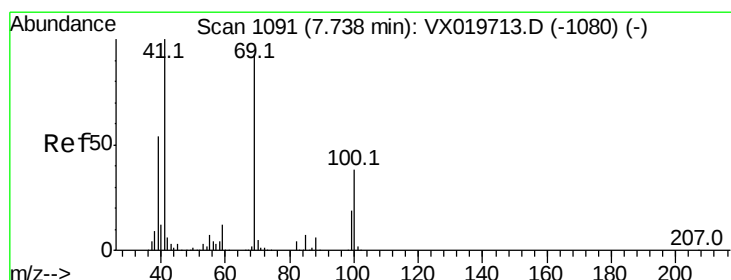
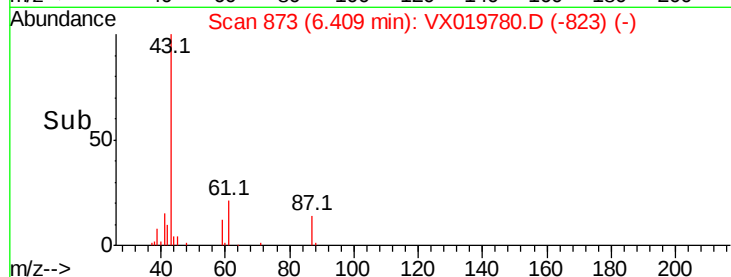
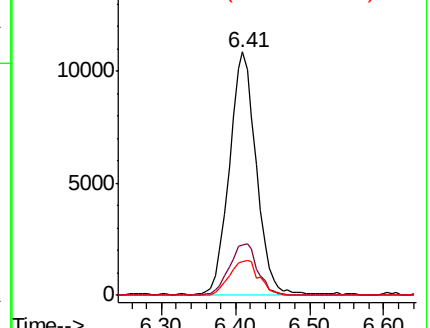
87 15.5 12.5 18.7



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: 1.941 ug/l

RT: 7.65 min Scan# 1076

Delta R.T. -0.09 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

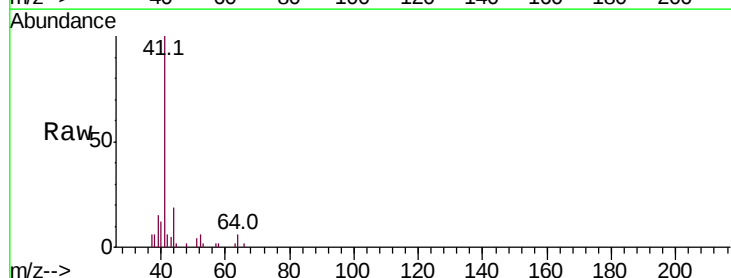
Tgt Ion: 41 Resp: 7839

Ion Ratio Lower Upper

41 100

69 0.0 76.0 114.0#

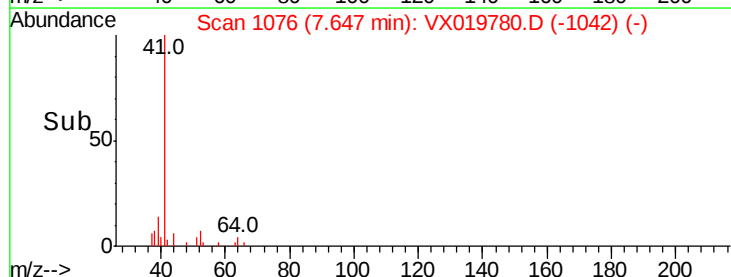
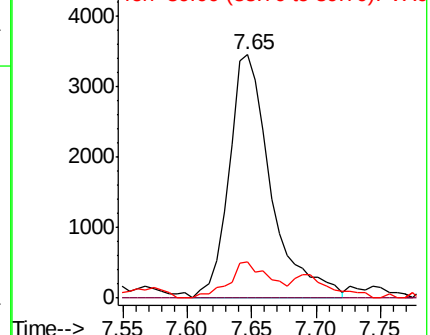
39 0.0 44.6 67.0#

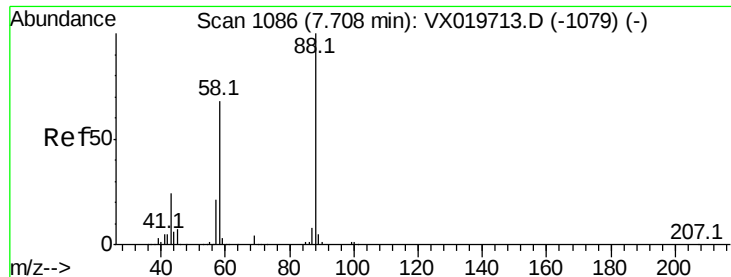


Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 39.00 (38.70 to 39.70): VX0





#49

1,4-Dioxane

Concen: 3.005 ug/l

RT: 7.84 min Scan# 1108

Delta R.T. 0.13 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

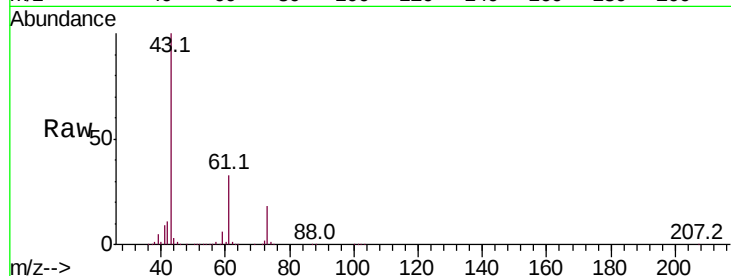
Tot Ion: 88 Resp: 294

Ion Ratio Lower Upper

88 100

43 526969.7 23.2 34.8#

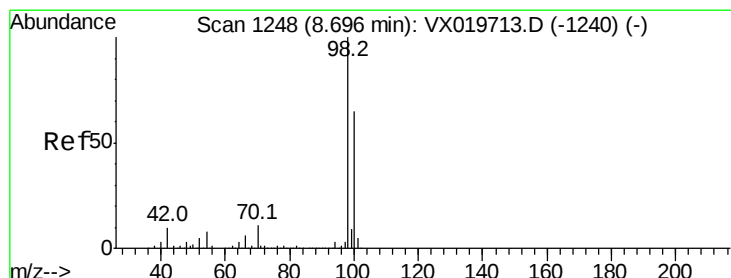
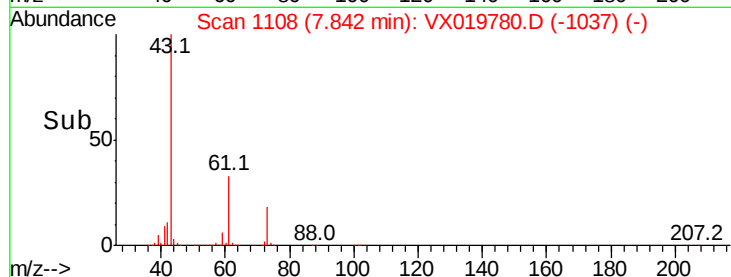
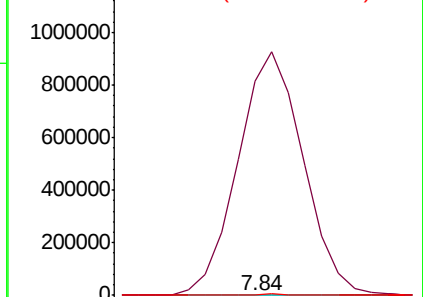
58 2656.1 55.0 82.4#



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: 48.887 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. 0.00 min

Lab File: VX019780.D

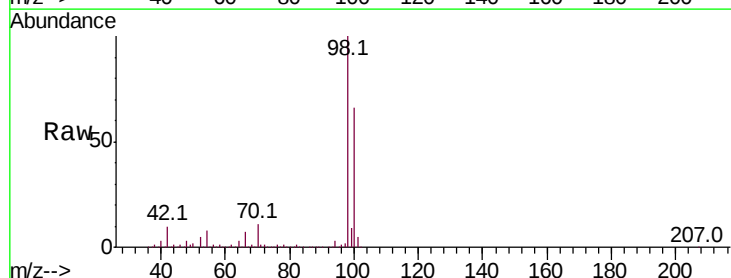
Acq: 09 Dec 2020 15:47

Tgt Ion: 98 Resp: 667845

Ion Ratio Lower Upper

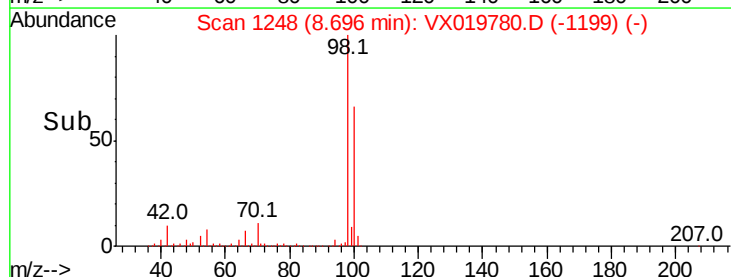
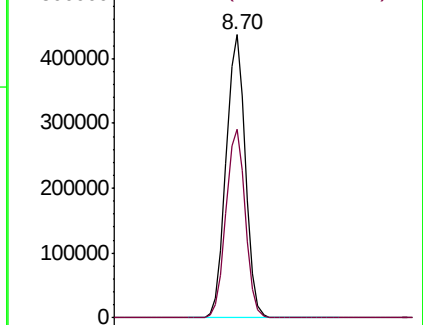
98 100

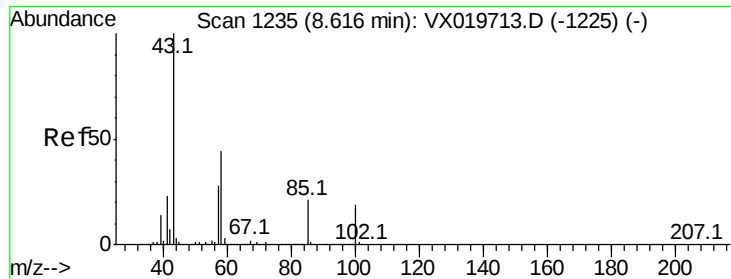
100 66.6 51.9 77.9



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0





#51

4-Methyl-2-Pentanone

Concen: 19.468 ug/l

RT: 8.59 min Scan# 1231

Delta R.T. -0.02 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

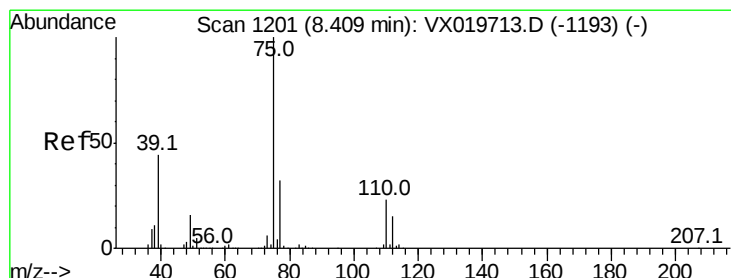
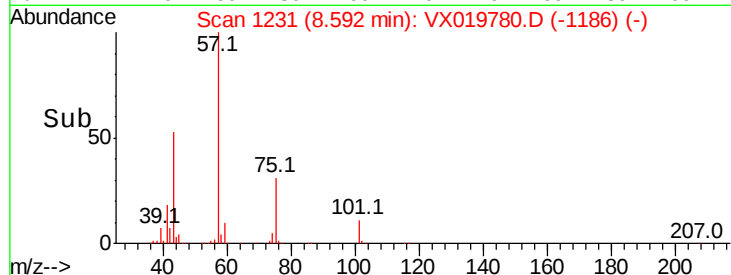
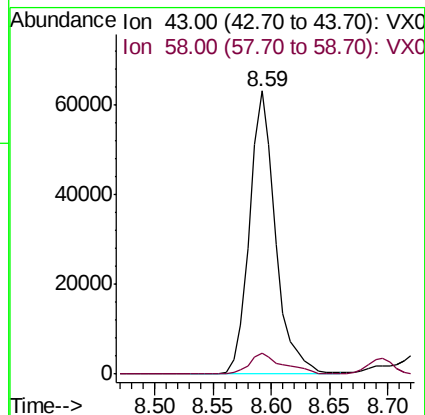
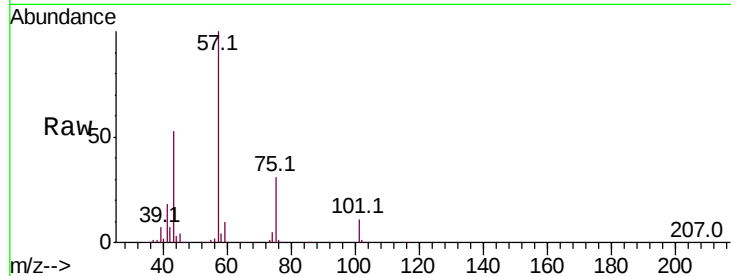
5S1-A-BOTTOM

Tot Ion: 43 Resp: 97615

Ion Ratio Lower Upper

43 100

58 9.6 35.4 53.0#



#54

cis-1,3-Dichloropropene

Concen: 8.464 ug/l

RT: 8.59 min Scan# 1231

Delta R.T. 0.18 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

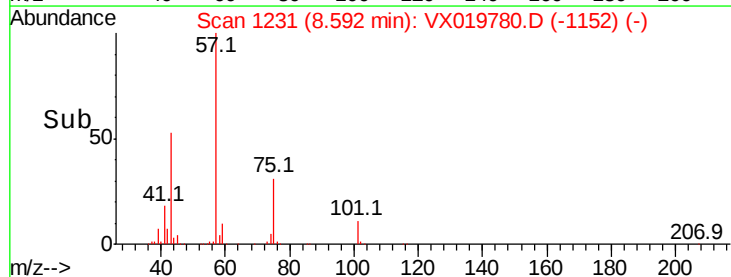
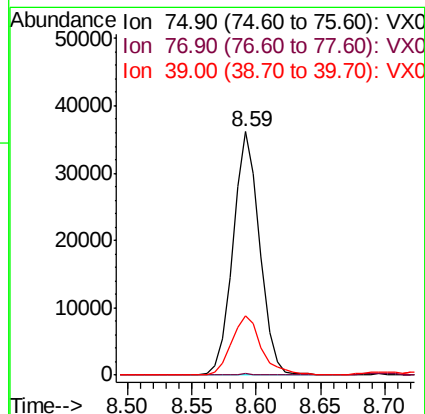
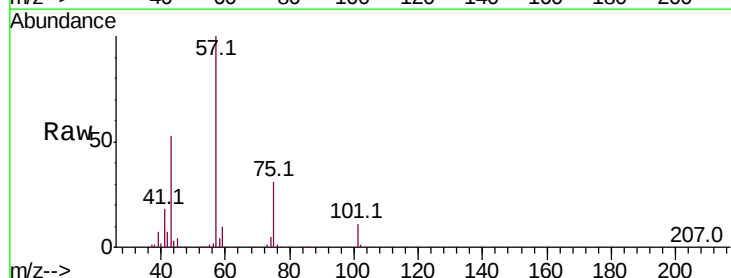
Tgt Ion: 75 Resp: 52230

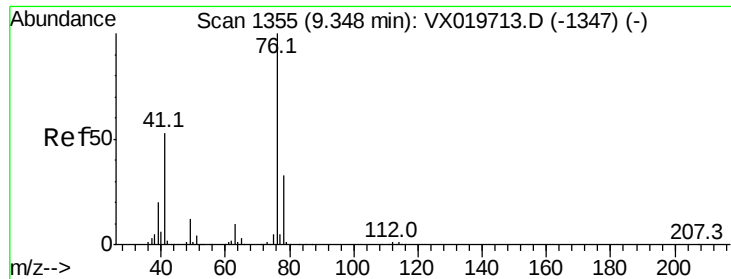
Ion Ratio Lower Upper

75 100

77 0.5 25.7 38.5#

39 24.2 35.1 52.7#





#57

1,3-Dichloropropane

Concen: 4.780 ug/l

RT: 9.52 min Scan# 1384

Delta R.T. 0.18 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampled :

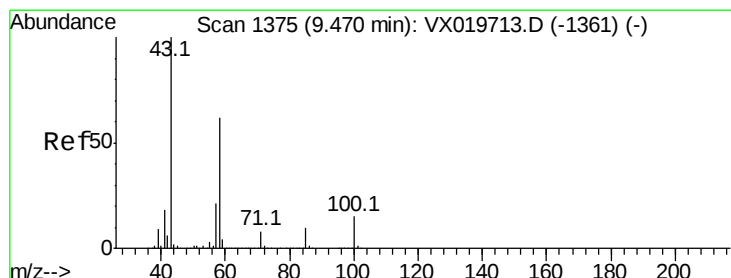
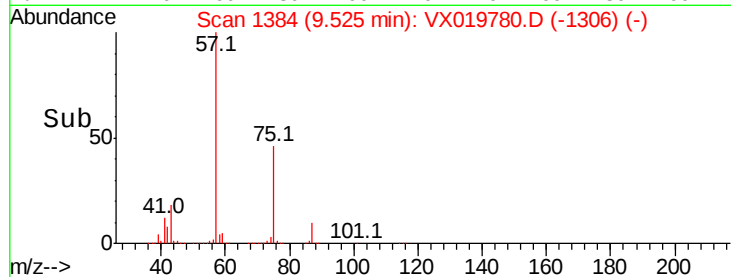
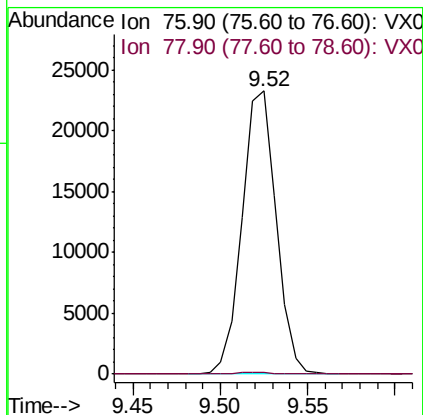
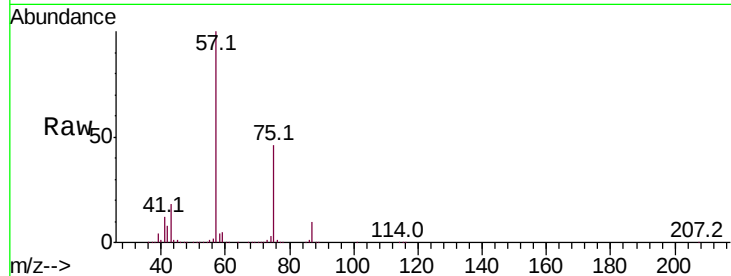
5S1-A-BOTTOM

Tot Ion: 76 Resp: 31437

Ion Ratio Lower Upper

76 100

78 0.6 26.2 39.2#



#59

2-Hexanone

Concen: 96.172 ug/l

RT: 9.52 min Scan# 1384

Delta R.T. 0.05 min

Lab File: VX019780.D

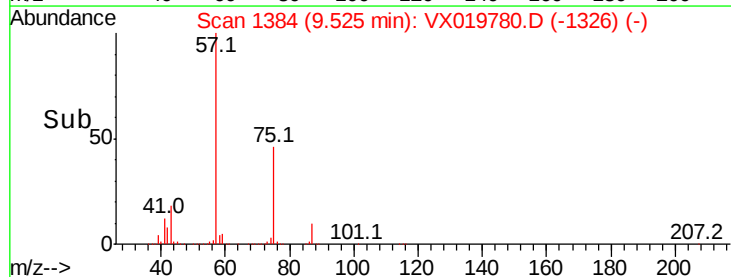
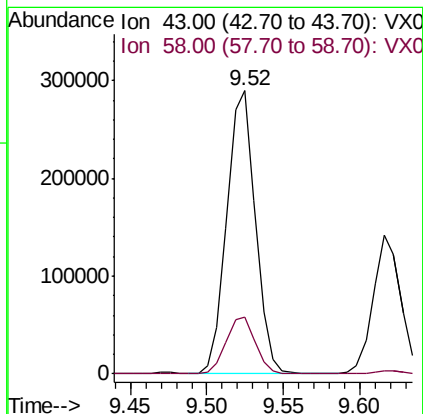
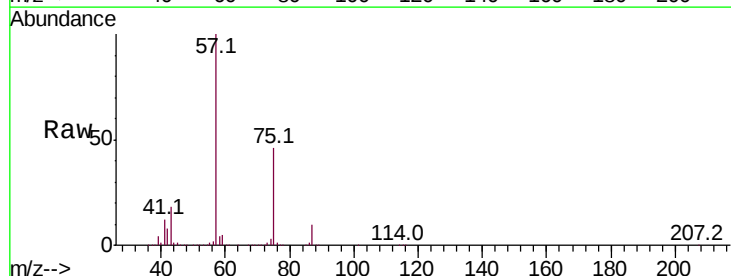
Acq: 09 Dec 2020 15:47

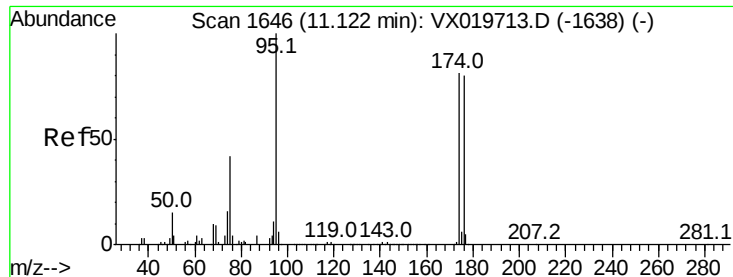
Tgt Ion: 43 Resp: 373786

Ion Ratio Lower Upper

43 100

58 20.7 30.9 92.8#





#62

4-Bromofluorobenzene

Concen: 45.855 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.00 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

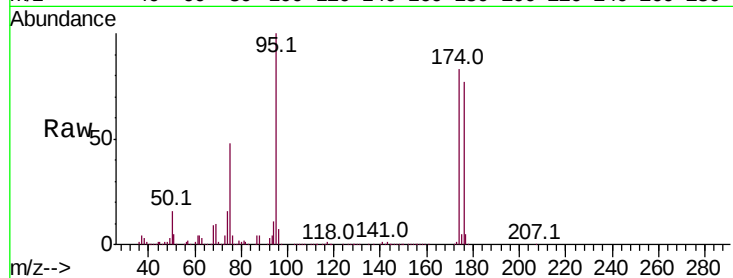
Tot Ion: 95 Resp: 238424

Ion Ratio Lower Upper

95 100

174 79.2 0.0 154.6

176 74.9 0.0 155.8

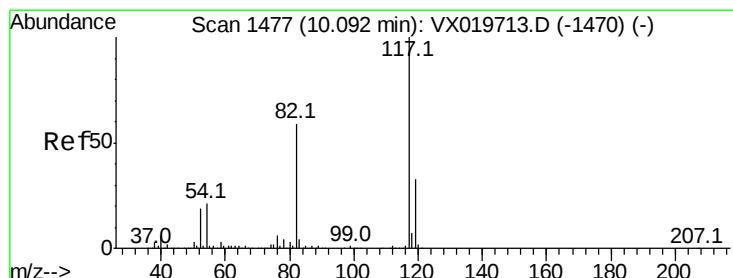
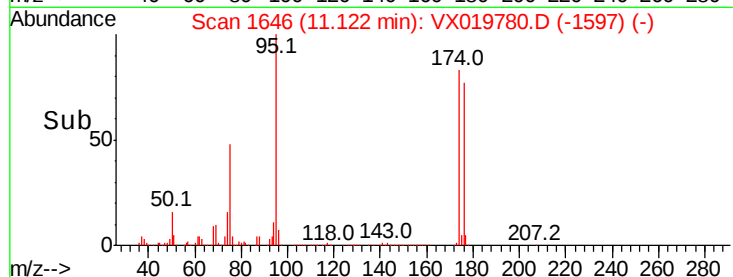
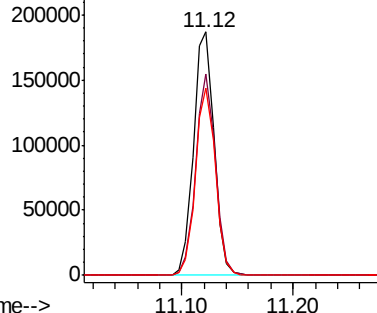


Abundance Ion 94.90 (94.60 to 95.60): VX019713.D (-1638) (-)

250000

Ion 173.80 (173.50 to 174.50): VX019713.D (-1638) (-)

Ion 175.80 (175.50 to 176.50): VX019713.D (-1638) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1478

Delta R.T. 0.01 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

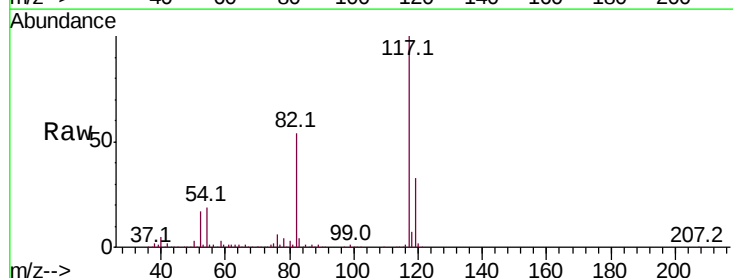
Tgt Ion: 117 Resp: 506644

Ion Ratio Lower Upper

117 100

82 54.3 47.4 71.2

119 32.7 26.6 39.8

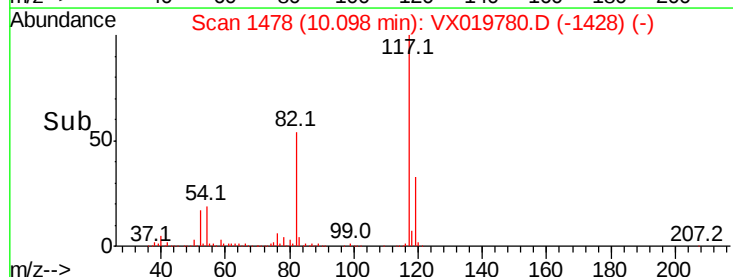
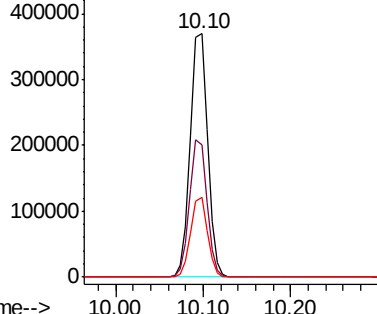


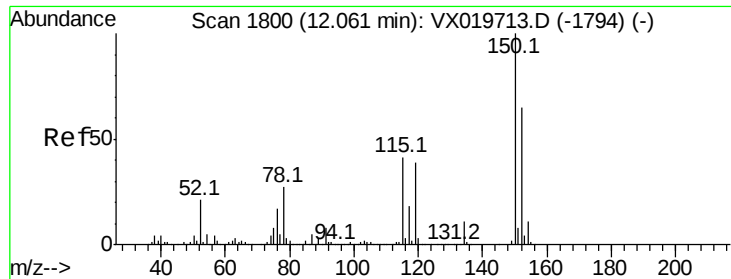
Abundance Ion 116.90 (116.60 to 117.60): VX019713.D (-1470) (-)

500000

Ion 82.00 (81.70 to 82.70): VX019713.D (-1470) (-)

Ion 118.90 (118.60 to 119.60): VX019713.D (-1470) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. 0.00 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

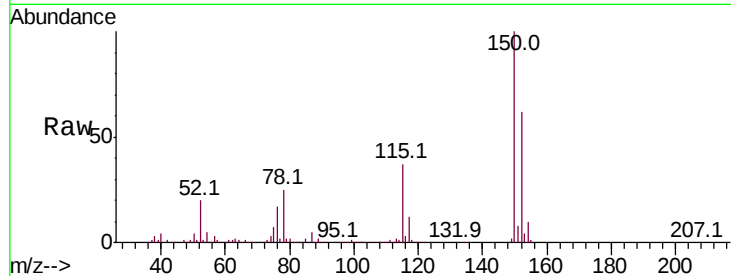
Tot Ion:152 Resp: 222237

Ion Ratio Lower Upper

152 100

115 59.4 41.1 123.3

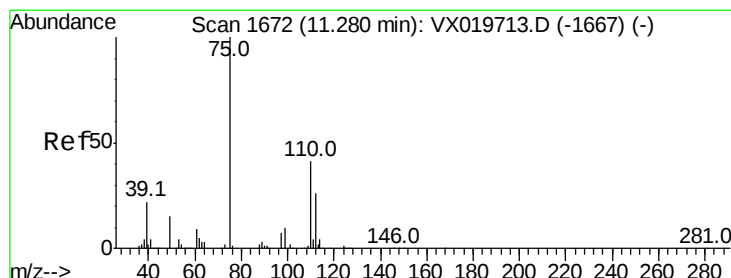
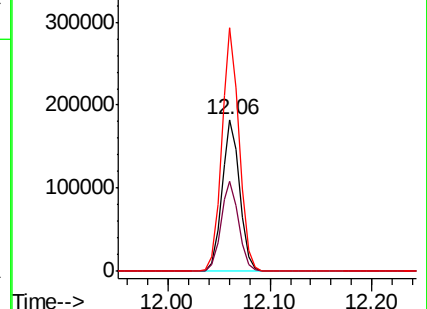
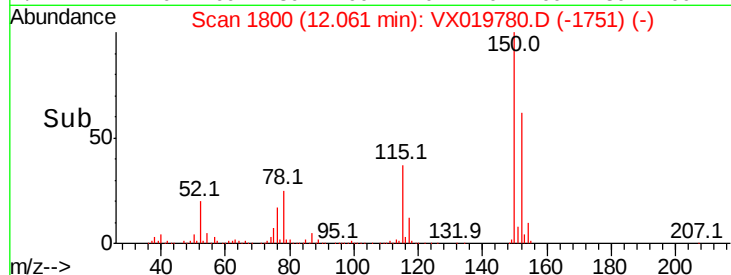
150 157.7 0.0 349.0



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: 22.908 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX019780.D

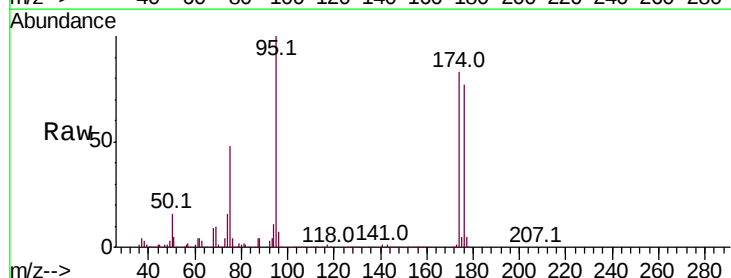
Acq: 09 Dec 2020 15:47

Tgt Ion: 75 Resp: 114183

Ion Ratio Lower Upper

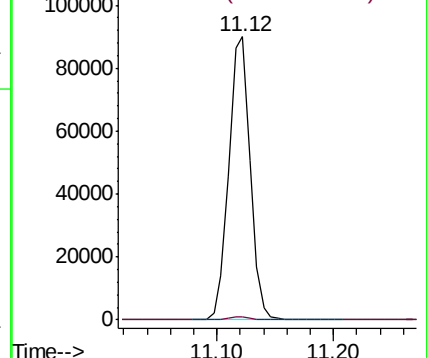
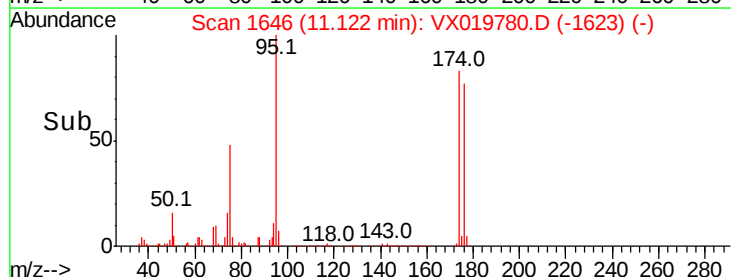
75 100

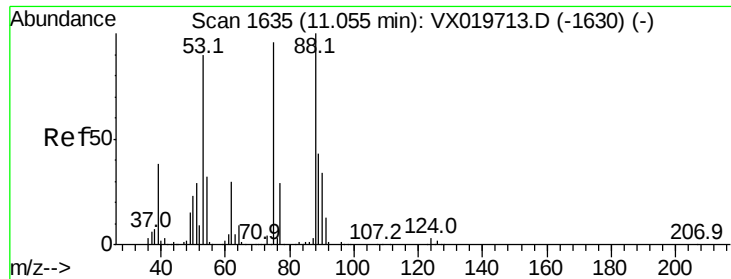
77 1.2 19.1 57.5#



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: 66.223 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.07 min

Lab File: VX019780.D

Acq: 09 Dec 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

5S1-A-BOTTOM

Tot Ion: 75 Resp: 114183

Ion Ratio Lower Upper

75 100

53 0.0 74.5 111.7#

89 0.0 37.9 56.9#

