

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX051820\  
 Data File : VX016300.D  
 Acq On : 18 May 2020 15:47  
 Operator : JC/SP  
 Sample : L2672-15  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 Z2-TB1-200514

Quant Time: May 19 00:46:04 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X050420W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed May 06 06:43:32 2020  
 Response via : Initial Calibration

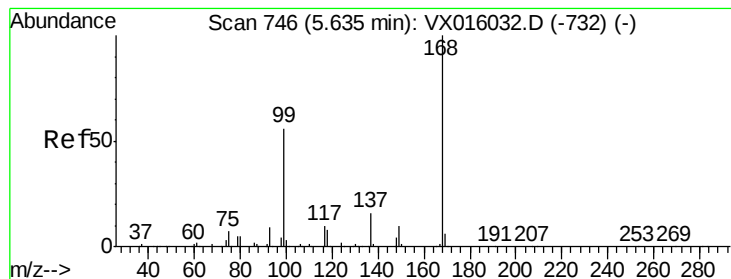
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.64  | 168  | 312039   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 499640   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 478966   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 242178   | 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   | 173551   | 42.27 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 84.54%  |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 141090   | 44.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.14%  |          |
| 50) Toluene-d8              | 8.70  | 98   | 604461   | 49.56 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.12%  |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 239822   | 51.70 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.40% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 718      | 0.348  | ug/l   | 83     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 282      | 0.272  | ug/l # | 72     |
| 13) Acrolein                   | 2.28  | 56   | 1037     | 1.596  | ug/l # | 74     |
| 15) Acrylonitrile              | 3.12  | 53   | 1211     | 0.562  | ug/l   | 92     |
| 16) Acetone                    | 2.42  | 43   | 602      | 0.329  | ug/l # | 54     |
| 21) trans-1,2-Dichloroethene   | 3.14  | 96   | 995      | 0.275  | ug/l # | 55     |
| 25) 2-Butanone                 | 4.65  | 43   | 843      | 0.286  | ug/l # | 48     |
| 29) Tetrahydrofuran            | 5.11  | 42   | 687      | 0.351  | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.64  | 117  | 28425    | 5.686  | ug/l # | 13     |
| 49) 1,4-Dioxane                | 7.73  | 88   | 41       | 0.397  | ug/l # | 24     |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 65       | 2.069  | ug/l # | 26     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 115498   | 21.017 | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 115498   | 50.084 | ug/l # | 13     |
| 89) n-Butylbenzene             | 12.37 | 91   | 3518     | 0.240  | ug/l   | 95     |
| 93) 1,2,4-Trichlorobenzene     | 13.63 | 180  | 1932     | 0.332  | ug/l   | 96     |
| 94) Hexachlorobutadiene        | 13.76 | 225  | 2160     | 1.376  | ug/l   | 94     |
| 95) Naphthalene                | 13.82 | 128  | 4014     | 0.213  | ug/l   | 97     |
| 96) 1,2,3-Trichlorobenzene     | 14.01 | 180  | 1708     | 0.300  | ug/l   | 97     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.64 min Scan# 746

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

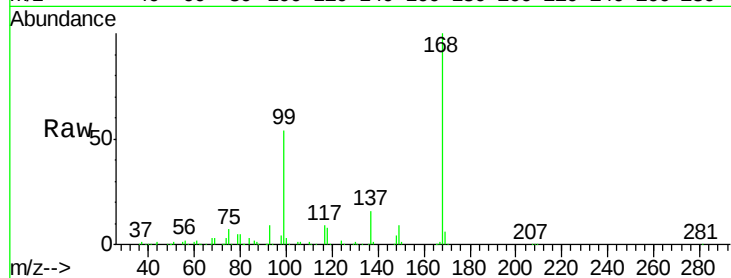
Z2-TB1-200514

Tot Ion:168 Resp: 312039

Ion Ratio Lower Upper

168 100

99 53.9 45.0 67.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.64

120000

100000

80000

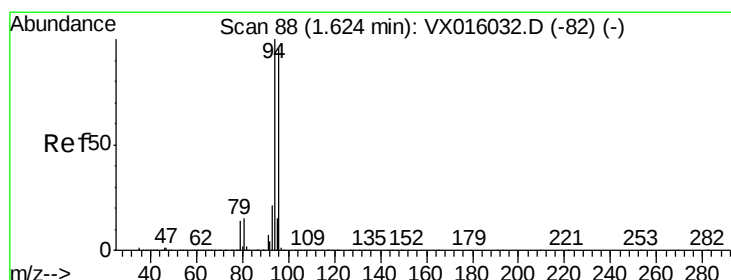
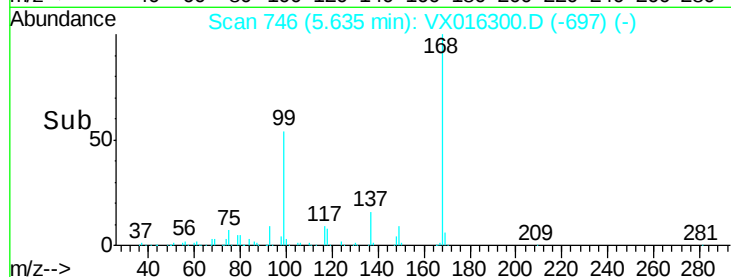
60000

40000

20000

0

Time-->



#5

Bromomethane

Concen: 0.348 ug/l

RT: 1.64 min Scan# 91

Delta R.T. 0.02 min

Lab File: VX016300.D

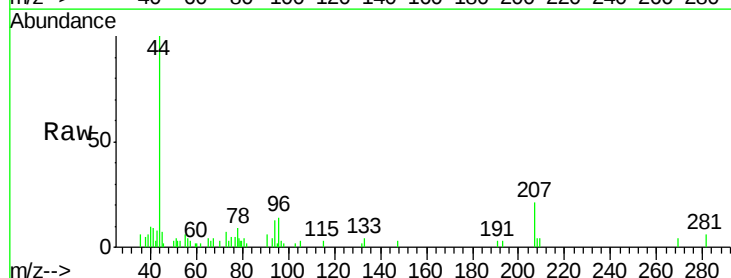
Acq: 18 May 2020 15:47

Tgt Ion: 94 Resp: 718

Ion Ratio Lower Upper

94 100

96 79.1 76.9 115.3



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

400

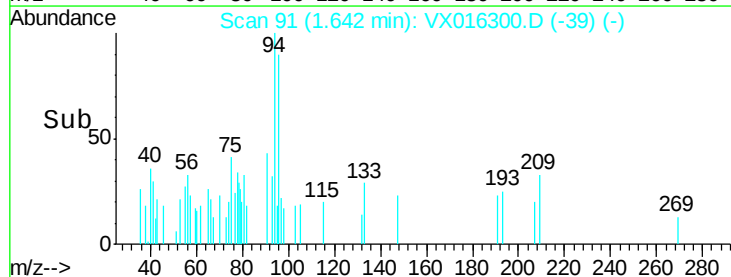
300

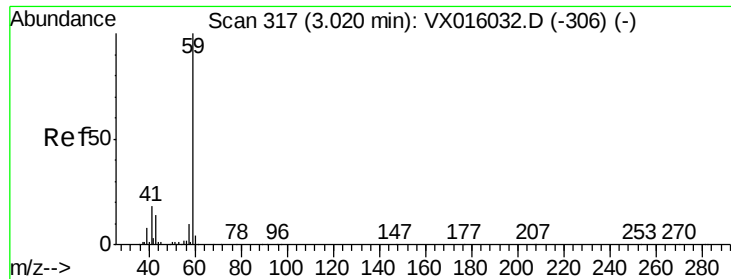
200

100

0

Time-->

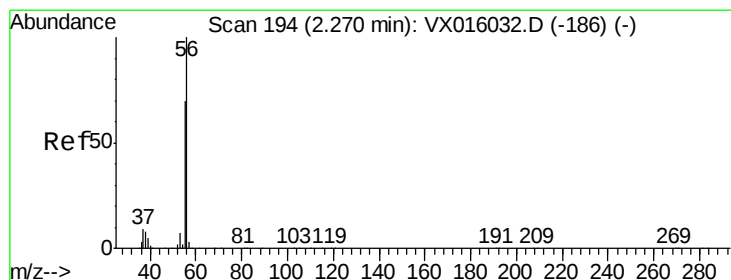
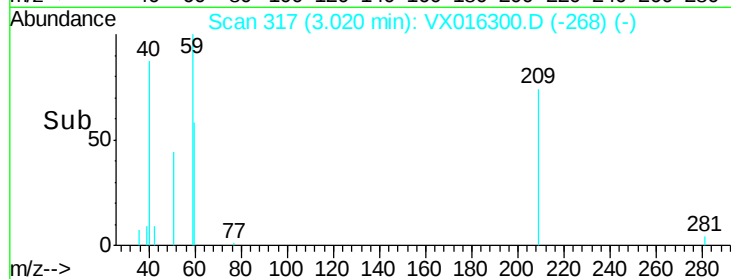
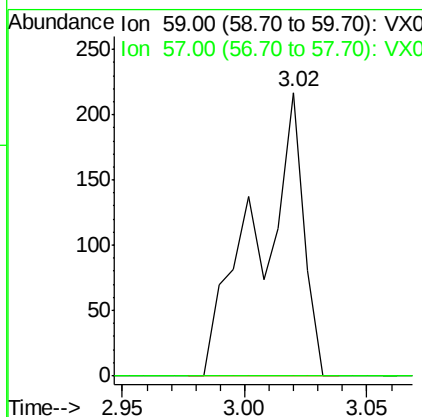
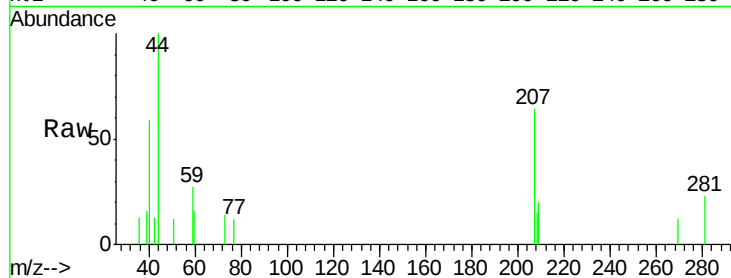




#11  
Tert butyl alcohol  
Concen: 0.272 ug/l  
RT: 3.02 min Scan# 317  
Delta R.T. -0.00 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

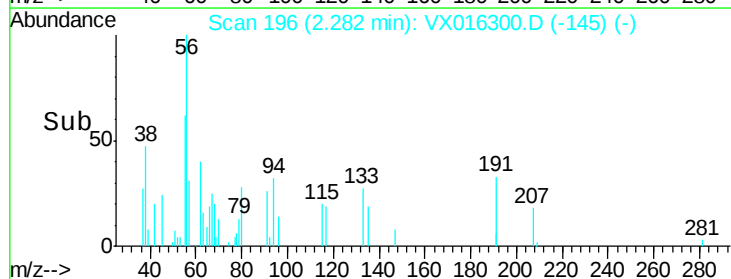
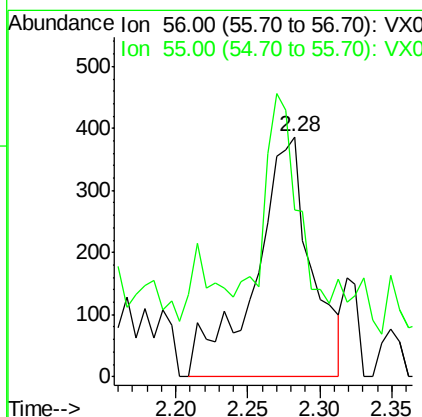
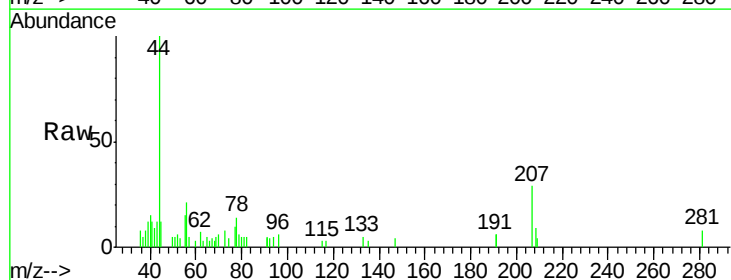
Instrument :  
MSVOA\_X  
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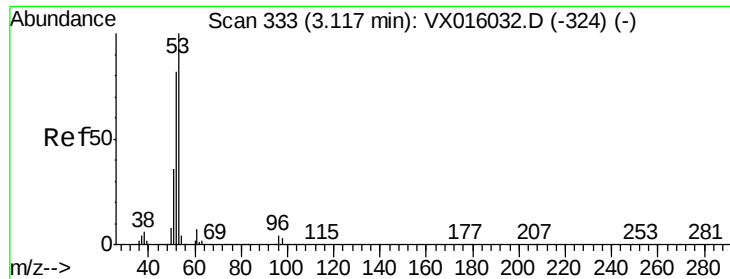
Tot Ion: 59 Resp: 282  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.2 12.4#



#13  
Acrolein  
Concen: 1.596 ug/l  
RT: 2.28 min Scan# 196  
Delta R.T. 0.01 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

Tgt Ion: 56 Resp: 1037  
Ion Ratio Lower Upper  
56 100  
55 48.9 56.5 84.7#





#15

Acrylonitrile

Concen: 0.562 ug/l

RT: 3.12 min Scan# 334

Delta R.T. 0.01 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

Z2-TB1-200514

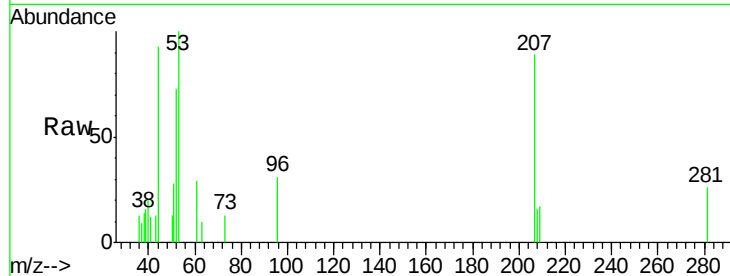
Tot Ion: 53 Resp: 1211

Ion Ratio Lower Upper

53 100

52 90.5 66.1 99.1

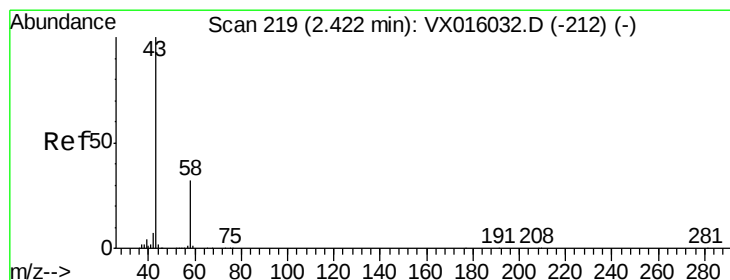
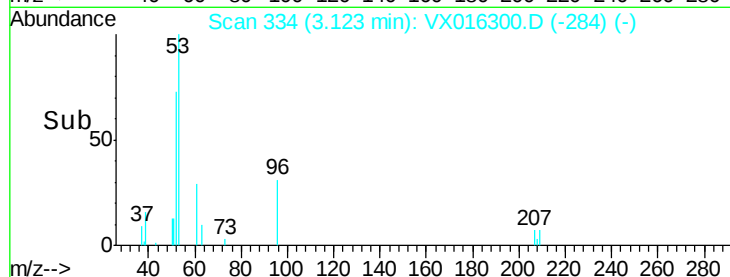
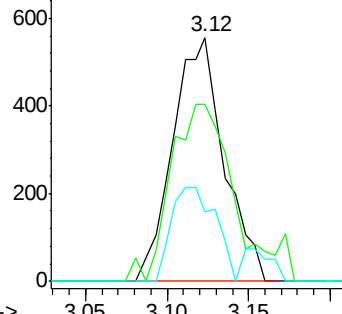
51 33.2 28.8 43.2



Abundance Ion 53.00 (52.70 to 53.70): VX0

Ion 52.00 (51.70 to 52.70): VX0

Ion 51.00 (50.70 to 51.70): VX0



#16

Acetone

Concen: 0.329 ug/l

RT: 2.42 min Scan# 218

Delta R.T. -0.01 min

Lab File: VX016300.D

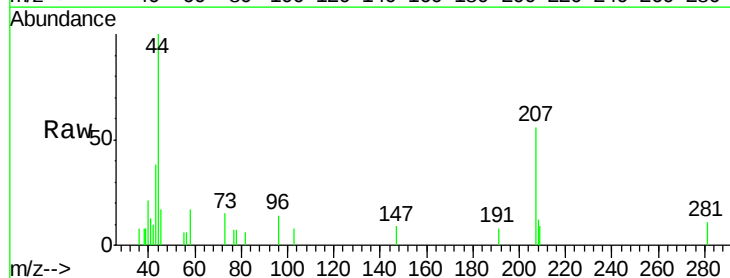
Acq: 18 May 2020 15:47

Tgt Ion: 43 Resp: 602

Ion Ratio Lower Upper

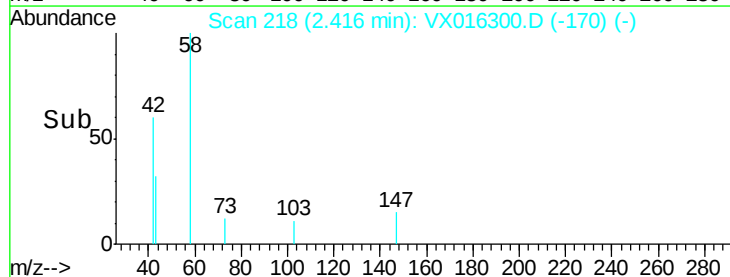
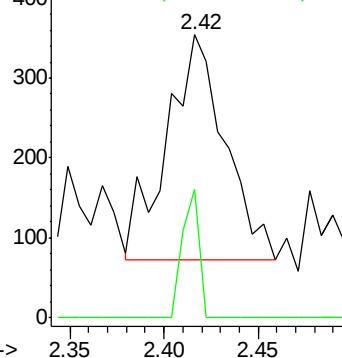
43 100

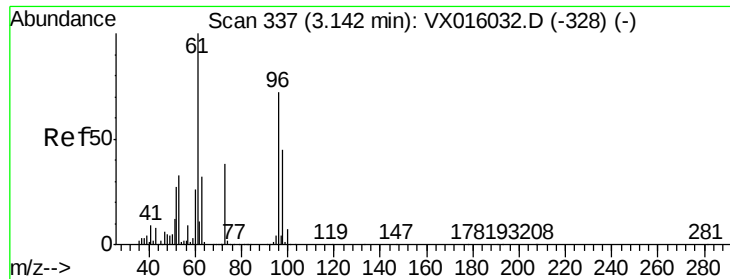
58 57.3 25.4 38.0#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#21

trans-1,2-Dichloroethene

Concen: 0.275 ug/l

RT: 3.14 min Scan# 337

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

Z2-TB1-200514

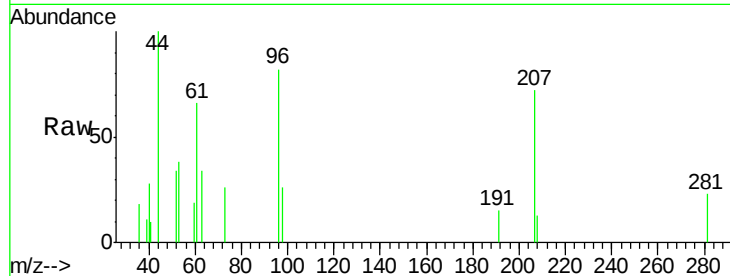
Tot Ion: 96 Resp: 995

Ion Ratio Lower Upper

96 100

61 80.7 111.2 166.8#

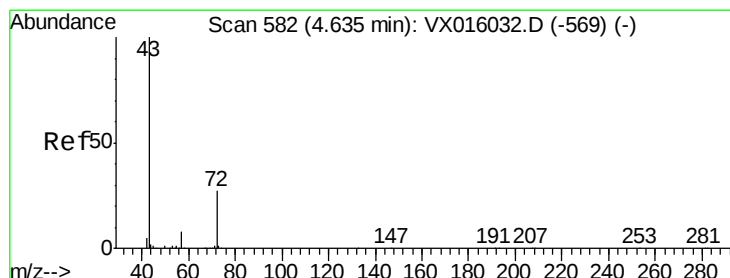
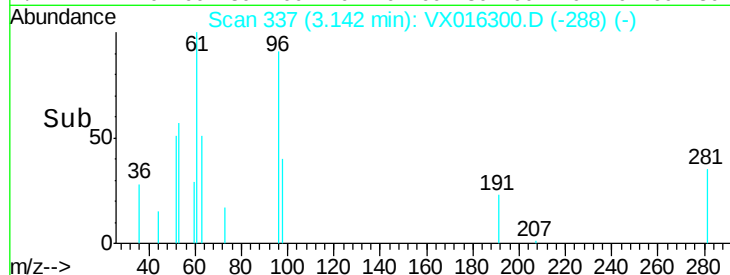
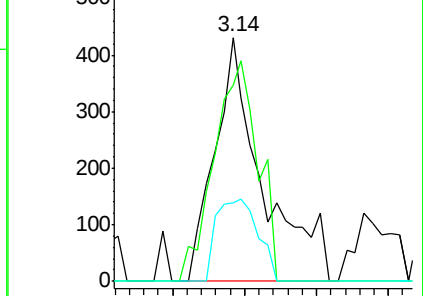
98 32.0 50.2 75.4#



Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0



#25

2-Butanone

Concen: 0.286 ug/l

RT: 4.65 min Scan# 585

Delta R.T. 0.02 min

Lab File: VX016300.D

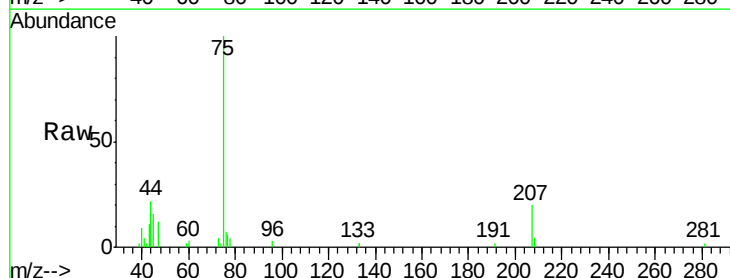
Acq: 18 May 2020 15:47

Tgt Ion: 43 Resp: 843

Ion Ratio Lower Upper

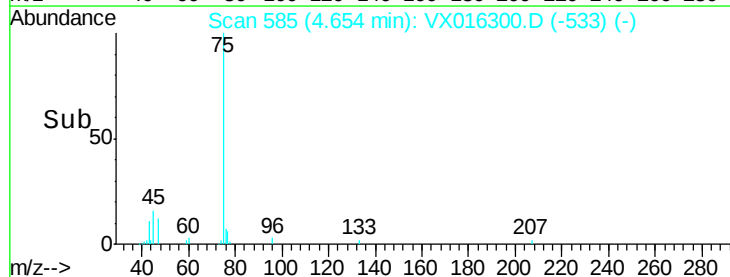
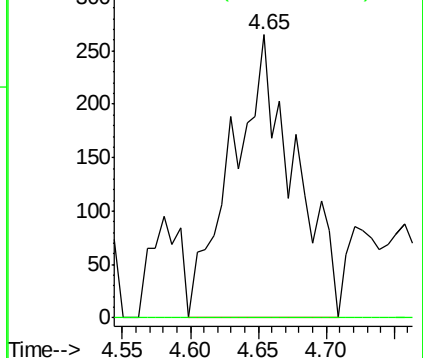
43 100

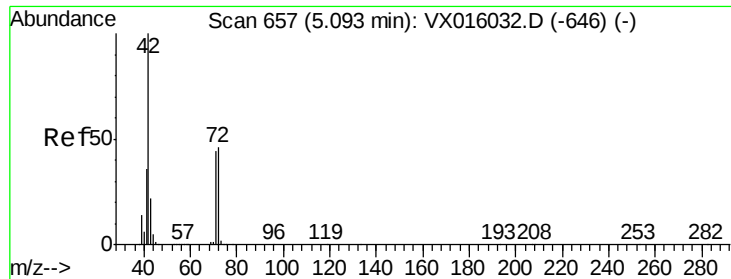
72 0.0 21.8 32.8#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

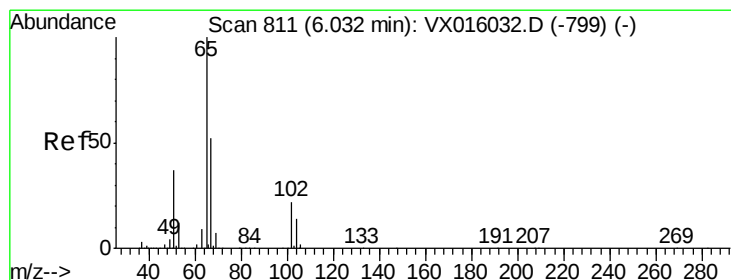
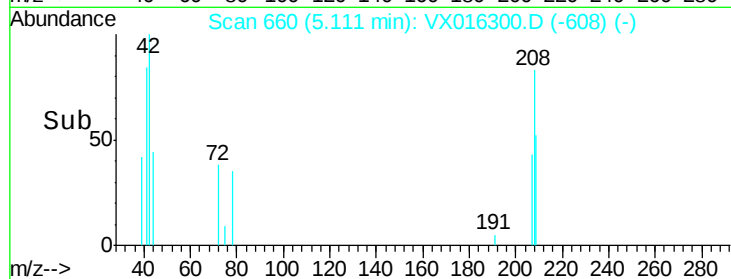
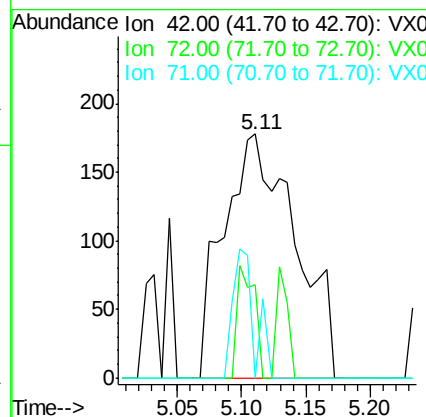
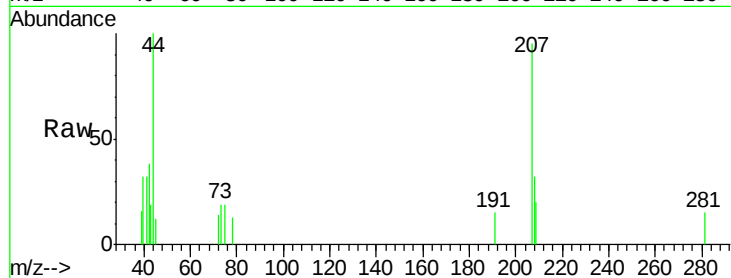




#29  
Tetrahydrofuran  
Concen: 0.351 ug/l  
RT: 5.11 min Scan# 660  
Delta R.T. 0.02 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

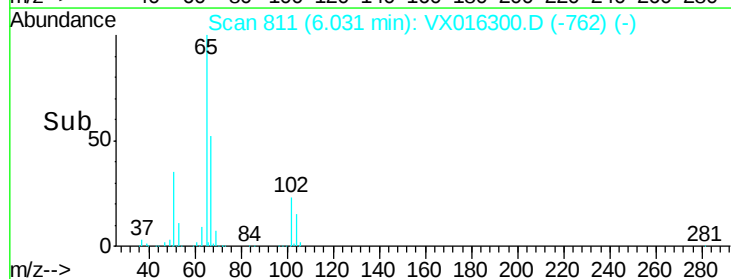
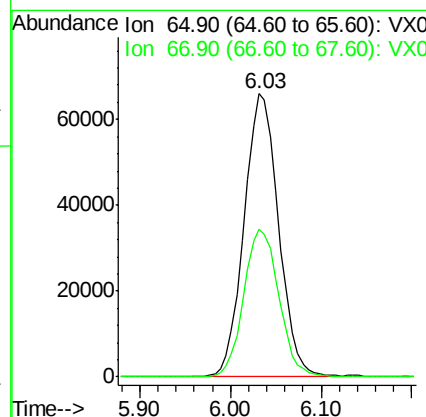
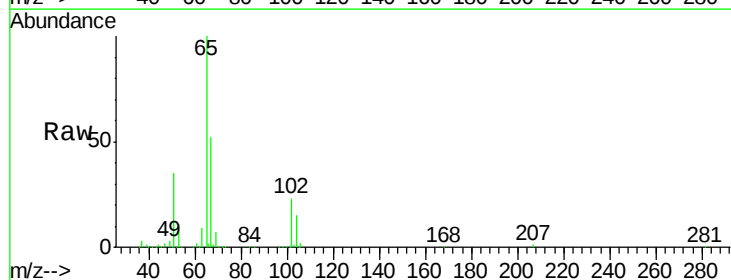
Instrument :  
MSVOA\_X  
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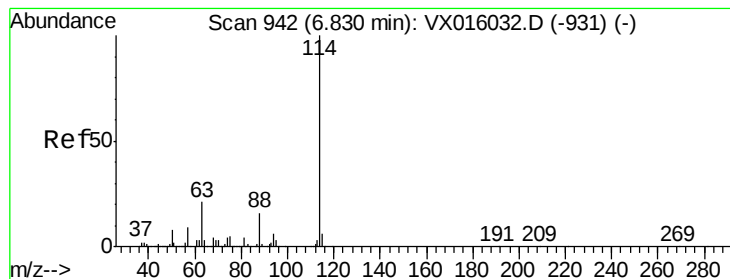
Tot Ion: 42 Resp: 687  
Ion Ratio Lower Upper  
42 100  
72 11.5 37.1 55.7#  
71 15.9 34.5 51.7#



#33  
1,2-Dichloroethane-d4  
Concen: 42.266 ug/l  
RT: 6.03 min Scan# 811  
Delta R.T. -0.00 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

Tgt Ion: 65 Resp: 173551  
Ion Ratio Lower Upper  
65 100  
67 53.2 0.0 104.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

Z2-TB1-200514

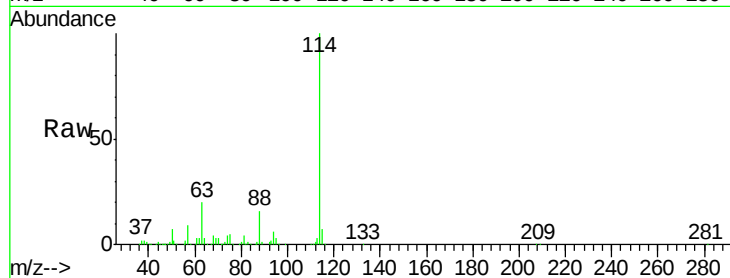
Tot Ion:114 Resp: 499640

Ion Ratio Lower Upper

114 100

63 19.9 0.0 42.8

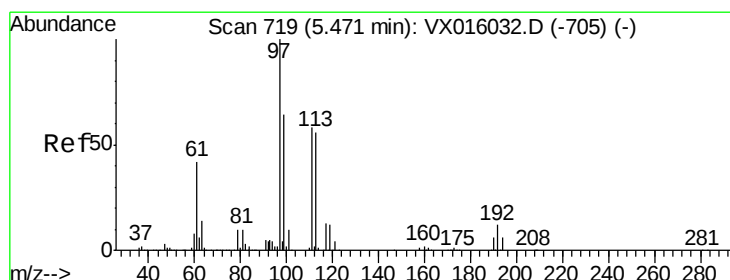
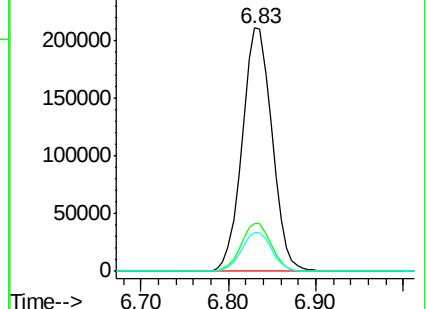
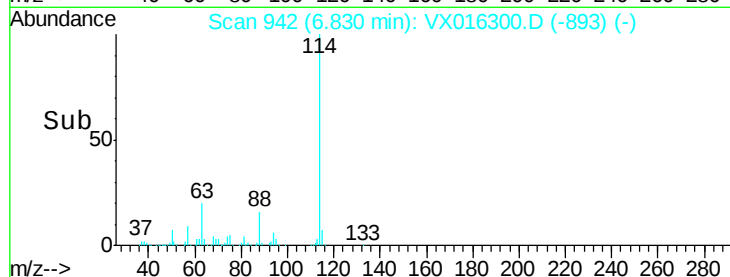
88 16.0 0.0 31.4



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: 44.572 ug/l

RT: 5.46 min Scan# 718

Delta R.T. -0.01 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

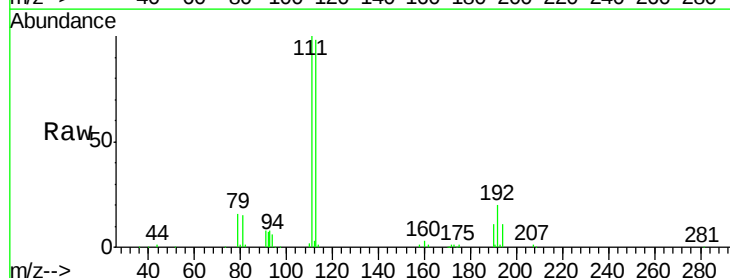
Tgt Ion:113 Resp: 141090

Ion Ratio Lower Upper

113 100

111 103.9 81.6 122.4

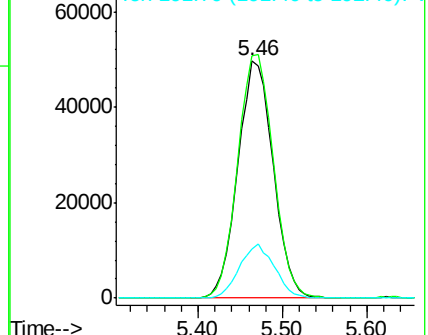
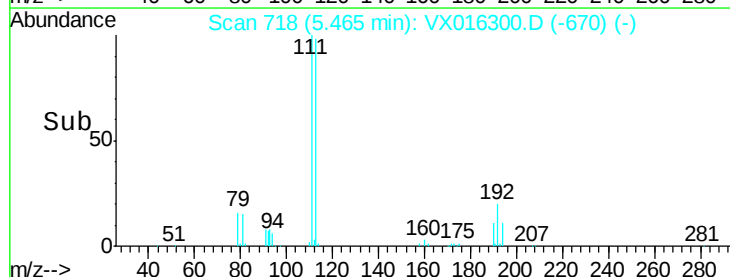
192 22.6 17.0 25.4

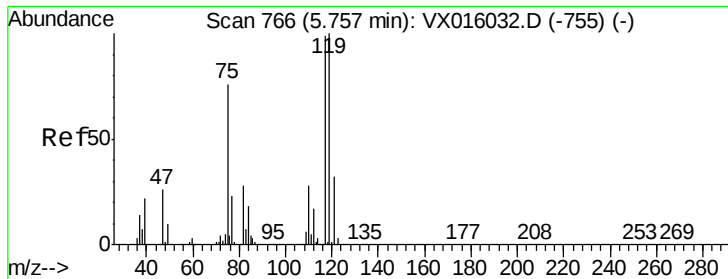


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#38

Carbon Tetrachloride

Concen: 5.686 ug/l

RT: 5.64 min Scan# 746

Delta R.T. -0.12 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampled :

Z2-TB1-200514

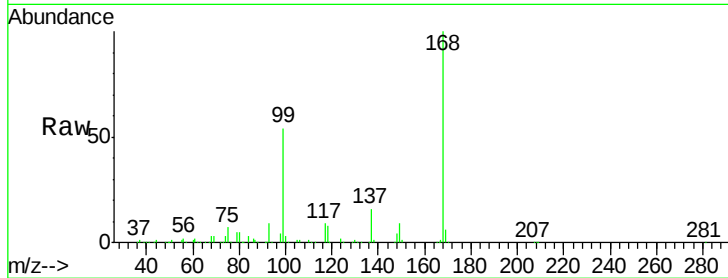
Tot Ion:117 Resp: 28425

Ion Ratio Lower Upper

117 100

119 4.2 80.3 120.5#

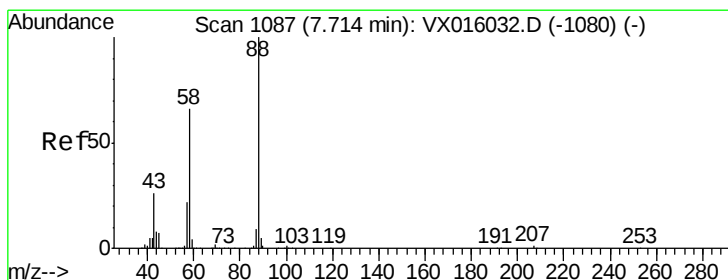
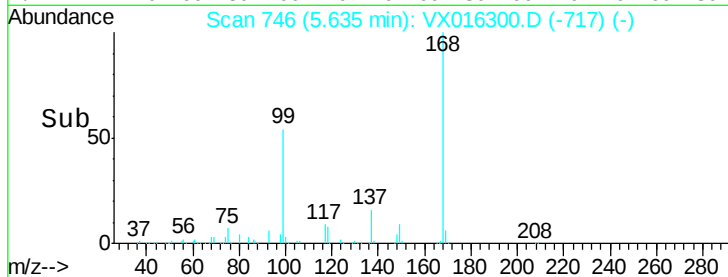
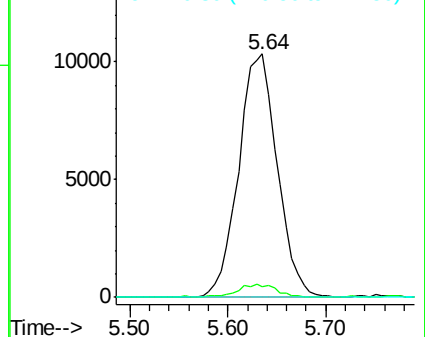
121 0.0 25.7 38.5#



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: 0.397 ug/l

RT: 7.73 min Scan# 1090

Delta R.T. 0.02 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

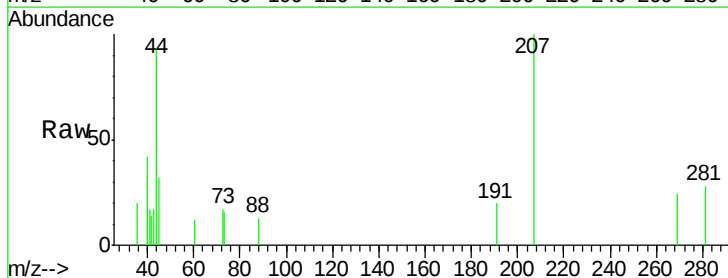
Tgt Ion: 88 Resp: 41

Ion Ratio Lower Upper

88 100

43 0.0 25.3 37.9#

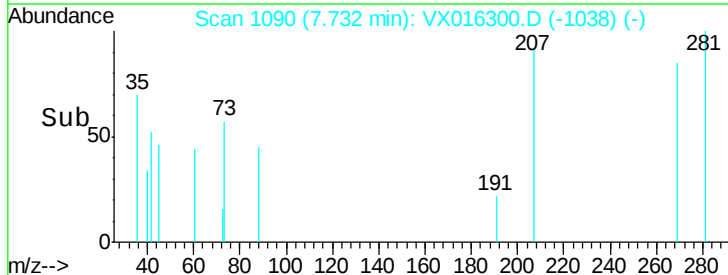
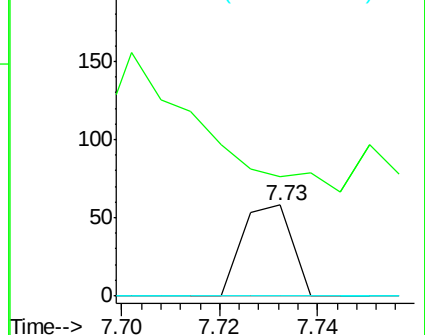
58 0.0 55.9 83.9#

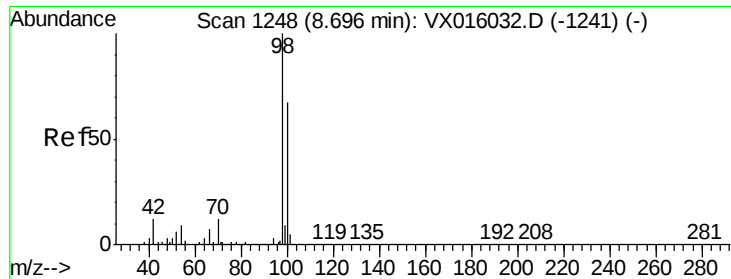


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 49.560 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

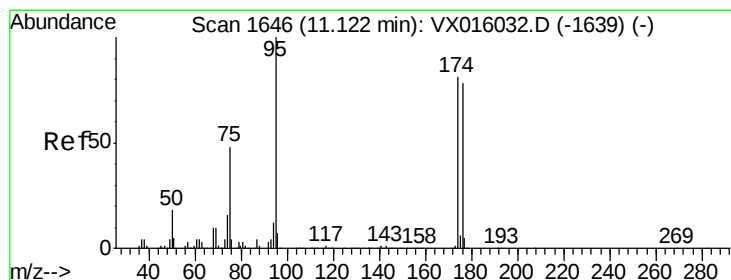
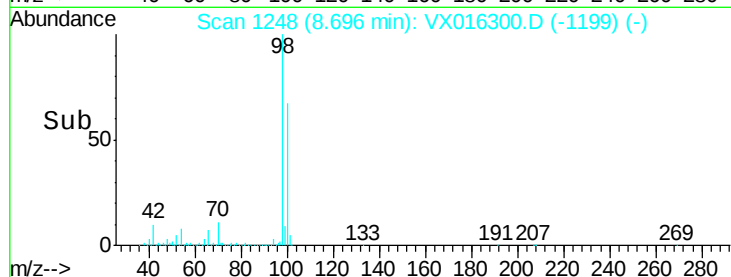
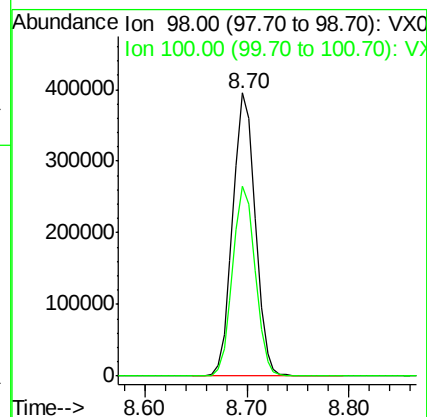
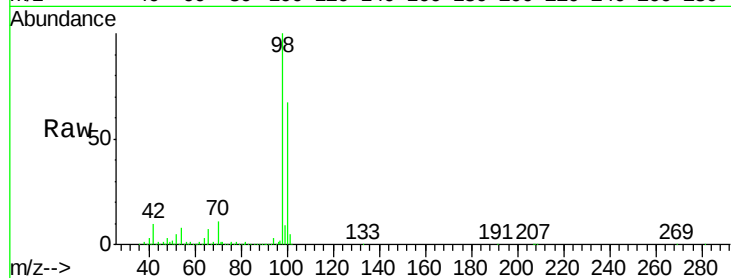
Z2-TB1-200514

Tot Ion: 98 Resp: 604461

Ion Ratio Lower Upper

98 100

100 67.4 53.7 80.5



#62

4-Bromofluorobenzene

Concen: 51.697 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

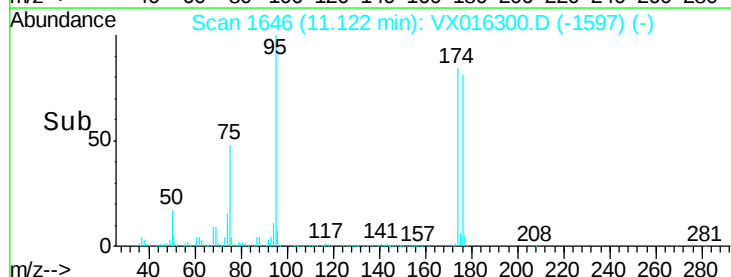
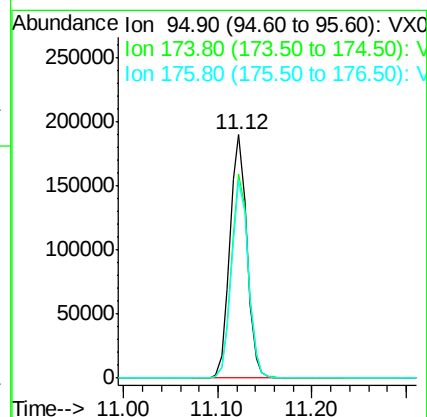
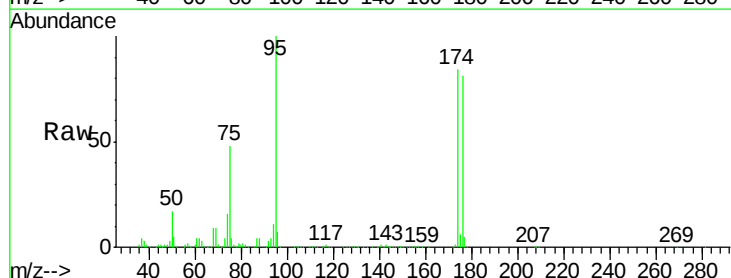
Tgt Ion: 95 Resp: 239822

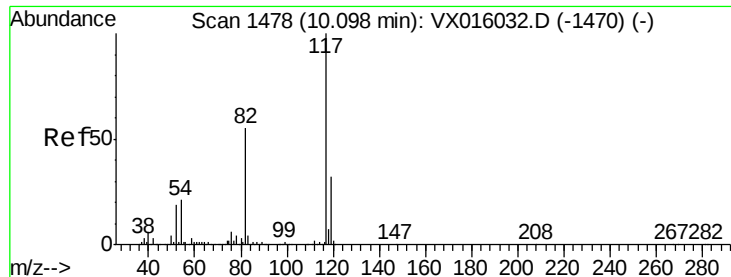
Ion Ratio Lower Upper

95 100

174 83.2 0.0 159.4

176 80.4 0.0 157.6

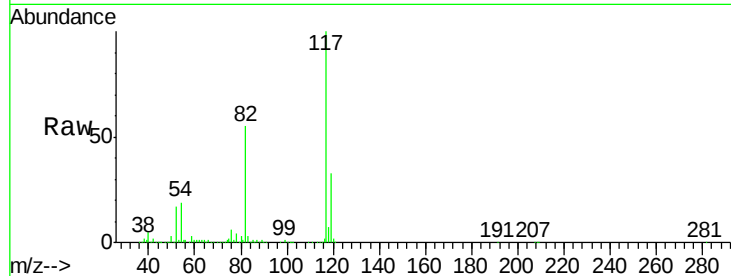




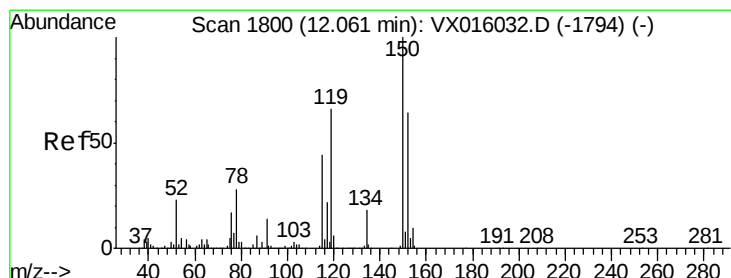
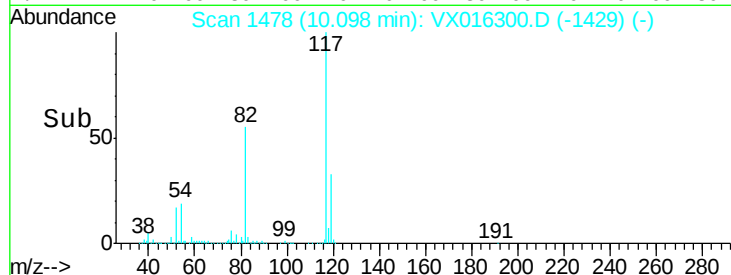
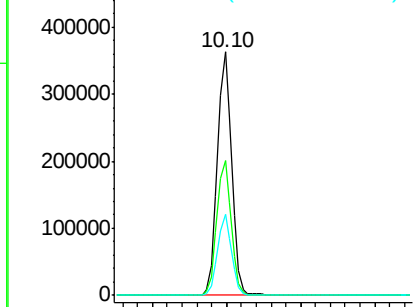
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

Instrument :  
MSVOA\_X  
ClientSampleId :  
Z2-TB1-200514

Tot Ion:117 Resp: 478966  
Ion Ratio Lower Upper  
117 100  
82 55.3 44.4 66.6  
119 33.5 25.5 38.3

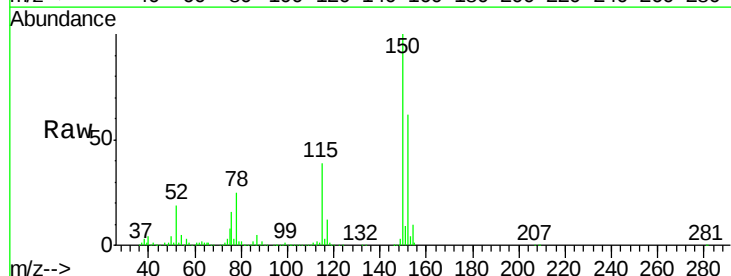


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

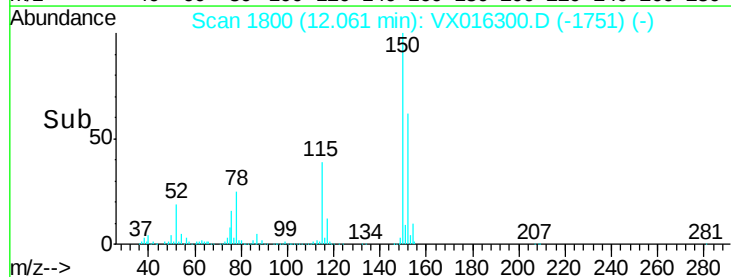
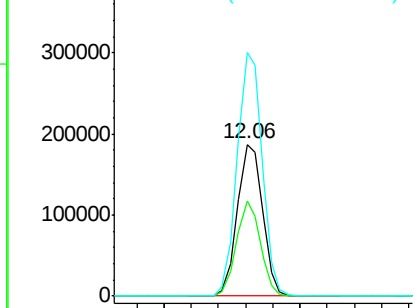


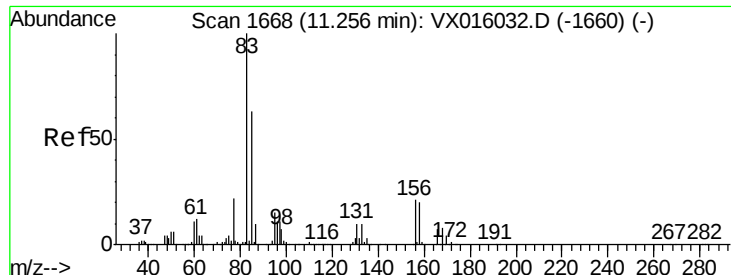
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. -0.00 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

Tgt Ion:152 Resp: 242178  
Ion Ratio Lower Upper  
152 100  
115 59.3 41.3 124.1  
150 159.0 0.0 352.2



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V





#75

1,1,2,2-Tetrachloroethane

Concen: 2.069 ug/l

RT: 11.26 min Scan# 1668

Delta R.T. 0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

Z2-TB1-200514

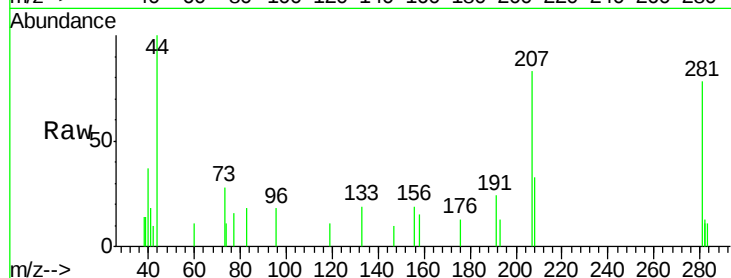
Tot Ion: 83 Resp: 65

Ion Ratio Lower Upper

83 100

131 0.0 5.1 15.4#

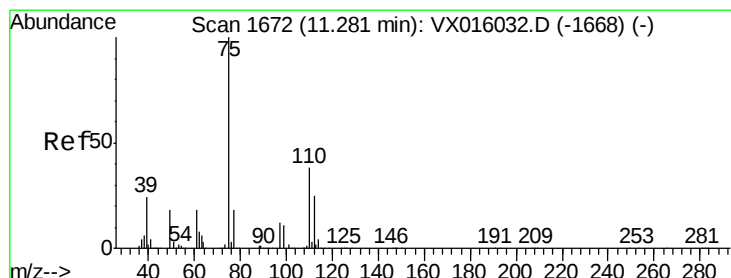
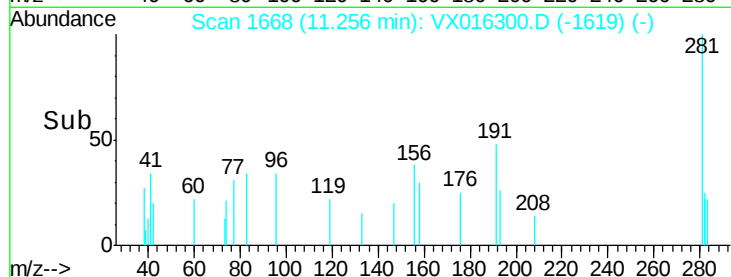
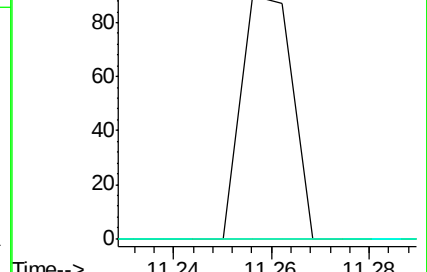
85 0.0 32.0 96.0#



Abundance Ion 82.90 (82.60 to 83.60): VX0

Ion 130.80 (130.50 to 131.50): V

Ion 84.90 (84.60 to 85.60): VX0



#76

1,2,3-Trichloropropane

Concen: 21.017 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX016300.D

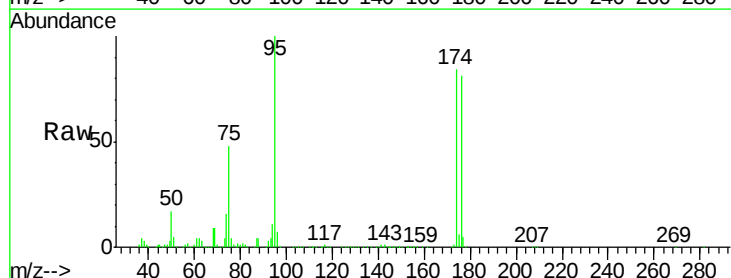
Acq: 18 May 2020 15:47

Tgt Ion: 75 Resp: 115498

Ion Ratio Lower Upper

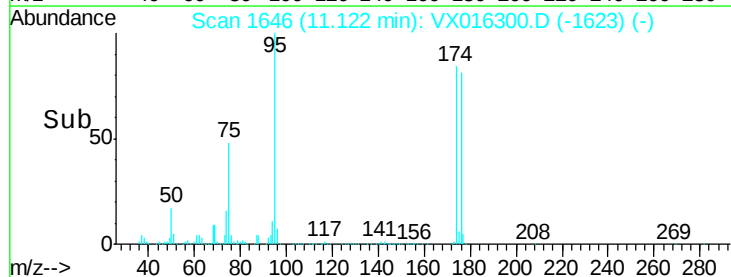
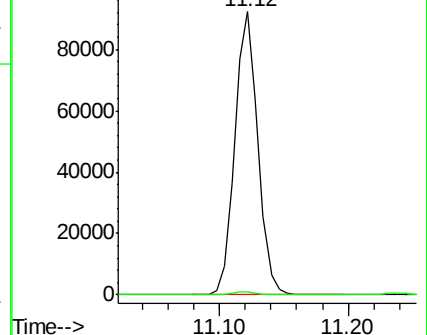
75 100

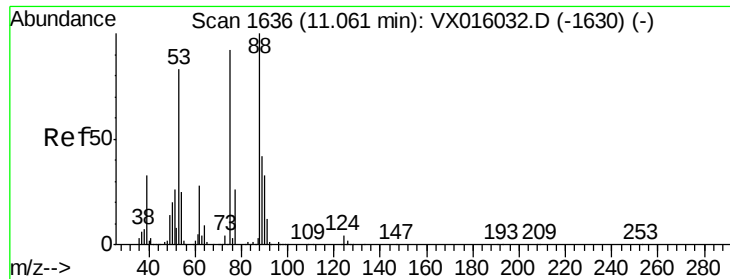
77 1.3 21.2 63.6#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0

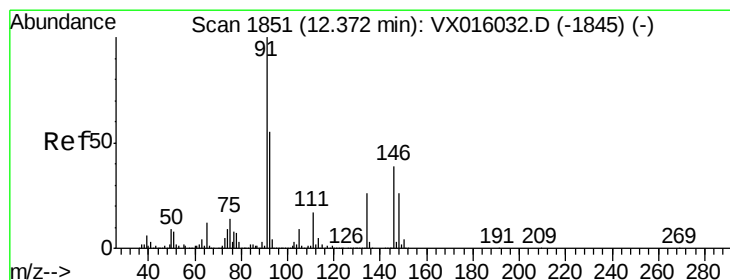
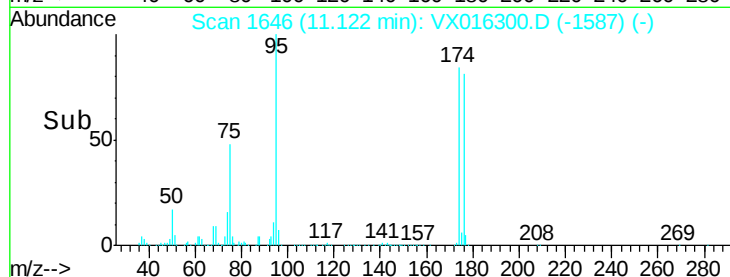
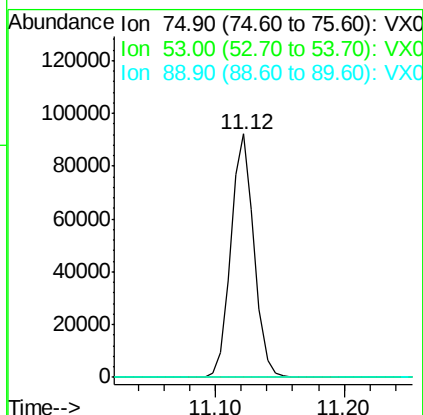
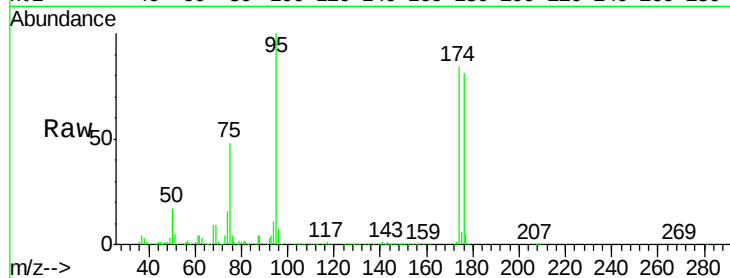




#81  
trans-1,4-Dichloro-2-butene  
Concen: 50.084 ug/l  
RT: 11.12 min Scan# 1646  
Delta R.T. 0.06 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

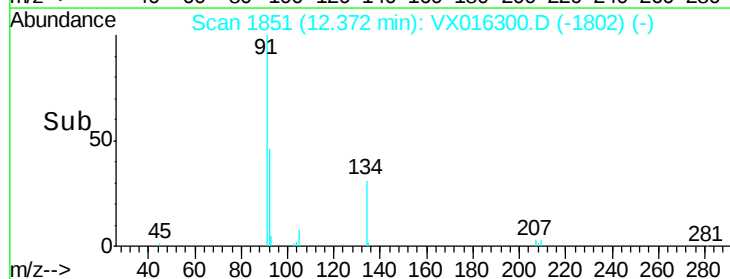
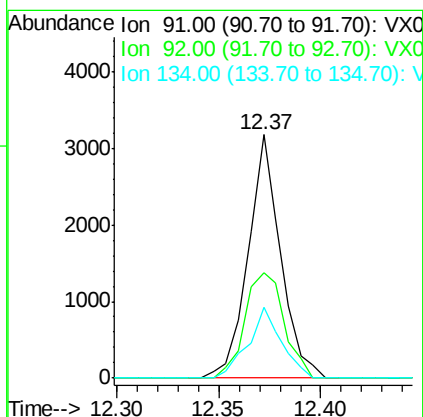
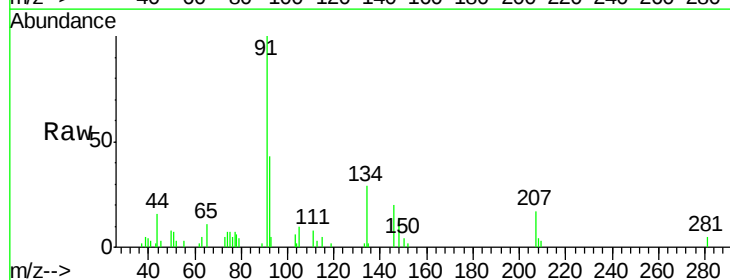
Instrument :  
MSVOA\_X  
ClientSampleId :  
Z2-TB1-200514

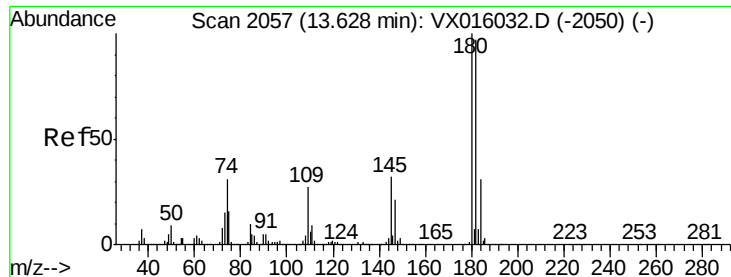
Tot Ion: 75 Resp: 115498  
Ion Ratio Lower Upper  
75 100  
53 0.0 73.1 109.7#  
89 0.0 36.7 55.1#



#89  
n-Butylbenzene  
Concen: 0.240 ug/l  
RT: 12.37 min Scan# 1851  
Delta R.T. -0.00 min  
Lab File: VX016300.D  
Acq: 18 May 2020 15:47

Tgt Ion: 91 Resp: 3518  
Ion Ratio Lower Upper  
91 100  
92 52.2 27.6 82.7  
134 29.6 13.4 40.1

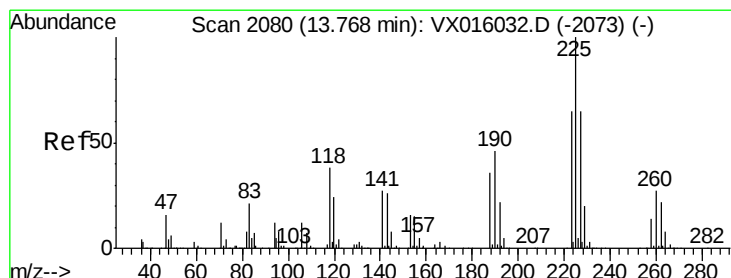
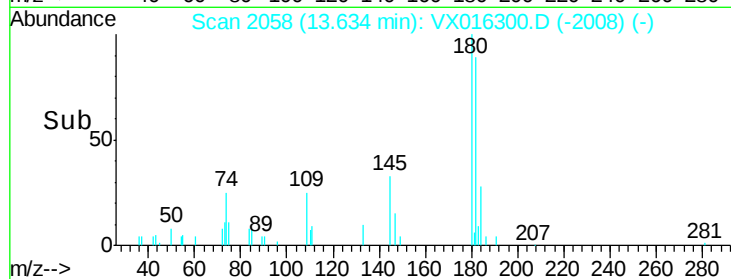
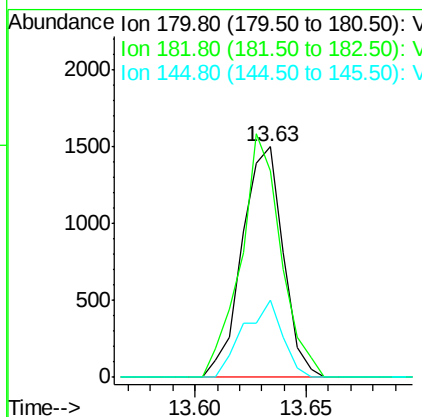
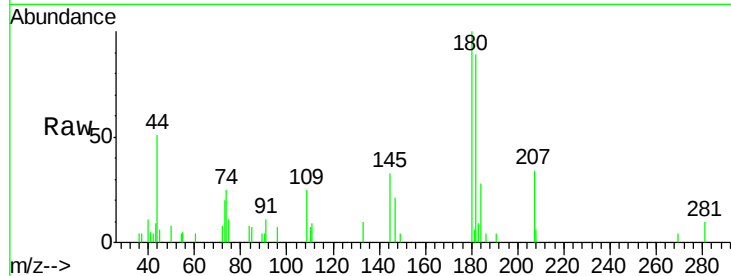




#93  
 1,2,4-Trichlorobenzene  
 Concen: 0.332 ug/l  
 RT: 13.63 min Scan# 2058  
 Delta R.T. 0.01 min  
 Lab File: VX016300.D  
 Acq: 18 May 2020 15:47

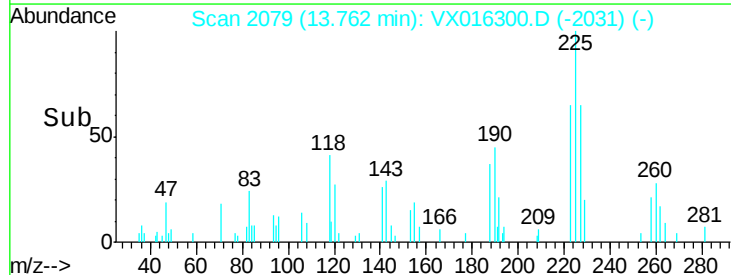
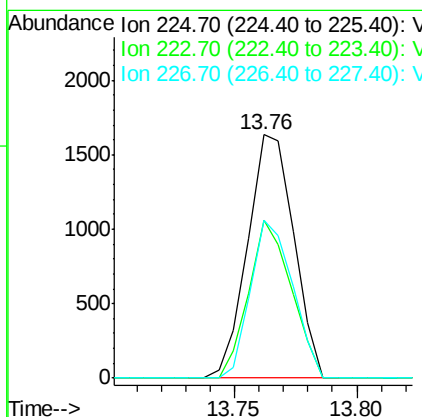
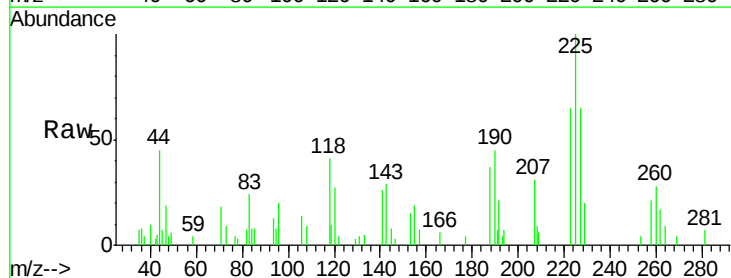
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 Z2-TB1-200514

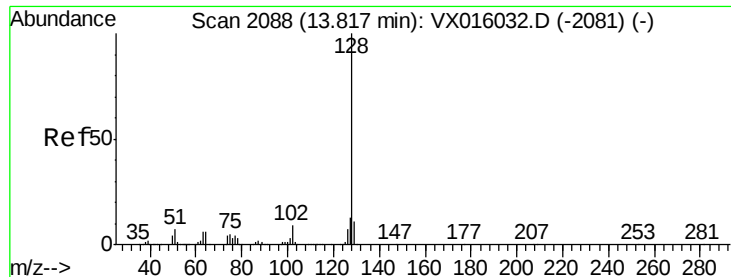
Tot Ion:180 Resp: 1932  
 Ion Ratio Lower Upper  
 180 100  
 182 103.1 48.7 146.1  
 145 31.7 15.7 47.1



#94  
 Hexachlorobutadiene  
 Concen: 1.376 ug/l  
 RT: 13.76 min Scan# 2079  
 Delta R.T. -0.01 min  
 Lab File: VX016300.D  
 Acq: 18 May 2020 15:47

Tgt Ion:225 Resp: 2160  
 Ion Ratio Lower Upper  
 225 100  
 223 59.7 32.3 96.9  
 227 59.2 31.8 95.4





#95

Naphthalene

Concen: 0.213 ug/l

RT: 13.82 min Scan# 2088

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

Instrument :

MSVOA\_X

ClientSampleId :

Z2-TB1-200514

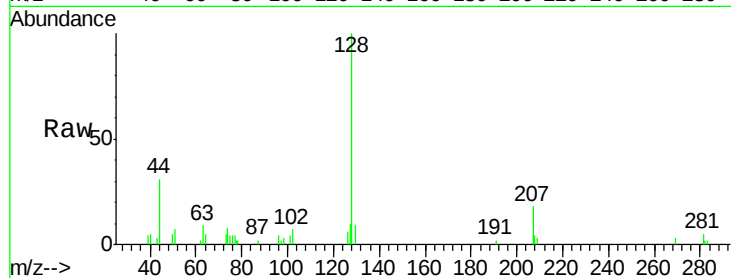
Tot Ion:128 Resp: 4014

Ion Ratio Lower Upper

128 100

127 14.5 10.2 15.4

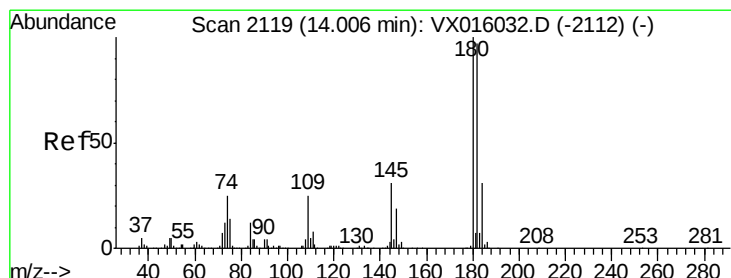
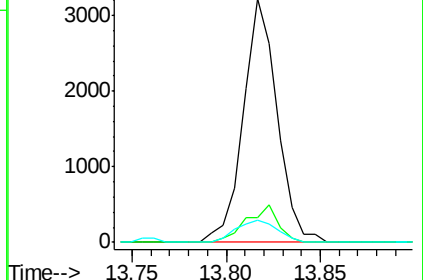
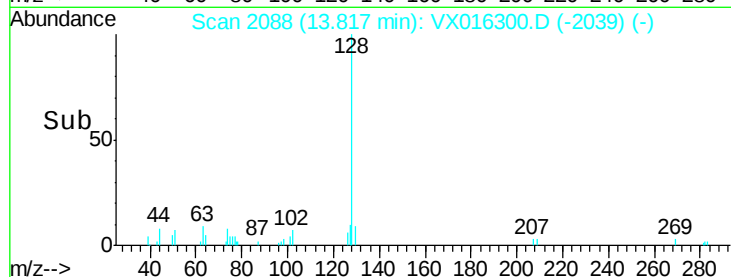
129 11.2 8.7 13.1



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#96

1,2,3-Trichlorobenzene

Concen: 0.300 ug/l

RT: 14.01 min Scan# 2119

Delta R.T. -0.00 min

Lab File: VX016300.D

Acq: 18 May 2020 15:47

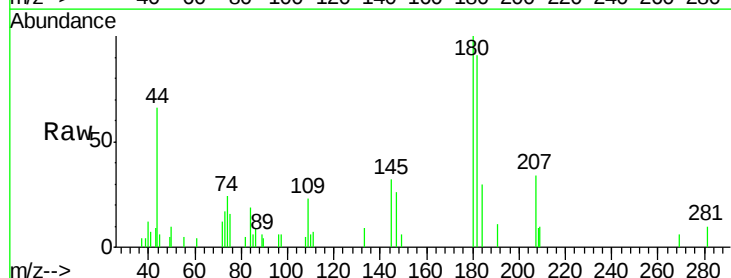
Tgt Ion:180 Resp: 1708

Ion Ratio Lower Upper

180 100

182 98.5 48.4 145.0

145 35.8 16.4 49.1



Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.90 (144.60 to 145.60): V

