

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD031419\  
 Data File : VD061065.D  
 Acq On : 14 Mar 2019 15:26  
 Operator : VA/AP  
 Sample : K1901-01  
 Misc : 2.73g/5ml/MSVOA D/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 SB-1(0.5-1.5)

Quant Time: Mar 15 02:12:18 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D030719S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 08 02:35:39 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.04  | 168  | 543014   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.23  | 114  | 978658   | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 12.37 | 117  | 685442   | 50.00 | ug/l  | 0.01     |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 225180   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.46  | 65   | 266718   | 59.01 | ug/l    | 0.01     |
| Spiked Amount               |       |      | Recovery | =     | 118.02% |          |
| 35) Dibromofluoromethane    | 6.93  | 113  | 403325   | 55.53 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 111.06% |          |
| 50) Toluene-d8              | 10.41 | 98   | 885544   | 48.55 | ug/l    | 0.01     |
| Spiked Amount               |       |      | Recovery | =     | 97.10%  |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 267133   | 37.75 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 75.50%  |          |

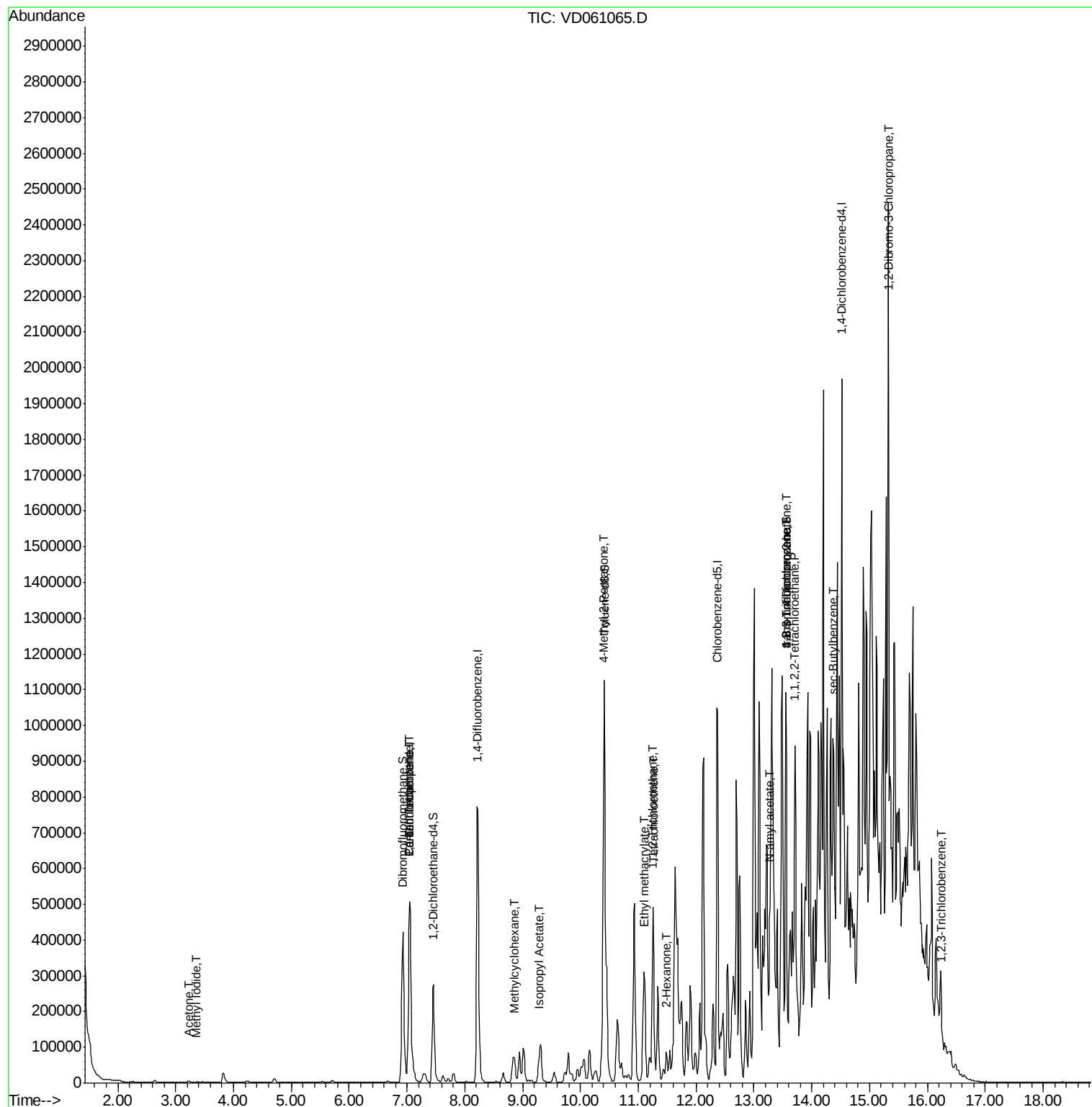
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 10) Methyl Iodide              | 3.34  | 142  | 195      | 2.954     | ug/l # | 39     |
| 16) Acetone                    | 3.23  | 43   | 8648     | 6.691     | ug/l   | 91     |
| 20) Methylene Chloride         | 3.83  | 84   | 19285    | Below Cal |        | 93     |
| 36) 1,1-Dichloropropene        | 7.03  | 75   | 40122    | 4.756     | ug/l # | 46     |
| 38) Carbon Tetrachloride       | 7.04  | 117  | 51624    | 5.556     | ug/l # | 16     |
| 39) Methylcyclohexane          | 8.87  | 83   | 34469    | 3.941     | ug/l # | 82     |
| 43) Isopropyl Acetate          | 9.28  | 43   | 32583    | 5.943     | ug/l # | 43     |
| 51) 4-Methyl-2-Pentanone       | 10.39 | 43   | 21289    | 6.338     | ug/l # | 80     |
| 55) 1,1,2-Trichloroethane      | 11.24 | 97   | 6319     | 1.448     | ug/l # | 53     |
| 56) Ethyl methacrylate         | 11.10 | 69   | 37264    | 8.156     | ug/l # | 1      |
| 59) 2-Hexanone                 | 11.48 | 43   | 24466    | 9.957     | ug/l # | 34     |
| 64) Tetrachloroethene          | 11.26 | 164  | 116430   | 25.163    | ug/l   | 96     |
| 74) N-amyl acetate             | 13.27 | 43   | 155482   | 34.026    | ug/l # | 44     |
| 75) 1,1,2,2-Tetrachloroethane  | 13.71 | 83   | 58953    | 18.619    | ug/l # | 62     |
| 76) 1,2,3-Trichloropropane     | 13.55 | 75   | 71274    | 22.001    | ug/l # | 50     |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75   | 87419    | 91.528    | ug/l # | 23     |
| 85) sec-Butylbenzene           | 14.37 | 105  | 17639    | 1.072     | ug/l   | 94     |
| 92) 1,2-Dibromo-3-Chloropropan | 15.33 | 75   | 715      | 1.874     | ug/l # | 1      |
| 96) 1,2,3-Trichlorobenzene     | 16.25 | 180  | 2398     | 1.697     | ug/l # | 1      |

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

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD031419\  
Data File : VD061065.D  
Acq On : 14 Mar 2019 15:26  
Operator : VA/AP  
Sample : K1901-01  
Misc : 2.73g/5ml/MSVOA D/SOIL  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
SB-1(0.5-1.5)

Quant Time: Mar 15 02:12:18 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D030719S.M  
Quant Title : SW846 8260  
QLast Update : Fri Mar 08 02:35:39 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.04 min Scan# 571

Delta R.T. 0.00 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

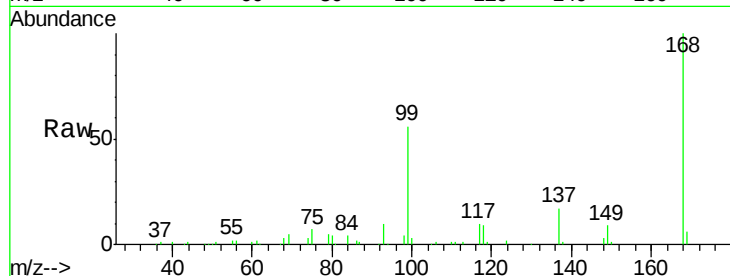
SB-1(0.5-1.5)

Tot Ion:168 Resp: 543014

Ion Ratio Lower Upper

168 100

99 55.5 47.3 70.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): V

7.04

200000

150000

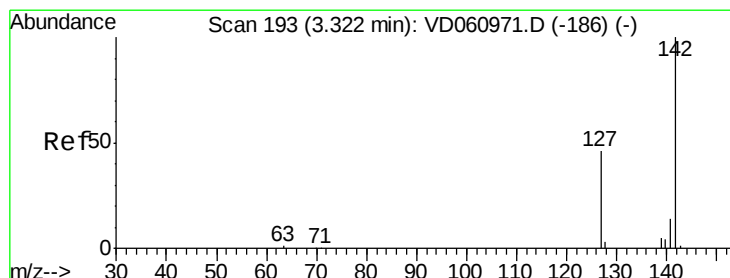
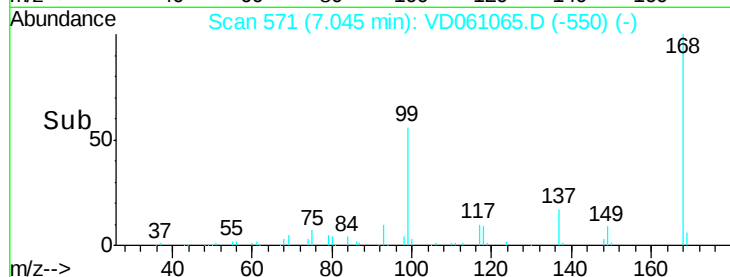
100000

50000

0

6.90 7.00 7.10 7.20

Time-->



#10

Methyl Iodide

Concen: 2.954 ug/l

RT: 3.34 min Scan# 195

Delta R.T. 0.02 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

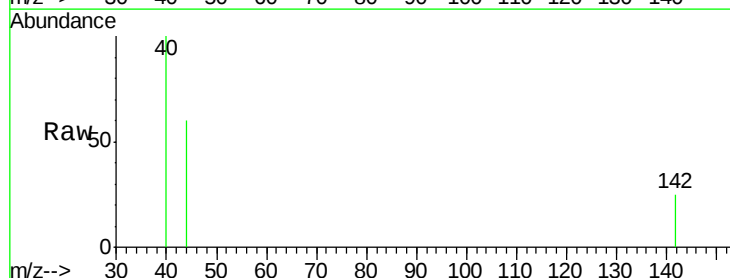
Tgt Ion:142 Resp: 195

Ion Ratio Lower Upper

142 100

127 0.0 36.8 55.2#

141 0.0 11.2 16.8#



Abundance Ion 141.85 (141.55 to 142.55): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.85 (140.55 to 141.55): V

3.34

400

300

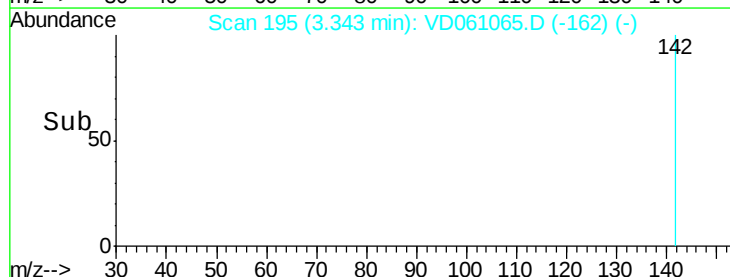
200

100

0

3.32 3.34 3.36

Time-->





#16

Acetone

Concen: 6.691 ug/l

RT: 3.23 min Scan# 184

Delta R.T. 0.01 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

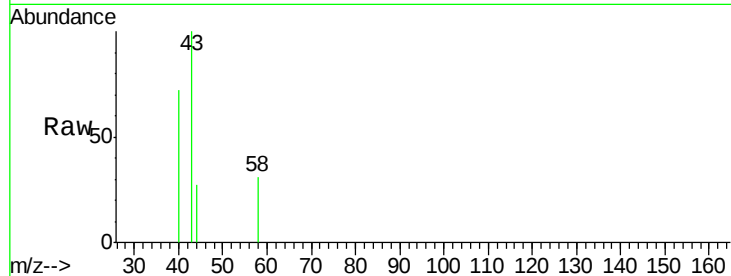
SB-1(0.5-1.5)

Tot Ion: 43 Resp: 8648

Ion Ratio Lower Upper

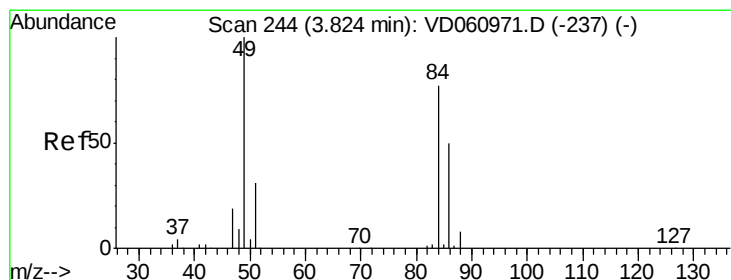
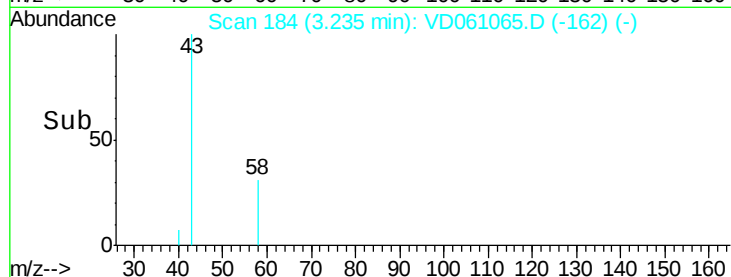
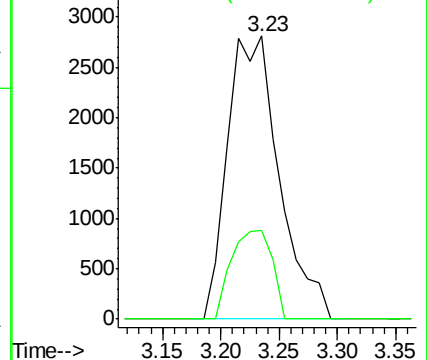
43 100

58 31.4 21.6 32.4



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#20

Methylene Chloride

Concen: Below Cal

RT: 3.83 min Scan# 244

Delta R.T. 0.00 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Tgt Ion: 84 Resp: 19285

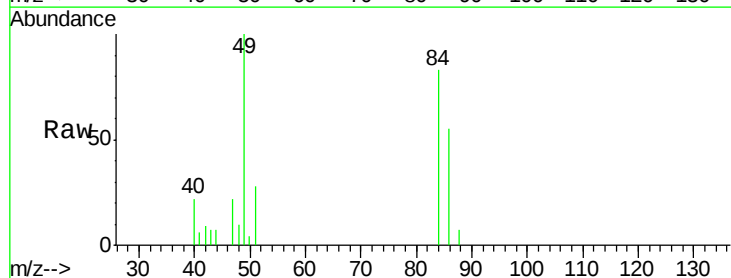
Ion Ratio Lower Upper

84 100

49 119.9 104.2 156.2

51 33.2 32.3 48.5

86 66.1 52.3 78.5

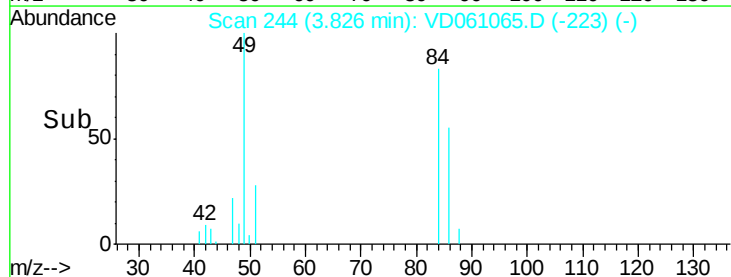
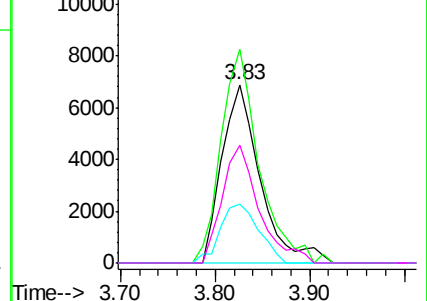


Abundance Ion 83.95 (83.65 to 84.65): VDC

Ion 48.90 (48.60 to 49.60): VDC

Ion 50.90 (50.60 to 51.60): VDC

Ion 85.90 (85.60 to 86.60): VDC





#33

1,2-Dichloroethane-d4

Concen: N.D. ug/l

RT: 7.46 min Scan# 613

Delta R.T. 0.01 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

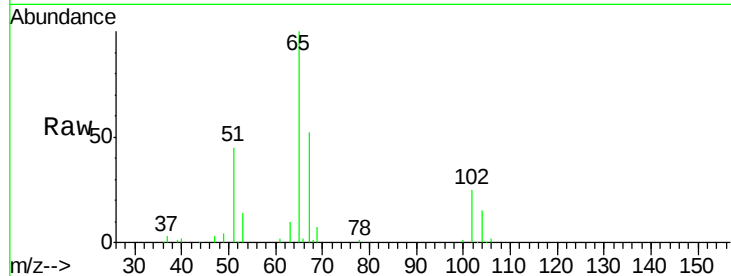
SB-1(0.5-1.5)

Tot Ion: 65 Resp: 266718

Ion Ratio Lower Upper

65 100

67 51.7 0.0 105.2



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC

7.46

100000

80000

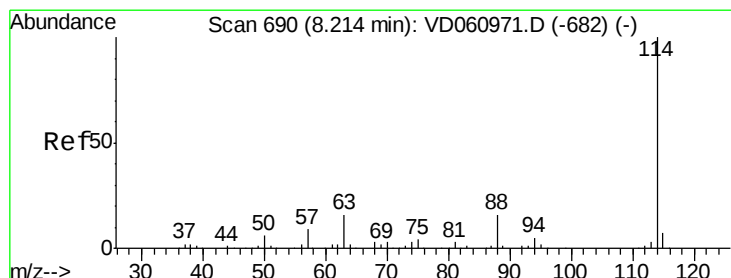
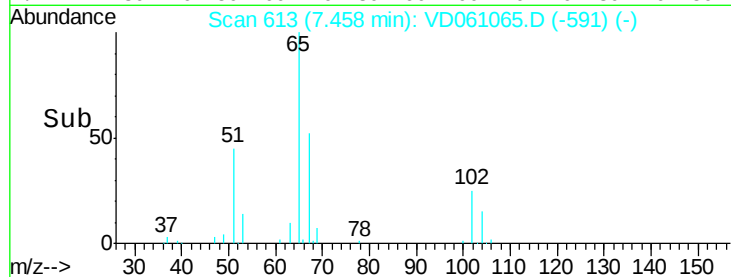
60000

40000

20000

0

Time--> 7.30 7.40 7.50 7.60



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.23 min Scan# 691

Delta R.T. 0.01 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

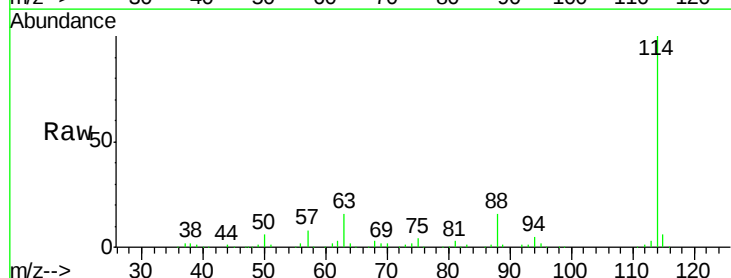
Tgt Ion: 114 Resp: 978658

Ion Ratio Lower Upper

114 100

63 15.8 0.0 31.4

88 16.1 0.0 33.0



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 62.95 (62.65 to 63.65): VDC

Ion 87.90 (87.60 to 88.60): VDC

500000

400000

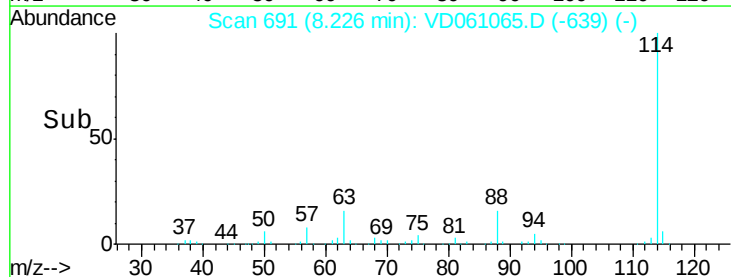
300000

200000

100000

0

Time--> 8.10 8.20 8.30 8.40 8.50

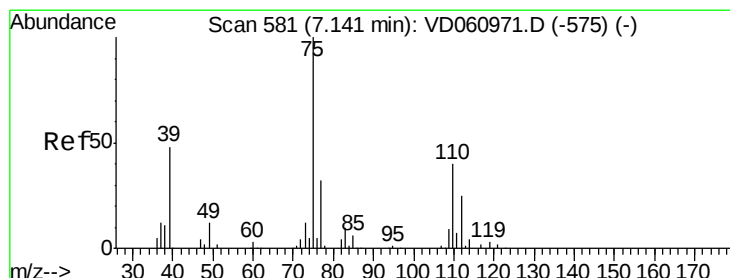
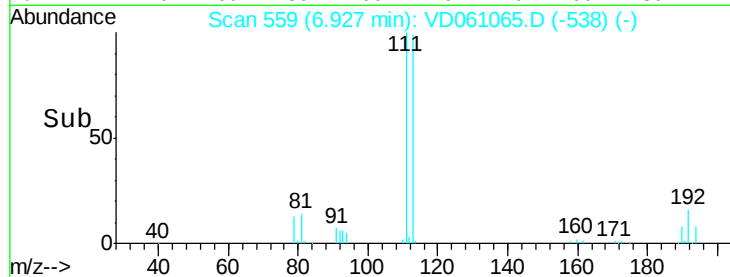
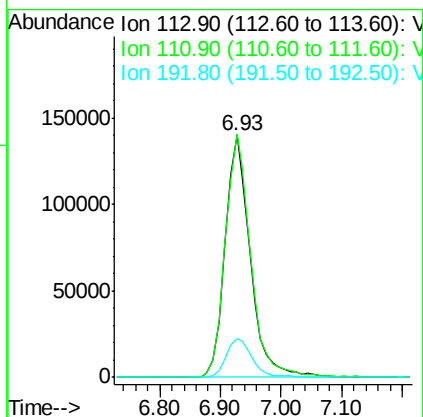
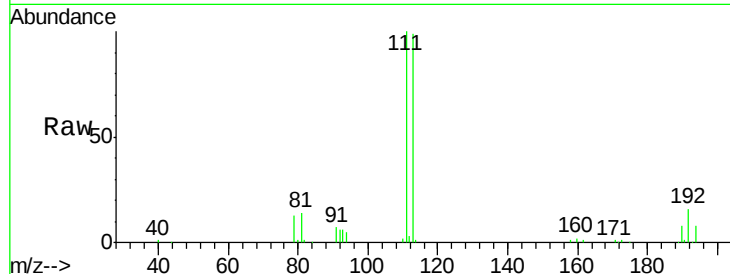




#35  
 Dibromofluoromethane  
 Concen: 50.000 ug/l  
 RT: 6.93 min Scan# 559  
 Delta R.T. 0.00 min  
 Lab File: VD061065.D  
 Acq: 14 Mar 2019 15:26

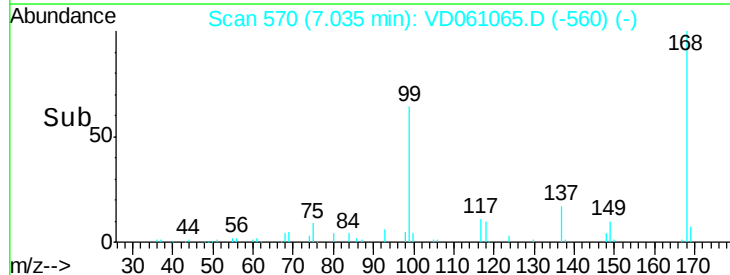
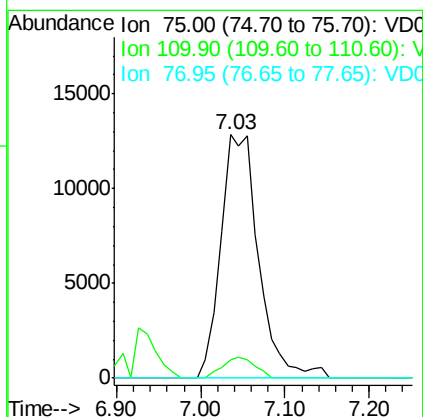
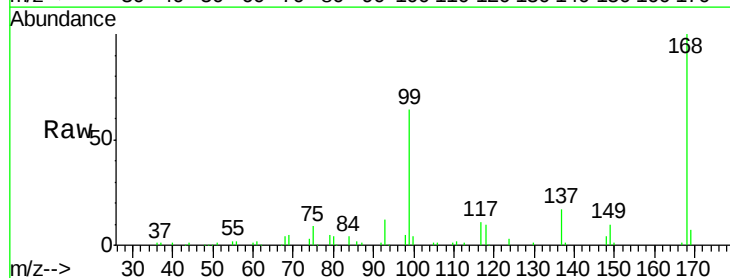
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 SB-1(0.5-1.5)

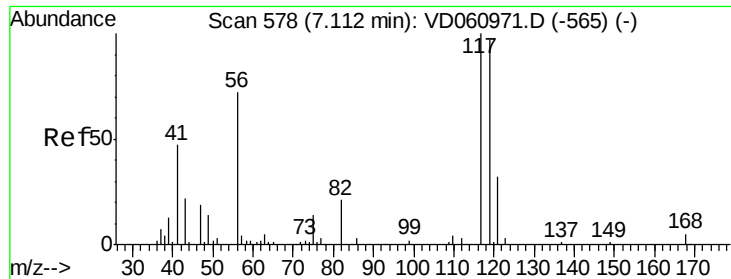
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 100.7 | 84.2  | 126.4 |
| 192     | 16.1  | 13.1  | 19.7  |



#36  
 1,1-Dichloropropene  
 Concen: 4.756 ug/l  
 RT: 7.03 min Scan# 570  
 Delta R.T. -0.11 min  
 Lab File: VD061065.D  
 Acq: 14 Mar 2019 15:26

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 7.6   | 19.7  | 59.1# |
| 77      | 0.0   | 24.7  | 37.1# |

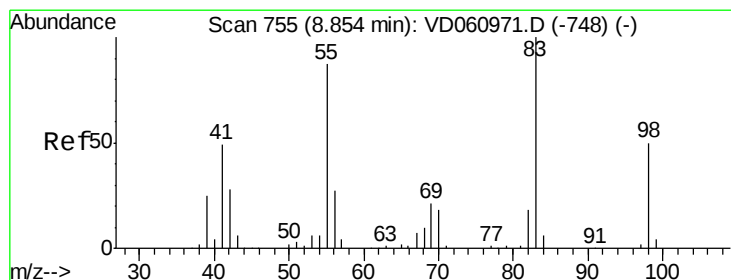
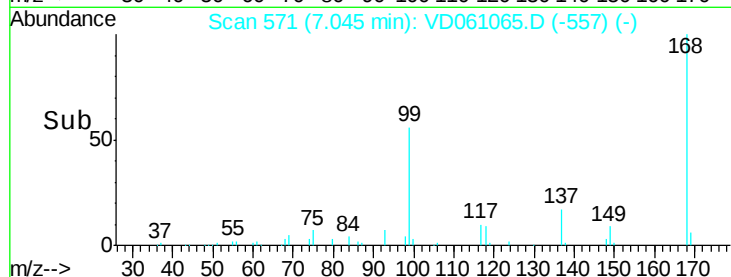
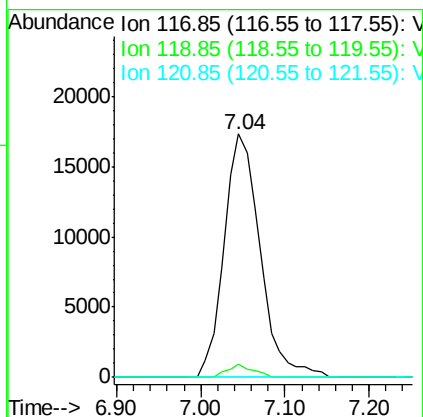
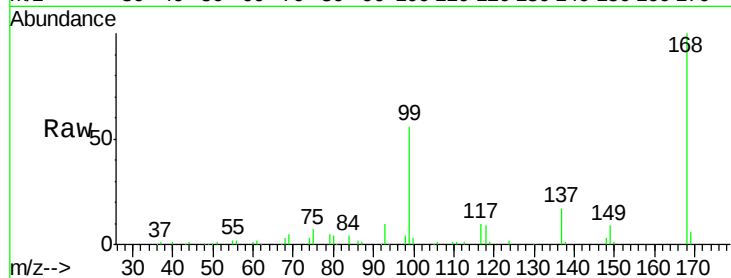




#38  
Carbon Tetrachloride  
Concen: 5.556 ug/l  
RT: 7.04 min Scan# 571  
Delta R.T. -0.07 min  
Lab File: VD061065.D  
Acq: 14 Mar 2019 15:26

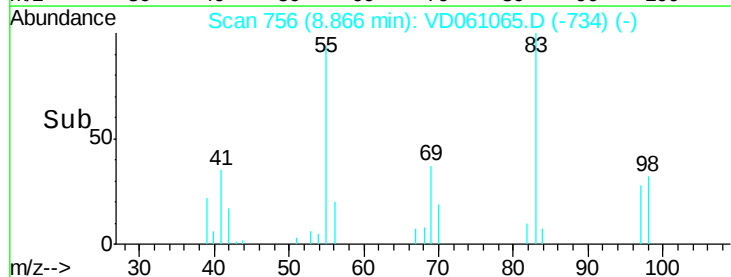
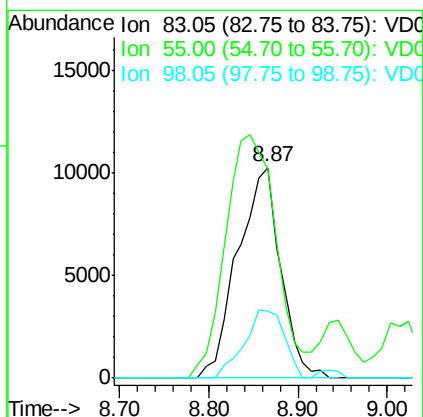
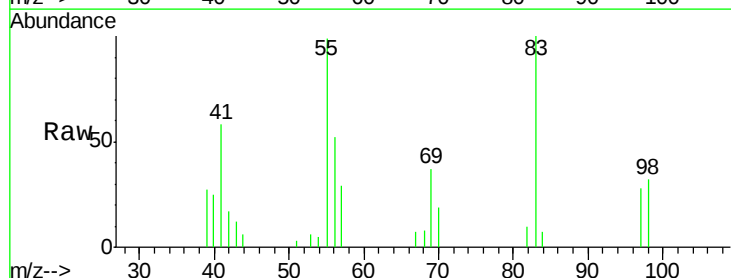
Instrument :  
MSVOA\_D  
ClientSampleId :  
SB-1(0.5-1.5)

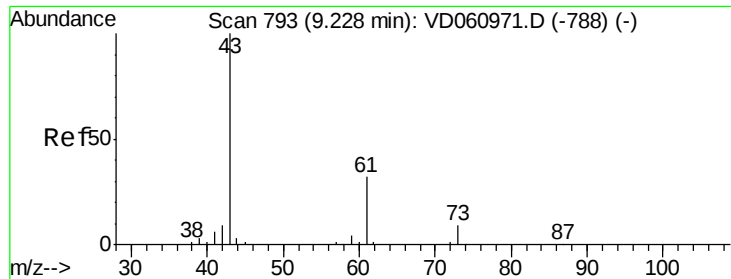
Tot Ion:117 Resp: 51624  
Ion Ratio Lower Upper  
117 100  
119 5.4 77.8 116.8#  
121 0.0 25.3 37.9#



#39  
Methylcyclohexane  
Concen: 3.941 ug/l  
RT: 8.87 min Scan# 756  
Delta R.T. 0.01 min  
Lab File: VD061065.D  
Acq: 14 Mar 2019 15:26

Tgt Ion: 83 Resp: 34469  
Ion Ratio Lower Upper  
83 100  
55 99.1 69.6 104.4  
98 31.6 40.0 60.0#





#43

Isopropyl Acetate

Concen: 5.943 ug/l

RT: 9.28 min Scan# 798

Delta R.T. 0.05 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

SB-1(0.5-1.5)

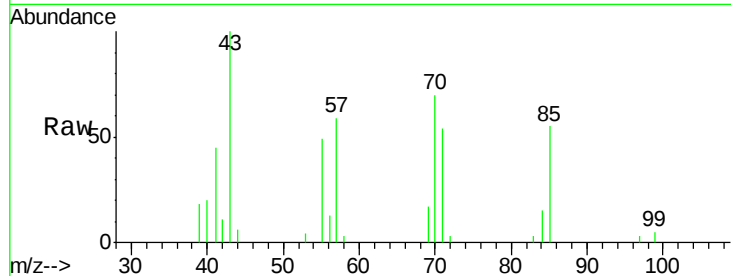
Tot Ion: 43 Resp: 32583

Ion Ratio Lower Upper

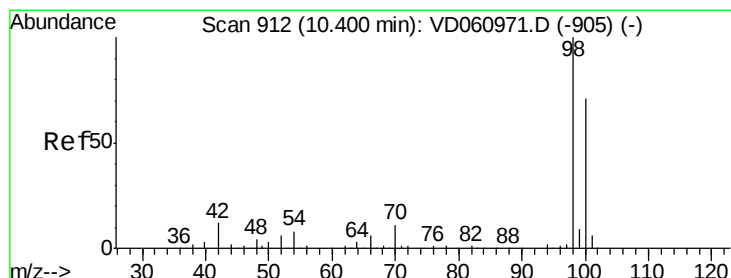
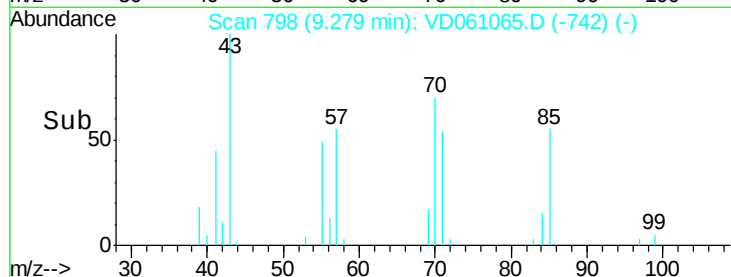
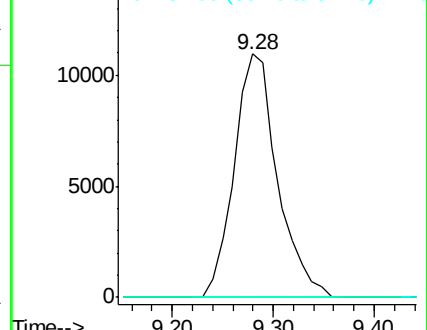
43 100

61 0.0 25.6 38.4#

87 0.0 0.2 0.4#



Abundance Ion 42.95 (42.65 to 43.65): VDC  
Ion 60.95 (60.65 to 61.65): VDC  
Ion 87.00 (86.70 to 87.70): VDC



#50

Toluene-d8

Concen: N.D. ug/l

RT: 10.41 min Scan# 913

Delta R.T. 0.01 min

Lab File: VD061065.D

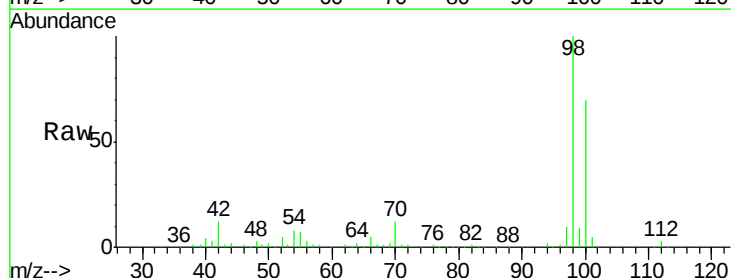
Acq: 14 Mar 2019 15:26

Tgt Ion: 98 Resp: 885544

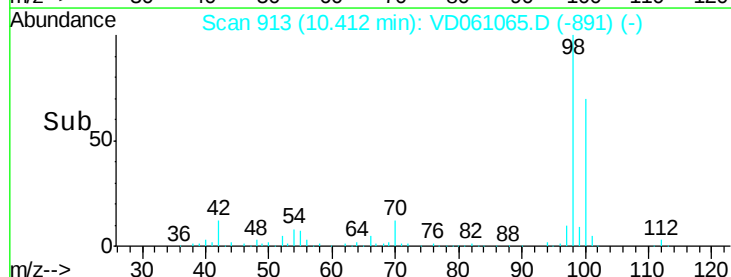
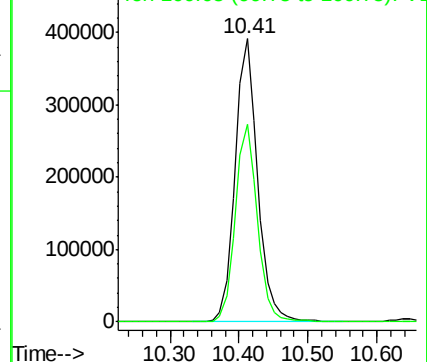
Ion Ratio Lower Upper

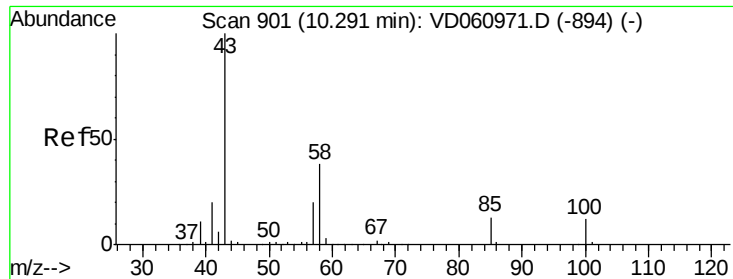
98 100

100 69.9 57.4 86.2



Abundance Ion 98.05 (97.75 to 98.75): VDC  
Ion 100.05 (99.75 to 100.75): VDC





#51

4-Methyl-2-Pentanone

Concen: 6.338 ug/l

RT: 10.39 min Scan# 911

Delta R.T. 0.10 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

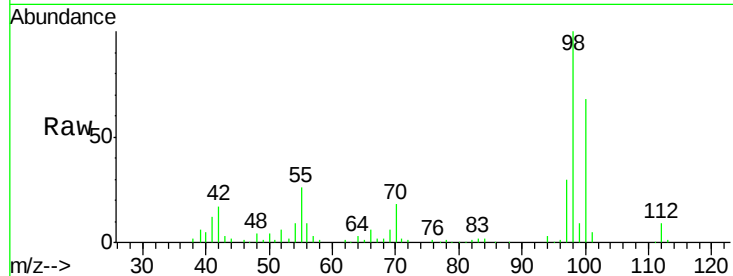
SB-1(0.5-1.5)

Tot Ion: 43 Resp: 21289

Ion Ratio Lower Upper

43 100

58 25.5 30.2 45.2#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC

10.39

5000

4000

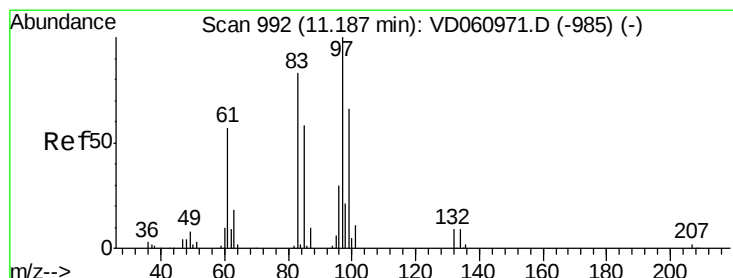
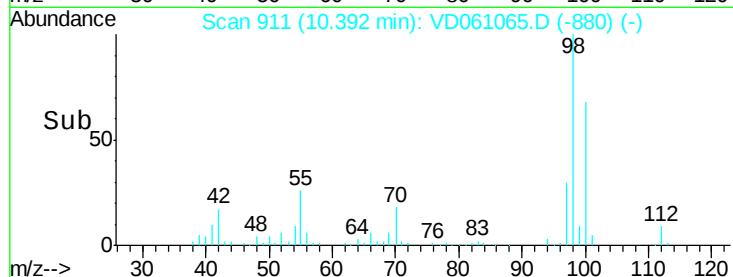
3000

2000

1000

0

Time-->



#55

1,1,2-Trichloroethane

Concen: 1.448 ug/l

RT: 11.24 min Scan# 997

Delta R.T. 0.05 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Tgt Ion: 97 Resp: 6319

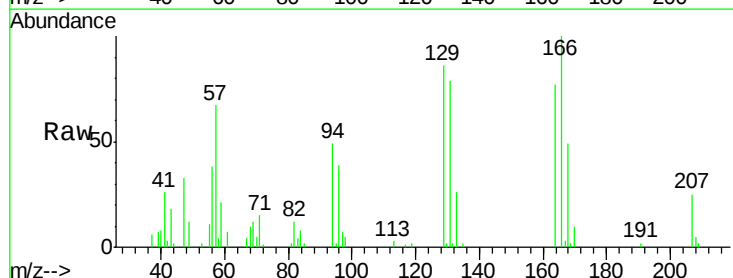
Ion Ratio Lower Upper

97 100

83 57.6 66.6 100.0#

85 33.7 46.4 69.6#

99 0.0 52.4 78.6#



Abundance Ion 96.85 (96.55 to 97.55): VDC

Ion 82.95 (82.65 to 83.65): VDC

Ion 84.95 (84.65 to 85.65): VDC

Ion 98.85 (98.55 to 99.55): VDC

50000

40000

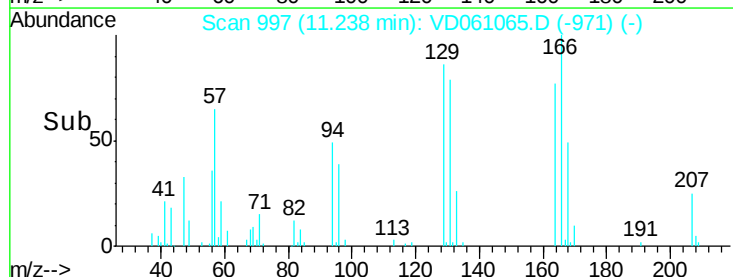
30000

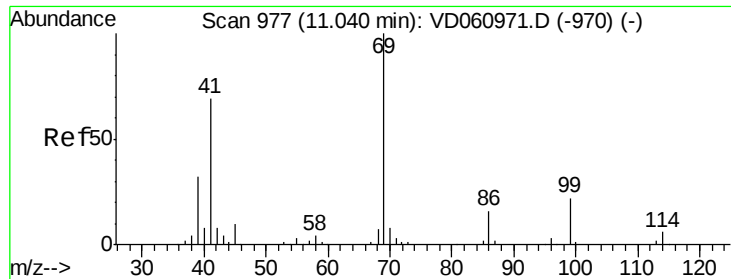
20000

10000

0

Time-->

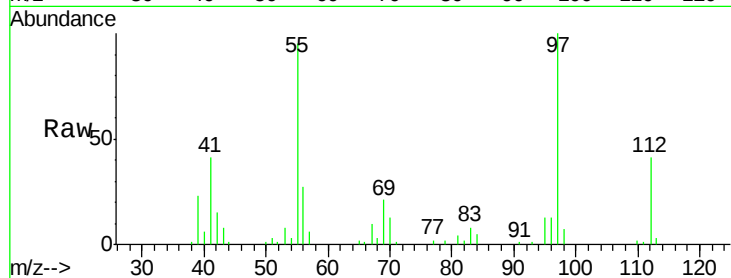




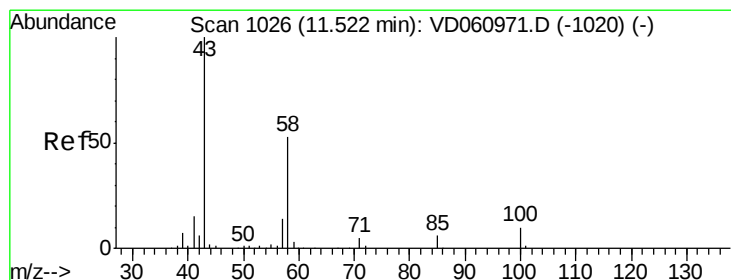
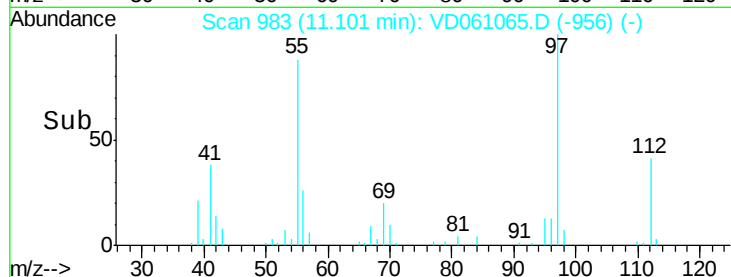
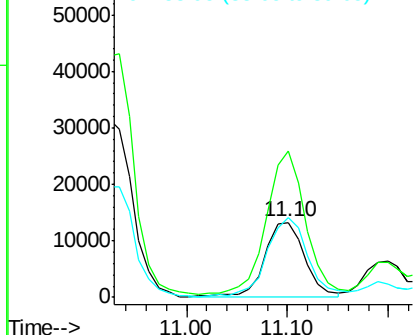
#56  
Ethyl methacrylate  
Concen: 8.156 ug/l  
RT: 11.10 min Scan# 983  
Delta R.T. 0.06 min  
Lab File: VD061065.D  
Acq: 14 Mar 2019 15:26

Instrument :  
MSVOA\_D  
ClientSampleID :  
SB-1(0.5-1.5)

Tot Ion: 69 Resp: 37264  
Ion Ratio Lower Upper  
69 100  
41 195.2 55.5 83.3#  
39 106.2 26.2 39.2#

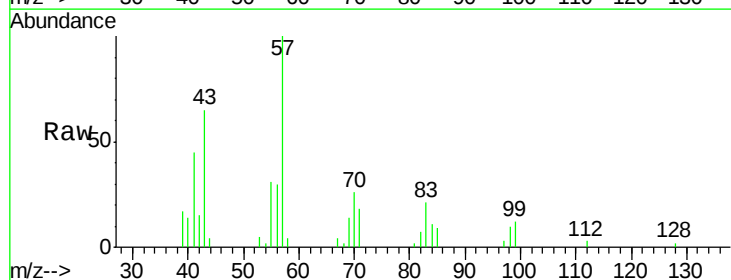


Abundance Ion 69.00 (68.70 to 69.70): VDC  
Ion 41.05 (40.75 to 41.75): VDC  
Ion 38.95 (38.65 to 39.65): VDC

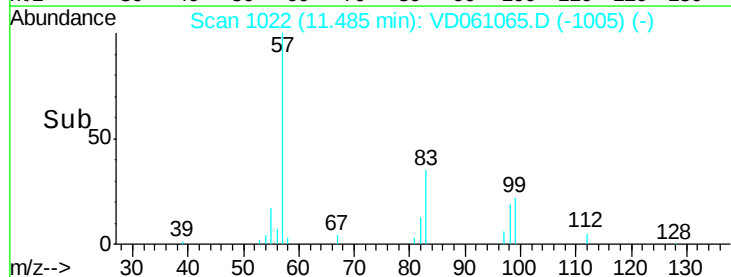
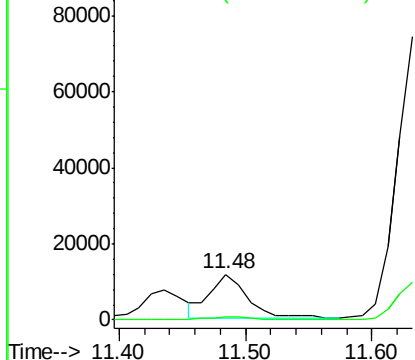


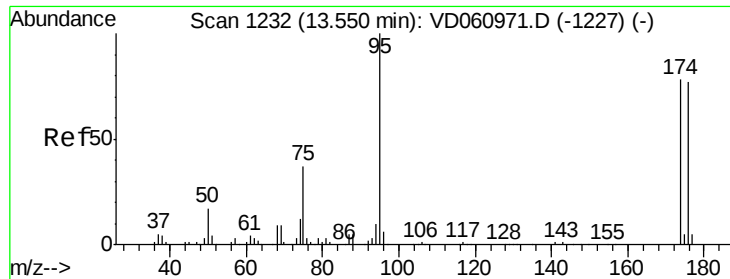
#59  
2-Hexanone  
Concen: 9.957 ug/l  
RT: 11.48 min Scan# 1022  
Delta R.T. -0.04 min  
Lab File: VD061065.D  
Acq: 14 Mar 2019 15:26

Tgt Ion: 43 Resp: 24466  
Ion Ratio Lower Upper  
43 100  
58 6.2 26.5 79.5#



Abundance Ion 42.95 (42.65 to 43.65): VDC  
Ion 57.95 (57.65 to 58.65): VDC





#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 13.55 min Scan# 1232

Delta R.T. 0.00 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

SB-1(0.5-1.5)

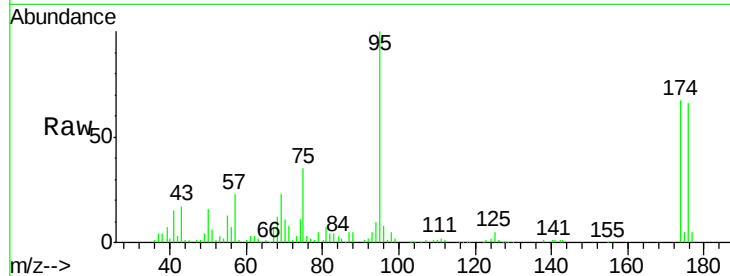
Tot Ion: 95 Resp: 267133

Ion Ratio Lower Upper

95 100

174 67.1 0.0 155.6

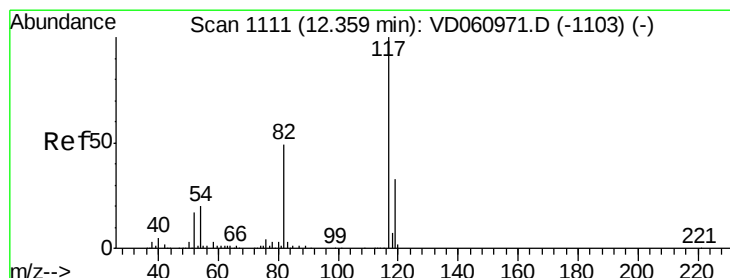
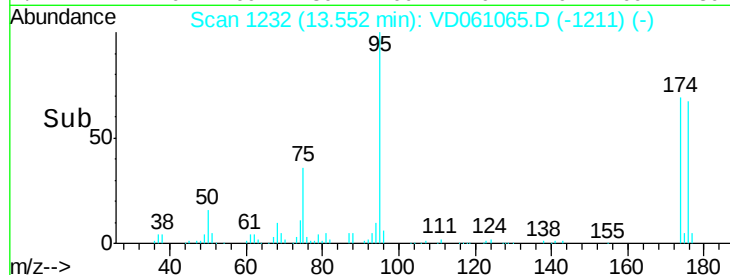
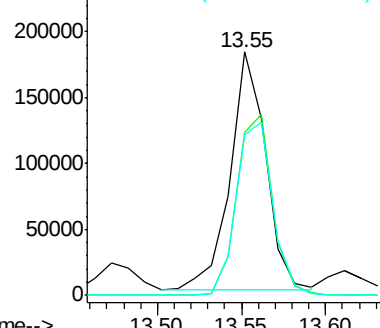
176 65.9 0.0 153.8



Abundance Ion 95.00 (94.70 to 95.70): V

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 12.37 min Scan# 1112

Delta R.T. 0.01 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

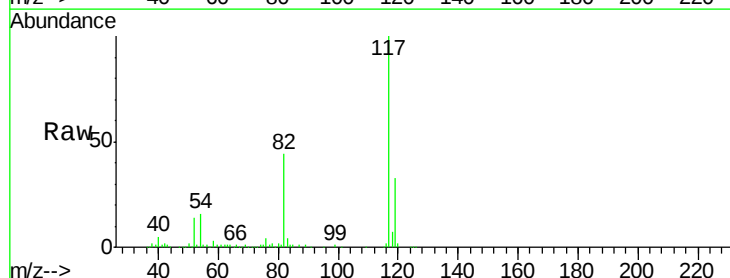
Tgt Ion: 117 Resp: 685442

Ion Ratio Lower Upper

117 100

82 44.5 38.9 58.3

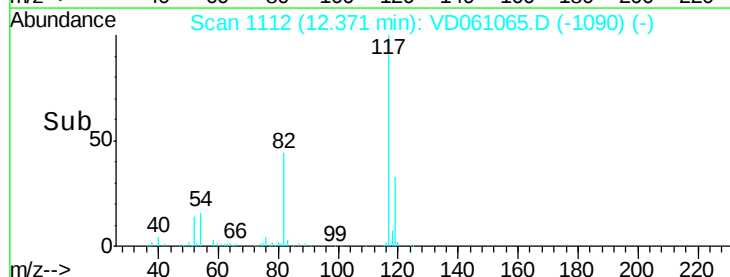
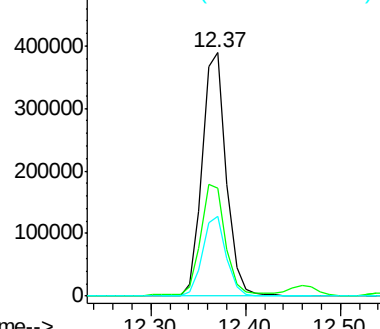
119 32.8 26.6 39.8

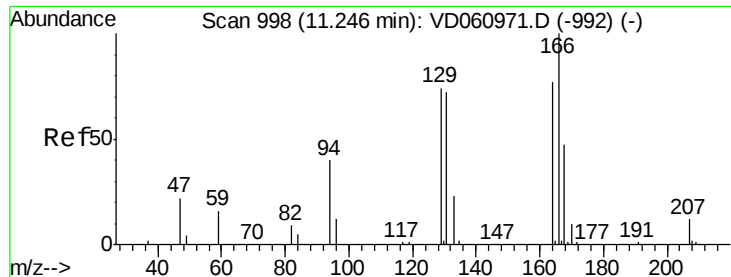


Abundance Ion 116.95 (116.65 to 117.65): V

Ion 82.05 (81.75 to 82.75): V

Ion 118.95 (118.65 to 119.65): V

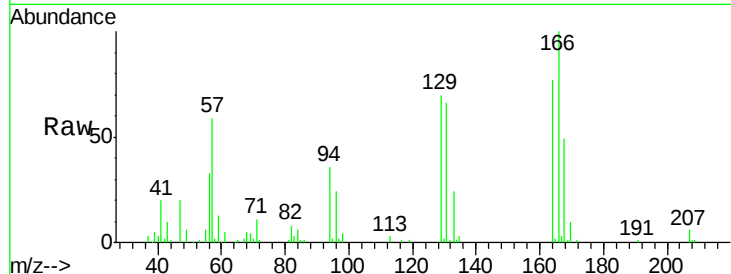




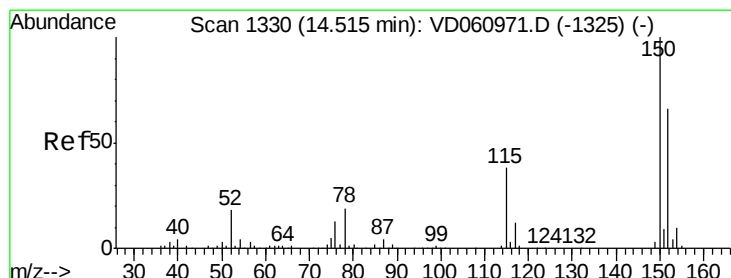
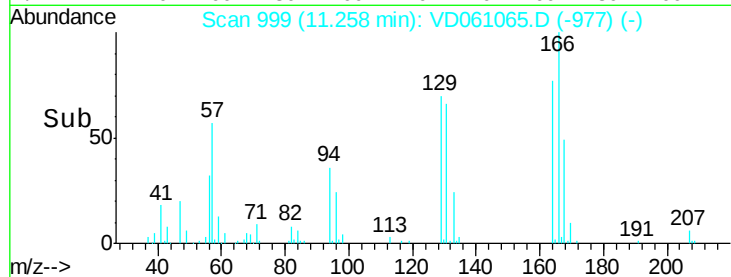
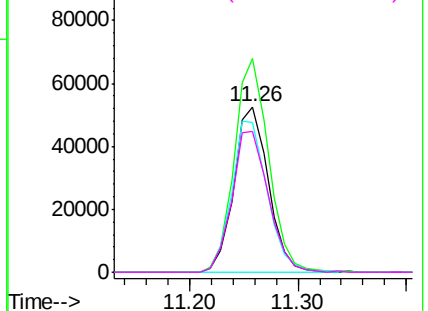
#64  
Tetrachloroethene  
Concen: 25.163 ug/l  
RT: 11.26 min Scan# 999  
Delta R.T. 0.01 min  
Lab File: VD061065.D  
Acq: 14 Mar 2019 15:26

Instrument :  
MSVOA\_D  
ClientSampleId :  
SB-1(0.5-1.5)

Tot Ion:164 Resp: 116430  
Ion Ratio Lower Upper  
164 100  
166 129.2 103.4 155.0  
129 90.4 76.9 115.3  
131 85.2 74.4 111.6

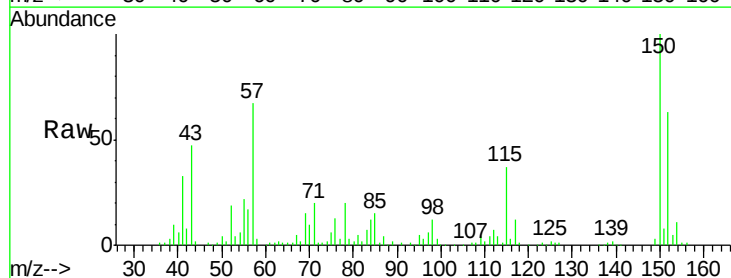


Abundance Ion 163.85 (163.55 to 164.55): V  
Ion 165.85 (165.55 to 166.55): V  
Ion 128.80 (128.50 to 129.50): V  
Ion 130.80 (130.50 to 131.50): V

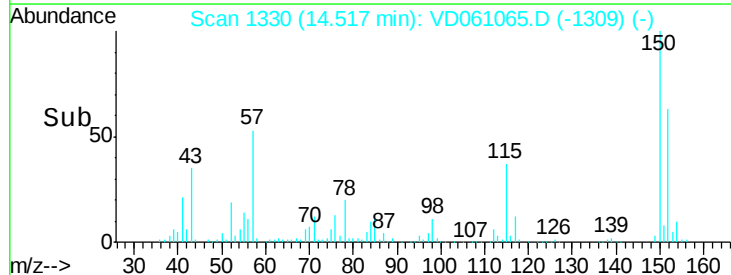
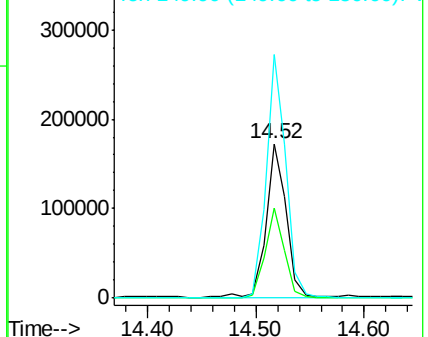


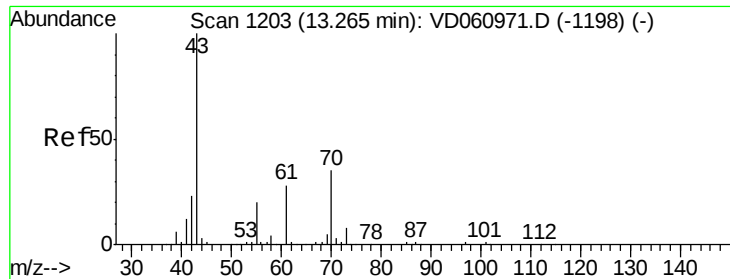
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.52 min Scan# 1330  
Delta R.T. 0.00 min  
Lab File: VD061065.D  
Acq: 14 Mar 2019 15:26

Tgt Ion:152 Resp: 225180  
Ion Ratio Lower Upper  
152 100  
115 58.2 28.6 85.9  
150 157.7 0.0 310.6



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 115.00 (114.70 to 115.70): V  
Ion 149.90 (149.60 to 150.60): V





#74

N-amvl acetate

Concen: 34.026 ug/l

RT: 13.27 min Scan# 1203

Delta R.T. 0.00 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

SB-1(0.5-1.5)

Tot Ion: 43 Resp: 155482

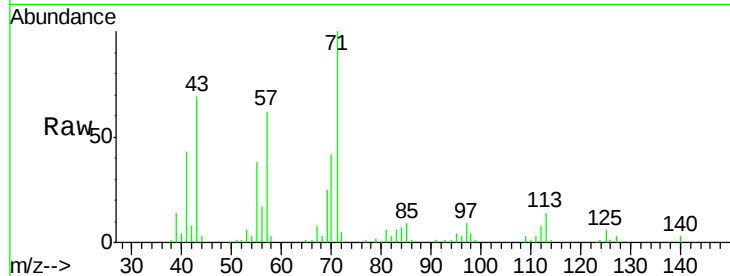
Ion Ratio Lower Upper

43 100

70 61.4 27.7 41.5#

55 55.5 16.2 24.2#

61 0.0 22.3 33.5#

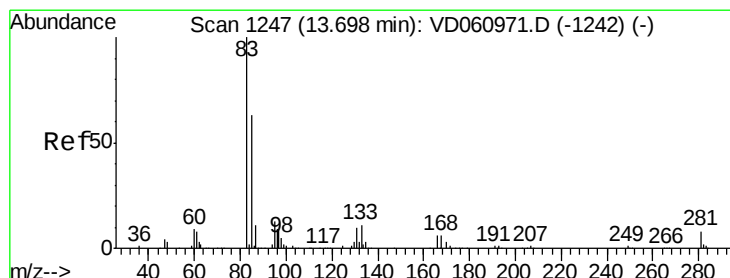
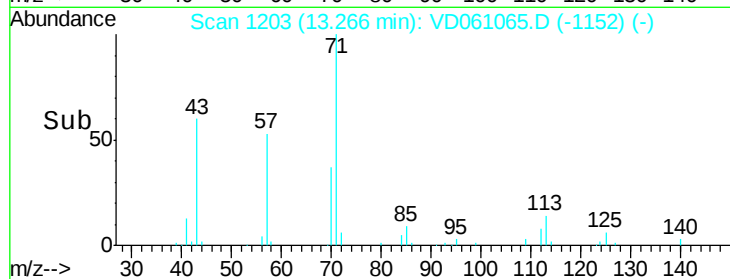
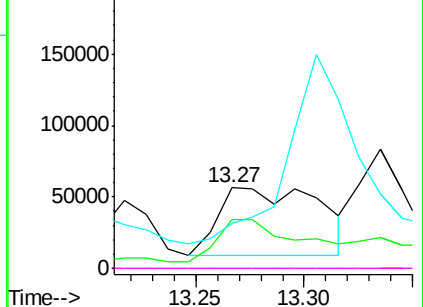


Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 70.00 (69.70 to 70.70): VDC

Ion 55.00 (54.70 to 55.70): VDC

Ion 60.95 (60.65 to 61.65): VDC



#75

1,1,2,2-Tetrachloroethane

Concen: 18.619 ug/l

RT: 13.71 min Scan# 1248

Delta R.T. 0.01 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

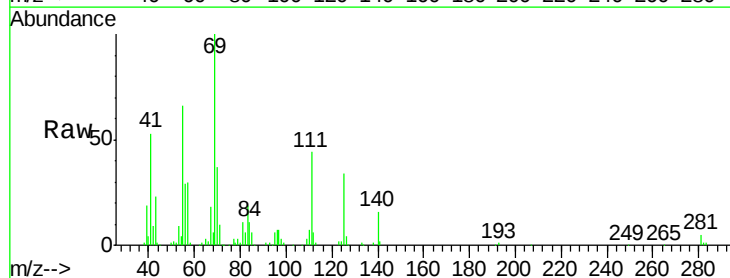
Tgt Ion: 83 Resp: 58953

Ion Ratio Lower Upper

83 100

131 0.0 5.1 15.3#

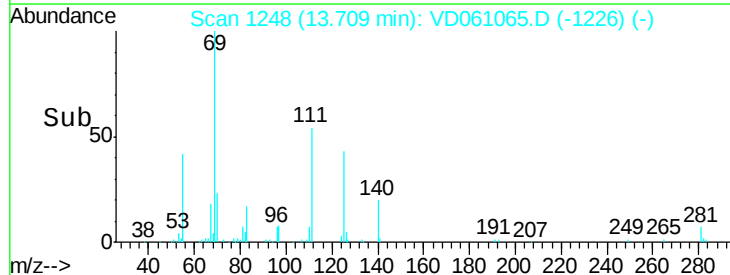
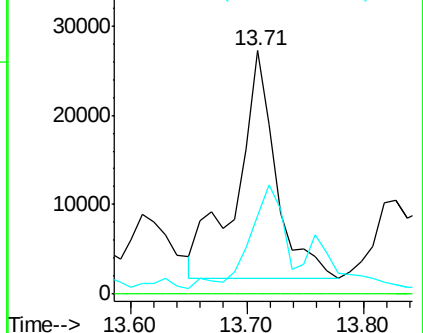
85 32.5 31.5 94.5

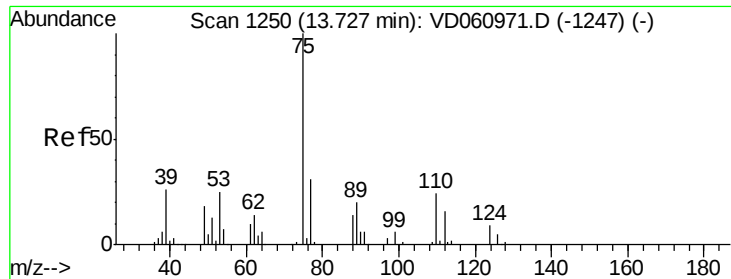


Abundance Ion 82.95 (82.65 to 83.65): VDC

Ion 130.90 (130.60 to 131.60): V

Ion 84.95 (84.65 to 85.65): VDC

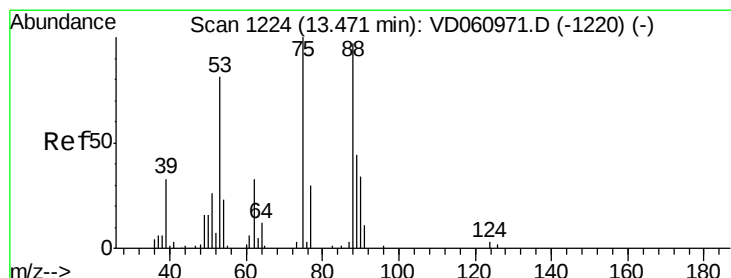
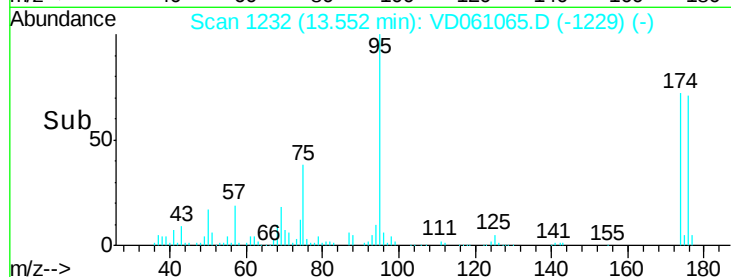
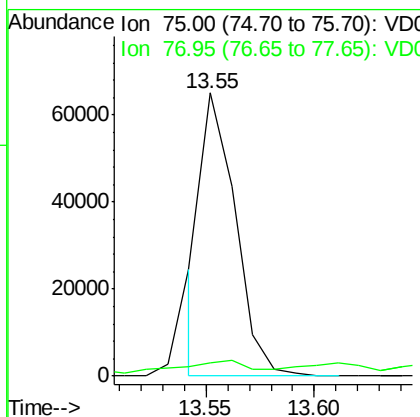
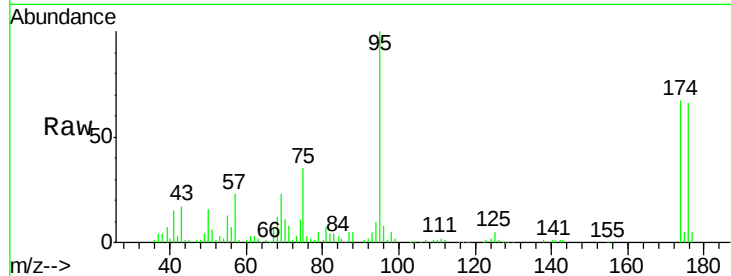




#76  
 1,2,3-Trichloropropane  
 Concen: 22.001 ug/l  
 RT: 13.55 min Scan# 1232  
 Delta R.T. -0.18 min  
 Lab File: VD061065.D  
 Acq: 14 Mar 2019 15:26

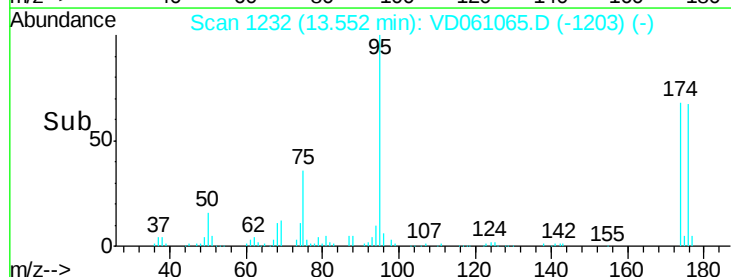
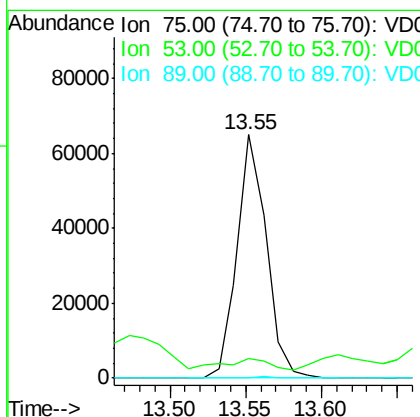
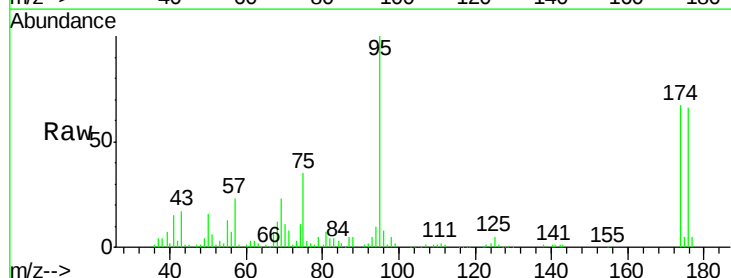
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 SB-1(0.5-1.5)

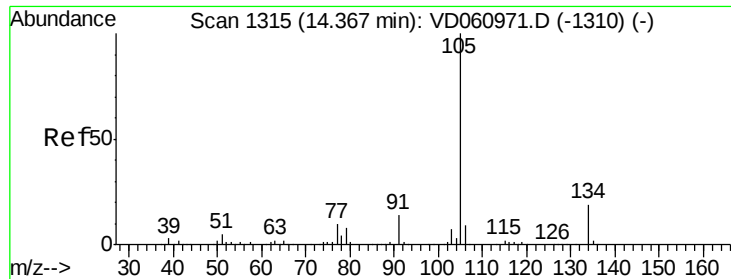
Tot Ion: 75 Resp: 71274  
 Ion Ratio Lower Upper  
 75 100  
 77 4.7 16.6 49.7#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 91.528 ug/l  
 RT: 13.55 min Scan# 1232  
 Delta R.T. 0.08 min  
 Lab File: VD061065.D  
 Acq: 14 Mar 2019 15:26

Tgt Ion: 75 Resp: 87419  
 Ion Ratio Lower Upper  
 75 100  
 53 8.1 64.4 96.6#  
 89 0.0 34.8 52.2#





#85

sec-Butylbenzene

Concen: 1.072 ug/l

RT: 14.37 min Scan# 1315

Delta R.T. 0.00 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

Instrument :

MSVOA\_D

ClientSampleId :

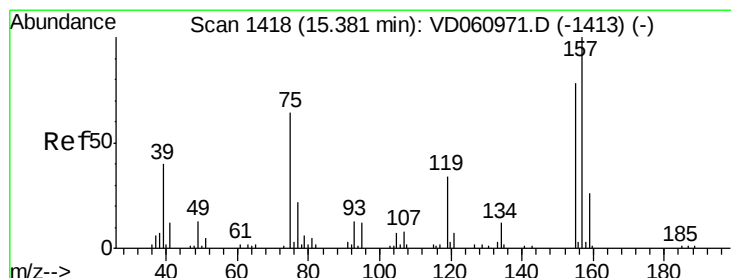
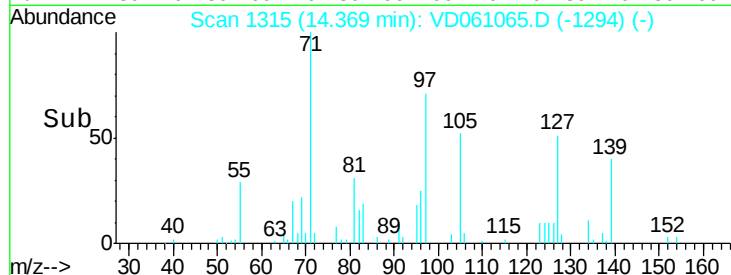
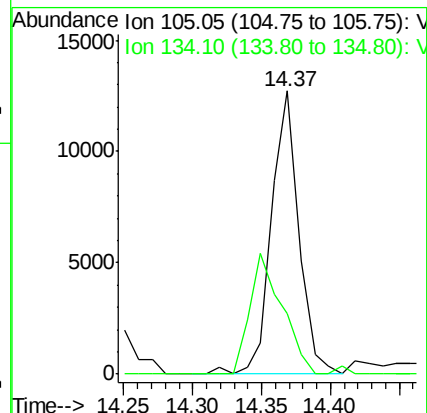
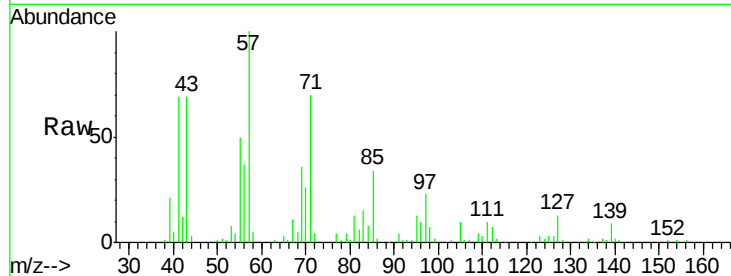
SB-1(0.5-1.5)

Tot Ion:105 Resp: 17639

Ion Ratio Lower Upper

105 100

134 21.6 9.4 28.2



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.874 ug/l

RT: 15.33 min Scan# 1413

Delta R.T. -0.05 min

Lab File: VD061065.D

Acq: 14 Mar 2019 15:26

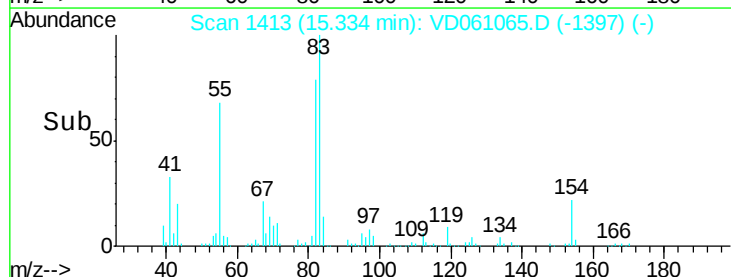
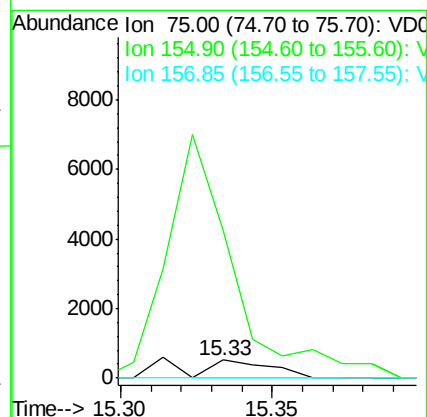
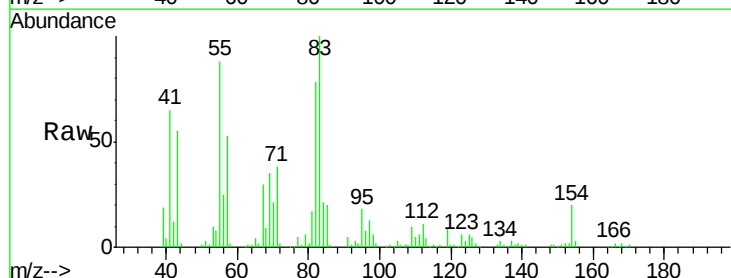
Tgt Ion: 75 Resp: 715

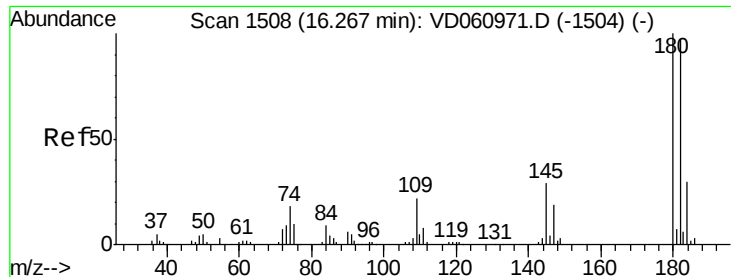
Ion Ratio Lower Upper

75 100

155 813.2 61.2 183.5#

157 0.0 78.3 234.8#





#96  
 1,2,3-Trichlorobenzene  
 Concen: 1.697 ug/l  
 RT: 16.25 min Scan# 1506  
 Delta R.T. -0.02 min  
 Lab File: VD061065.D  
 Acq: 14 Mar 2019 15:26

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 SB-1(0.5-1.5)

Tot Ion:180 Resp: 2398  
 Ion Ratio Lower Upper  
 180 100  
 182 56.3 48.6 145.8  
 145 187.6 14.3 42.9#

