

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD041720\  
 Data File : VD065653.D  
 Acq On : 17 Apr 2020 19:19  
 Operator : VA/SY  
 Sample : L2327-23  
 Misc : 6.22G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Apr 20 07:02:34 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D041520S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 15 19:43:39 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 149812   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 259805   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 332325   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 150589   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65  | 91653    | 71.92 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 143.84% |      |
| 35) Dibromofluoromethane  | 7.92   | 113 | 88193    | 54.54 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.08% |      |
| 50) Toluene-d8            | 10.34  | 98  | 431945   | 72.47 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 144.94% |      |
| 62) 4-Bromofluorobenzene  | 12.64  | 95  | 128186   | 64.63 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 129.26% |      |

## Target Compounds

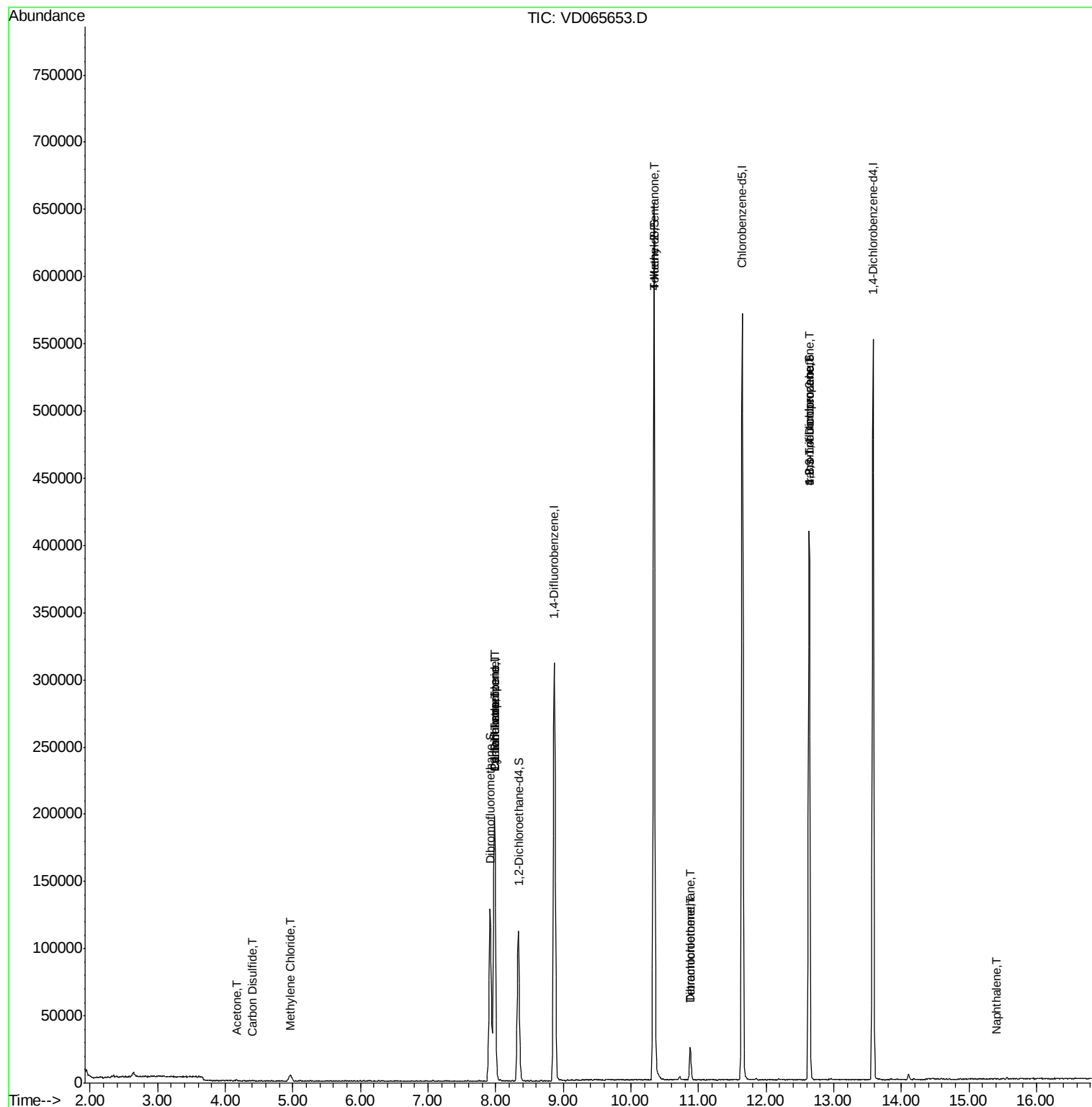
|                                |       |     |       |         |        | Qvalue |
|--------------------------------|-------|-----|-------|---------|--------|--------|
| 16) Acetone                    | 4.17  | 43  | 1097  | 6.019   | ug/l # | 46     |
| 17) Carbon Disulfide           | 4.39  | 76  | 268   | 6.075   | ug/l # | 75     |
| 20) Methylene Chloride         | 4.96  | 84  | 3594  | 1.262   | ug/l # | 83     |
| 31) Cyclohexane                | 7.98  | 56  | 3514  | 1.464   | ug/l # | 40     |
| 36) 1,1-Dichloropropene        | 7.98  | 75  | 11387 | 4.539   | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.98  | 117 | 15107 | 5.622   | ug/l # | 17     |
| 51) 4-Methyl-2-Pentanone       | 10.34 | 43  | 1869  | 11.463  | ug/l # | 1      |
| 60) Dibromochloromethane       | 10.88 | 129 | 4809  | 2.820   | ug/l # | 11     |
| 64) Tetrachloroethene          | 10.88 | 164 | 5974  | 2.505   | ug/l   | 95     |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75  | 62650 | 51.743  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75  | 62650 | 113.402 | ug/l # | 11     |
| 95) Naphthalene                | 15.41 | 128 | 243   | 4.152   | ug/l # | 69     |

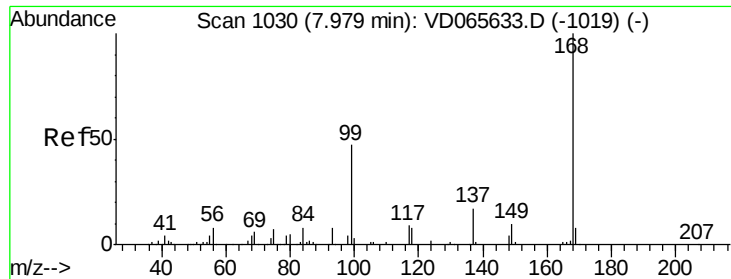
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_D  
ClientSampleId :

Quant Time: Apr 20 07:02:34 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D041520S.M  
Quant Title : SW846 8260  
QLast Update : Wed Apr 15 19:43:39 2020  
Response via : Initial Calibration

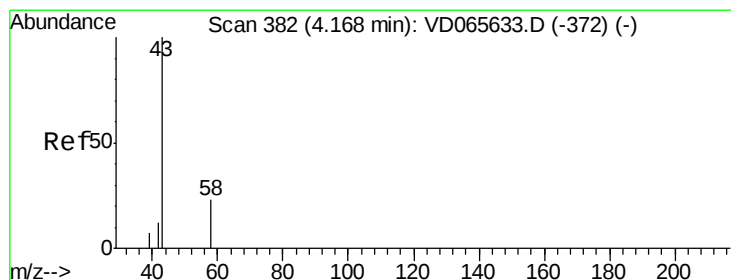
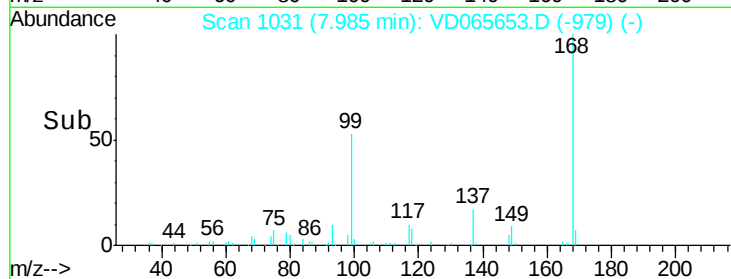
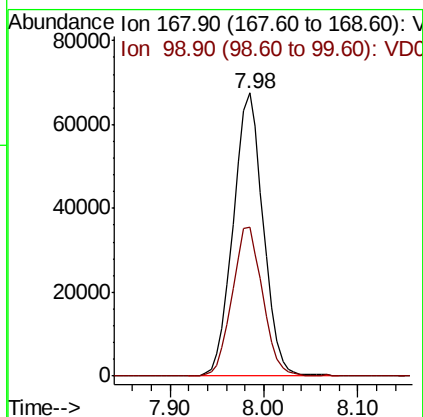
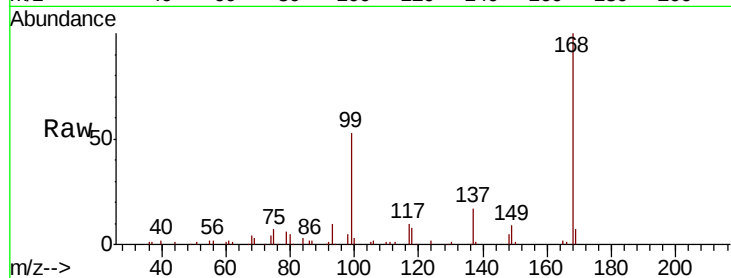




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 7.98 min Scan# 1031  
Delta R.T. 0.01 min  
Lab File: VD065653.D  
Acq: 17 Apr 2020 19:19

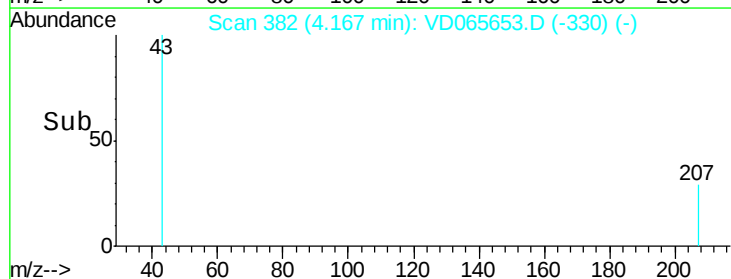
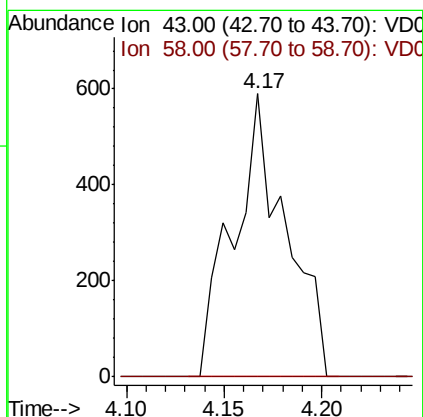
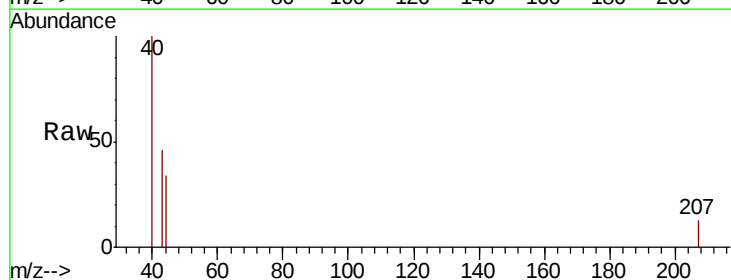
Instrument :  
MSVOA\_D  
ClientSampleId :

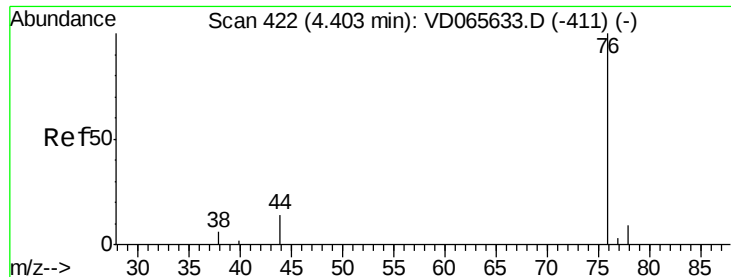
Tot Ion:168 Resp: 149812  
Ion Ratio Lower Upper  
168 100  
99 52.7 40.3 60.5



#16  
Acetone  
Concen: 6.019 ug/l  
RT: 4.17 min Scan# 382  
Delta R.T. 0.01 min  
Lab File: VD065653.D  
Acq: 17 Apr 2020 19:19

Tgt Ion: 43 Resp: 1097  
Ion Ratio Lower Upper  
43 100  
58 0.0 22.9 34.3#





#17

Carbon Disulfide

Concen: 6.075 ug/l

RT: 4.39 min Scan# 420

Delta R.T. -0.01 min

Lab File: VD065653.D

Acq: 17 Apr 2020 19:19

Instrument :

MSVOA\_D

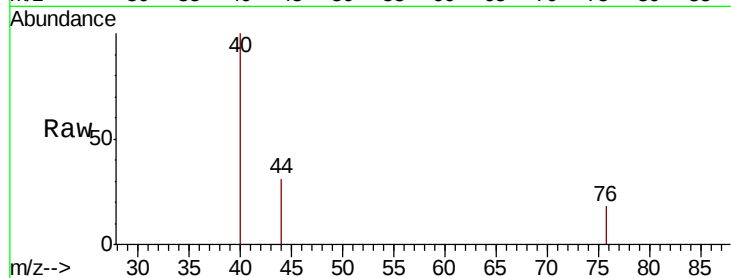
ClientSampled :

Tot Ion: 76 Resp: 268

Ion Ratio Lower Upper

76 100

78 0.0 7.3 10.9#



Abundance Ion 75.90 (75.60 to 76.60): VDC

Ion 77.90 (77.60 to 78.60): VDC

4.39

250

200

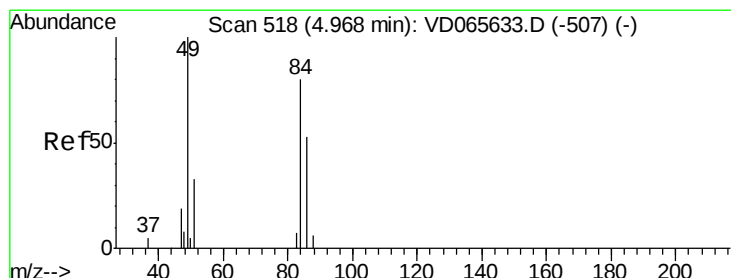
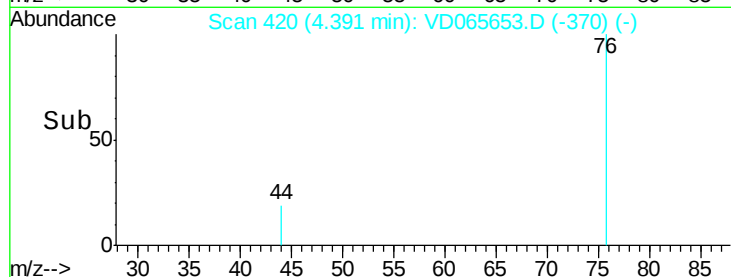
150

100

50

0

Time-->



#20

Methylene Chloride

Concen: 1.262 ug/l

RT: 4.96 min Scan# 517

Delta R.T. 0.00 min

Lab File: VD065653.D

Acq: 17 Apr 2020 19:19

Tgt Ion: 84 Resp: 3594

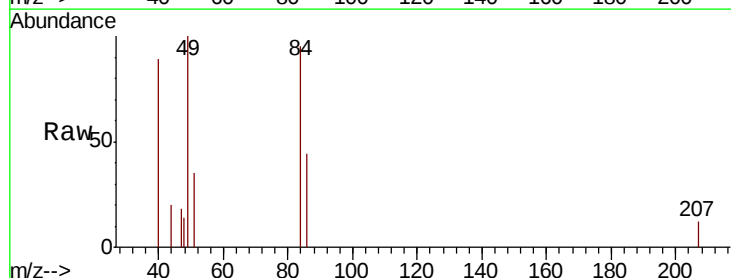
Ion Ratio Lower Upper

84 100

49 105.6 102.0 153.0

51 37.5 30.8 46.2

86 46.6 51.0 76.4#



Abundance Ion 83.90 (83.60 to 84.60): 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

4.96

2000

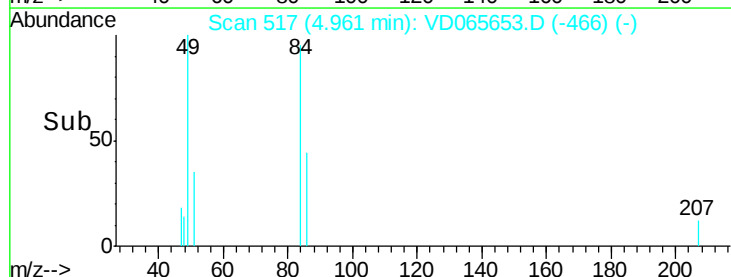
1500

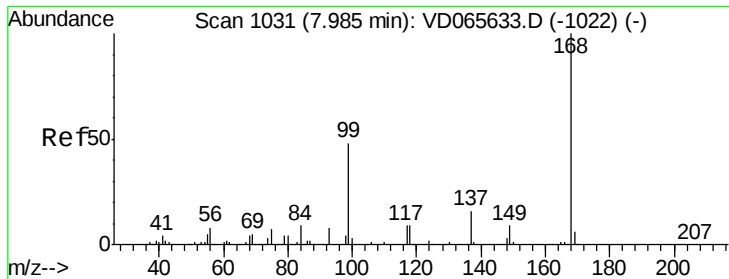
1000

500

0

Time-->

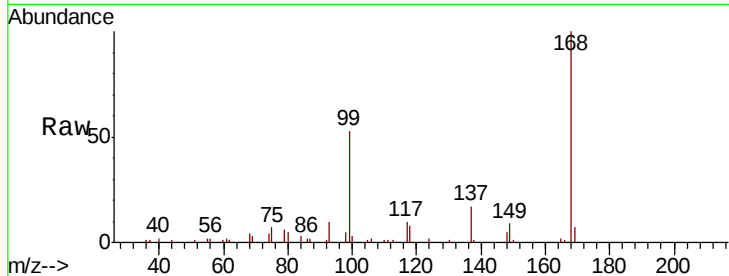




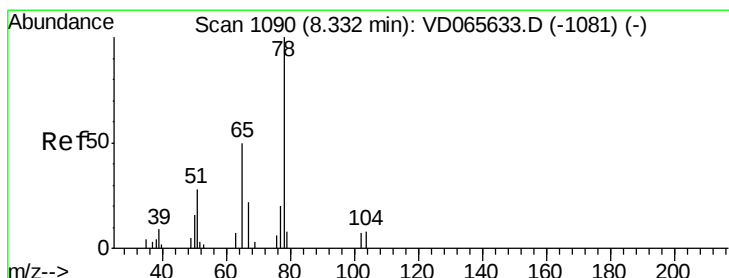
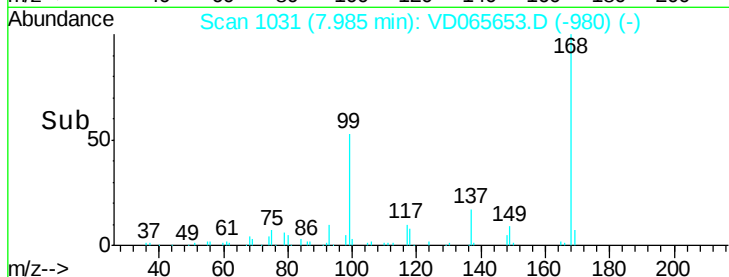
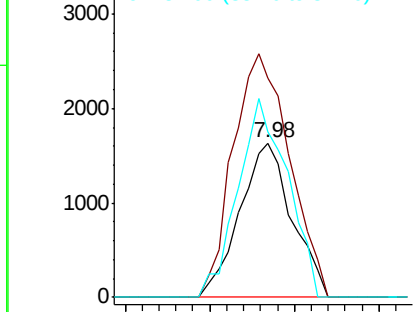
#31  
Cyclohexane  
Concen: 1.464 ug/l  
RT: 7.98 min Scan# 1031  
Delta R.T. -0.00 min  
Lab File: VD065653.D  
Acq: 17 Apr 2020 19:19

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 56 Resp: 3514  
Ion Ratio Lower Upper  
56 100  
69 142.1 26.6 40.0#  
84 107.3 75.3 112.9

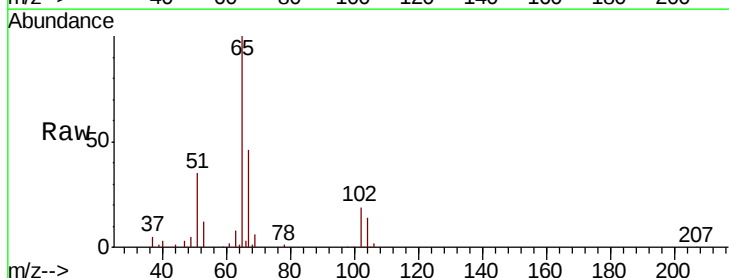


Abundance Ion 56.00 (55.70 to 56.70): VDC  
Ion 69.00 (68.70 to 69.70): VDC  
Ion 84.00 (83.70 to 84.70): VDC

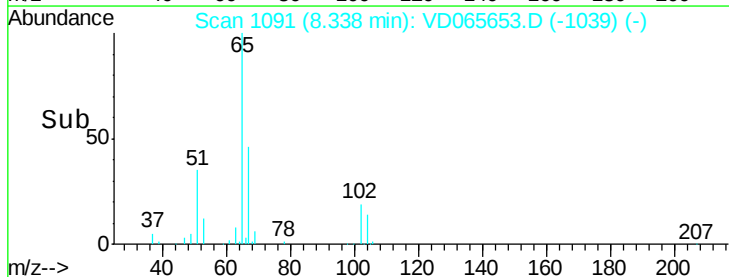
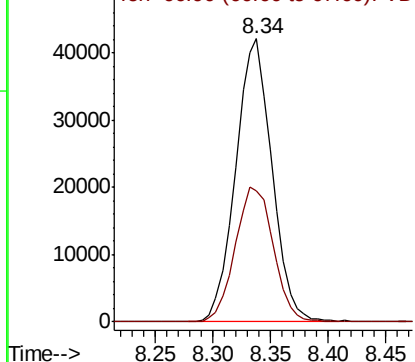


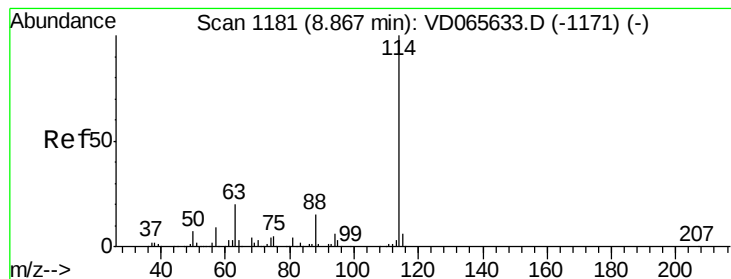
#33  
1,2-Dichloroethane-d4  
Concen: 71.917 ug/l  
RT: 8.34 min Scan# 1091  
Delta R.T. 0.01 min  
Lab File: VD065653.D  
Acq: 17 Apr 2020 19:19

Tgt Ion: 65 Resp: 91653  
Ion Ratio Lower Upper  
65 100  
67 50.3 0.0 105.8



Abundance Ion 64.90 (64.60 to 65.60): VDC  
Ion 66.90 (66.60 to 67.60): VDC





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.87 min Scan# 1181

Delta R.T. -0.00 min

Lab File: VD065633.D

Acq: 17 Apr 2020 19:19

Instrument :

MSVOA\_D

ClientSampleId :

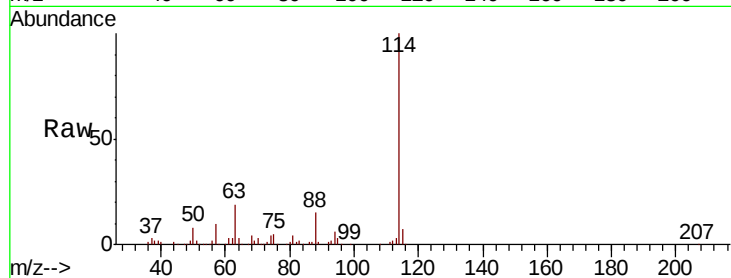
Tot Ion:114 Resp: 259805

Ion Ratio Lower Upper

114 100

63 19.2 0.0 40.8

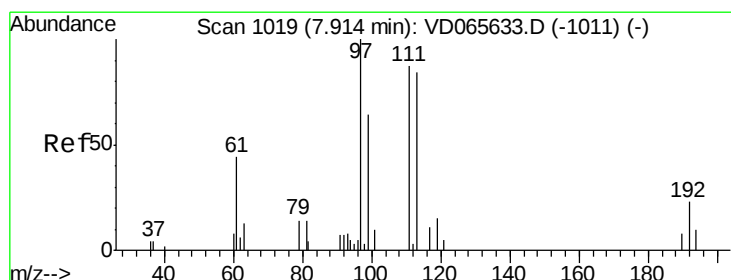
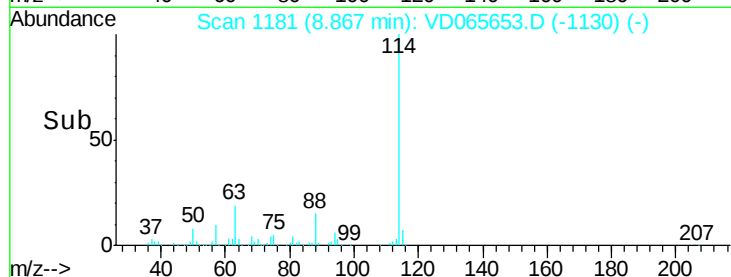
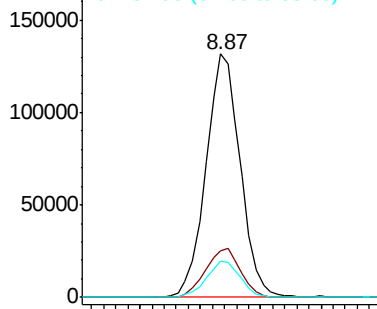
88 15.0 0.0 31.6



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): V

Ion 87.90 (87.60 to 88.60): V



#35

Dibromofluoromethane

Concen: 54.543 ug/l

RT: 7.92 min Scan# 1020

Delta R.T. -0.00 min

Lab File: VD065633.D

Acq: 17 Apr 2020 19:19

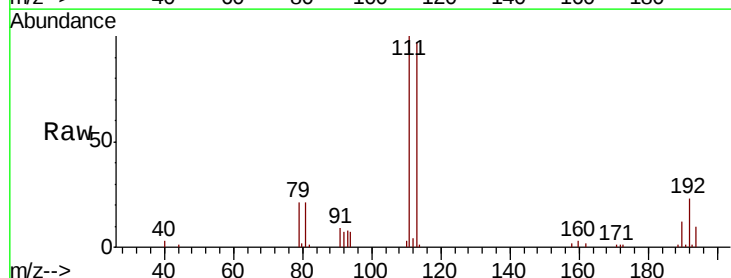
Tgt Ion:113 Resp: 88193

Ion Ratio Lower Upper

113 100

111 102.1 81.9 122.9

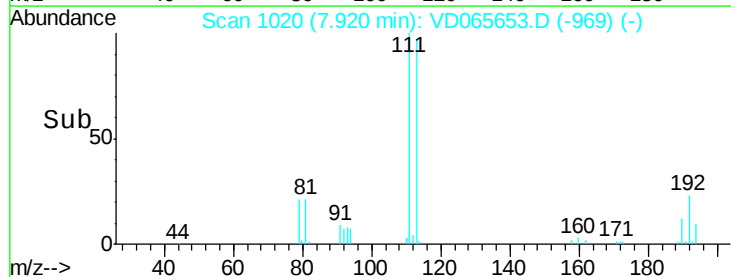
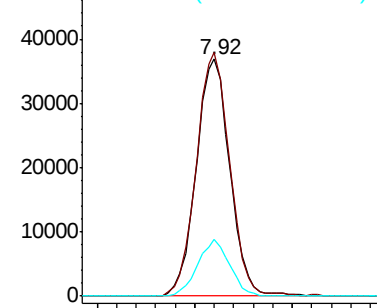
192 22.7 18.9 28.3

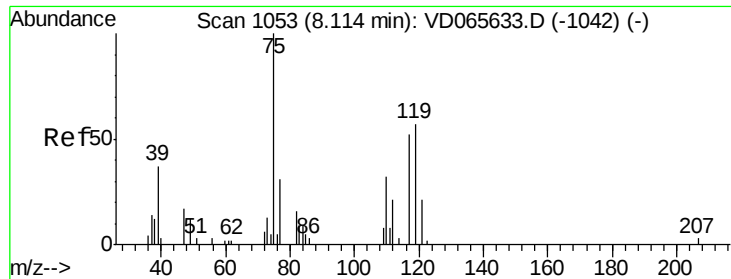


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

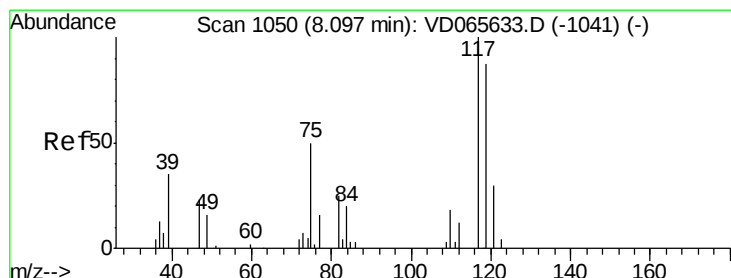
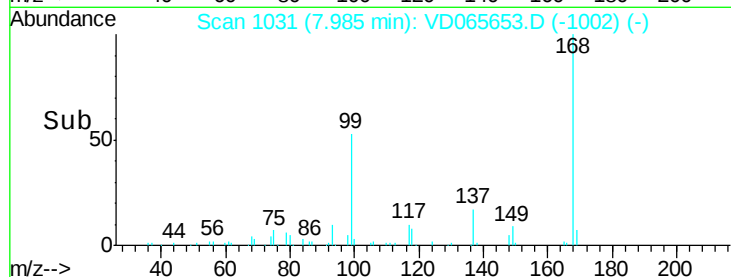
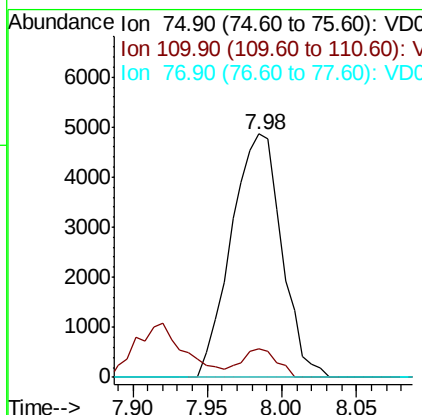
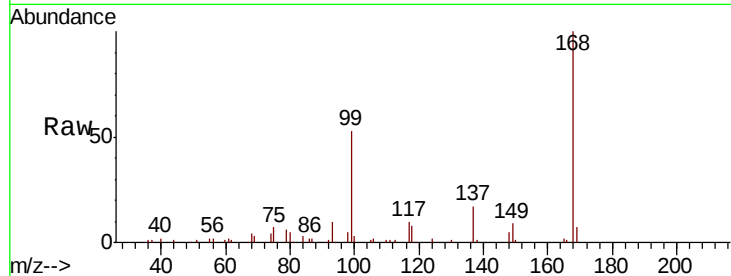




#36  
 1,1-Dichloropropene  
 Concen: 4.539 ug/l  
 RT: 7.98 min Scan# 1031  
 Delta R.T. -0.13 min  
 Lab File: VD065653.D  
 Acq: 17 Apr 2020 19:19

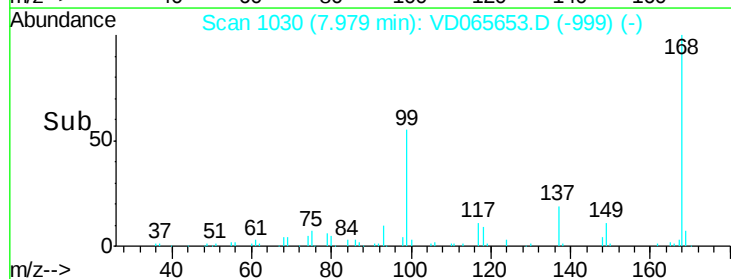
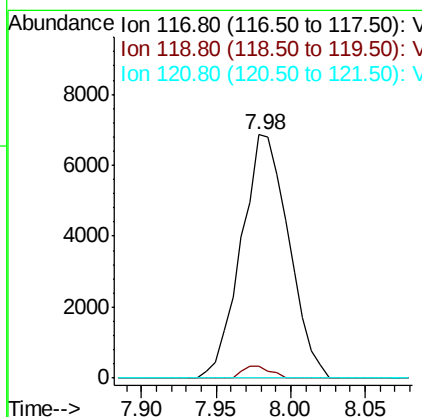
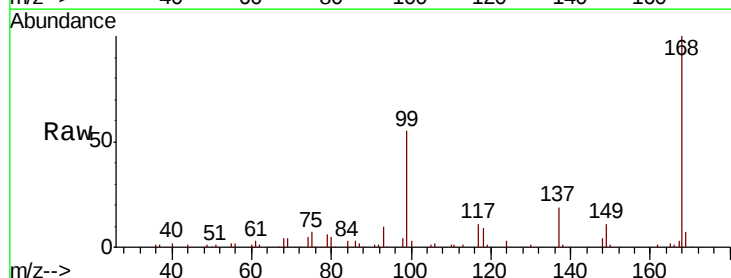
Instrument :  
 MSVOA\_D  
 ClientSampleId :

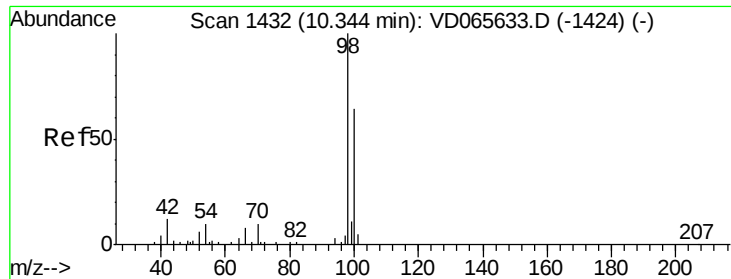
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.2   | 18.3  | 54.8# |
| 77      | 0.0   | 24.6  | 37.0# |



#38  
 Carbon Tetrachloride  
 Concen: 5.622 ug/l  
 RT: 7.98 min Scan# 1030  
 Delta R.T. -0.12 min  
 Lab File: VD065653.D  
 Acq: 17 Apr 2020 19:19

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 4.9   | 75.3  | 112.9# |
| 121     | 0.0   | 24.9  | 37.3#  |





#50

Toluene-d8

Concen: 72.466 ug/l

RT: 10.34 min Scan# 1432

Delta R.T. -0.00 min

Lab File: VD065653.D

Acq: 17 Apr 2020 19:19

Instrument :

MSVOA\_D

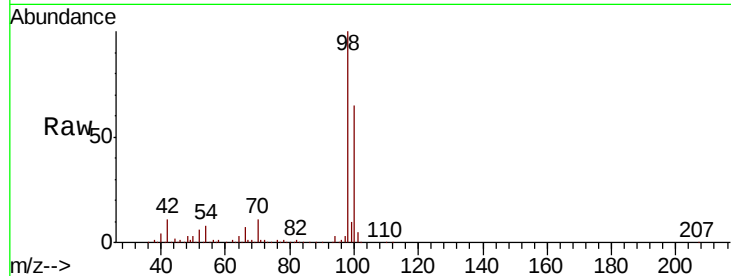
ClientSampleId :

Tot Ion: 98 Resp: 431945

Ion Ratio Lower Upper

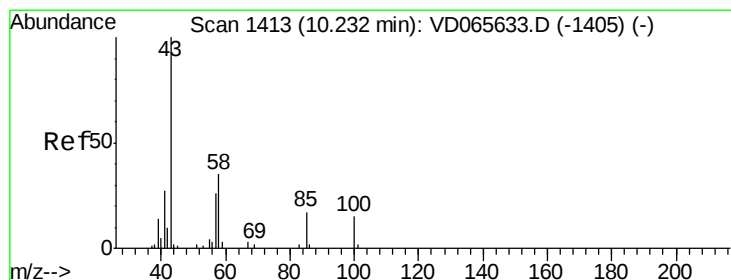
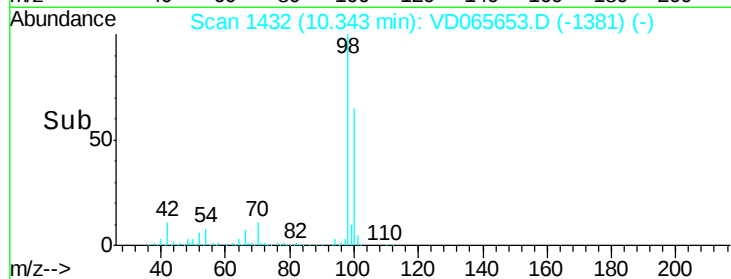
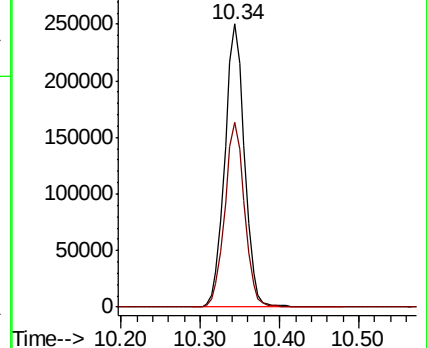
98 100

100 64.8 52.4 78.6



Abundance Ion 98.00 (97.70 to 98.70): VDC

Ion 100.00 (99.70 to 100.70): VDC



#51

4-Methyl-2-Pentanone

Concen: 11.463 ug/l

RT: 10.34 min Scan# 1432

Delta R.T. 0.11 min

Lab File: VD065653.D

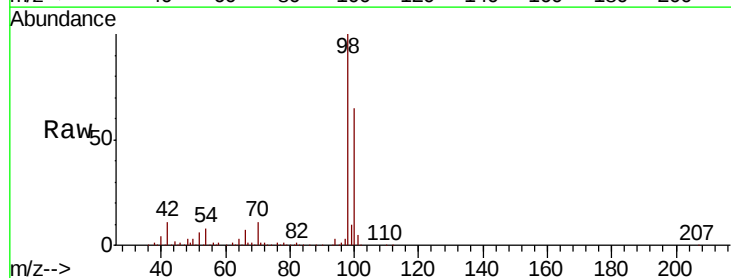
Acq: 17 Apr 2020 19:19

Tgt Ion: 43 Resp: 1869

Ion Ratio Lower Upper

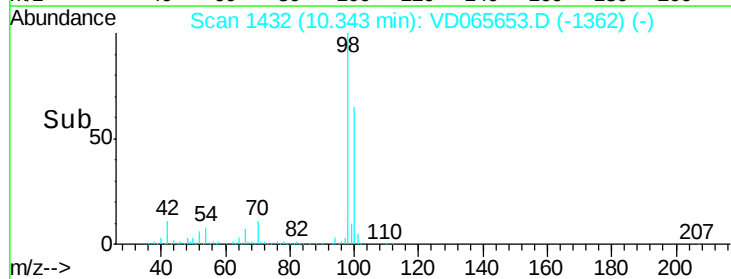
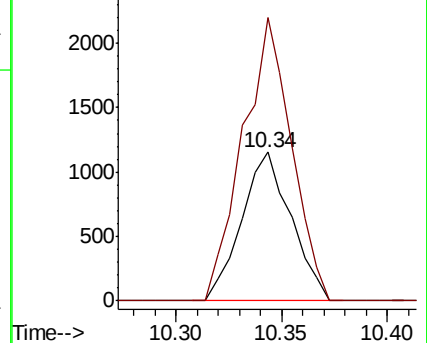
43 100

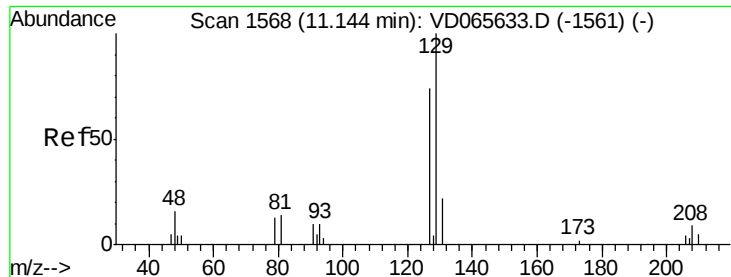
58 188.6 31.1 46.7#



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC

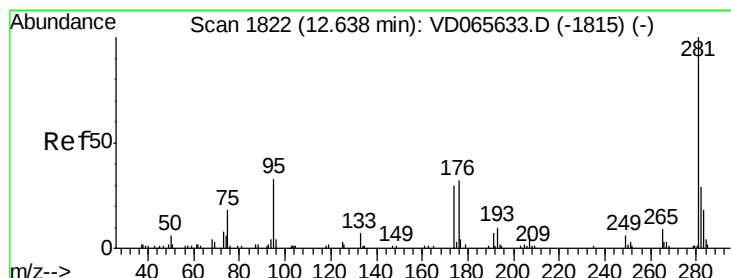
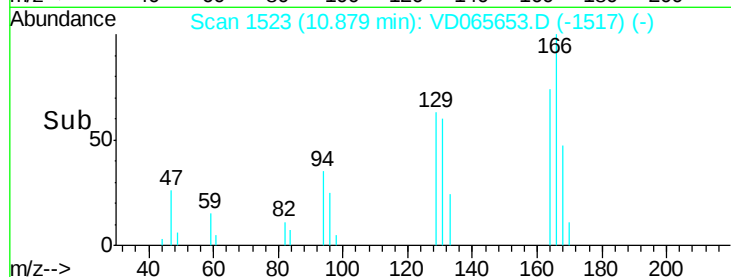
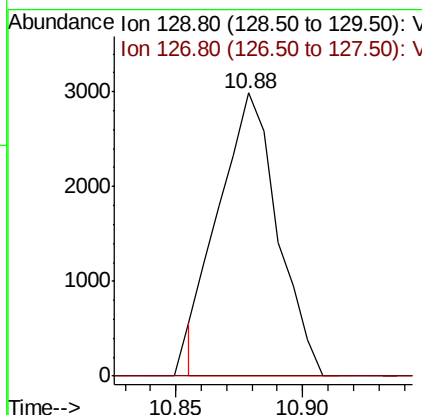
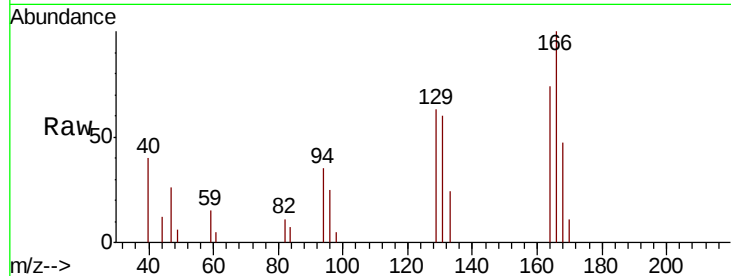




#60  
 Dibromochloromethane  
 Concen: 2.820 ug/l  
 RT: 10.88 min Scan# 1523  
 Delta R.T. -0.27 min  
 Lab File: VD065653.D  
 Acq: 17 Apr 2020 19:19

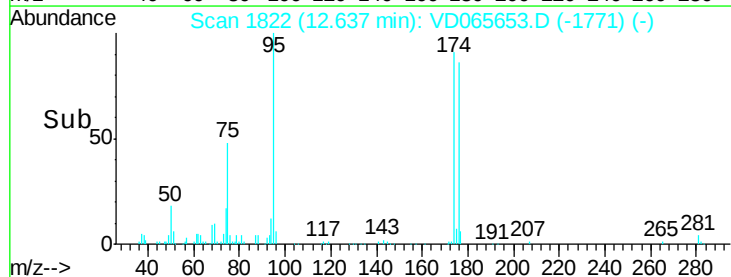
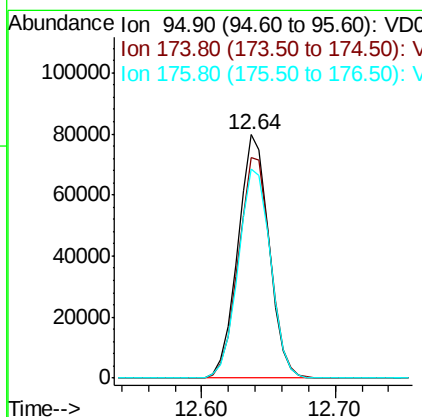
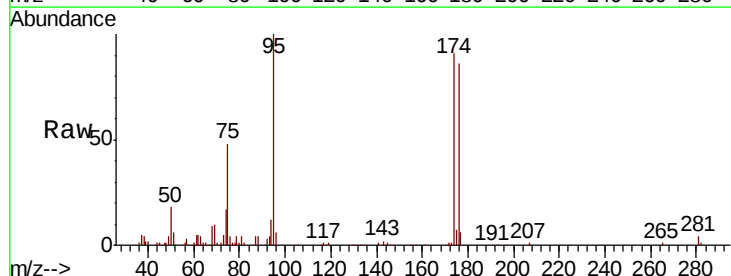
Instrument :  
 MSVOA\_D  
 ClientSampleId :

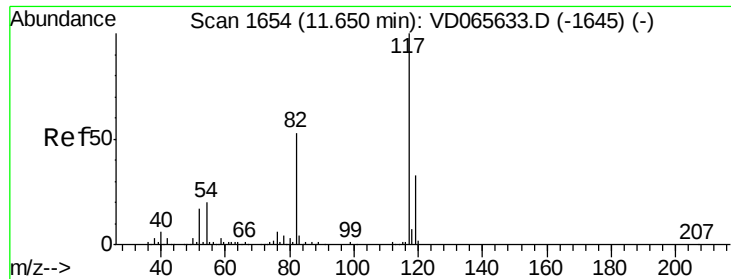
Tot Ion:129 Resp: 4809  
 Ion Ratio Lower Upper  
 129 100  
 127 0.0 38.8 116.3#



#62  
 4-Bromofluorobenzene  
 Concen: 64.630 ug/l  
 RT: 12.64 min Scan# 1822  
 Delta R.T. -0.00 min  
 Lab File: VD065653.D  
 Acq: 17 Apr 2020 19:19

Tgt Ion: 95 Resp: 128186  
 Ion Ratio Lower Upper  
 95 100  
 174 93.1 0.0 183.8  
 176 89.2 0.0 181.4

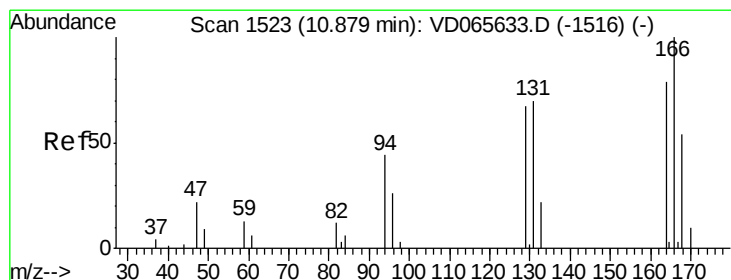
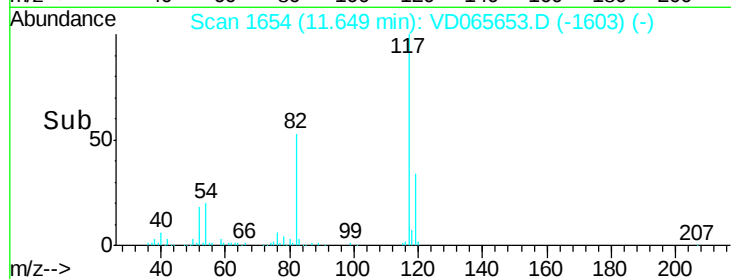
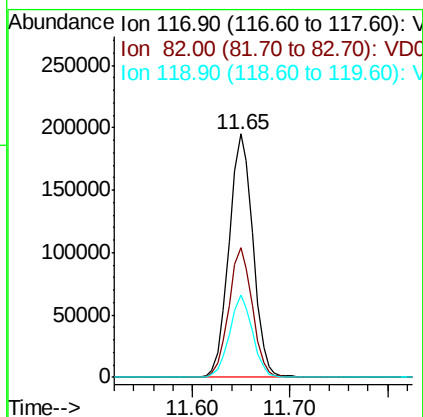
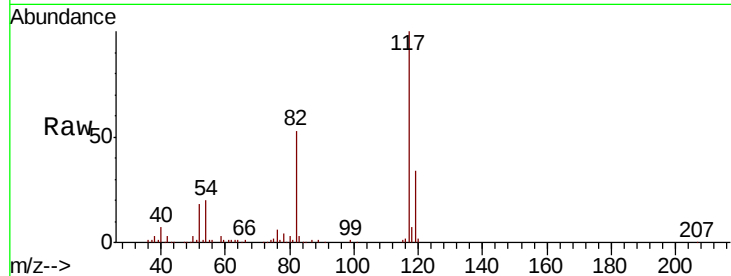




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. -0.00 min  
Lab File: VD065653.D  
Acq: 17 Apr 2020 19:19

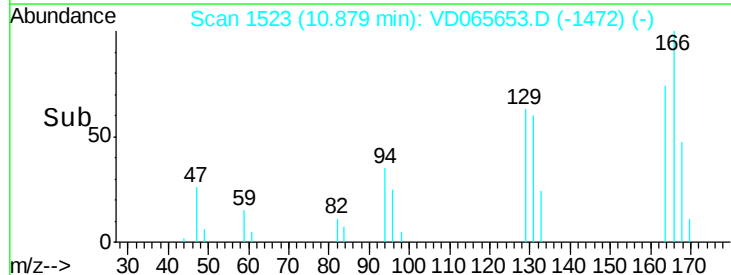
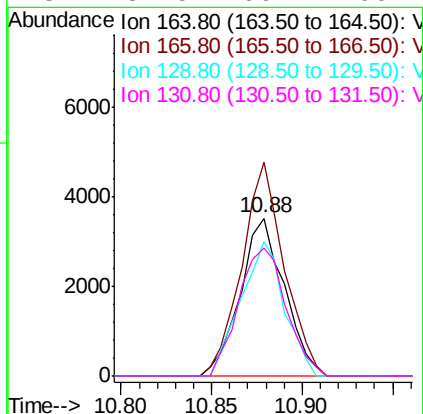
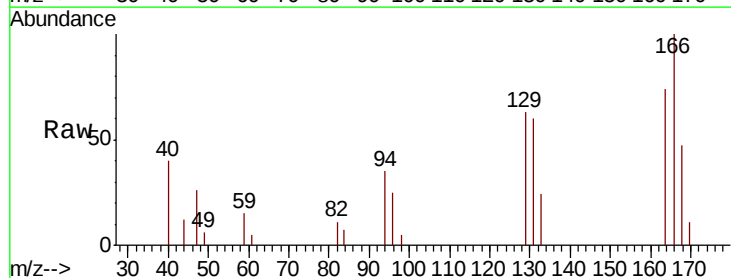
Instrument :  
MSVOA\_D  
ClientSampleId :

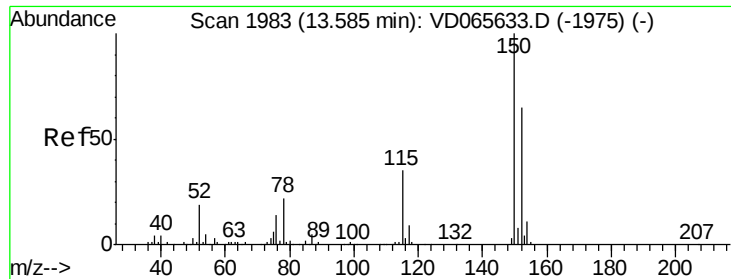
Tot Ion:117 Resp: 332325  
Ion Ratio Lower Upper  
117 100  
82 53.0 43.2 64.8  
119 33.6 26.2 39.4



#64  
Tetrachloroethene  
Concen: 2.505 ug/l  
RT: 10.88 min Scan# 1523  
Delta R.T. -0.00 min  
Lab File: VD065653.D  
Acq: 17 Apr 2020 19:19

Tgt Ion:164 Resp: 5974  
Ion Ratio Lower Upper  
164 100  
166 135.3 102.3 153.5  
129 84.8 71.7 107.5  
131 81.5 66.2 99.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.58 min Scan# 1983

Delta R.T. -0.00 min

Lab File: VD065653.D

Acq: 17 Apr 2020 19:19

Instrument :

MSVOA\_D

ClientSampleId :

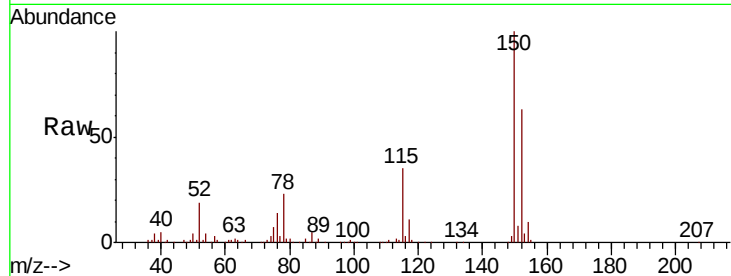
Tot Ion:152 Resp: 150589

Ion Ratio Lower Upper

152 100

115 54.7 27.6 82.7

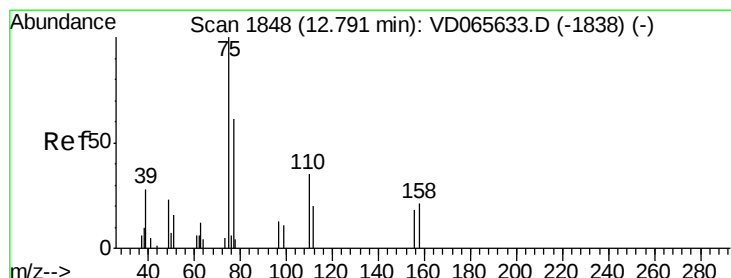
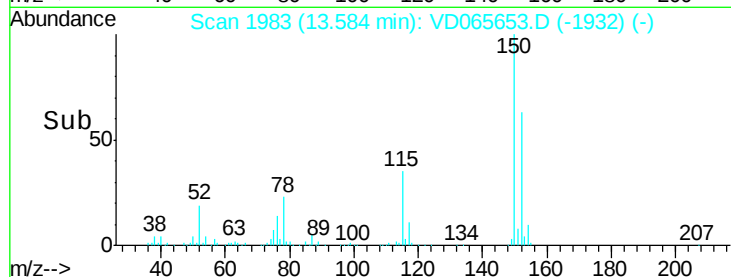
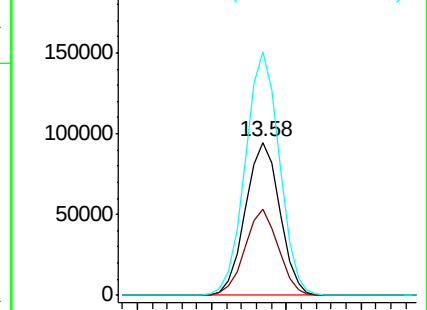
150 158.0 0.0 346.0



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: 51.743 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. -0.15 min

Lab File: VD065653.D

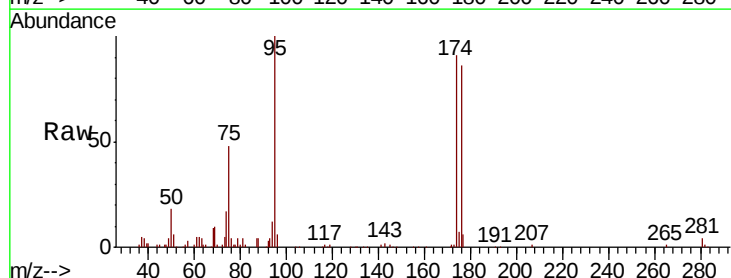
Acq: 17 Apr 2020 19:19

Tgt Ion: 75 Resp: 62650

Ion Ratio Lower Upper

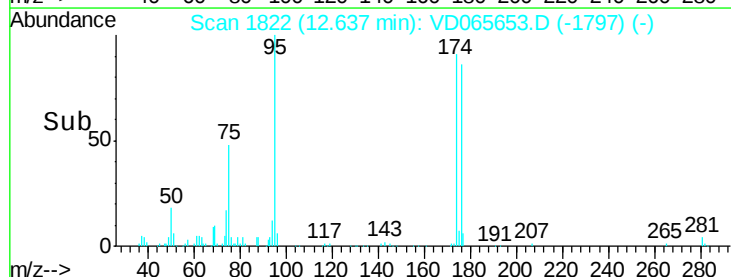
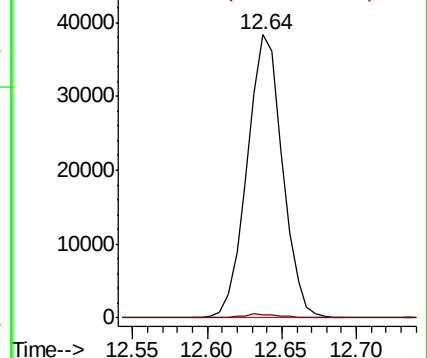
75 100

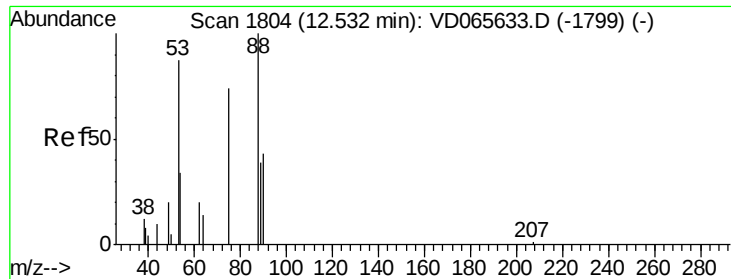
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 77.00 (76.70 to 77.70): VDC





#81

trans-1,4-Dichloro-2-butene

Concen: 113.402 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.10 min

Lab File: VD065633.D

Acq: 17 Apr 2020 19:19

Instrument :

MSVOA\_D

ClientSampleId :

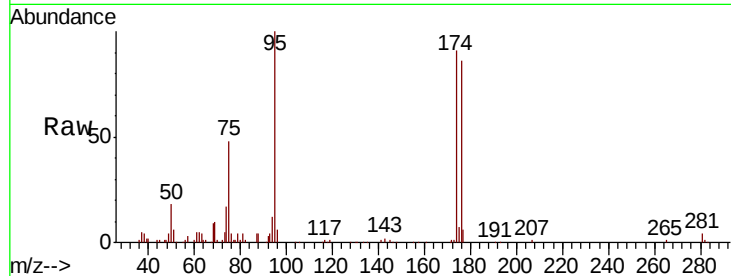
Tot Ion: 75 Resp: 62650

Ion Ratio Lower Upper

75 100

53 0.0 76.8 115.2#

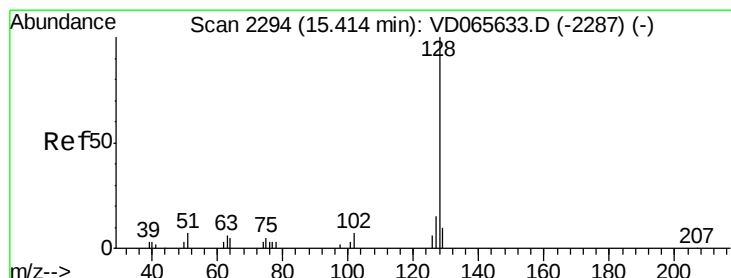
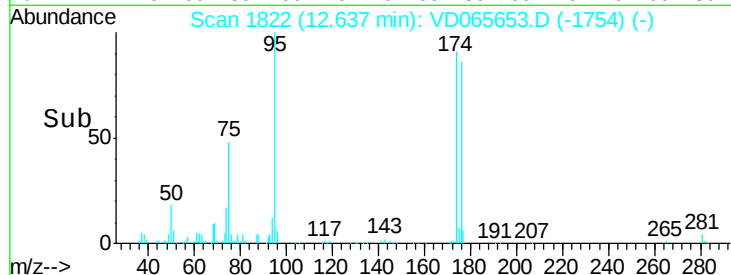
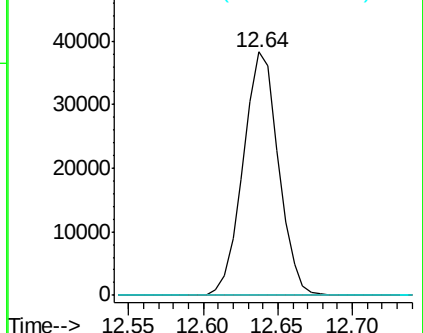
89 0.0 36.1 54.1#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 88.90 (88.60 to 89.60): VDC



#95

Naphthalene

Concen: 4.152 ug/l

RT: 15.41 min Scan# 2293

Delta R.T. -0.01 min

Lab File: VD065633.D

Acq: 17 Apr 2020 19:19

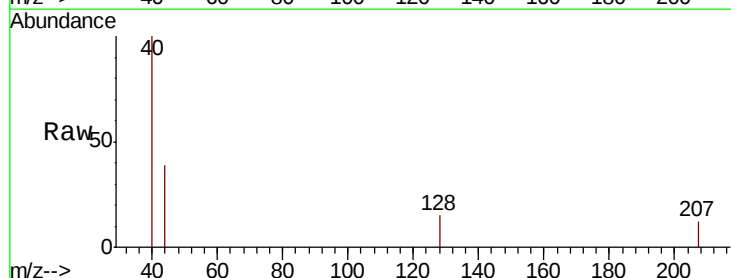
Tgt Ion: 128 Resp: 243

Ion Ratio Lower Upper

128 100

127 0.0 10.6 16.0#

129 0.0 8.8 13.2#



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

