

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD032720\  
 Data File : VD065551.D  
 Acq On : 27 Mar 2020 18:36  
 Operator : VA/SY  
 Sample : L2034-02RE  
 Misc : 6.14G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Mar 30 06:36:14 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D032620S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 27 01:47:48 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 469962   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 932610   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 934673   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 444941   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.33  | 65   | 274772   | 70.24 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 140.48% |          |
| 35) Dibromofluoromethane    | 7.92  | 113  | 320357   | 55.65 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 111.30% |          |
| 50) Toluene-d8              | 10.34 | 98   | 1176832  | 54.45 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 108.90% |          |
| 62) 4-Bromofluorobenzene    | 12.64 | 95   | 385335   | 56.18 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 112.36% |          |

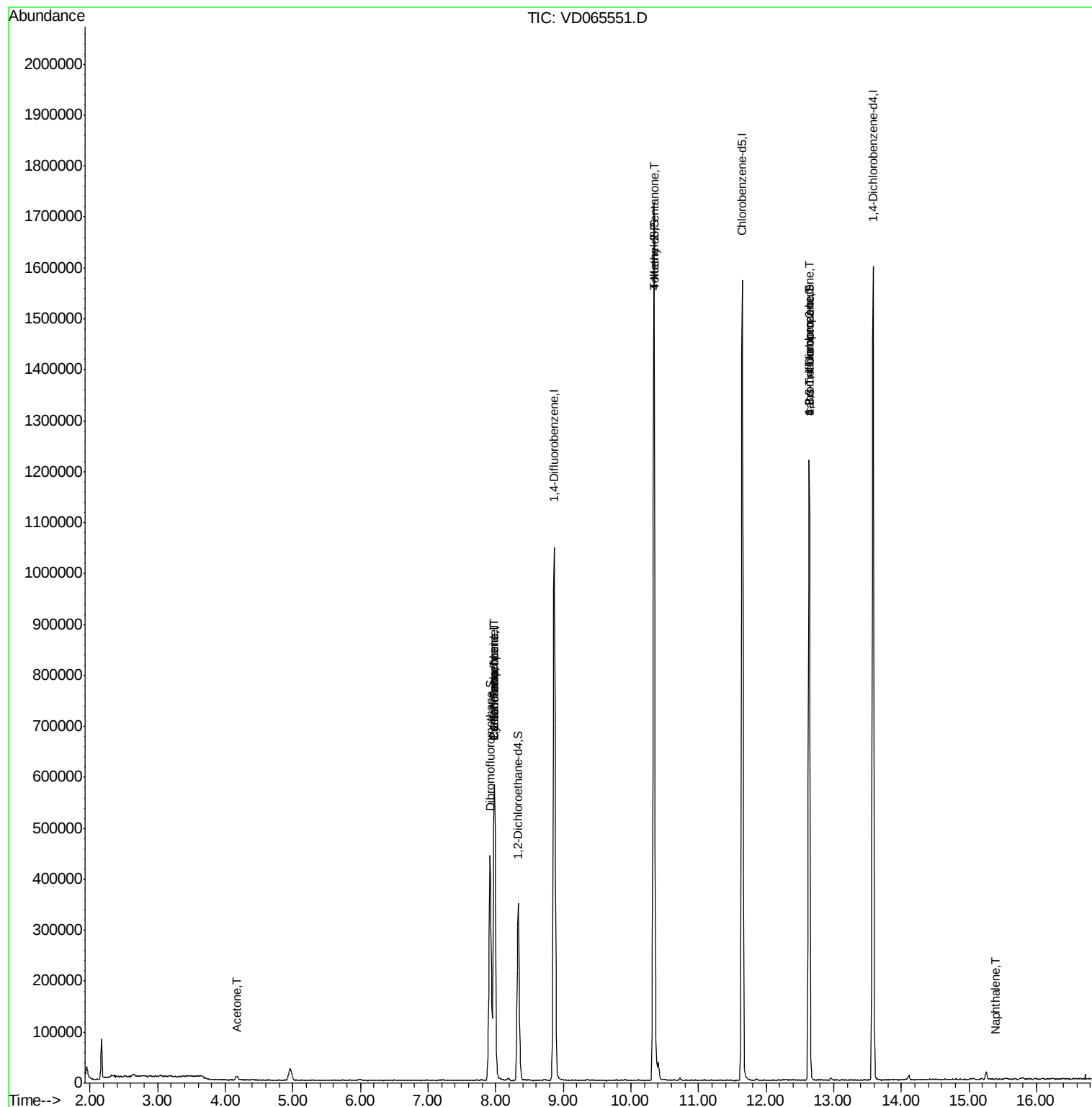
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 2.00  | 85   | 210      | Below Cal | #      | 42     |
| 3) Chloromethane               | 2.21  | 50   | 457      | Below Cal | #      | 42     |
| 5) Bromomethane                | 2.79  | 94   | 527      | Below Cal | #      | 49     |
| 16) Acetone                    | 4.17  | 43   | 14400    | 19.508    | ug/l   | 91     |
| 20) Methylene Chloride         | 4.96  | 84   | 18382    | Below Cal |        | 94     |
| 31) Cyclohexane                | 7.98  | 56   | 8977     | 1.221     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.98  | 75   | 33101    | 3.885     | ug/l # | 47     |
| 38) Carbon Tetrachloride       | 7.98  | 117  | 42527    | 4.739     | ug/l # | 17     |
| 51) 4-Methyl-2-Pentanone       | 10.34 | 43   | 4741     | 1.586     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75   | 188051   | 54.974    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75   | 188051   | 122.712   | ug/l # | 13     |
| 95) Naphthalene                | 15.41 | 128  | 783      | 4.375     | ug/l # | 82     |

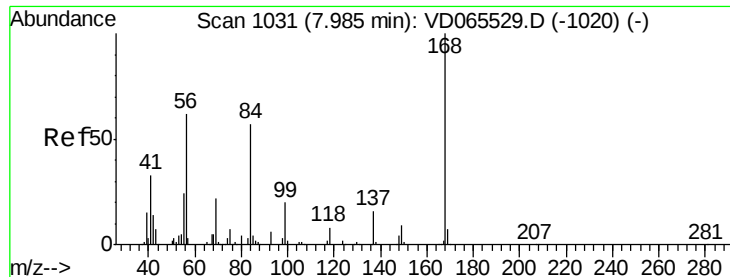
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Fri Mar 27 01:47:48 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1031

Delta R.T. -0.00 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Instrument :

MSVOA\_D

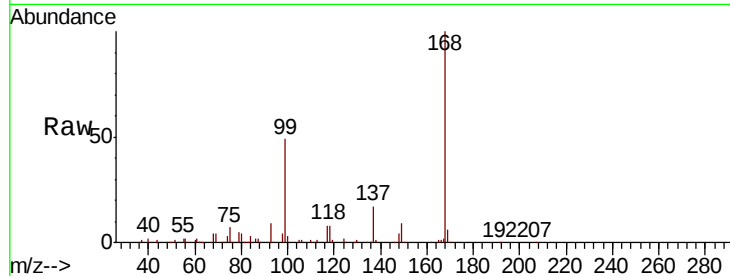
ClientSampleId :

Tot Ion:168 Resp: 469962

Ion Ratio Lower Upper

168 100

99 49.0 39.1 58.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC

7.98

200000

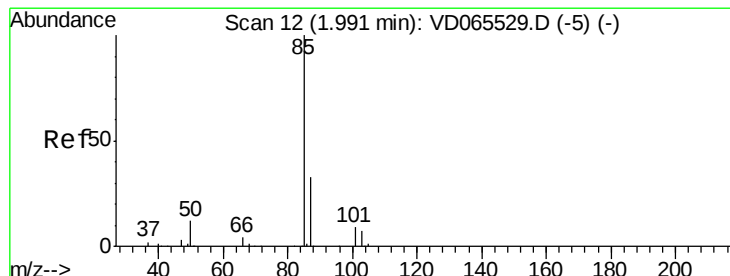
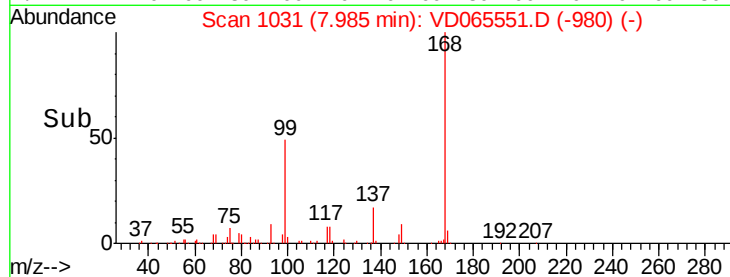
150000

100000

50000

0

Time--> 7.85 7.90 7.95 8.00 8.05



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 2.00 min Scan# 13

Delta R.T. 0.01 min

Lab File: VD065551.D

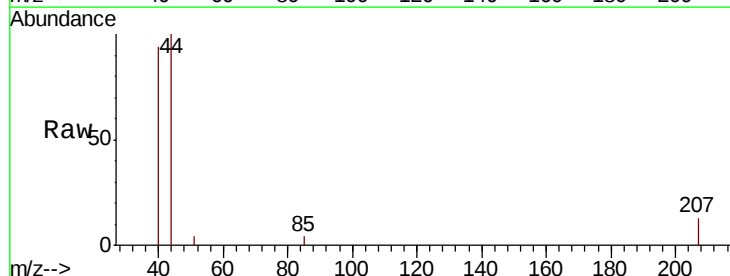
Acq: 27 Mar 2020 18:36

Tgt Ion: 85 Resp: 210

Ion Ratio Lower Upper

85 100

87 0.0 16.4 49.2#



Abundance Ion 84.90 (84.60 to 85.60): VDC

Ion 86.90 (86.60 to 87.60): VDC

2.00

200

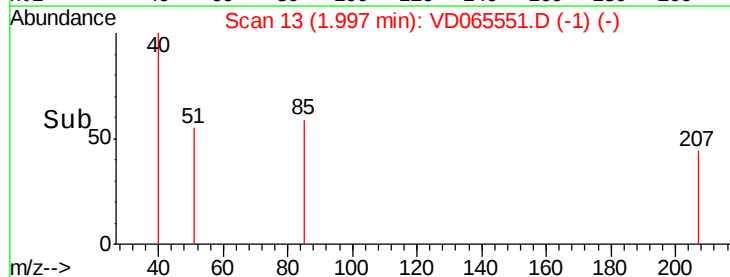
150

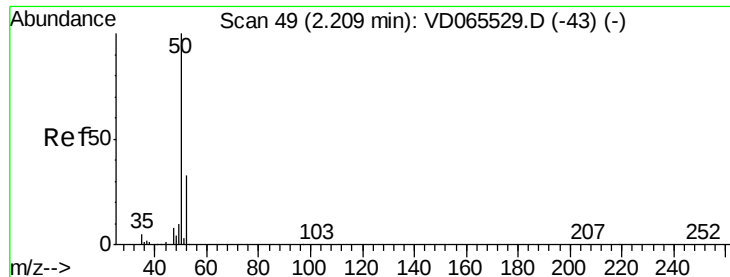
100

50

0

Time--> 1.96 1.98 2.00 2.02





#3

Chloromethane

Concen: Below Cal

RT: 2.21 min Scan# 49

Delta R.T. 0.00 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Instrument :

MSVOA\_D

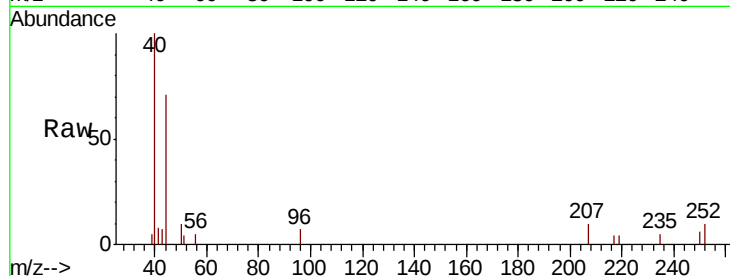
ClientSampleId :

Tot Ion: 50 Resp: 457

Ion Ratio Lower Upper

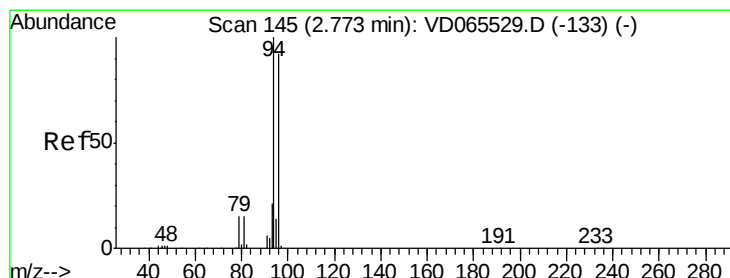
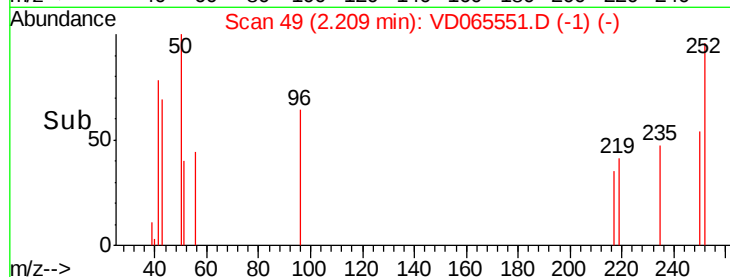
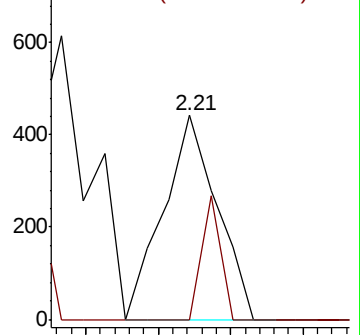
50 100

52 0.0 26.3 39.5#



Abundance Ion 49.90 (49.60 to 50.60): VDC

Ion 51.90 (51.60 to 52.60): VDC



#5

Bromomethane

Concen: Below Cal

RT: 2.79 min Scan# 148

Delta R.T. 0.02 min

Lab File: VD065551.D

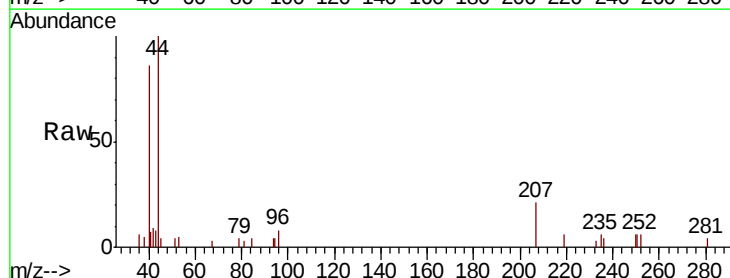
Acq: 27 Mar 2020 18:36

Tgt Ion: 94 Resp: 527

Ion Ratio Lower Upper

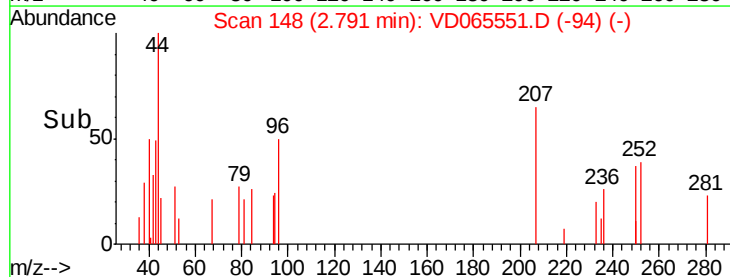
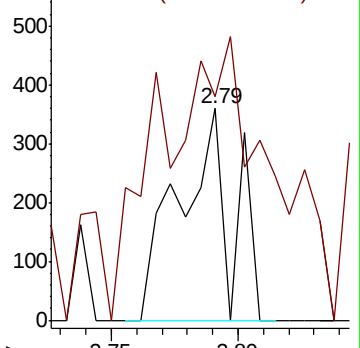
94 100

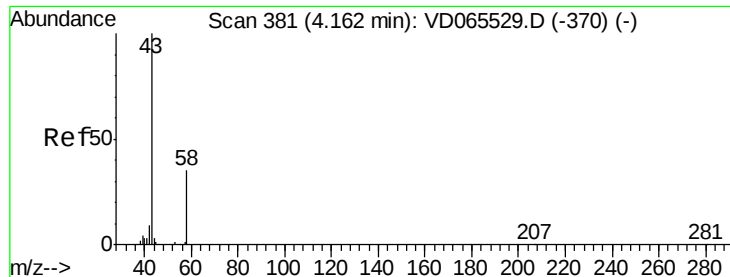
96 43.1 73.4 110.2#



Abundance Ion 93.90 (93.60 to 94.60): VDC

Ion 95.90 (95.60 to 96.60): VDC





#16

Acetone

Concen: 19.508 ug/l

RT: 4.17 min Scan# 382

Delta R.T. 0.01 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Instrument :

MSVOA\_D

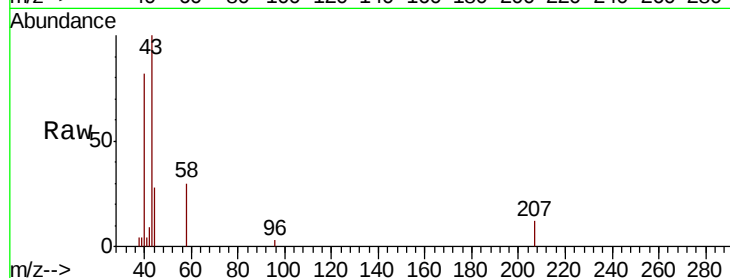
ClientSampled :

Tot Ion: 43 Resp: 14400

Ion Ratio Lower Upper

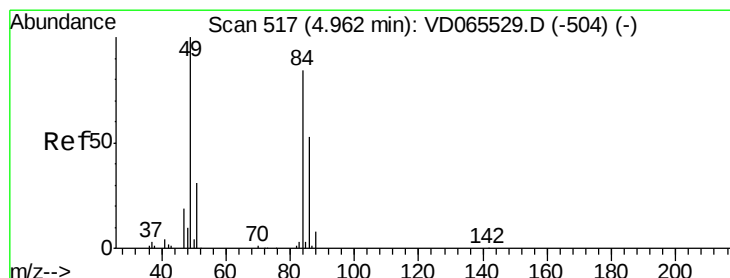
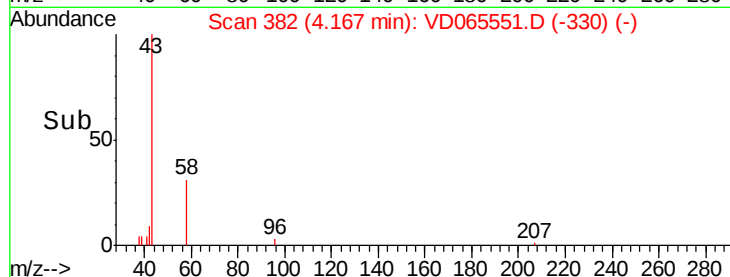
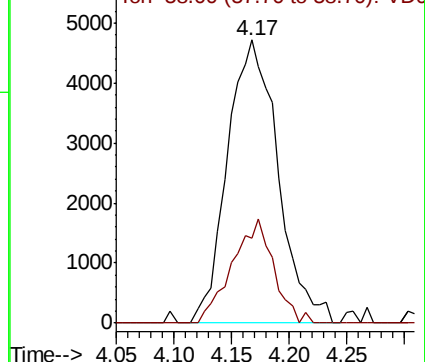
43 100

58 29.9 27.9 41.9



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC



#20

Methylene Chloride

Concen: Below Cal

RT: 4.96 min Scan# 517

Delta R.T. 0.00 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Tgt Ion: 84 Resp: 18382

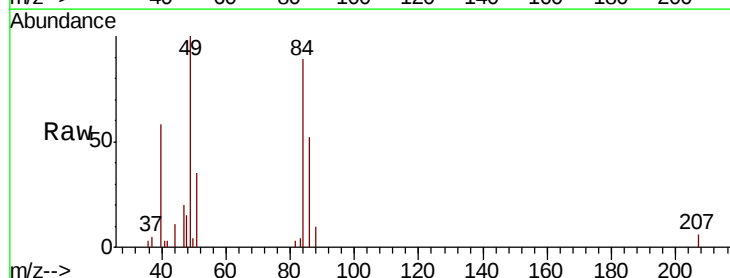
Ion Ratio Lower Upper

84 100

49 112.7 95.6 143.4

51 39.7 29.4 44.2

86 59.0 50.6 76.0

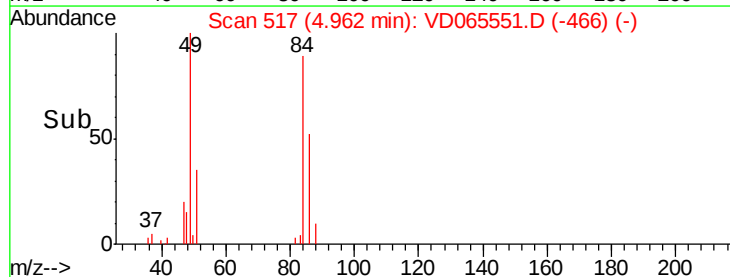
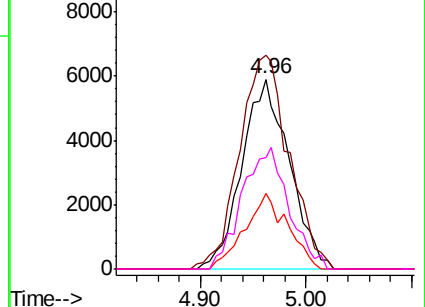


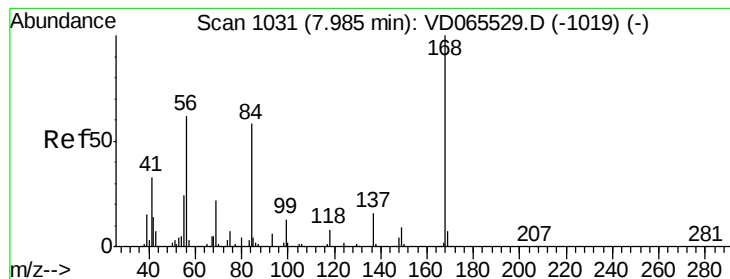
Abundance Ion 83.90 (83.60 to 84.60): VDC

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





#31

Cyclohexane

Concen: 1.221 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.01 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Instrument :

MSVOA\_D

ClientSampled :

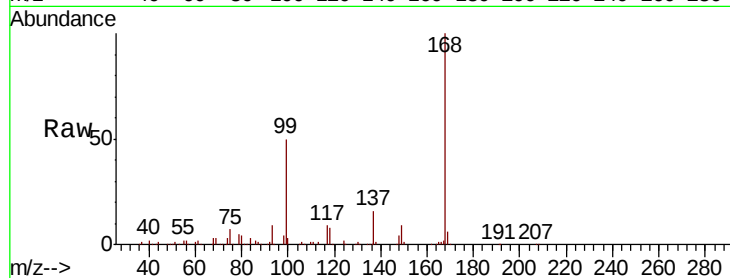
Tot Ion: 56 Resp: 8977

Ion Ratio Lower Upper

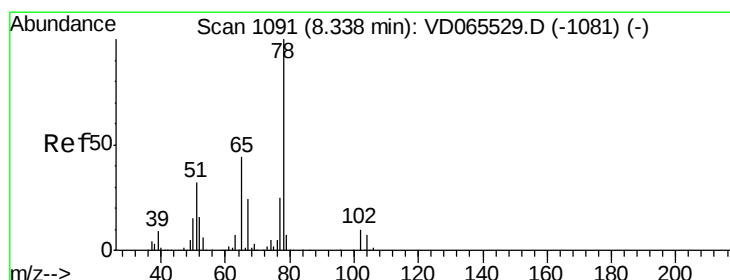
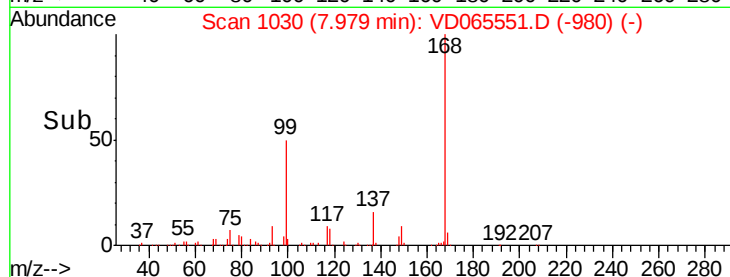
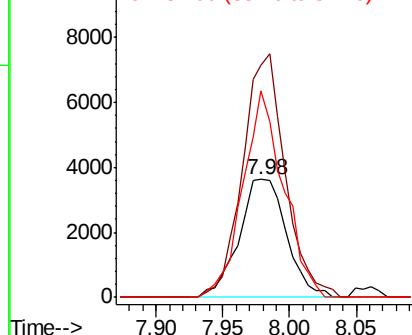
56 100

69 197.3 28.2 42.4#

84 175.3 73.4 110.0#



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: 70.236 ug/l

RT: 8.33 min Scan# 1090

Delta R.T. -0.01 min

Lab File: VD065551.D

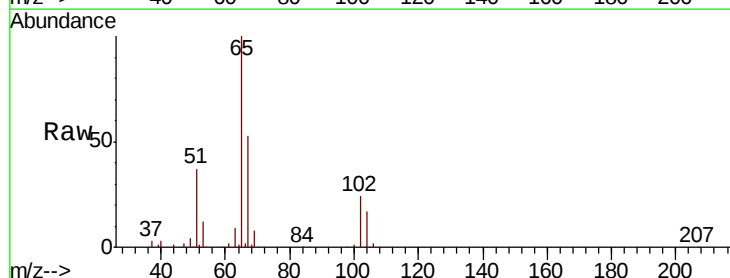
Acq: 27 Mar 2020 18:36

Tgt Ion: 65 Resp: 274772

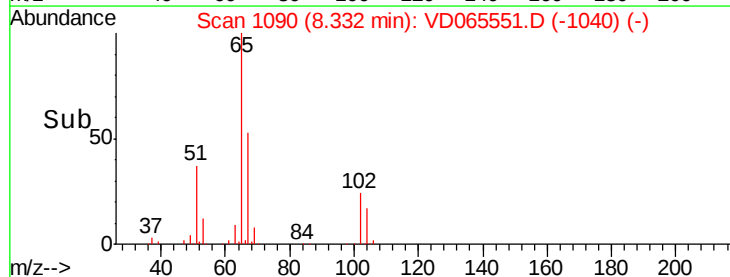
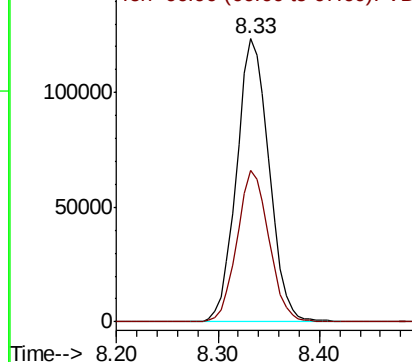
Ion Ratio Lower Upper

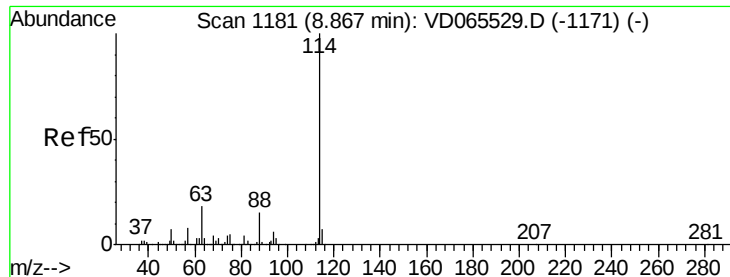
65 100

67 52.5 0.0 107.6



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

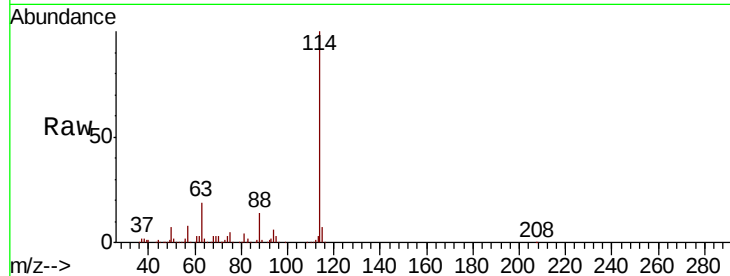




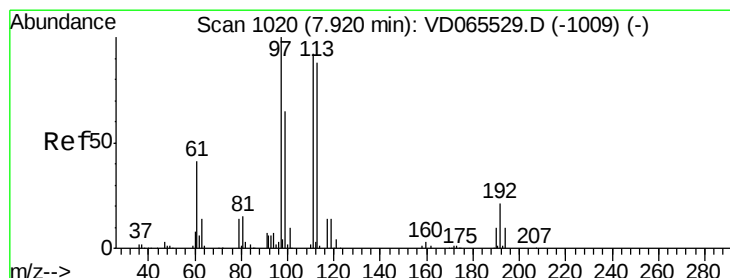
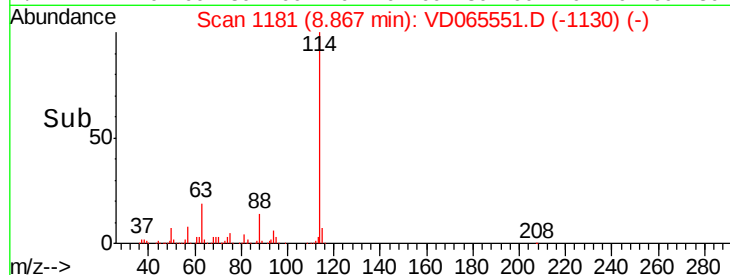
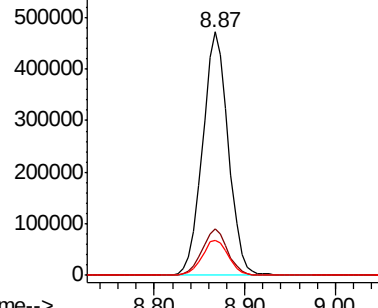
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.87 min Scan# 1181  
 Delta R.T. -0.00 min  
 Lab File: VD065551.D  
 Acq: 27 Mar 2020 18:36

Instrument :  
 MSVOA\_D  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 19.2  | 0.0   | 37.0  |
| 88      | 14.4  | 0.0   | 30.4  |

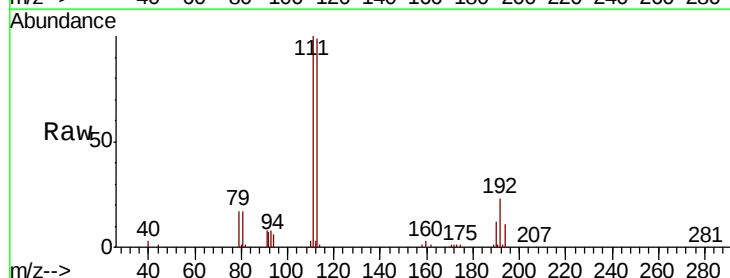


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): V  
 Ion 87.90 (87.60 to 88.60): V

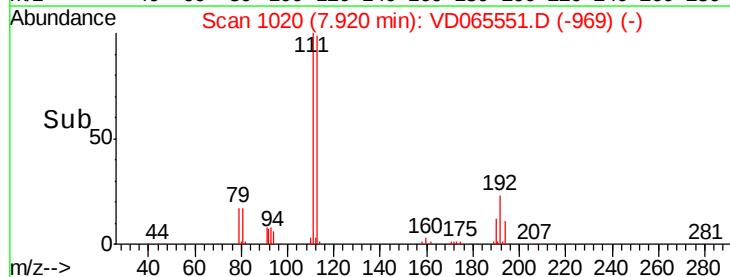
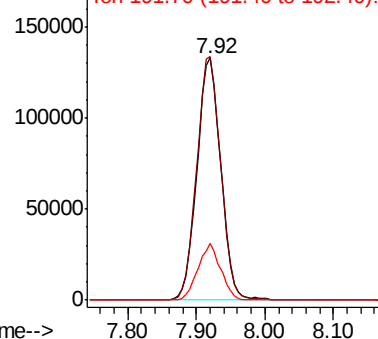


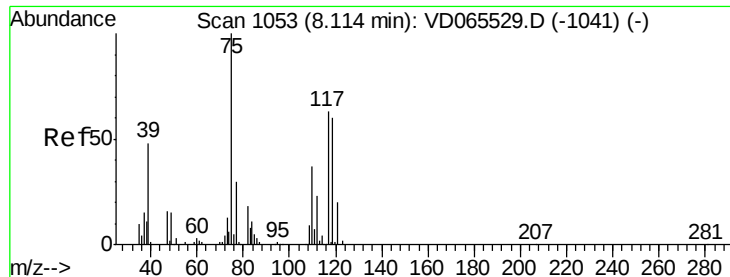
#35  
 Dibromofluoromethane  
 Concen: 55.651 ug/l  
 RT: 7.92 min Scan# 1020  
 Delta R.T. -0.00 min  
 Lab File: VD065551.D  
 Acq: 27 Mar 2020 18:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.0 | 83.3  | 124.9 |
| 192     | 22.4  | 18.5  | 27.7  |



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

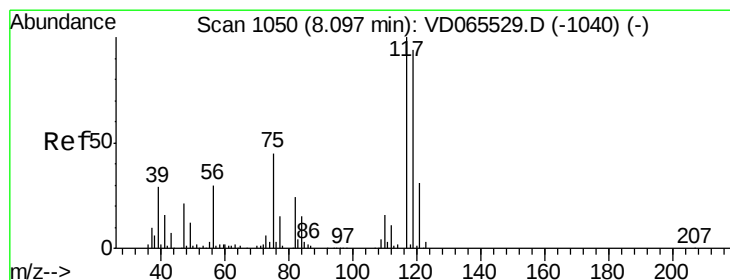
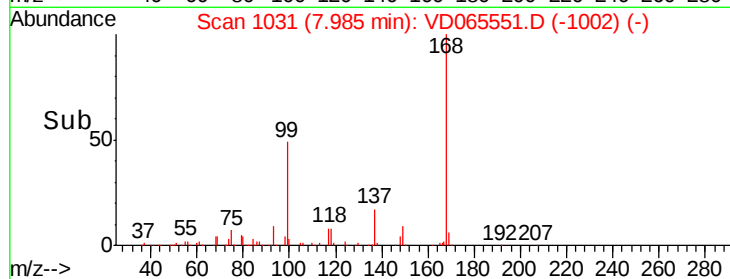
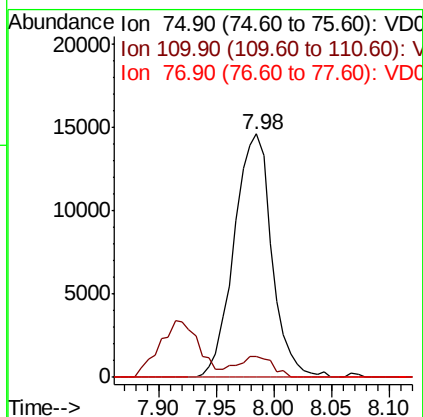
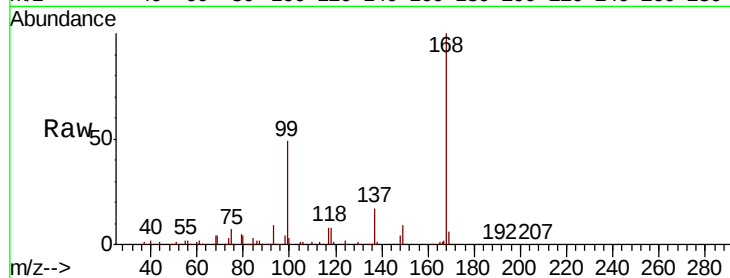




#36  
 1,1-Dichloropropene  
 Concen: 3.885 ug/l  
 RT: 7.98 min Scan# 1031  
 Delta R.T. -0.13 min  
 Lab File: VD065551.D  
 Acq: 27 Mar 2020 18:36

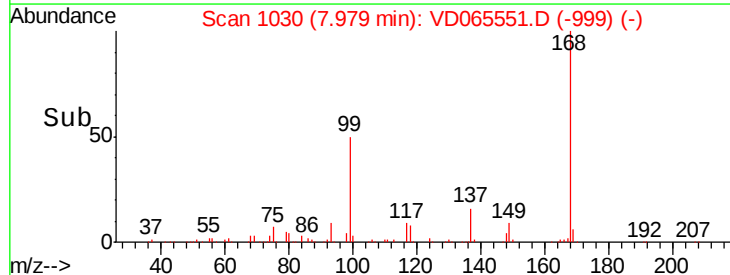
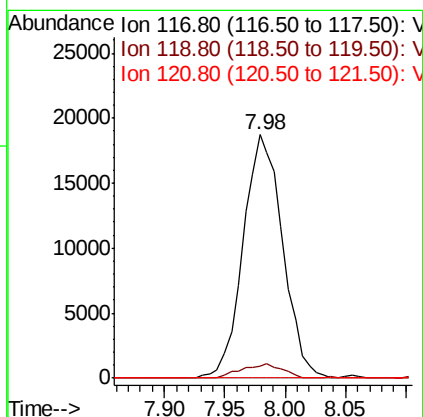
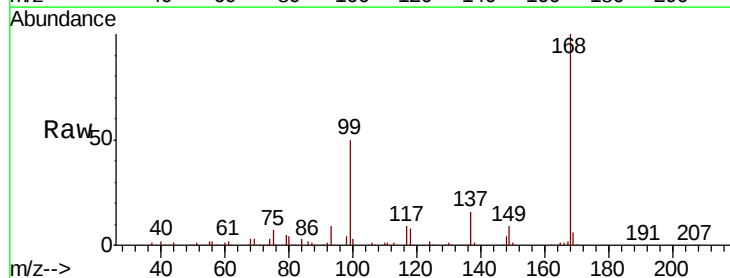
Instrument :  
 MSVOA\_D  
 ClientSampleId :

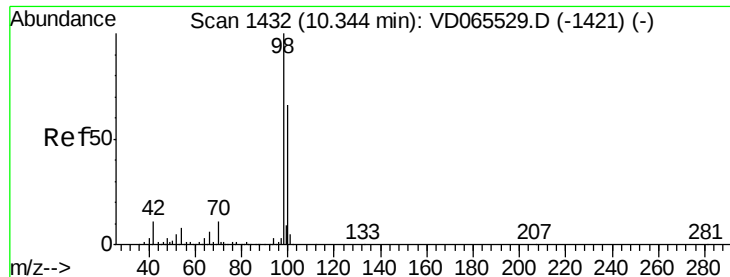
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.2   | 18.8  | 56.4# |
| 77      | 0.0   | 25.1  | 37.7# |



#38  
 Carbon Tetrachloride  
 Concen: 4.739 ug/l  
 RT: 7.98 min Scan# 1030  
 Delta R.T. -0.12 min  
 Lab File: VD065551.D  
 Acq: 27 Mar 2020 18:36

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 4.9   | 75.2  | 112.8# |
| 121     | 0.0   | 24.5  | 36.7#  |





#50

Toluene-d8

Concen: 54.454 ug/l

RT: 10.34 min Scan# 1432

Delta R.T. -0.00 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Instrument :

MSVOA\_D

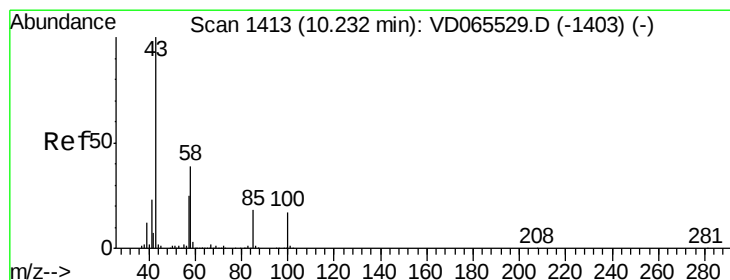
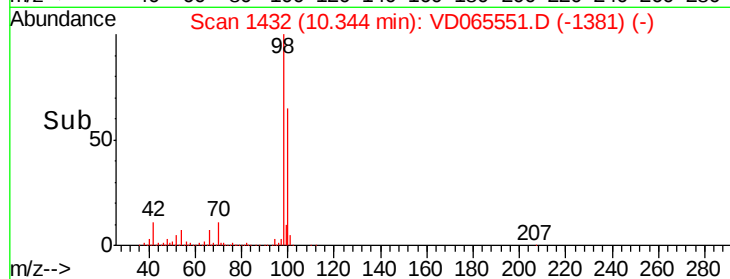
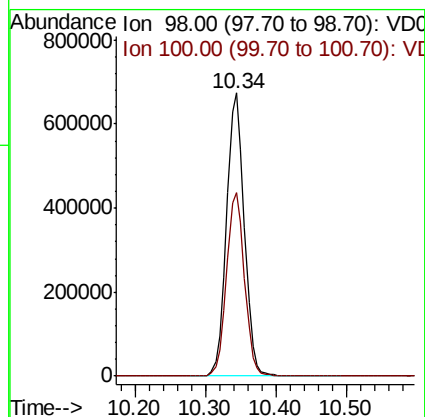
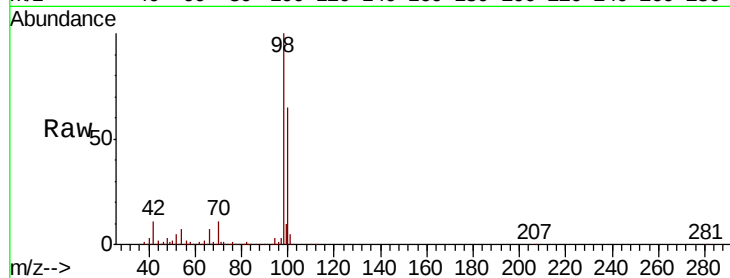
ClientSampleId :

Tot Ion: 98 Resp: 1176832

Ion Ratio Lower Upper

98 100

100 65.4 52.2 78.2



#51

4-Methyl-2-Pentanone

Concen: 1.586 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. 0.11 min

Lab File: VD065551.D

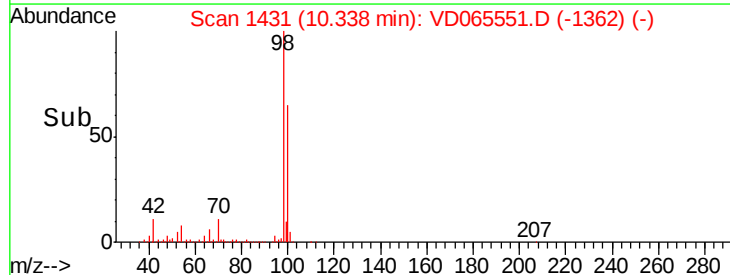
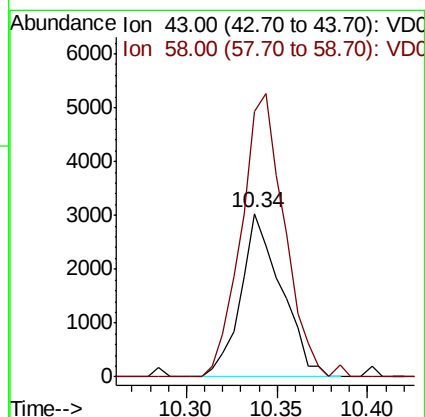
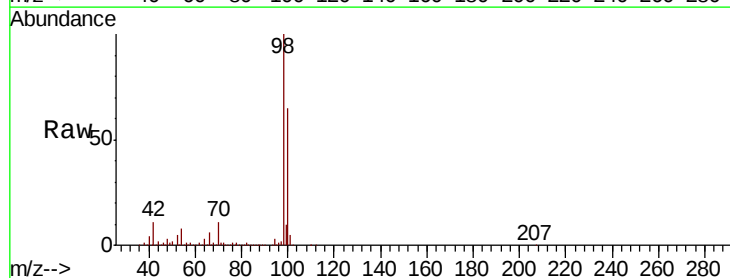
Acq: 27 Mar 2020 18:36

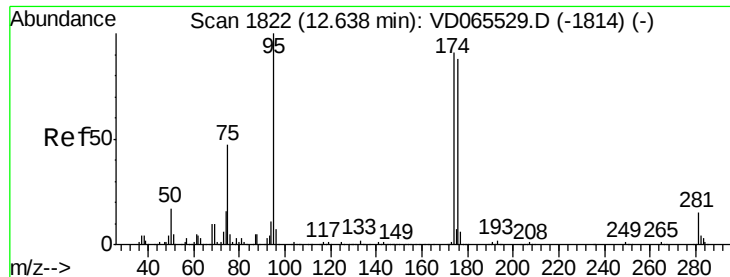
Tgt Ion: 43 Resp: 4741

Ion Ratio Lower Upper

43 100

58 182.5 31.4 47.2#

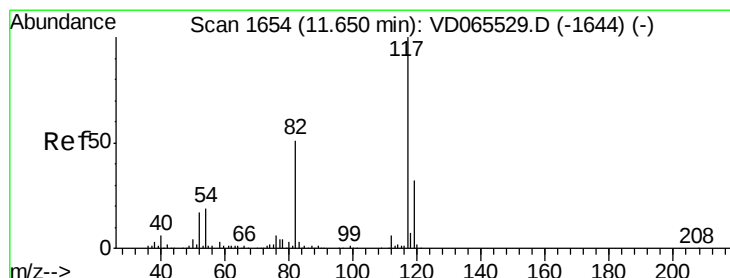
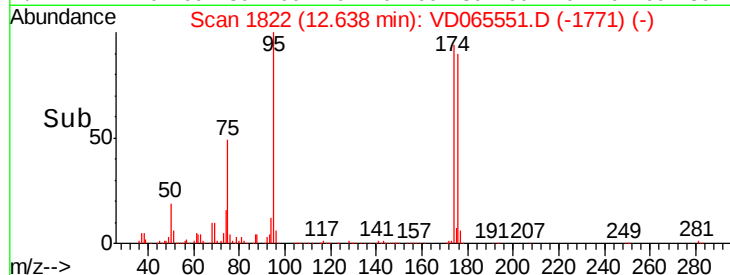
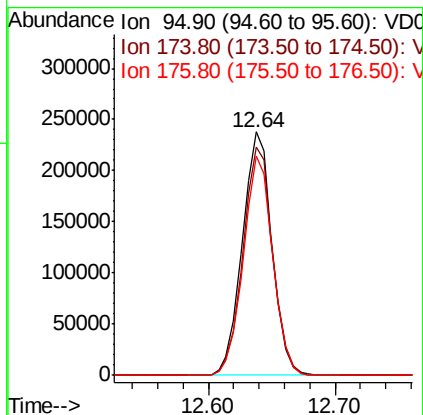
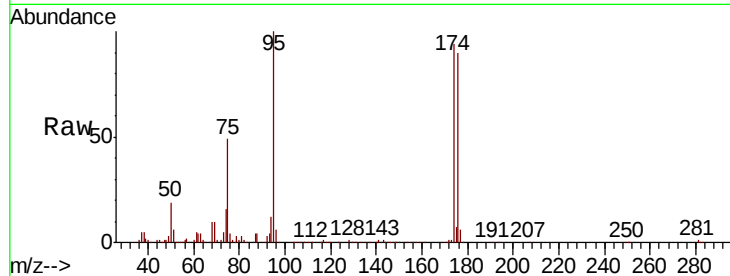




#62  
4-Bromofluorobenzene  
Concen: 56.177 ug/l  
RT: 12.64 min Scan# 1822  
Delta R.T. -0.00 min  
Lab File: VD065551.D  
Acq: 27 Mar 2020 18:36

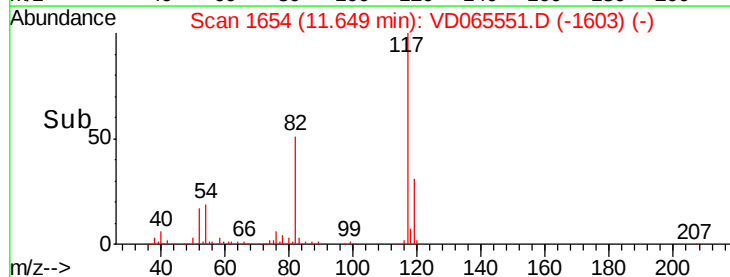
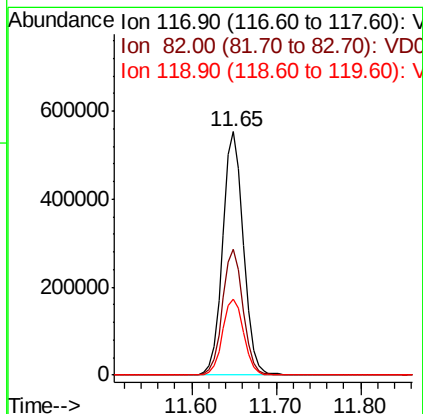
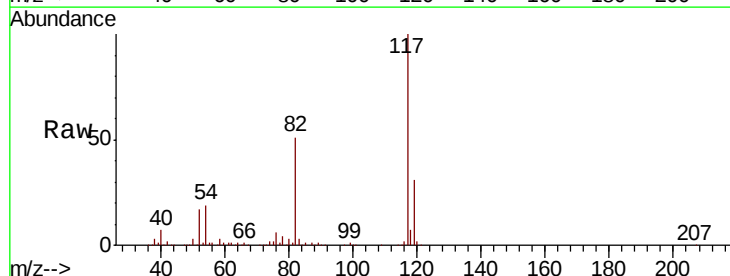
Instrument :  
MSVOA\_D  
ClientSampleId :

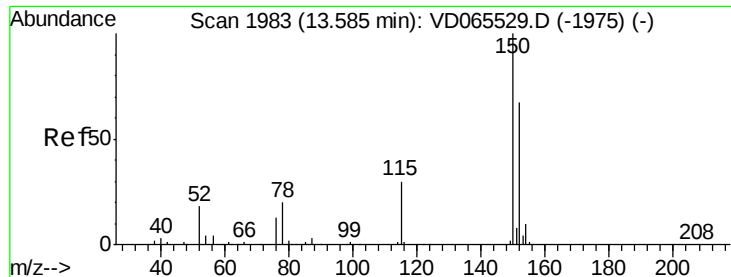
Tot Ion: 95 Resp: 385335  
Ion Ratio Lower Upper  
95 100  
174 93.8 0.0 183.8  
176 89.3 0.0 178.2



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. -0.00 min  
Lab File: VD065551.D  
Acq: 27 Mar 2020 18:36

Tgt Ion: 117 Resp: 934673  
Ion Ratio Lower Upper  
117 100  
82 51.5 41.0 61.6  
119 31.3 25.5 38.3



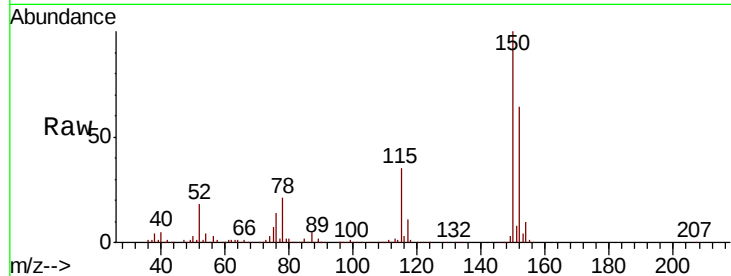


#72

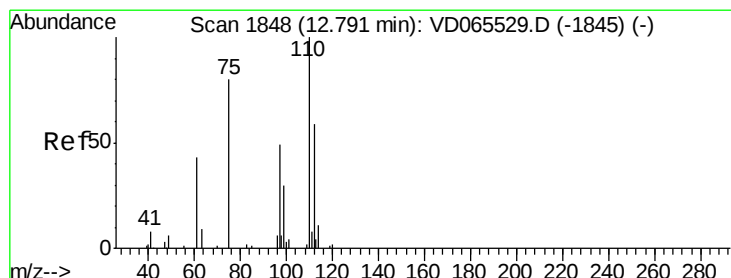
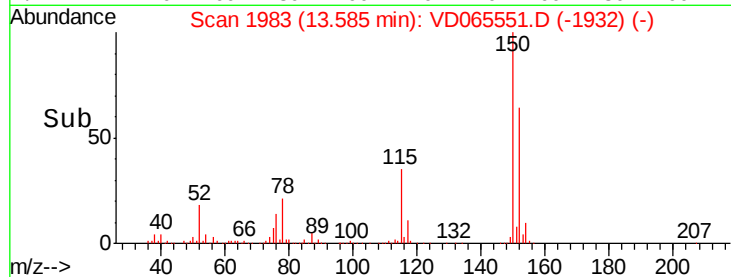
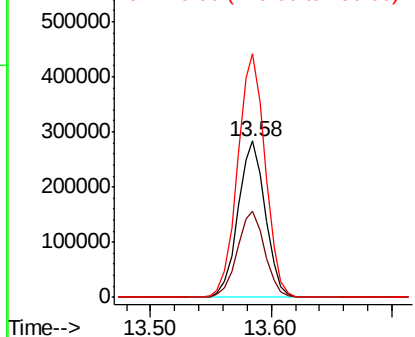
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.58 min Scan# 1983  
Delta R.T. -0.00 min  
Lab File: VD065551.D  
Acq: 27 Mar 2020 18:36

Instrument :  
MSVOA\_D  
ClientSampled :

Tot Ion:152 Resp: 444941  
Ion Ratio Lower Upper  
152 100  
115 55.7 27.2 81.6  
150 157.9 0.0 340.2



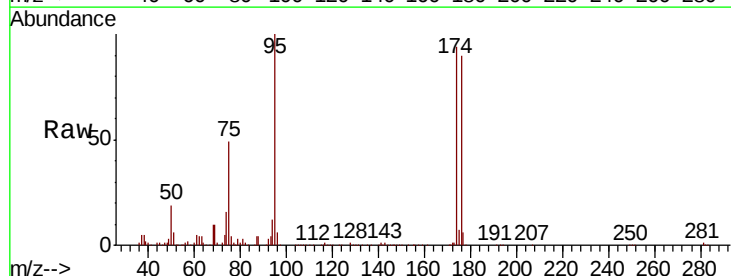
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



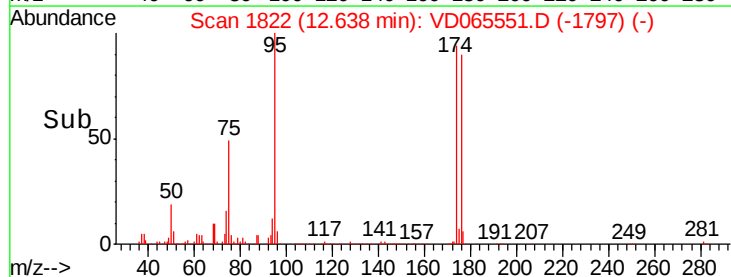
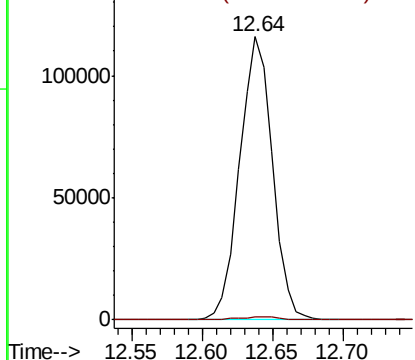
#76

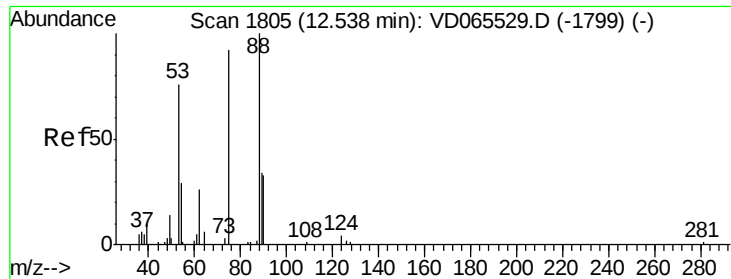
1,2,3-Trichloropropane  
Concen: 54.974 ug/l  
RT: 12.64 min Scan# 1822  
Delta R.T. -0.15 min  
Lab File: VD065551.D  
Acq: 27 Mar 2020 18:36

Tgt Ion: 75 Resp: 188051  
Ion Ratio Lower Upper  
75 100  
77 1.3 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: 122.712 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.10 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

Instrument :

MSVOA\_D

ClientSampleId :

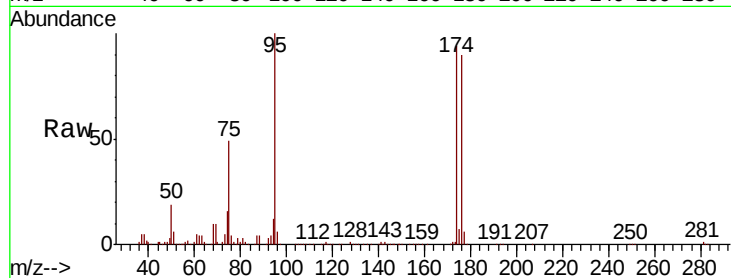
Tot Ion: 75 Resp: 188051

Ion Ratio Lower Upper

75 100

53 0.2 72.4 108.6#

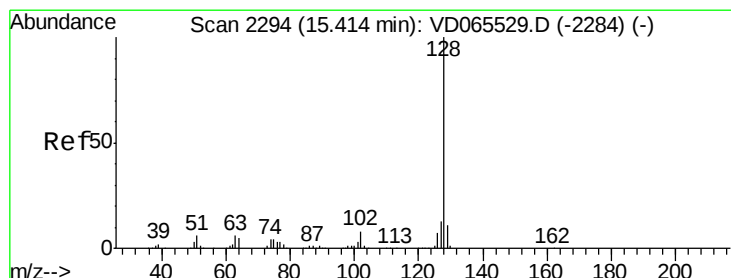
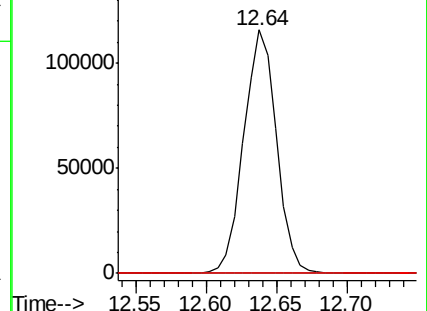
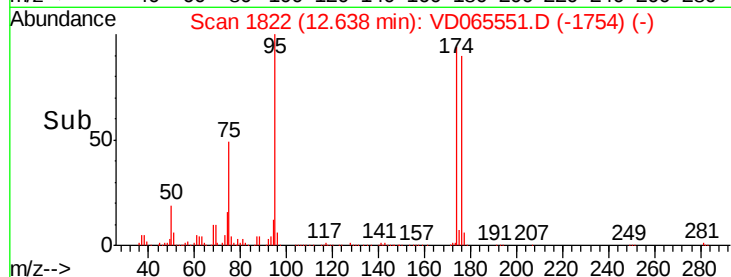
89 0.0 36.9 55.3#



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: 4.375 ug/l

RT: 15.41 min Scan# 2293

Delta R.T. -0.01 min

Lab File: VD065551.D

Acq: 27 Mar 2020 18:36

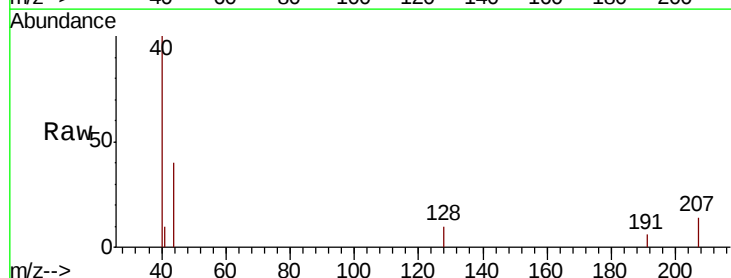
Tgt Ion:128 Resp: 783

Ion Ratio Lower Upper

128 100

127 0.0 10.4 15.6#

129 10.6 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

