

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD122018\  
 Data File : VD060669.D  
 Acq On : 20 Dec 2018 20:16  
 Operator : VA/AP  
 Sample : J6465-03  
 Misc : 3.71g/5ml/MSVOA D/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Dec 21 03:40:30 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D122018S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 21 03:34:39 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 6.41  | 168  | 1543252  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 7.45  | 114  | 2198167  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.29 | 117  | 1770310  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.37 | 152  | 890525   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.79  | 65   | 456711   | 42.82 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 85.64% |          |
| 35) Dibromofluoromethane    | 6.33  | 113  | 654101   | 40.66 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 81.32% |          |
| 50) Toluene-d8              | 9.46  | 98   | 1724224  | 35.92 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 71.84% |          |
| 62) 4-Bromofluorobenzene    | 12.43 | 95   | 658951   | 39.19 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 78.38% |          |

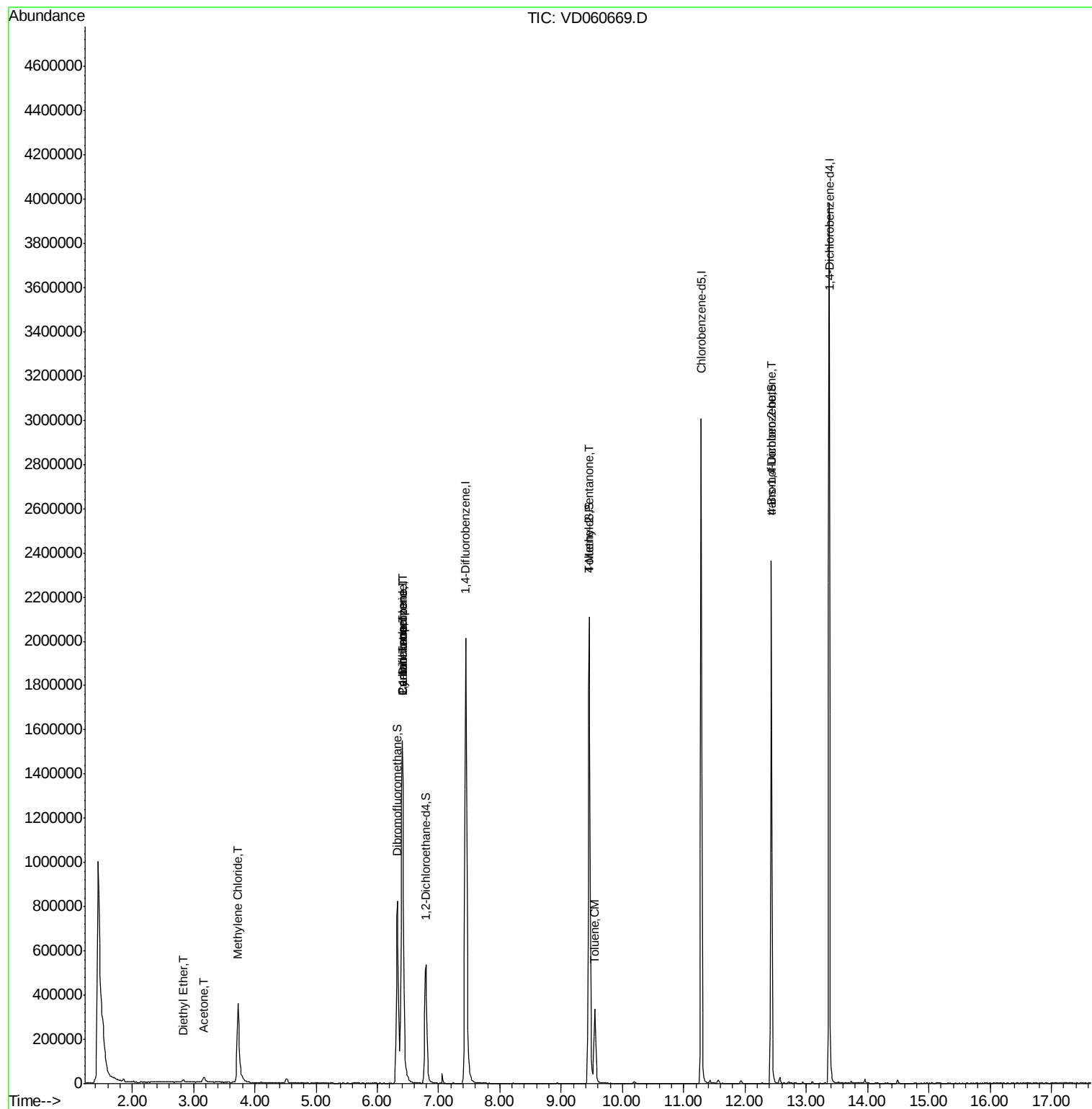
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 8) Diethyl Ether               | 2.83  | 74   | 4052     | 1.511  | ug/l   | 66     |
| 16) Acetone                    | 3.17  | 43   | 49465    | 26.559 | ug/l   | 99     |
| 20) Methylene Chloride         | 3.72  | 84   | 245392   | 12.687 | ug/l   | 98     |
| 31) Cyclohexane                | 6.41  | 56   | 28262    | 1.049  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 6.41  | 75   | 109122   | 4.821  | ug/l # | 45     |
| 38) Carbon Tetrachloride       | 6.41  | 117  | 116182   | 5.818  | ug/l # | 16     |
| 51) 4-Methyl-2-Pentanone       | 9.46  | 43   | 10156    | 1.365  | ug/l # | 1      |
| 52) Toluene                    | 9.55  | 92   | 172315   | 4.701  | ug/l   | 99     |
| 81) trans-1,4-Dichloro-2-buten | 12.43 | 75   | 269729   | 96.280 | ug/l # | 13     |

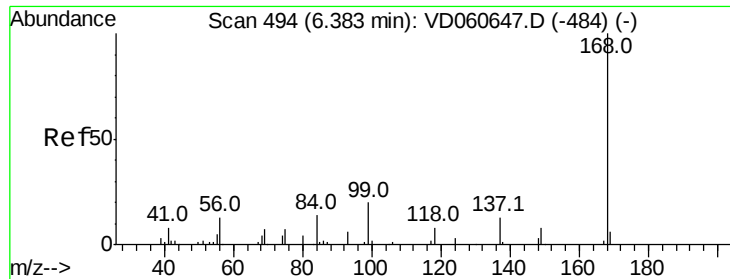
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_D  
ClientSampleId :

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D122018S.M  
Quant Title : SW846 8260  
QLast Update : Fri Dec 21 03:34:39 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 6.41 min Scan# 527

Delta R.T. -0.00 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

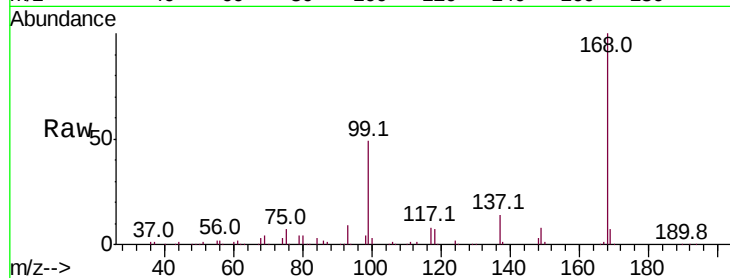
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion:168 Resp: 1543252

Ion Ratio Lower Upper

168 100

99 49.2 38.7 58.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

6.41

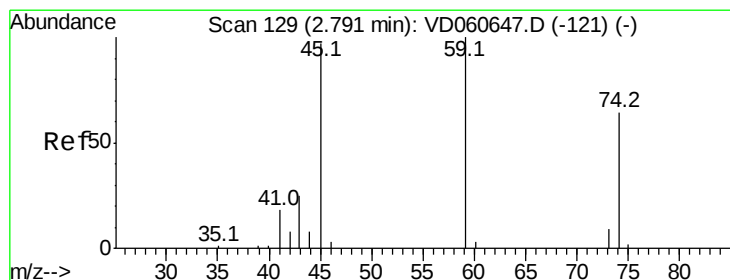
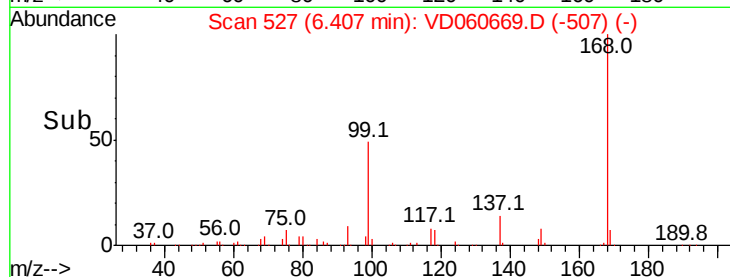
600000

400000

200000

0

Time-->



#8

Diethyl Ether

Concen: 1.511 ug/l

RT: 2.83 min Scan# 163

Delta R.T. -0.01 min

Lab File: VD060669.D

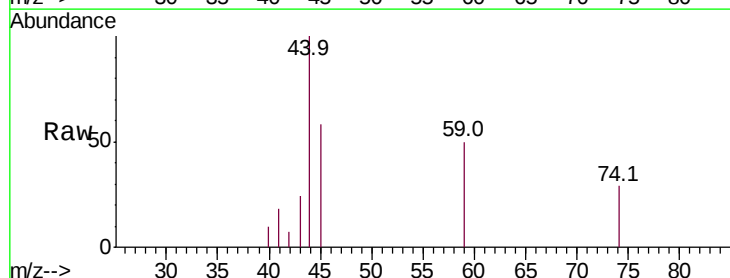
Acq: 20 Dec 2018 20:16

Tgt Ion: 74 Resp: 4052

Ion Ratio Lower Upper

74 100

45 203.6 79.3 238.1



Abundance Ion 74.00 (73.70 to 74.70): VDC

Ion 45.05 (44.75 to 45.75): VDC

4000

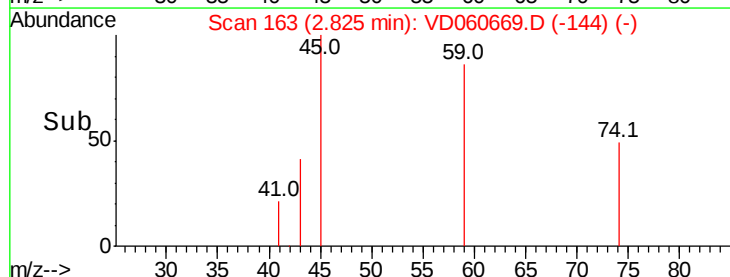
3000

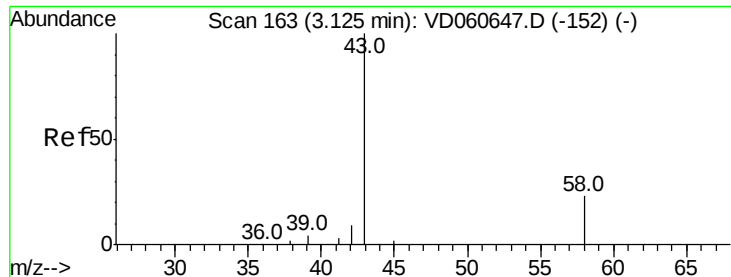
2000

1000

0

Time-->





#16

Acetone

Concen: 26.559 ug/l

RT: 3.17 min Scan# 198

Delta R.T. -0.00 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

Instrument :

MSVOA\_D

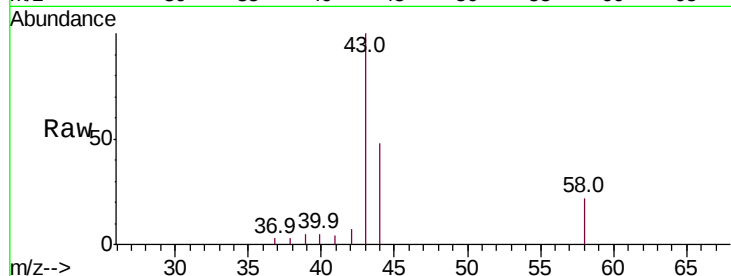
ClientSampleId :

Tot Ion: 43 Resp: 49465

Ion Ratio Lower Upper

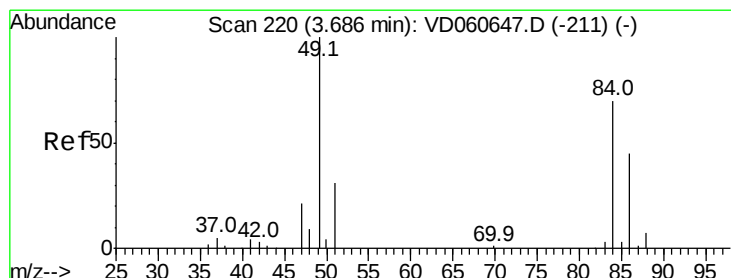
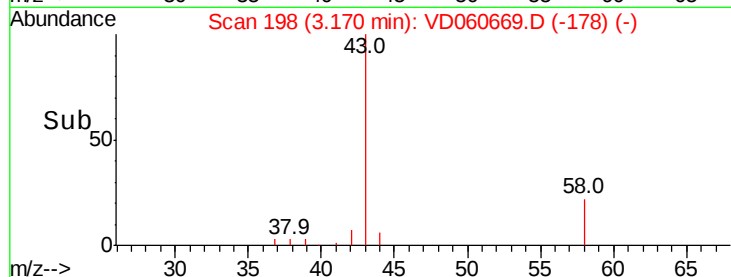
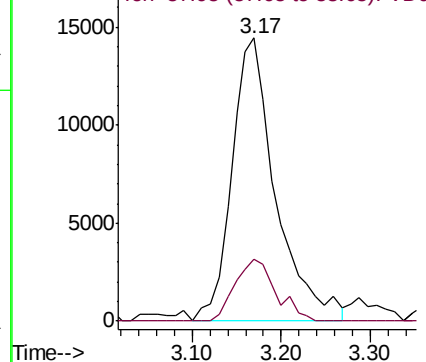
43 100

58 22.0 18.2 27.2



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#20

Methylene Chloride

Concen: 12.687 ug/l

RT: 3.72 min Scan# 254

Delta R.T. -0.01 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

Tgt Ion: 84 Resp: 245392

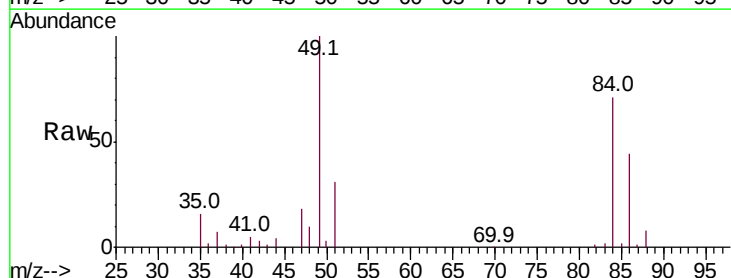
Ion Ratio Lower Upper

84 100

49 141.3 113.6 170.4

51 43.5 34.7 52.1

86 61.7 52.8 79.2

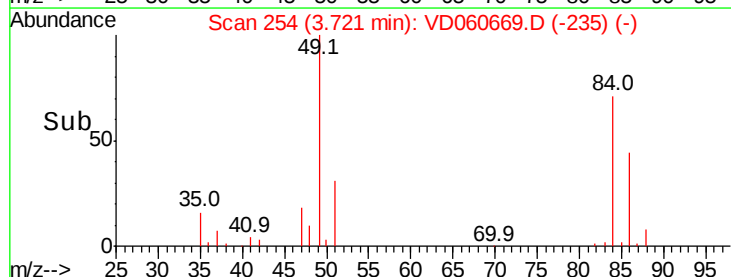
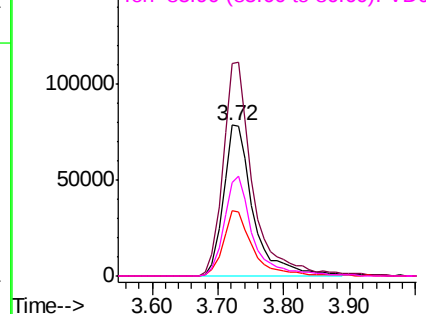


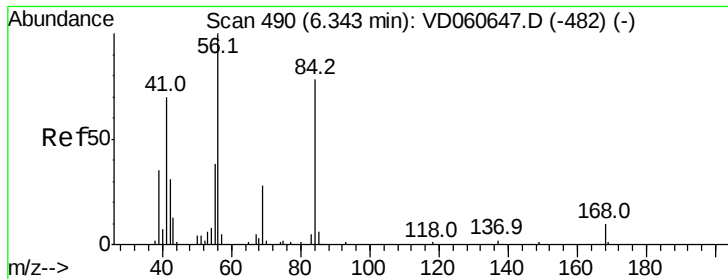
Abundance Ion 83.95 (83.65 to 84.65): VDC

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





#31

Cyclohexane

Concen: 1.049 ug/l

RT: 6.41 min Scan# 527

Delta R.T. 0.04 min

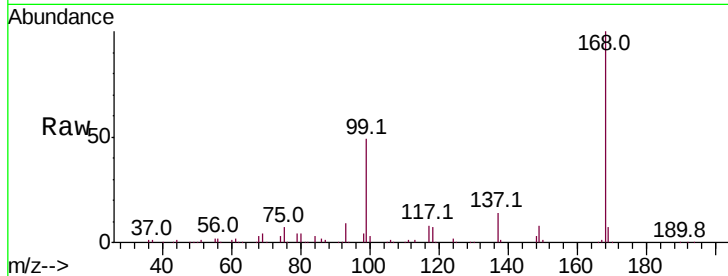
Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

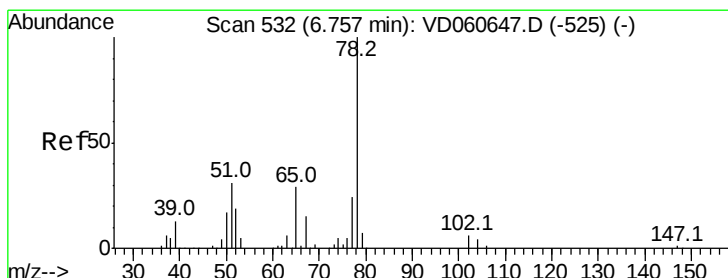
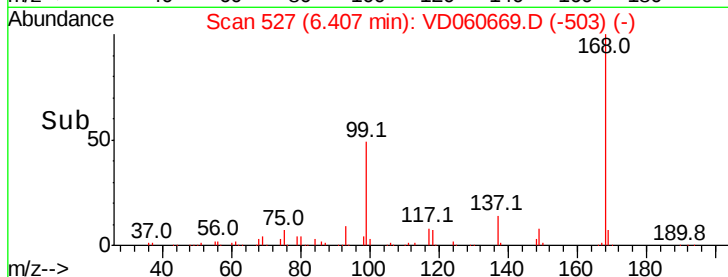
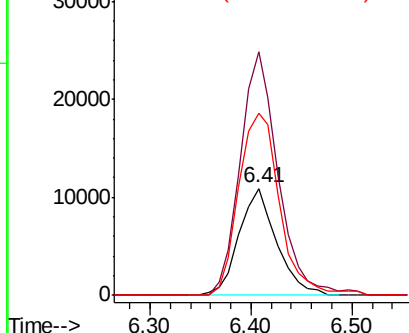
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 56 Resp: 28262

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 56  | 100   |       |       |
| 69  | 227.9 | 23.6  | 35.4# |
| 84  | 170.3 | 65.8  | 98.6# |



Abundance Ion 55.95 (55.65 to 56.65): VDC  
Ion 69.00 (68.70 to 69.70): VDC  
Ion 84.05 (83.75 to 84.75): VDC



#33

1,2-Dichloroethane-d4

Concen: N.D. ug/l

RT: 6.79 min Scan# 566

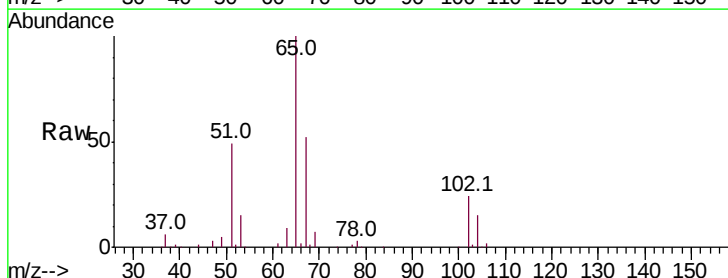
Delta R.T. -0.00 min

Lab File: VD060669.D

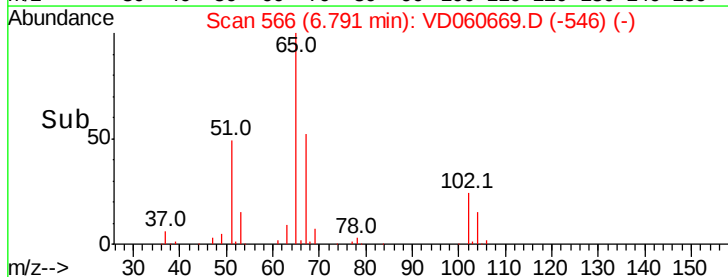
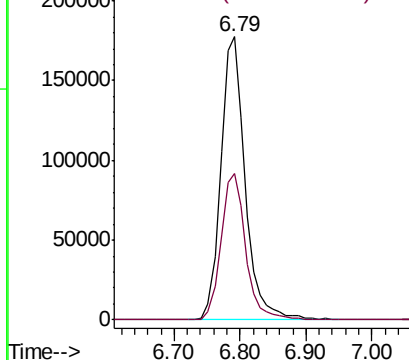
Acq: 20 Dec 2018 20:16

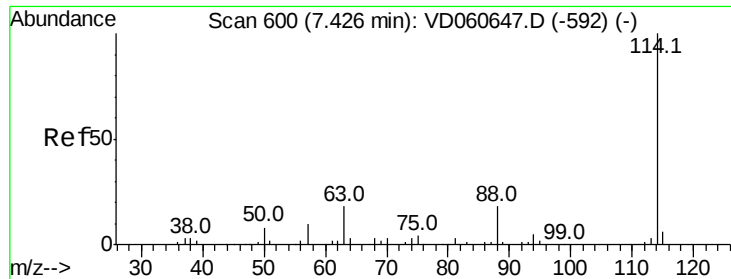
Tgt Ion: 65 Resp: 456711

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 65  | 100   |       |       |
| 67  | 51.8  | 0.0   | 105.4 |



Abundance Ion 64.95 (64.65 to 65.65): VDC  
Ion 66.90 (66.60 to 67.60): VDC



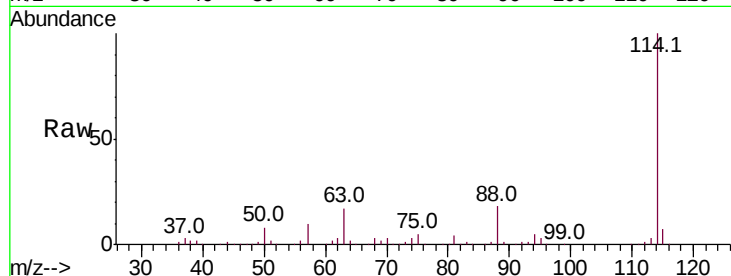


#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 7.45 min Scan# 633  
 Delta R.T. 0.01 min  
 Lab File: VD060669.D  
 Acq: 20 Dec 2018 20:16

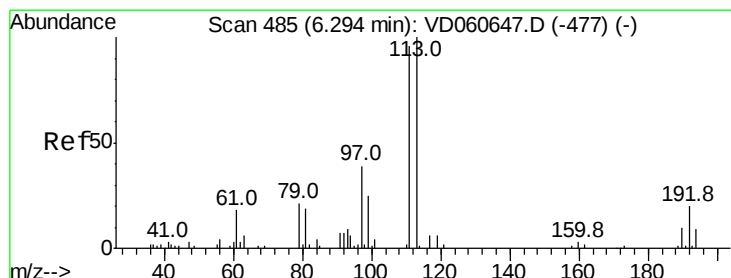
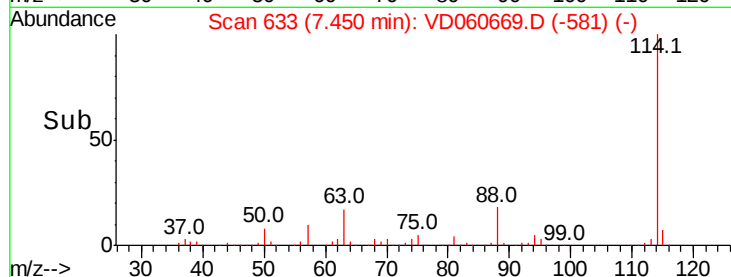
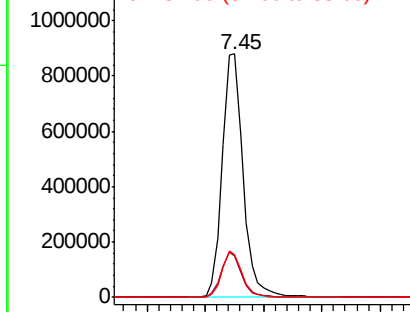
Instrument :  
 MSVOA\_D  
 ClientSampled :

Tot Ion:114 Resp: 2198167  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 114 | 100   |       |       |
| 63  | 16.8  | 0.0   | 36.2  |
| 88  | 17.8  | 0.0   | 37.0  |



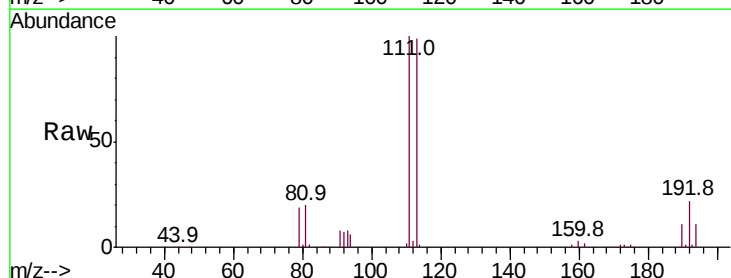
Abundance Ion 114.00 (113.70 to 114.70): V  
 Ion 62.95 (62.65 to 63.65): V  
 Ion 87.90 (87.60 to 88.60): V



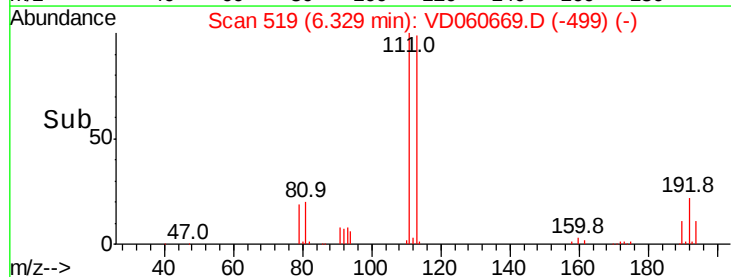
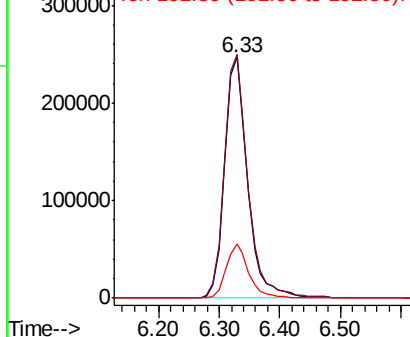
#35  
 Dibromofluoromethane  
 Concen: 50.000 ug/l  
 RT: 6.33 min Scan# 519  
 Delta R.T. -0.00 min  
 Lab File: VD060669.D  
 Acq: 20 Dec 2018 20:16

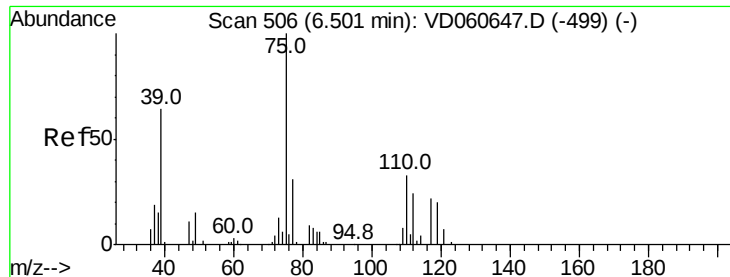
Tgt Ion:113 Resp: 654101  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 113 | 100   |       |       |
| 111 | 101.1 | 80.0  | 120.0 |
| 192 | 22.4  | 16.6  | 25.0  |



Abundance Ion 112.90 (112.60 to 113.60): V  
 Ion 110.90 (110.60 to 111.60): V  
 Ion 191.80 (191.50 to 192.50): V





#36

1,1-Dichloropropene

Concen: 4.821 ug/l

RT: 6.41 min Scan# 527

Delta R.T. -0.12 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

Instrument :

MSVOA\_D

ClientSampled :

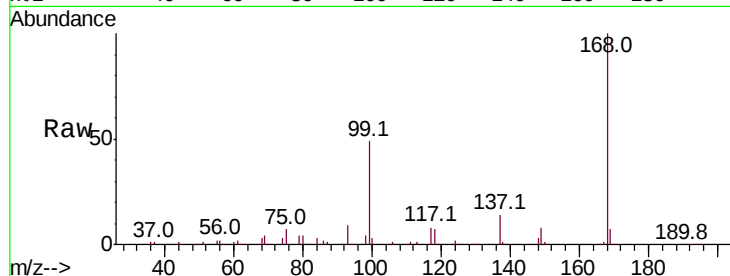
Tot Ion: 75 Resp: 109122

Ion Ratio Lower Upper

75 100

110 6.3 18.9 56.7#

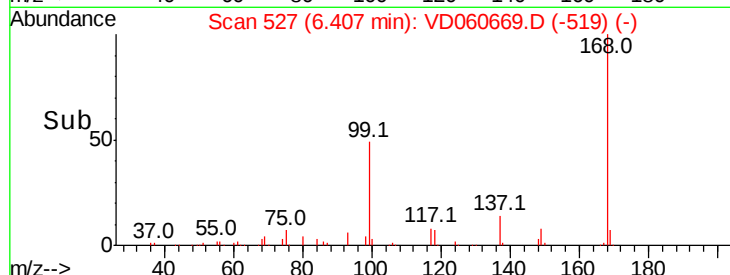
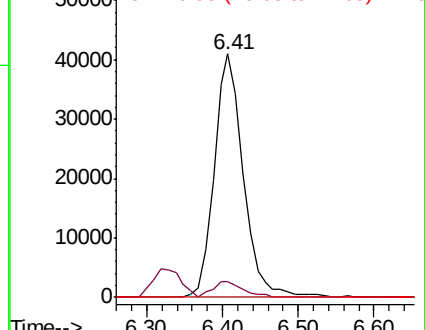
77 0.0 25.4 38.0#



Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V



#38

Carbon Tetrachloride

Concen: 5.818 ug/l

RT: 6.41 min Scan# 527

Delta R.T. -0.09 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

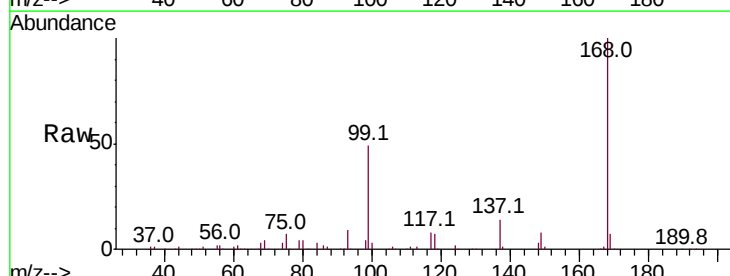
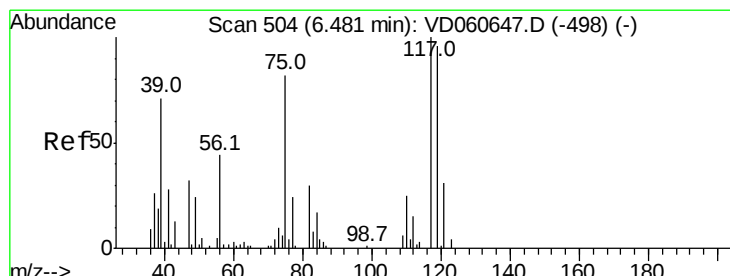
Tgt Ion: 117 Resp: 116182

Ion Ratio Lower Upper

117 100

119 5.1 77.0 115.4#

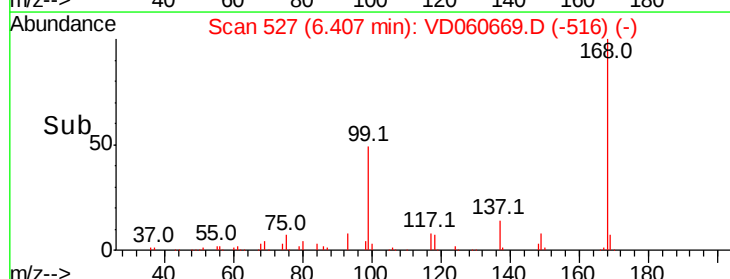
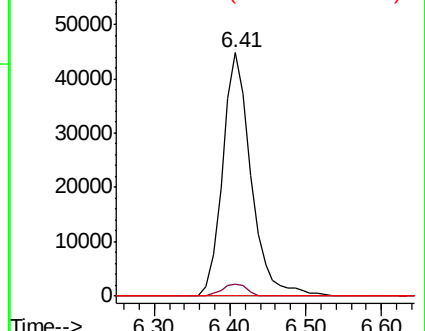
121 0.0 24.7 37.1#

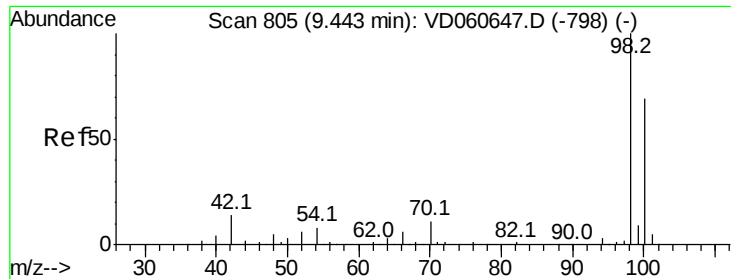


Abundance Ion 116.85 (116.55 to 117.55): V

Ion 118.85 (118.55 to 119.55): V

Ion 120.85 (120.55 to 121.55): V





#50

Toluene-d8

Concen: N.D. ug/l

RT: 9.46 min Scan# 837

Delta R.T. -0.00 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

Instrument :

MSVOA\_D

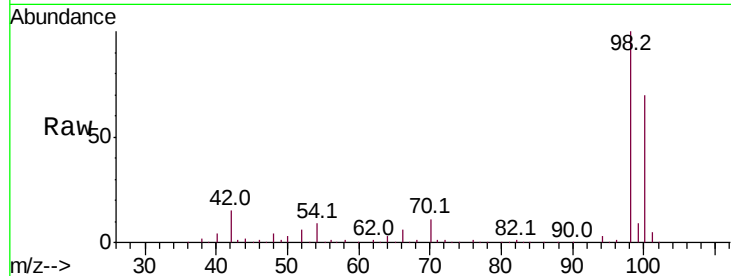
ClientSampleId :

Tot Ion: 98 Resp: 1724224

Ion Ratio Lower Upper

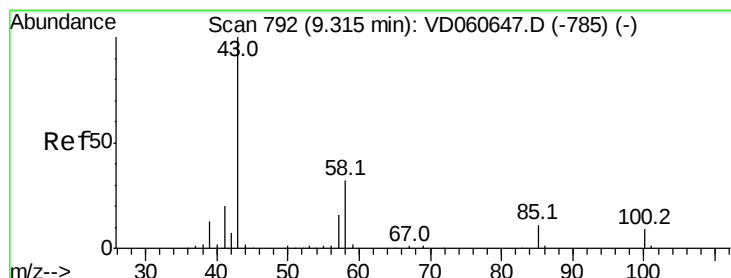
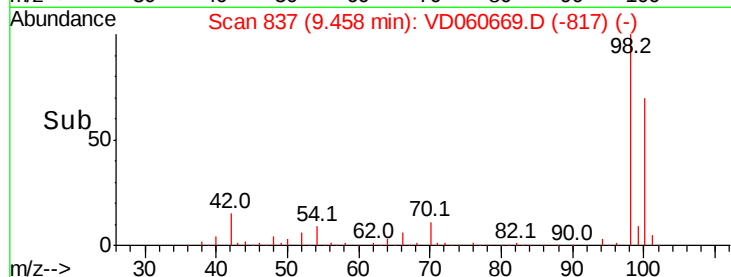
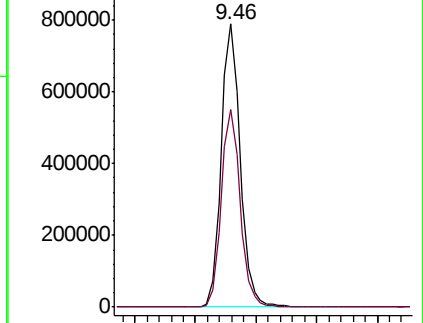
98 100

100 70.0 55.8 83.8



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: 1.365 ug/l

RT: 9.46 min Scan# 837

Delta R.T. 0.12 min

Lab File: VD060669.D

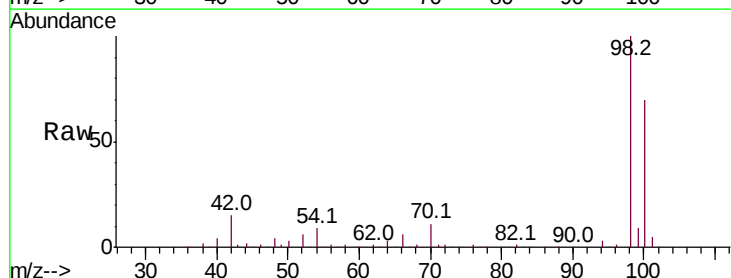
Acq: 20 Dec 2018 20:16

Tgt Ion: 43 Resp: 10156

Ion Ratio Lower Upper

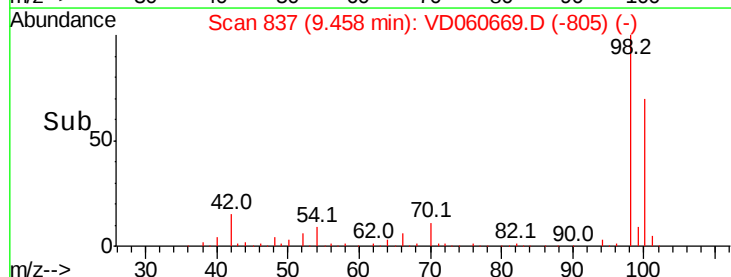
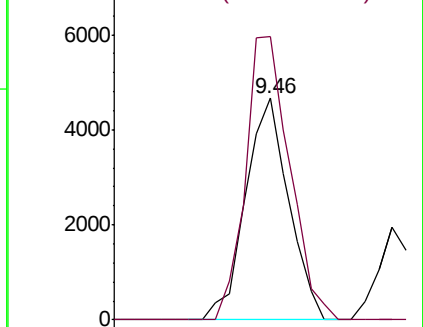
43 100

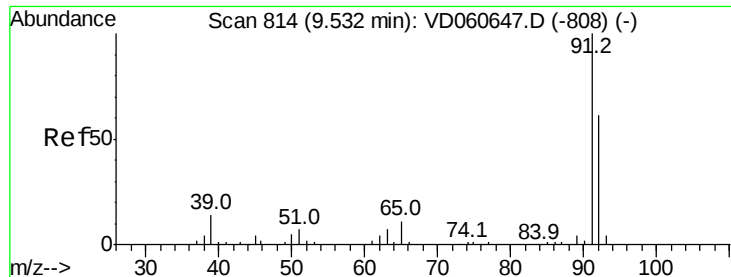
58 127.8 26.3 39.5#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC





#52

Toluene

Concen: 4.701 ug/l

RT: 9.55 min Scan# 846

Delta R.T. -0.00 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

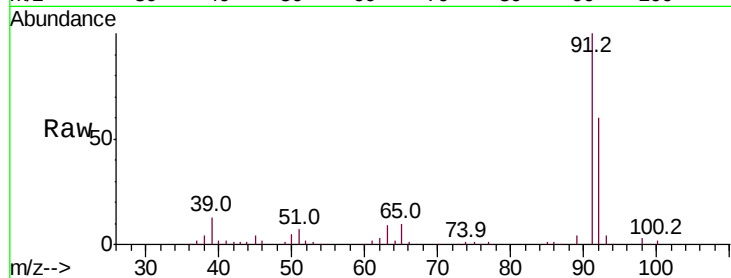
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 92 Resp: 172315

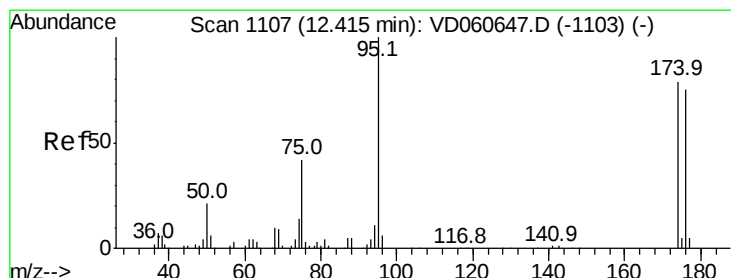
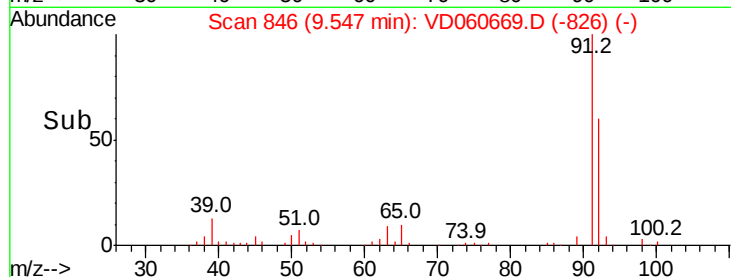
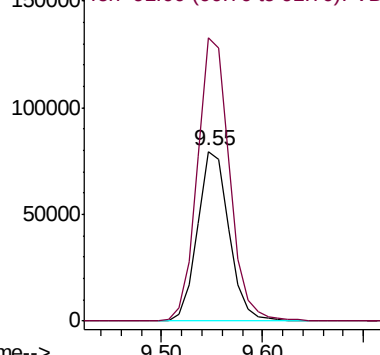
Ion Ratio Lower Upper

92 100

91 166.7 132.6 199.0



Abundance Ion 92.00 (91.70 to 92.70): VDC  
Ion 91.00 (90.70 to 91.70): VDC



#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 12.43 min Scan# 1139

Delta R.T. 0.01 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

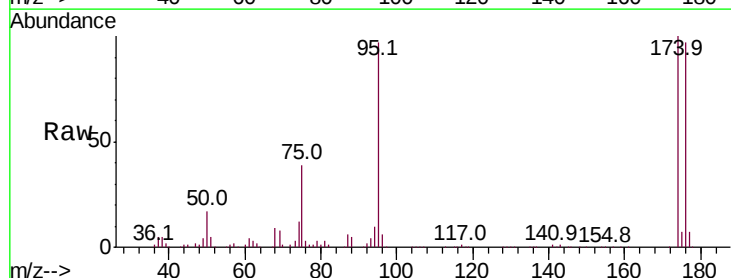
Tgt Ion: 95 Resp: 658951

Ion Ratio Lower Upper

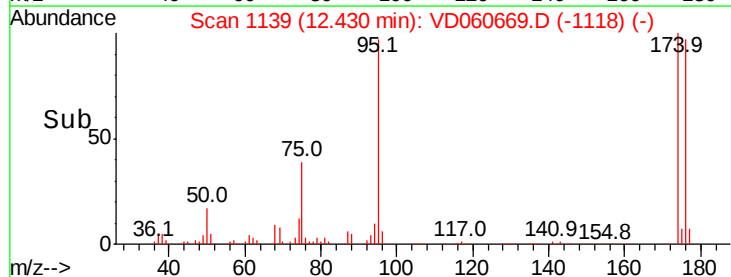
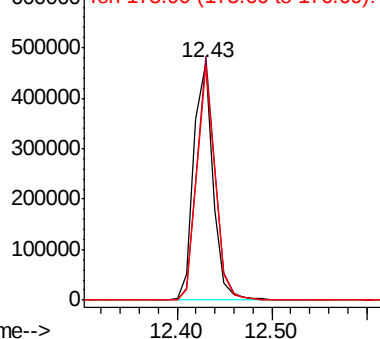
95 100

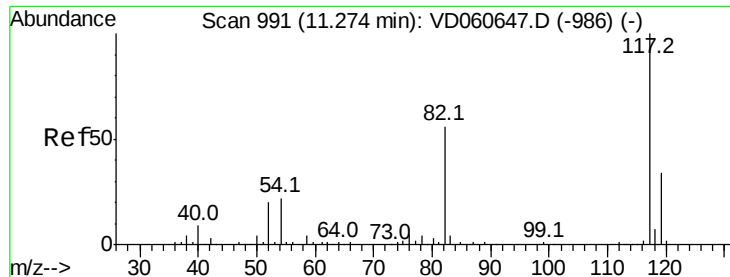
174 102.6 0.0 158.2

176 99.1 0.0 152.4



Abundance Ion 95.00 (94.70 to 95.70): VDC  
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: 11.29 min Scan# 1023

Delta R.T. 0.01 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

Instrument :

MSVOA\_D

ClientSampled :

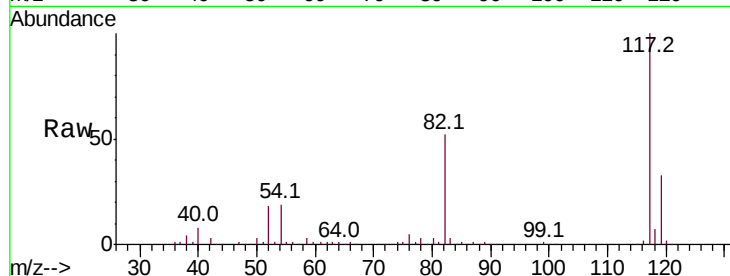
Tot Ion:117 Resp: 1770310

Ion Ratio Lower Upper

117 100

82 52.2 44.5 66.7

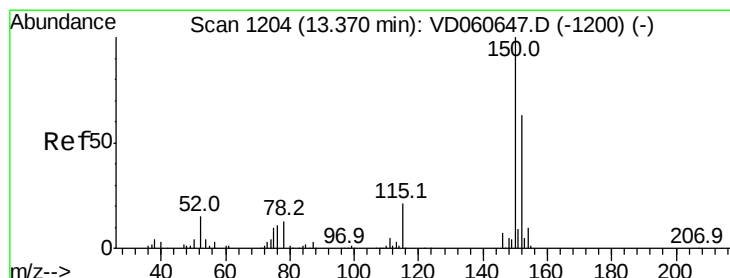
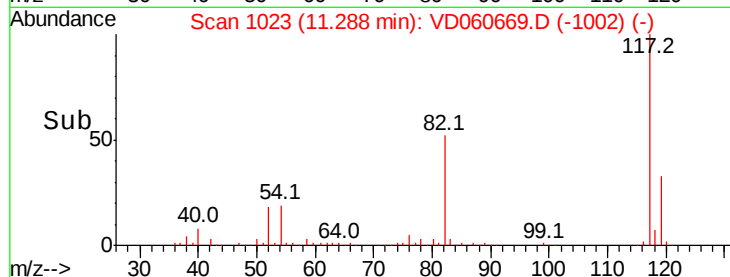
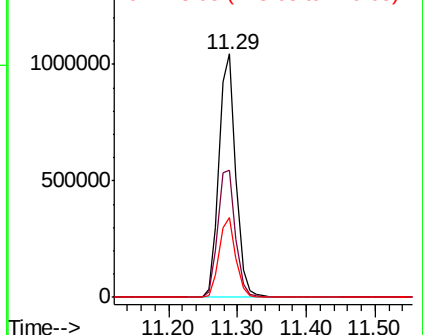
119 32.7 26.3 39.5



Abundance Ion 116.95 (116.65 to 117.65): V

Ion 82.05 (81.75 to 82.75): VD

Ion 118.95 (118.65 to 119.65): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.37 min Scan# 1235

Delta R.T. -0.00 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

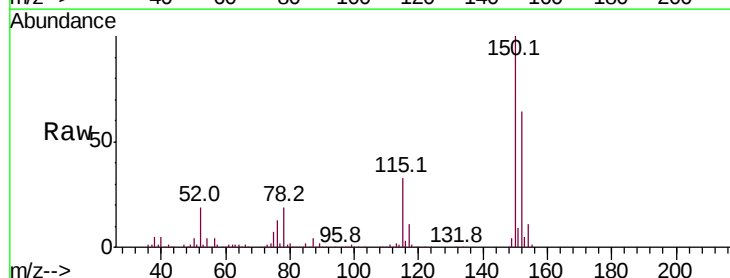
Tgt Ion:152 Resp: 890525

Ion Ratio Lower Upper

152 100

115 50.5 24.1 72.3

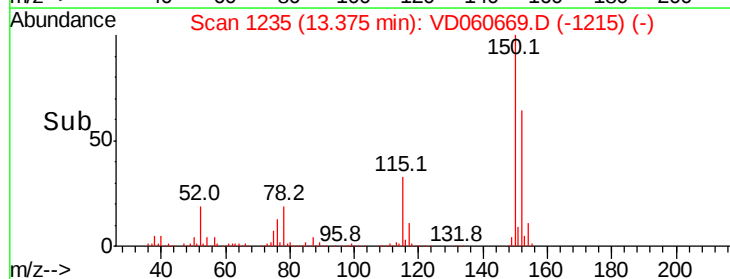
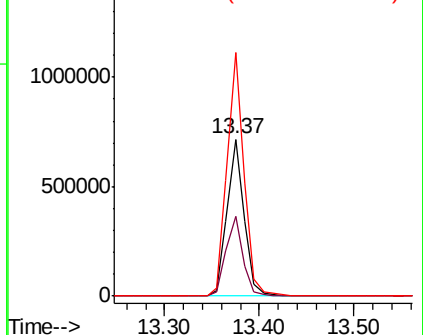
150 155.1 0.0 315.0

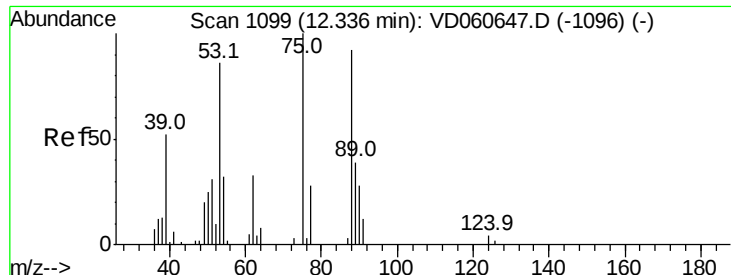


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 115.00 (114.70 to 115.70): V

Ion 149.90 (149.60 to 150.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 96.280 ug/l

RT: 12.43 min Scan# 1139

Delta R.T. 0.09 min

Lab File: VD060669.D

Acq: 20 Dec 2018 20:16

Instrument :

MSVOA\_D

ClientSampleId :

Tot Ion: 75 Resp: 269729

Ion Ratio Lower Upper

75 100

53 0.0 72.1 108.1#

89 0.0 35.1 52.7#

