

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD051719\  
 Data File : VD062436.D  
 Acq On : 17 May 2019 13:44  
 Operator : FY/SY  
 Sample : K2644-01RE  
 Misc : 7.98g/5mL/MSVOA D/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: May 18 00:04:01 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D050719S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 07 14:26:29 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.06  | 168  | 707103   | 50.00 | ug/l  | 0.03     |
| 34) 1,4-Difluorobenzene    | 8.23  | 114  | 1016034  | 50.00 | ug/l  | 0.03     |
| 63) Chlorobenzene-d5       | 12.37 | 117  | 771448   | 50.00 | ug/l  | 0.02     |
| 72) 1,4-Dichlorobenzene-d4 | 14.53 | 152  | 333844   | 50.00 | ug/l  | 0.02     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.46  | 65   | 240513   | 36.60 | ug/l   | 0.03     |
| Spiked Amount               |       |      | Recovery | =     | 73.20% |          |
| 35) Dibromofluoromethane    | 6.93  | 113  | 305562   | 36.25 | ug/l   | 0.03     |
| Spiked Amount               |       |      | Recovery | =     | 72.50% |          |
| 50) Toluene-d8              | 10.42 | 98   | 604225   | 29.73 | ug/l   | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 59.46% |          |
| 62) 4-Bromofluorobenzene    | 13.56 | 95   | 254642   | 31.20 | ug/l   | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 62.40% |          |

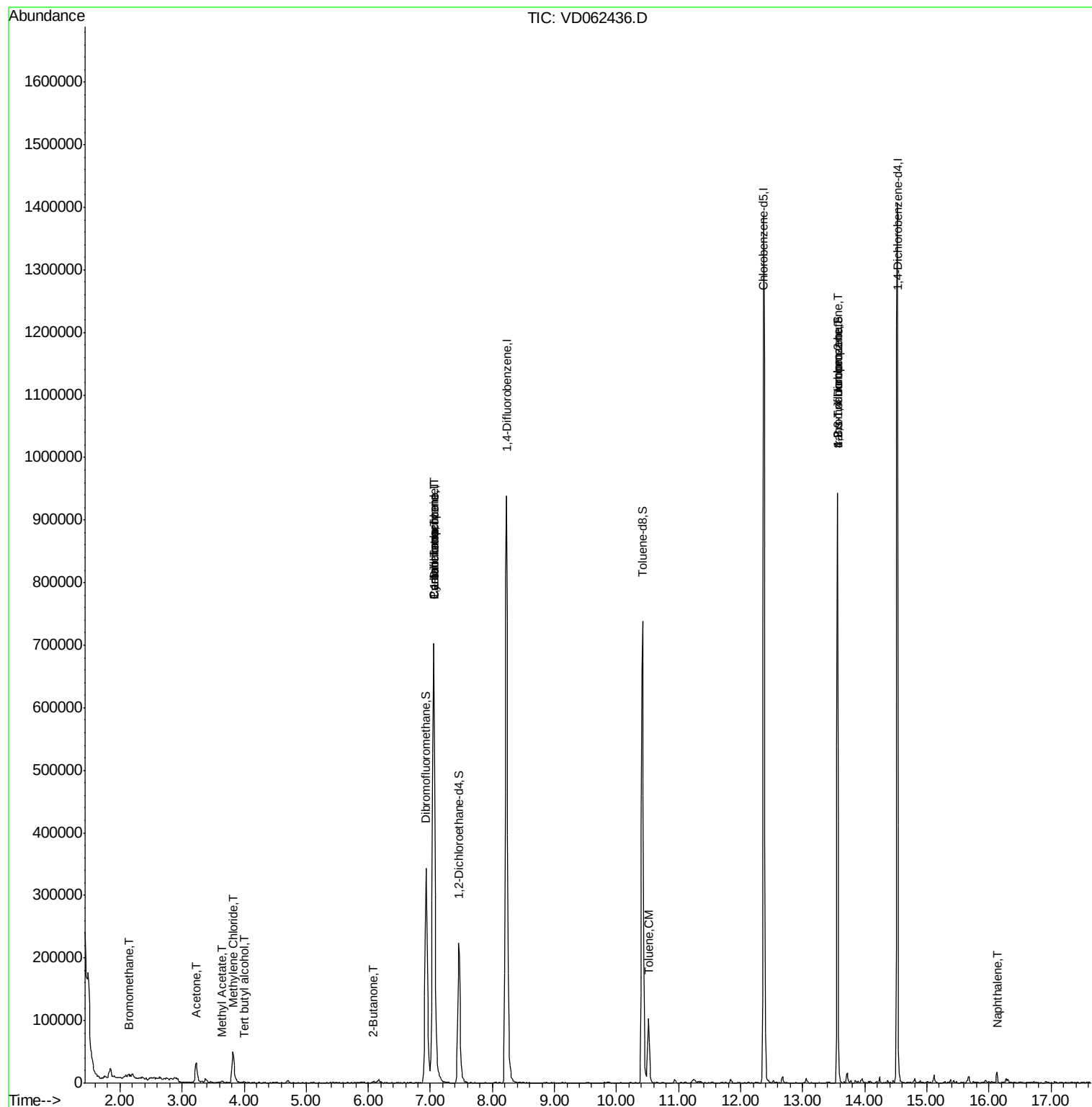
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 2.14  | 94   | 2940     | 2.613  | ug/l # | 12     |
| 11) Tert butyl alcohol         | 4.02  | 59   | 1210     | 3.607  | ug/l # | 76     |
| 16) Acetone                    | 3.23  | 43   | 62275    | 45.191 | ug/l # | 78     |
| 18) Methyl Acetate             | 3.65  | 43   | 5167     | 1.804  | ug/l # | 53     |
| 20) Methylene Chloride         | 3.82  | 84   | 33719    | 5.860  | ug/l   | 91     |
| 25) 2-Butanone                 | 6.08  | 43   | 4869     | 3.239  | ug/l # | 56     |
| 31) Cyclohexane                | 7.05  | 56   | 15718    | 2.280  | ug/l # | 31     |
| 36) 1,1-Dichloropropene        | 7.06  | 75   | 58821    | 7.061  | ug/l # | 47     |
| 38) Carbon Tetrachloride       | 7.06  | 117  | 74462    | 6.458  | ug/l # | 16     |
| 52) Toluene                    | 10.52 | 92   | 53225    | 4.349  | ug/l   | 96     |
| 76) 1,2,3-Trichloropropane     | 13.56 | 75   | 101143   | 25.493 | ug/l # | 44     |
| 81) trans-1,4-Dichloro-2-buten | 13.56 | 75   | 106780   | 95.336 | ug/l # | 16     |
| 95) Naphthalene                | 16.13 | 128  | 11690    | 1.365  | ug/l   | 98     |

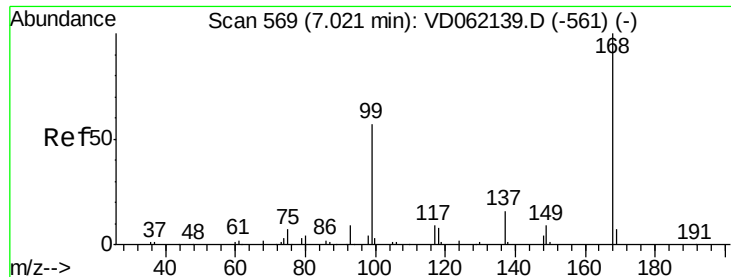
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 18 00:04:01 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D050719S.M  
Quant Title : SW846 8260  
QLast Update : Tue May 07 14:26:29 2019  
Response via : Initial Calibration

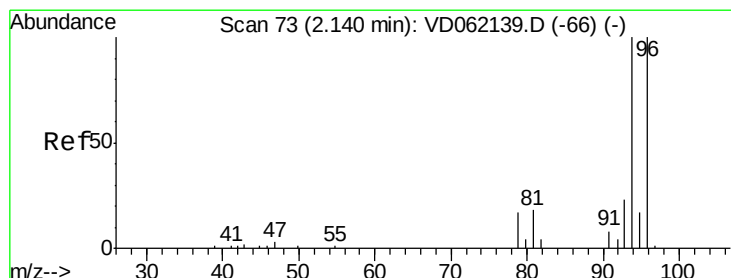
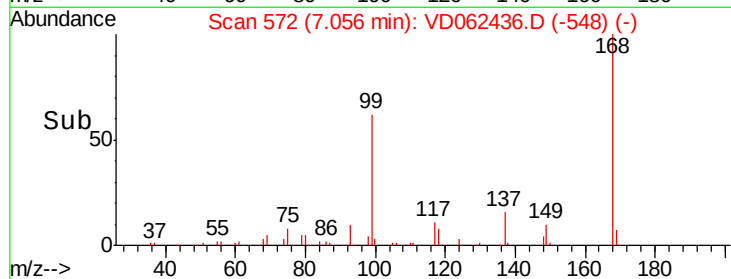
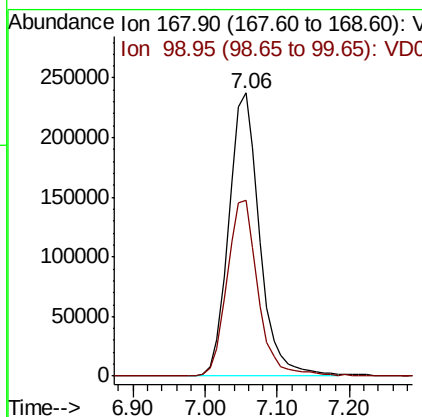
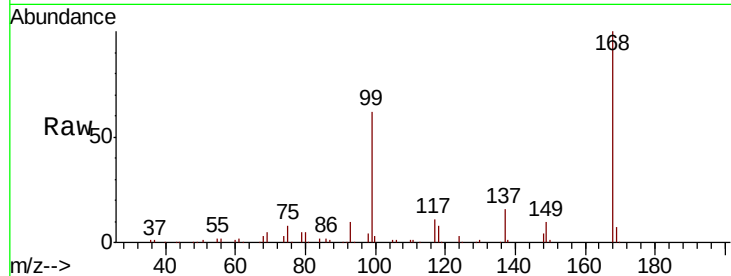




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 7.06 min Scan# 572  
Delta R.T. 0.03 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

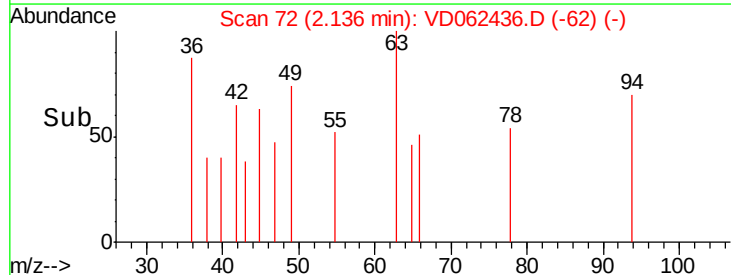
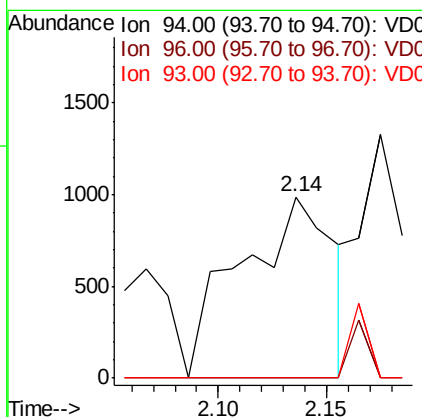
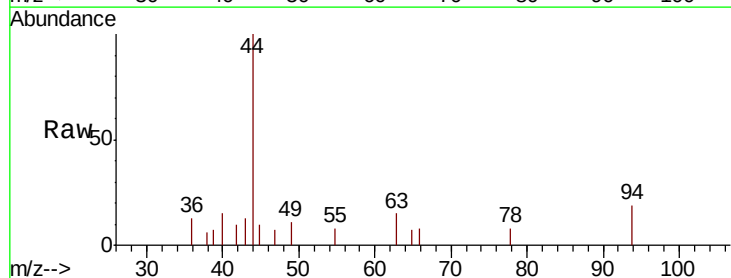
Instrument :  
MSVOA\_D  
ClientSampled :

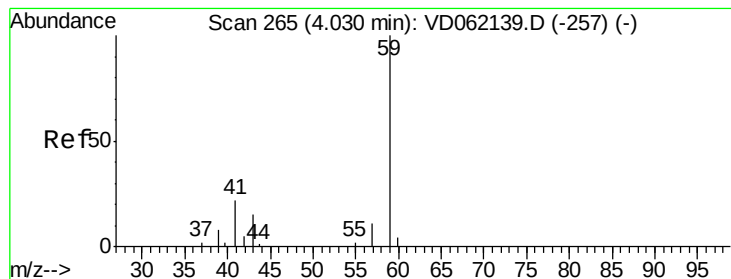
Tot Ion:168 Resp: 707103  
Ion Ratio Lower Upper  
168 100  
99 62.0 46.5 69.7



#5  
Bromomethane  
Concen: 2.613 ug/l  
RT: 2.14 min Scan# 72  
Delta R.T. -0.00 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

Tgt Ion: 94 Resp: 2940  
Ion Ratio Lower Upper  
94 100  
96 0.0 76.6 115.0#  
93 0.0 18.5 27.7#



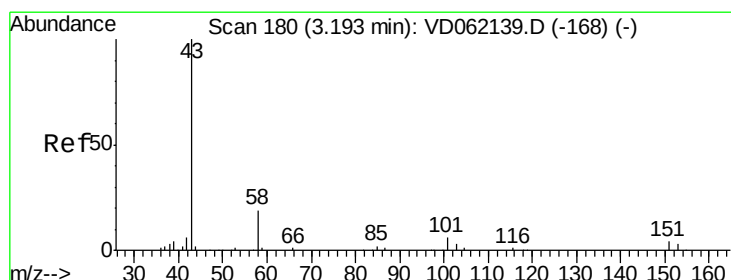
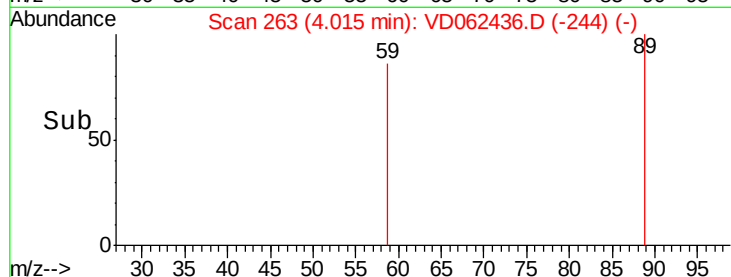
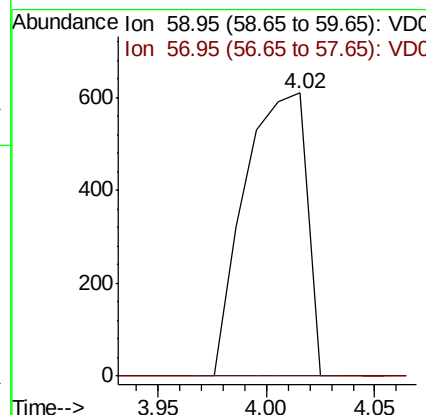
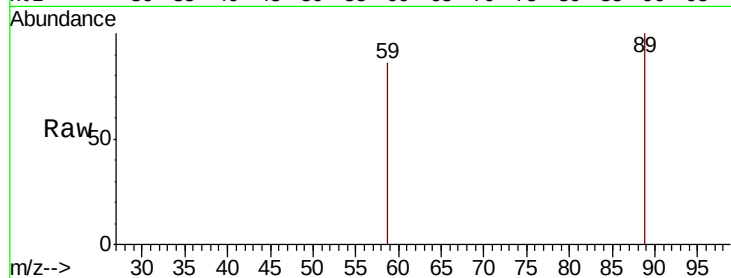


#11

Tert butyl alcohol  
 Concen: 3.607 ug/l  
 RT: 4.02 min Scan# 263  
 Delta R.T. -0.01 min  
 Lab File: VD062436.D  
 Acq: 17 May 2019 13:44

Instrument :  
 MSVOA\_D  
 ClientSampleId :

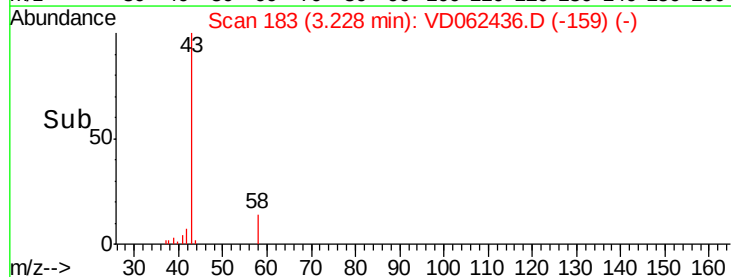
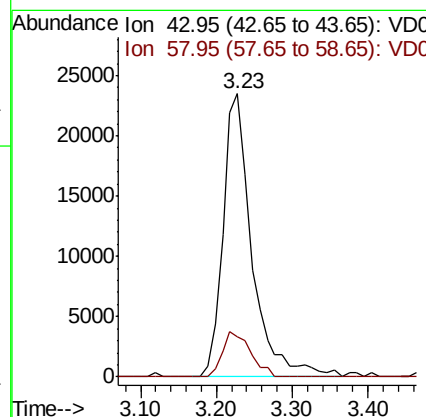
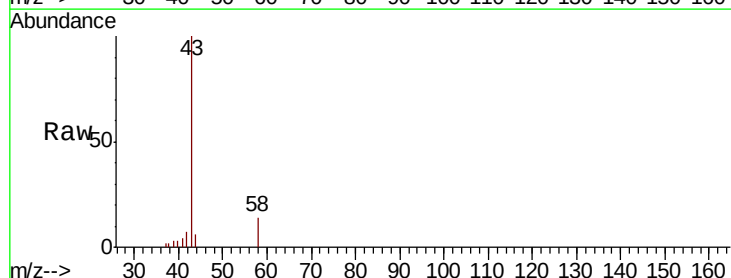
Tot Ion: 59 Resp: 1210  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 6.9 10.3#

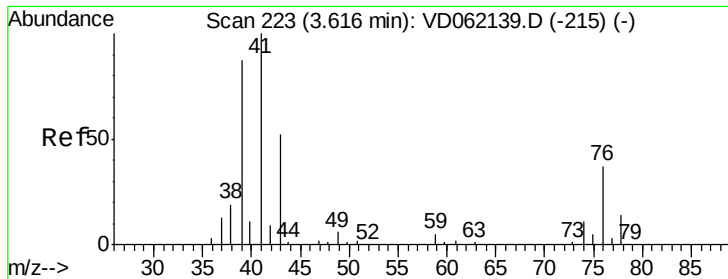


#16

Acetone  
 Concen: 45.191 ug/l  
 RT: 3.23 min Scan# 183  
 Delta R.T. 0.03 min  
 Lab File: VD062436.D  
 Acq: 17 May 2019 13:44

Tgt Ion: 43 Resp: 62275  
 Ion Ratio Lower Upper  
 43 100  
 58 14.0 19.9 29.9#

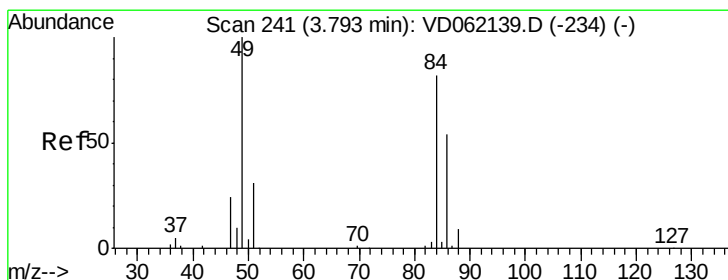
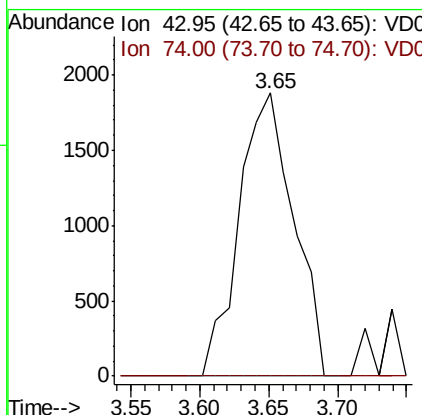
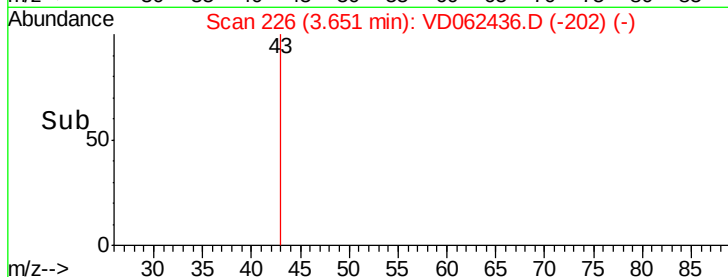
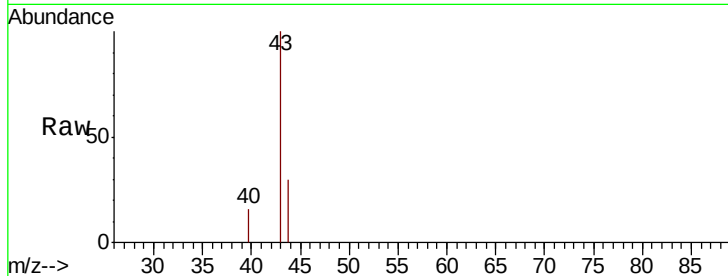




#18  
Methyl Acetate  
Concen: 1.804 ug/l  
RT: 3.65 min Scan# 226  
Delta R.T. 0.04 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

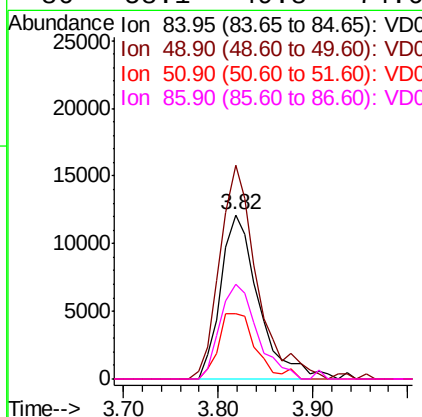
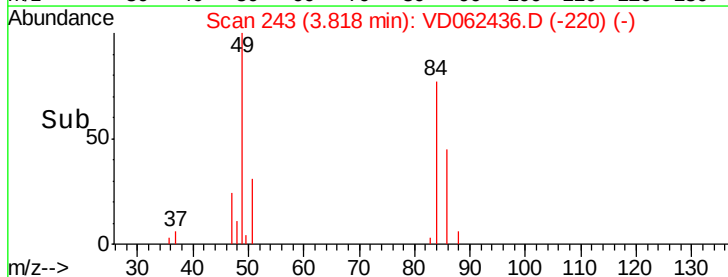
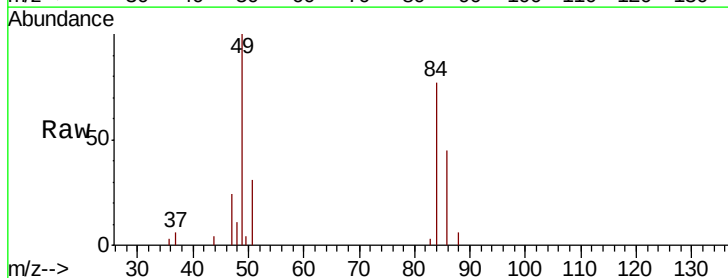
Instrument :  
MSVOA\_D  
ClientSampled :

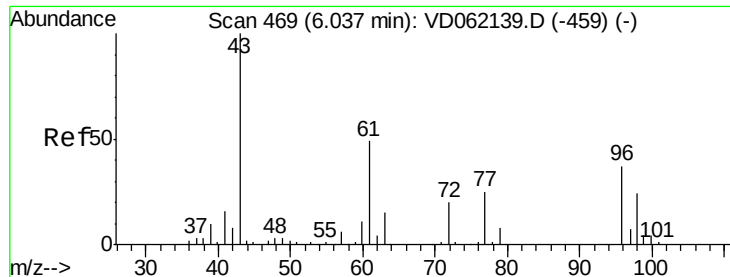
Tot Ion: 43 Resp: 5167  
Ion Ratio Lower Upper  
43 100  
74 0.0 18.0 27.0#



#20  
Methylene Chloride  
Concen: 5.860 ug/l  
RT: 3.82 min Scan# 243  
Delta R.T. 0.02 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

Tgt Ion: 84 Resp: 33719  
Ion Ratio Lower Upper  
84 100  
49 130.3 94.0 141.0  
51 40.2 29.0 43.4  
86 58.1 49.8 74.6

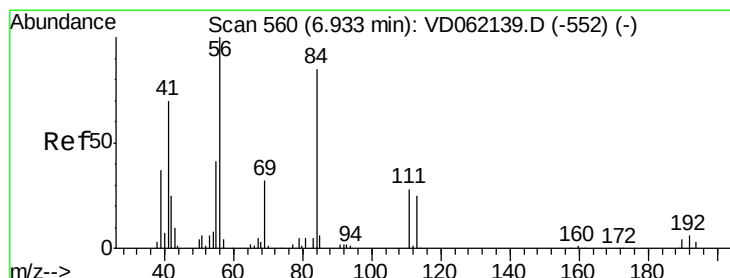
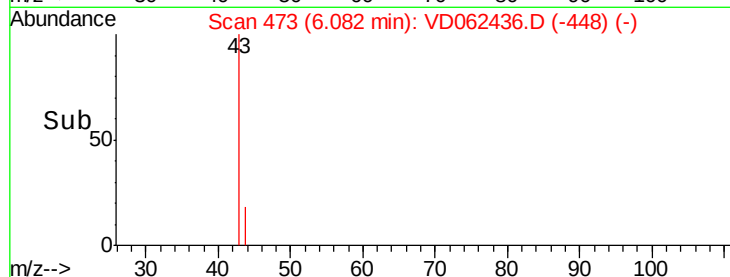
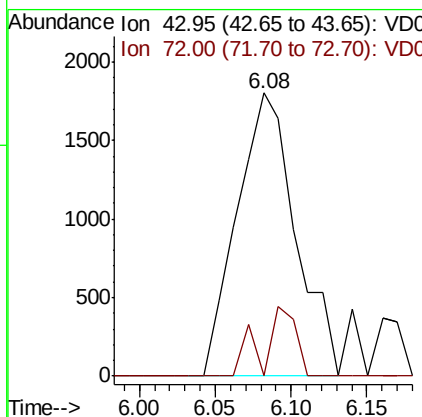
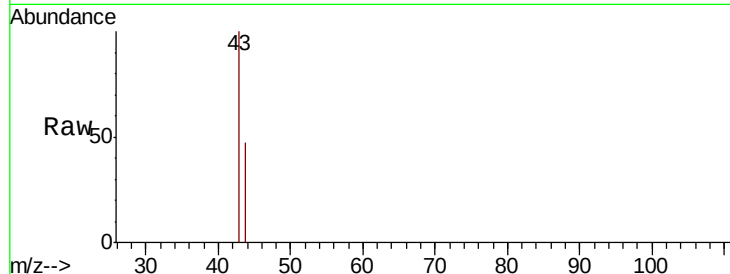




#25  
2-Butanone  
Concen: 3.239 ug/l  
RT: 6.08 min Scan# 473  
Delta R.T. 0.04 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

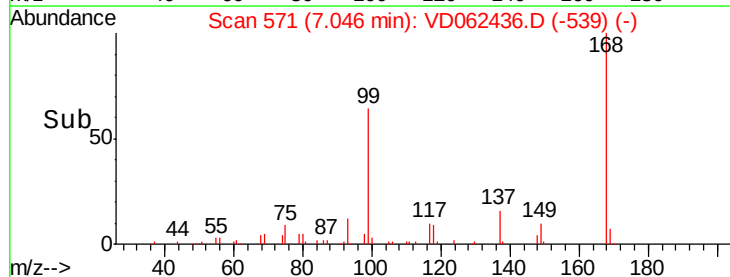
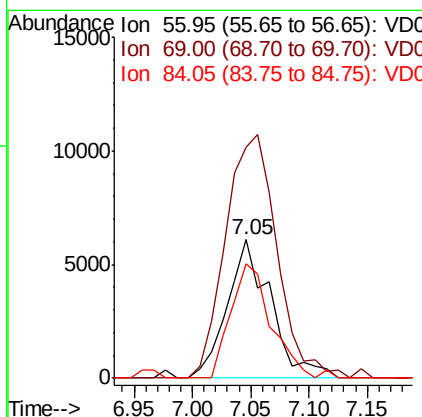
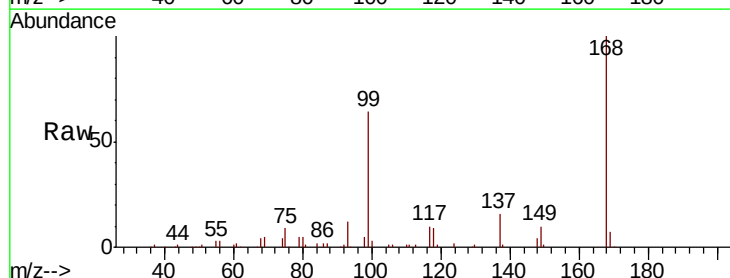
Instrument :  
MSVOA\_D  
ClientSampleId :

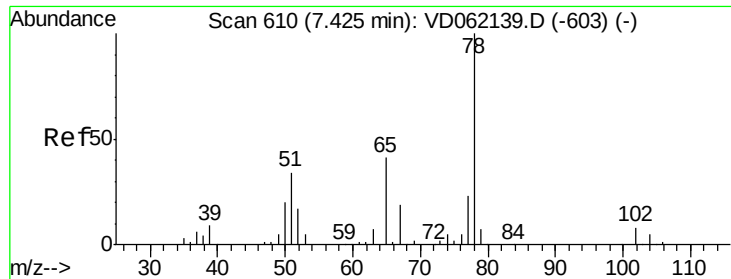
Tot Ion: 43 Resp: 4869  
Ion Ratio Lower Upper  
43 100  
72 0.0 16.2 24.4#



#31  
Cyclohexane  
Concen: 2.280 ug/l  
RT: 7.05 min Scan# 571  
Delta R.T. 0.11 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

Tgt Ion: 56 Resp: 15718  
Ion Ratio Lower Upper  
56 100  
69 167.3 25.8 38.6#  
84 82.7 72.2 108.4

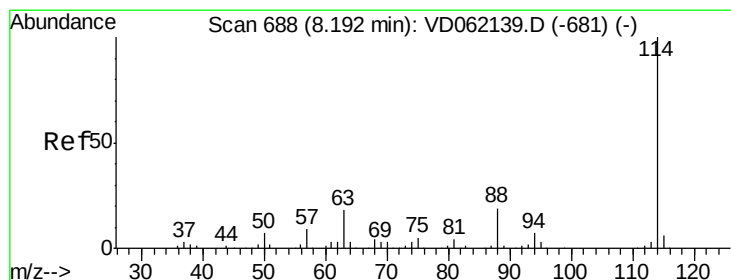
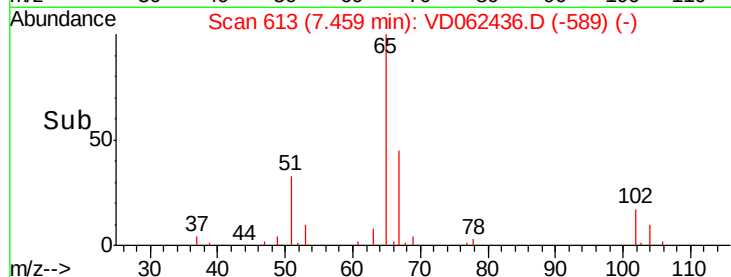
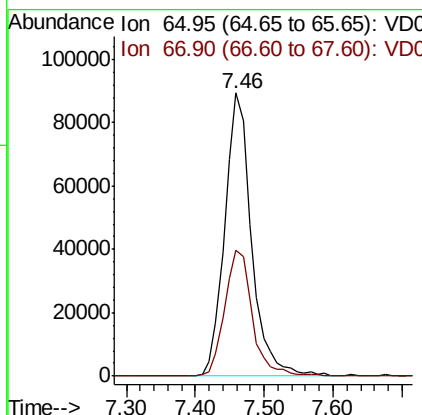
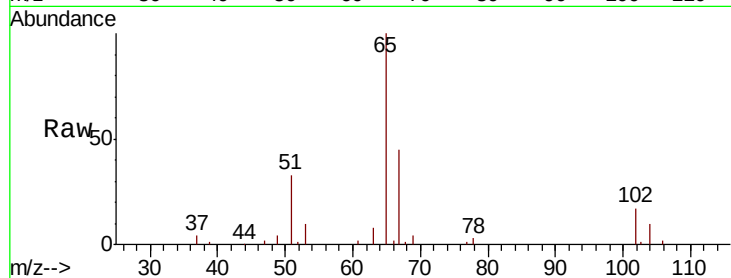




#33  
 1,2-Dichloroethane-d4  
 Concen: 36.601 ug/l  
 RT: 7.46 min Scan# 613  
 Delta R.T. 0.03 min  
 Lab File: VD062436.D  
 Acq: 17 May 2019 13:44

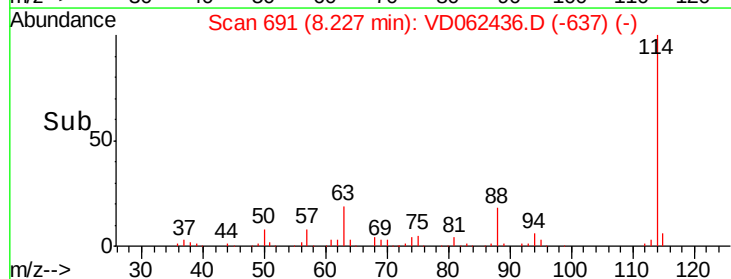
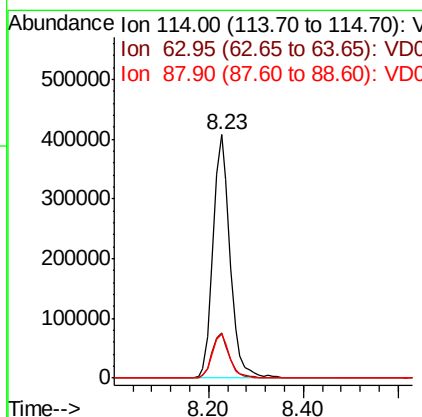
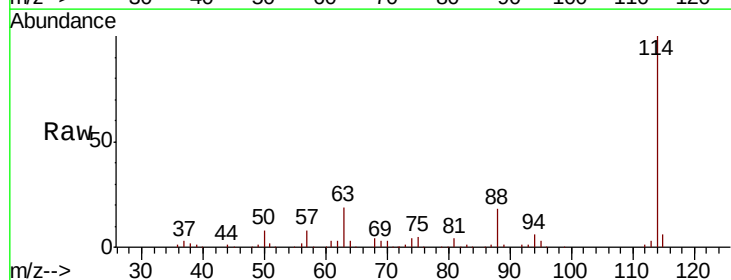
Instrument :  
 MSVOA\_D  
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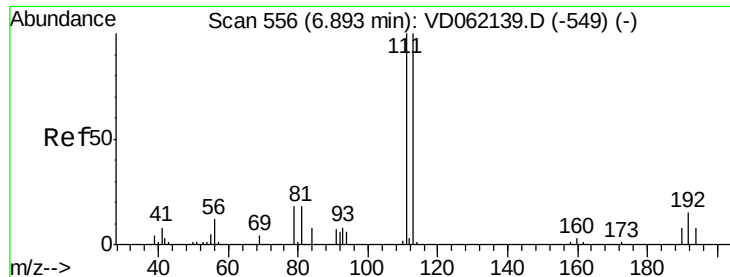
Tot Ion: 65 Resp: 240513  
 Ion Ratio Lower Upper  
 65 100  
 67 44.5 0.0 98.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.23 min Scan# 691  
 Delta R.T. 0.03 min  
 Lab File: VD062436.D  
 Acq: 17 May 2019 13:44

Tgt Ion: 114 Resp: 1016034  
 Ion Ratio Lower Upper  
 114 100  
 63 18.5 0.0 32.4  
 88 17.9 0.0 33.6

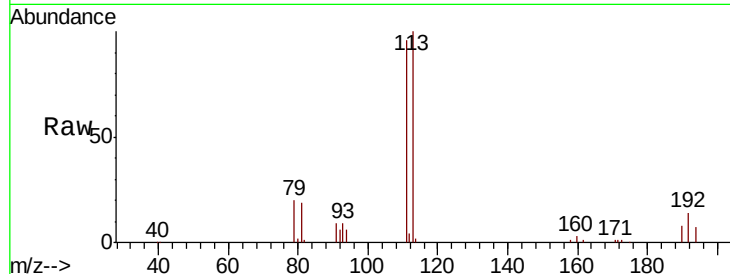




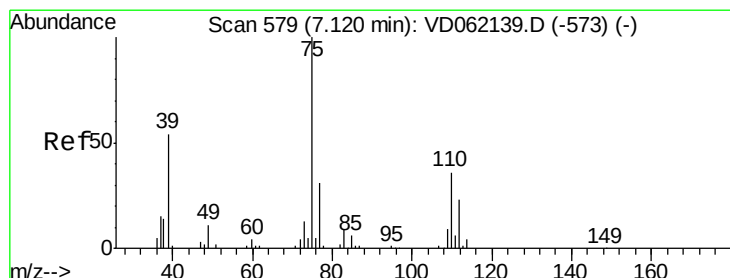
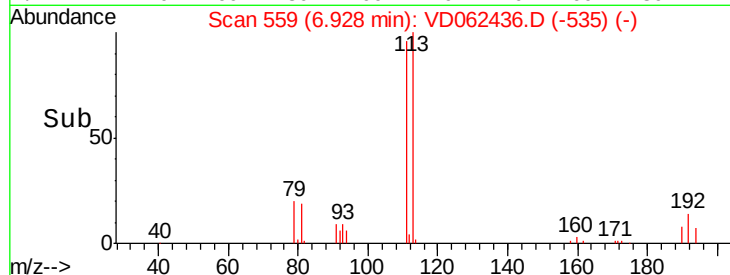
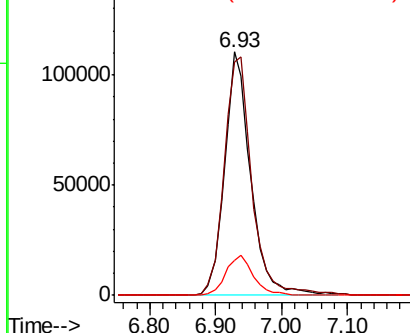
#35  
 Dibromofluoromethane  
 Concen: 36.246 ug/l  
 RT: 6.93 min Scan# 559  
 Delta R.T. 0.03 min  
 Lab File: VD062436.D  
 Acq: 17 May 2019 13:44

Instrument :  
 MSVOA\_D  
 ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 95.8  | 78.5  | 117.7 |
| 192     | 14.5  | 13.0  | 19.4  |

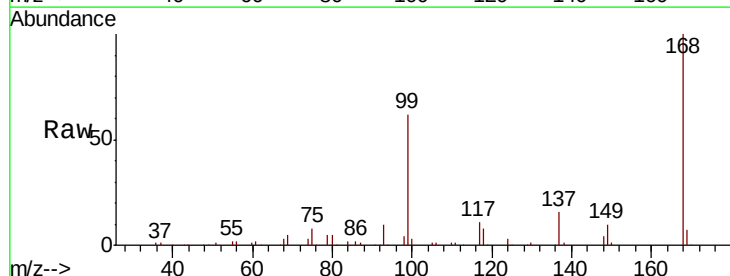


Abundance Ion 112.90 (112.60 to 113.60): V  
 Ion 110.90 (110.60 to 111.60): V  
 Ion 191.80 (191.50 to 192.50): V

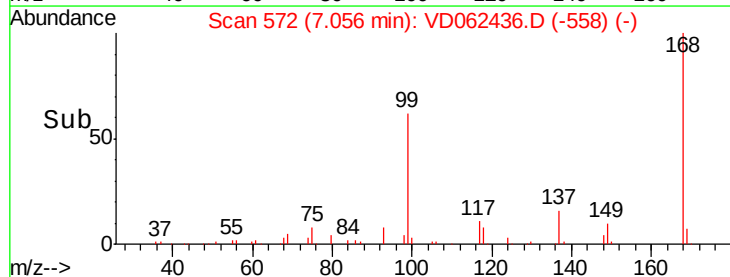
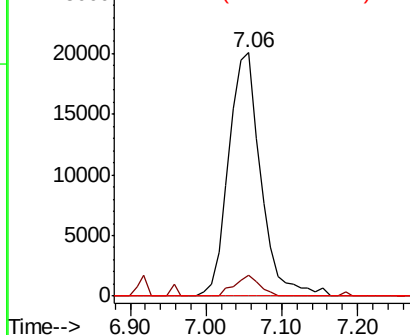


#36  
 1,1-Dichloropropene  
 Concen: 7.061 ug/l  
 RT: 7.06 min Scan# 572  
 Delta R.T. -0.06 min  
 Lab File: VD062436.D  
 Acq: 17 May 2019 13:44

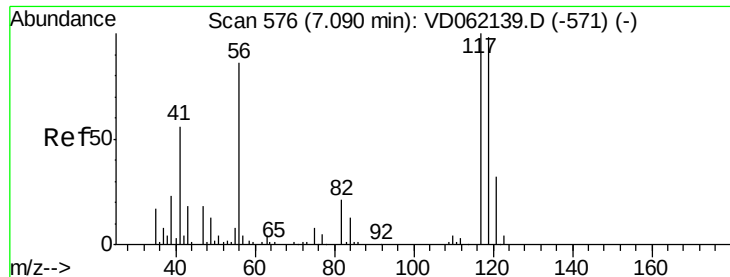
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.4   | 19.1  | 57.1# |
| 77      | 0.0   | 25.6  | 38.4# |



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: 6.458 ug/l

RT: 7.06 min Scan# 572

Delta R.T. -0.03 min

Lab File: VD062436.D

Acq: 17 May 2019 13:44

Instrument :

MSVOA\_D

ClientSampleId :

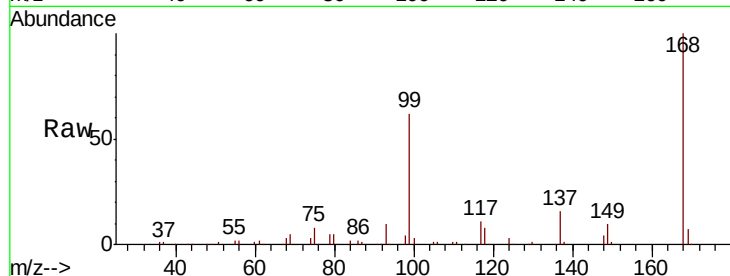
Tot Ion:117 Resp: 74462

Ion Ratio Lower Upper

117 100

119 4.2 75.8 113.8#

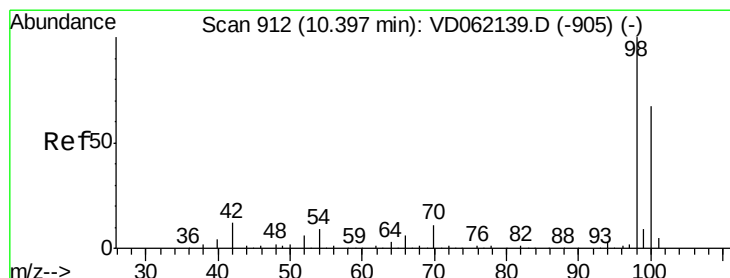
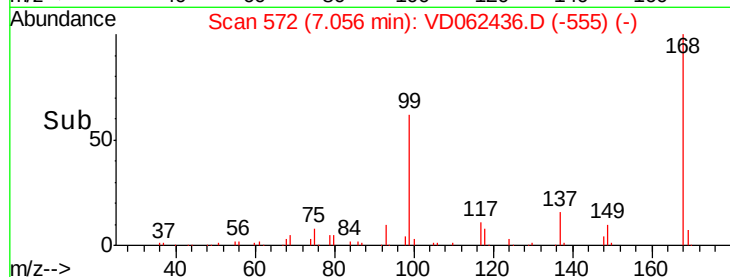
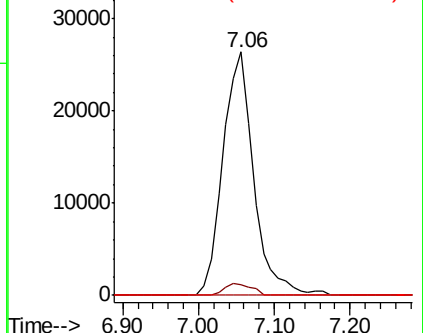
121 0.0 25.9 38.9#



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: 29.727 ug/l

RT: 10.42 min Scan# 914

Delta R.T. 0.02 min

Lab File: VD062436.D

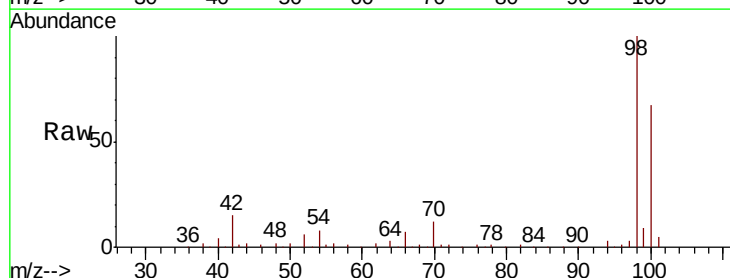
Acq: 17 May 2019 13:44

Tgt Ion: 98 Resp: 604225

Ion Ratio Lower Upper

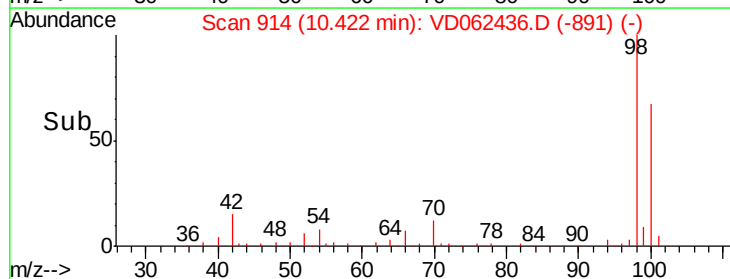
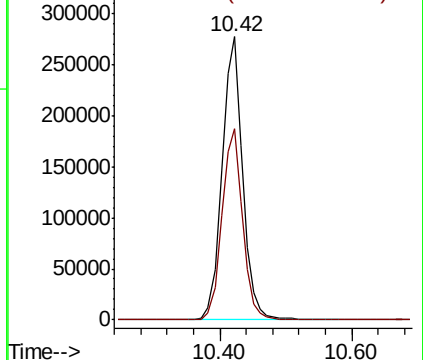
98 100

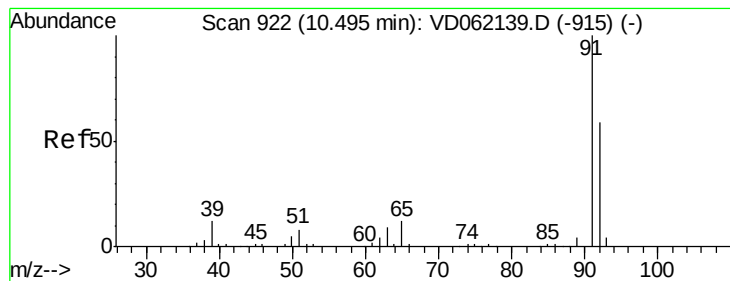
100 67.3 53.8 80.8



Abundance Ion 98.05 (97.75 to 98.75): V

Ion 100.05 (99.75 to 100.75): V





#52

Toluene

Concen: 4.349 ug/l

RT: 10.52 min Scan# 924

Delta R.T. 0.02 min

Lab File: VD062436.D

Acq: 17 May 2019 13:44

Instrument :

MSVOA\_D

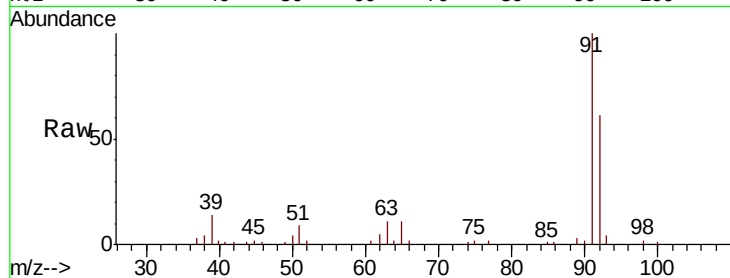
ClientSampleId :

Tot Ion: 92 Resp: 53225

Ion Ratio Lower Upper

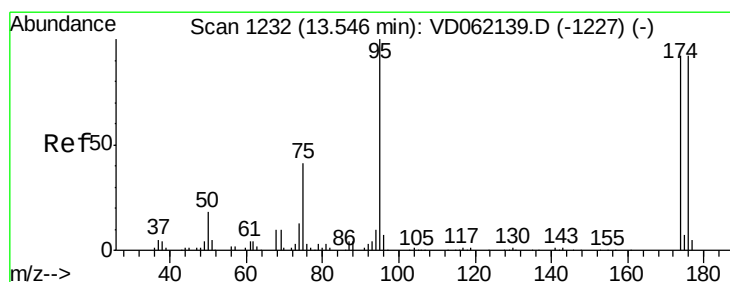
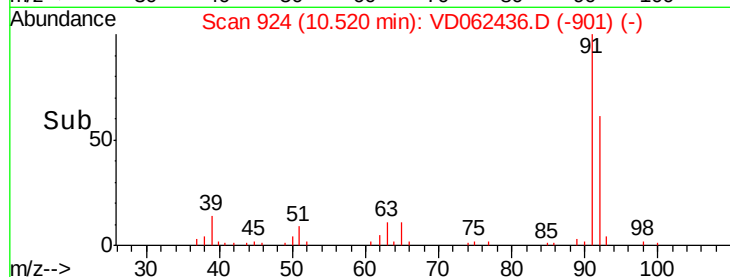
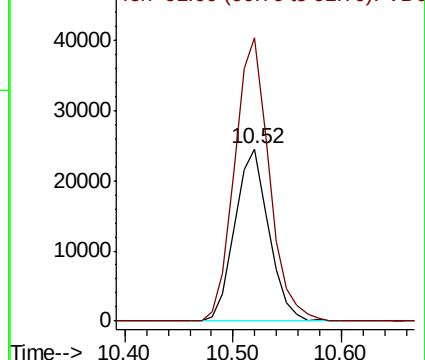
92 100

91 164.6 136.6 204.8



Abundance Ion 92.00 (91.70 to 92.70): VDC

Ion 91.00 (90.70 to 91.70): VDC



#62

4-Bromofluorobenzene

Concen: 31.198 ug/l

RT: 13.56 min Scan# 1233

Delta R.T. 0.02 min

Lab File: VD062436.D

Acq: 17 May 2019 13:44

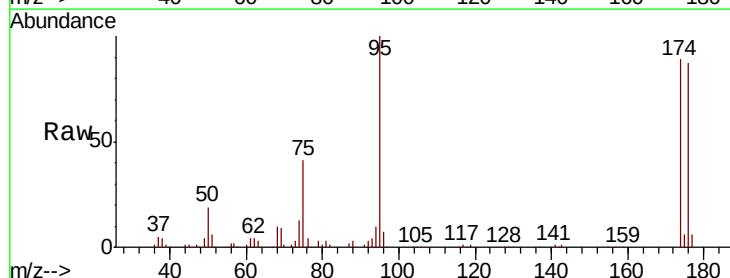
Tgt Ion: 95 Resp: 254642

Ion Ratio Lower Upper

95 100

174 89.3 0.0 181.8

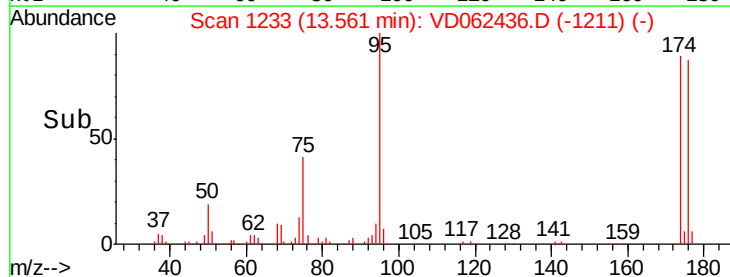
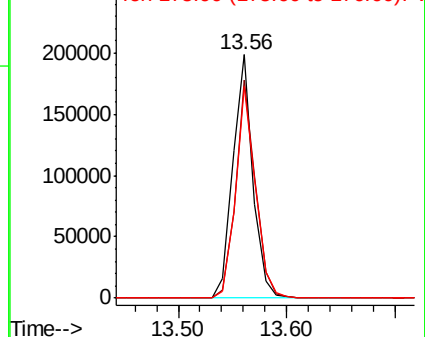
176 86.9 0.0 174.4

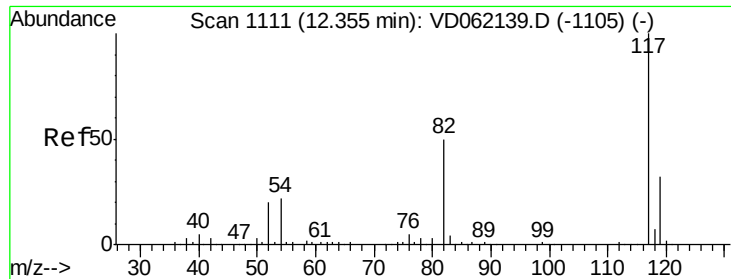


Abundance Ion 95.00 (94.70 to 95.70): VDC

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V

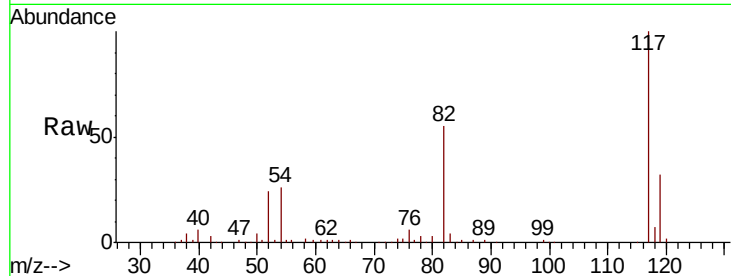




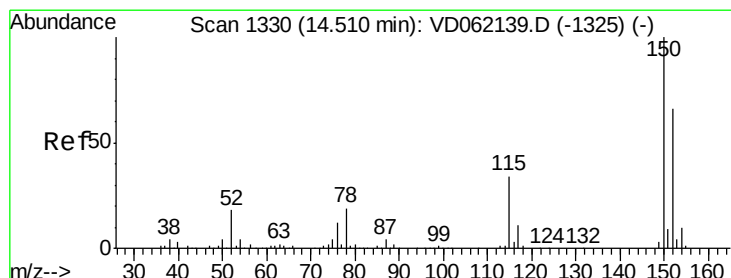
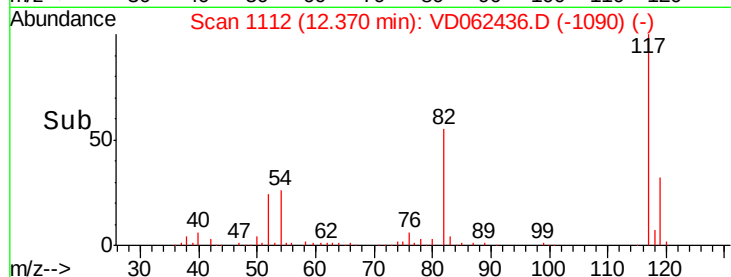
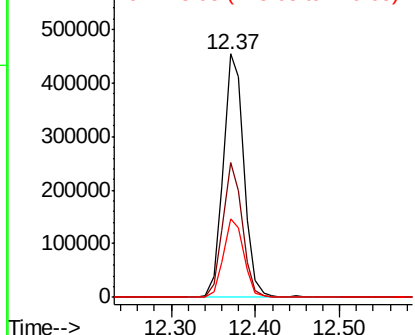
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.37 min Scan# 1112  
Delta R.T. 0.02 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

Instrument :  
MSVOA\_D  
ClientSampleID :

Tot Ion:117 Resp: 771448  
Ion Ratio Lower Upper  
117 100  
82 55.1 36.2 54.2#  
119 32.3 26.2 39.4

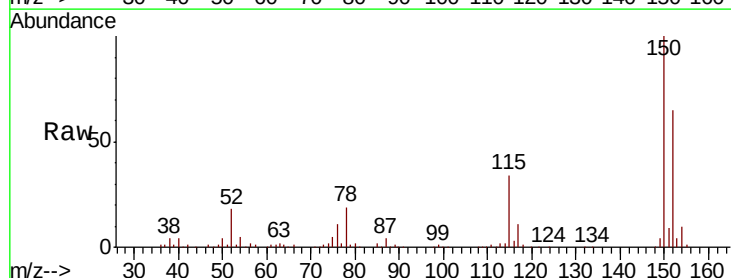


Abundance Ion 116.95 (116.65 to 117.65): V  
Ion 82.05 (81.75 to 82.75): V  
Ion 118.95 (118.65 to 119.65): V

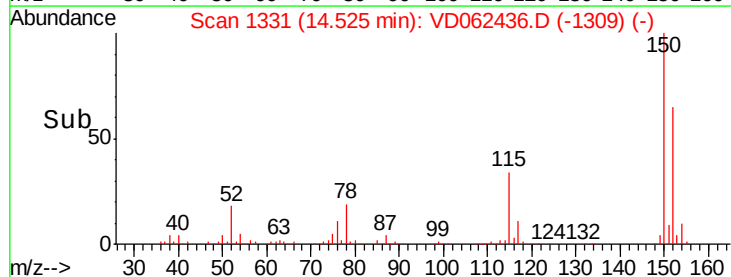
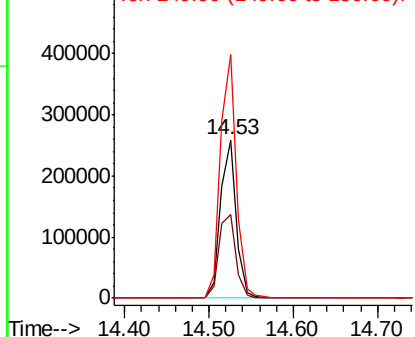


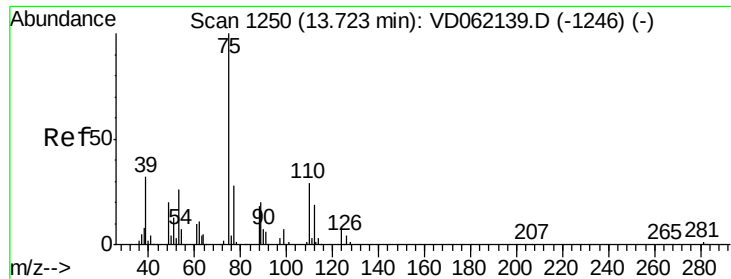
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.53 min Scan# 1331  
Delta R.T. 0.02 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

Tgt Ion:152 Resp: 333844  
Ion Ratio Lower Upper  
152 100  
115 52.9 30.9 92.7  
150 153.6 0.0 314.8



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





#76

1,2,3-Trichloropropane

Concen: 25.493 ug/l

RT: 13.56 min Scan# 1233

Delta R.T. -0.16 min

Lab File: VD062436.D

Acq: 17 May 2019 13:44

Instrument :

MSVOA\_D

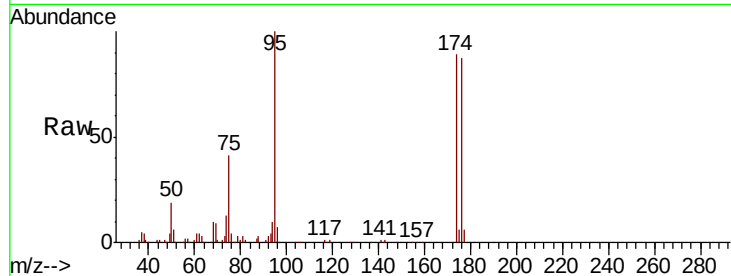
ClientSampleId :

Tot Ion: 75 Resp: 101143

Ion Ratio Lower Upper

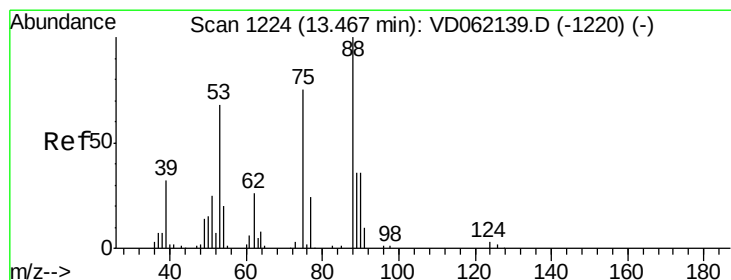
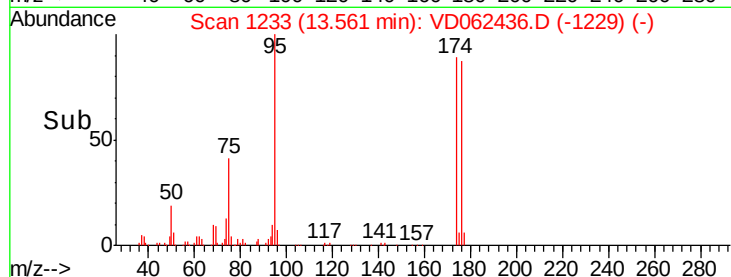
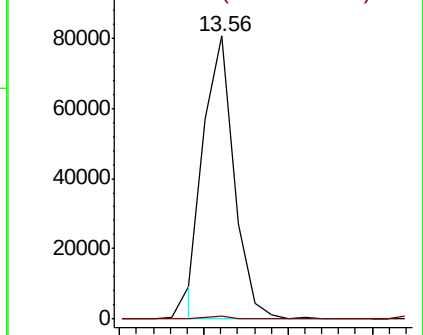
75 100

77 1.1 16.4 49.4#



Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 76.95 (76.65 to 77.65): VDC



#81

trans-1,4-Dichloro-2-butene

Concen: 95.336 ug/l

RT: 13.56 min Scan# 1233

Delta R.T. 0.09 min

Lab File: VD062436.D

Acq: 17 May 2019 13:44

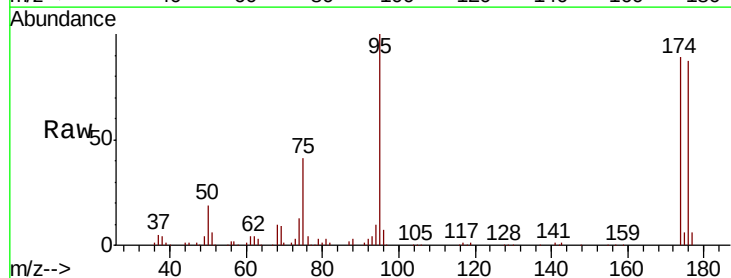
Tgt Ion: 75 Resp: 106780

Ion Ratio Lower Upper

75 100

53 0.0 65.8 98.8#

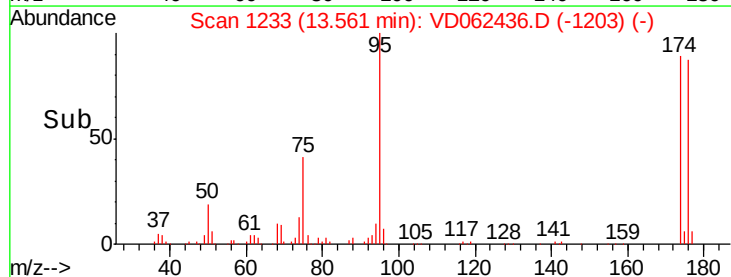
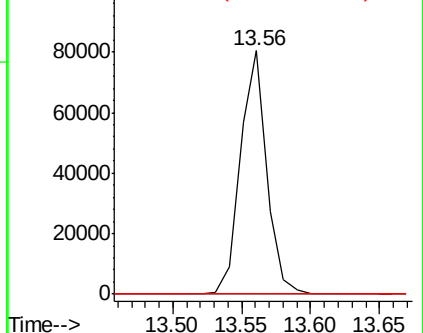
89 0.0 35.0 52.6#

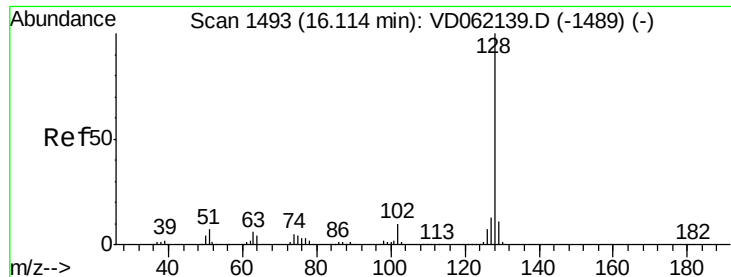


Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC

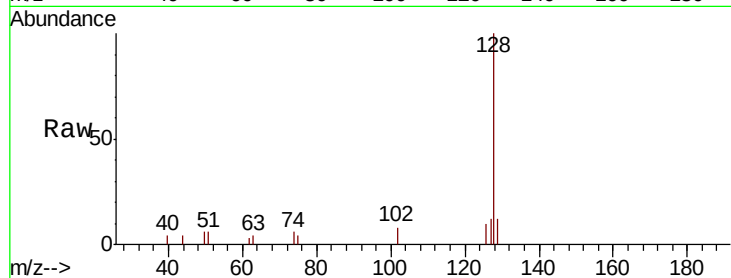




#95  
Naphthalene  
Concen: 1.365 ug/l  
RT: 16.13 min Scan# 1494  
Delta R.T. 0.02 min  
Lab File: VD062436.D  
Acq: 17 May 2019 13:44

Instrument :  
MSVOA\_D  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.4  | 9.8   | 14.8  |
| 129     | 12.3  | 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

