

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD082018\  
 Data File : VD059842.D  
 Acq On : 20 Aug 2018 20:36  
 Operator : JC/SY  
 Sample : J4511-02RE  
 Misc : 5.10g/5ml/MSVOA\_D/SOIL  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 RA-081418-FL-024

Quant Time: Aug 21 05:12:49 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D082018S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Aug 21 04:40:12 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.59  | 168  | 567395   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.65  | 114  | 930314   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.65 | 117  | 804390   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.89 | 152  | 388889   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.97  | 65   | 366423   | 80.69 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 161.38% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 413855   | 60.14 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 120.28% |          |
| 50) Toluene-d8              | 8.67  | 98   | 1003831  | 54.10 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 108.20% |          |
| 62) 4-Bromofluorobenzene    | 11.90 | 95   | 400478   | 56.25 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 112.50% |          |

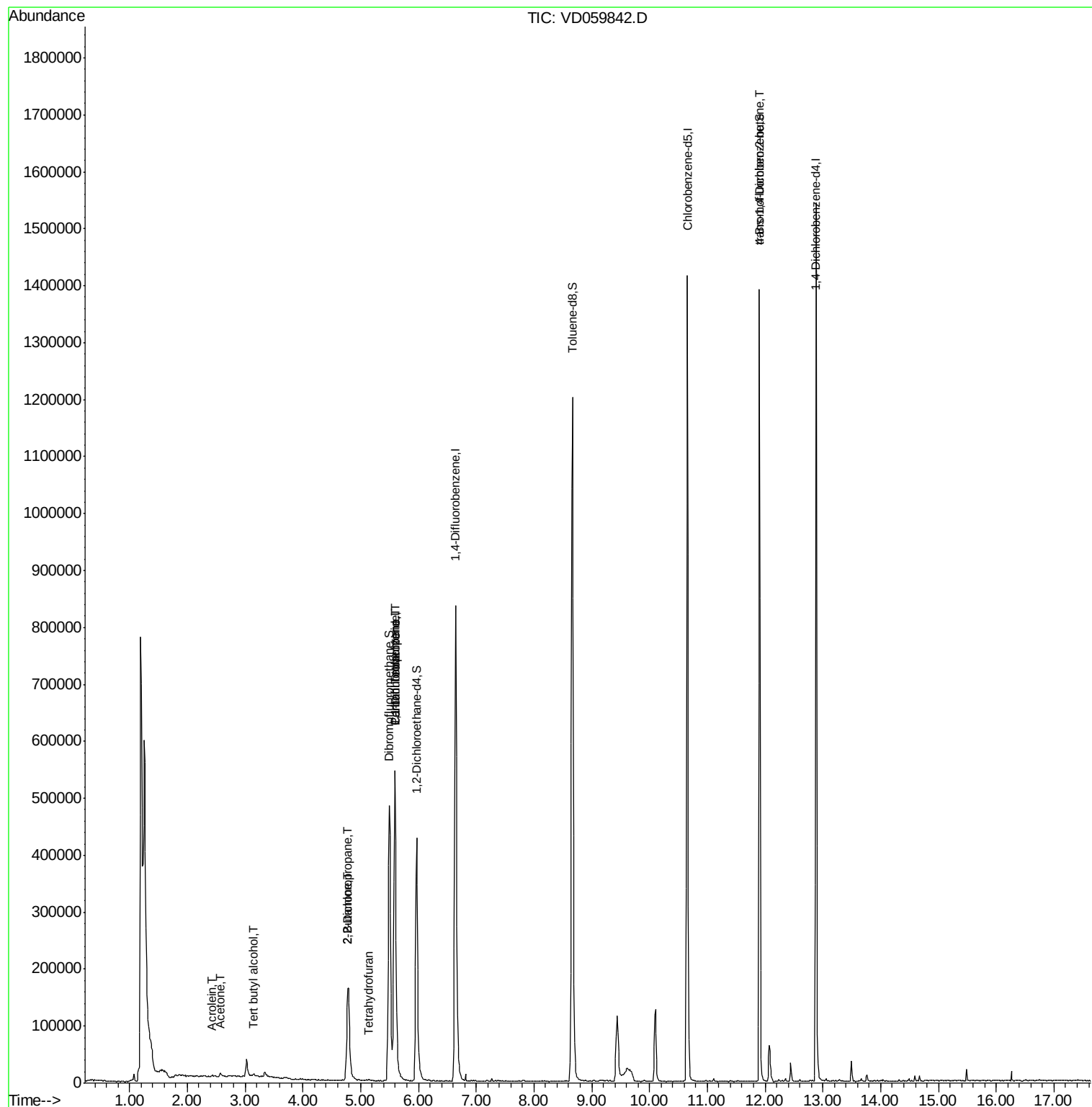
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol         | 3.15  | 59   | 4383     | 26.111    | ug/l # | 67     |
| 13) Acrolein                   | 2.42  | 56   | 337      | 3.025     | ug/l   | 90     |
| 16) Acetone                    | 2.57  | 43   | 10582    | 13.903    | ug/l # | 85     |
| 18) Methyl Acetate             | 2.88  | 43   | 505      | Below Cal | #      | 65     |
| 20) Methylene Chloride         | 3.03  | 84   | 12497    | Below Cal | #      | 93     |
| 25) 2-Butanone                 | 4.79  | 43   | 13165    | 5.723     | ug/l # | 80     |
| 26) 2,2-Dichloropropane        | 4.78  | 77   | 12232    | 1.562     | ug/l # | 49     |
| 29) Tetrahydrofuran            | 5.14  | 42   | 3460     | 2.970     | ug/l # | 47     |
| 31) Cyclohexane                | 5.59  | 56   | 11797    | Below Cal | #      | 1      |
| 36) 1,1-Dichloropropene        | 5.59  | 75   | 39841    | 5.050     | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 5.59  | 117  | 45647    | 5.797     | ug/l # | 15     |
| 67) Ethyl Benzene              | 10.82 | 91   | 451      | Below Cal | #      | 43     |
| 80) 1,3,5-Trimethylbenzene     | 12.30 | 105  | 445      | Below Cal | #      | 30     |
| 81) trans-1,4-Dichloro-2-buten | 11.90 | 75   | 157696   | 78.408    | ug/l # | 10     |
| 82) 4-Chlorotoluene            | 12.30 | 91   | 636      | Below Cal | #      | 48     |
| 89) n-Butylbenzene             | 13.17 | 91   | 556      | Below Cal | #      | 30     |
| 91) 1,2-Dichlorobenzene        | 13.17 | 146  | 560      | Below Cal | #      | 71     |

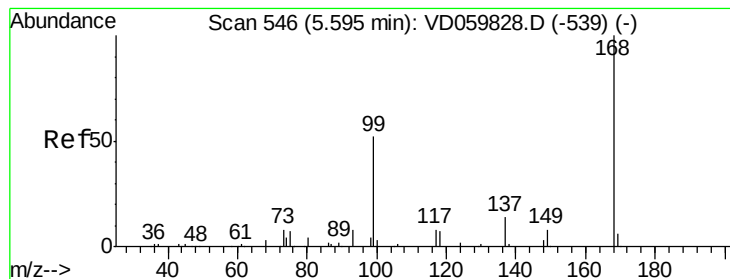
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Aug 21 04:40:12 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.59 min Scan# 546

Delta R.T. 0.00 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

Instrument :

MSVOA\_D

ClientSampleId :

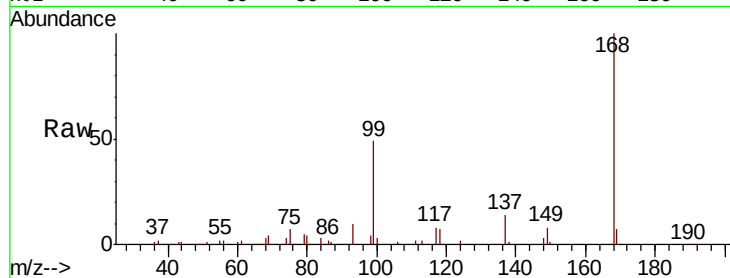
RA-081418-FL-024

Tgt Ion:168 Resp: 567395

Ion Ratio Lower Upper

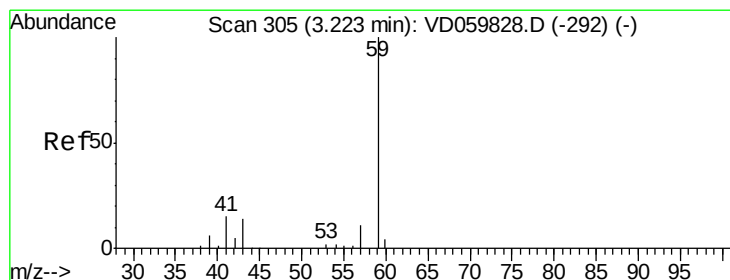
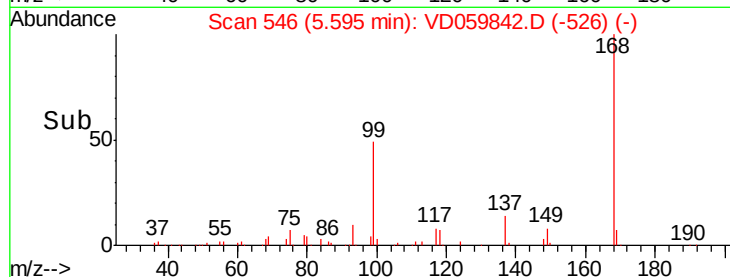
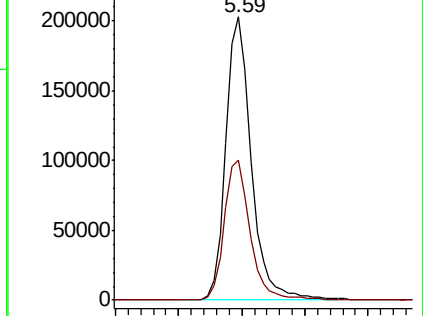
168 100

99 49.3 43.6 65.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#11

Tert butyl alcohol

Concen: 26.111 ug/l

RT: 3.15 min Scan# 298

Delta R.T. -0.07 min

Lab File: VD059842.D

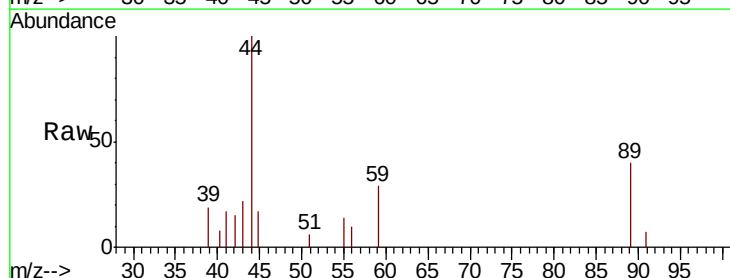
Acq: 20 Aug 2018 20:36

Tgt Ion: 59 Resp: 4383

Ion Ratio Lower Upper

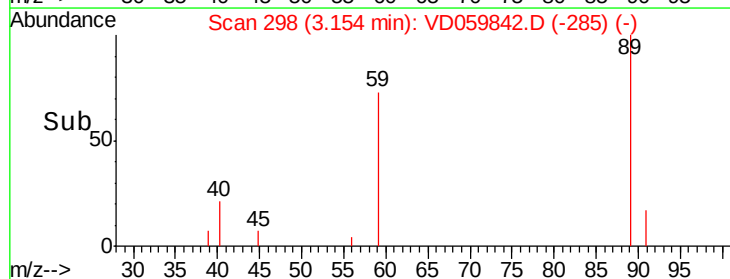
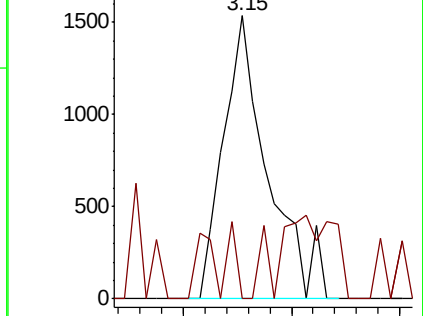
59 100

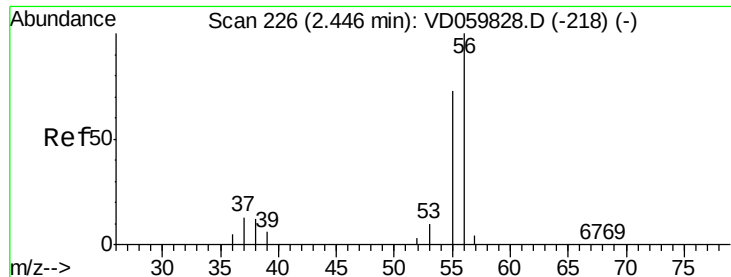
57 0.0 10.3 15.5#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC





#13

Acrolein

Concen: 3.025 ug/l

RT: 2.42 min Scan# 223

Delta R.T. -0.03 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

Instrument :

MSVOA\_D

ClientSampleId :

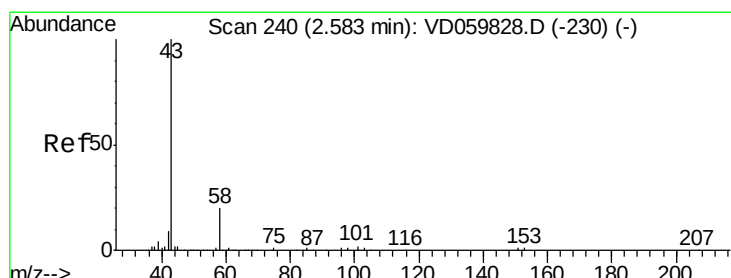
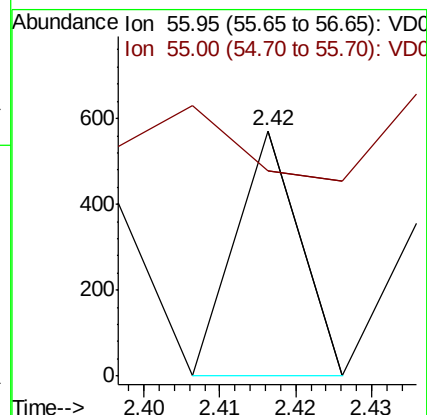
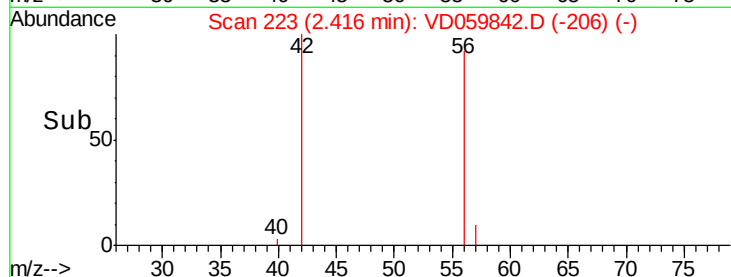
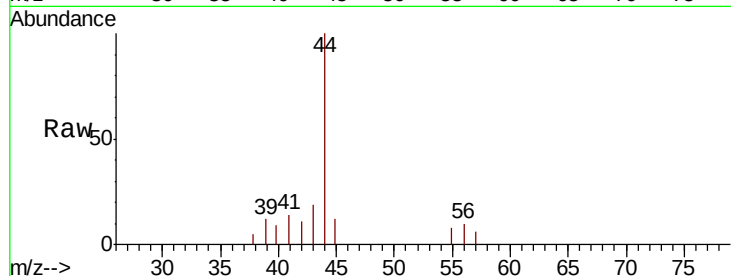
RA-081418-FL-024

Tgt Ion: 56 Resp: 337

Ion Ratio Lower Upper

56 100

55 83.9 60.4 90.6



#16

Acetone

Concen: 13.903 ug/l

RT: 2.57 min Scan# 239

Delta R.T. -0.01 min

Lab File: VD059842.D

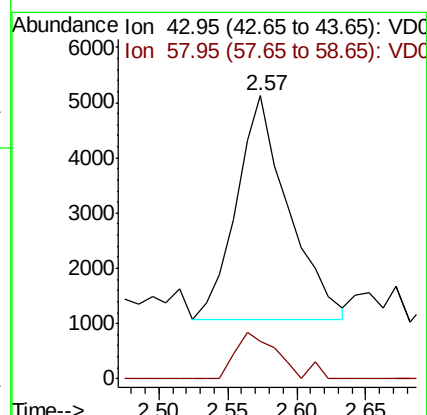
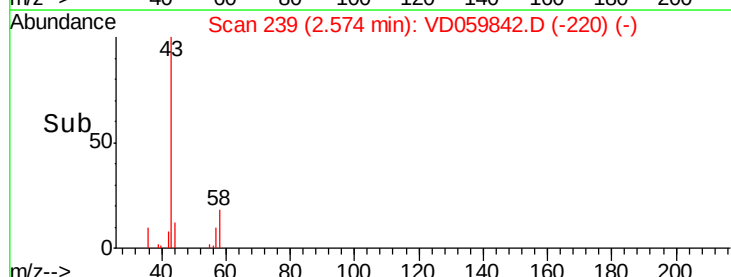
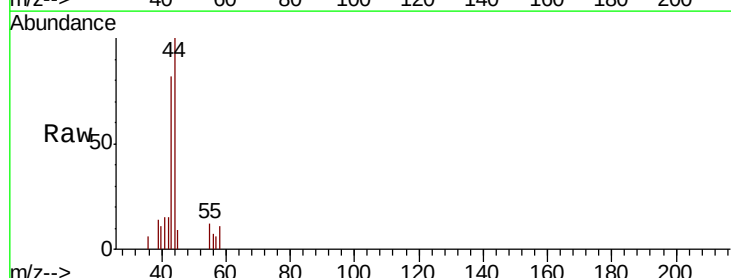
Acq: 20 Aug 2018 20:36

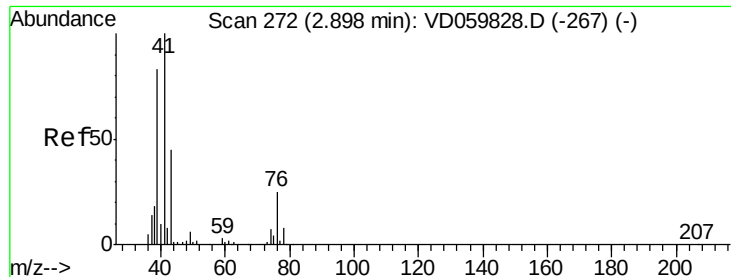
Tgt Ion: 43 Resp: 10582

Ion Ratio Lower Upper

43 100

58 13.2 16.2 24.2#

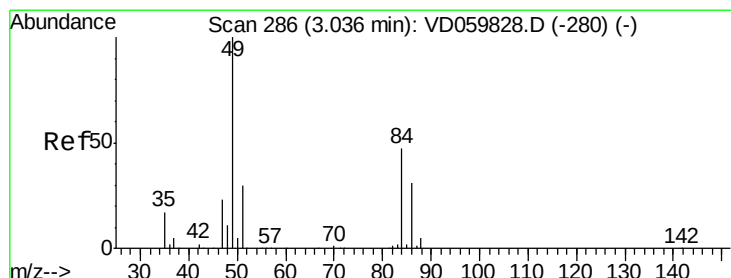
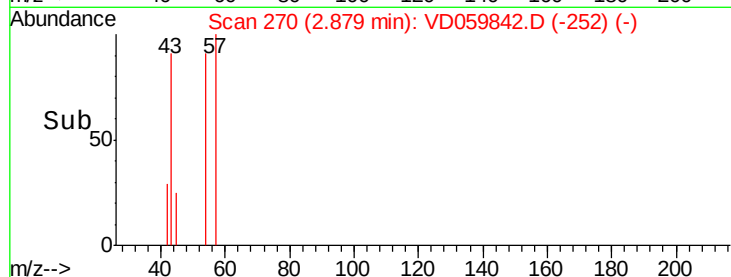
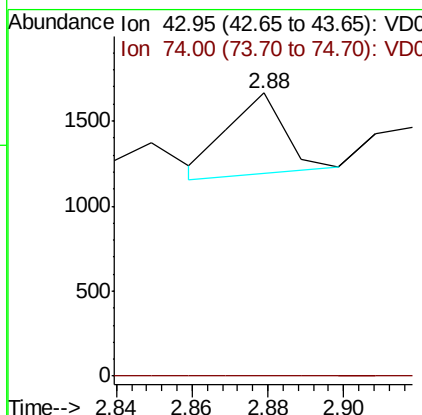
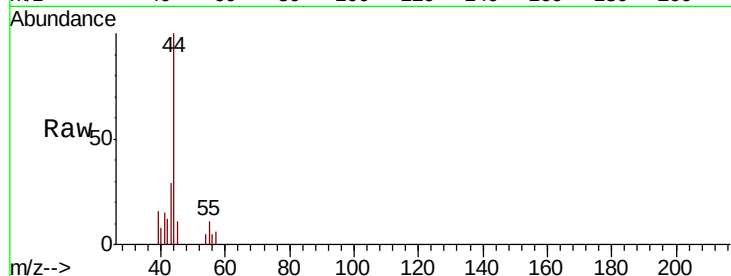




#18  
Methyl Acetate  
Concen: Below Cal  
RT: 2.88 min Scan# 270  
Delta R.T. -0.02 min  
Lab File: VD059842.D  
Acq: 20 Aug 2018 20:36

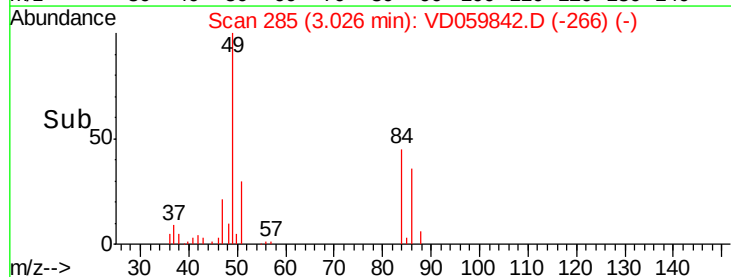
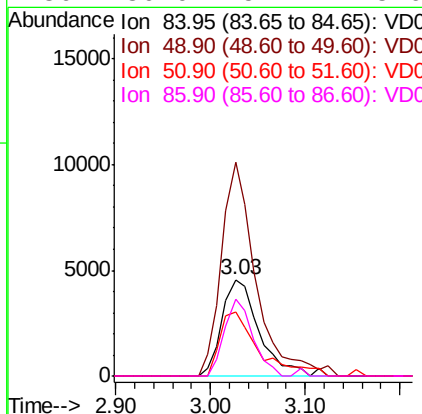
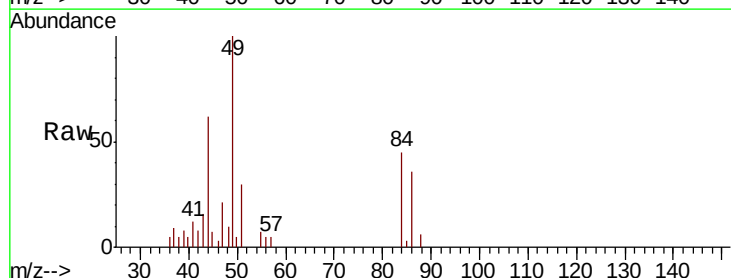
Instrument :  
MSVOA\_D  
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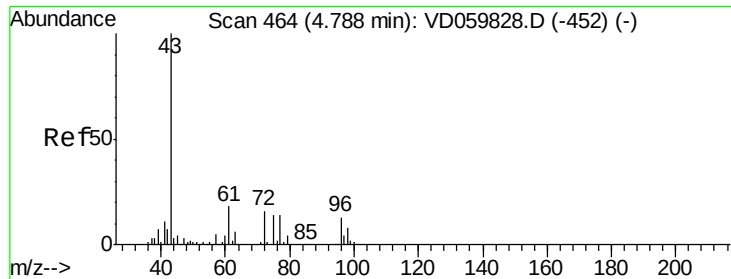
Tgt Ion: 43 Resp: 505  
Ion Ratio Lower Upper  
43 100  
74 0.0 11.4 17.0#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 3.03 min Scan# 285  
Delta R.T. -0.01 min  
Lab File: VD059842.D  
Acq: 20 Aug 2018 20:36

Tgt Ion: 84 Resp: 12497  
Ion Ratio Lower Upper  
84 100  
49 221.1 170.4 255.6  
51 65.8 51.4 77.0  
86 80.0 52.4 78.6#





#25

2-Butanone

Concen: 5.723 ug/l

RT: 4.79 min Scan# 464

Delta R.T. 0.00 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

Instrument :

MSVOA\_D

ClientSampleId :

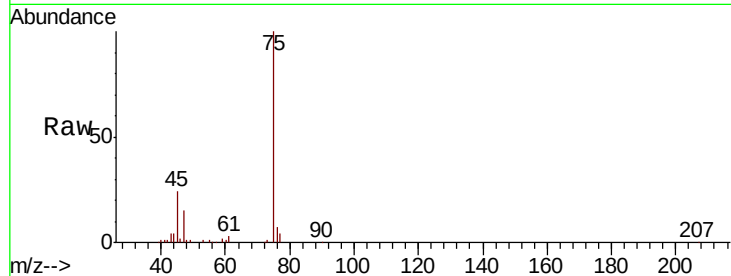
RA-081418-FL-024

Tgt Ion: 43 Resp: 13165

Ion Ratio Lower Upper

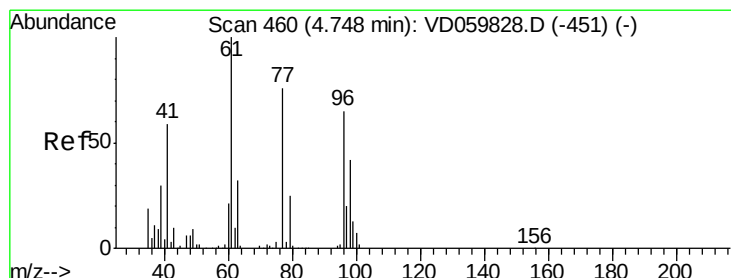
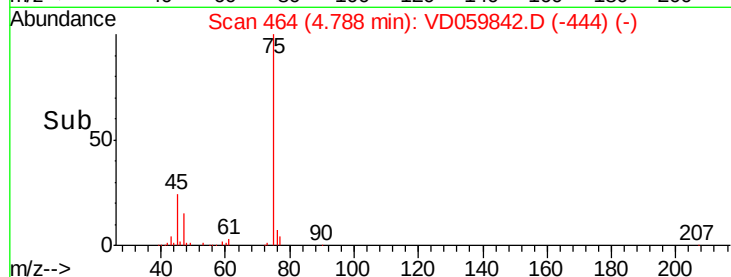
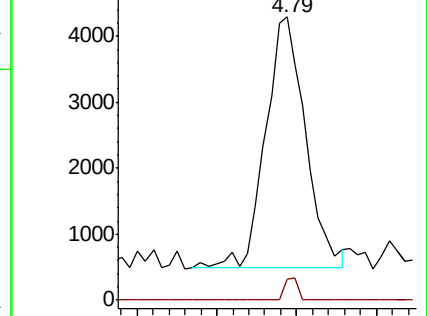
43 100

72 7.2 12.4 18.6#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC



#26

2,2-Dichloropropane

Concen: 1.562 ug/l

RT: 4.78 min Scan# 463

Delta R.T. 0.03 min

Lab File: VD059842.D

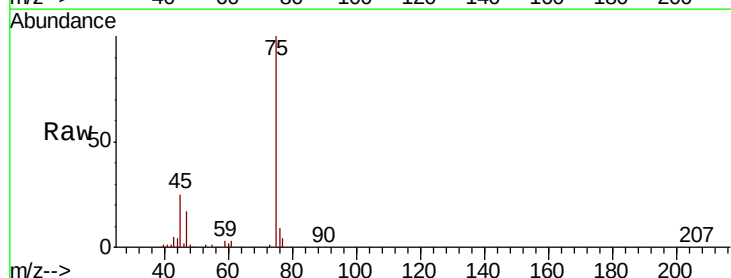
Acq: 20 Aug 2018 20:36

Tgt Ion: 77 Resp: 12232

Ion Ratio Lower Upper

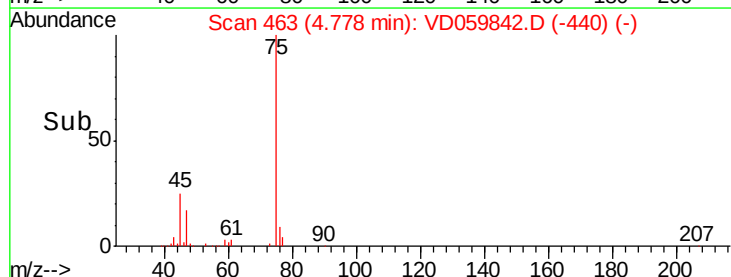
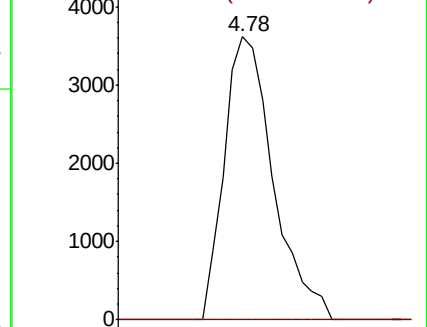
77 100

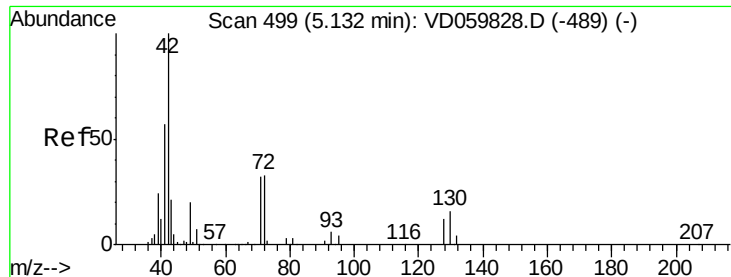
97 0.0 13.0 38.9#



Abundance Ion 76.95 (76.65 to 77.65): VDC

Ion 96.85 (96.55 to 97.55): VDC

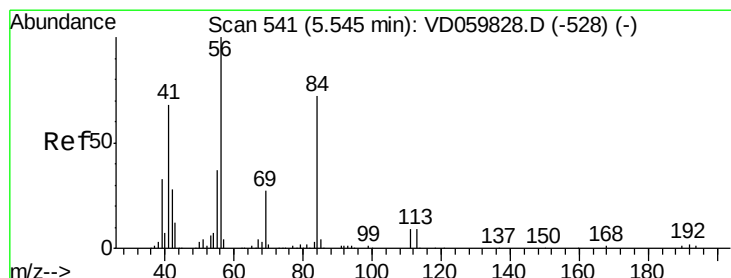
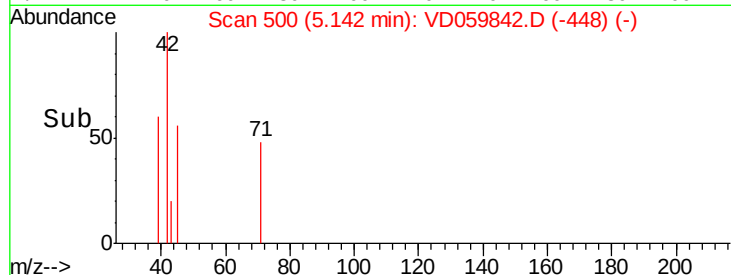
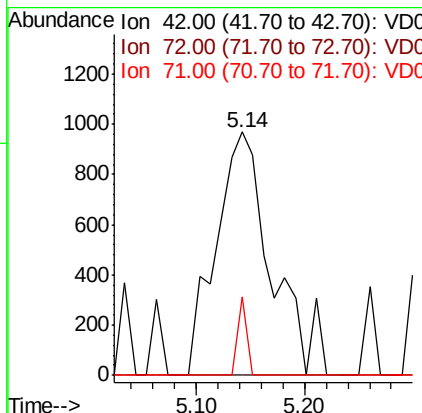
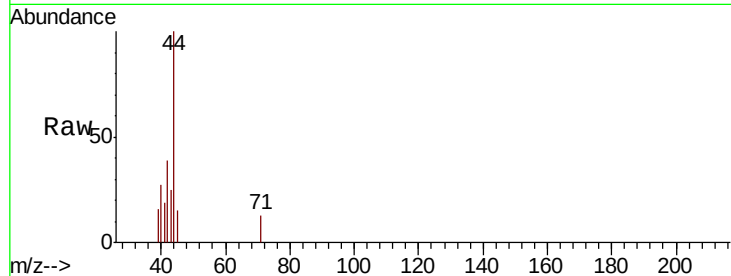




#29  
Tetrahydrofuran  
Concen: 2.970 ug/l  
RT: 5.14 min Scan# 500  
Delta R.T. 0.01 min  
Lab File: VD059842.D  
Acq: 20 Aug 2018 20:36

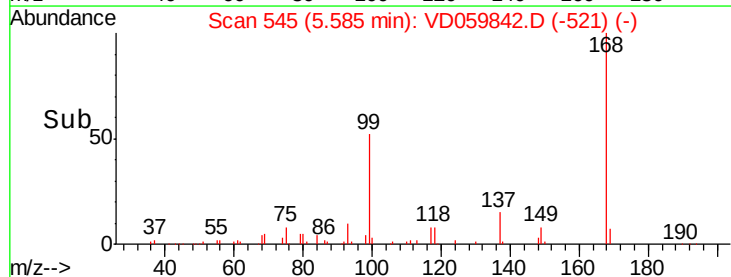
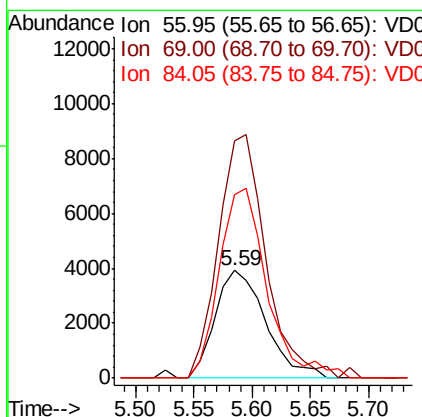
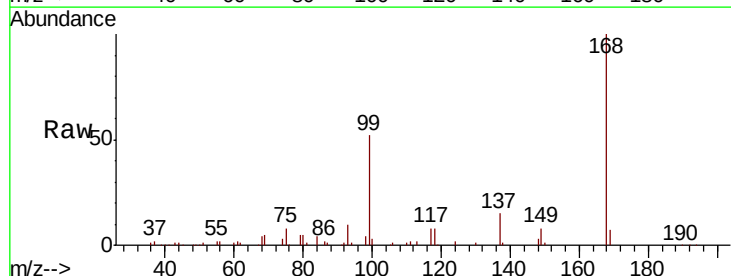
Instrument :  
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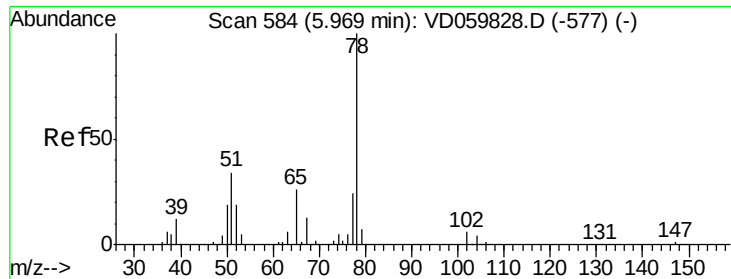
Tgt Ion: 42 Resp: 3460  
Ion Ratio Lower Upper  
42 100  
72 0.0 25.8 38.6#  
71 5.4 25.7 38.5#



#31  
Cyclohexane  
Concen: Below Cal  
RT: 5.59 min Scan# 545  
Delta R.T. 0.04 min  
Lab File: VD059842.D  
Acq: 20 Aug 2018 20:36

Tgt Ion: 56 Resp: 11797  
Ion Ratio Lower Upper  
56 100  
69 219.9 21.7 32.5#  
84 171.0 57.8 86.6#

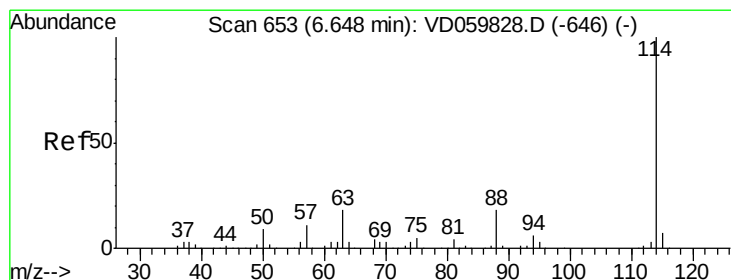
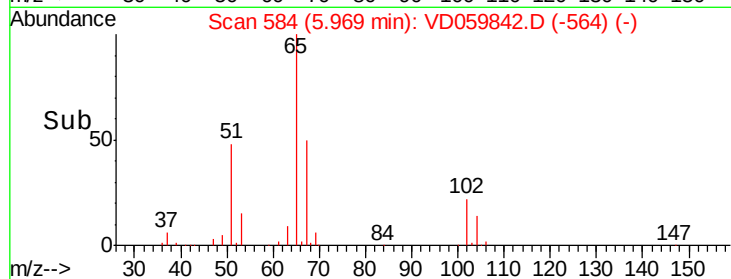
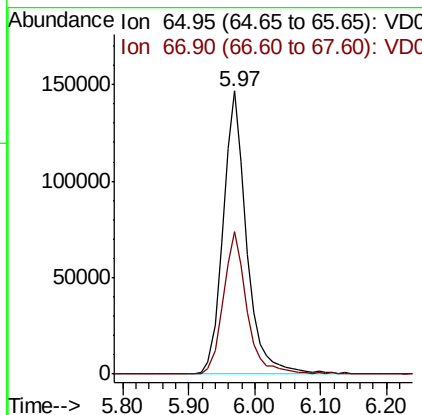
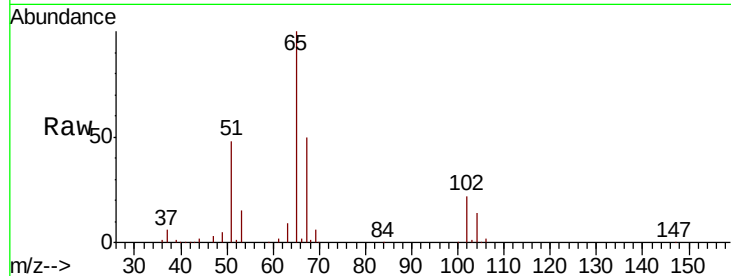




#33  
 1,2-Dichloroethane-d4  
 Concen: N.D. ug/l  
 RT: 5.97 min Scan# 584  
 Delta R.T. 0.00 min  
 Lab File: VD059842.D  
 Acq: 20 Aug 2018 20:36

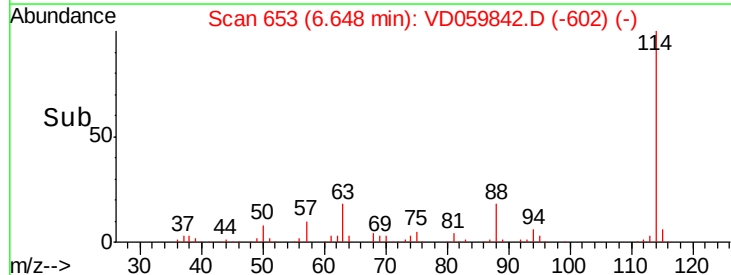
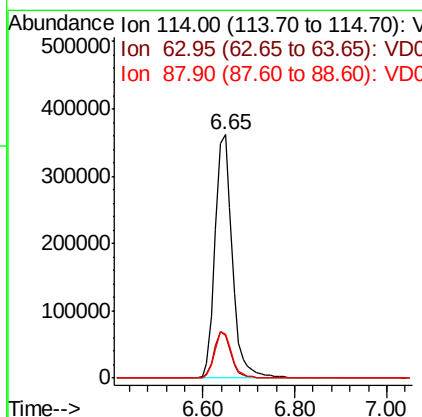
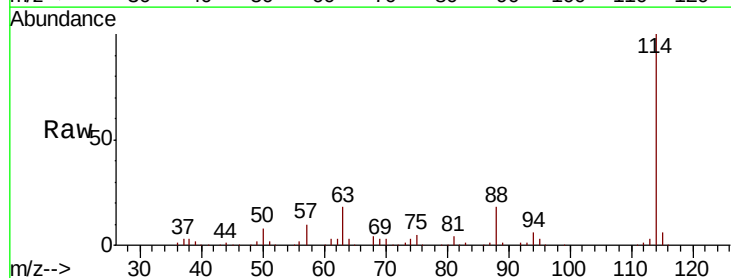
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 RA-081418-FL-024

Tgt Ion: 65 Resp: 366423  
 Ion Ratio Lower Upper  
 65 100  
 67 50.4 0.0 102.4

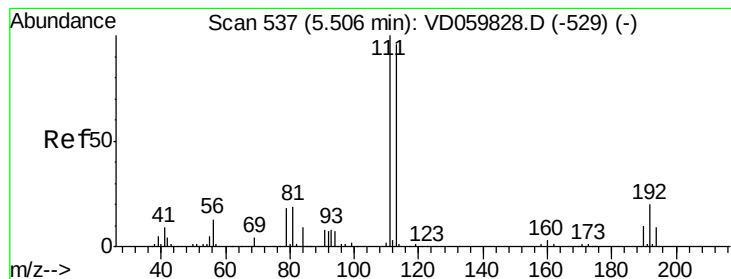


#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.65 min Scan# 653  
 Delta R.T. 0.00 min  
 Lab File: VD059842.D  
 Acq: 20 Aug 2018 20:36

Tgt Ion: 114 Resp: 930314  
 Ion Ratio Lower Upper  
 114 100  
 63 17.7 0.0 37.0  
 88 18.3 0.0 37.0







#35

Dibromofluoromethane

Concen: 50.000 ug/l

RT: 5.50 min Scan# 536

Delta R.T. -0.01 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

Instrument :

MSVOA\_D

ClientSampleId :

RA-081418-FL-024

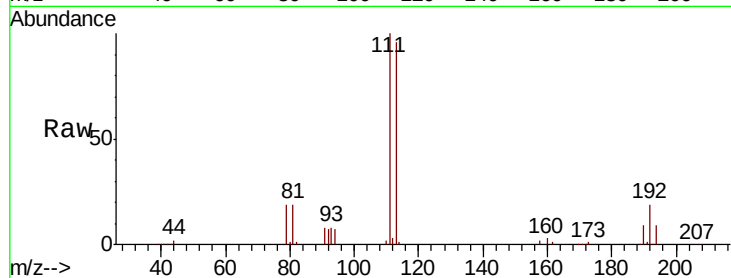
Tgt Ion: 113 Resp: 413855

Ion Ratio Lower Upper

113 100

111 103.9 83.3 124.9

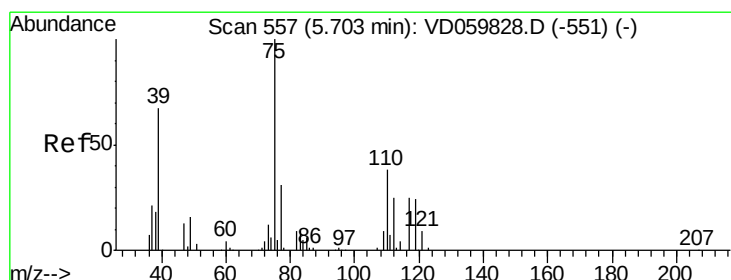
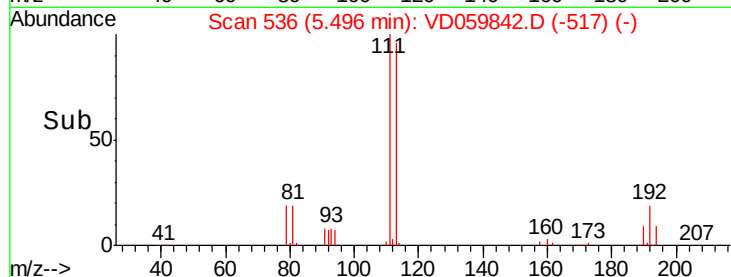
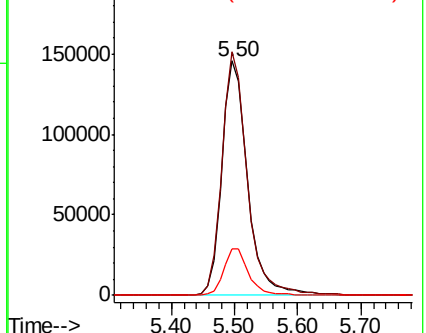
192 19.6 16.8 25.2



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: 5.050 ug/l

RT: 5.59 min Scan# 545

Delta R.T. -0.12 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

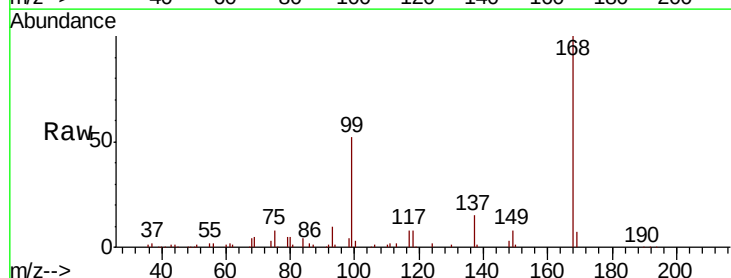
Tgt Ion: 75 Resp: 39841

Ion Ratio Lower Upper

75 100

110 8.3 18.8 56.4#

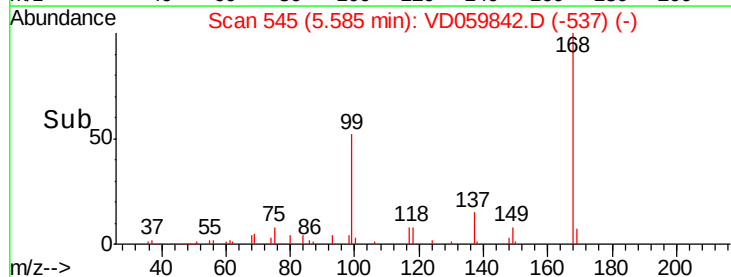
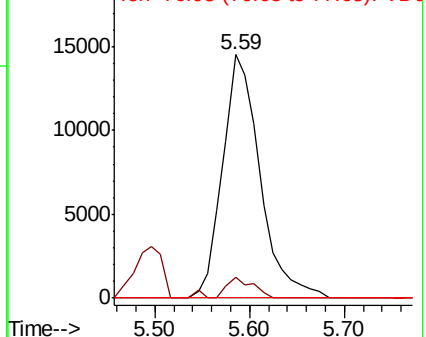
77 0.0 24.9 37.3#

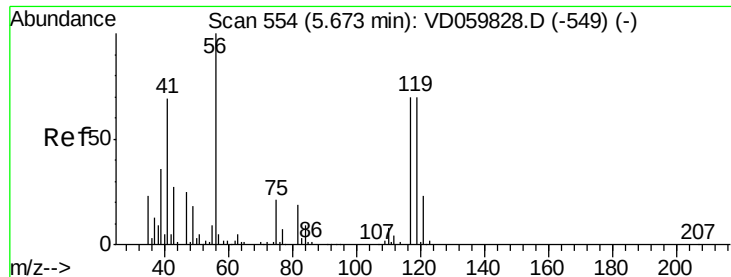


Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V





#38

Carbon Tetrachloride

Concen: 5.797 ug/l

RT: 5.59 min Scan# 546

Delta R.T. -0.08 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

Instrument :

MSVOA\_D

ClientSampleId :

RA-081418-FL-024

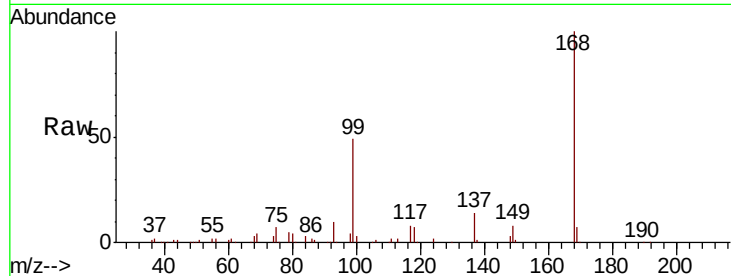
Tgt Ion:117 Resp: 45647

Ion Ratio Lower Upper

117 100

119 3.9 77.0 115.4#

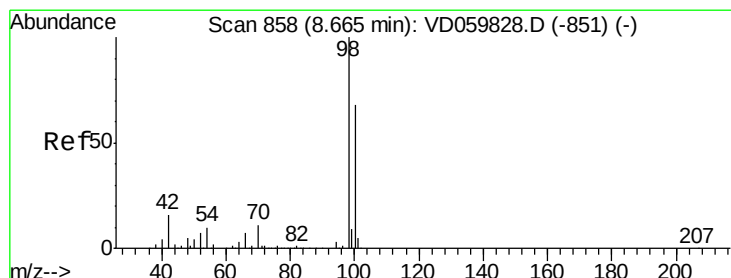
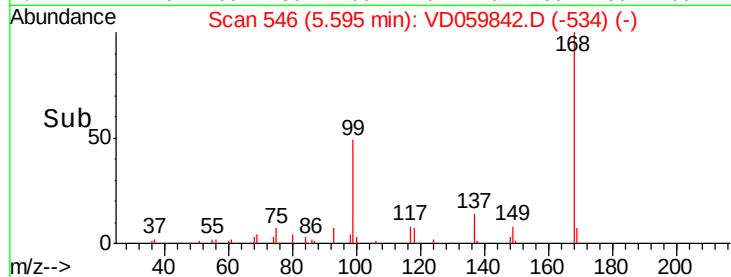
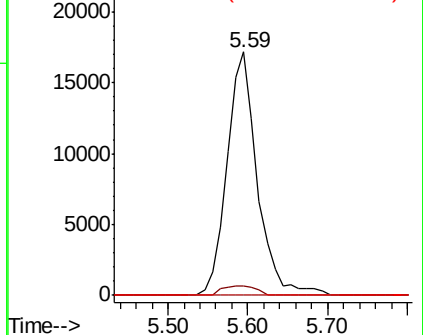
121 0.0 24.7 37.1#



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: 8.67 min Scan# 858

Delta R.T. 0.00 min

Lab File: VD059842.D

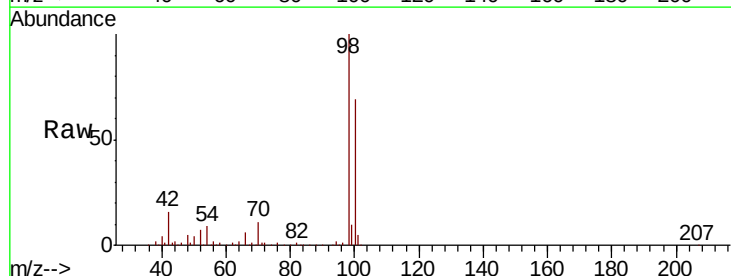
Acq: 20 Aug 2018 20:36

Tgt Ion: 98 Resp: 1003831

Ion Ratio Lower Upper

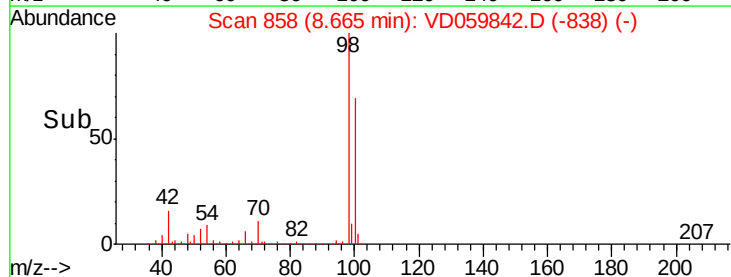
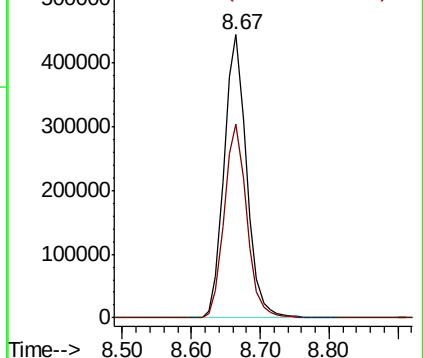
98 100

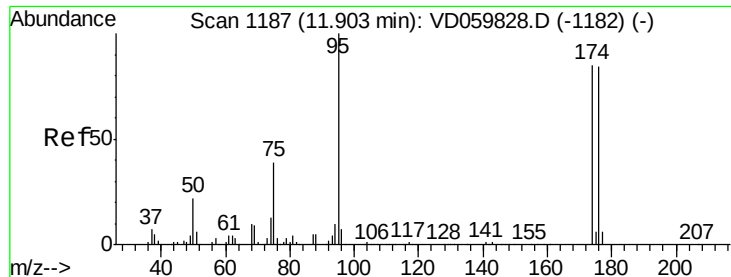
100 68.6 55.0 82.4



Abundance Ion 98.05 (97.75 to 98.75): V

Ion 100.05 (99.75 to 100.75): V

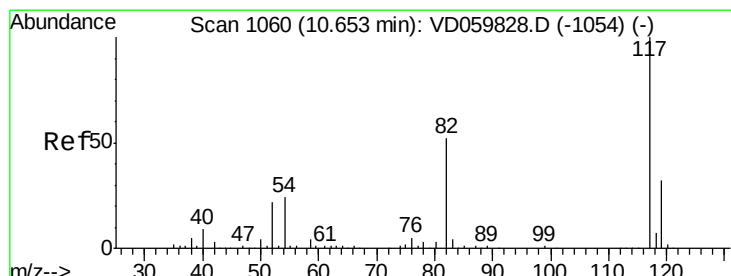
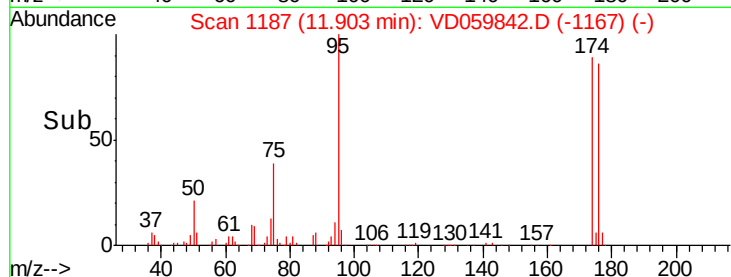
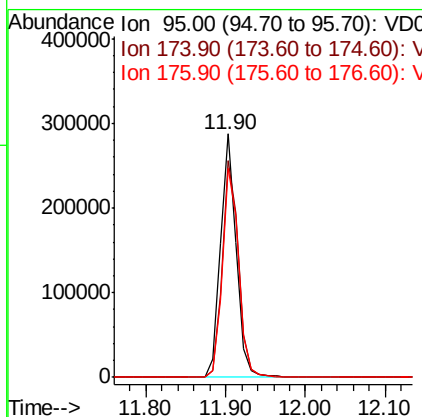
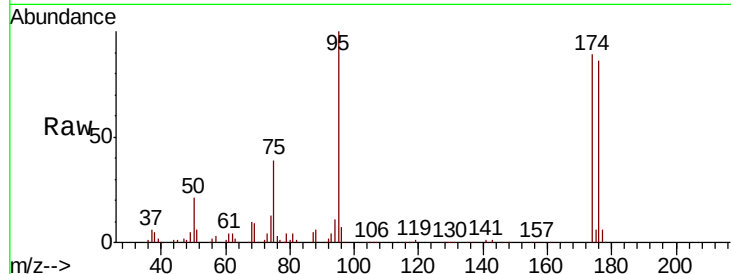




#62  
4-Bromofluorobenzene  
Concen: N.D. ug/l  
RT: 11.90 min Scan# 1187  
Delta R.T. 0.00 min  
Lab File: VD059842.D  
Acq: 20 Aug 2018 20:36

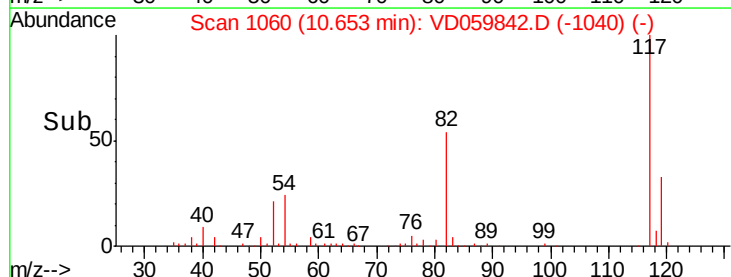
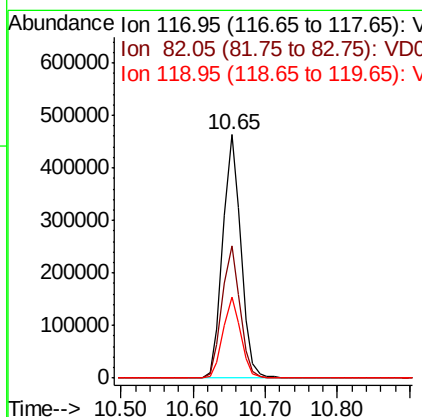
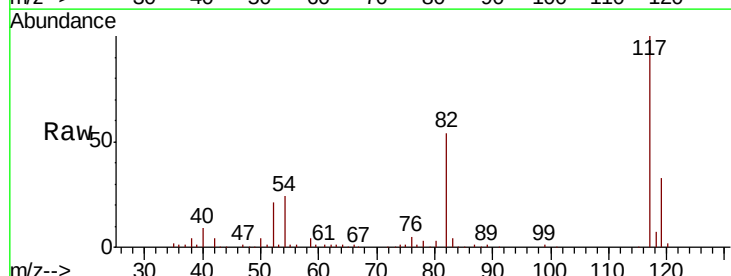
Instrument :  
MSVOA\_D  
ClientSampleId :  
RA-081418-FL-024

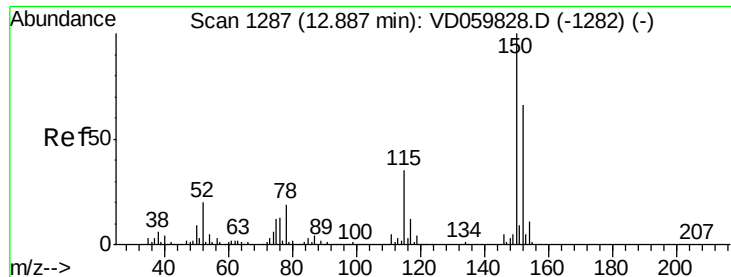
Tgt Ion: 95 Resp: 400478  
Ion Ratio Lower Upper  
95 100  
174 89.2 0.0 169.2  
176 85.8 0.0 168.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.65 min Scan# 1060  
Delta R.T. 0.00 min  
Lab File: VD059842.D  
Acq: 20 Aug 2018 20:36

Tgt Ion: 117 Resp: 804390  
Ion Ratio Lower Upper  
117 100  
82 54.3 41.6 62.4  
119 33.3 25.6 38.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.89 min Scan# 1287

Delta R.T. 0.00 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

Instrument :

MSVOA\_D

ClientSampleId :

RA-081418-FL-024

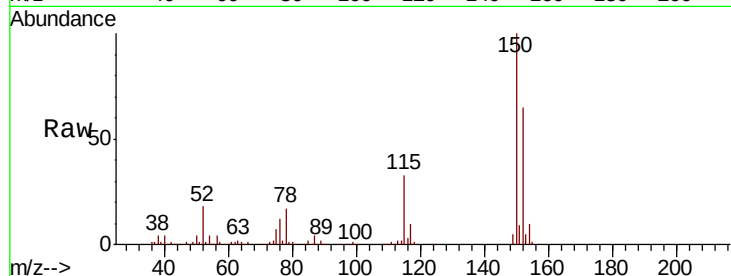
Tgt Ion:152 Resp: 388889

Ion Ratio Lower Upper

152 100

115 50.8 26.9 80.6

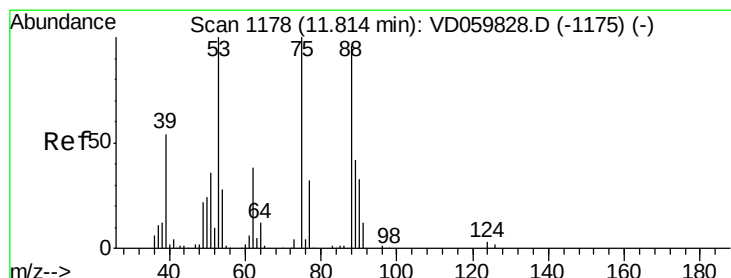
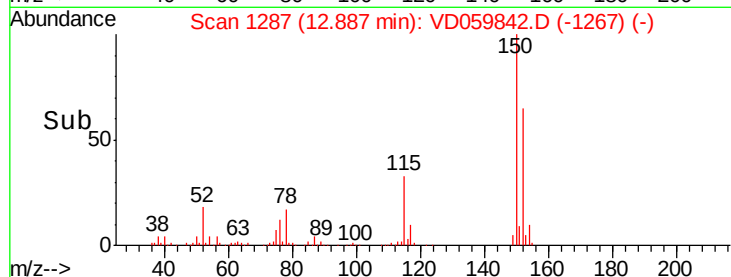
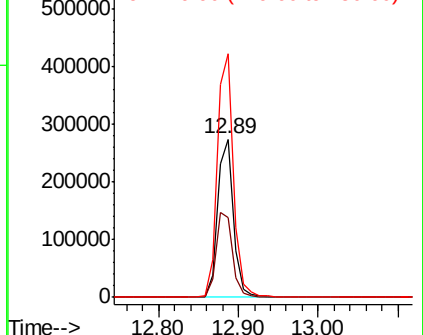
150 154.0 0.0 306.8



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



#81

trans-1,4-Dichloro-2-butene

Concen: 78.408 ug/l

RT: 11.90 min Scan# 1187

Delta R.T. 0.09 min

Lab File: VD059842.D

Acq: 20 Aug 2018 20:36

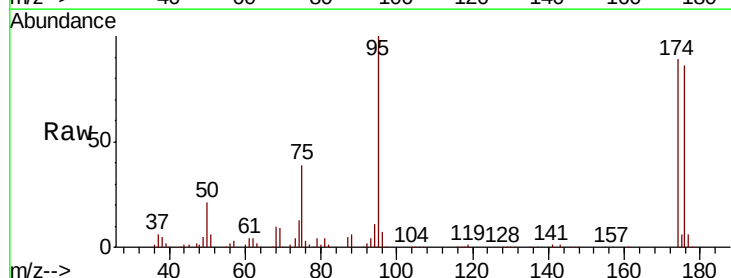
Tgt Ion: 75 Resp: 157696

Ion Ratio Lower Upper

75 100

53 0.0 80.7 121.1#

89 0.0 33.9 50.9#



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

