

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD080219\  
 Data File : VD063316.D  
 Acq On : 2 Aug 2019 15:01  
 Operator : VA/AP  
 Sample : K4120-08RE  
 Misc : 4.99g/5ml/MSVOA\_D/SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T3-2RE

Quant Time: Aug 04 03:38:27 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D072919S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 30 03:04:50 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.03  | 168  | 853719   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.21  | 114  | 1283433  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.36 | 117  | 833999   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.51 | 152  | 211470   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.44   | 65  | 520308   | 54.93 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.86% |      |
| 35) Dibromofluoromethane  | 6.91   | 113 | 563733   | 51.45 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.90% |      |
| 50) Toluene-d8            | 10.39  | 98  | 1039493  | 42.39 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 84.78%  |      |
| 62) 4-Bromofluorobenzene  | 13.54  | 95  | 278405   | 24.91 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 49.82%  |      |

## Target Compounds

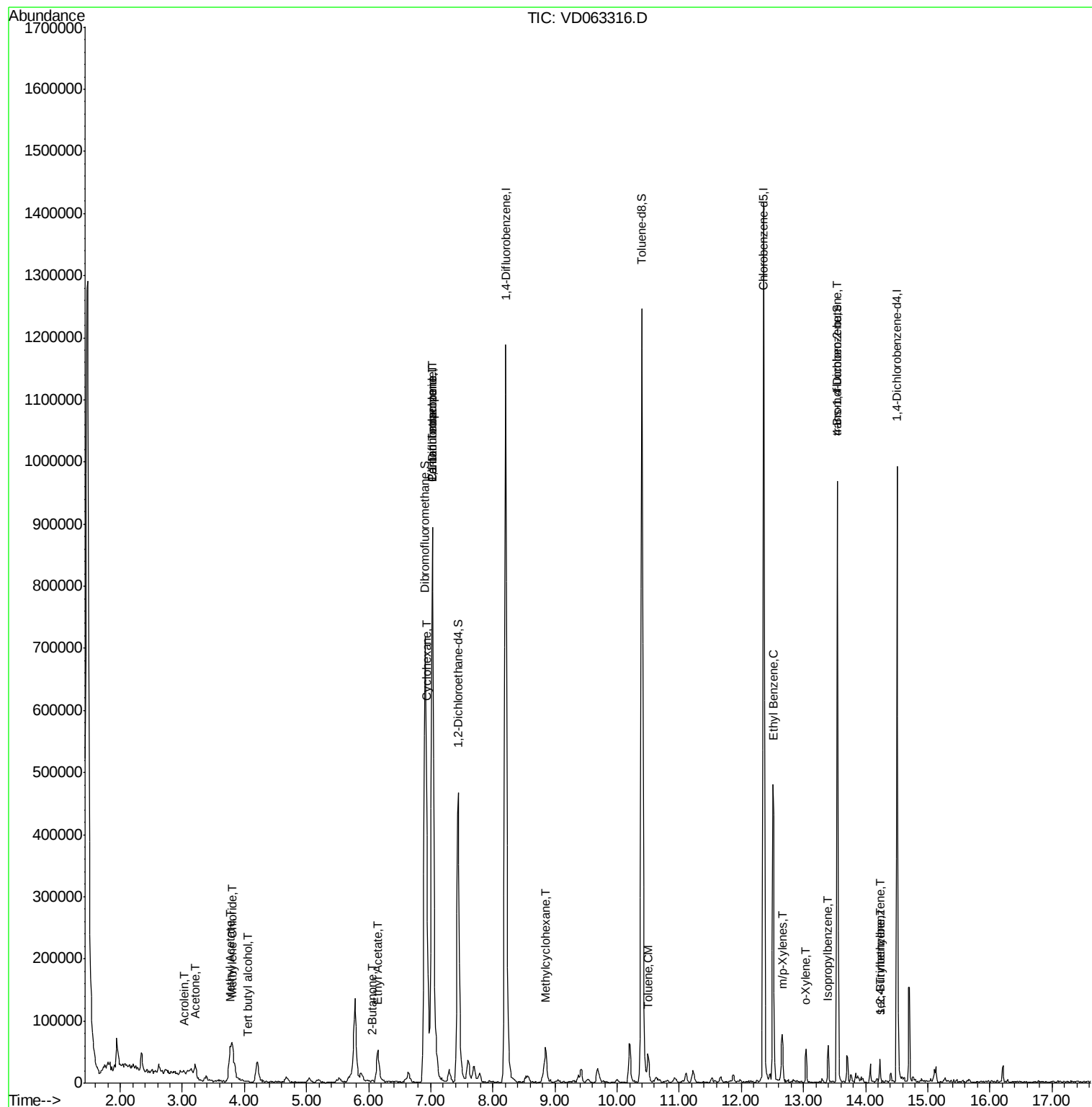
|                                |       |     |        |         |        | Qvalue |
|--------------------------------|-------|-----|--------|---------|--------|--------|
| 11) Tert butyl alcohol         | 4.04  | 59  | 896    | 2.155   | ug/l # | 69     |
| 13) Acrolein                   | 3.04  | 56  | 1050   | 2.624   | ug/l   | 97     |
| 16) Acetone                    | 3.21  | 43  | 60208  | 32.621  | ug/l   | 97     |
| 18) Methyl Acetate             | 3.77  | 43  | 43826  | 12.362  | ug/l # | 60     |
| 20) Methylene Chloride         | 3.80  | 84  | 21705  | 2.909   | ug/l # | 76     |
| 25) 2-Butanone                 | 6.06  | 43  | 3790   | 2.046   | ug/l   | 93     |
| 31) Cyclohexane                | 6.94  | 56  | 122289 | 14.493  | ug/l   | 86     |
| 36) 1,1-Dichloropropene        | 7.03  | 75  | 60614  | 5.175   | ug/l # | 58     |
| 37) Ethyl Acetate              | 6.16  | 43  | 6008   | 1.142   | ug/l # | 69     |
| 38) Carbon Tetrachloride       | 7.03  | 117 | 88269  | 5.006   | ug/l # | 16     |
| 39) Methylcyclohexane          | 8.85  | 83  | 25568  | 2.620   | ug/l # | 81     |
| 52) Toluene                    | 10.49 | 92  | 20260  | 1.241   | ug/l   | 77     |
| 67) Ethyl Benzene              | 12.51 | 91  | 344018 | 12.624  | ug/l   | 100    |
| 68) m/p-Xylenes                | 12.66 | 106 | 20762  | 2.077   | ug/l # | 65     |
| 69) o-Xylene                   | 13.04 | 106 | 11002  | 1.199   | ug/l   | 94     |
| 73) Isopropylbenzene           | 13.40 | 105 | 32180  | 2.425   | ug/l   | 93     |
| 81) trans-1,4-Dichloro-2-buten | 13.54 | 75  | 129932 | 184.219 | ug/l # | 3      |
| 84) 1,2,4-Trimethylbenzene     | 14.23 | 105 | 16837  | 1.422   | ug/l   | 95     |
| 85) sec-Butylbenzene           | 14.23 | 105 | 16837  | 1.223   | ug/l # | 61     |

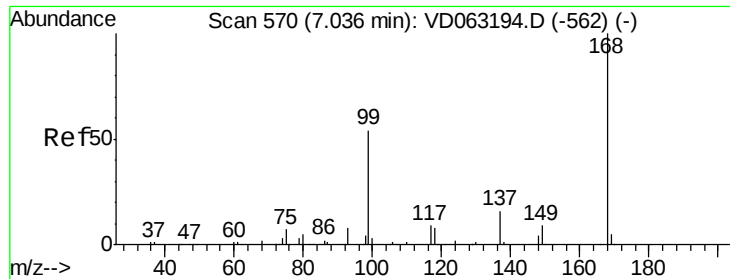
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_D\DATA\VD080219\  
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Sample : K4120-08RE  
Misc : 4.99g/5ml/MSVOA\_D/SOIL  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
T3-2RE

Quant Time: Aug 04 03:38:27 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D072919S.M  
Quant Title : SW846 8260  
QLast Update : Tue Jul 30 03:04:50 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.01 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

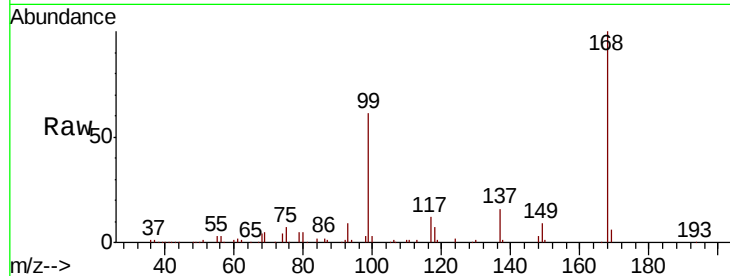
Instrument :  
MSVOA\_D  
ClientSampleId :  
T3-2RE

Tgt Ion:168 Resp: 853719

Ion Ratio Lower Upper

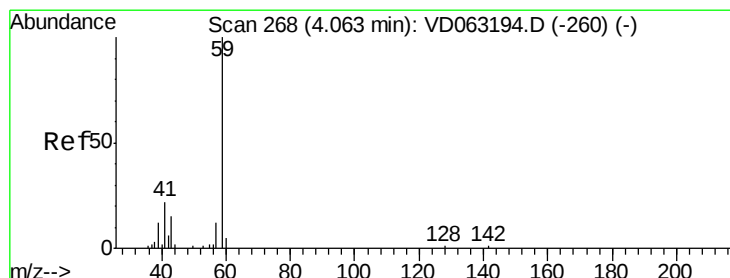
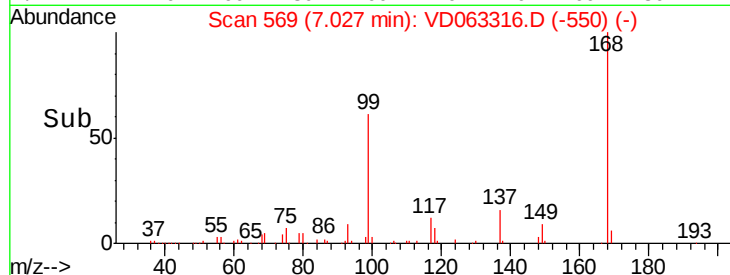
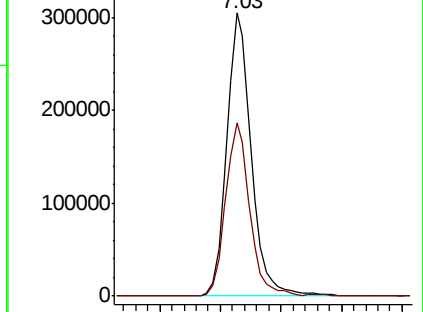
168 100

99 61.2 43.7 65.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#11

Tert butyl alcohol

Concen: 2.155 ug/l

RT: 4.04 min Scan# 266

Delta R.T. -0.02 min

Lab File: VD063316.D

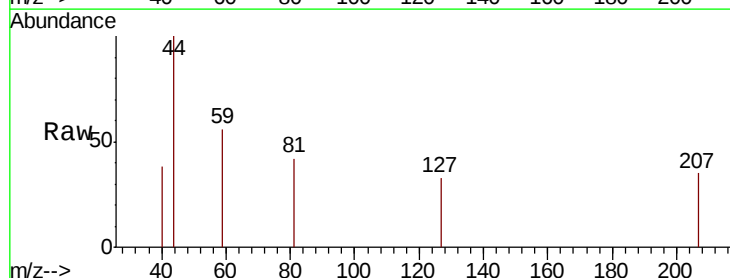
Acq: 2 Aug 2019 15:01

Tgt Ion: 59 Resp: 896

Ion Ratio Lower Upper

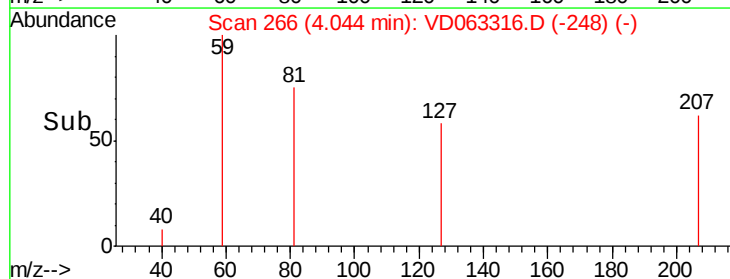
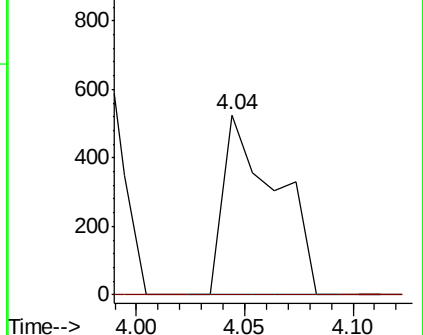
59 100

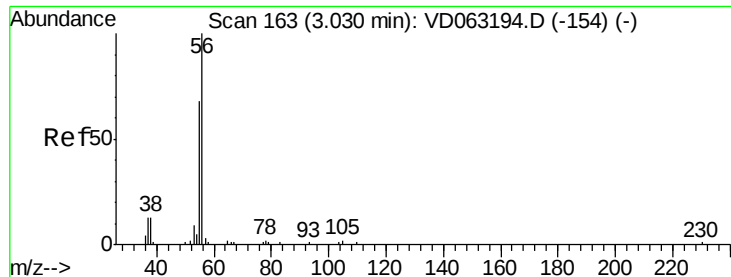
57 0.0 9.6 14.4#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC





#13

Acrolein

Concen: 2.624 ug/l

RT: 3.04 min Scan# 164

Delta R.T. 0.01 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

Instrument :

MSVOA\_D

ClientSampled :

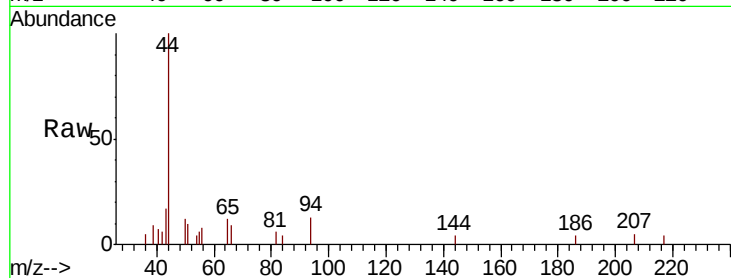
T3-2RE

Tgt Ion: 56 Resp: 1050

Ion Ratio Lower Upper

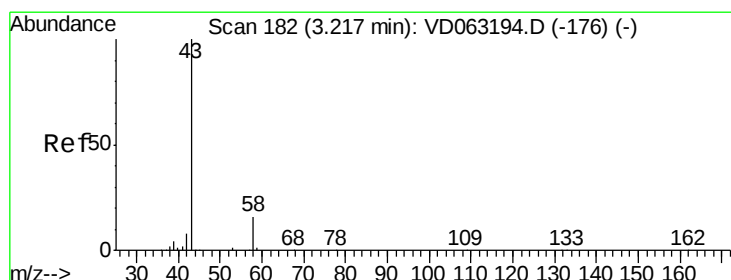
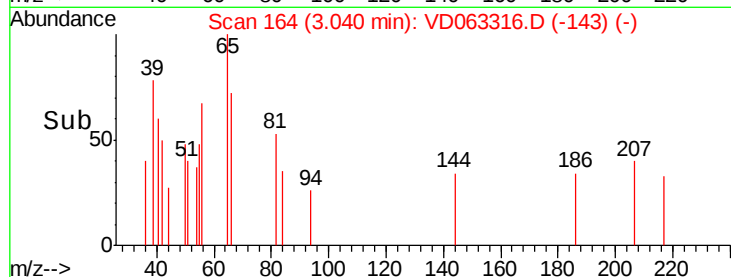
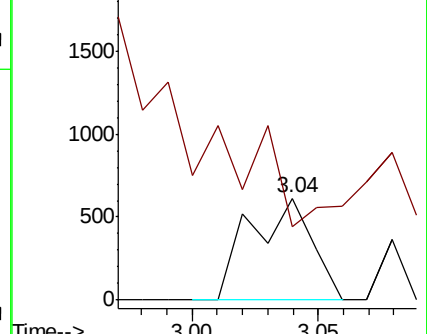
56 100

55 71.6 55.3 82.9



Abundance Ion 55.95 (55.65 to 56.65): VDC

Ion 55.00 (54.70 to 55.70): VDC



#16

Acetone

Concen: 32.621 ug/l

RT: 3.21 min Scan# 181

Delta R.T. -0.01 min

Lab File: VD063316.D

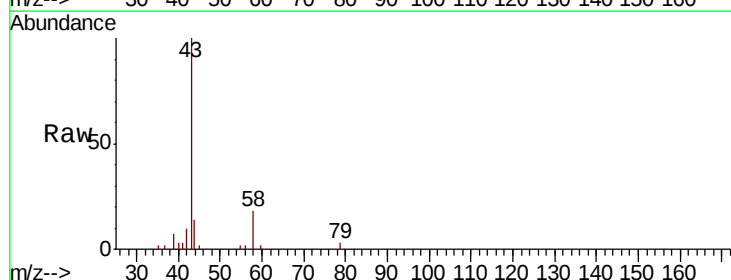
Acq: 2 Aug 2019 15:01

Tgt Ion: 43 Resp: 60208

Ion Ratio Lower Upper

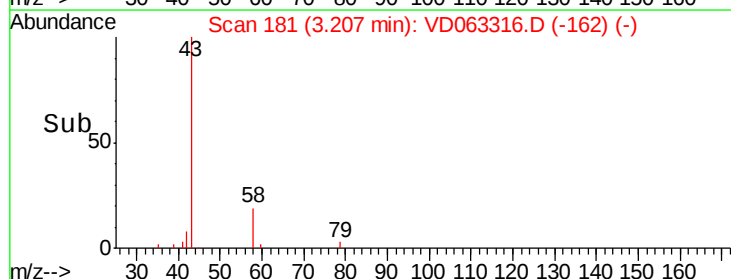
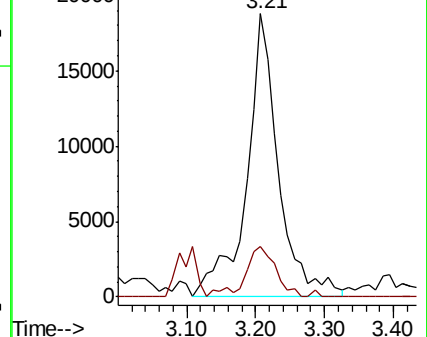
43 100

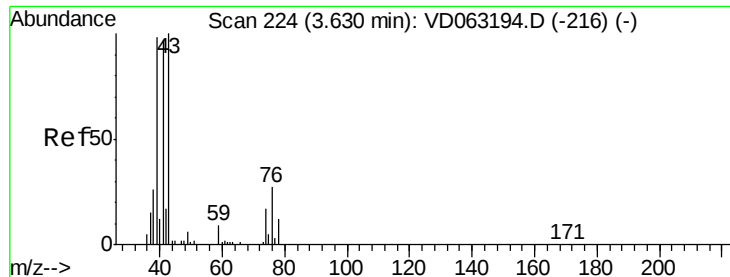
58 17.6 13.0 19.4



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC

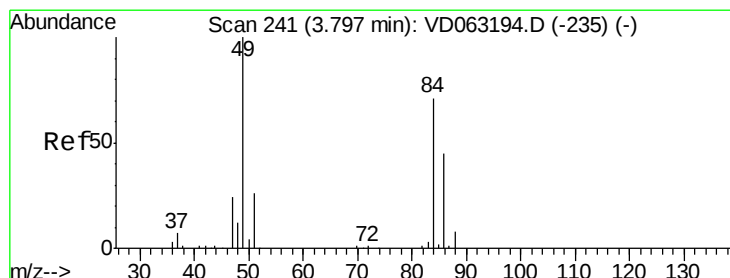
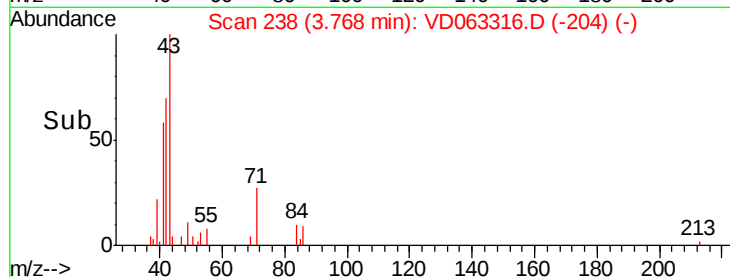
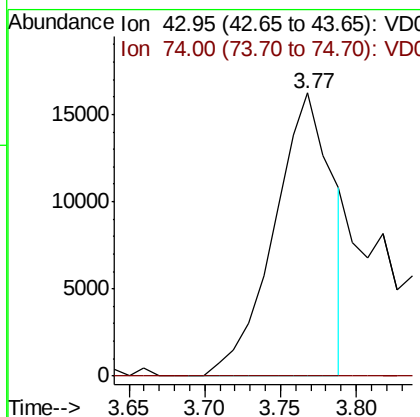
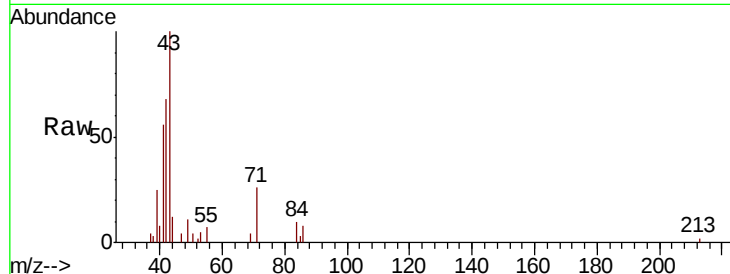




#18  
Methyl Acetate  
Concen: 12.362 ug/l  
RT: 3.77 min Scan# 238  
Delta R.T. 0.14 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

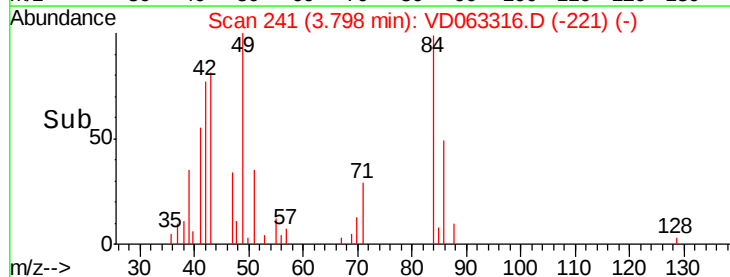
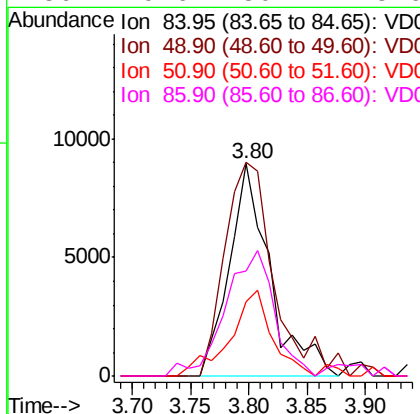
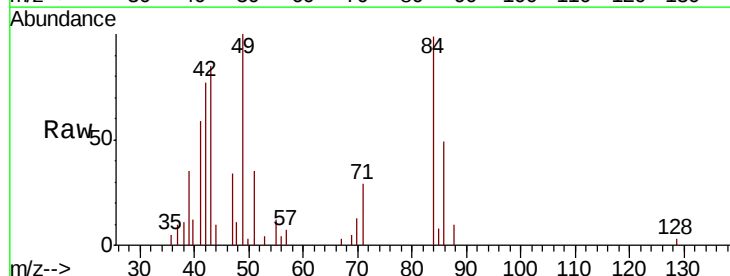
Instrument :  
MSVOA\_D  
ClientSampleId :  
T3-2RE

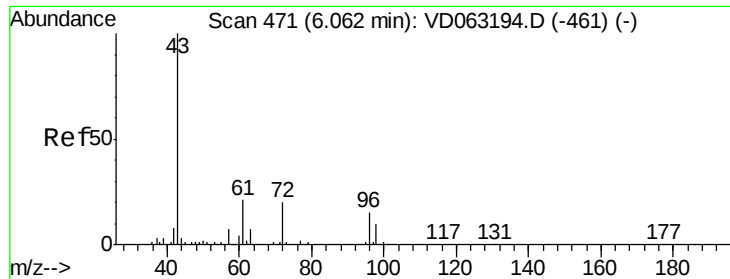
Tgt Ion: 43 Resp: 43826  
Ion Ratio Lower Upper  
43 100  
74 0.0 13.8 20.8#



#20  
Methylene Chloride  
Concen: 2.909 ug/l  
RT: 3.80 min Scan# 241  
Delta R.T. 0.00 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

Tgt Ion: 84 Resp: 21705  
Ion Ratio Lower Upper  
84 100  
49 100.7 112.5 168.7#  
51 35.1 29.6 44.4  
86 49.6 50.4 75.6#





#25

2-Butanone

Concen: 2.046 ug/l

RT: 6.06 min Scan# 471

Delta R.T. 0.00 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

Instrument :

MSVOA\_D

ClientSampleId :

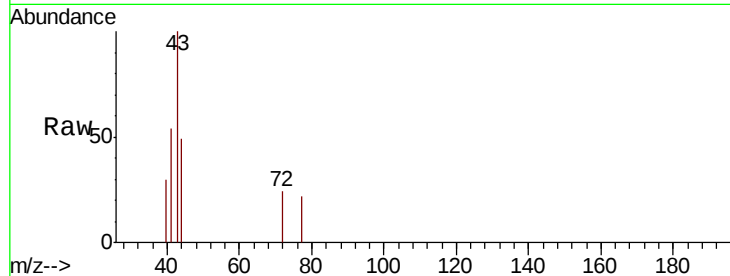
T3-2RE

Tgt Ion: 43 Resp: 3790

Ion Ratio Lower Upper

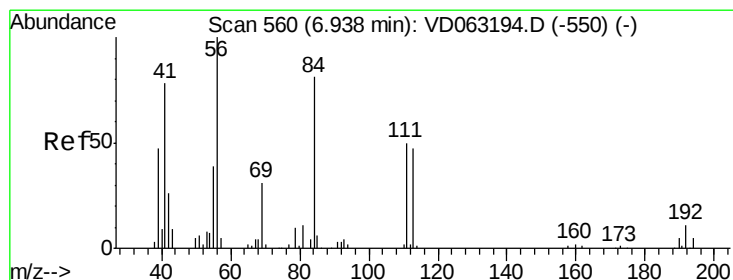
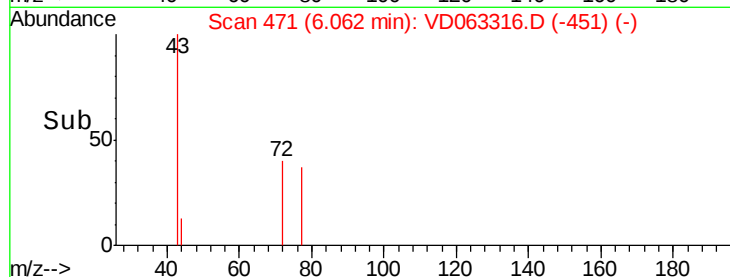
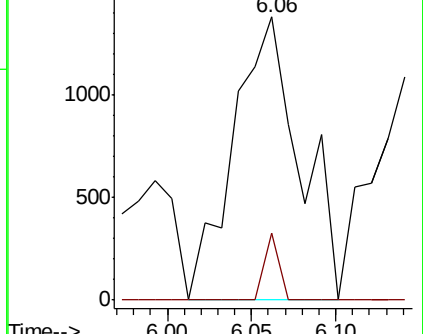
43 100

72 23.6 16.3 24.5



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC



#31

Cyclohexane

Concen: 14.493 ug/l

RT: 6.94 min Scan# 560

Delta R.T. 0.00 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

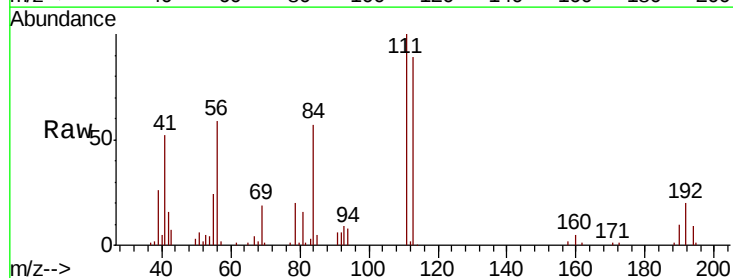
Tgt Ion: 56 Resp: 122289

Ion Ratio Lower Upper

56 100

69 31.4 24.5 36.7

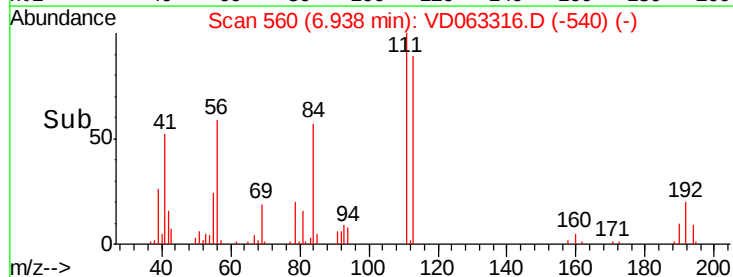
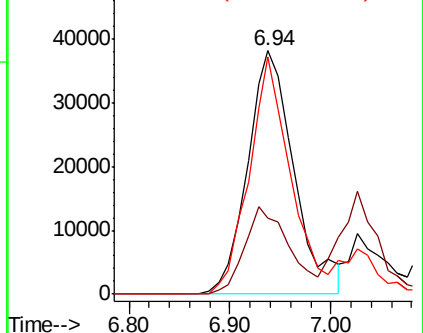
84 97.2 64.9 97.3

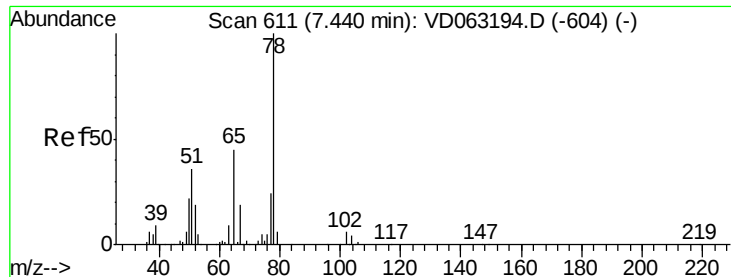


Abundance Ion 55.95 (55.65 to 56.65): VDC

Ion 69.00 (68.70 to 69.70): VDC

Ion 84.05 (83.75 to 84.75): VDC

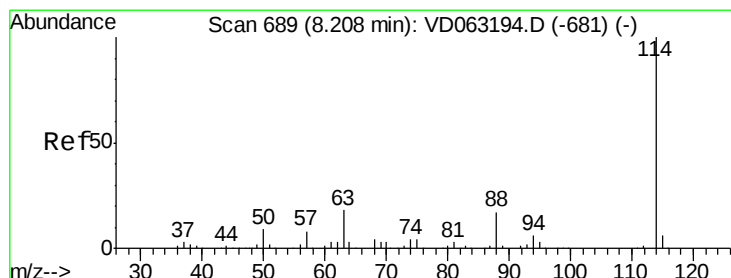
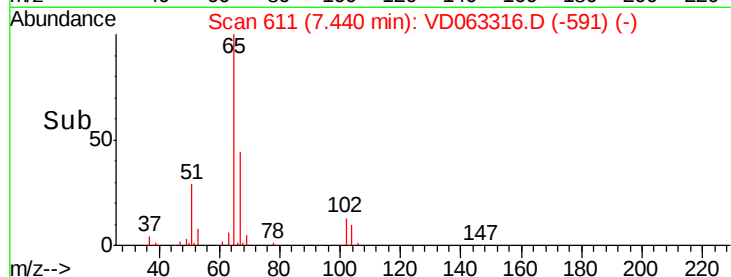
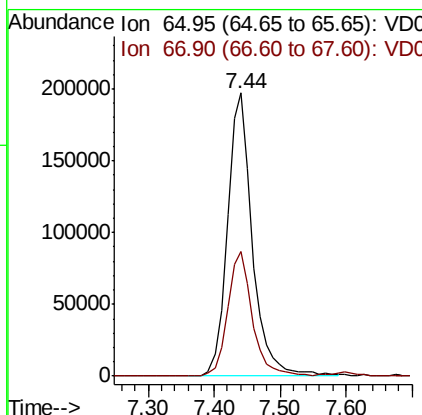
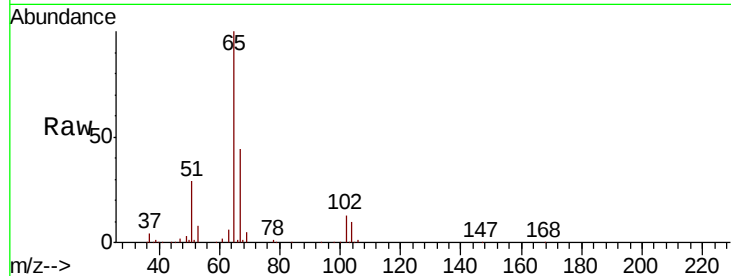




#33  
 1,2-Dichloroethane-d4  
 Concen: 54.926 ug/l  
 RT: 7.44 min Scan# 611  
 Delta R.T. 0.00 min  
 Lab File: VD063316.D  
 Acq: 2 Aug 2019 15:01

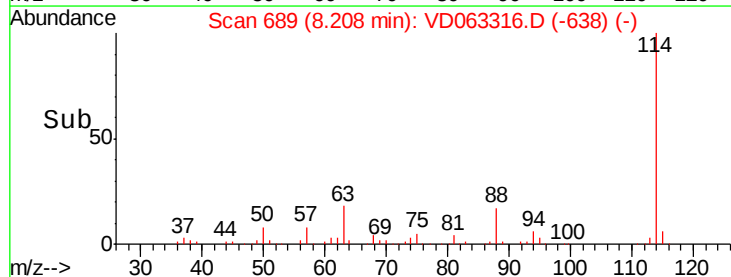
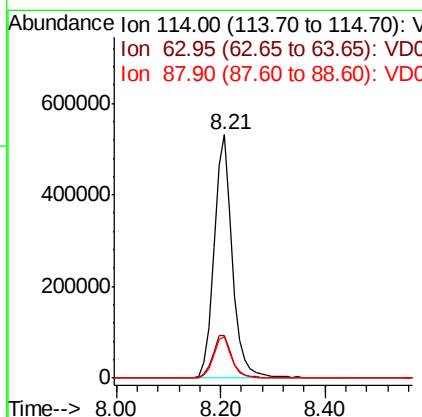
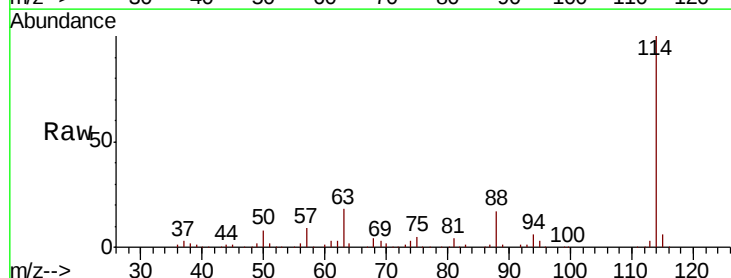
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T3-2RE

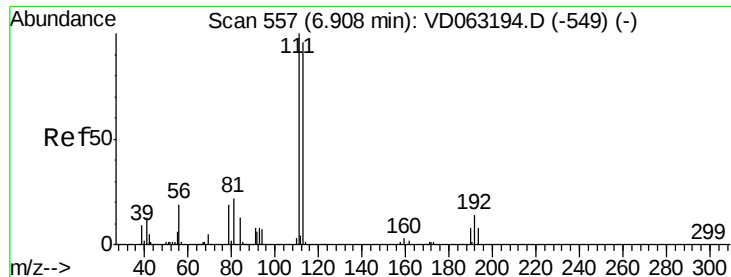
Tgt Ion: 65 Resp: 520308  
 Ion Ratio Lower Upper  
 65 100  
 67 44.0 0.0 85.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.21 min Scan# 689  
 Delta R.T. 0.00 min  
 Lab File: VD063316.D  
 Acq: 2 Aug 2019 15:01

Tgt Ion: 114 Resp: 1283433  
 Ion Ratio Lower Upper  
 114 100  
 63 17.7 0.0 35.2  
 88 16.9 0.0 34.6





#35

Dibromofluoromethane

Concen: 51.446 ug/l

RT: 6.91 min Scan# 557

Delta R.T. 0.00 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

Instrument :

MSVOA\_D

ClientSampled :

T3-2RE

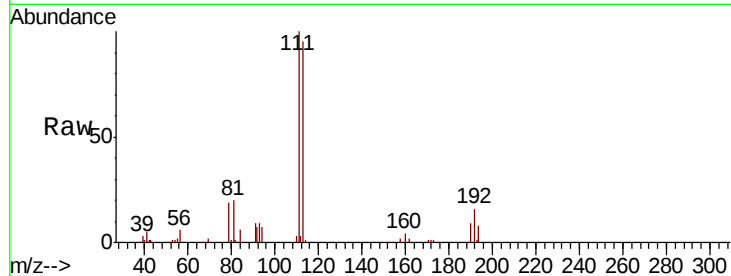
Tgt Ion:113 Resp: 563733

Ion Ratio Lower Upper

113 100

111 104.9 83.2 124.8

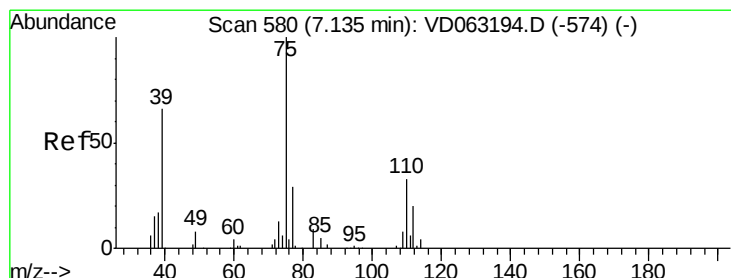
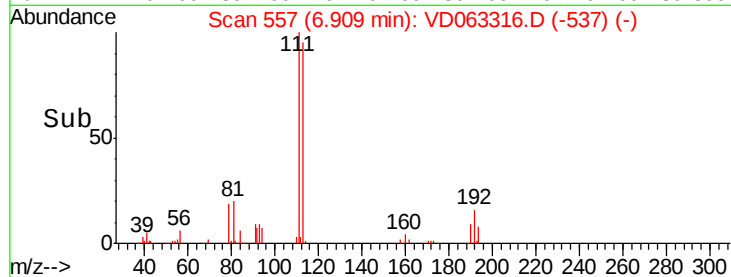
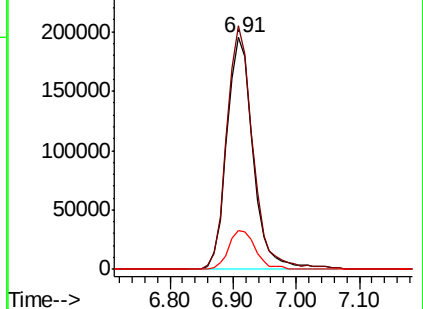
192 16.7 11.8 17.8



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: 5.175 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.11 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

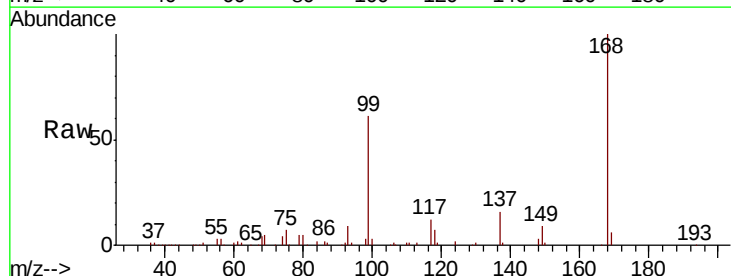
Tgt Ion: 75 Resp: 60614

Ion Ratio Lower Upper

75 100

110 14.4 16.1 48.2#

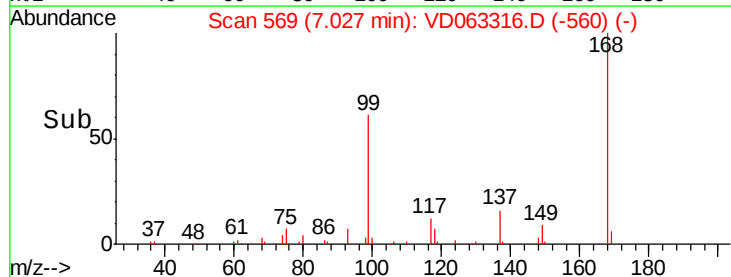
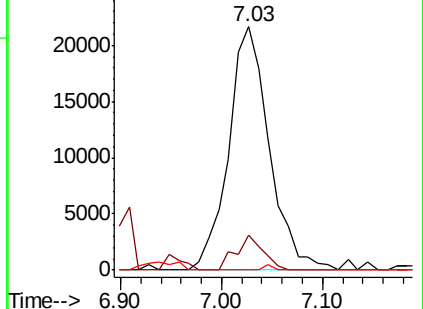
77 0.0 22.7 34.1#

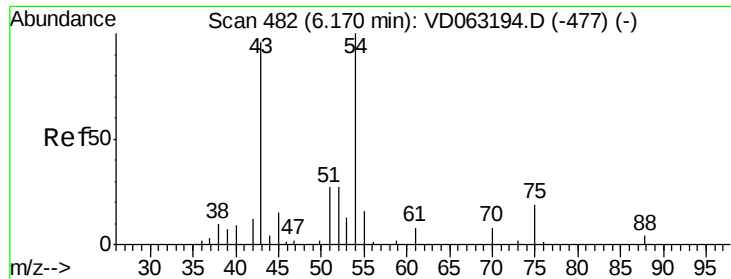


Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V

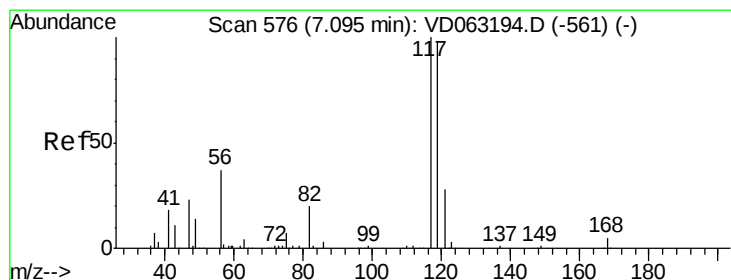
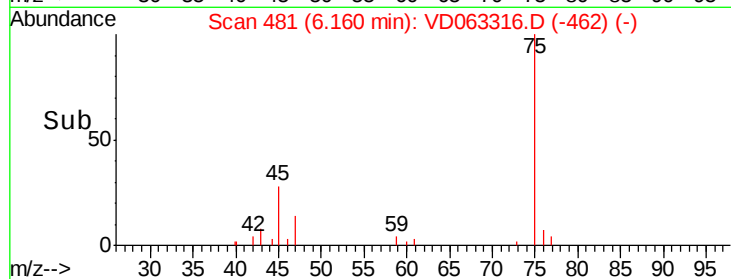
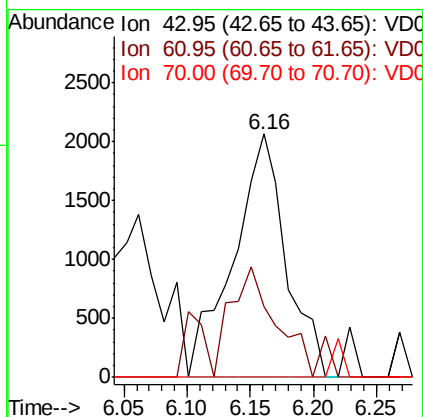
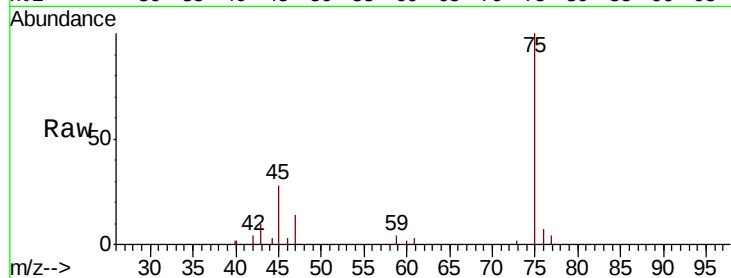




#37  
 Ethyl Acetate  
 Concen: 1.142 ug/l  
 RT: 6.16 min Scan# 481  
 Delta R.T. -0.01 min  
 Lab File: VD063316.D  
 Acq: 2 Aug 2019 15:01

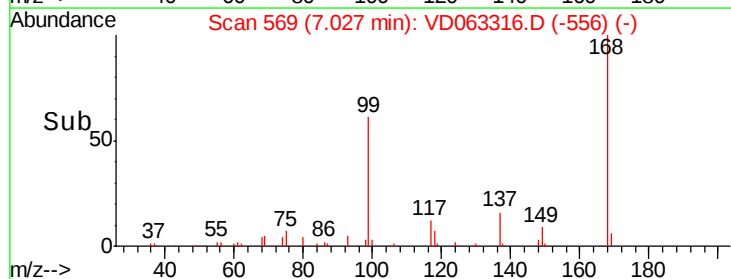
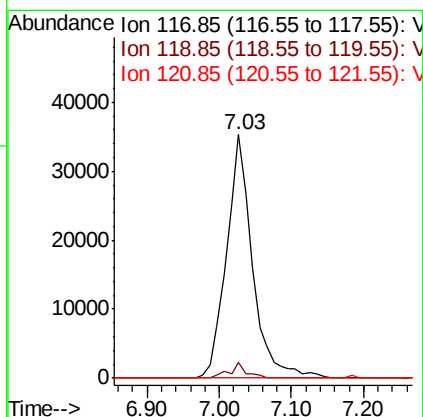
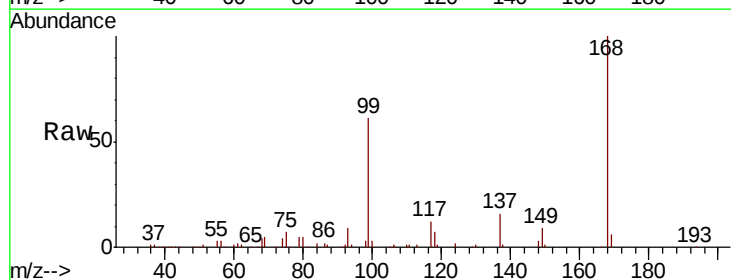
Instrument :  
 MSVOA\_D  
 ClientSampleID :  
 T3-2RE

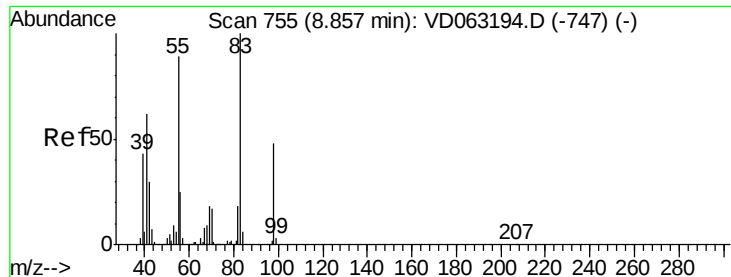
Tgt Ion: 43 Resp: 6008  
 Ion Ratio Lower Upper  
 43 100  
 61 29.1 11.3 16.9#  
 70 0.0 5.1 7.7#



#38  
 Carbon Tetrachloride  
 Concen: 5.006 ug/l  
 RT: 7.03 min Scan# 569  
 Delta R.T. -0.07 min  
 Lab File: VD063316.D  
 Acq: 2 Aug 2019 15:01

Tgt Ion: 117 Resp: 88269  
 Ion Ratio Lower Upper  
 117 100  
 119 6.3 78.2 117.2#  
 121 0.0 22.1 33.1#

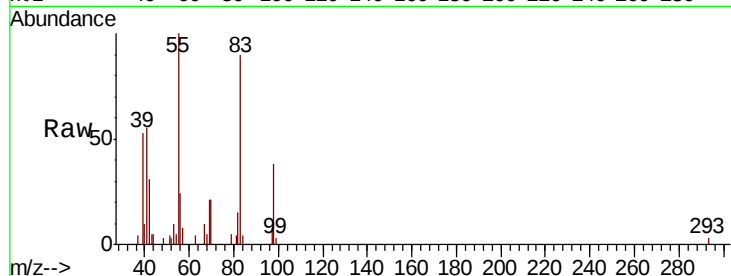




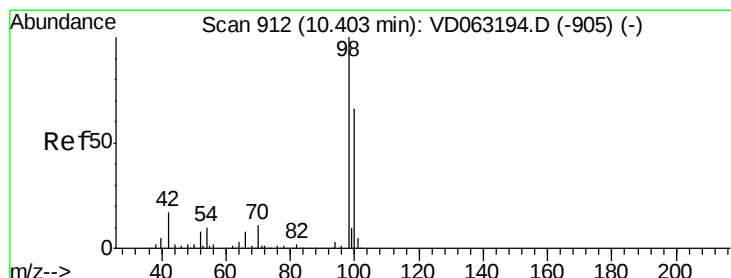
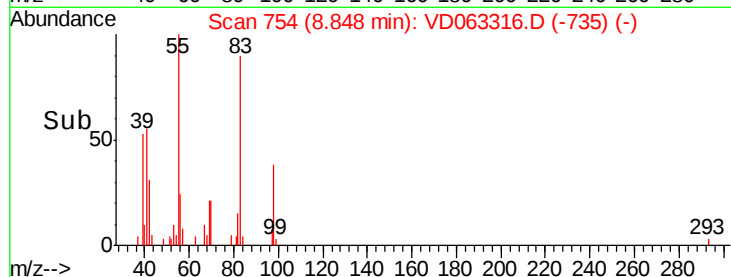
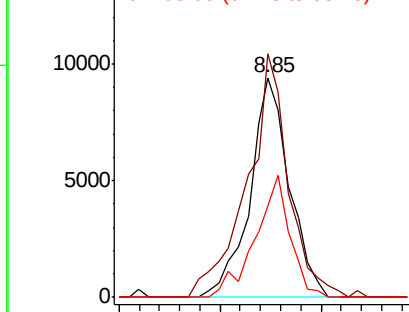
#39  
Methylcyclohexane  
Concen: 2.620 ug/l  
RT: 8.85 min Scan# 754  
Delta R.T. -0.01 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

Instrument :  
MSVOA\_D  
ClientSampled :  
T3-2RE

Tgt Ion: 83 Resp: 25568  
Ion Ratio Lower Upper  
83 100  
55 110.9 71.1 106.7#  
98 41.8 38.5 57.7

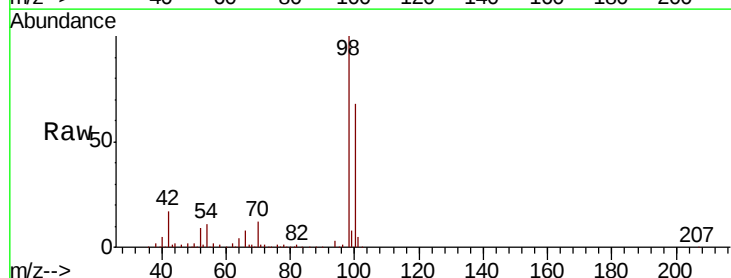


Abundance Ion 83.05 (82.75 to 83.75): VDC  
Ion 55.00 (54.70 to 55.70): VDC  
Ion 98.05 (97.75 to 98.75): VDC

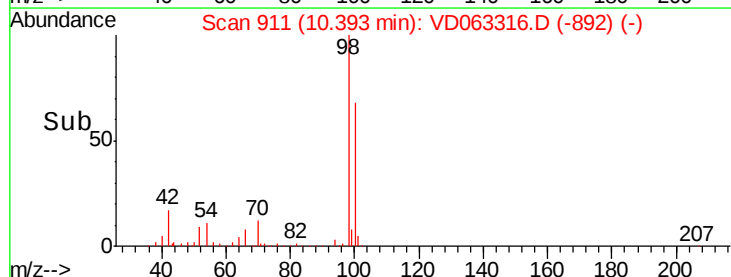
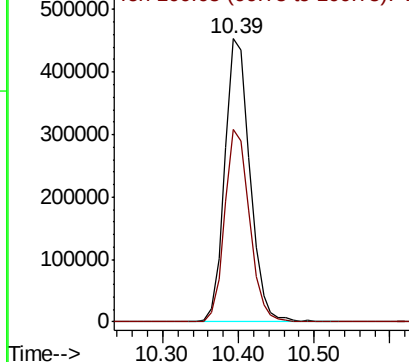


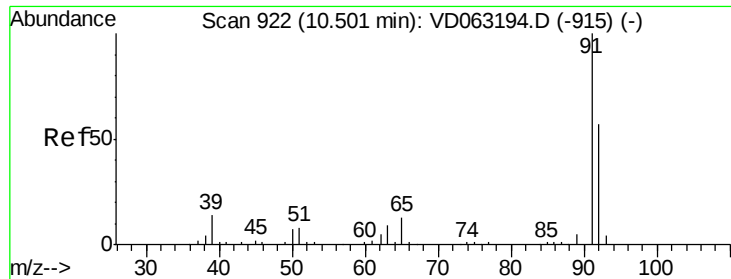
#50  
Toluene-d8  
Concen: 42.388 ug/l  
RT: 10.39 min Scan# 911  
Delta R.T. -0.01 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

Tgt Ion: 98 Resp: 1039493  
Ion Ratio Lower Upper  
98 100  
100 68.0 53.2 79.8



Abundance Ion 98.05 (97.75 to 98.75): VDC  
Ion 100.05 (99.75 to 100.75): VDC





#52

Toluene

Concen: 1.241 ug/l

RT: 10.49 min Scan# 921

Delta R.T. -0.01 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

Instrument :

MSVOA\_D

ClientSampleId :

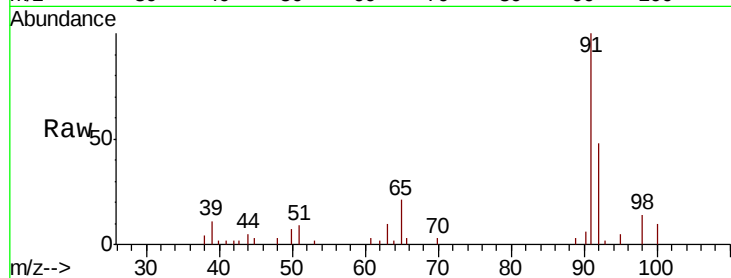
T3-2RE

Tgt Ion: 92 Resp: 20260

Ion Ratio Lower Upper

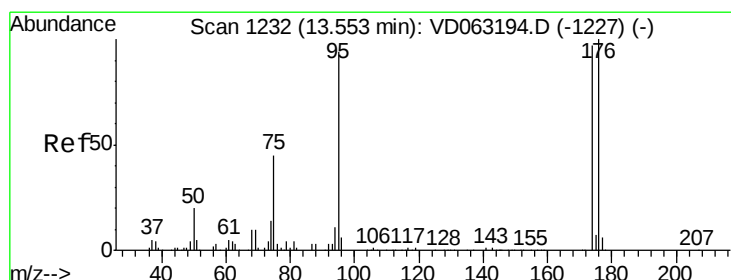
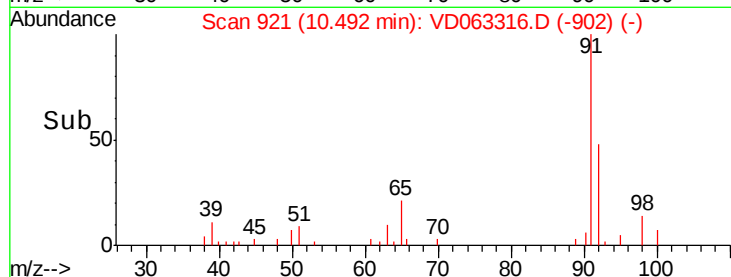
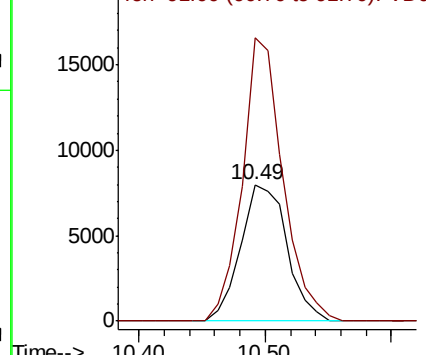
92 100

91 207.9 140.8 211.2



Abundance Ion 92.00 (91.70 to 92.70): VDC

Ion 91.00 (90.70 to 91.70): VDC



#62

4-Bromofluorobenzene

Concen: 24.913 ug/l

RT: 13.54 min Scan# 1231

Delta R.T. -0.01 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

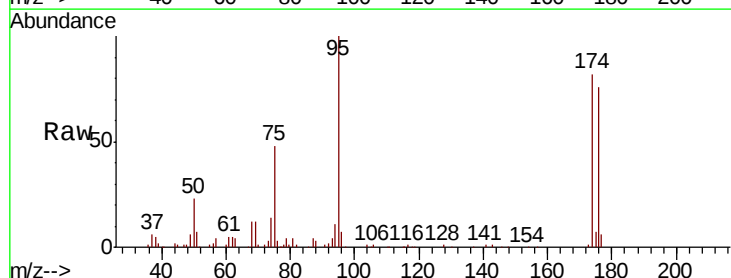
Tgt Ion: 95 Resp: 278405

Ion Ratio Lower Upper

95 100

174 82.0 0.0 205.4

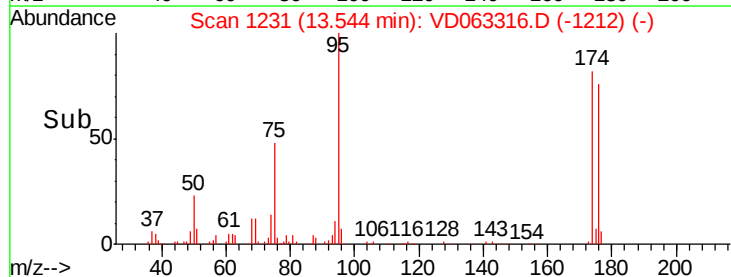
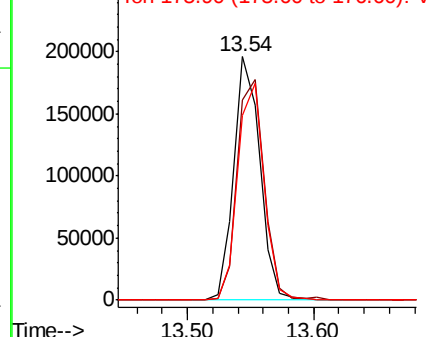
176 76.0 0.0 211.8

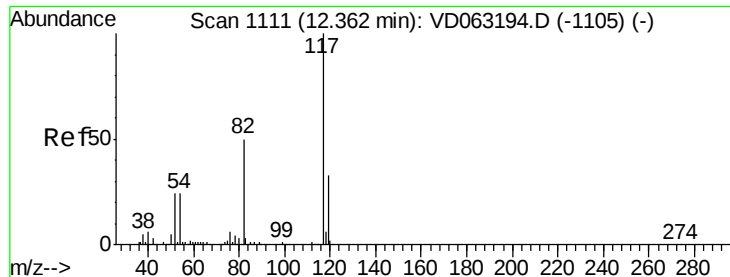


Abundance Ion 95.00 (94.70 to 95.70): VDC

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V

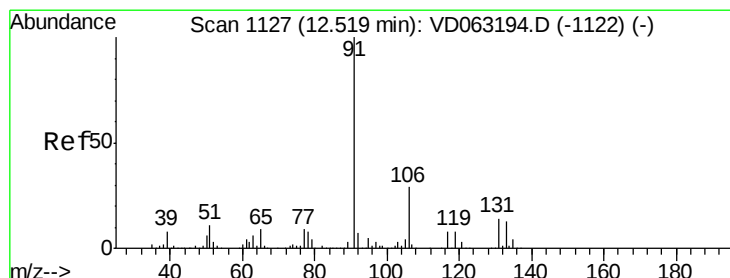
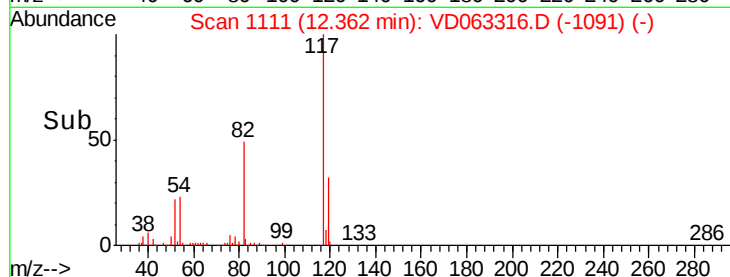
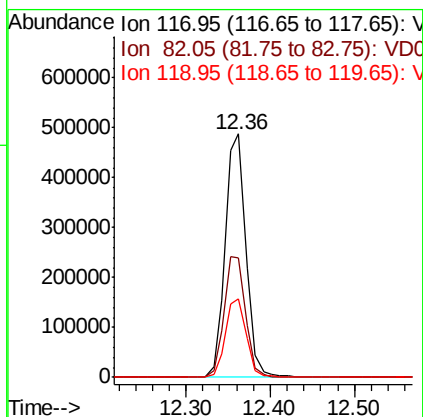
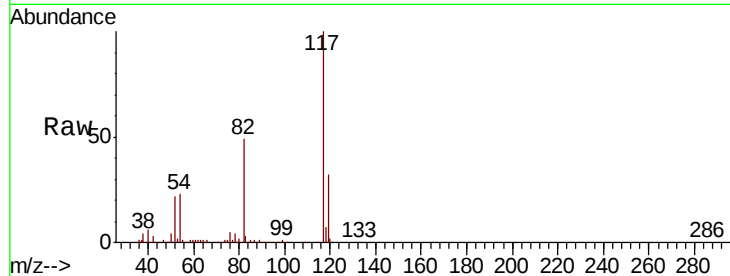




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.36 min Scan# 1111  
Delta R.T. 0.00 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

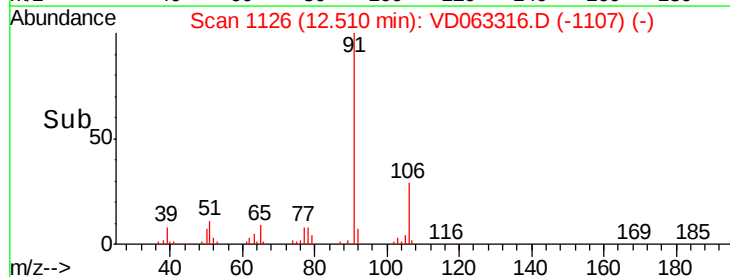
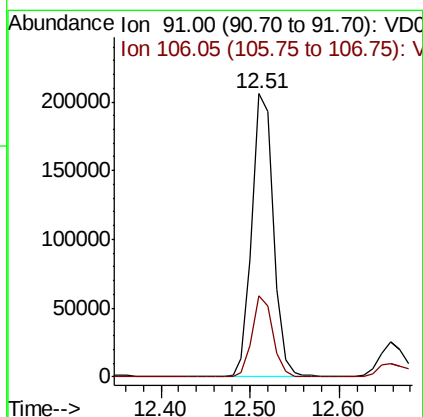
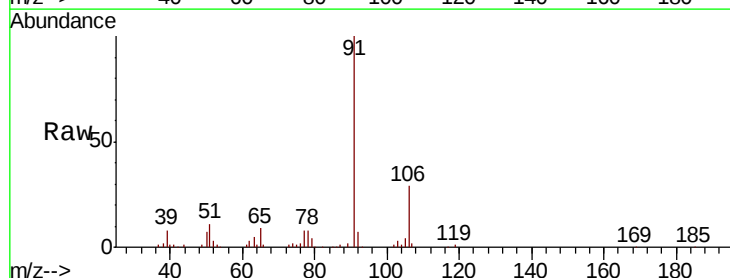
Instrument :  
MSVOA\_D  
ClientSampleId :  
T3-2RE

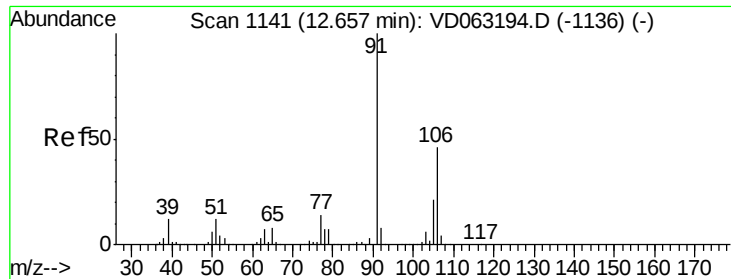
Tgt Ion: 117 Resp: 833999  
Ion Ratio Lower Upper  
117 100  
82 48.9 40.1 60.1  
119 32.5 26.5 39.7



#67  
Ethyl Benzene  
Concen: 12.624 ug/l  
RT: 12.51 min Scan# 1126  
Delta R.T. -0.01 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

Tgt Ion: 91 Resp: 344018  
Ion Ratio Lower Upper  
91 100  
106 28.7 22.9 34.3

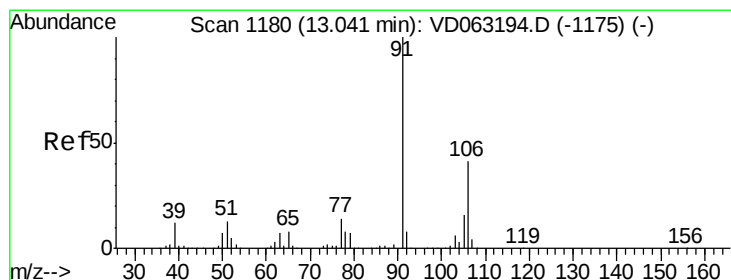
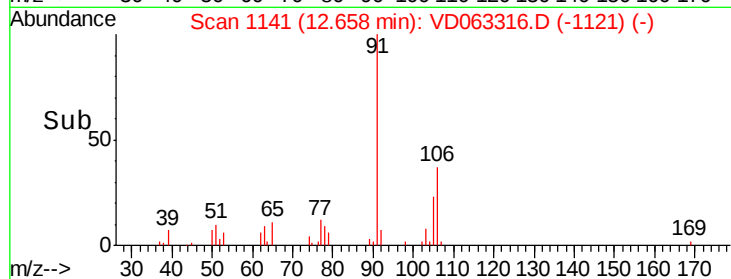
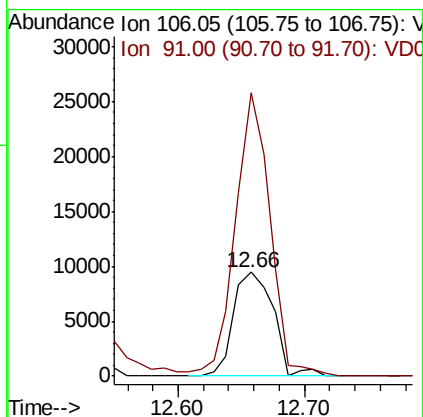
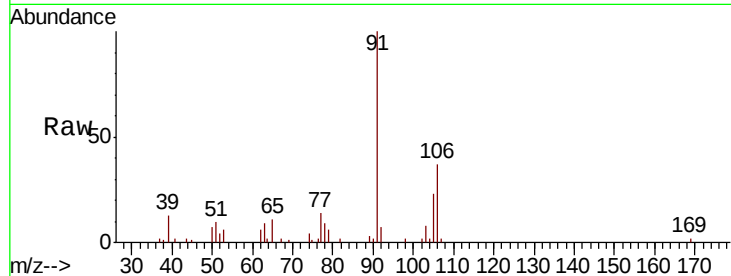




#68  
m/p-Xylenes  
Concen: 2.077 ug/l  
RT: 12.66 min Scan# 1141  
Delta R.T. 0.00 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

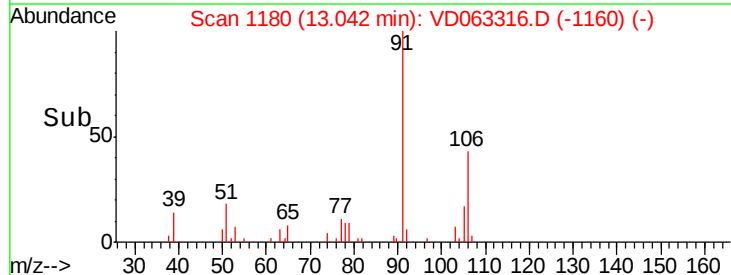
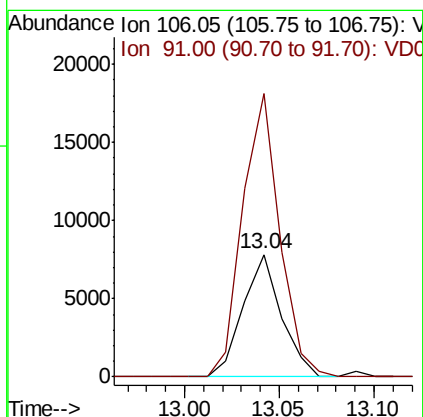
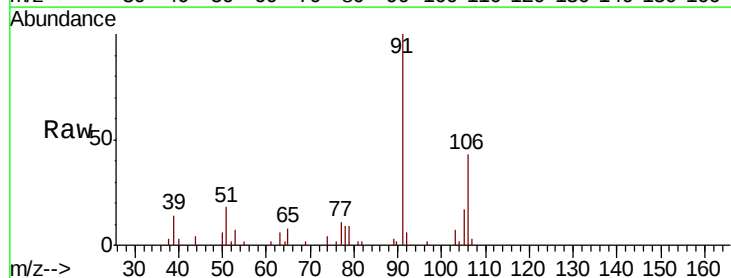
Instrument :  
MSVOA\_D  
ClientSampled :  
T3-2RE

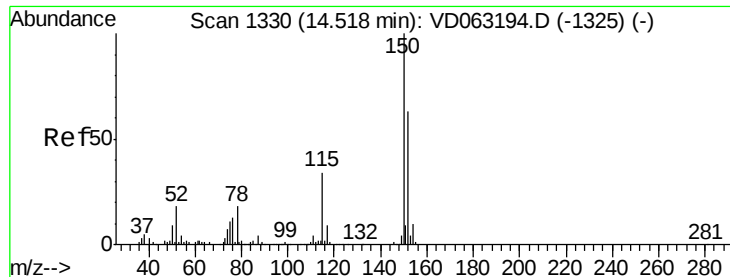
Tgt Ion:106 Resp: 20762  
Ion Ratio Lower Upper  
106 100  
91 272.0 172.6 259.0#



#69  
o-Xylene  
Concen: 1.199 ug/l  
RT: 13.04 min Scan# 1180  
Delta R.T. 0.00 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

Tgt Ion:106 Resp: 11002  
Ion Ratio Lower Upper  
106 100  
91 231.5 121.3 363.9



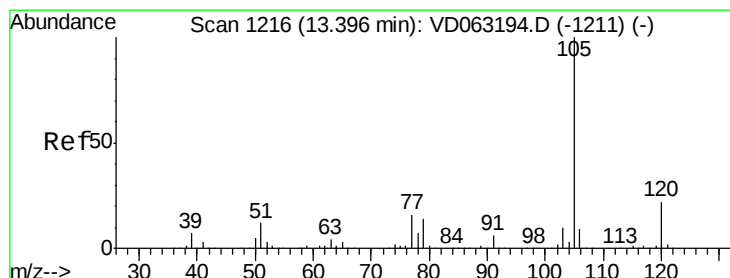
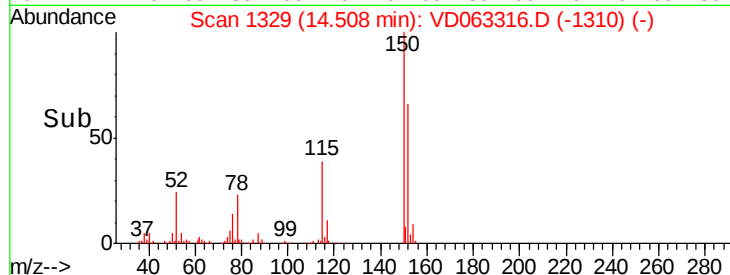
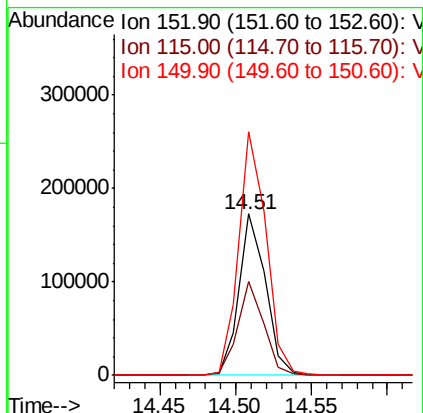
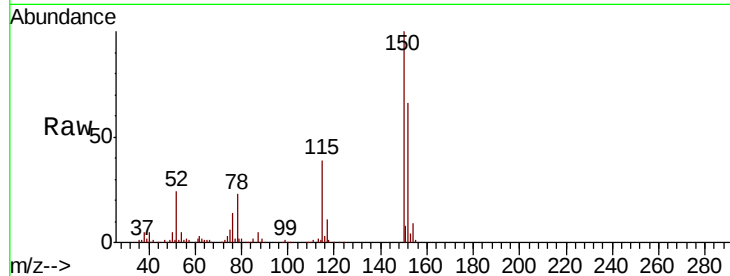


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.51 min Scan# 1329  
Delta R.T. -0.01 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

Instrument :  
MSVOA\_D  
ClientSampleId :  
T3-2RE

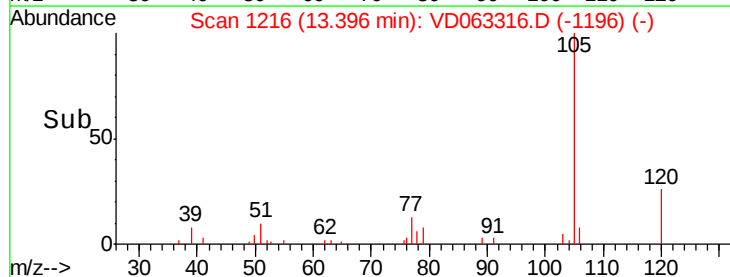
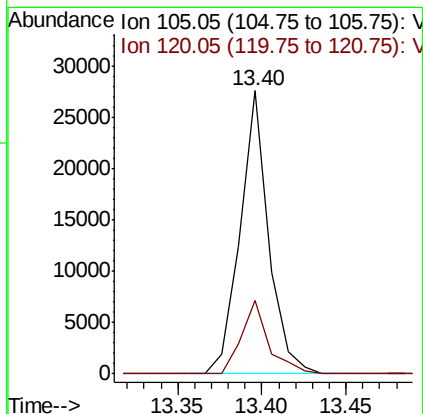
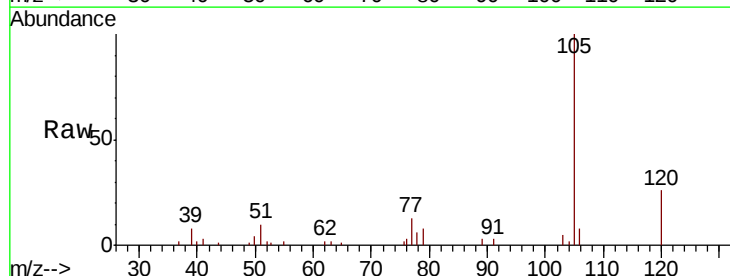
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 58.3  | 27.5  | 82.4  |
| 150     | 150.9 | 0.0   | 320.6 |

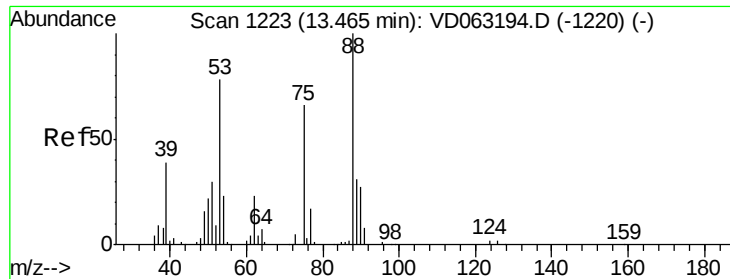


#73

Isopropylbenzene  
Concen: 2.425 ug/l  
RT: 13.40 min Scan# 1216  
Delta R.T. 0.00 min  
Lab File: VD063316.D  
Acq: 2 Aug 2019 15:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 25.8  | 11.1  | 33.3  |





#81

trans-1,4-Dichloro-2-butene

Concen: 184.219 ug/l

RT: 13.54 min Scan# 1231

Delta R.T. 0.08 min

Lab File: VD063316.D

Acq: 2 Aug 2019 15:01

Instrument :

MSVOA\_D

ClientSampleId :

T3-2RE

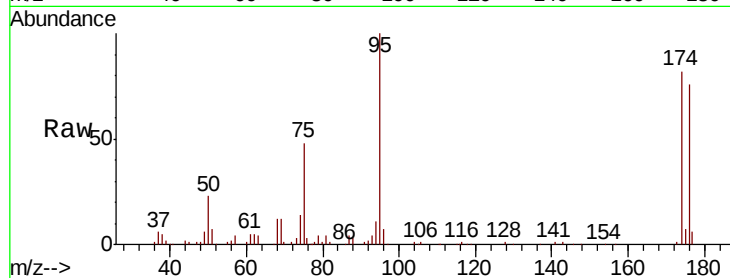
Tgt Ion: 75 Resp: 129932

Ion Ratio Lower Upper

75 100

53 0.0 94.9 142.3#

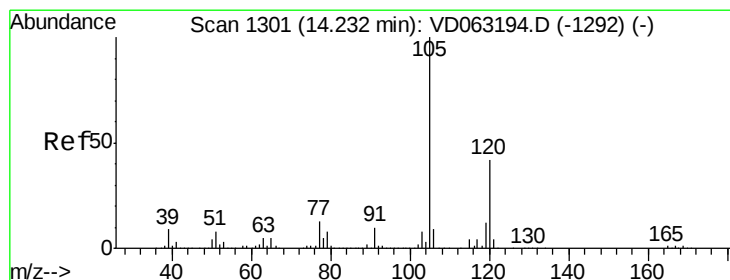
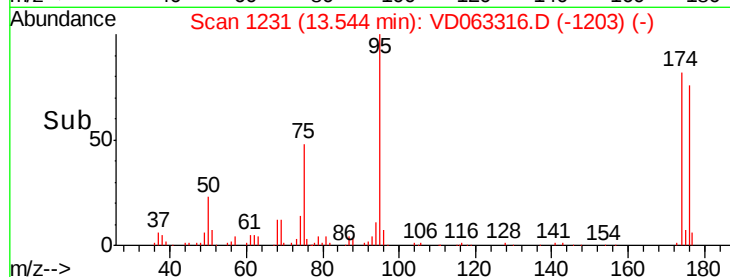
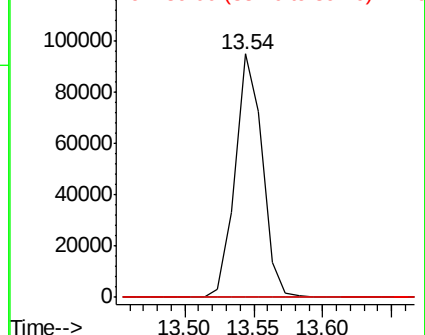
89 0.0 37.4 56.0#



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



#84

1,2,4-Trimethylbenzene

Concen: 1.422 ug/l

RT: 14.23 min Scan# 1301

Delta R.T. 0.00 min

Lab File: VD063316.D

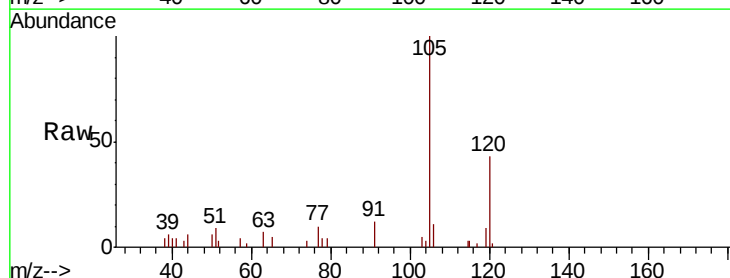
Acq: 2 Aug 2019 15:01

Tgt Ion:105 Resp: 16837

Ion Ratio Lower Upper

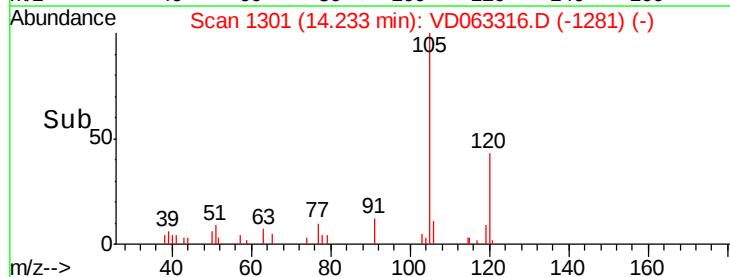
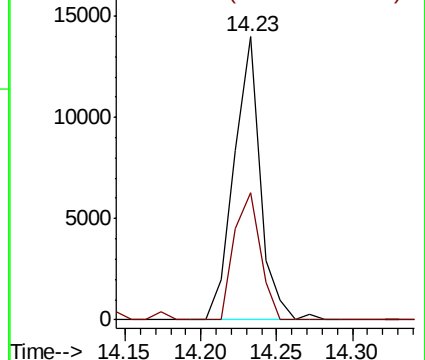
105 100

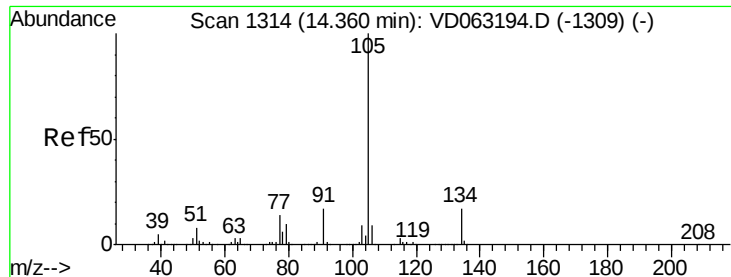
120 45.1 20.9 62.7



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V





#85  
 sec-Butylbenzene  
 Concen: 1.223 ug/l  
 RT: 14.23 min Scan# 1301  
 Delta R.T. -0.13 min  
 Lab File: VD063316.D  
 Acq: 2 Aug 2019 15:01

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T3-2RE

Tgt Ion:105 Resp: 16837  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 8.3 24.9#

