

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD052219\  
 Data File : VD062512.D  
 Acq On : 22 May 2019 19:29  
 Operator : VA/AP  
 Sample : K2996-11  
 Misc : 6.72g/5ml/MSVOA D/SOIL  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 P-10(0.5-1.0)

Quant Time: May 23 04:43:51 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D052019S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 21 03:32:39 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.04  | 168  | 609867   | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 8.21  | 114  | 871330   | 50.00 | ug/l  | -0.02    |
| 63) Chlorobenzene-d5       | 12.37 | 117  | 547310   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 119525   | 50.00 | ug/l  | -0.02    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.44  | 65   | 332854   | 50.99 | ug/l    | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 101.98% |          |
| 35) Dibromofluoromethane    | 6.91  | 113  | 364459   | 46.37 | ug/l    | -0.03    |
| Spiked Amount               |       |      | Recovery | =     | 92.74%  |          |
| 50) Toluene-d8              | 10.41 | 98   | 1193454  | 69.38 | ug/l    | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 138.76% |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 505279   | 67.15 | ug/l    | -0.02    |
| Spiked Amount               |       |      | Recovery | =     | 134.30% |          |

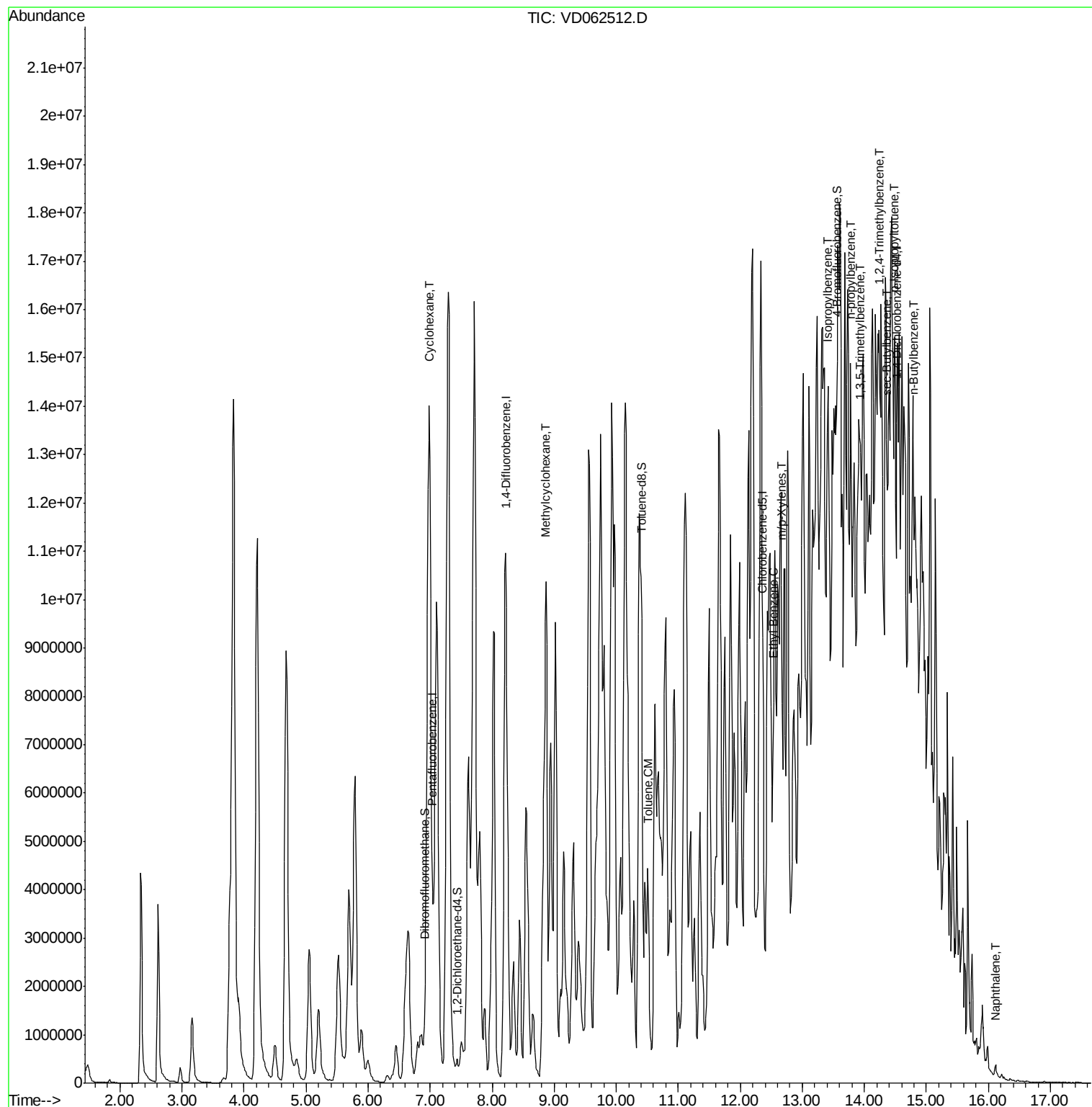
| Target Compounds           | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 31) Cyclohexane            | 6.99  | 56   | 4934851  | 800.600 | ug/l # | 44     |
| 39) Methylcyclohexane      | 8.87  | 83   | 5636692  | 820.359 | ug/l # | 86     |
| 52) Toluene                | 10.50 | 92   | 125513   | 11.220  | ug/l   | 97     |
| 67) Ethyl Benzene          | 12.53 | 91   | 531011   | 29.291  | ug/l   | 95     |
| 68) m/p-Xylenes            | 12.68 | 106  | 144089   | 22.142  | ug/l # | 64     |
| 73) Isopropylbenzene       | 13.41 | 105  | 2692096  | 357.321 | ug/l   | 96     |
| 78) n-propylbenzene        | 13.78 | 91   | 3088973  | 353.955 | ug/l   | 99     |
| 80) 1,3,5-Trimethylbenzene | 13.94 | 105  | 200074   | 30.670  | ug/l   | 99     |
| 84) 1,2,4-Trimethylbenzene | 14.24 | 105  | 79520    | 11.896  | ug/l   | 92     |
| 85) sec-Butylbenzene       | 14.37 | 105  | 643280   | 85.258  | ug/l   | 84     |
| 86) p-Isopropyltoluene     | 14.50 | 119  | 235517   | 34.445  | ug/l # | 36     |
| 89) n-Butylbenzene         | 14.80 | 91   | 1387889  | 210.324 | ug/l   | 86     |
| 95) Naphthalene            | 16.12 | 128  | 137771   | 39.900  | ug/l   | 100    |

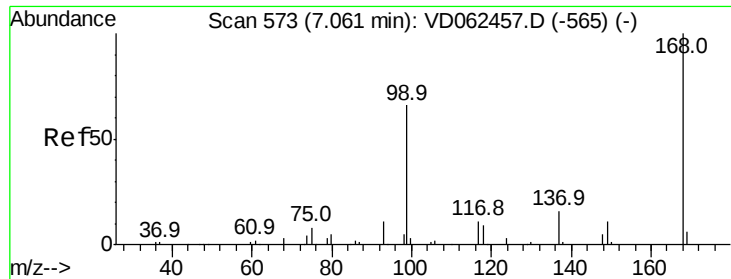
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD052219\  
Data File : VD062512.D  
Acq On : 22 May 2019 19:29  
Operator : VA/AP  
Sample : K2996-11  
Misc : 6.72a/5ml/MSVOA D/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
P-10(0.5-1.0)

Quant Time: May 23 04:43:51 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D052019S.M  
Quant Title : SW846 8260  
QLast Update : Tue May 21 03:32:39 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.04 min Scan# 570

Delta R.T. -0.02 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

Instrument :

MSVOA\_D

ClientSampleId :

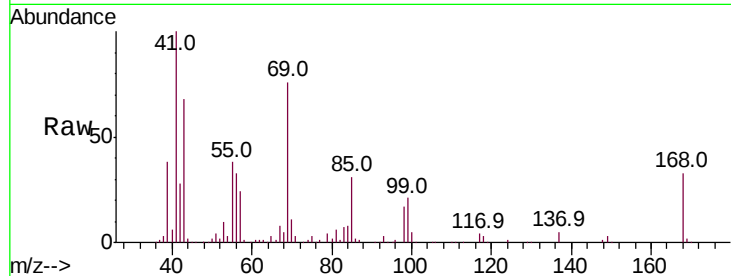
P-10(0.5-1.0)

Tot Ion:168 Resp: 609867

Ion Ratio Lower Upper

168 100

99 62.4 46.5 69.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.04

200000

150000

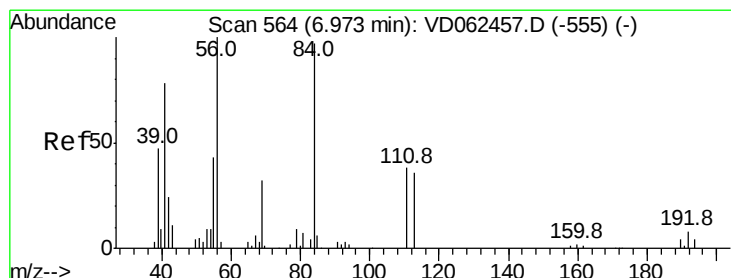
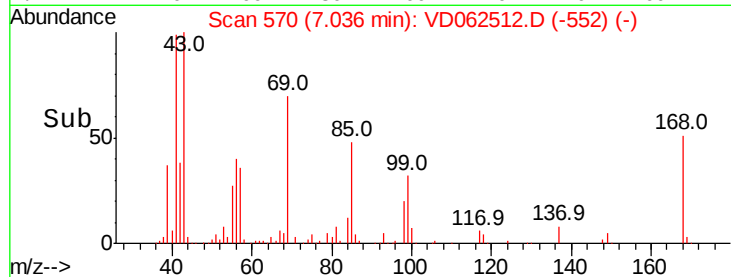
100000

50000

0

6.90 7.00 7.10 7.20 7.30

Time-->



#31

Cyclohexane

Concen: 800.600 ug/l

RT: 6.99 min Scan# 565

Delta R.T. 0.01 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

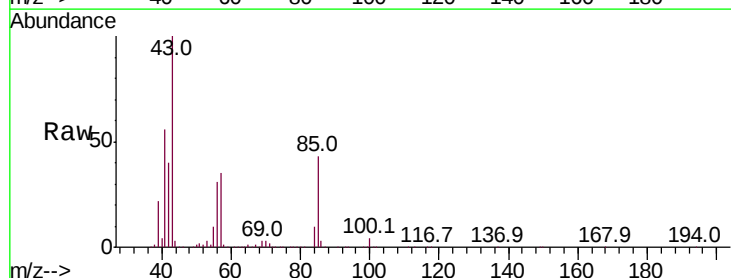
Tgt Ion: 56 Resp: 4934851

Ion Ratio Lower Upper

56 100

69 9.6 25.8 38.6#

84 32.6 72.2 108.4#



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

2500000

2000000

1500000

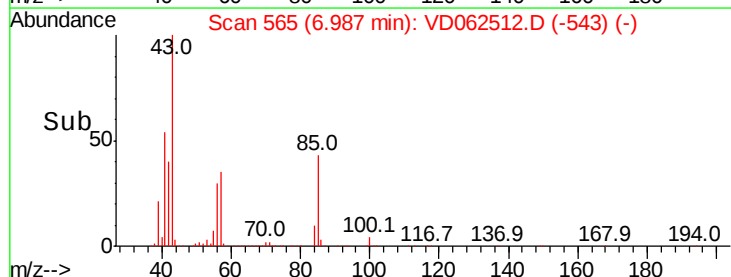
1000000

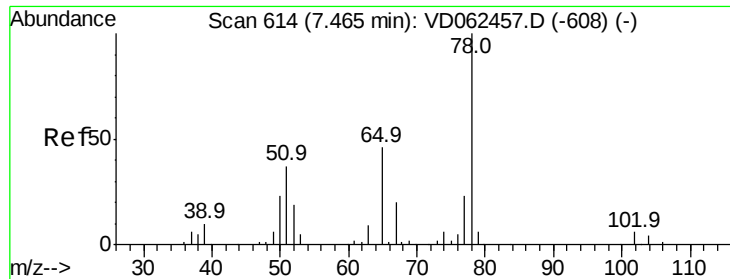
500000

0

6.90 7.00

Time-->





#33

1,2-Dichloroethane-d4

Concen: 50.987 ug/l

RT: 7.44 min Scan# 611

Delta R.T. -0.02 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

Instrument :

MSVOA\_D

ClientSampleId :

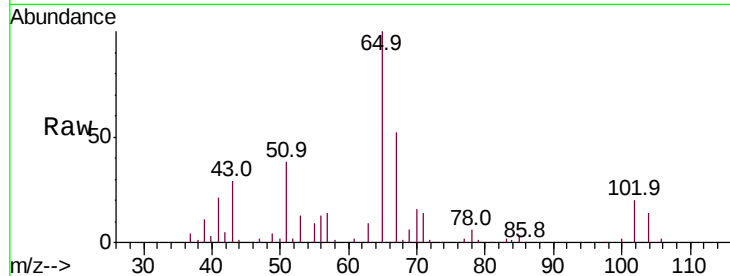
P-10(0.5-1.0)

Tot Ion: 65 Resp: 332854

Ion Ratio Lower Upper

65 100

67 51.7 0.0 98.0



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC

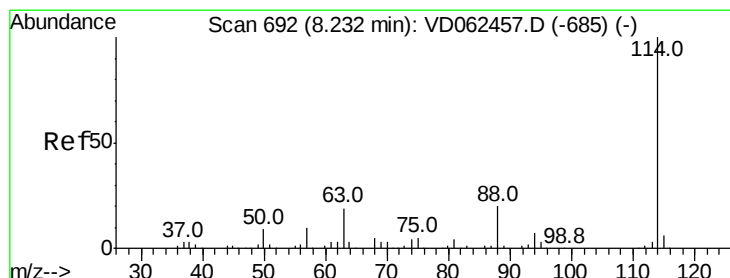
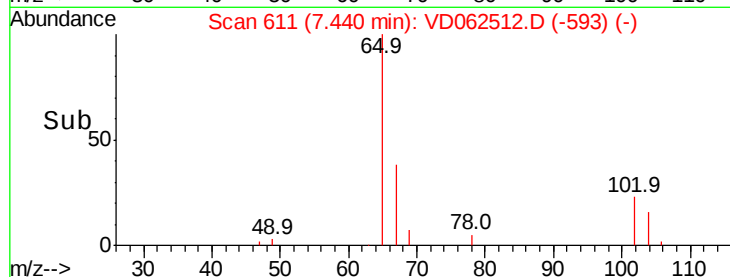
7.44

100000

50000

0

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.21 min Scan# 689

Delta R.T. -0.02 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

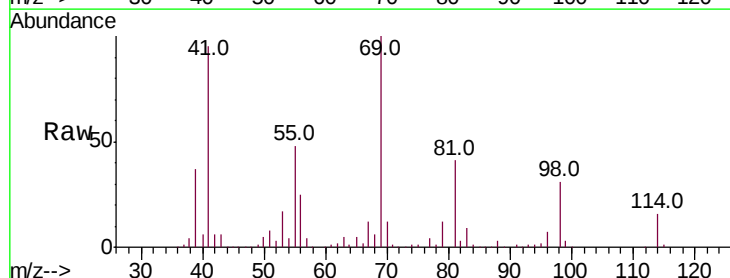
Tgt Ion: 114 Resp: 871330

Ion Ratio Lower Upper

114 100

63 32.2 0.0 32.4

88 17.1 0.0 33.6



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 62.95 (62.65 to 63.65): VDC

Ion 87.90 (87.60 to 88.60): VDC

8.21

400000

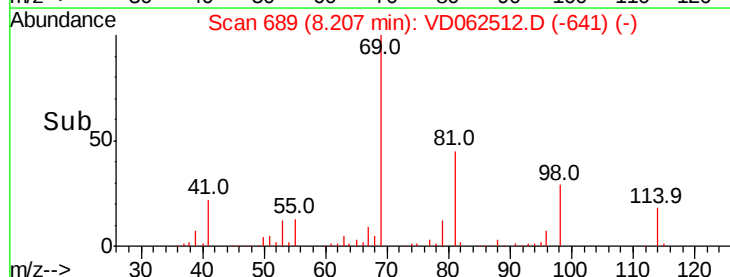
300000

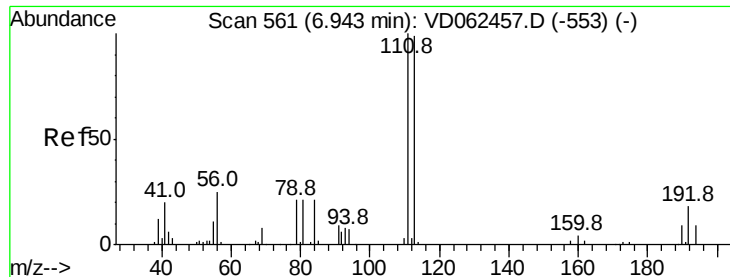
200000

100000

0

Time-->





#35

Dibromofluoromethane

Concen: 46.366 ug/l

RT: 6.91 min Scan# 557

Delta R.T. -0.03 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

Instrument :

MSVOA\_D

ClientSampleId :

P-10(0.5-1.0)

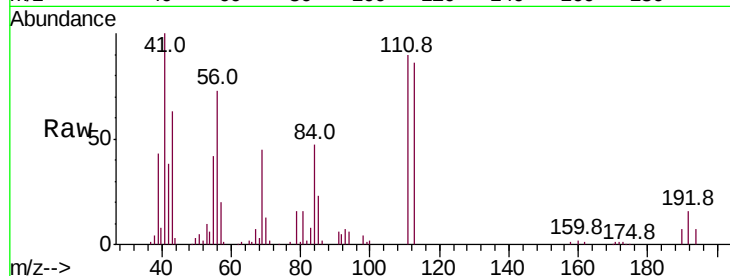
Tot Ion:113 Resp: 364459

Ion Ratio Lower Upper

113 100

111 104.3 78.5 117.7

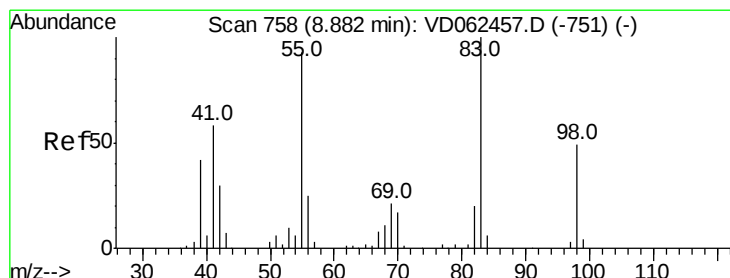
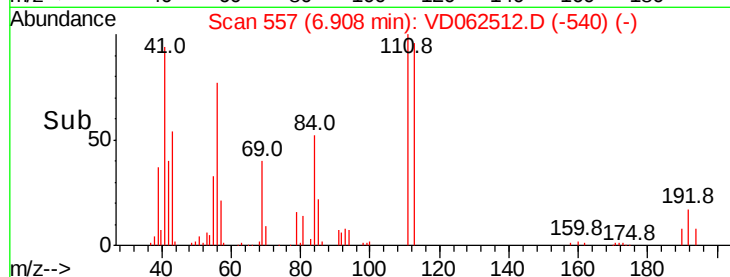
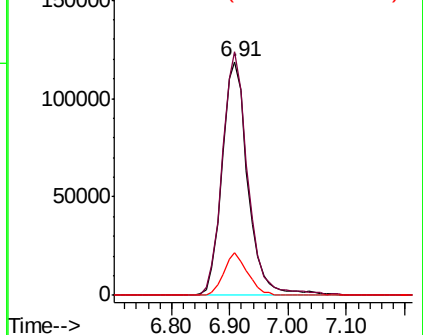
192 18.0 13.0 19.4



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



#39

Methylcyclohexane

Concen: 820.359 ug/l

RT: 8.87 min Scan# 756

Delta R.T. -0.02 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

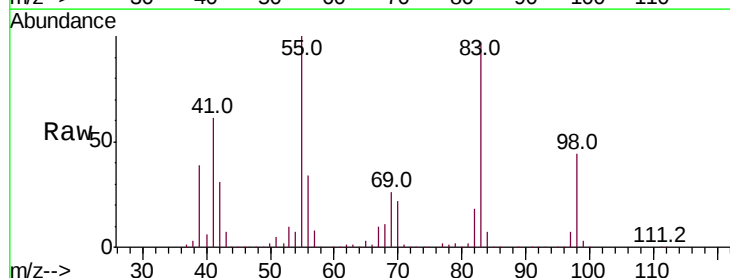
Tgt Ion: 83 Resp: 5636692

Ion Ratio Lower Upper

83 100

55 102.8 68.2 102.4#

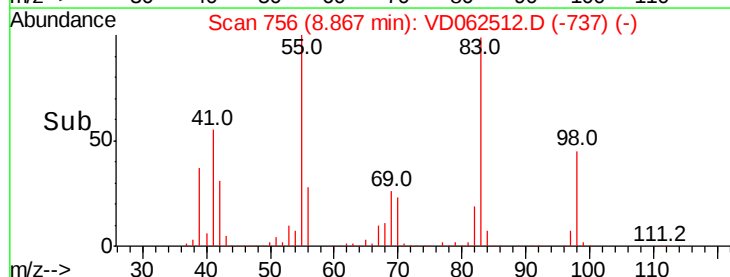
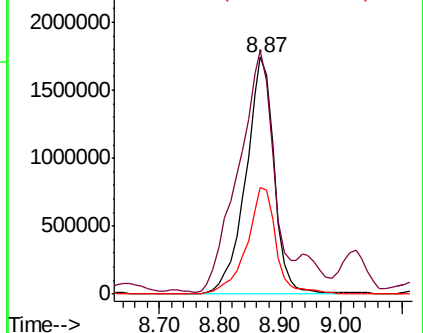
98 45.1 38.2 57.4

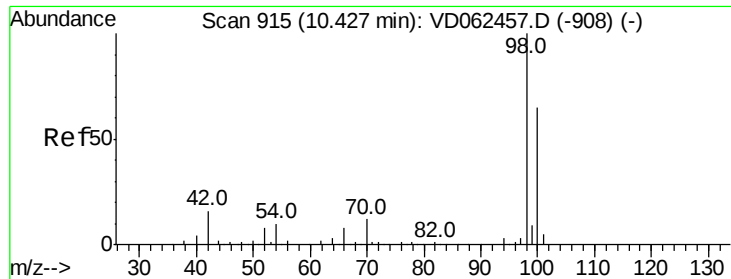


Abundance Ion 83.05 (82.75 to 83.75): VDC

Ion 55.00 (54.70 to 55.70): VDC

Ion 98.05 (97.75 to 98.75): VDC

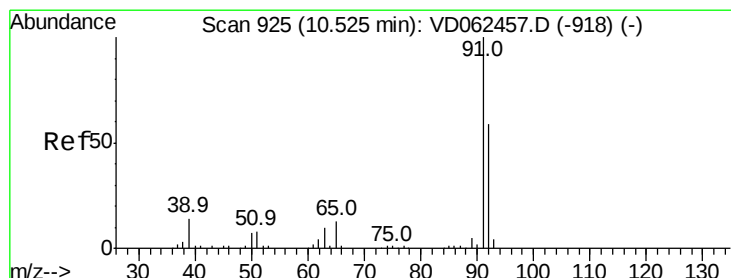
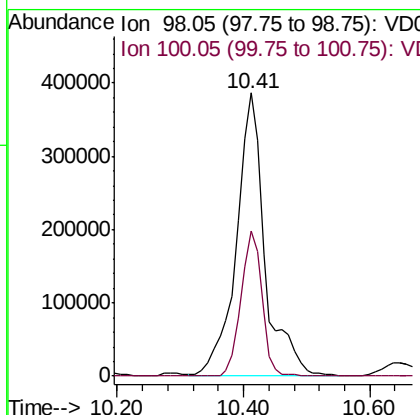
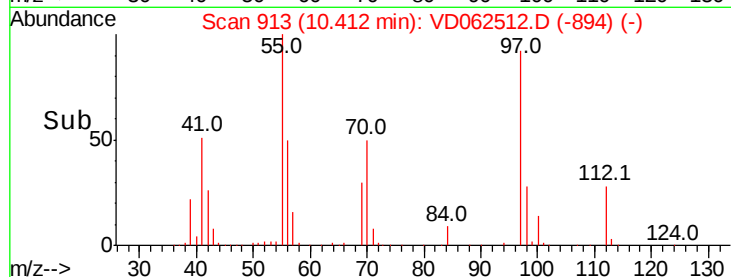
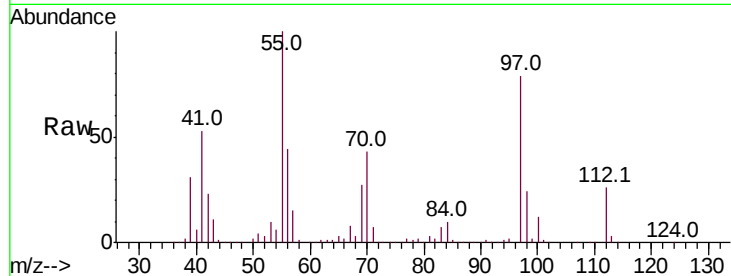




#50  
Toluene-d8  
Concen: 69.380 ug/l  
RT: 10.41 min Scan# 913  
Delta R.T. -0.02 min  
Lab File: VD062512.D  
Acq: 22 May 2019 19:29

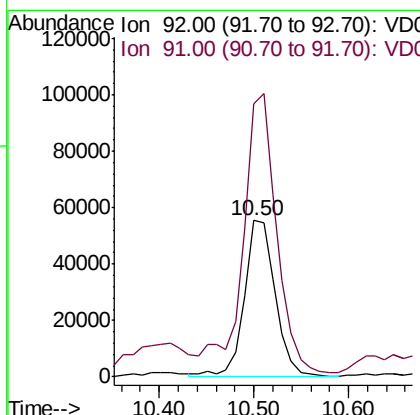
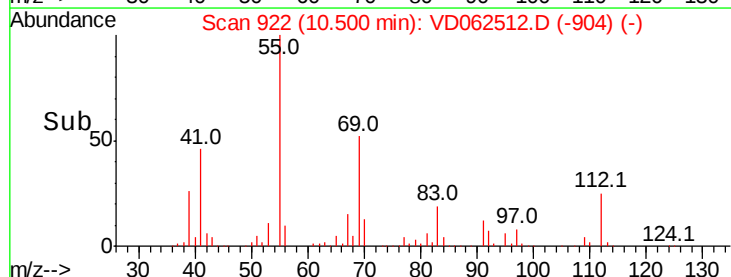
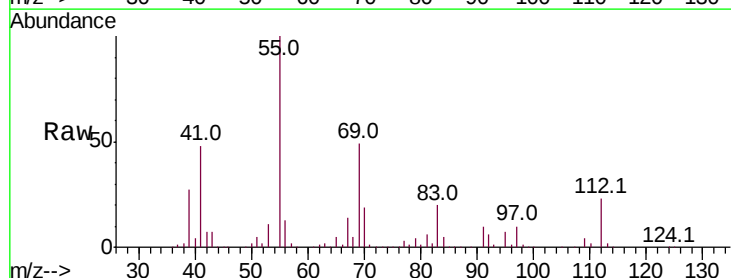
Instrument :  
MSVOA\_D  
ClientSampleId :  
P-10(0.5-1.0)

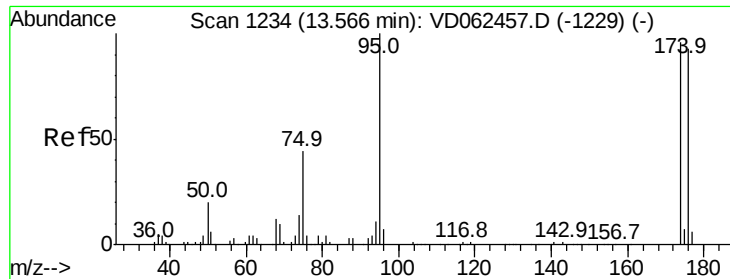
Tot Ion: 98 Resp: 1193454  
Ion Ratio Lower Upper  
98 100  
100 51.5 53.8 80.8#



#52  
Toluene  
Concen: 11.220 ug/l  
RT: 10.50 min Scan# 922  
Delta R.T. -0.03 min  
Lab File: VD062512.D  
Acq: 22 May 2019 19:29

Tgt Ion: 92 Resp: 125513  
Ion Ratio Lower Upper  
92 100  
91 175.2 136.6 204.8

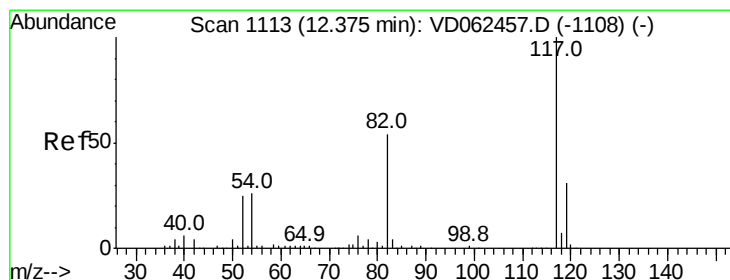
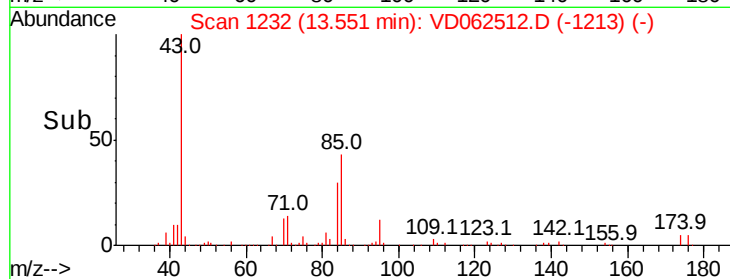
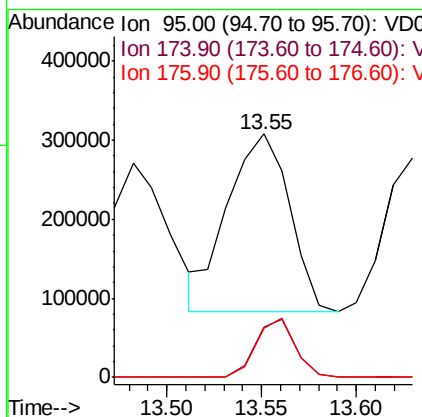
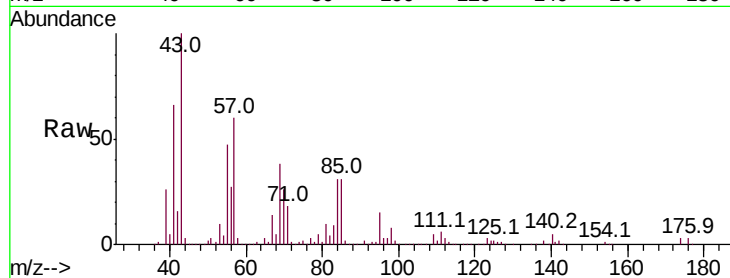




#62  
 4-Bromofluorobenzene  
 Concen: 67.150 ug/l  
 RT: 13.55 min Scan# 1232  
 Delta R.T. -0.02 min  
 Lab File: VD062512.D  
 Acq: 22 May 2019 19:29

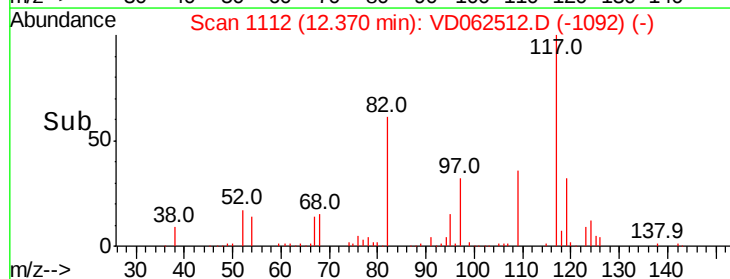
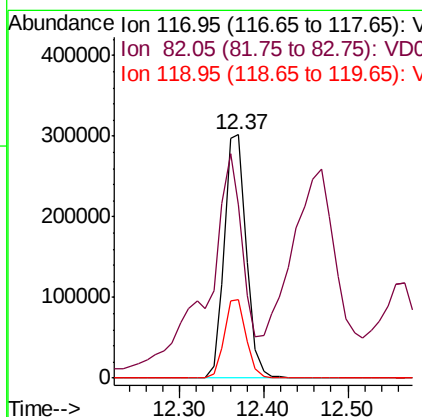
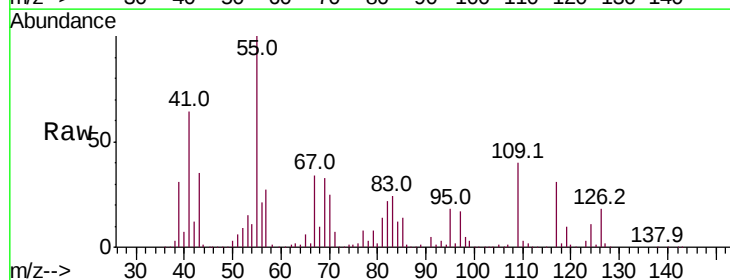
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 P-10(0.5-1.0)

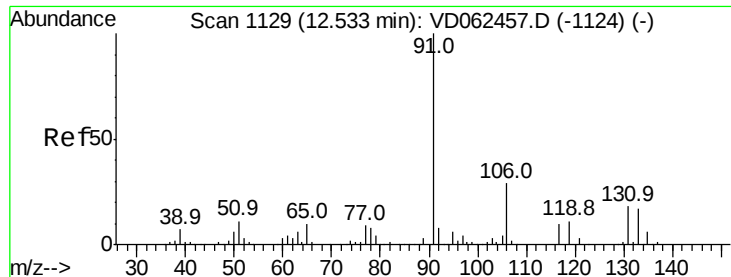
Tot Ion: 95 Resp: 505279  
 Ion Ratio Lower Upper  
 95 100  
 174 20.5 0.0 181.8  
 176 20.4 0.0 174.4



#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 12.37 min Scan# 1112  
 Delta R.T. -0.01 min  
 Lab File: VD062512.D  
 Acq: 22 May 2019 19:29

Tgt Ion: 117 Resp: 547310  
 Ion Ratio Lower Upper  
 117 100  
 82 71.2 36.2 54.2#  
 119 32.2 26.2 39.4

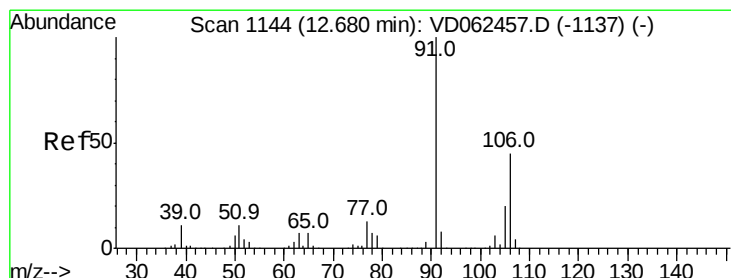
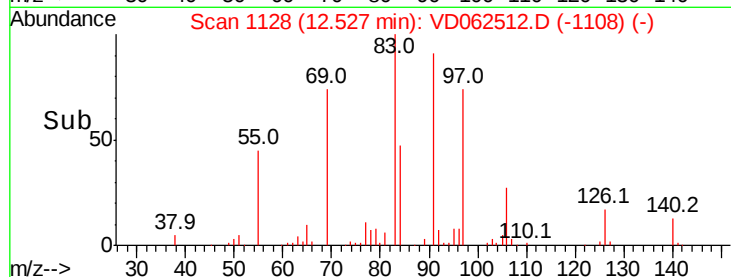
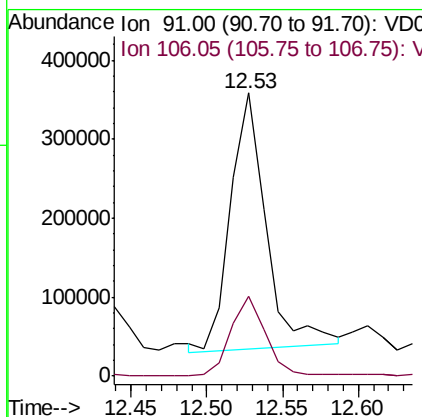
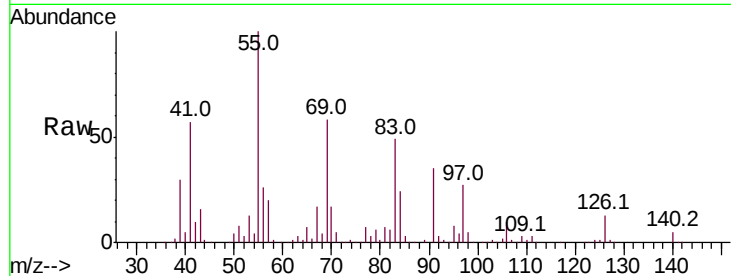




#67  
Ethyl Benzene  
Concen: 29.291 ug/l  
RT: 12.53 min Scan# 1128  
Delta R.T. -0.01 min  
Lab File: VD062512.D  
Acq: 22 May 2019 19:29

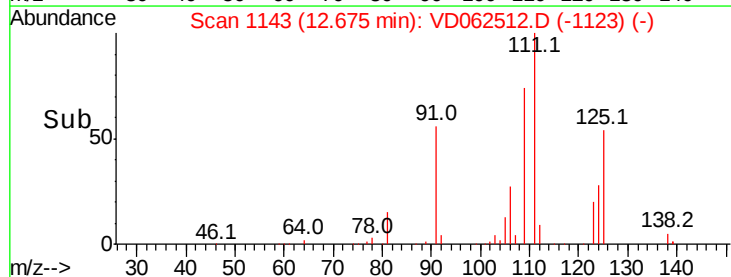
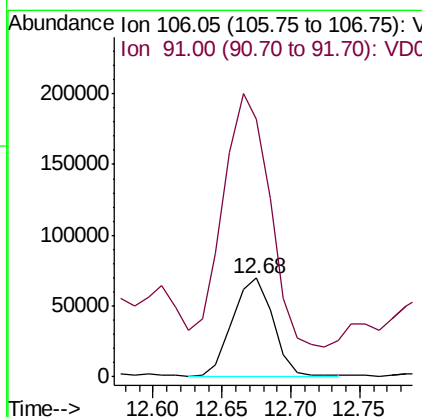
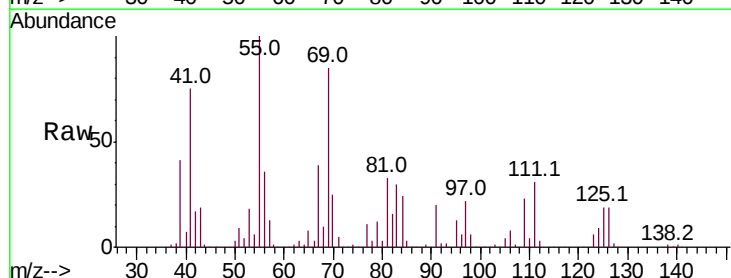
Instrument :  
MSVOA\_D  
ClientSampleId :  
P-10(0.5-1.0)

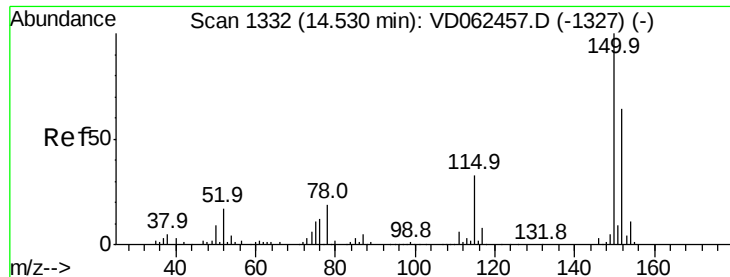
Tot Ion: 91 Resp: 531011  
Ion Ratio Lower Upper  
91 100  
106 28.4 24.7 37.1



#68  
m/p-Xylenes  
Concen: 22.142 ug/l  
RT: 12.68 min Scan# 1143  
Delta R.T. -0.01 min  
Lab File: VD062512.D  
Acq: 22 May 2019 19:29

Tgt Ion: 106 Resp: 144089  
Ion Ratio Lower Upper  
106 100  
91 260.6 164.0 246.0#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.52 min Scan# 1330

Delta R.T. -0.02 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

Instrument :

MSVOA\_D

ClientSampleId :

P-10(0.5-1.0)

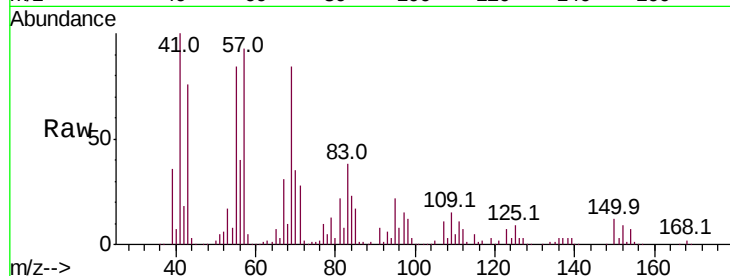
Tot Ion:152 Resp: 119525

Ion Ratio Lower Upper

152 100

115 56.0 30.9 92.7

150 131.0 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

150000

100000

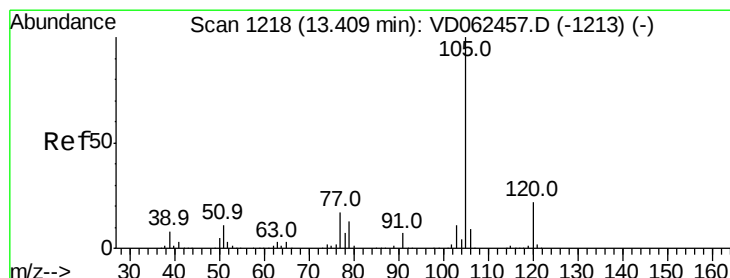
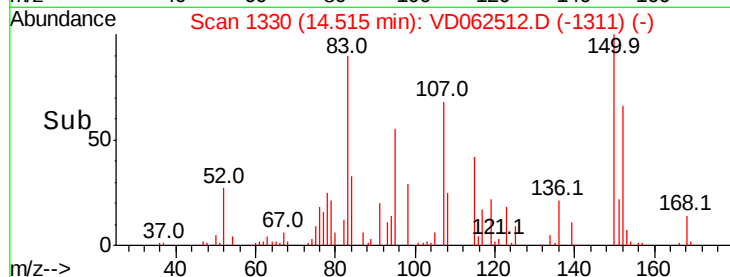
50000

0

14.52

14.55

Time-->



#73

Isopropylbenzene

Concen: 357.321 ug/l

RT: 13.41 min Scan# 1218

Delta R.T. 0.00 min

Lab File: VD062512.D

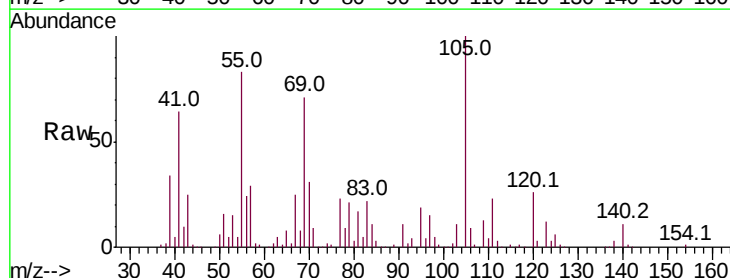
Acq: 22 May 2019 19:29

Tgt Ion:105 Resp: 2692096

Ion Ratio Lower Upper

105 100

120 26.1 12.0 36.1



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V

1500000

1000000

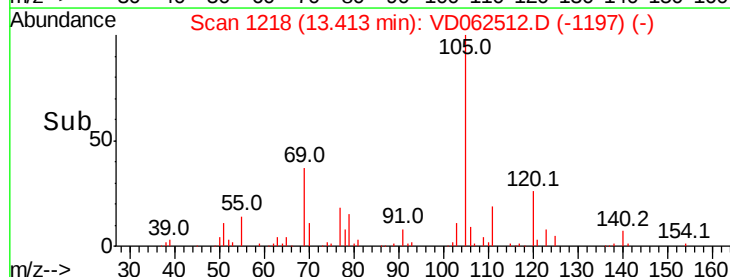
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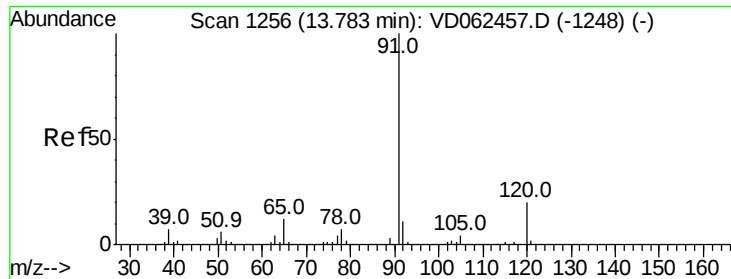
0

13.41

13.50

Time-->





#78

n-propylbenzene

Concen: 353.955 ug/l

RT: 13.78 min Scan# 1255

Delta R.T. -0.01 min

Lab File: VD062512.D

Acq: 22 May 2019 19:29

Instrument :

MSVOA\_D

ClientSampleId :

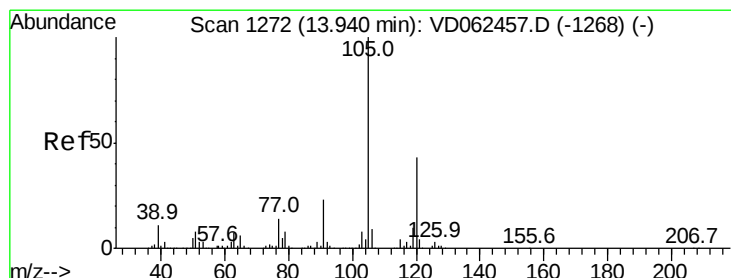
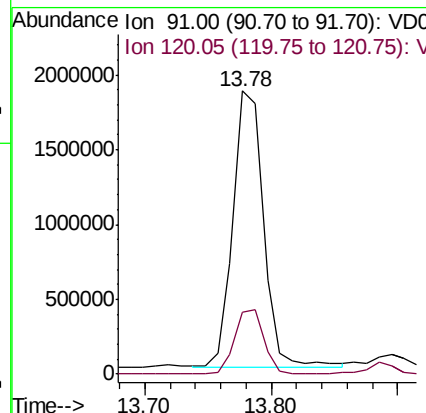
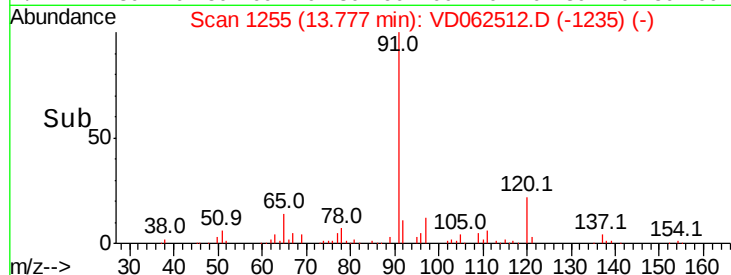
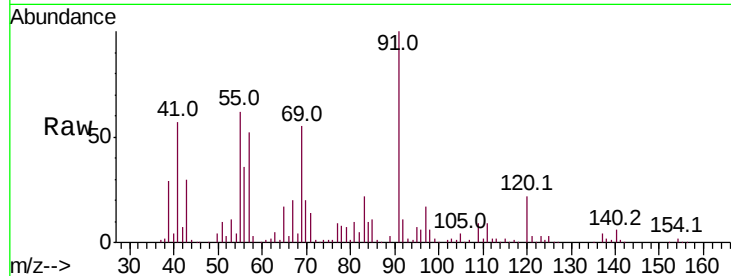
P-10(0.5-1.0)

Tot Ion: 91 Resp: 3088973

Ion Ratio Lower Upper

91 100

120 21.8 11.1 33.1



#80

1,3,5-Trimethylbenzene

Concen: 30.670 ug/l

RT: 13.94 min Scan# 1272

Delta R.T. 0.00 min

Lab File: VD062512.D

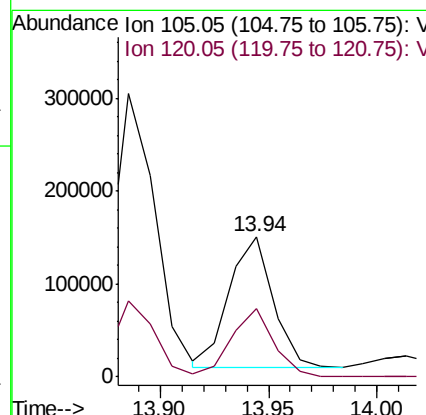
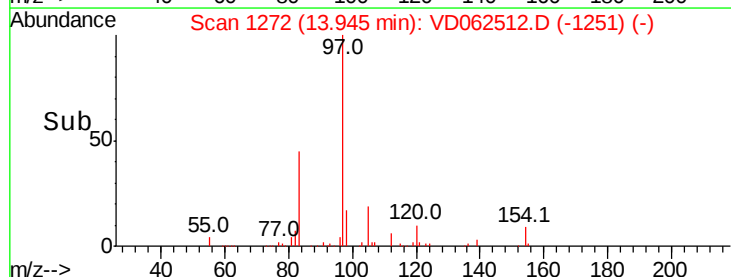
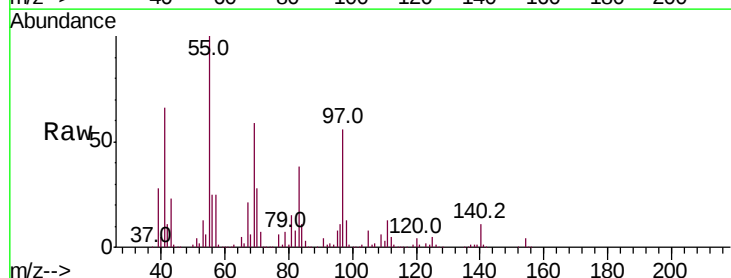
Acq: 22 May 2019 19:29

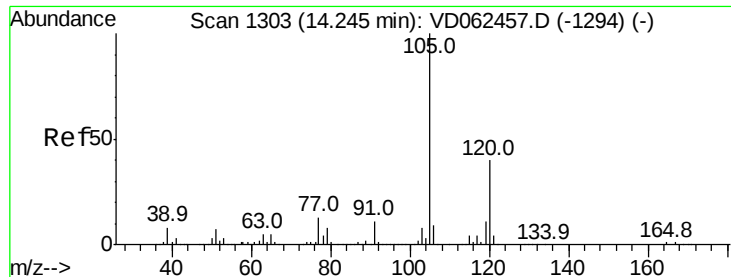
Tgt Ion:105 Resp: 200074

Ion Ratio Lower Upper

105 100

120 48.5 24.0 72.0

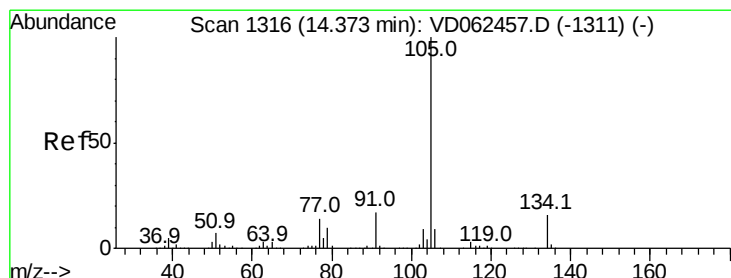
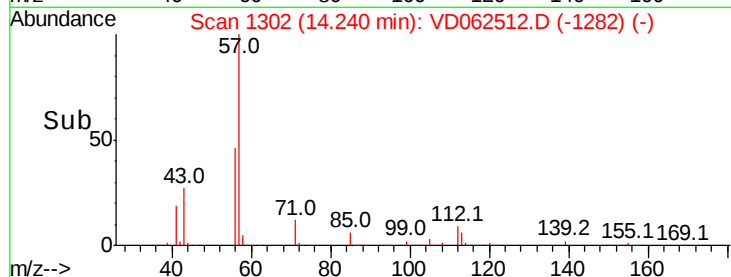
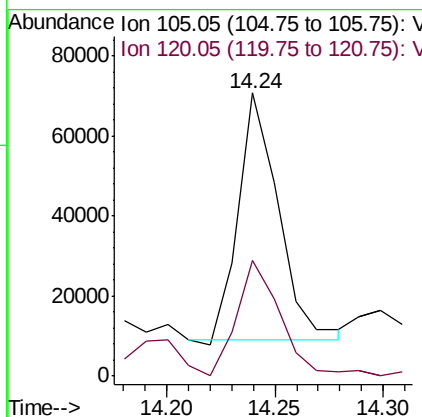
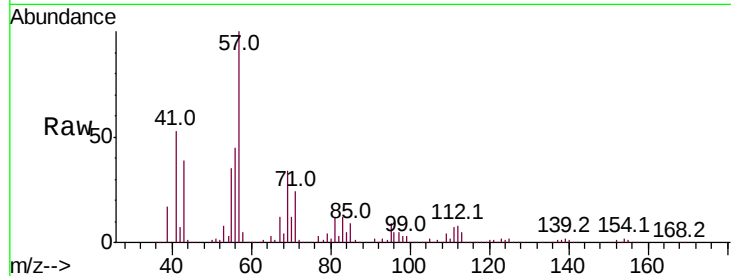




#84  
 1,2,4-Trimethylbenzene  
 Concen: 11.896 ug/l  
 RT: 14.24 min Scan# 1302  
 Delta R.T. -0.01 min  
 Lab File: VD062512.D  
 Acq: 22 May 2019 19:29

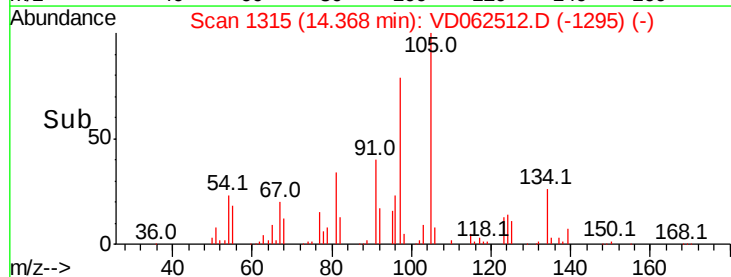
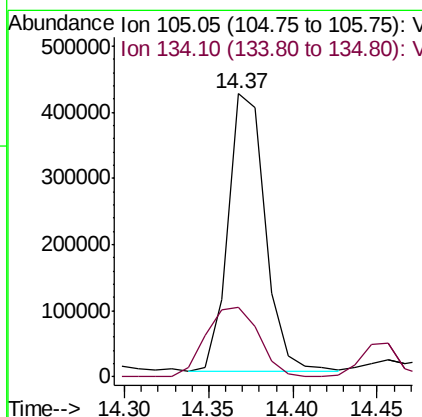
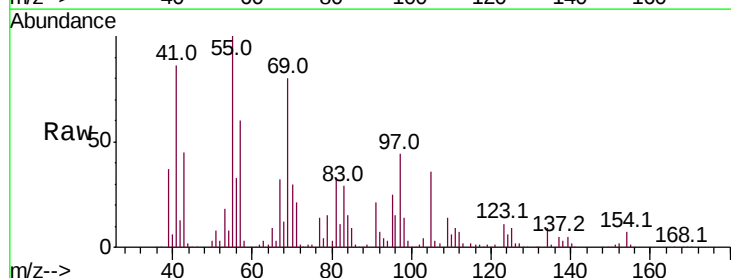
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 P-10(0.5-1.0)

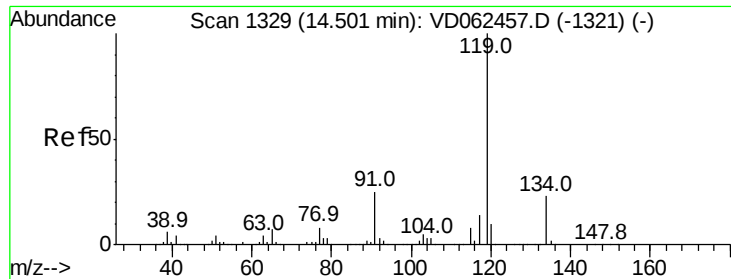
Tot Ion:105 Resp: 79520  
 Ion Ratio Lower Upper  
 105 100  
 120 40.8 23.1 69.2



#85  
 sec-Butylbenzene  
 Concen: 85.258 ug/l  
 RT: 14.37 min Scan# 1315  
 Delta R.T. -0.01 min  
 Lab File: VD062512.D  
 Acq: 22 May 2019 19:29

Tgt Ion:105 Resp: 643280  
 Ion Ratio Lower Upper  
 105 100  
 134 24.7 8.9 26.7

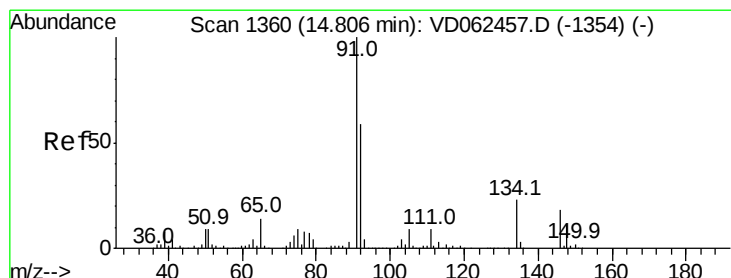
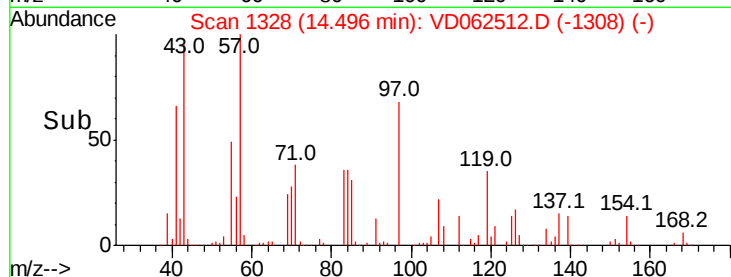
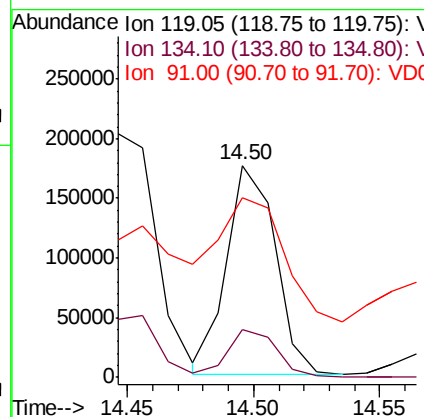
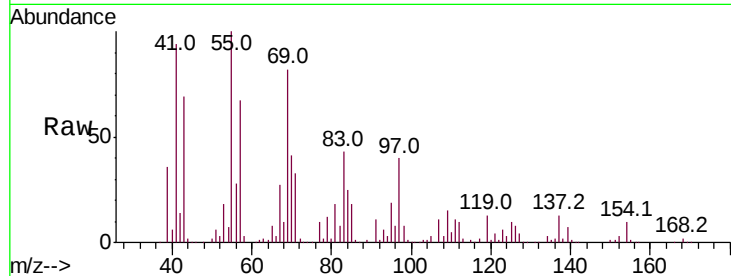




#86  
p-Isopropyltoluene  
Concen: 34.445 ug/l  
RT: 14.50 min Scan# 1328  
Delta R.T. -0.01 min  
Lab File: VD062512.D  
Acq: 22 May 2019 19:29

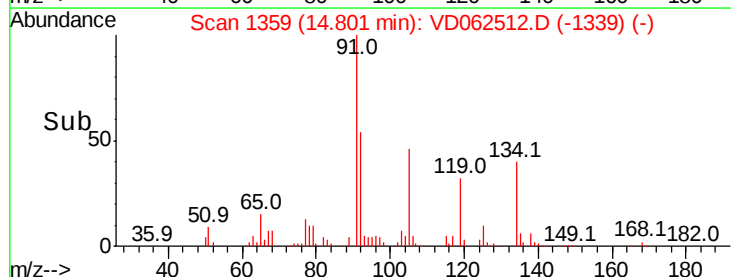
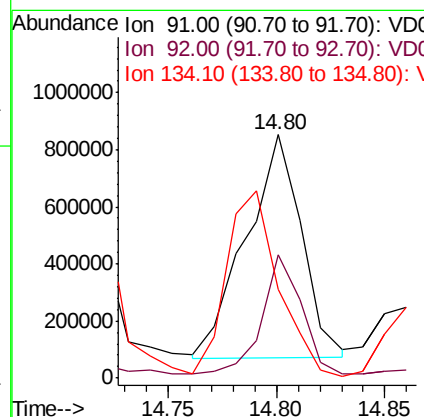
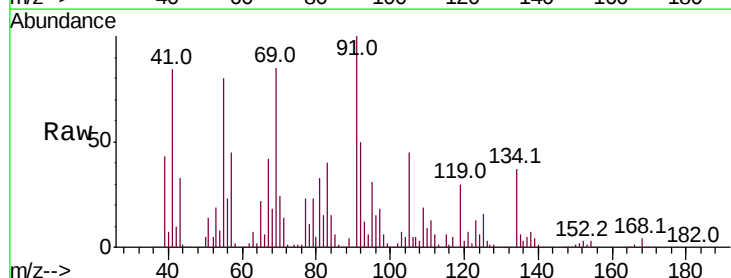
Instrument :  
MSVOA\_D  
ClientSampleId :  
P-10(0.5-1.0)

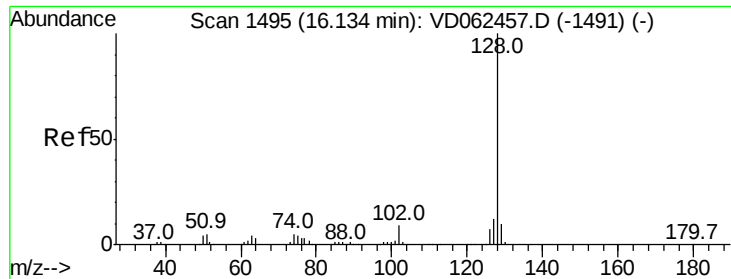
Tot Ion:119 Resp: 235517  
Ion Ratio Lower Upper  
119 100  
134 22.6 12.8 38.3  
91 84.8 10.7 32.1#



#89  
n-Butylbenzene  
Concen: 210.324 ug/l  
RT: 14.80 min Scan# 1359  
Delta R.T. -0.01 min  
Lab File: VD062512.D  
Acq: 22 May 2019 19:29

Tgt Ion: 91 Resp: 1387889  
Ion Ratio Lower Upper  
91 100  
92 50.5 30.3 91.0  
134 36.7 14.5 43.6





#95  
 Naphthalene  
 Concen: 39.900 ug/l  
 RT: 16.12 min Scan# 1493  
 Delta R.T. -0.02 min  
 Lab File: VD062512.D  
 Acq: 22 May 2019 19:29

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 P-10(0.5-1.0)

Tot Ion:128 Resp: 137771  
 Ion Ratio Lower Upper  
 128 100  
 127 12.4 9.8 14.8  
 129 10.8 8.8 13.2

