

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD051419\  
 Data File : VD062348.D  
 Acq On : 14 May 2019 16:02  
 Operator : FY/SY  
 Sample : K2642-03RE  
 Misc : 6.53g/5mL/MSVOA\_D/SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 OK-03-050919

Quant Time: May 14 16:26:31 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      | 7.07  | 168  | 693482   | 50.00 | ug/l  | 0.05     |
| 34) 1,4-Difluorobenzene    | 8.24  | 114  | 931849   | 50.00 | ug/l  | 0.05     |
| 63) Chlorobenzene-d5       | 12.38 | 117  | 730776   | 50.00 | ug/l  | 0.03     |
| 72) 1,4-Dichlorobenzene-d4 | 14.53 | 152  | 272446   | 50.00 | ug/l  | 0.02     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 7.48   | 65  | 304892   | 47.31 | ug/l   | 0.06 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.62% |      |
| 35) Dibromofluoromethane  | 6.95   | 113 | 367390   | 47.52 | ug/l   | 0.06 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.04% |      |
| 50) Toluene-d8            | 10.43  | 98  | 693220   | 37.19 | ug/l   | 0.03 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 74.38% |      |
| 62) 4-Bromofluorobenzene  | 13.56  | 95  | 250176   | 33.42 | ug/l   | 0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 66.84% |      |

## Target Compounds

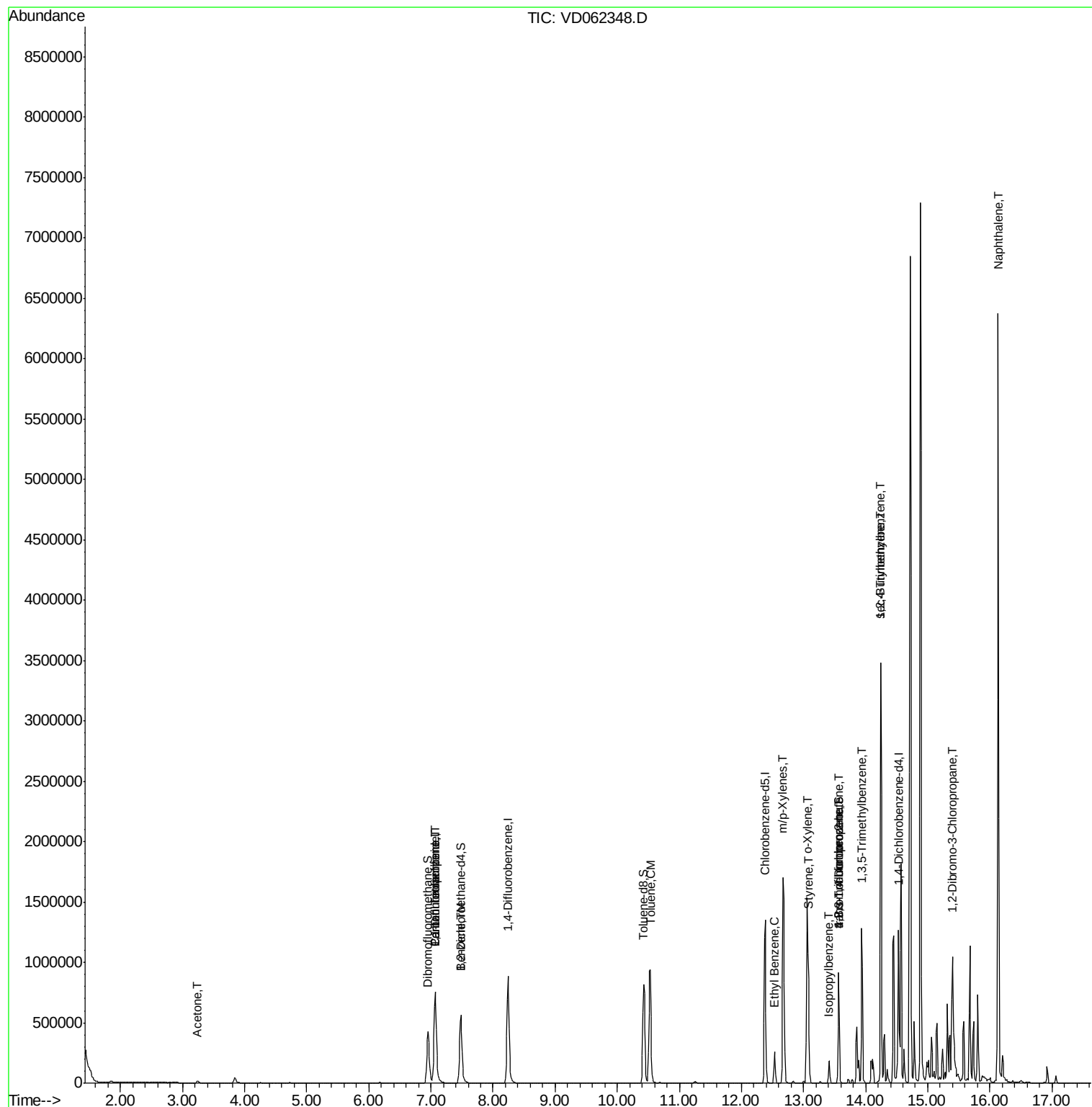
|                                |       |     |         |         |        | Qvalue |
|--------------------------------|-------|-----|---------|---------|--------|--------|
| 16) Acetone                    | 3.24  | 43  | 27492   | 20.342  | ug/l # | 78     |
| 36) 1,1-Dichloropropene        | 7.07  | 75  | 58481   | 7.654   | ug/l # | 46     |
| 38) Carbon Tetrachloride       | 7.07  | 117 | 72822   | 6.886   | ug/l # | 16     |
| 40) Benzene                    | 7.48  | 78  | 364967  | 21.154  | ug/l   | 99     |
| 52) Toluene                    | 10.53 | 92  | 502738  | 44.786  | ug/l   | 96     |
| 67) Ethyl Benzene              | 12.53 | 91  | 176869  | 7.762   | ug/l   | 94     |
| 68) m/p-Xylenes                | 12.67 | 106 | 481075  | 58.028  | ug/l   | 79     |
| 69) o-Xylene                   | 13.06 | 106 | 339107  | 43.997  | ug/l   | 80     |
| 70) Styrene                    | 13.08 | 104 | 304811  | 23.346  | ug/l   | 93     |
| 73) Isopropylbenzene           | 13.42 | 105 | 115571  | 7.077   | ug/l   | 95     |
| 76) 1,2,3-Trichloropropane     | 13.56 | 75  | 107386  | 33.166  | ug/l # | 44     |
| 80) 1,3,5-Trimethylbenzene     | 13.94 | 105 | 602676  | 43.824  | ug/l   | 88     |
| 81) trans-1,4-Dichloro-2-buten | 13.56 | 75  | 111204  | 121.661 | ug/l # | 16     |
| 84) 1,2,4-Trimethylbenzene     | 14.24 | 105 | 1594722 | 115.556 | ug/l   | 88     |
| 85) sec-Butylbenzene           | 14.24 | 105 | 1594722 | 94.097  | ug/l # | 60     |
| 92) 1,2-Dibromo-3-Chloropropan | 15.41 | 75  | 22524   | 44.381  | ug/l # | 1      |
| 95) Naphthalene                | 16.13 | 128 | 3566153 | 510.238 | ug/l   | 99     |

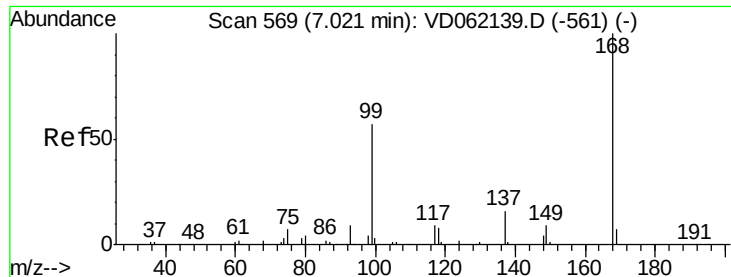
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_D\DATA\VD051419\  
Data File : VD062348.D  
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Sample : K2642-03RE  
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Instrument :  
MSVOA\_D  
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Quant Time: May 14 16:26:31 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: 7.07 min Scan# 574

Delta R.T. 0.05 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

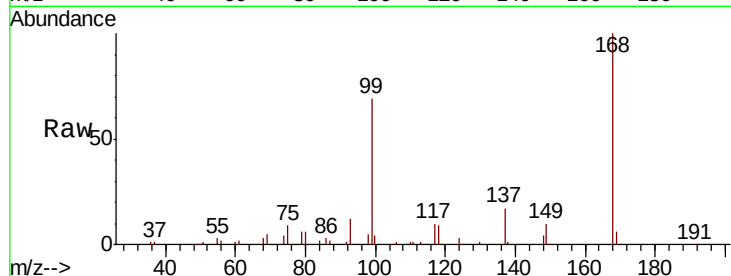
OK-03-050919

Tgt Ion:168 Resp: 693482

Ion Ratio Lower Upper

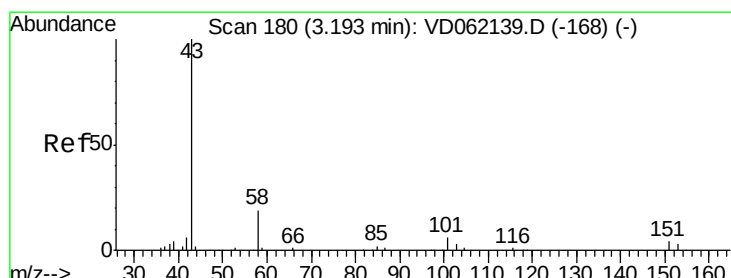
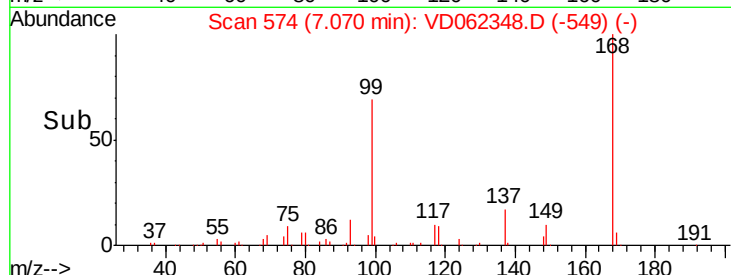
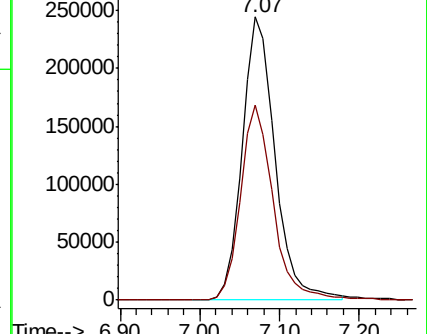
168 100

99 69.0 46.5 69.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#16

Acetone

Concen: 20.342 ug/l

RT: 3.24 min Scan# 185

Delta R.T. 0.05 min

Lab File: VD062348.D

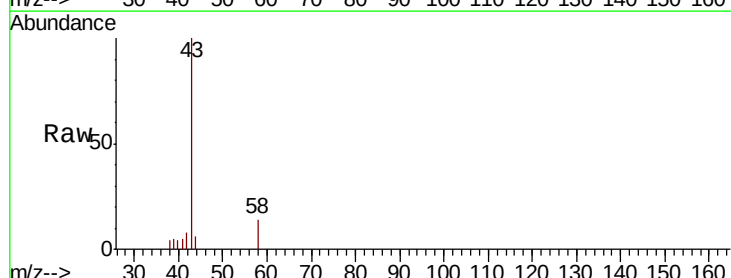
Acq: 14 May 2019 16:02

Tgt Ion: 43 Resp: 27492

Ion Ratio Lower Upper

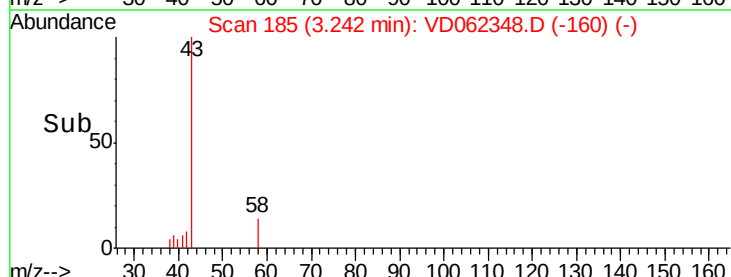
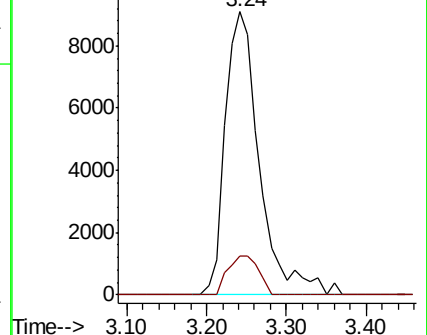
43 100

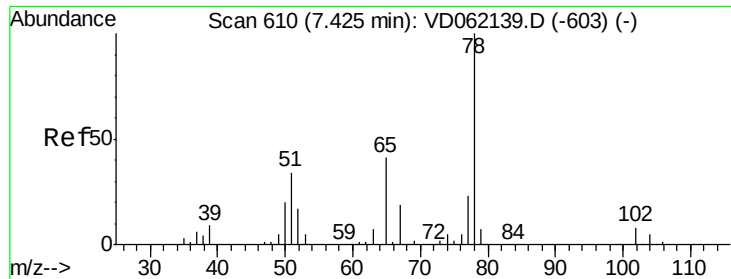
58 13.8 19.9 29.9#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC

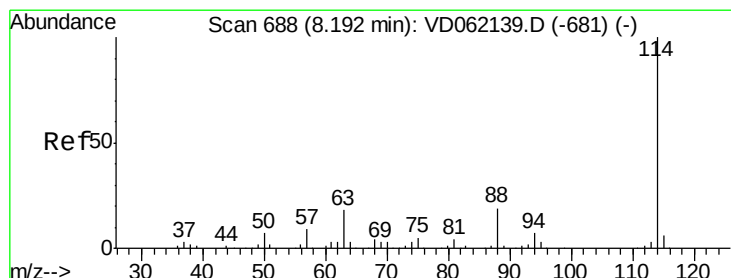
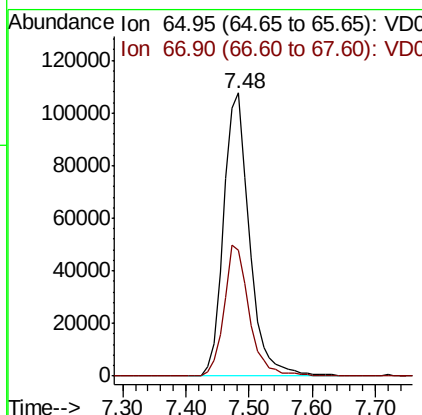
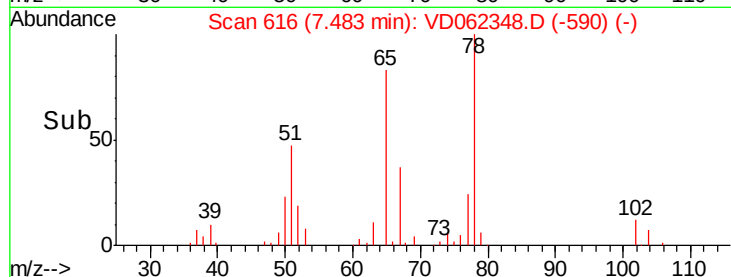
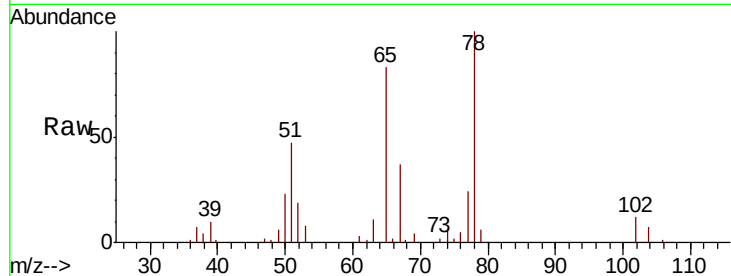




#33  
 1,2-Dichloroethane-d4  
 Concen: 47.310 ug/l  
 RT: 7.48 min Scan# 616  
 Delta R.T. 0.06 min  
 Lab File: VD062348.D  
 Acq: 14 May 2019 16:02

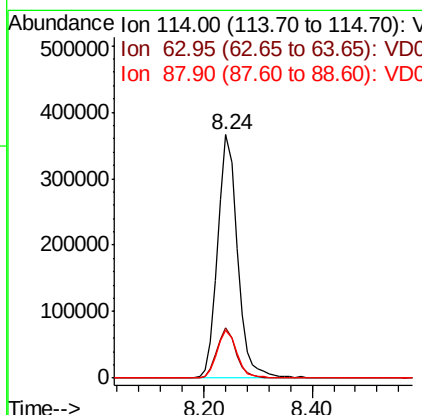
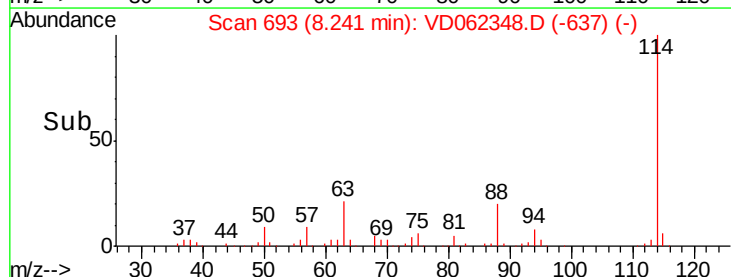
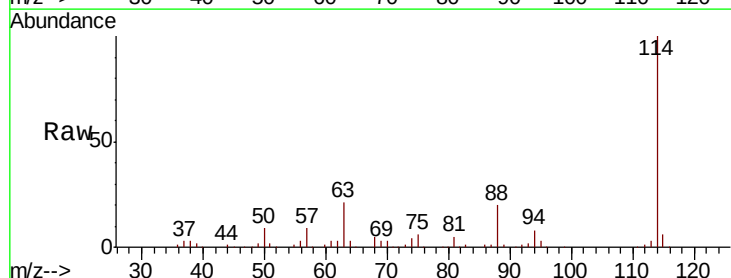
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 OK-03-050919

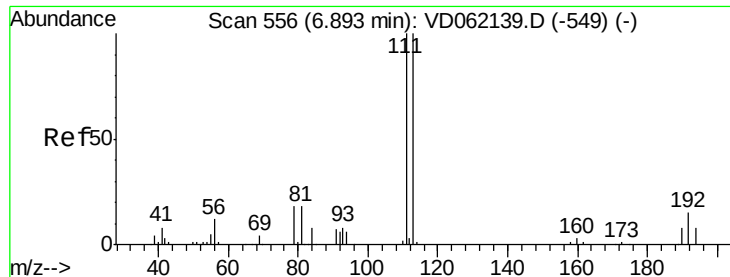
Tgt Ion: 65 Resp: 304892  
 Ion Ratio Lower Upper  
 65 100  
 67 44.6 0.0 98.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.24 min Scan# 693  
 Delta R.T. 0.05 min  
 Lab File: VD062348.D  
 Acq: 14 May 2019 16:02

Tgt Ion: 114 Resp: 931849  
 Ion Ratio Lower Upper  
 114 100  
 63 20.6 0.0 32.4  
 88 19.8 0.0 33.6

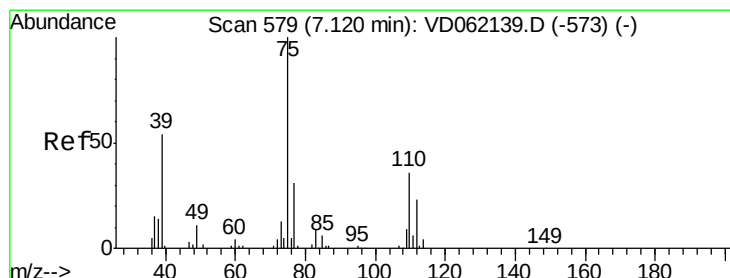
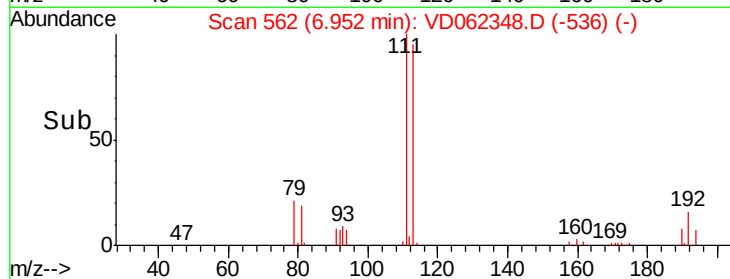
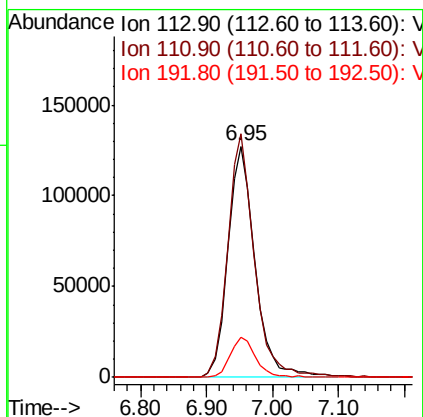
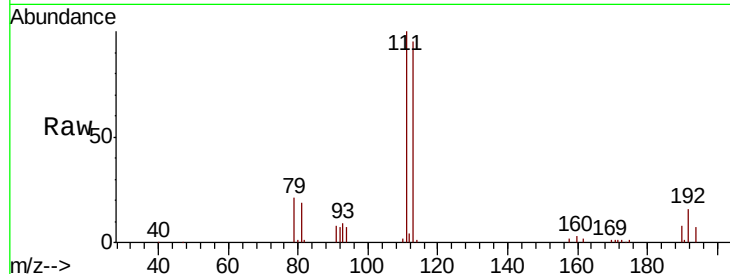




#35  
 Dibromofluoromethane  
 Concen: 47.518 ug/l  
 RT: 6.95 min Scan# 562  
 Delta R.T. 0.06 min  
 Lab File: VD062348.D  
 Acq: 14 May 2019 16:02

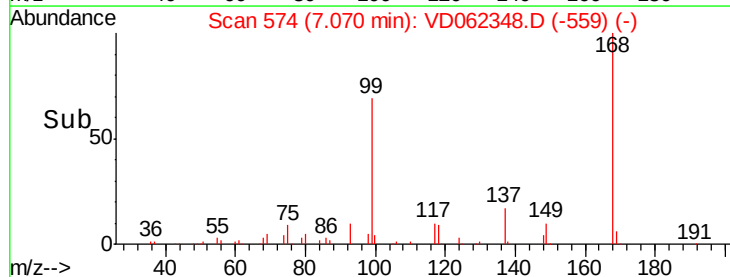
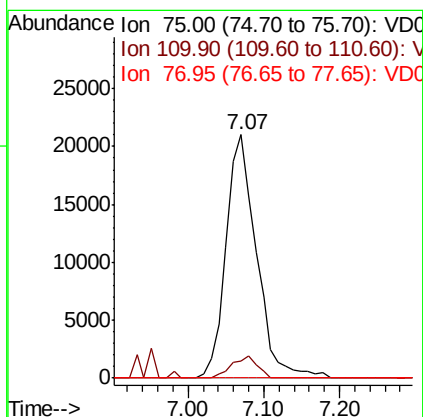
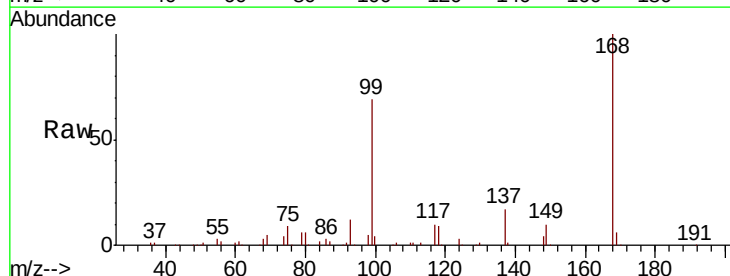
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 OK-03-050919

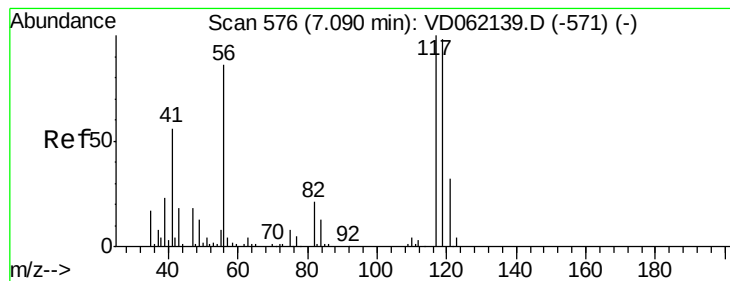
Tgt Ion: 113 Resp: 367390  
 Ion Ratio Lower Upper  
 113 100  
 111 105.3 78.5 117.7  
 192 17.1 13.0 19.4



#36  
 1,1-Dichloropropene  
 Concen: 7.654 ug/l  
 RT: 7.07 min Scan# 574  
 Delta R.T. -0.05 min  
 Lab File: VD062348.D  
 Acq: 14 May 2019 16:02

Tgt Ion: 75 Resp: 58481  
 Ion Ratio Lower Upper  
 75 100  
 110 7.2 19.1 57.1#  
 77 0.0 25.6 38.4#





#38

Carbon Tetrachloride

Concen: 6.886 ug/l

RT: 7.07 min Scan# 574

Delta R.T. -0.02 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

OK-03-050919

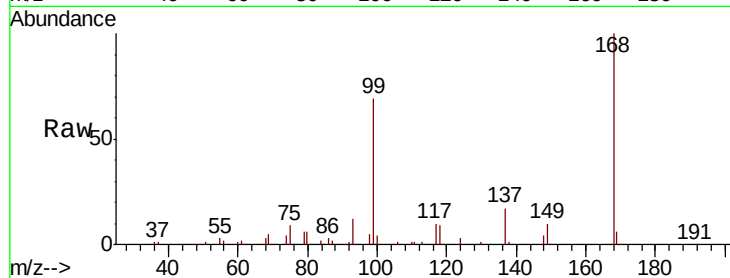
Tgt Ion:117 Resp: 72822

Ion Ratio Lower Upper

117 100

119 4.3 75.8 113.8#

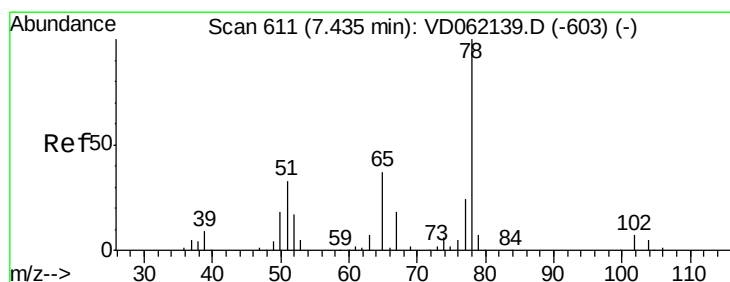
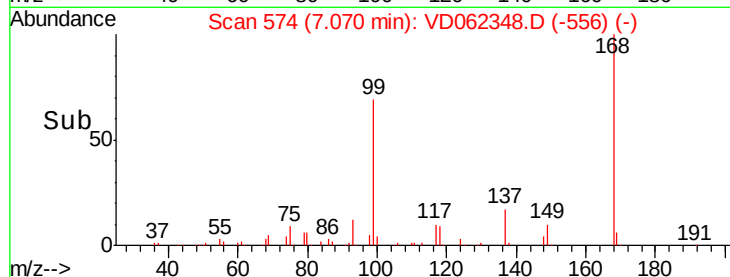
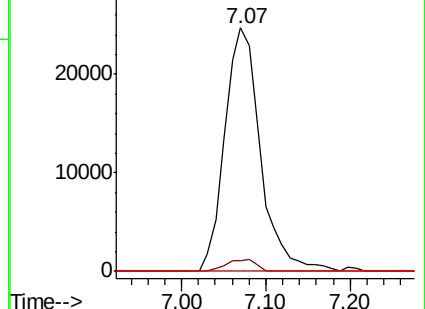
121 0.0 25.9 38.9#



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



#40

Benzene

Concen: 21.154 ug/l

RT: 7.48 min Scan# 616

Delta R.T. 0.05 min

Lab File: VD062348.D

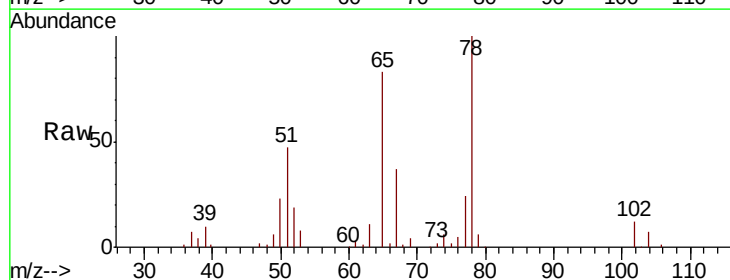
Acq: 14 May 2019 16:02

Tgt Ion: 78 Resp: 364967

Ion Ratio Lower Upper

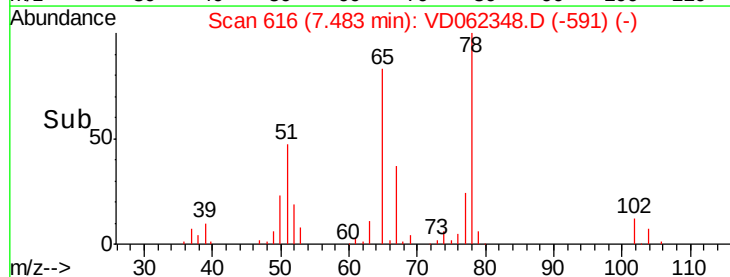
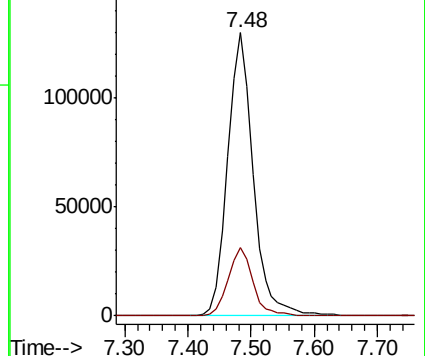
78 100

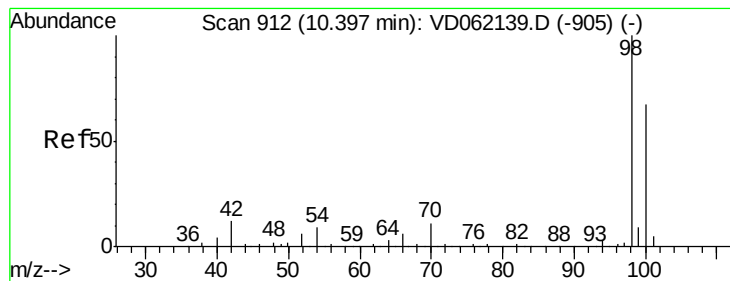
77 24.1 19.7 29.5



Abundance Ion 77.95 (77.65 to 78.65): V

Ion 76.95 (76.65 to 77.65): V





#50

Toluene-d8

Concen: 37.187 ug/l

RT: 10.43 min Scan# 915

Delta R.T. 0.03 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

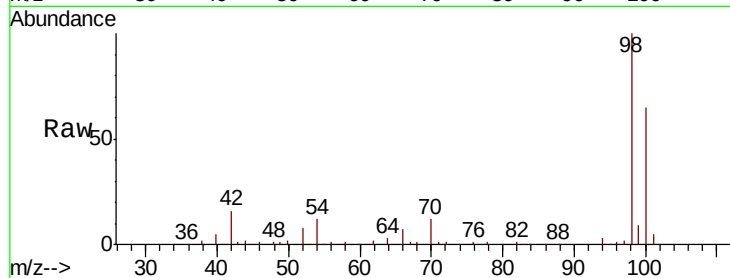
OK-03-050919

Tgt Ion: 98 Resp: 693220

Ion Ratio Lower Upper

98 100

100 64.7 53.8 80.8



Abundance Ion 98.05 (97.75 to 98.75): VD062139.D (-905) (-)

Ion 100.05 (99.75 to 100.75): VD062139.D (-905) (-)

10.43

300000

200000

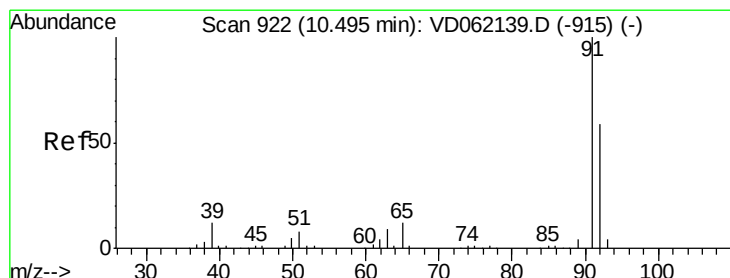
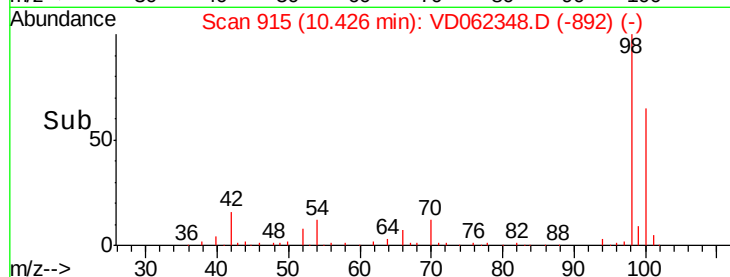
100000

0

10.40

10.60

Time-->



#52

Toluene

Concen: 44.786 ug/l

RT: 10.53 min Scan# 926

Delta R.T. 0.04 min

Lab File: VD062348.D

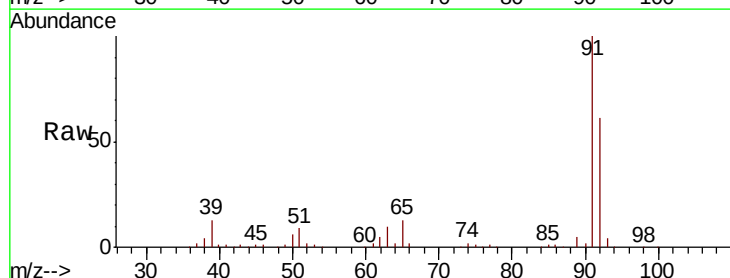
Acq: 14 May 2019 16:02

Tgt Ion: 92 Resp: 502738

Ion Ratio Lower Upper

92 100

91 164.5 136.6 204.8



Abundance Ion 92.00 (91.70 to 92.70): VD062139.D (-915) (-)

Ion 91.00 (90.70 to 91.70): VD062139.D (-915) (-)

10.53

400000

300000

200000

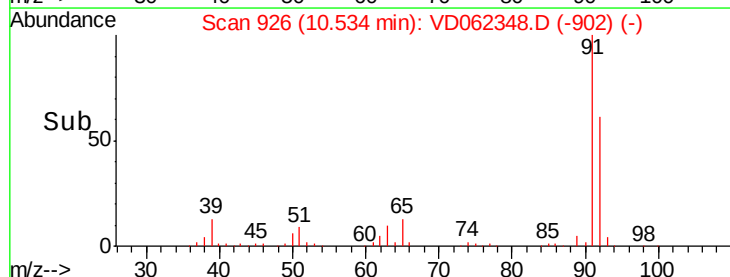
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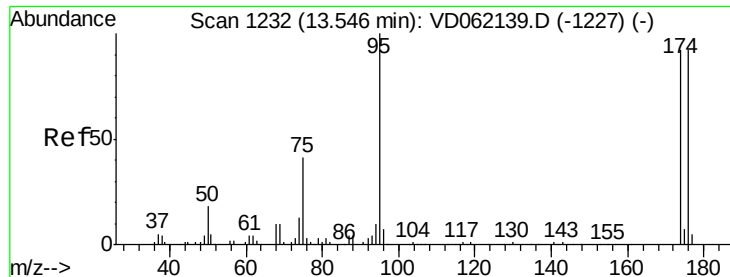
0

10.40

10.60

Time-->





#62

4-Bromofluorobenzene

Concen: 33.420 ug/l

RT: 13.56 min Scan# 1234

Delta R.T. 0.02 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

OK-03-050919

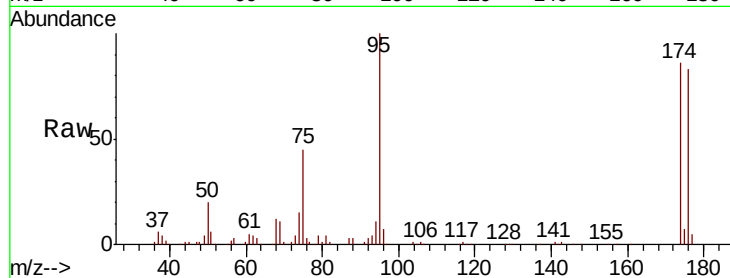
Tgt Ion: 95 Resp: 250176

Ion Ratio Lower Upper

95 100

174 86.5 0.0 181.8

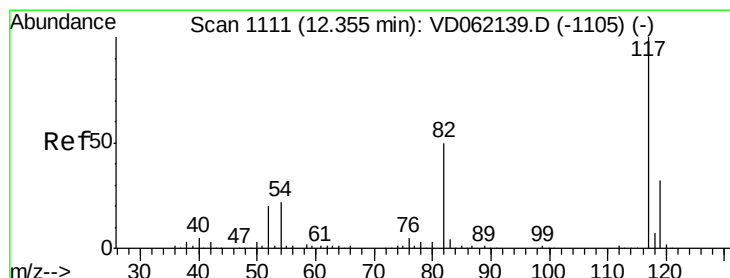
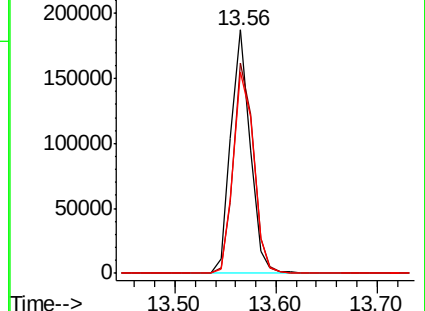
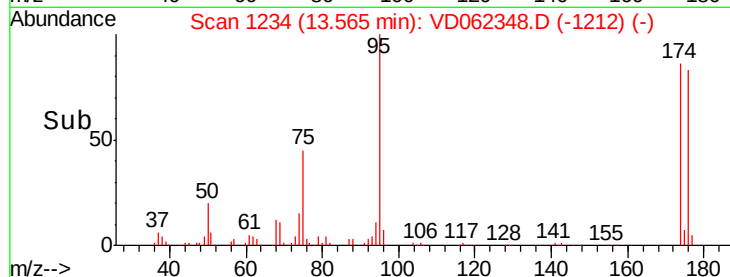
176 82.9 0.0 174.4



Abundance Ion 95.00 (94.70 to 95.70): V

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: 12.38 min Scan# 1114

Delta R.T. 0.03 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

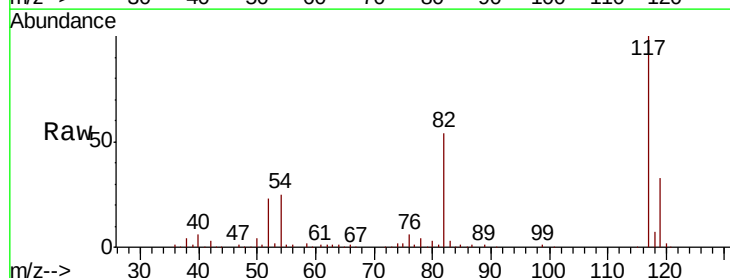
Tgt Ion: 117 Resp: 730776

Ion Ratio Lower Upper

117 100

82 54.4 36.2 54.2#

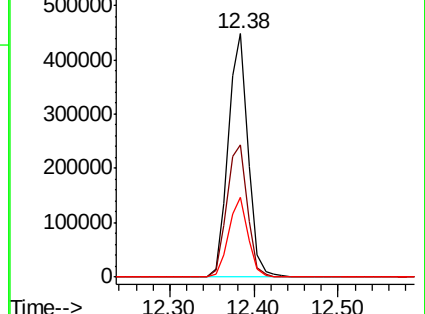
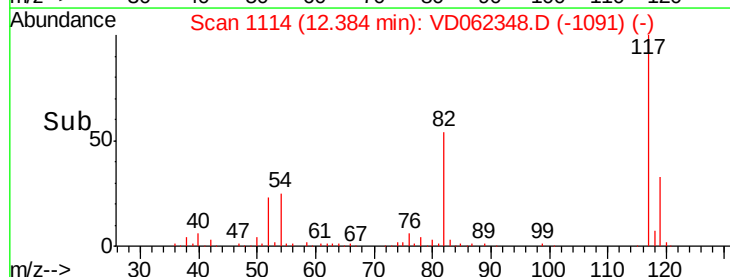
119 32.8 26.2 39.4



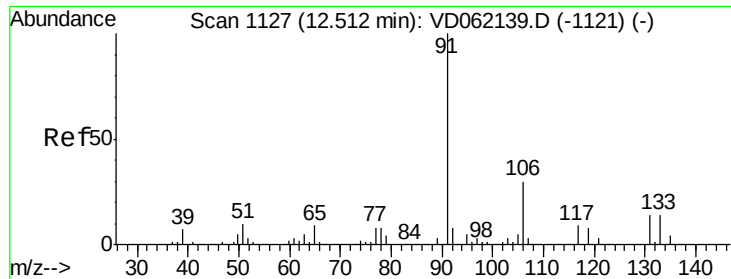
Abundance Ion 116.95 (116.65 to 117.65): V

Ion 82.05 (81.75 to 82.75): V

Ion 118.95 (118.65 to 119.65): V



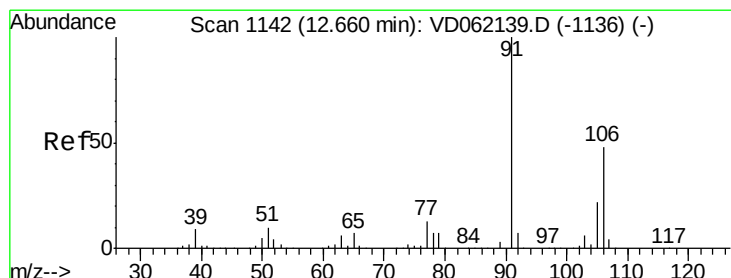
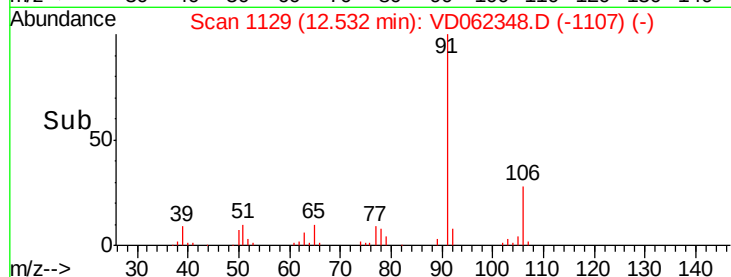
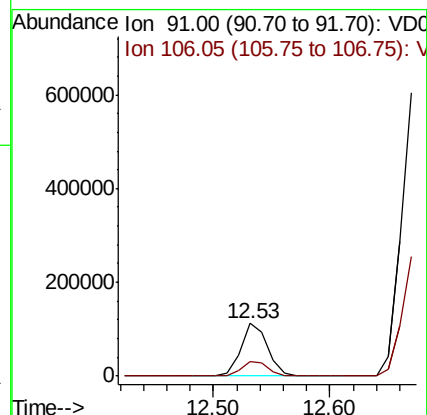
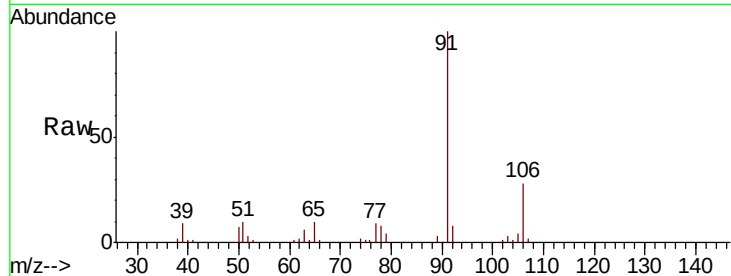




#67  
Ethyl Benzene  
Concen: 7.762 ug/l  
RT: 12.53 min Scan# 1129  
Delta R.T. 0.02 min  
Lab File: VD062348.D  
Acq: 14 May 2019 16:02

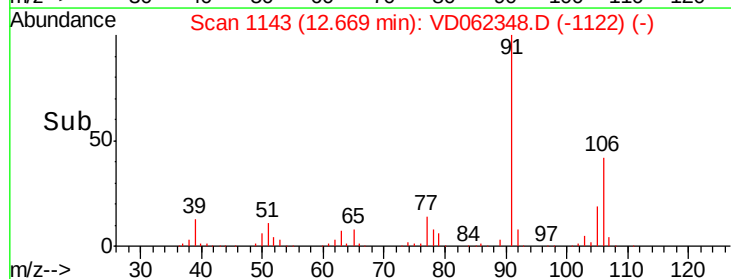
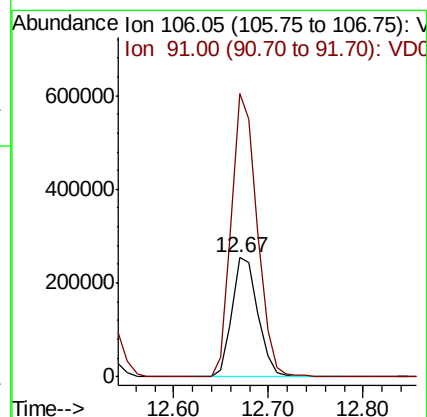
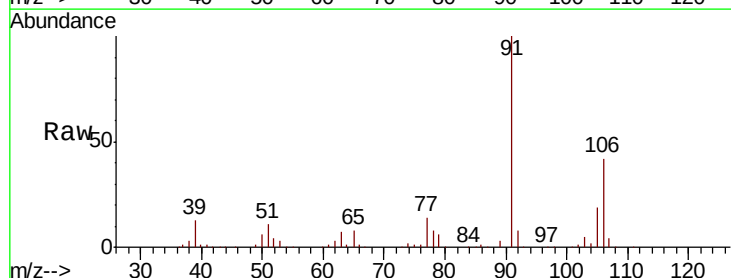
Instrument :  
MSVOA\_D  
ClientSampleId :  
OK-03-050919

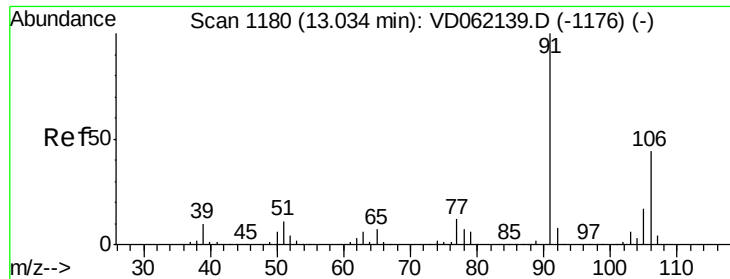
Tgt Ion: 91 Resp: 176869  
Ion Ratio Lower Upper  
91 100  
106 27.6 24.7 37.1



#68  
m/p-Xylenes  
Concen: 58.028 ug/l  
RT: 12.67 min Scan# 1143  
Delta R.T. 0.01 min  
Lab File: VD062348.D  
Acq: 14 May 2019 16:02

Tgt Ion: 106 Resp: 481075  
Ion Ratio Lower Upper  
106 100  
91 237.7 164.0 246.0

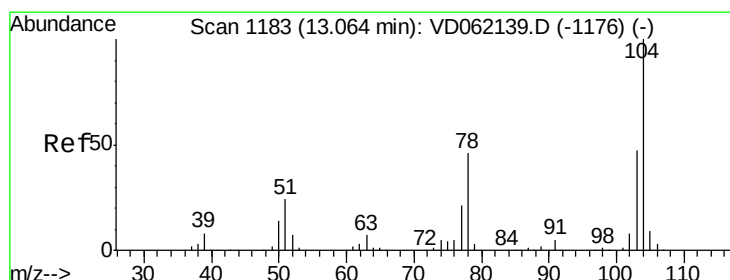
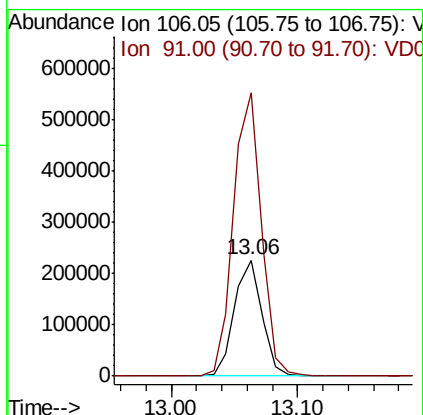
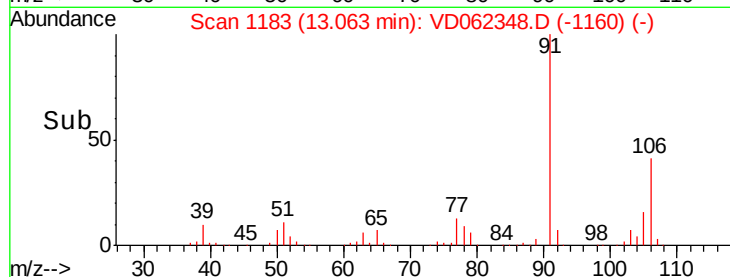
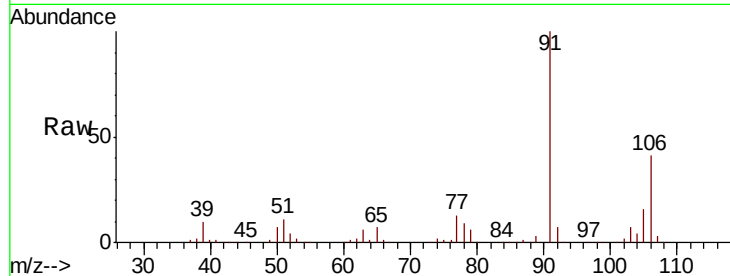




#69  
o-Xylene  
Concen: 43.997 ug/l  
RT: 13.06 min Scan# 1183  
Delta R.T. 0.03 min  
Lab File: VD062348.D  
Acq: 14 May 2019 16:02

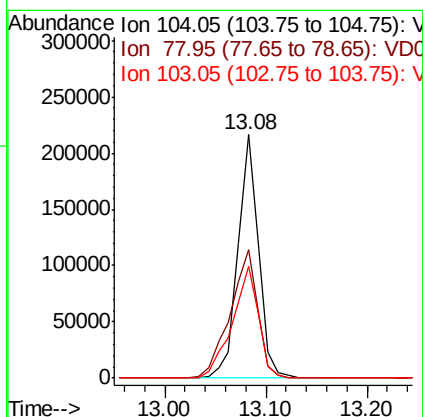
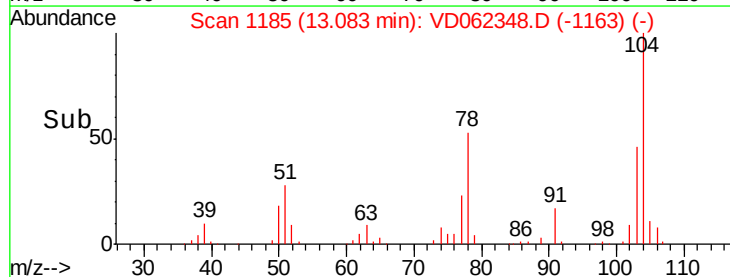
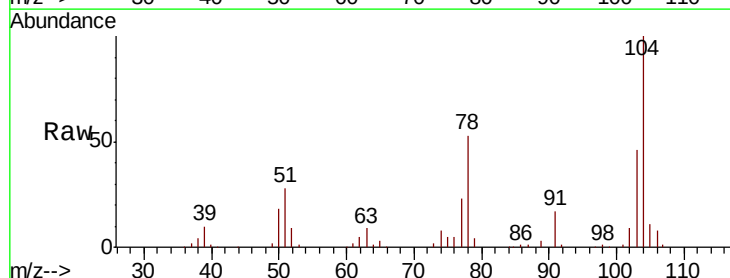
Instrument :  
MSVOA\_D  
ClientSampleId :  
OK-03-050919

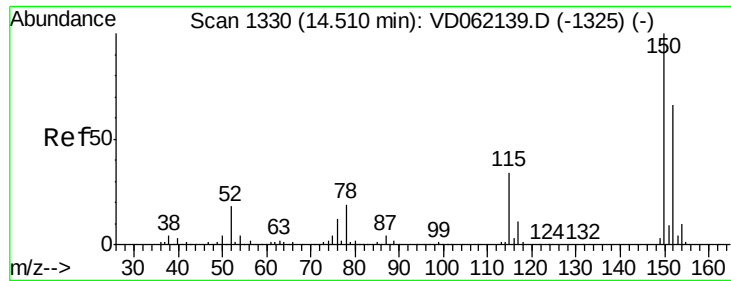
Tgt Ion:106 Resp: 339107  
Ion Ratio Lower Upper  
106 100  
91 244.4 106.7 319.9



#70  
Styrene  
Concen: 23.346 ug/l  
RT: 13.08 min Scan# 1185  
Delta R.T. 0.02 min  
Lab File: VD062348.D  
Acq: 14 May 2019 16:02

Tgt Ion:104 Resp: 304811  
Ion Ratio Lower Upper  
104 100  
78 52.8 35.4 53.2  
103 46.1 37.5 56.3





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.53 min Scan# 1332

Delta R.T. 0.02 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

OK-03-050919

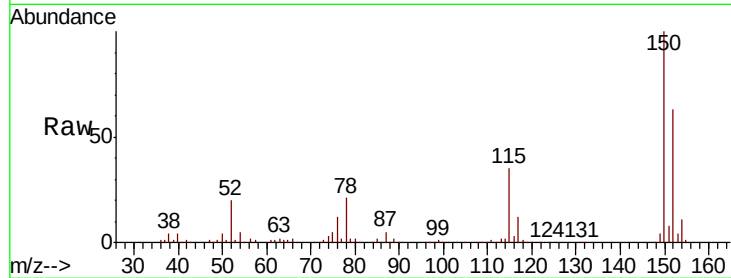
Tgt Ion:152 Resp: 272446

Ion Ratio Lower Upper

152 100

115 56.4 30.9 92.7

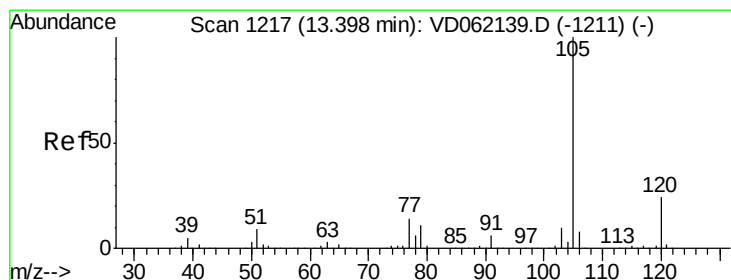
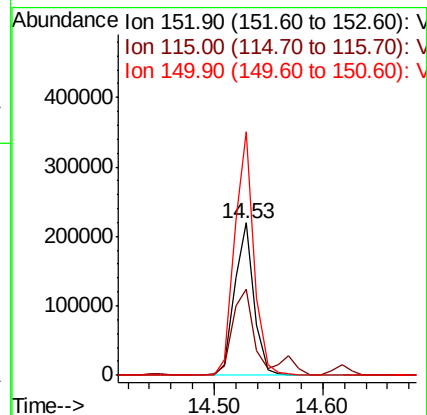
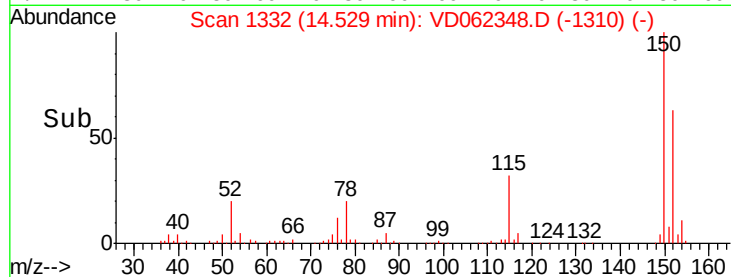
150 159.8 0.0 314.8



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



#73

Isopropylbenzene

Concen: 7.077 ug/l

RT: 13.42 min Scan# 1219

Delta R.T. 0.02 min

Lab File: VD062348.D

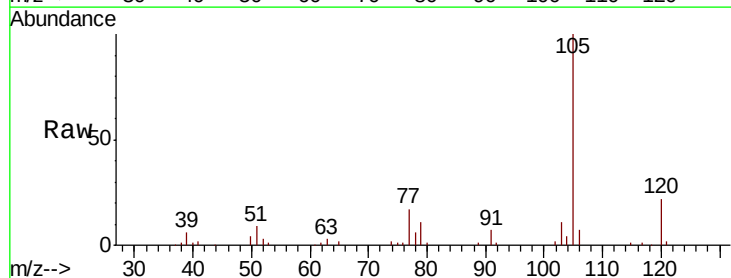
Acq: 14 May 2019 16:02

Tgt Ion:105 Resp: 115571

Ion Ratio Lower Upper

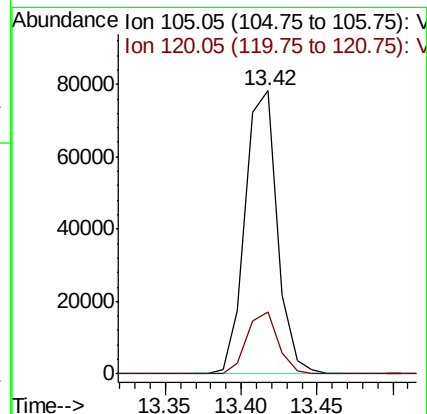
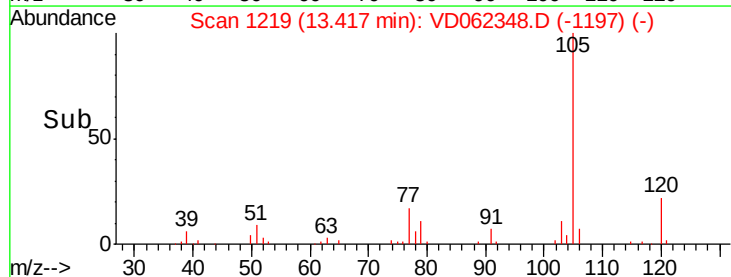
105 100

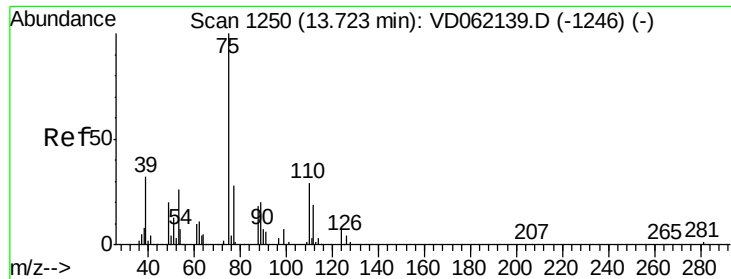
120 21.8 12.0 36.1



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V





#76

1,2,3-Trichloropropane

Concen: 33.166 ug/l

RT: 13.56 min Scan# 1234

Delta R.T. -0.16 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

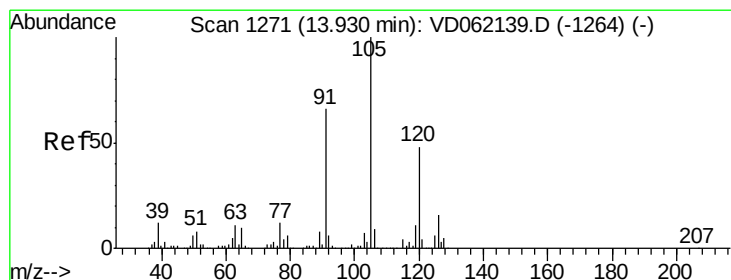
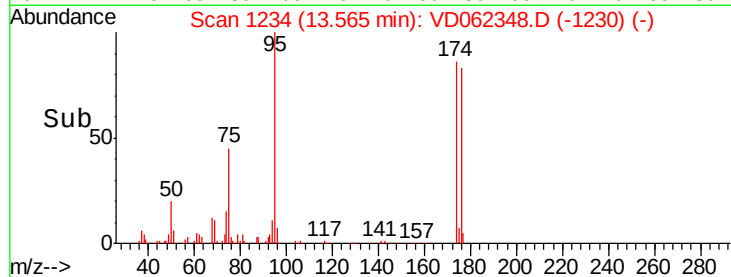
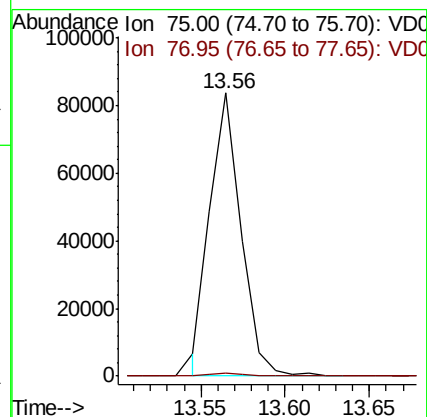
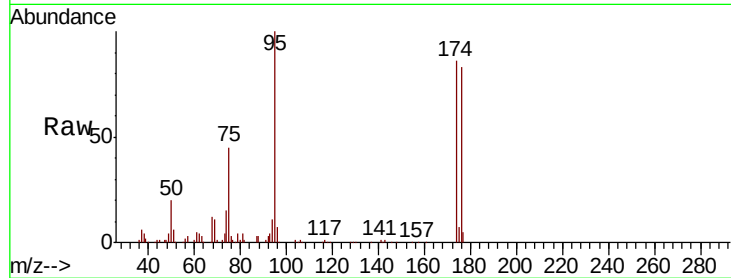
OK-03-050919

Tgt Ion: 75 Resp: 107386

Ion Ratio Lower Upper

75 100

77 1.1 16.4 49.4#



#80

1,3,5-Trimethylbenzene

Concen: 43.824 ug/l

RT: 13.94 min Scan# 1272

Delta R.T. 0.01 min

Lab File: VD062348.D

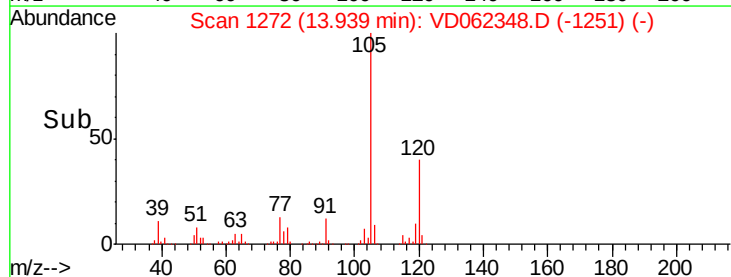
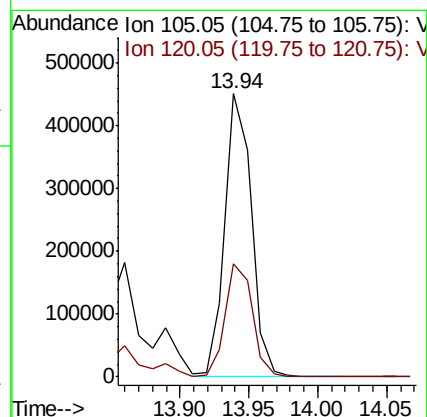
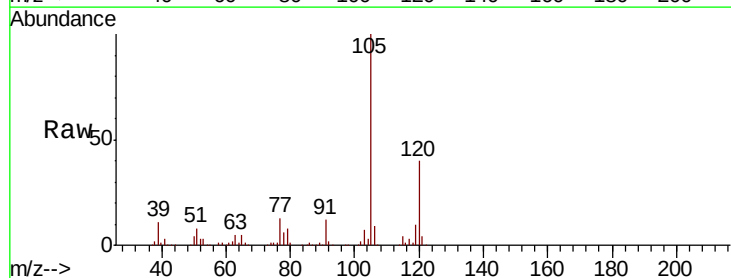
Acq: 14 May 2019 16:02

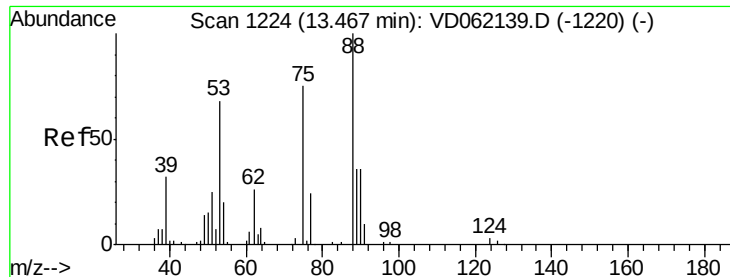
Tgt Ion: 105 Resp: 602676

Ion Ratio Lower Upper

105 100

120 39.8 24.0 72.0





#81

trans-1,4-Dichloro-2-butene

Concen: 121.661 ug/l

RT: 13.56 min Scan# 1234

Delta R.T. 0.10 min

Lab File: VD062348.D

Acq: 14 May 2019 16:02

Instrument :

MSVOA\_D

ClientSampleId :

OK-03-050919

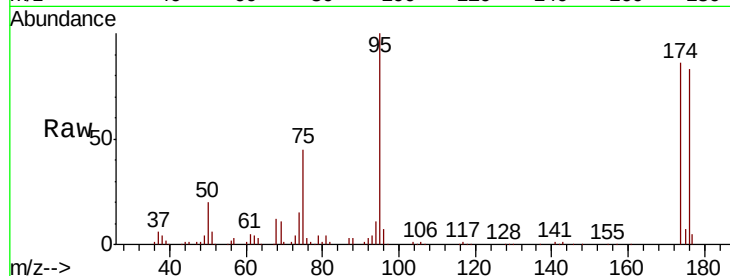
Tgt Ion: 75 Resp: 111204

Ion Ratio Lower Upper

75 100

53 0.0 65.8 98.8#

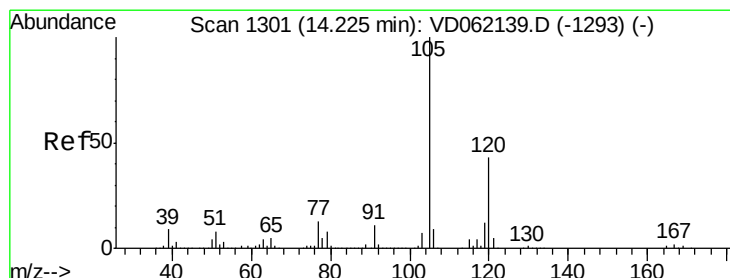
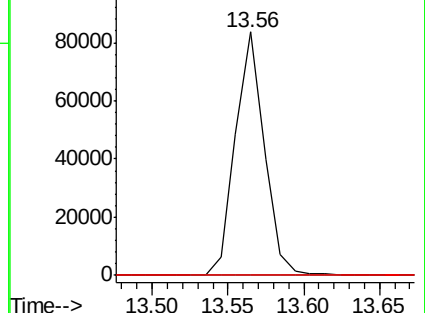
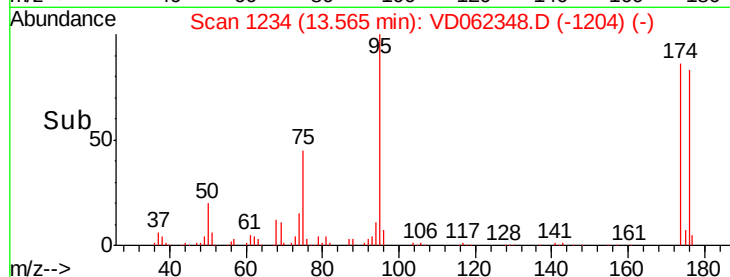
89 0.0 35.0 52.6#



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



#84

1,2,4-Trimethylbenzene

Concen: 115.556 ug/l

RT: 14.24 min Scan# 1303

Delta R.T. 0.02 min

Lab File: VD062348.D

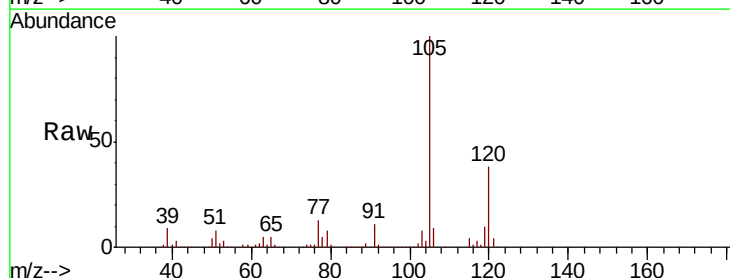
Acq: 14 May 2019 16:02

Tgt Ion: 105 Resp: 1594722

Ion Ratio Lower Upper

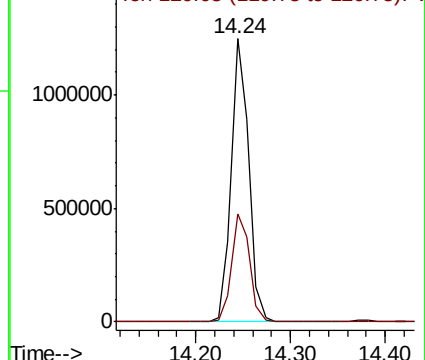
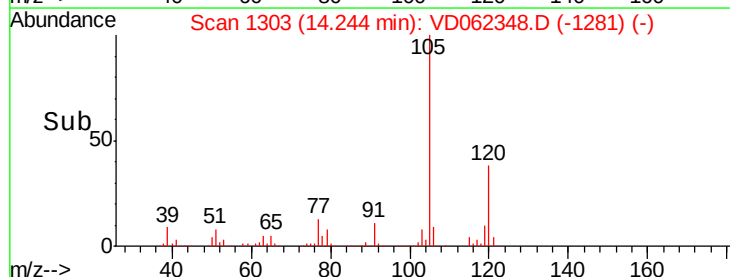
105 100

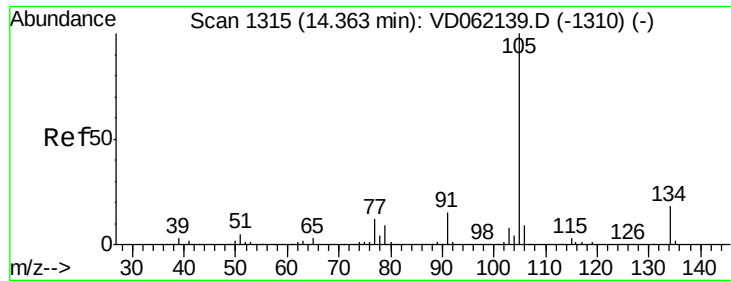
120 38.4 23.1 69.2



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V

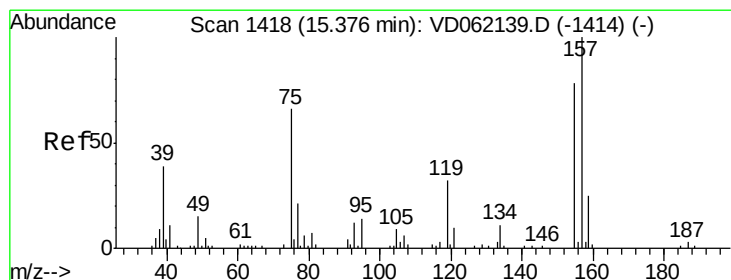
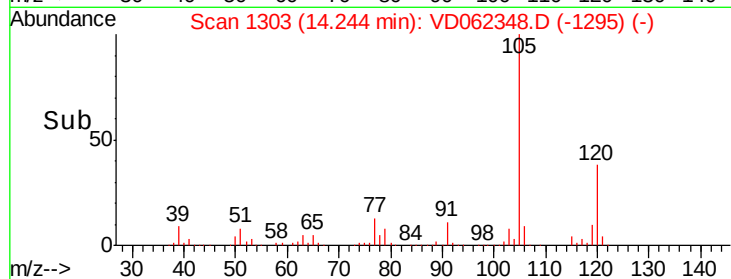
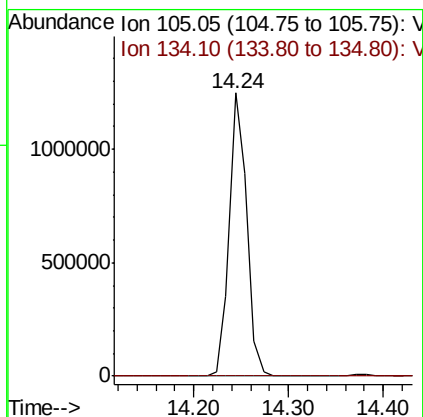
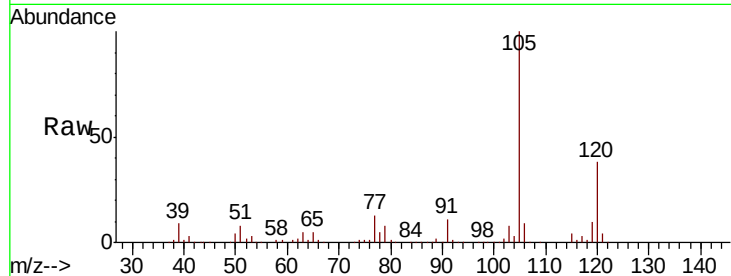




#85  
 sec-Butylbenzene  
 Concen: 94.097 ug/l  
 RT: 14.24 min Scan# 1303  
 Delta R.T. -0.12 min  
 Lab File: VD062348.D  
 Acq: 14 May 2019 16:02

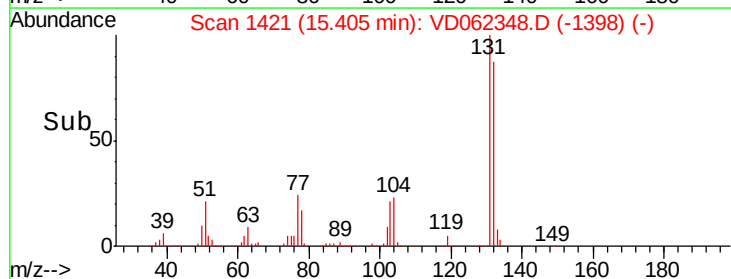
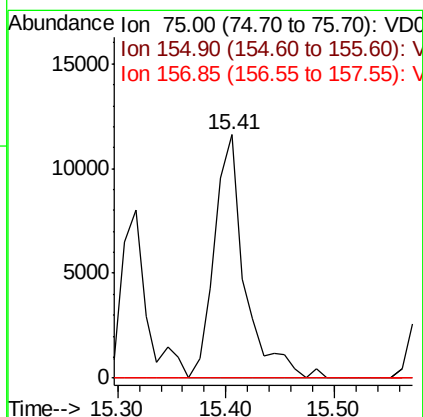
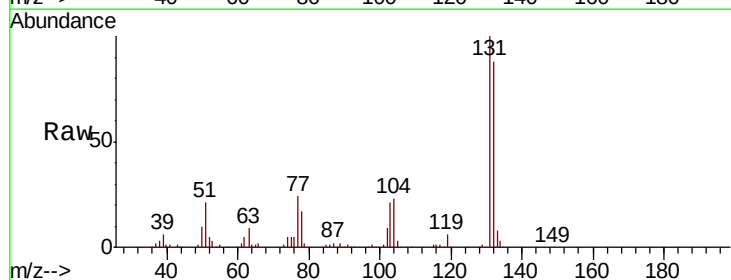
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 OK-03-050919

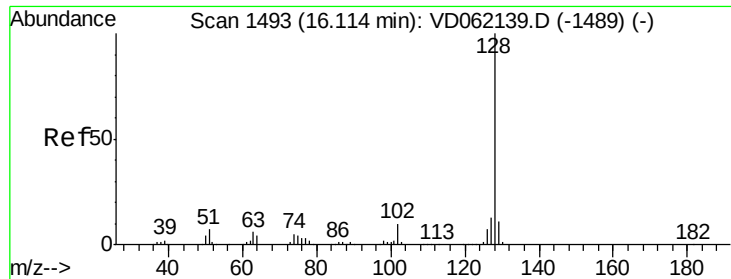
Tgt Ion: 105 Resp: 1594722  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 8.9 26.7#



#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 44.381 ug/l  
 RT: 15.41 min Scan# 1421  
 Delta R.T. 0.03 min  
 Lab File: VD062348.D  
 Acq: 14 May 2019 16:02

Tgt Ion: 75 Resp: 22524  
 Ion Ratio Lower Upper  
 75 100  
 155 0.0 55.3 165.8#  
 157 0.0 67.8 203.2#





#95  
Naphthalene  
Concen: 510.238 ug/l  
RT: 16.13 min Scan# 1495  
Delta R.T. 0.02 min  
Lab File: VD062348.D  
Acq: 14 May 2019 16:02

Instrument :  
MSVOA\_D  
ClientSampleId :  
OK-03-050919

Tgt Ion:128 Resp: 3566153  
Ion Ratio Lower Upper  
128 100  
127 12.8 9.8 14.8  
129 11.2 8.8 13.2

