

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD040519\  
 Data File : VD061629.D  
 Acq On : 5 Apr 2019 19:02  
 Operator : VA/AP  
 Sample : K2193-05  
 Misc : 4.64g/5ml/MSVOA D/SOIL  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 HR-06-040319-C

Manual Integrations  
 APPROVED

MMDadoda  
 4/8/2019 3:33:42 AM

Quant Time: Apr 06 07:06:33 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D032719S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Mar 28 09:22:37 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|--------|--------|----------|
| 1) Pentafluorobenzene       | 7.04  | 168  | 574020   | 50.00  | ug/l   | 0.02     |
| 34) 1,4-Difluorobenzene     | 8.21  | 114  | 892428   | 50.00  | ug/l   | 0.02     |
| 63) Chlorobenzene-d5        | 12.35 | 117  | 682975   | 50.00  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 14.51 | 152  | 265125   | 50.00  | ug/l   | 0.00     |
| System Monitoring Compounds |       |      |          |        |        |          |
| 33) 1,2-Dichloroethane-d4   | 7.44  | 65   | 172238   | 35.13  | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 70.26% |          |
| 35) Dibromofluoromethane    | 6.91  | 113  | 280903   | 41.19  | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 82.38% |          |
| 50) Toluene-d8              | 10.39 | 98   | 544745   | 33.30  | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 66.60% |          |
| 62) 4-Bromofluorobenzene    | 13.54 | 95   | 237336m  | 37.84  | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 75.68% |          |
| Target Compounds            |       |      |          |        |        |          |
|                             |       |      |          |        | Qvalue |          |
| 16) Acetone                 | 3.21  | 43   | 57394    | 45.532 | ug/l   | 97       |
| 20) Methylene Chloride      | 3.81  | 84   | 73538    | 8.833  | ug/l   | 91       |
| 52) Toluene                 | 10.49 | 92   | 16708    | 1.401  | ug/l   | 93       |
| 67) Ethyl Benzene           | 12.51 | 91   | 23940    | 1.124  | ug/l   | 100      |
| 69) o-Xylene                | 13.04 | 106  | 398473   | 50.880 | ug/l   | 99       |
| 73) Isopropylbenzene        | 13.40 | 105  | 60716    | 3.290  | ug/l   | 99       |
| 78) n-propylbenzene         | 13.76 | 91   | 83345    | 3.691  | ug/l   | 95       |
| 80) 1,3,5-Trimethylbenzene  | 13.93 | 105  | 1334986  | 93.245 | ug/l   | 99       |
| 83) tert-Butylbenzene       | 14.18 | 119  | 28526    | 1.594  | ug/l   | 99       |
| 85) sec-Butylbenzene        | 14.36 | 105  | 186866   | 9.831  | ug/l   | 95       |
| 86) p-Isopropyltoluene      | 14.49 | 119  | 288563   | 17.953 | ug/l   | 98       |
| 95) Naphthalene             | 16.11 | 128  | 7313     | 1.386  | ug/l # | 79       |

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

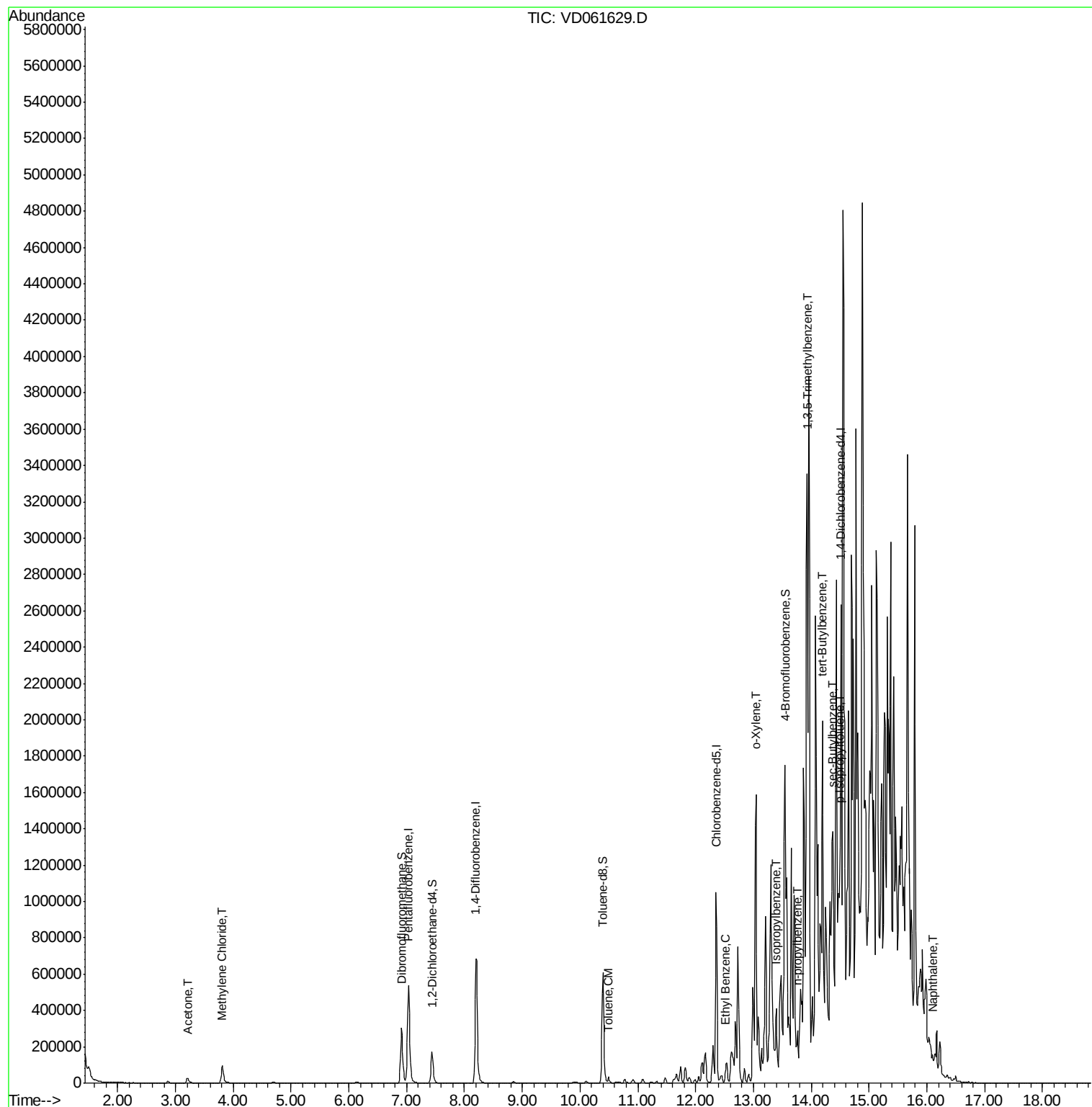
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD040519\  
Data File : VD061629.D  
Acq On : 5 Apr 2019 19:02  
Operator : VA/AP  
Sample : K2193-05  
Misc : 4.64g/5ml/MSVOA D/SOIL  
ALS Vial : 17 Sample Multiplier: 1

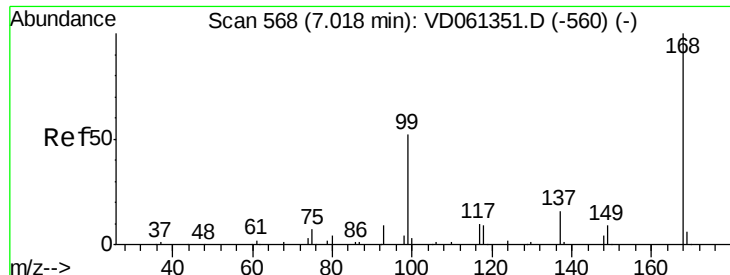
Instrument :  
MSVOA\_D  
ClientSampleId :  
HR-06-040319-C

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:33:42 AM

Quant Time: Apr 06 07:06:33 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D032719S.M  
Quant Title : SW846 8260  
QLast Update : Thu Mar 28 09:22:37 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: VD061629.D

Acq: 5 Apr 2019 19:02

Instrument :

MSVOA\_D

ClientSampleId :

HR-06-040319-C

Tot Ion:168 Resp: 574020

Ion Ratio Lower Upper

168 100

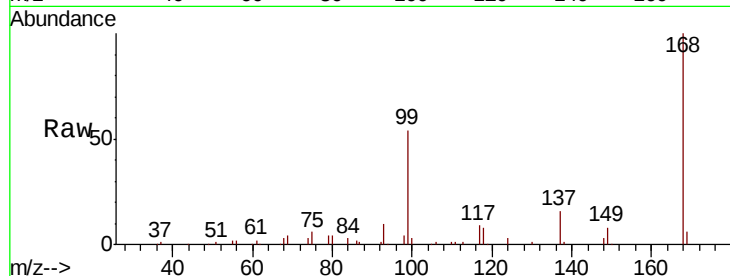
99 53.9 43.1 64.7

Manual Integrations

APPROVED

MMDadoda

4/8/2019 3:33:42 AM



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.04

200000

150000

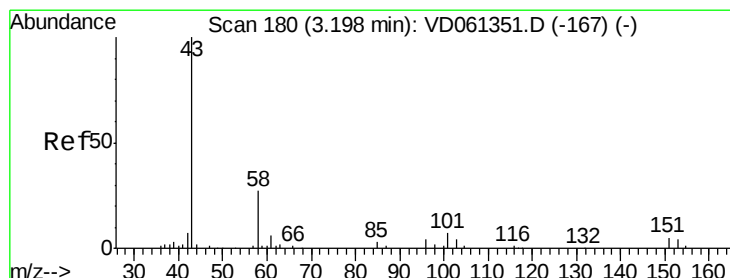
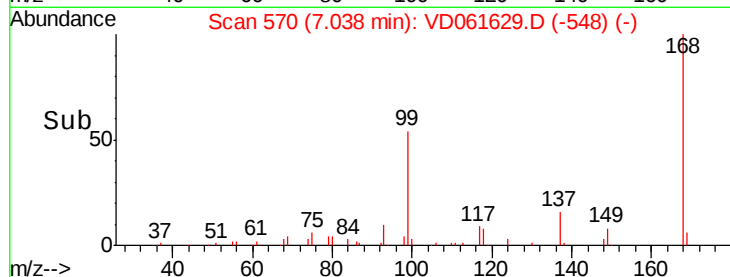
100000

50000

0

6.90 7.00 7.10 7.20

Time-->



#16

Acetone

Concen: 45.532 ug/l

RT: 3.21 min Scan# 181

Delta R.T. 0.01 min

Lab File: VD061629.D

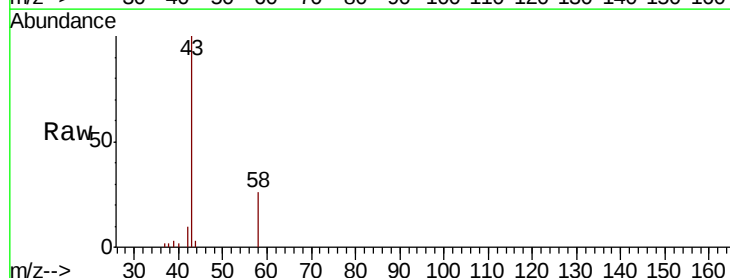
Acq: 5 Apr 2019 19:02

Tgt Ion: 43 Resp: 57394

Ion Ratio Lower Upper

43 100

58 25.5 21.5 32.3



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC

3.21

20000

15000

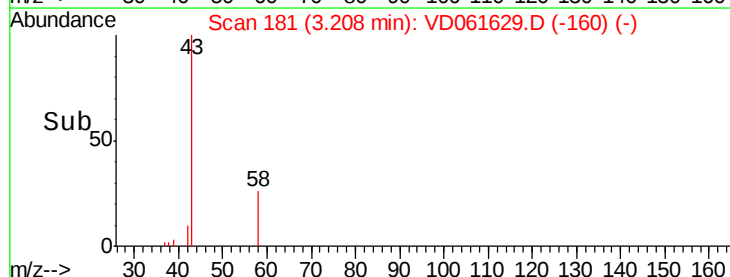
10000

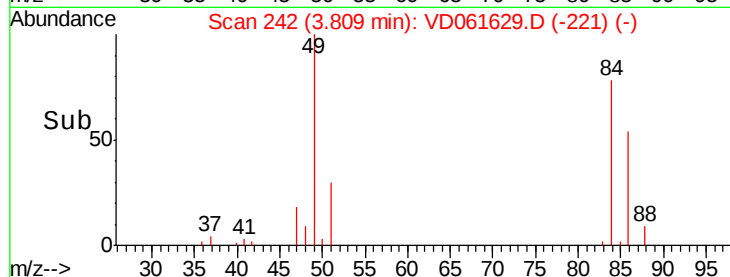
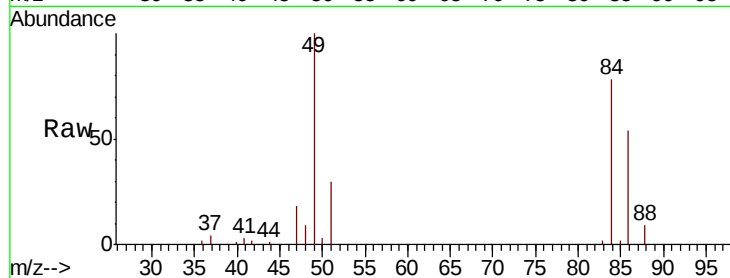
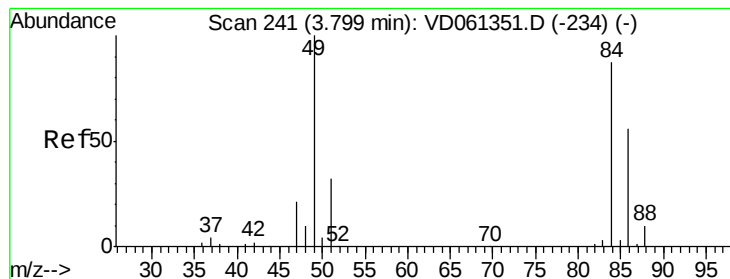
5000

0

3.10 3.20 3.30 3.40

Time-->





#20

Methylene Chloride

Concen: 8.833 ug/l

RT: 3.81 min Scan# 242

Delta R.T. 0.01 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 73538 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 128.6 | 91.8  | 137.8 |
| 51       | 38.3  | 29.8  | 44.8  |
| 86       | 69.3  | 51.8  | 77.6  |

Instrument :

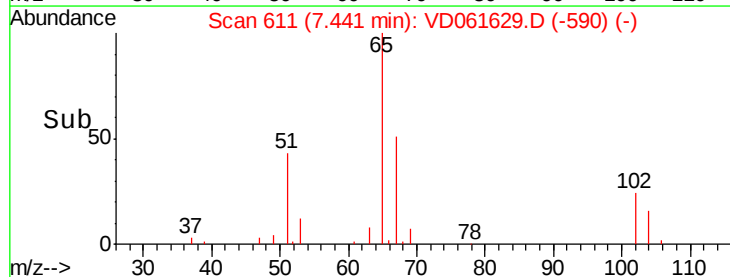
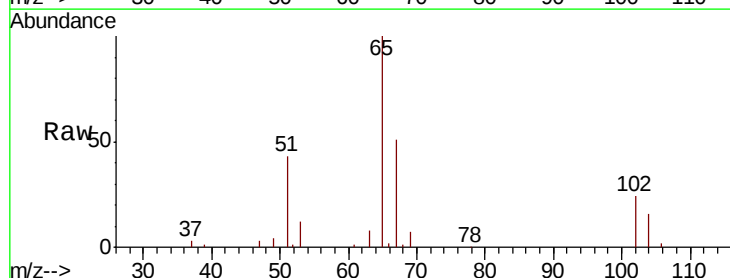
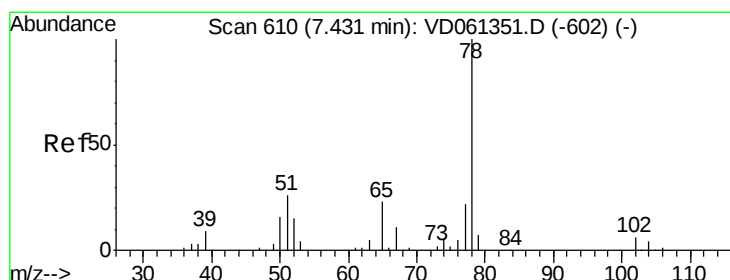
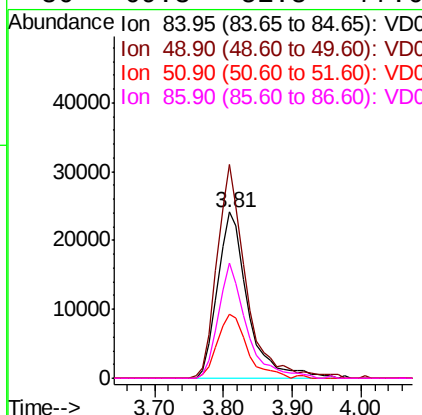
MSVOA\_D

ClientSampleId :

HR-06-040319-C

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:33:42 AM



#33

1,2-Dichloroethane-d4

Concen: N.D. ug/l

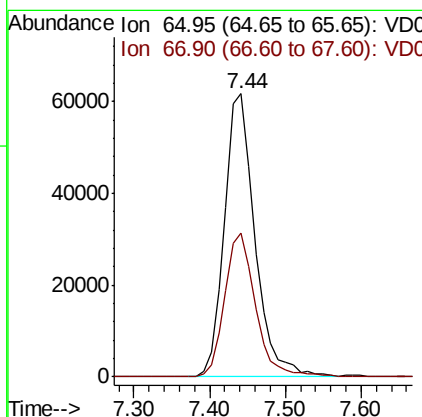
RT: 7.44 min Scan# 611

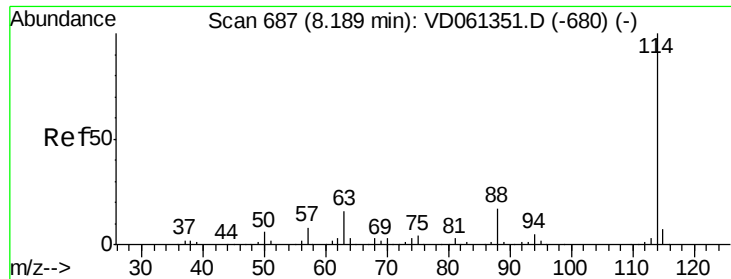
Delta R.T. 0.01 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 65    | Resp: | 172238 |
| Ion      | Ratio | Lower | Upper  |
| 65       | 100   |       |        |
| 67       | 50.8  | 0.0   | 99.8   |





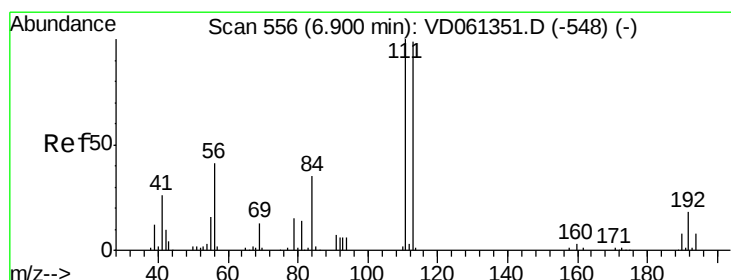
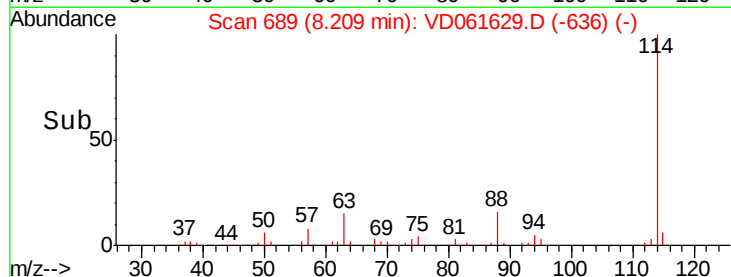
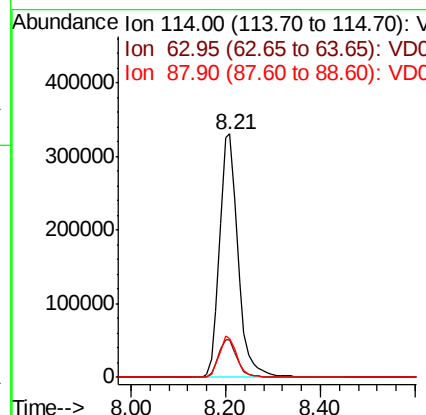
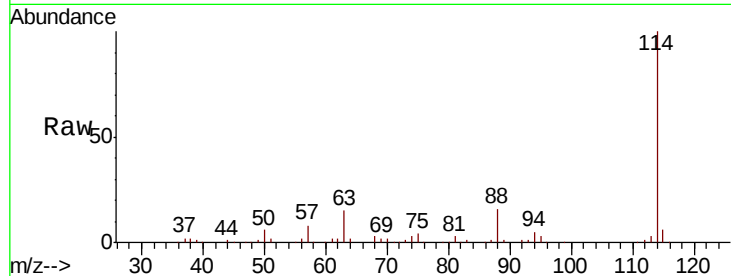
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.21 min Scan# 689  
 Delta R.T. 0.02 min  
 Lab File: VD061629.D  
 Acq: 5 Apr 2019 19:02

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 HR-06-040319-C

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 114     | 100   | 892428 |       |       |
| 63      | 15.5  | 0.0    | 31.6  |       |
| 88      | 15.9  | 0.0    | 33.4  |       |

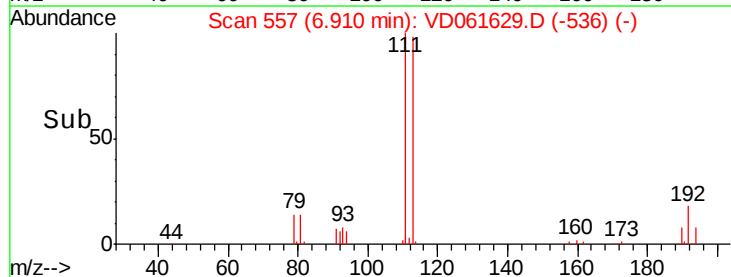
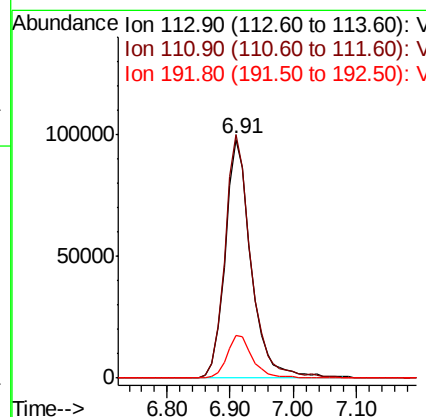
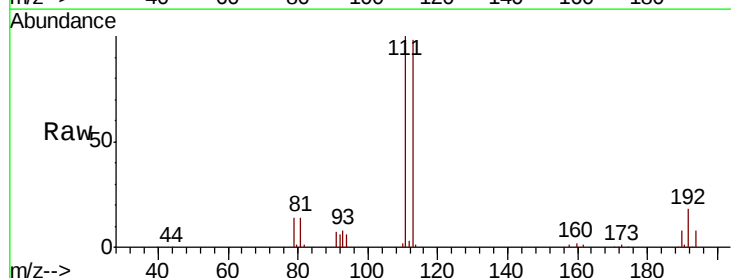
Manual Integrations  
 APPROVED

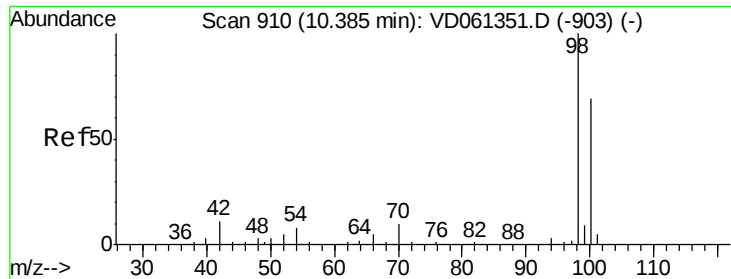
MMDadoda  
 4/8/2019 3:33:42 AM



#35  
 Dibromofluoromethane  
 Concen: 50.000 ug/l  
 RT: 6.91 min Scan# 557  
 Delta R.T. 0.01 min  
 Lab File: VD061629.D  
 Acq: 5 Apr 2019 19:02

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 113     | 100   | 280903 |       |       |
| 111     | 101.9 | 81.0   | 121.6 |       |
| 192     | 18.0  | 14.4   | 21.6  |       |





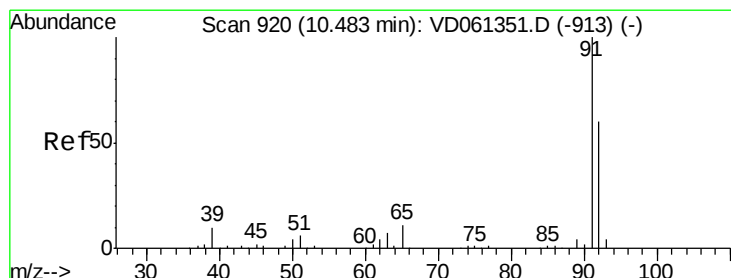
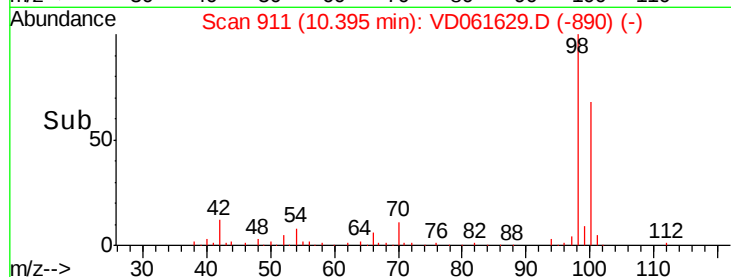
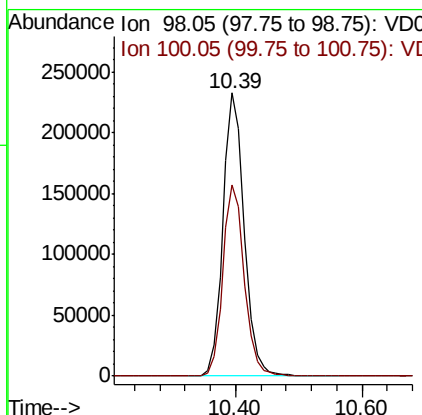
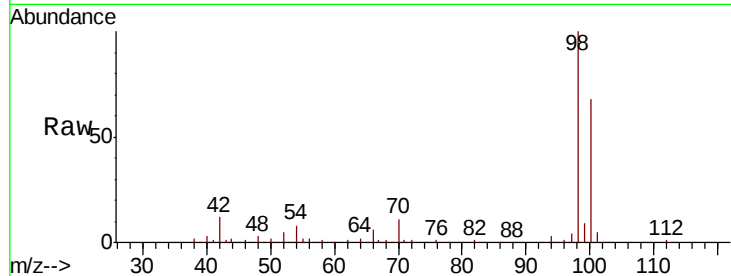
#50  
Toluene-d8  
Concen: N.D. ug/l  
RT: 10.39 min Scan# 911  
Delta R.T. 0.01 min  
Lab File: VD061629.D  
Acq: 5 Apr 2019 19:02

Instrument :  
MSVOA\_D  
ClientSampleId :  
HR-06-040319-C

Tot Ion: 98 Resp: 544745  
Ion Ratio Lower Upper  
98 100  
100 67.6 56.2 84.2

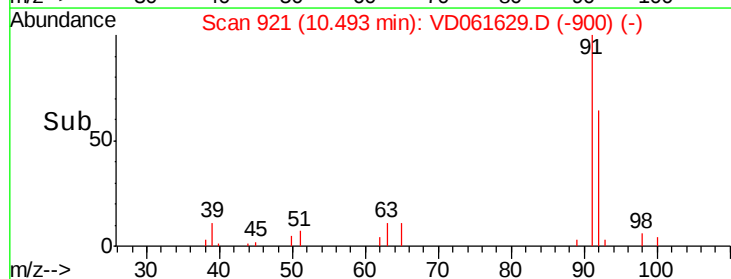
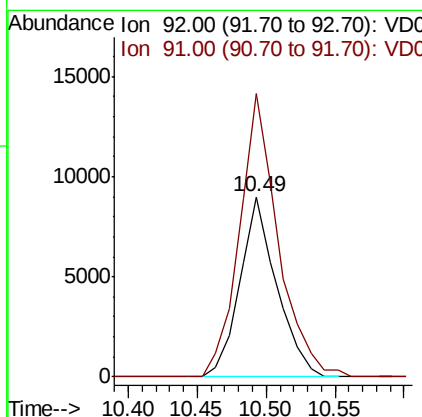
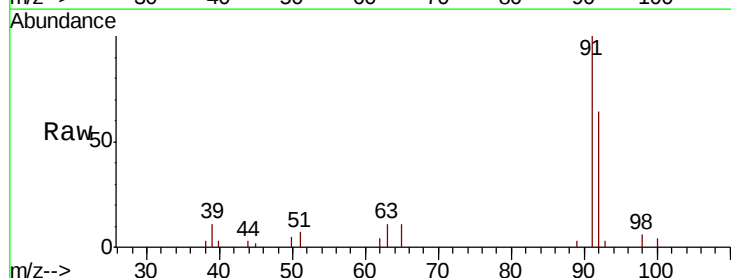
Manual Integrations  
APPROVED

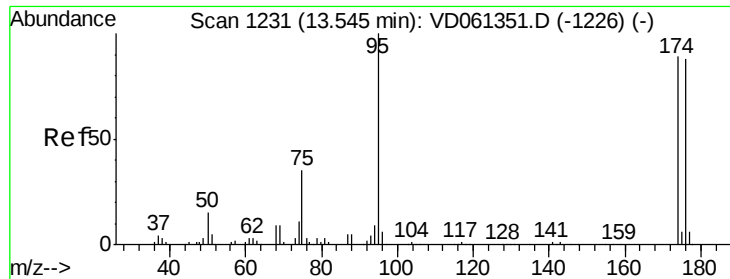
MMDadoda  
4/8/2019 3:33:42 AM



#52  
Toluene  
Concen: 1.401 ug/l  
RT: 10.49 min Scan# 921  
Delta R.T. 0.01 min  
Lab File: VD061629.D  
Acq: 5 Apr 2019 19:02

Tgt Ion: 92 Resp: 16708  
Ion Ratio Lower Upper  
92 100  
91 157.2 133.3 199.9





#62

4-Bromofluorobenzene

Concen: N.D. ug/l m

RT: 13.54 min Scan# 1231

Delta R.T. 0.00 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

Instrument :

MSVOA\_D

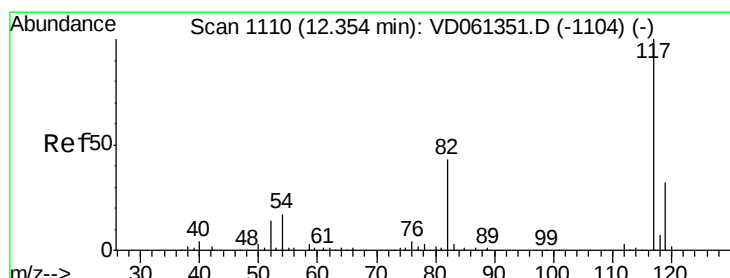
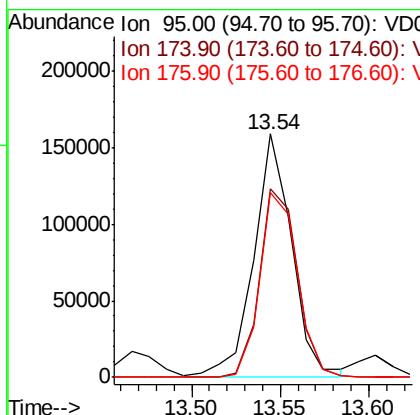
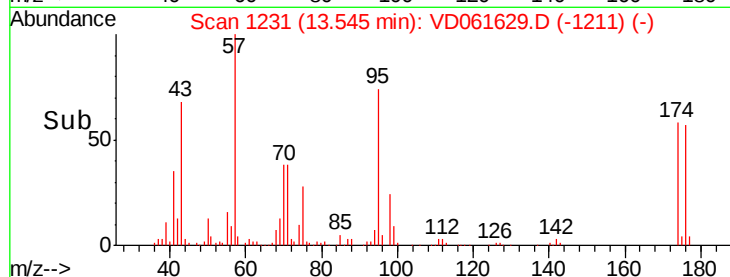
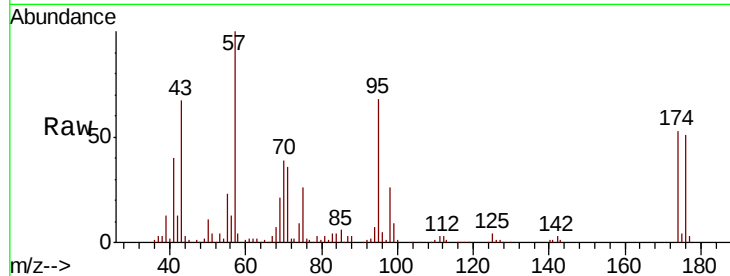
ClientSampleId :

HR-06-040319-C

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 95    | Resp: | 237336 |
| Ion Ratio | Lower | Upper |        |
| 95        | 100   |       |        |
| 174       | 77.5  | 0.0   | 178.0  |
| 176       | 75.8  | 0.0   | 175.0  |

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:33:42 AM



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

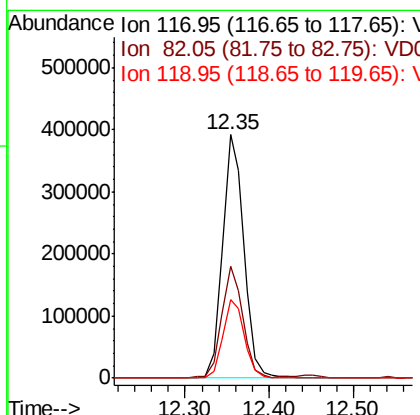
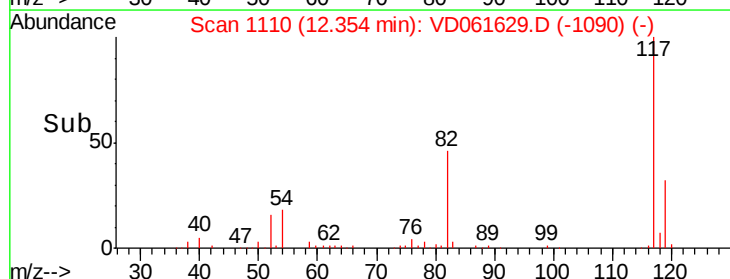
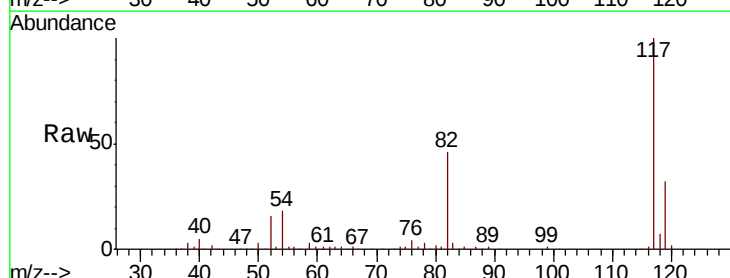
RT: 12.35 min Scan# 1110

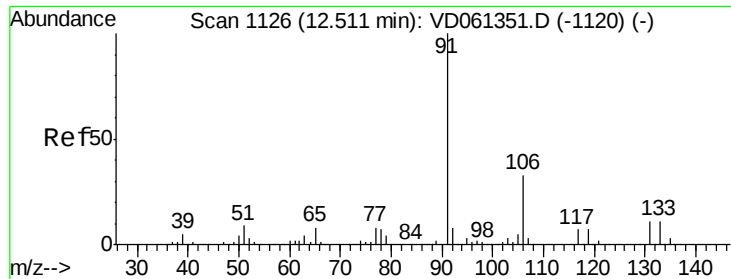
Delta R.T. 0.00 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 117   | Resp: | 682975 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 82        | 45.8  | 34.4  | 51.6   |
| 119       | 32.0  | 25.8  | 38.6   |





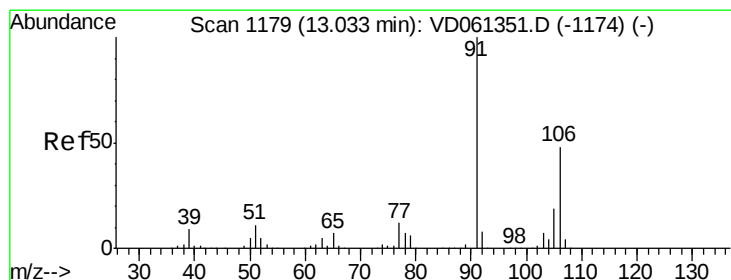
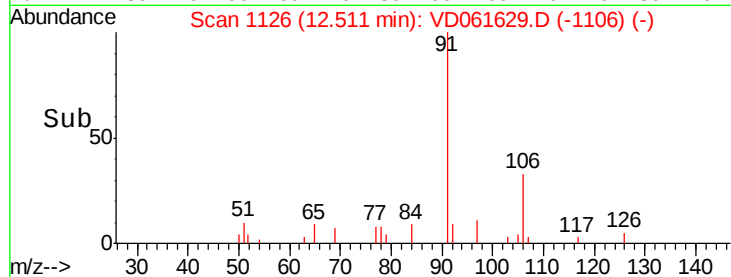
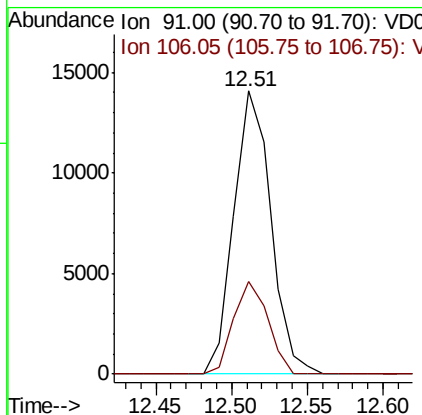
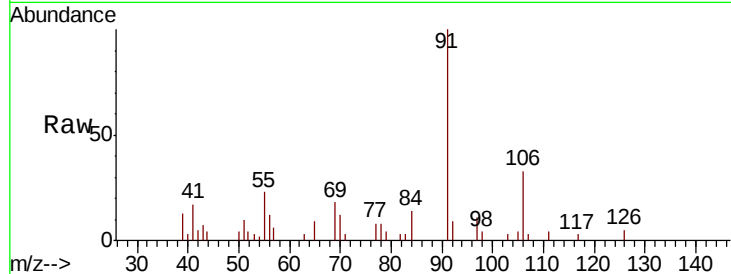
#67  
Ethyl Benzene  
Concen: 1.124 ug/l  
RT: 12.51 min Scan# 1126  
Delta R.T. 0.00 min  
Lab File: VD061629.D  
Acq: 5 Apr 2019 19:02

Instrument :  
MSVOA\_D  
ClientSampleId :  
HR-06-040319-C

Tot Ion: 91 Resp: 23940  
Ion Ratio Lower Upper  
91 100  
106 32.9 26.1 39.1

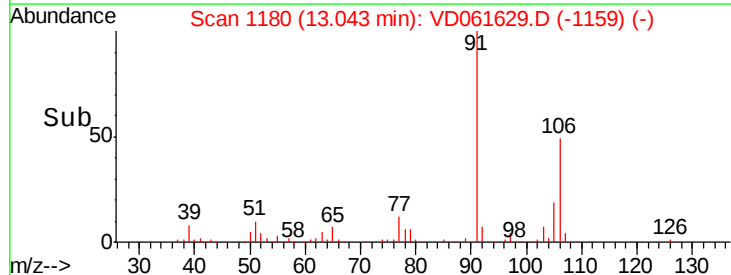
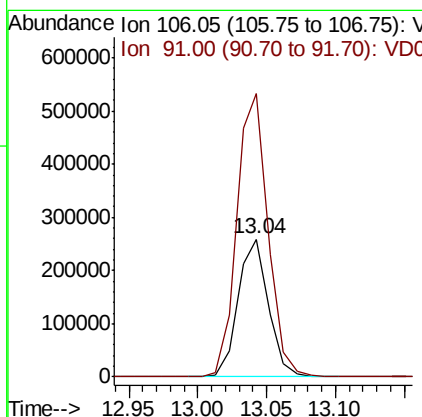
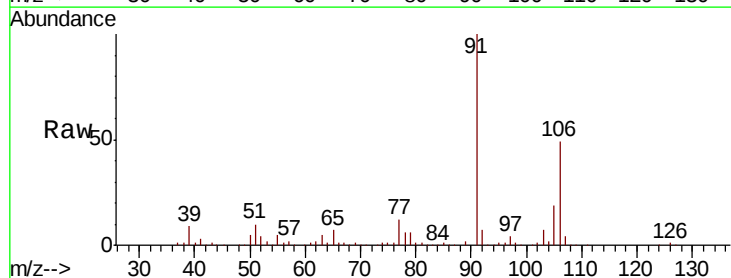
Manual Integrations  
APPROVED

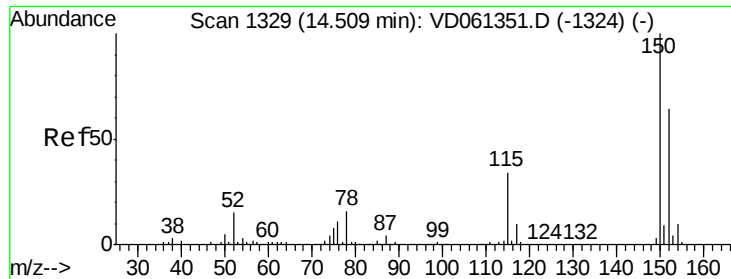
MMDadoda  
4/8/2019 3:33:42 AM



#69  
o-Xylene  
Concen: 50.880 ug/l  
RT: 13.04 min Scan# 1180  
Delta R.T. 0.01 min  
Lab File: VD061629.D  
Acq: 5 Apr 2019 19:02

Tgt Ion: 106 Resp: 398473  
Ion Ratio Lower Upper  
106 100  
91 205.8 103.8 311.3





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.51 min Scan# 1329

Delta R.T. 0.00 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

Instrument :

MSVOA\_D

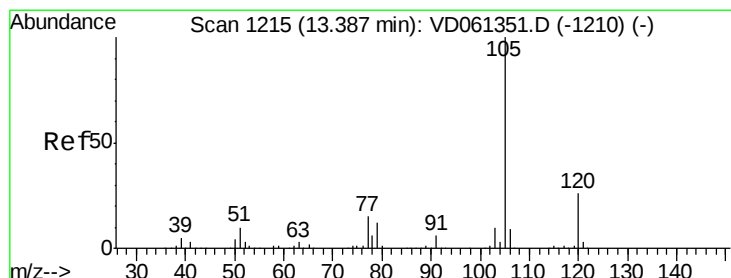
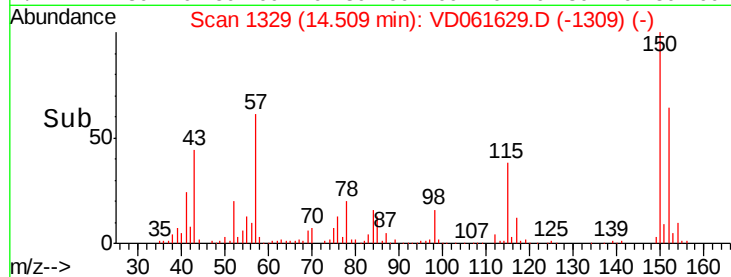
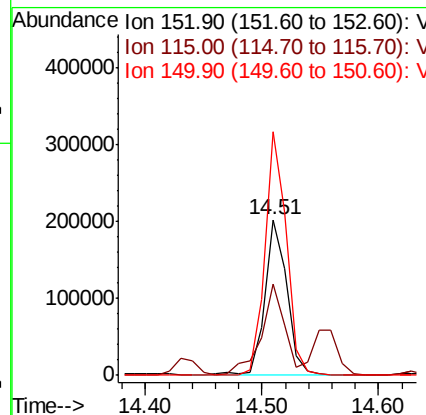
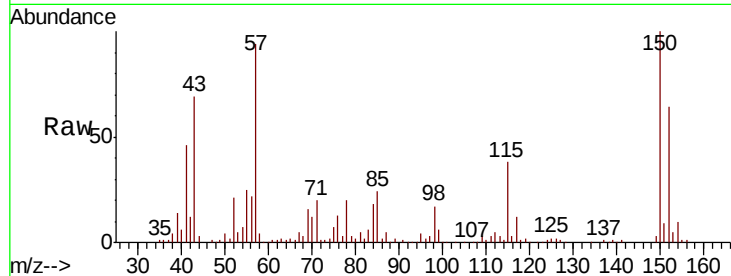
ClientSampleId :

HR-06-040319-C

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 152   | Resp: | 265125 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 59.0  | 26.9  | 80.6   |
| 150       | 156.5 | 0.0   | 318.0  |

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:33:42 AM



#73

Isopropylbenzene

Concen: 3.290 ug/l

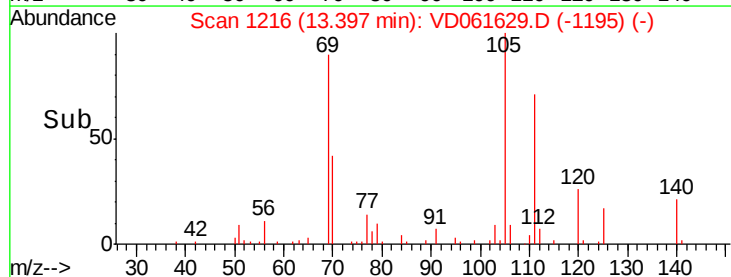
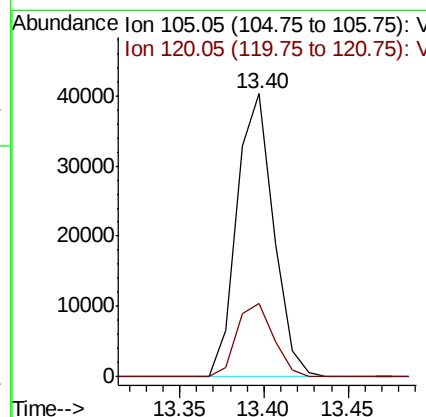
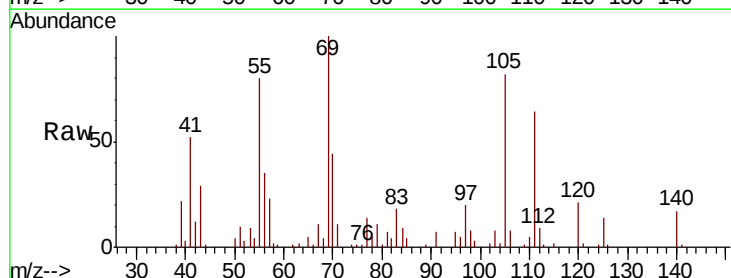
RT: 13.40 min Scan# 1216

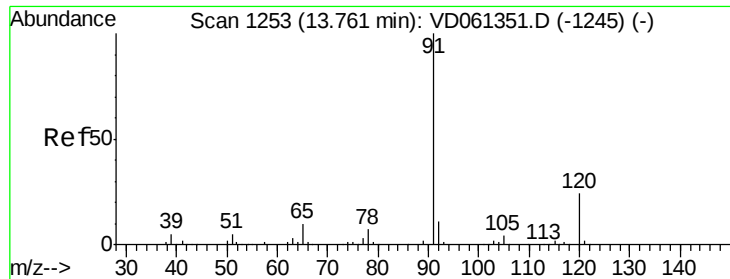
Delta R.T. 0.01 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 105   | Resp: | 60716 |
| Ion Ratio | Lower | Upper |       |
| 105       | 100   |       |       |
| 120       | 25.9  | 12.8  | 38.3  |





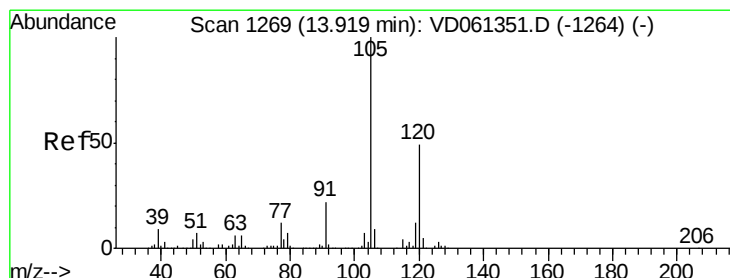
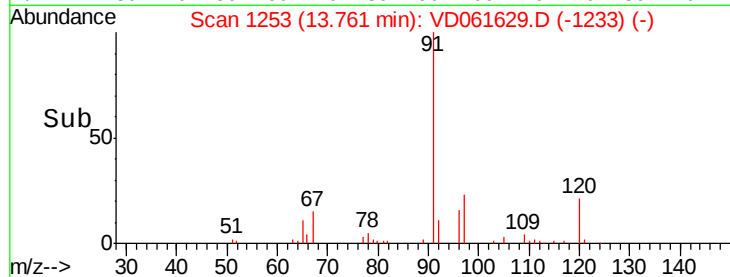
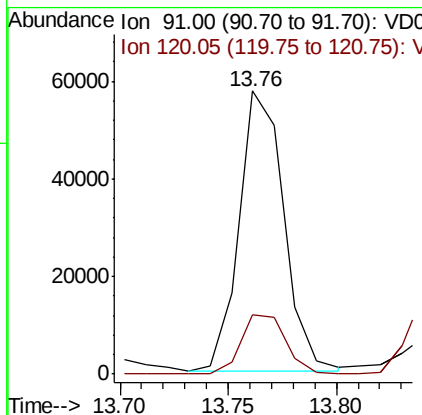
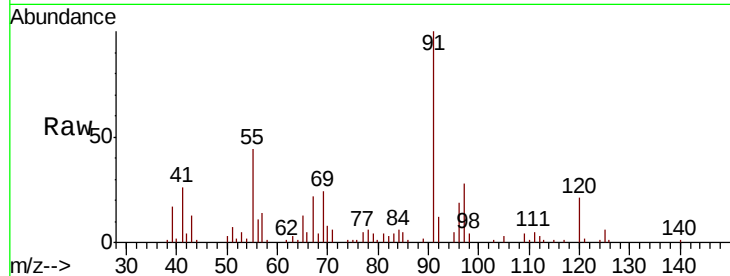
#78  
 n-propylbenzene  
 Concen: 3.691 ug/l  
 RT: 13.76 min Scan# 1253  
 Delta R.T. 0.00 min  
 Lab File: VD061629.D  
 Acq: 5 Apr 2019 19:02

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 HR-06-040319-C

Tot Ion: 91 Resp: 83345  
 Ion Ratio Lower Upper  
 91 100  
 120 20.8 11.8 35.3

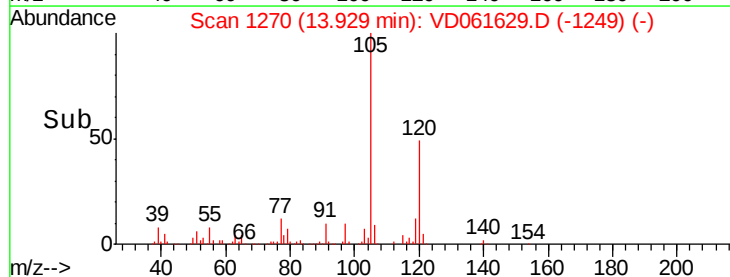
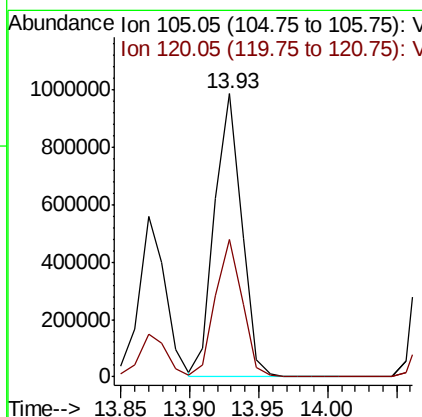
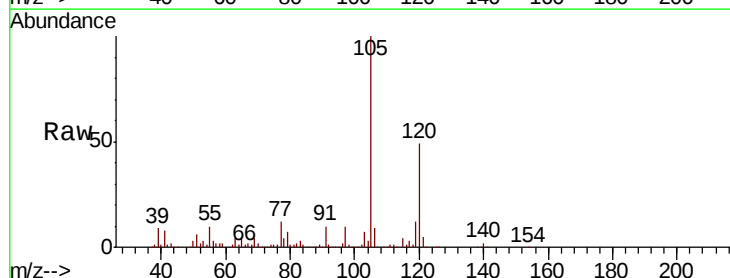
Manual Integrations  
 APPROVED

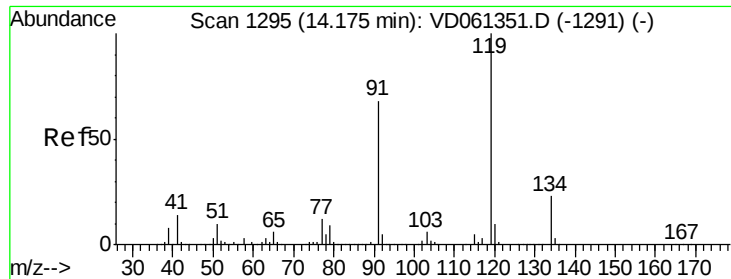
MMDadoda  
 4/8/2019 3:33:42 AM



#80  
 1,3,5-Trimethylbenzene  
 Concen: 93.245 ug/l  
 RT: 13.93 min Scan# 1270  
 Delta R.T. 0.01 min  
 Lab File: VD061629.D  
 Acq: 5 Apr 2019 19:02

Tgt Ion:105 Resp: 1334986  
 Ion Ratio Lower Upper  
 105 100  
 120 48.6 24.6 73.6





#83

tert-Butylbenzene

Concen: 1.594 ug/l

RT: 14.18 min Scan# 1296

Delta R.T. 0.01 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

Instrument :

MSVOA\_D

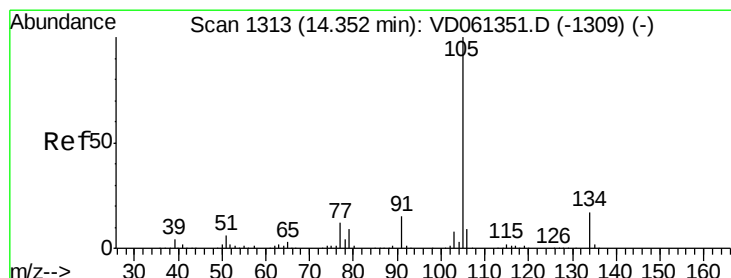
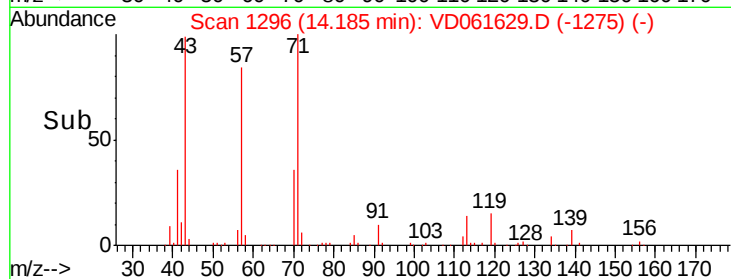
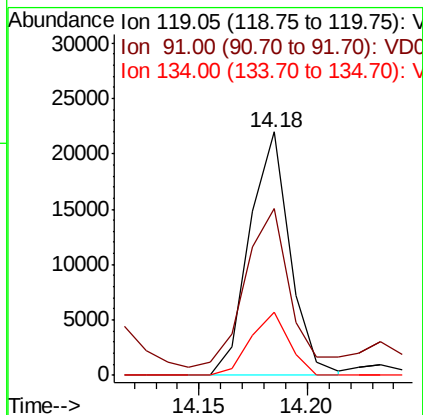
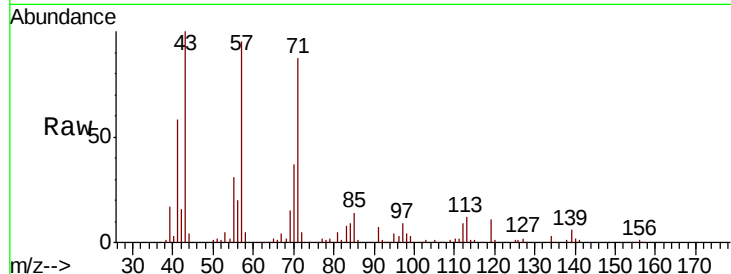
ClientSampleId :

HR-06-040319-C

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 119   | Resp: | 28526 |
| Ion Ratio | Lower | Upper |       |
| 119       | 100   |       |       |
| 91        | 68.3  | 34.1  | 102.3 |
| 134       | 25.7  | 11.6  | 34.8  |

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:33:42 AM



#85

sec-Butylbenzene

Concen: 9.831 ug/l

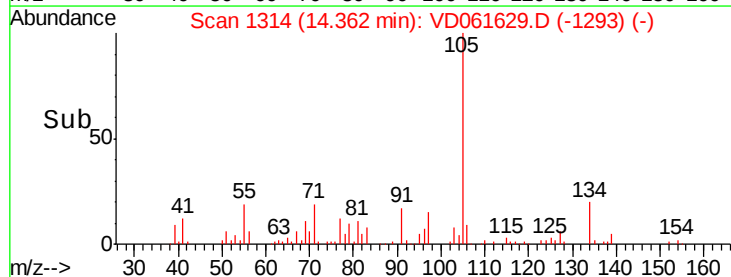
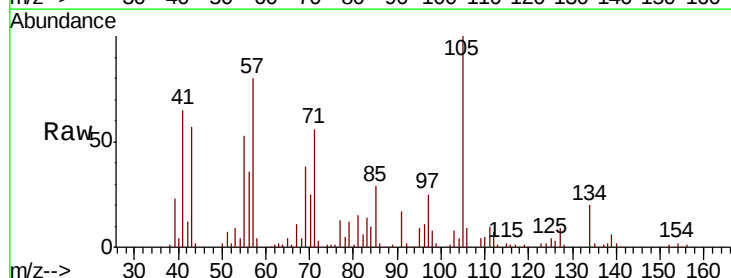
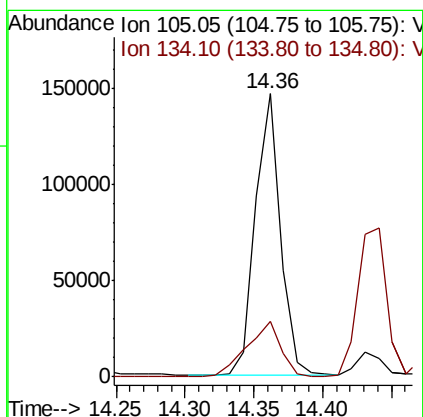
RT: 14.36 min Scan# 1314

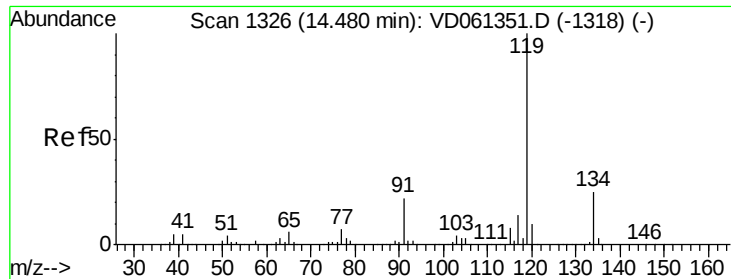
Delta R.T. 0.01 min

Lab File: VD061629.D

Acq: 5 Apr 2019 19:02

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 105   | Resp: | 186866 |
| Ion Ratio | Lower | Upper |        |
| 105       | 100   |       |        |
| 134       | 19.6  | 8.7   | 26.1   |





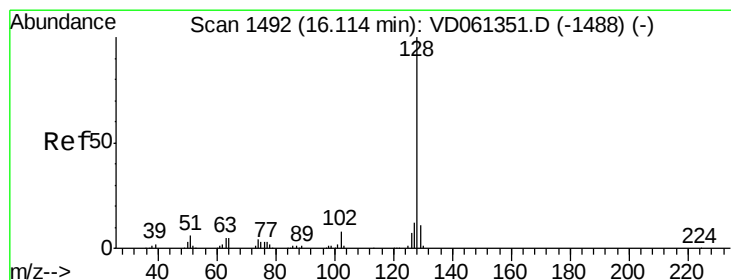
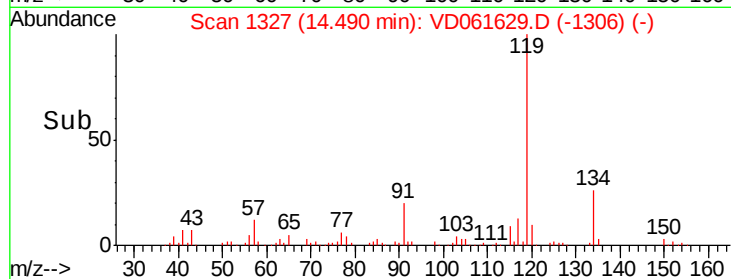
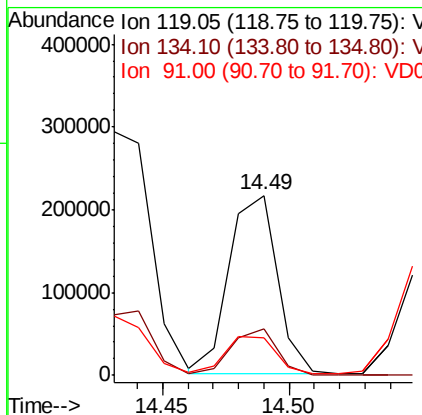
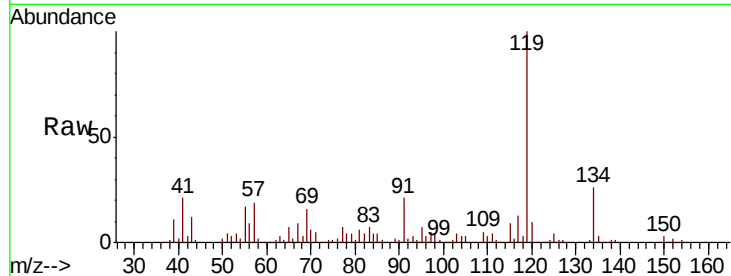
#86  
p-Isopropyltoluene  
Concen: 17.953 ug/l  
RT: 14.49 min Scan# 1327  
Delta R.T. 0.01 min  
Lab File: VD061629.D  
Acq: 5 Apr 2019 19:02

Instrument :  
MSVOA\_D  
ClientSampleId :  
HR-06-040319-C

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 119     | 100   | 288563 |       |       |
| 134     | 25.6  | 12.3   | 36.8  |       |
| 91      | 21.0  | 11.1   | 33.1  |       |

Manual Integrations  
APPROVED

MMDadoda  
4/8/2019 3:33:42 AM



#95  
Naphthalene  
Concen: 1.386 ug/l  
RT: 16.11 min Scan# 1492  
Delta R.T. 0.00 min  
Lab File: VD061629.D  
Acq: 5 Apr 2019 19:02

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 128     | 100   | 7313 |       |       |
| 127     | 16.9  | 9.9  | 14.9# |       |
| 129     | 23.2  | 8.9  | 13.3# |       |

