

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM033115\  
 Data File : BM000783.D  
 Acq On : 01 Apr 2015 12:33  
 Operator : TP/IZ  
 Sample : MDL-03-W  
 Misc : MDL-WATER-0.1/0.2PPM  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 MDL-03-W

Quant Time: Apr 01 15:31:01 2015  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SIMPAH-BM033115.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Apr 01 04:17:30 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.62  | 152  | 35890    | 5.00 | ng    | 0.00     |
| 4) Naphthalene-d8         | 10.40 | 136  | 122517   | 5.00 | ng    | 0.00     |
| 8) Acenaphthene-d10       | 14.28 | 164  | 58865    | 5.00 | ng    | 0.00     |
| 13) Phenanthrene-d10      | 17.01 | 188  | 128903   | 5.00 | ng    | 0.00     |
| 19) Chrysene-d12          | 21.22 | 240  | 104628   | 5.00 | ng    | 0.01     |
| 25) Perylene-d12          | 23.40 | 264  | 97772    | 5.00 | ng    | 0.00     |

|                             |       |     |        |       |    |      |
|-----------------------------|-------|-----|--------|-------|----|------|
| System Monitoring Compounds |       |     |        |       |    |      |
| 5) Nitrobenzene-d5          | 8.77  | 82  | 58593  | 7.80  | ng | 0.00 |
| 9) 2-Fluorobiphenyl         | 12.89 | 172 | 177047 | 9.70  | ng | 0.00 |
| 21) Terphenyl-d14           | 19.66 | 244 | 134292 | 10.67 | ng | 0.00 |

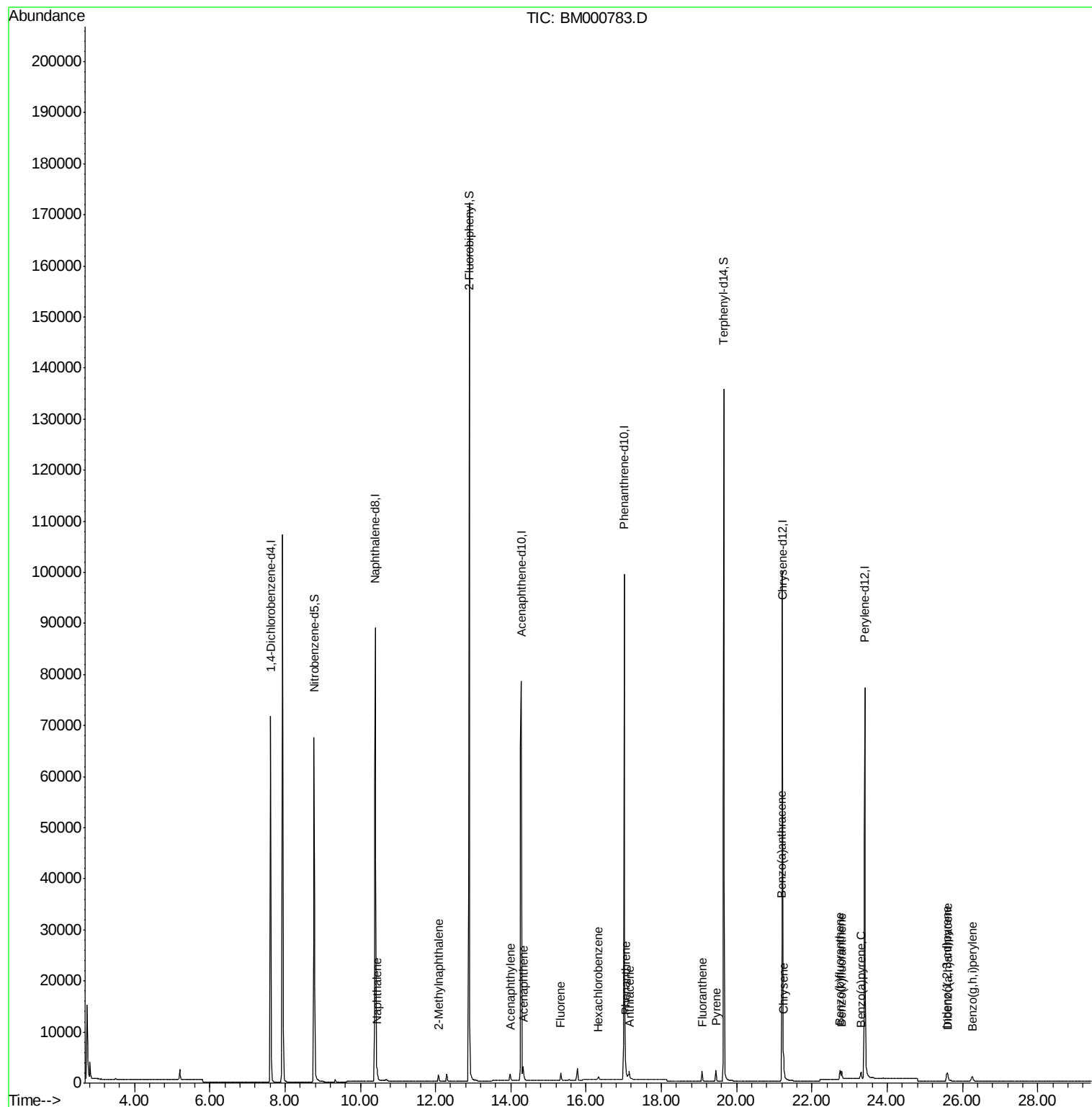
|                            |       |     |      |      |    |        |
|----------------------------|-------|-----|------|------|----|--------|
| Target Compounds           |       |     |      |      |    | Qvalue |
| 6) Naphthalene             | 10.45 | 128 | 2116 | 0.07 | ng | # 91   |
| 7) 2-Methylnaphthalene     | 12.08 | 142 | 1252 | 0.07 | ng | 96     |
| 10) Acenaphthylene         | 13.98 | 152 | 1619 | 0.06 | ng | 99     |
| 11) Acenaphthene           | 14.33 | 154 | 1273 | 0.07 | ng | 98     |
| 12) Fluorene               | 15.32 | 166 | 1472 | 0.07 | ng | 99     |
| 14) Hexachlorobenzene      | 16.33 | 284 | 587  | 0.08 | ng | # 95   |
| 16) Phenanthrene           | 17.05 | 178 | 2673 | 0.08 | ng | 96     |
| 17) Anthracene             | 17.15 | 178 | 2084 | 0.07 | ng | 98     |
| 18) Fluoranthene           | 19.09 | 202 | 2411 | 0.07 | ng | 99     |
| 20) Pyrene                 | 19.45 | 202 | 2517 | 0.07 | ng | 98     |
| 22) Benzo(a)anthracene     | 21.20 | 228 | 2353 | 0.08 | ng | 96     |
| 23) Chrysene               | 21.25 | 228 | 2657 | 0.08 | ng | # 90   |
| 24) Indeno(1,2,3-cd)pyrene | 25.59 | 276 | 2414 | 0.07 | ng | 97     |
| 26) Benzo(b)fluoranthene   | 22.74 | 252 | 2149 | 0.07 | ng | # 77   |
| 27) Benzo(k)fluoranthene   | 22.79 | 252 | 2413 | 0.08 | ng | # 75   |
| 28) Benzo(a)pyrene         | 23.31 | 252 | 1939 | 0.07 | ng | # 70   |
| 29) Dibenzo(a,h)anthracene | 25.61 | 278 | 1893 | 0.07 | ng | # 79   |
| 30) Benzo(g,h,i)perylene   | 26.26 | 276 | 2232 | 0.08 | ng | # 87   |

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

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Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 7.62 min Scan# 920

Delta R.T. -0.00 min

Lab File: BM000763.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

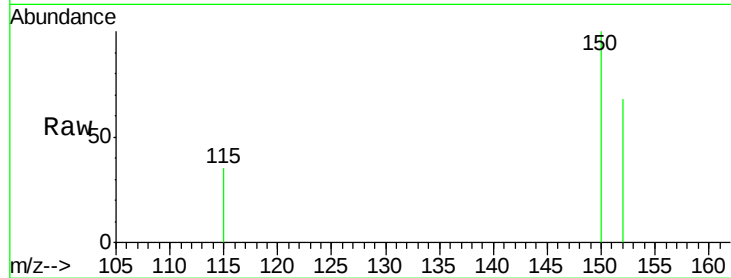
Tgt Ion:152 Resp: 35890

Ion Ratio Lower Upper

152 100

150 147.1 120.8 181.2

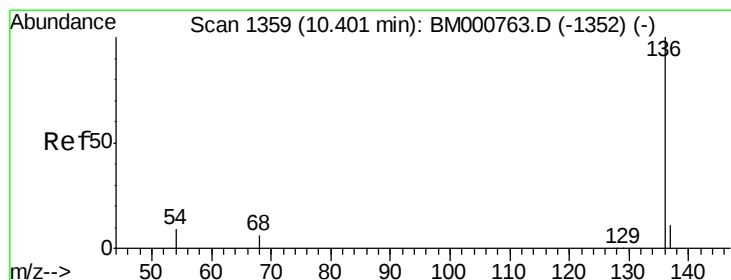
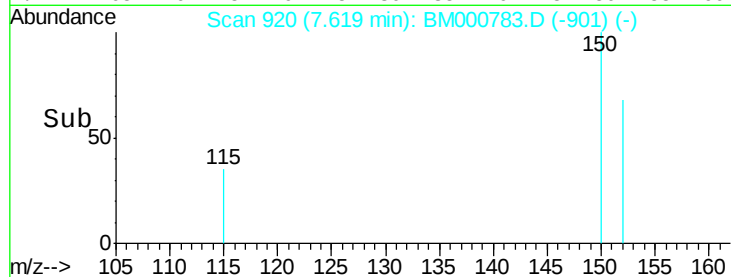
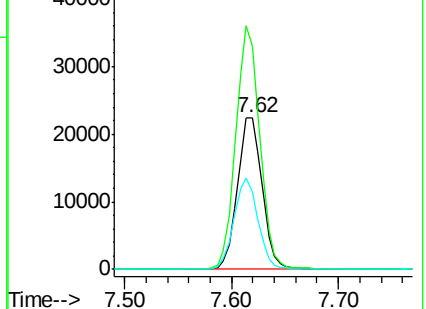
115 50.9 42.7 64.1



Abundance Ion 152.00 (151.70 to 152.70): E

Ion 150.00 (149.70 to 150.70): E

Ion 115.00 (114.70 to 115.70): E



#4

Naphthalene-d8

Concen: 5.00 ng

RT: 10.40 min Scan# 1359

Delta R.T. -0.00 min

Lab File: BM000763.D

Acq: 01 Apr 2015 12:33

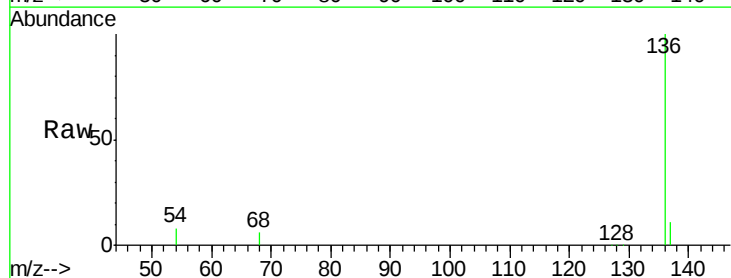
Tgt Ion:136 Resp: 122517

Ion Ratio Lower Upper

136 100

137 10.9 8.6 12.8

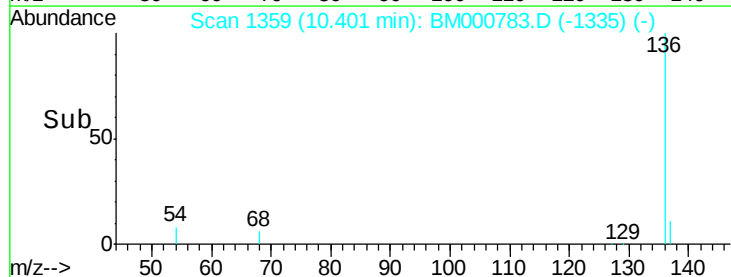
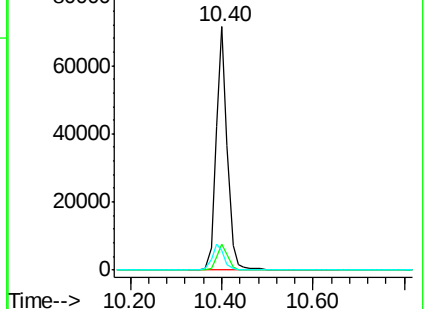
54 8.1 7.0 10.6

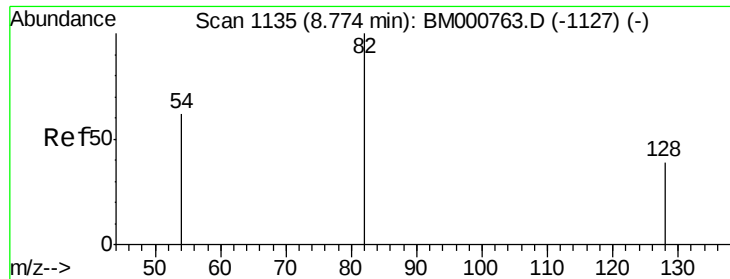


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BM





#5

Nitrobenzene-d5

Concen: 7.80 ng

RT: 8.77 min Scan# 1135

Delta R.T. 0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

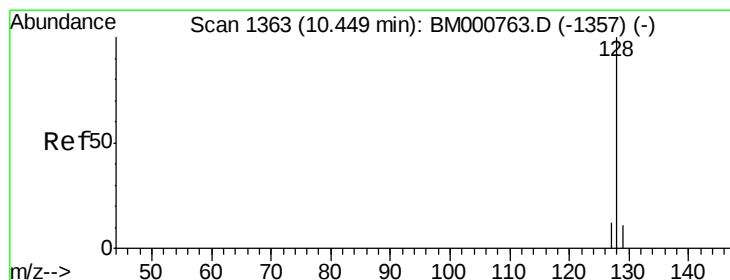
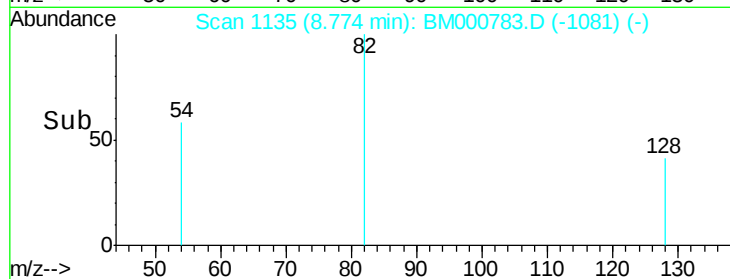
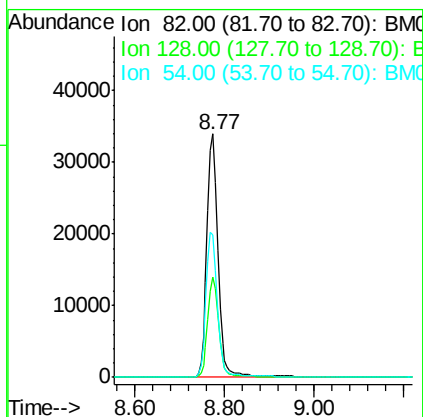
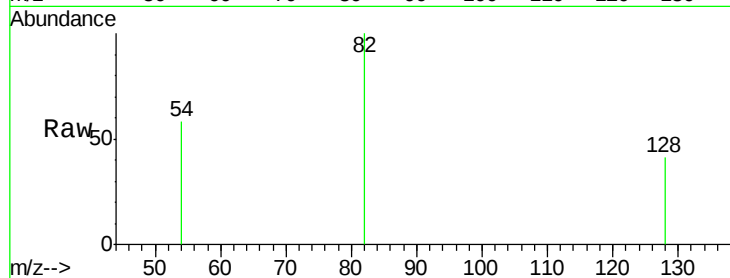
Tgt Ion: 82 Resp: 58593

Ion Ratio Lower Upper

82 100

128 41.0 32.2 48.2

54 58.5 50.2 75.4



#6

Naphthalene

Concen: 0.07 ng

RT: 10.45 min Scan# 1363

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

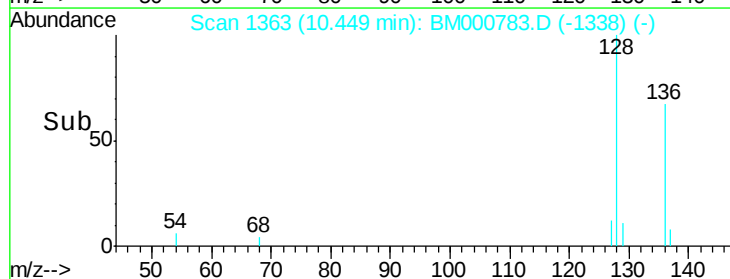
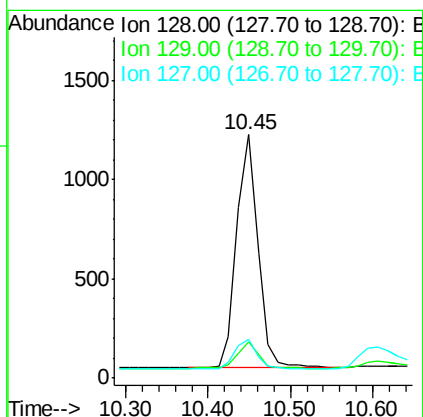
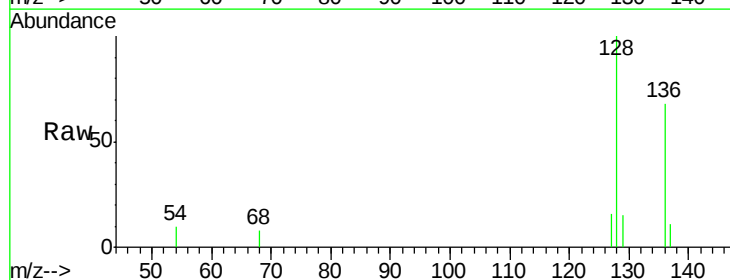
Tgt Ion: 128 Resp: 2116

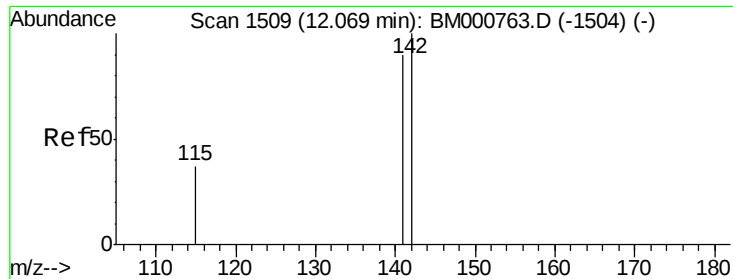
Ion Ratio Lower Upper

128 100

129 14.9 8.9 13.3#

127 15.7 10.0 15.0#





#7

2-Methylnaphthalene

Concen: 0.07 ng

RT: 12.08 min Scan# 1510

Delta R.T. 0.01 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

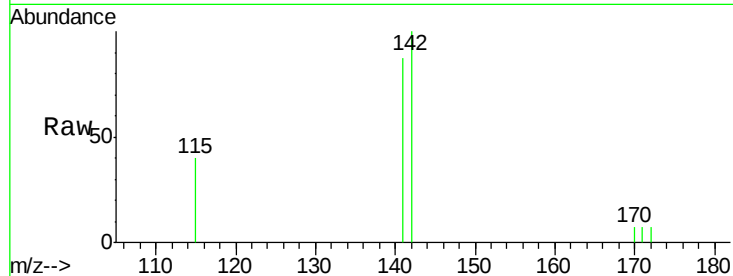
Tgt Ion:142 Resp: 1252

Ion Ratio Lower Upper

142 100

141 87.3 72.3 108.5

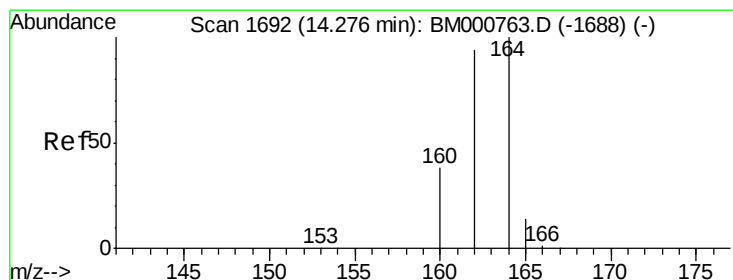
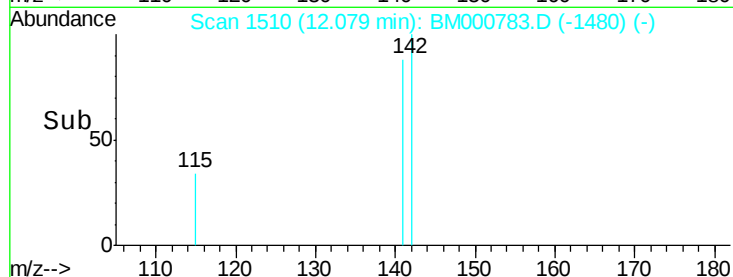
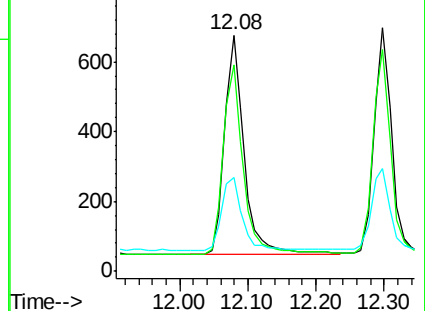
115 39.6 29.5 44.3



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

Ion 115.00 (114.70 to 115.70): E



#8

Acenaphthene-d10

Concen: 5.00 ng

RT: 14.28 min Scan# 1692

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

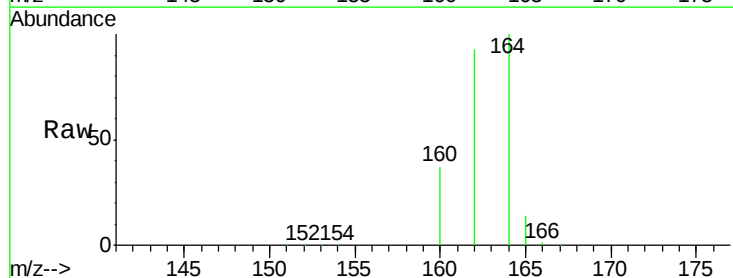
Tgt Ion:164 Resp: 58865

Ion Ratio Lower Upper

164 100

162 92.6 75.4 113.2

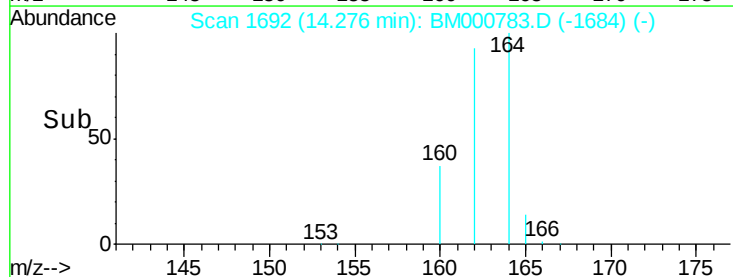
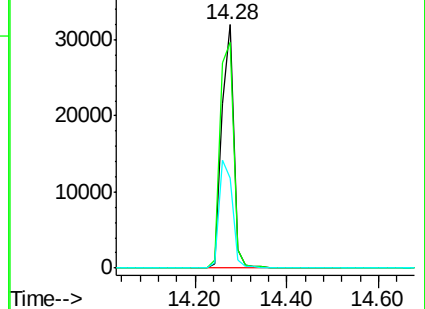
160 37.1 30.8 46.2

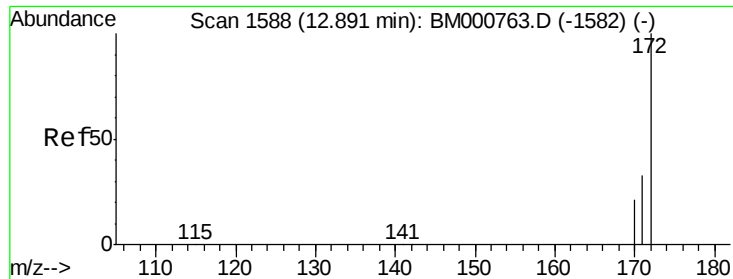


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#9

2-Fluorobiphenyl

Concen: 9.70 ng

RT: 12.89 min Scan# 1588

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

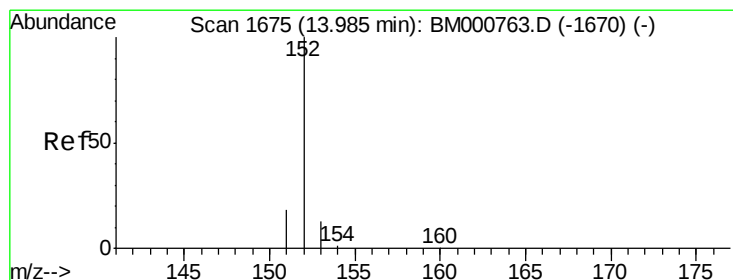
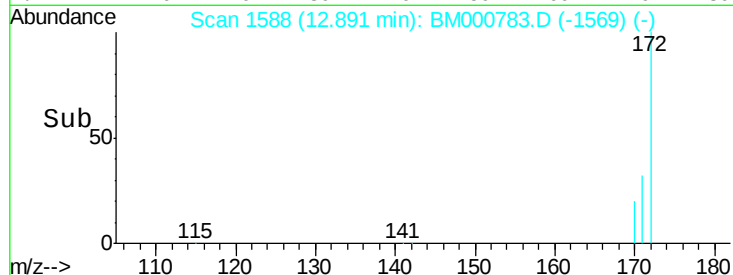
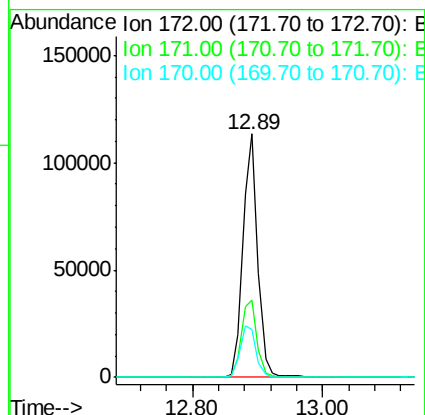
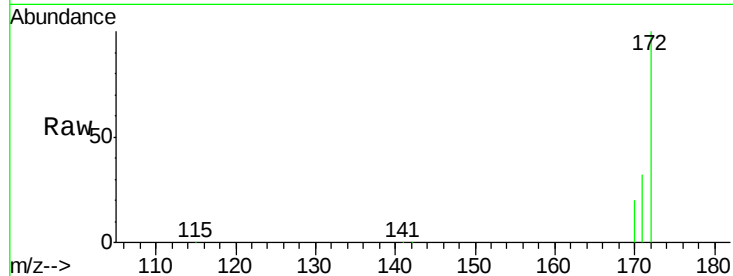
Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 172   | Resp: | 177047 |
| Ion      | Ratio | Lower | Upper  |
| 172      | 100   |       |        |
| 171      | 31.8  | 26.6  | 39.8   |
| 170      | 19.7  | 17.1  | 25.7   |



#10

Acenaphthylene

Concen: 0.06 ng

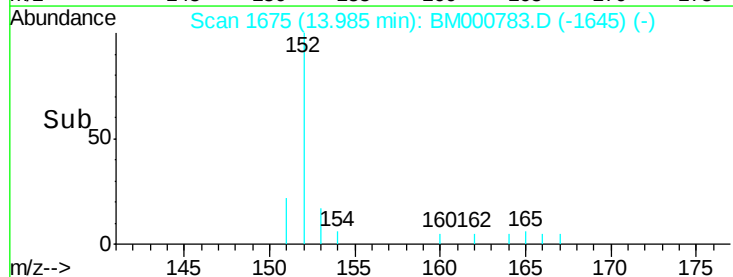
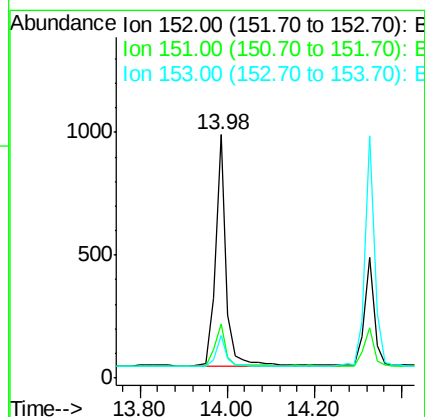
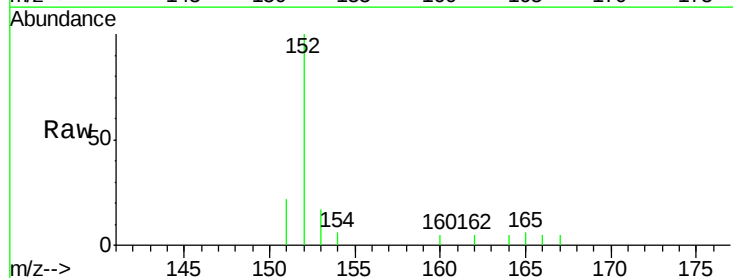
RT: 13.98 min Scan# 1675

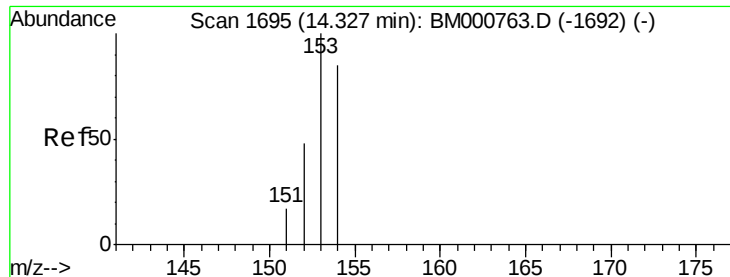
Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 152   | Resp: | 1619  |
| Ion      | Ratio | Lower | Upper |
| 152      | 100   |       |       |
| 151      | 18.5  | 15.1  | 22.7  |
| 153      | 12.4  | 10.2  | 15.4  |





#11

Acenaphthene

Concen: 0.07 ng

RT: 14.33 min Scan# 1695

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

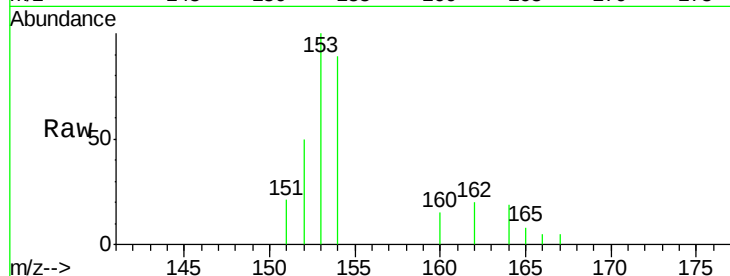
Tgt Ion:154 Resp: 1273

Ion Ratio Lower Upper

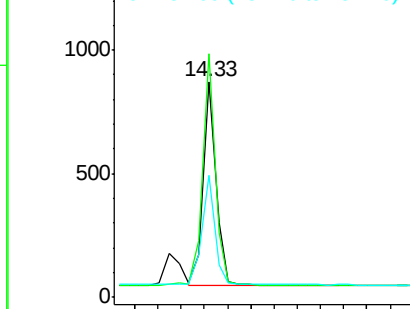
154 100

153 111.3 87.3 130.9

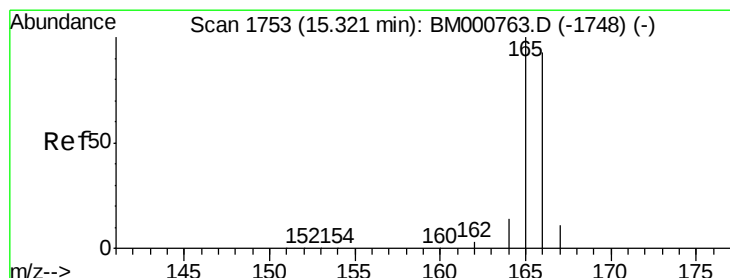
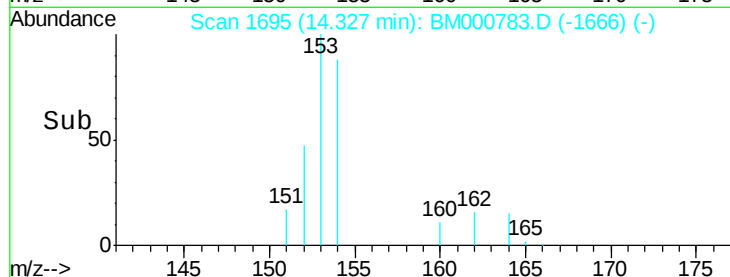
152 53.0 43.0 64.6



Abundance Ion 154.00 (153.70 to 154.70): E  
Ion 153.00 (152.70 to 153.70): E  
Ion 152.00 (151.70 to 152.70): E



Time--> 14.20 14.40 14.60



#12

Fluorene

Concen: 0.07 ng

RT: 15.32 min Scan# 1753

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

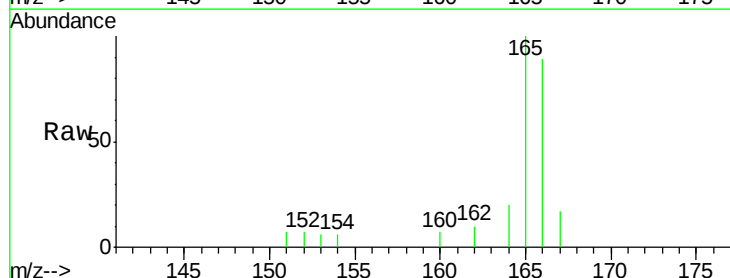
Tgt Ion:166 Resp: 1472

Ion Ratio Lower Upper

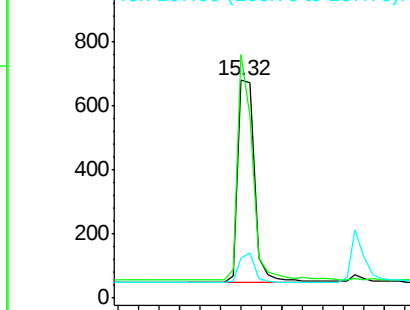
166 100

165 98.5 78.2 117.2

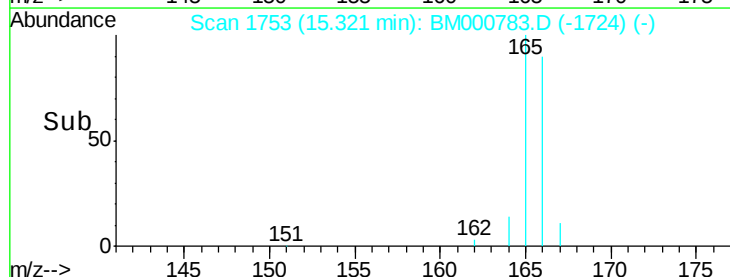
167 13.8 10.7 16.1

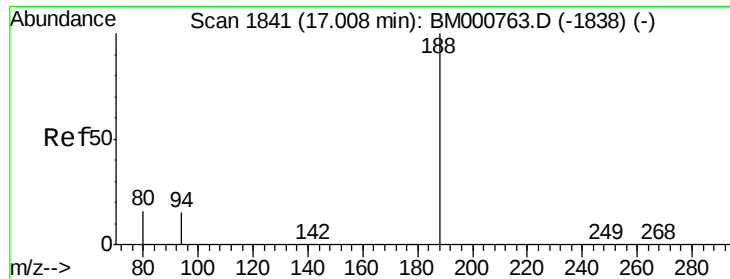


Abundance Ion 166.00 (165.70 to 166.70): E  
Ion 165.00 (164.70 to 165.70): E  
Ion 167.00 (166.70 to 167.70): E



Time--> 15.20 15.40 15.60

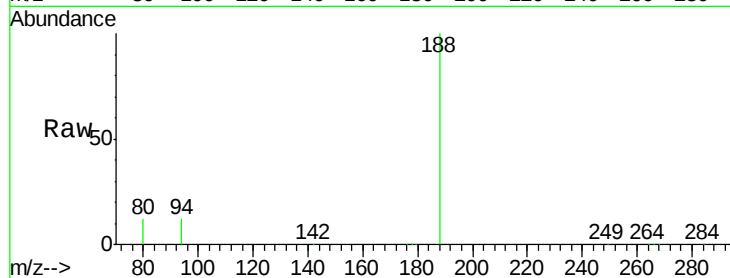




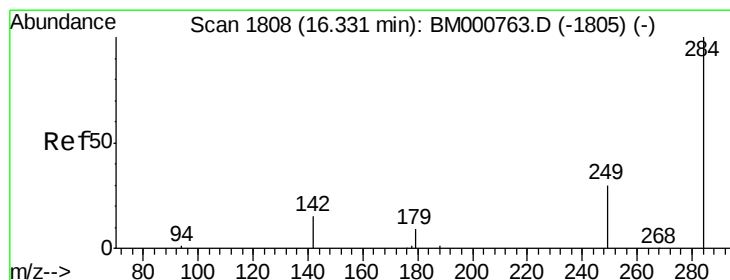
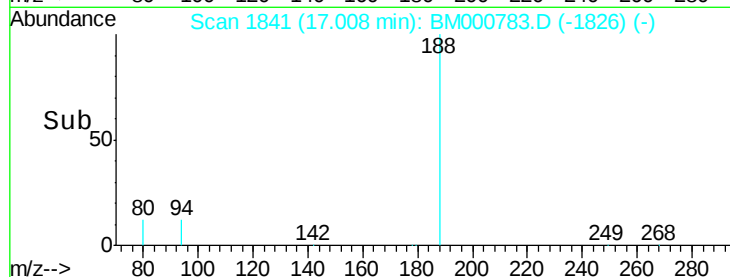
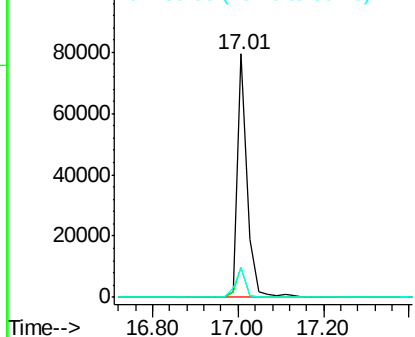
#13  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 17.01 min Scan# 1841  
Delta R.T. -0.00 min  
Lab File: BM000783.D  
Acq: 01 Apr 2015 12:33

Instrument :  
BNA\_M  
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MDL-03-W

Tgt Ion:188 Resp: 128903  
Ion Ratio Lower Upper  
188 100  
94 12.1 12.0 18.0  
80 12.4 12.8 19.2#

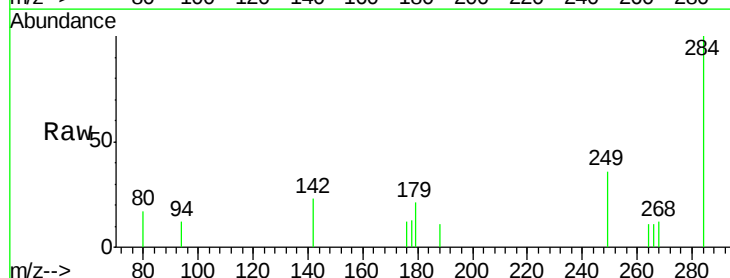


Abundance Ion 188.00 (187.70 to 188.70): E  
Ion 94.00 (93.70 to 94.70): BM  
Ion 80.00 (79.70 to 80.70): BM

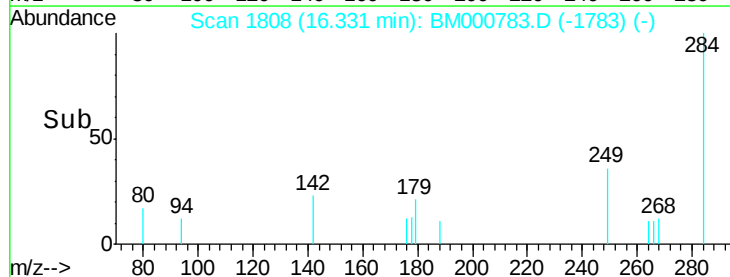
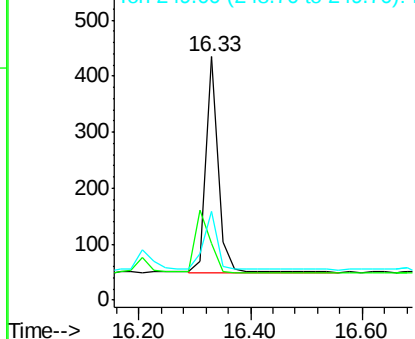


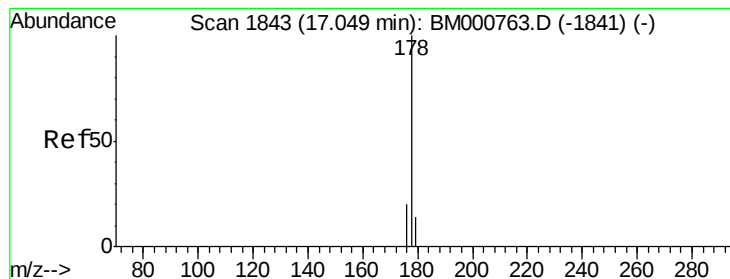
#14  
Hexachlorobenzene  
Concen: 0.08 ng  
RT: 16.33 min Scan# 1808  
Delta R.T. -0.00 min  
Lab File: BM000783.D  
Acq: 01 Apr 2015 12:33

Tgt Ion:284 Resp: 587  
Ion Ratio Lower Upper  
284 100  
142 0.0 0.0 0.0  
249 28.8 25.2 37.8



Abundance Ion 283.80 (283.50 to 284.50): E  
Ion 142.00 (141.70 to 142.70): E  
Ion 249.00 (248.70 to 249.70): E





#16

Phenanthrene

Concen: 0.08 ng

RT: 17.05 min Scan# 1843

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

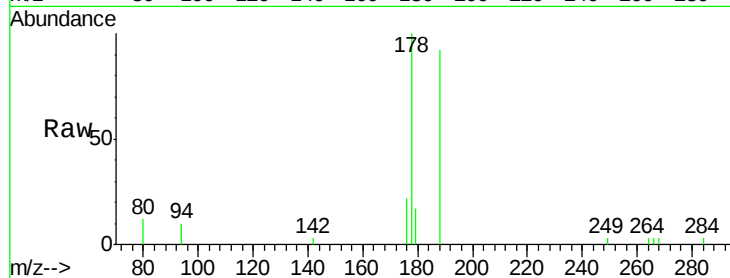
Tgt Ion:178 Resp: 2673

Ion Ratio Lower Upper

178 100

176 18.4 15.3 22.9

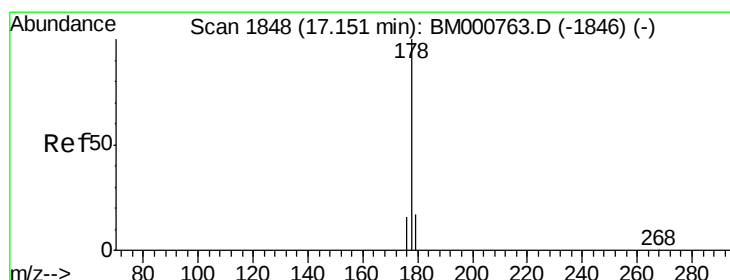
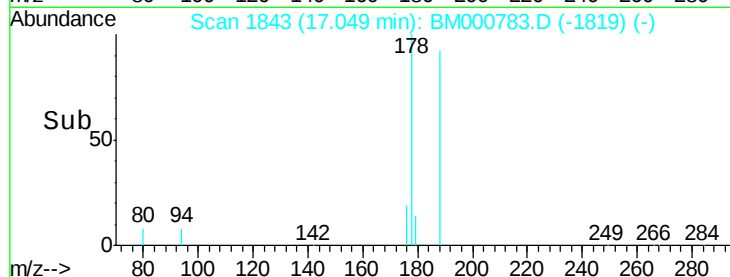
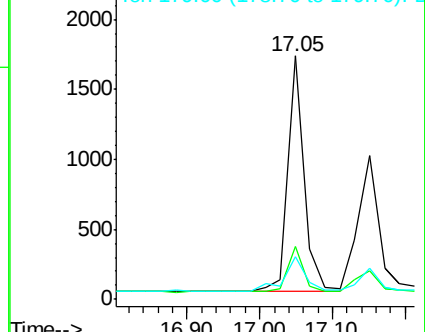
179 18.1 12.2 18.2



Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E



#17

Anthracene

Concen: 0.07 ng

RT: 17.15 min Scan# 1848

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

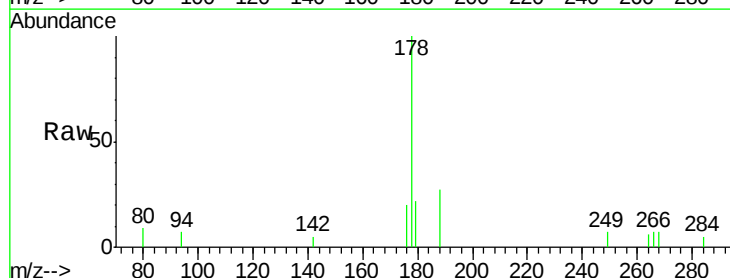
Tgt Ion:178 Resp: 2084

Ion Ratio Lower Upper

178 100

176 17.2 14.6 22.0

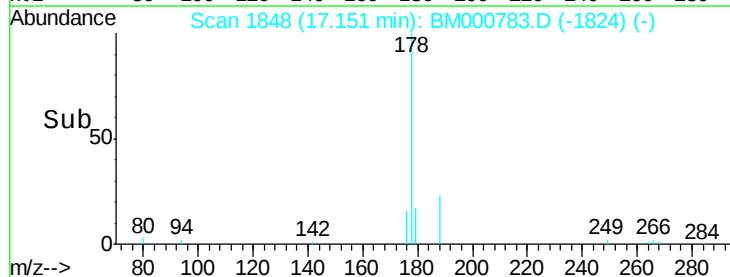
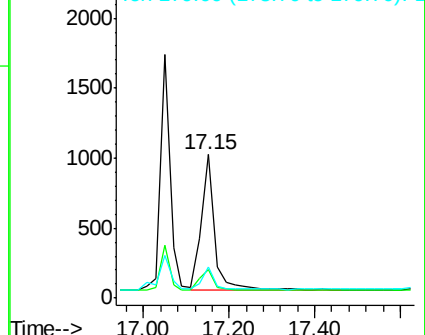
179 16.1 12.2 18.4

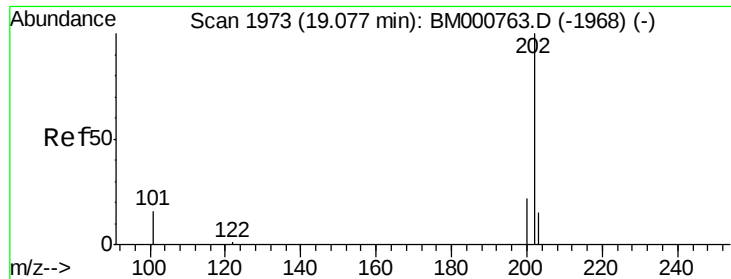


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E

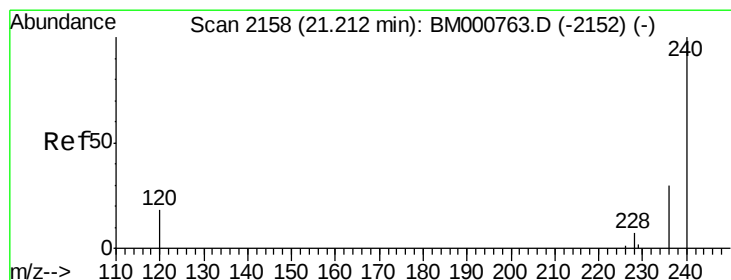
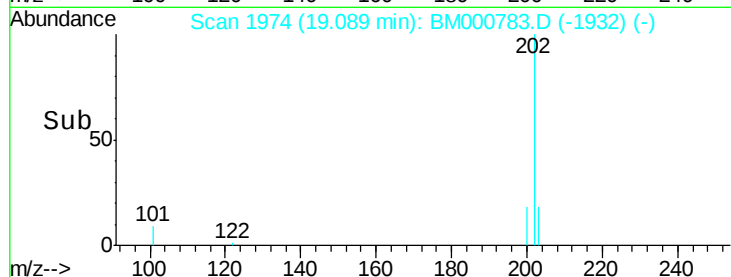
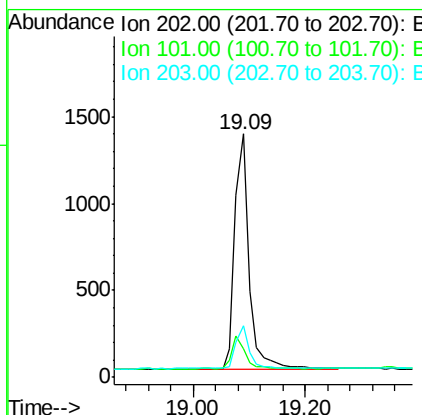
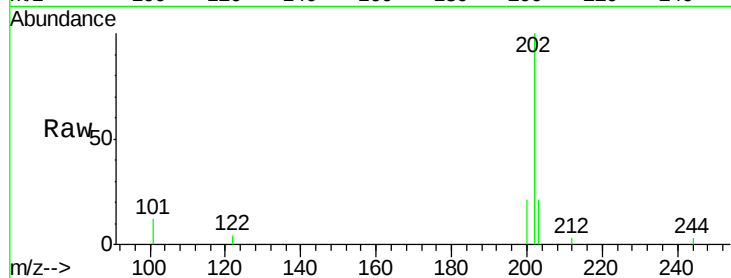




#18  
 Fluoranthene  
 Concen: 0.07 ng  
 RT: 19.09 min Scan# 1974  
 Delta R.T. 0.01 min  
 Lab File: BM000783.D  
 Acq: 01 Apr 2015 12:33

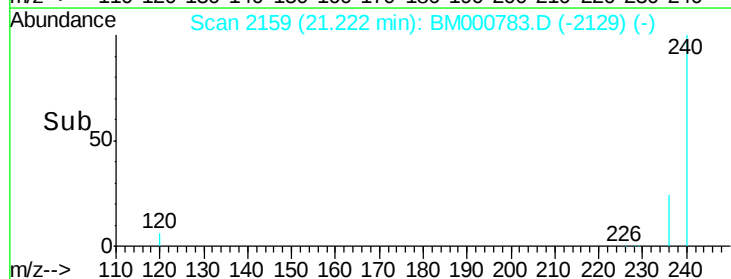
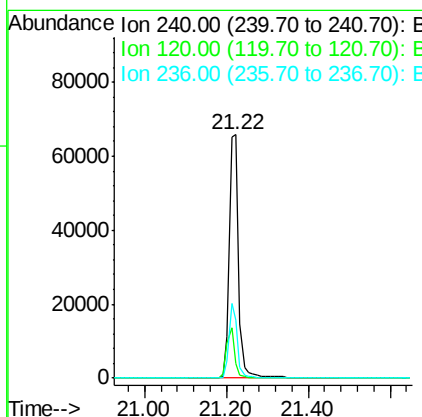
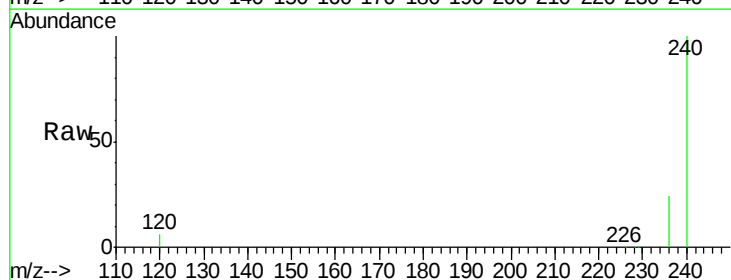
Instrument :  
 BNA\_M  
 ClientSampleId :  
 MDL-03-W

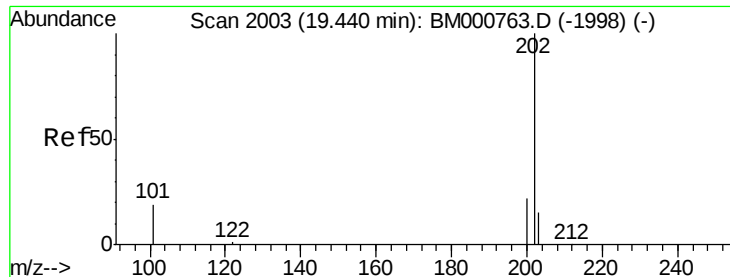
Tgt Ion: 202 Resp: 2411  
 Ion Ratio Lower Upper  
 202 100  
 101 12.9 10.5 15.7  
 203 18.0 13.8 20.8



#19  
 Chrysene-d12  
 Concen: 5.00 ng  
 RT: 21.22 min Scan# 2159  
 Delta R.T. 0.01 min  
 Lab File: BM000783.D  
 Acq: 01 Apr 2015 12:33

Tgt Ion: 240 Resp: 104628  
 Ion Ratio Lower Upper  
 240 100  
 120 6.0 14.9 22.3#  
 236 23.7 24.2 36.4#

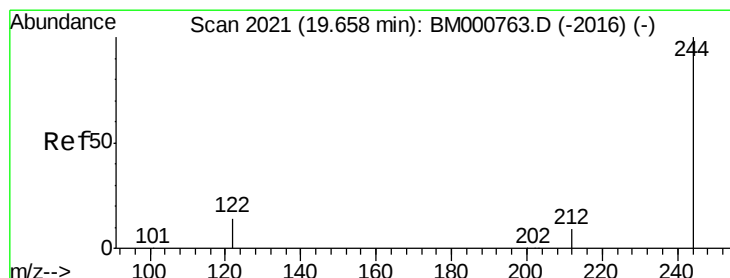
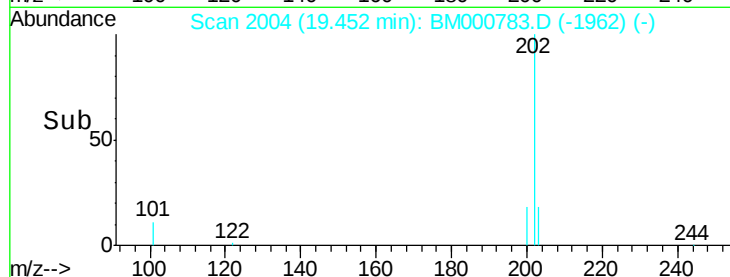
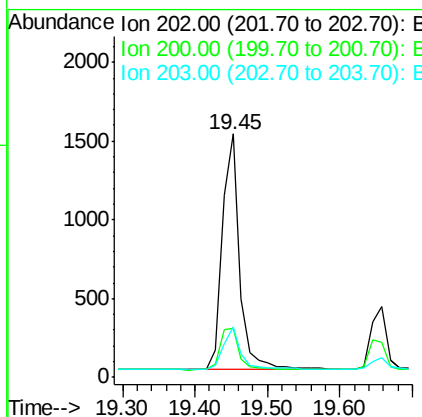
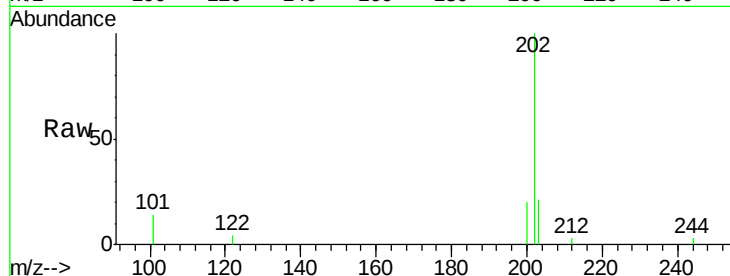




#20  
Pyrene  
Concen: 0.07 ng  
RT: 19.45 min Scan# 2004  
Delta R.T. 0.01 min  
Lab File: BM000783.D  
Acq: 01 Apr 2015 12:33

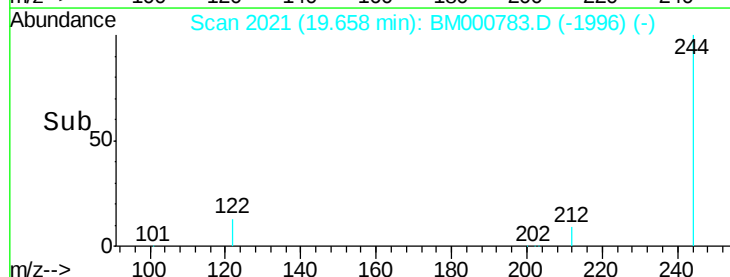
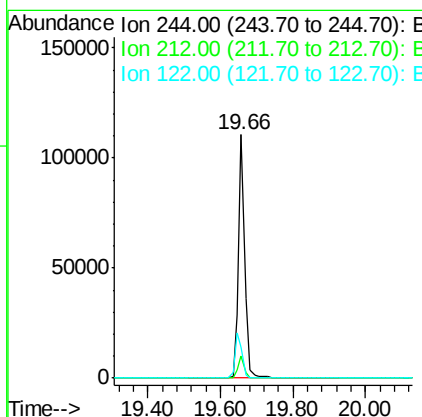
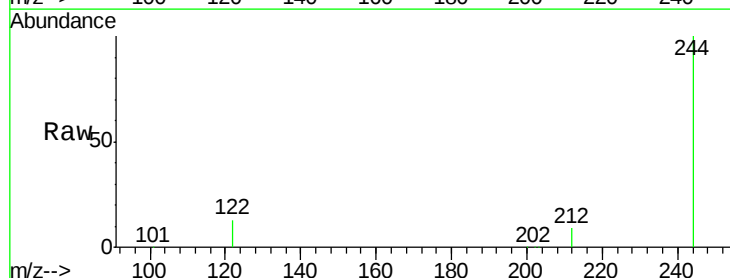
Instrument :  
BNA\_M  
ClientSampleId :  
MDL-03-W

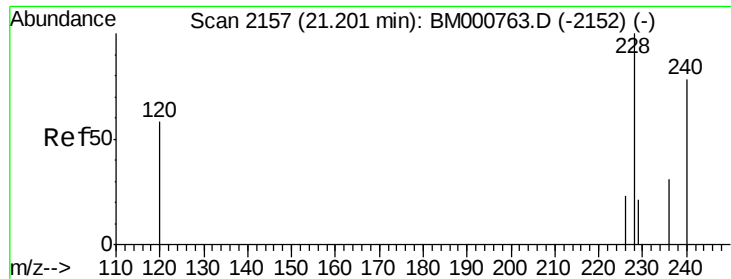
Tgt Ion: 202 Resp: 2517  
Ion Ratio Lower Upper  
202 100  
200 20.6 16.2 24.2  
203 18.8 13.9 20.9



#21  
Terphenyl-d14  
Concen: 10.67 ng  
RT: 19.66 min Scan# 2021  
Delta R.T. -0.00 min  
Lab File: BM000783.D  
Acq: 01 Apr 2015 12:33

Tgt Ion: 244 Resp: 134292  
Ion Ratio Lower Upper  
244 100  
212 9.2 7.8 11.6  
122 12.7 11.8 17.8





#22

Benzo(a)anthracene

Concen: 0.08 ng

RT: 21.20 min Scan# 2157

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

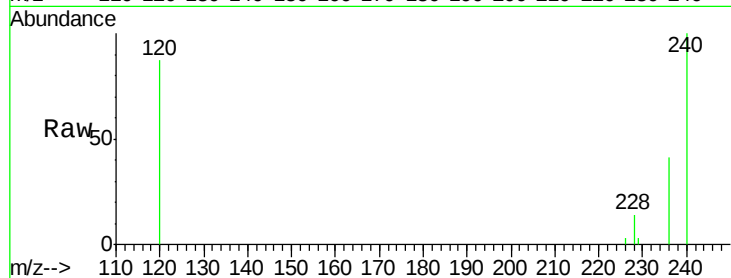
Tgt Ion:228 Resp: 2353

Ion Ratio Lower Upper

228 100

226 25.3 18.6 27.8

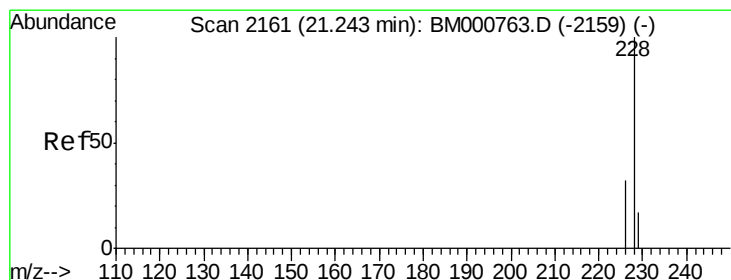
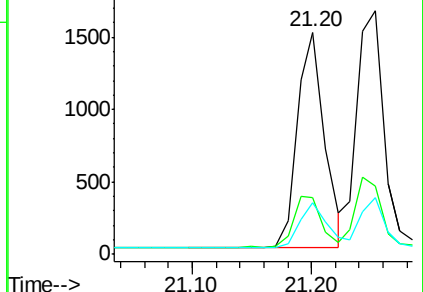
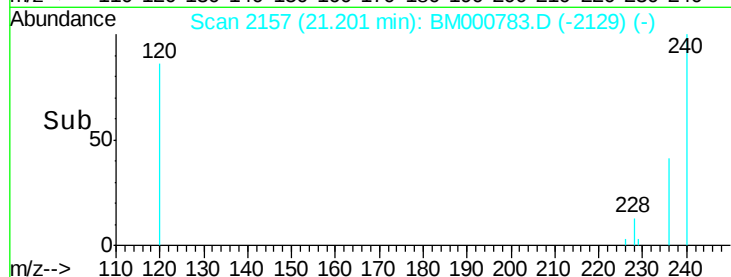
229 23.3 17.2 25.8



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#23

Chrysene

Concen: 0.08 ng

RT: 21.25 min Scan# 2162

Delta R.T. 0.01 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

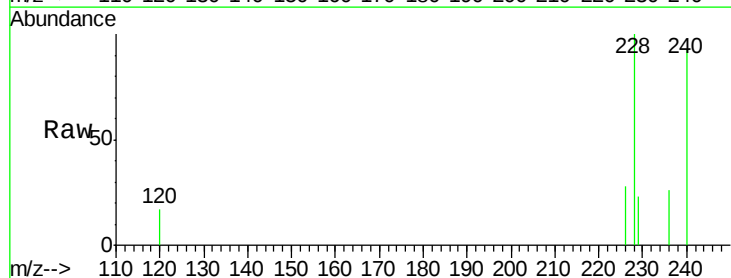
Tgt Ion:228 Resp: 2657

Ion Ratio Lower Upper

228 100

226 28.1 25.8 38.8

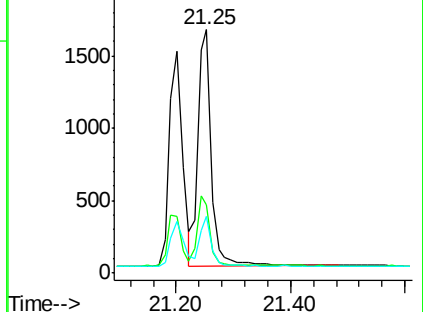
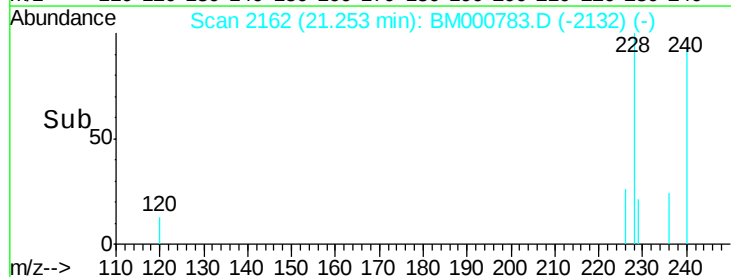
229 23.3 13.8 20.6#

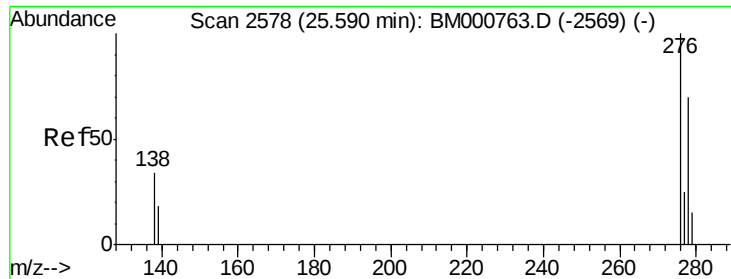


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E

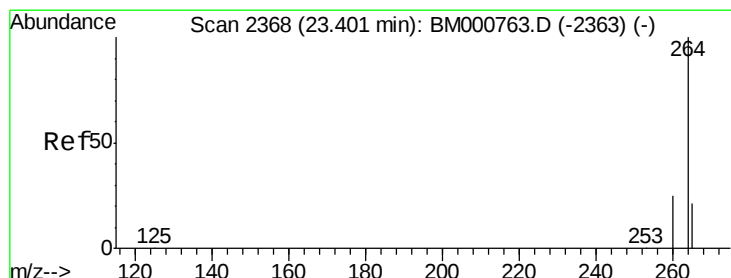
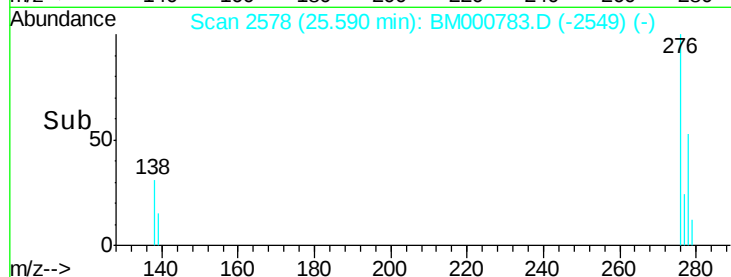
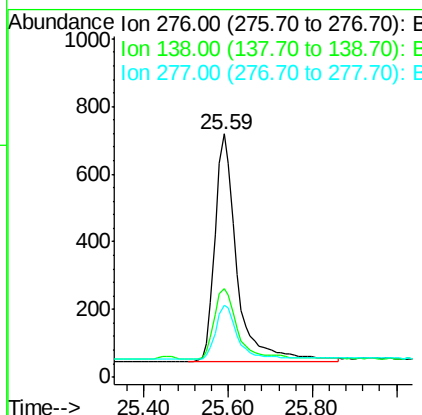
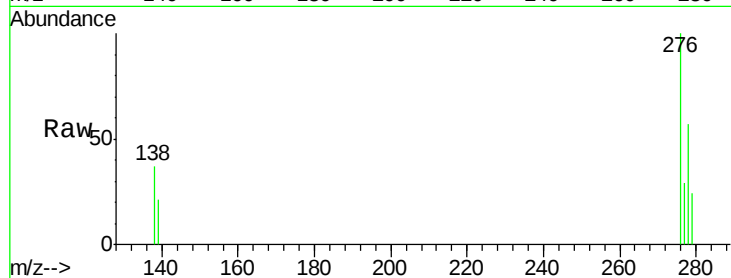




#24  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.07 ng  
 RT: 25.59 min Scan# 2578  
 Delta R.T. -0.00 min  
 Lab File: BM000783.D  
 Acq: 01 Apr 2015 12:33

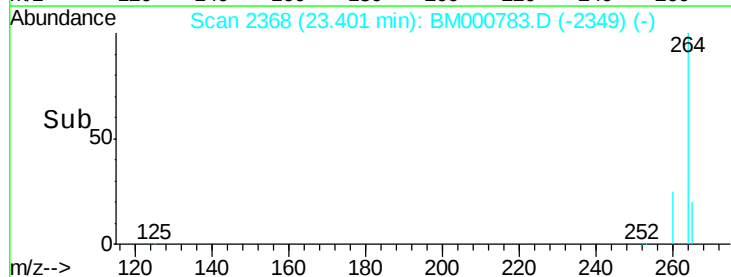
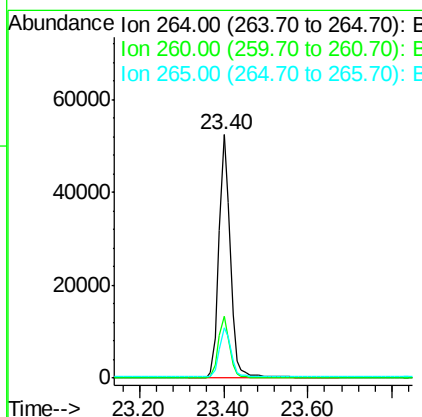
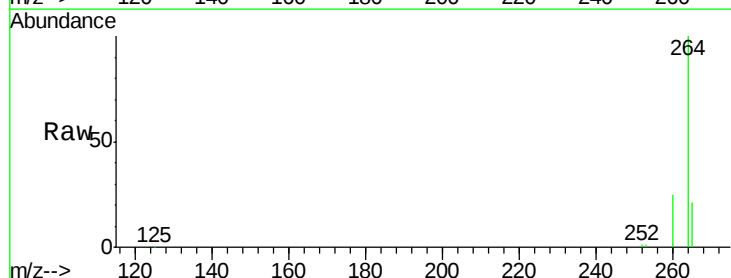
Instrument :  
 BNA\_M  
 ClientSampleId :  
 MDL-03-W

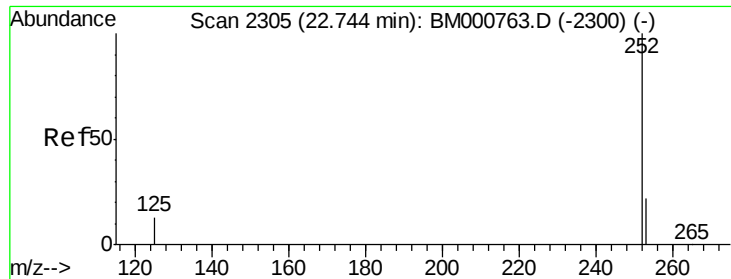
Tgt Ion: 276 Resp: 2414  
 Ion Ratio Lower Upper  
 276 100  
 138 32.7 27.4 41.2  
 277 23.5 19.7 29.5



#25  
 Perylene-d12  
 Concen: 5.00 ng  
 RT: 23.40 min Scan# 2368  
 Delta R.T. -0.00 min  
 Lab File: BM000783.D  
 Acq: 01 Apr 2015 12:33

Tgt Ion: 264 Resp: 97772  
 Ion Ratio Lower Upper  
 264 100  
 260 25.5 20.1 30.1  
 265 20.9 17.4 26.0

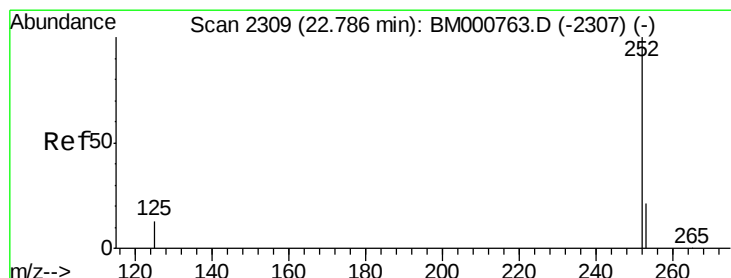
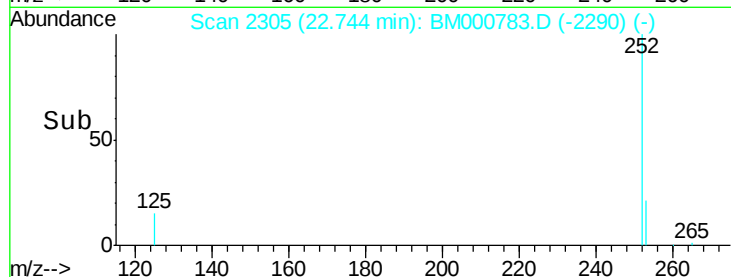
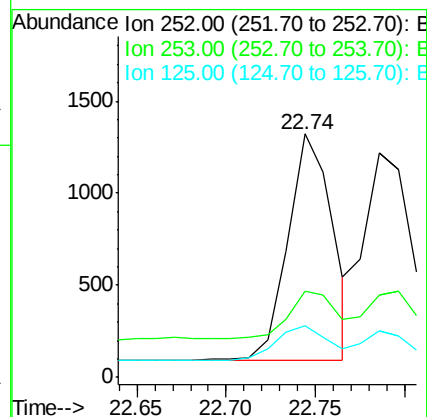
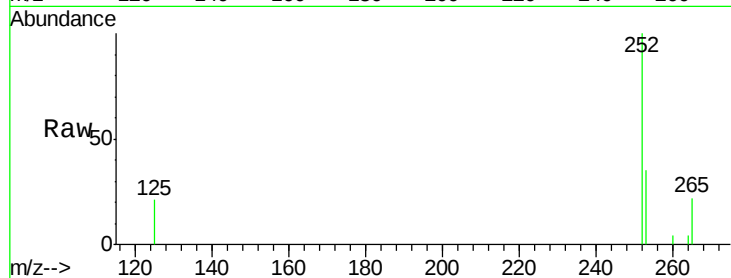




#26  
Benzo(b)fluoranthene  
Concen: 0.07 ng  
RT: 22.74 min Scan# 2305  
Delta R.T. -0.00 min  
Lab File: BM000783.D  
Acq: 01 Apr 2015 12:33

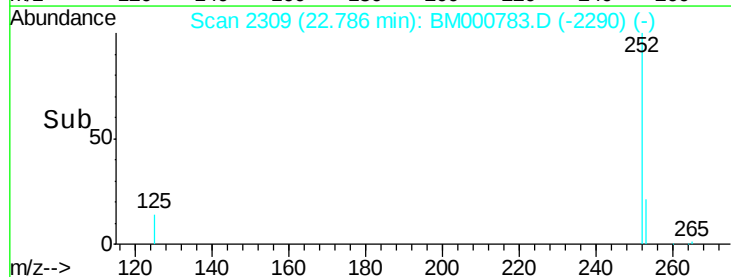
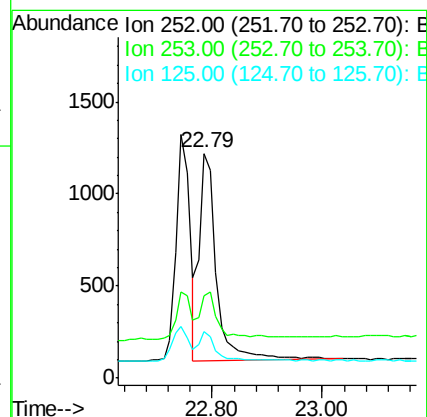
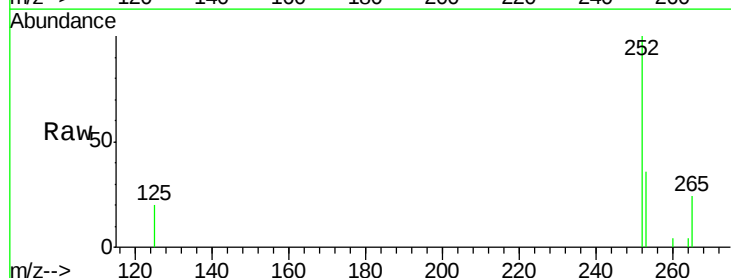
Instrument :  
BNA\_M  
ClientSampleId :  
MDL-03-W

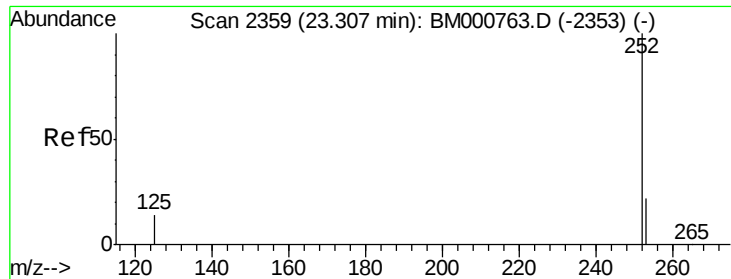
Tgt Ion:252 Resp: 2149  
Ion Ratio Lower Upper  
252 100  
253 35.2 18.5 27.7#  
125 21.1 10.6 16.0#



#27  
Benzo(k)fluoranthene  
Concen: 0.08 ng  
RT: 22.79 min Scan# 2309  
Delta R.T. -0.00 min  
Lab File: BM000783.D  
Acq: 01 Apr 2015 12:33

Tgt Ion:252 Resp: 2413  
Ion Ratio Lower Upper  
252 100  
253 36.4 17.9 26.9#  
125 20.5 10.8 16.2#





#28

Benzo(a)pyrene

Concen: 0.07 ng

RT: 23.31 min Scan# 2359

Delta R.T. -0.00 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W

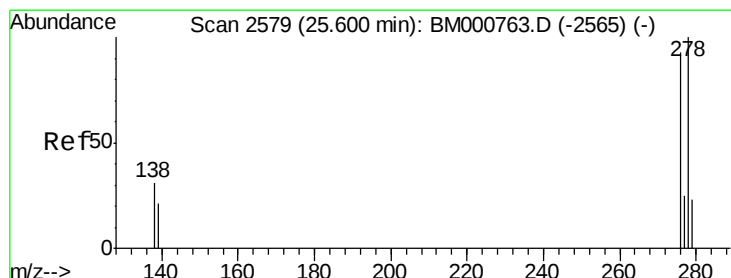
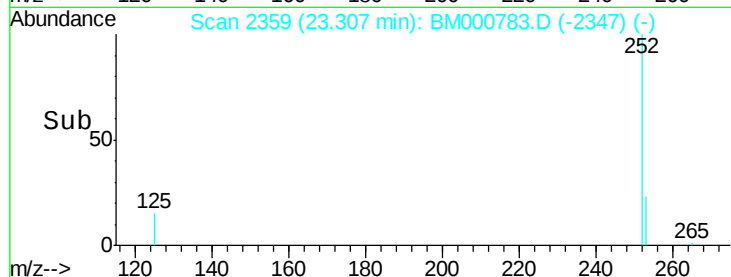
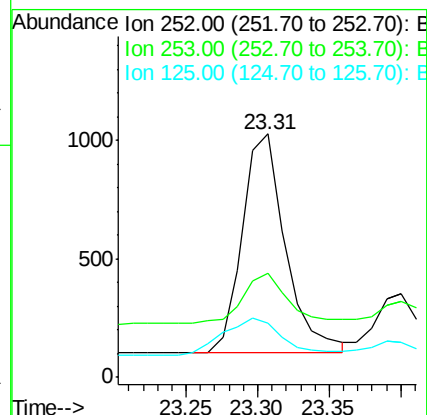
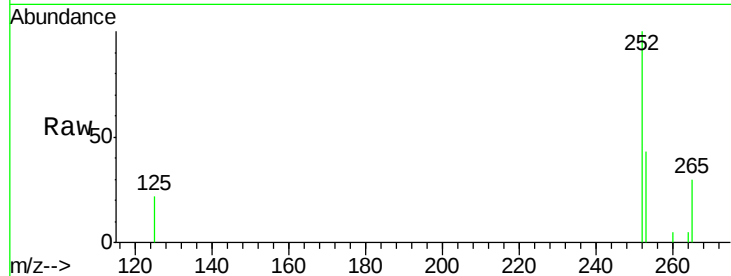
Tgt Ion:252 Resp: 1939

Ion Ratio Lower Upper

252 100

253 42.6 19.4 29.2#

125 22.3 11.5 17.3#



#29

Dibenzo(a,h)anthracene

Concen: 0.07 ng

RT: 25.61 min Scan# 2580

Delta R.T. 0.01 min

Lab File: BM000783.D

Acq: 01 Apr 2015 12:33

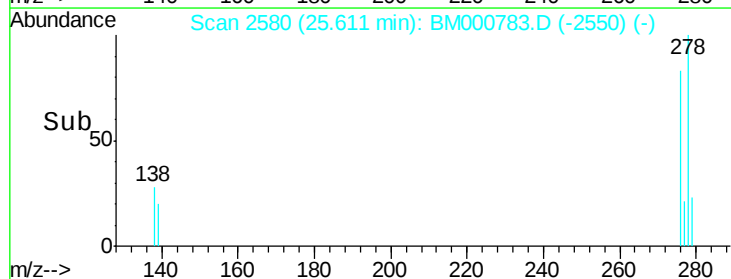
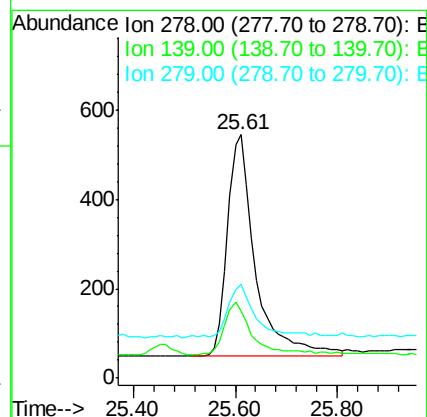
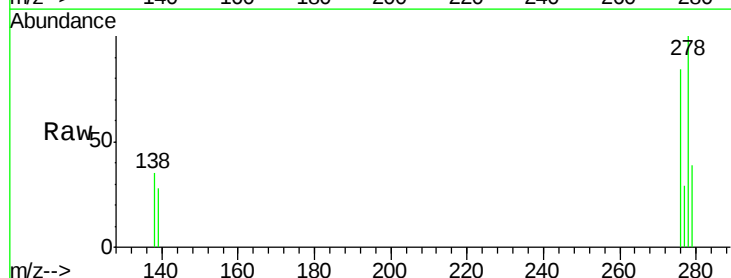
Tgt Ion:278 Resp: 1893

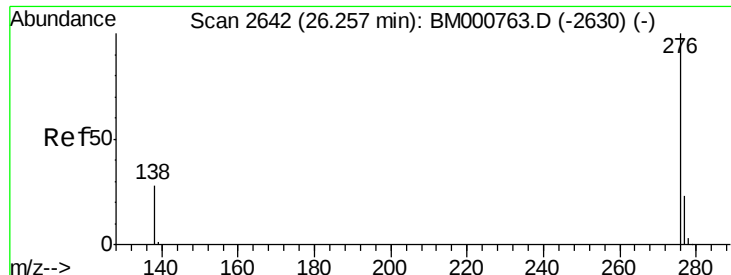
Ion Ratio Lower Upper

278 100

139 27.6 17.8 26.6#

279 38.6 19.3 28.9#





#30

Benzo(g,h,i)perylene

Concen: 0.08 ng

RT: 26.26 min Scan# 2642

Delta R.T. -0.00 min

Lab File: BM000783.D

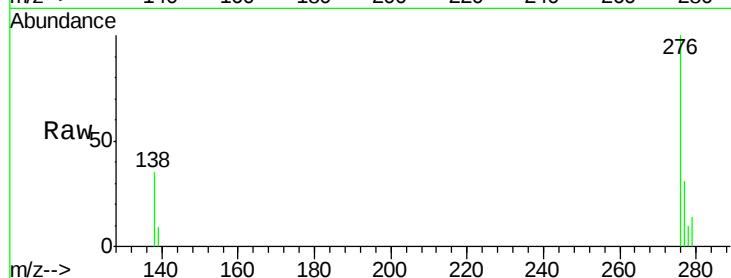
Acq: 01 Apr 2015 12:33

Instrument :

BNA\_M

ClientSampleId :

MDL-03-W



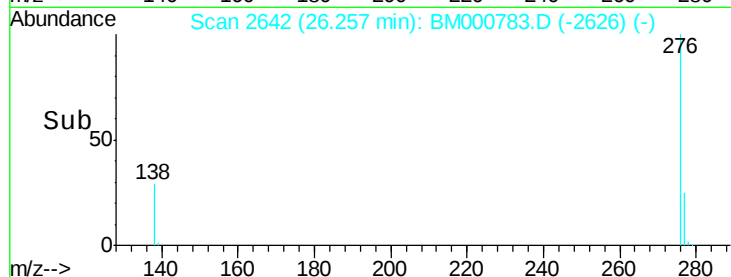
Tgt Ion: 276 Resp: 2232

Ion Ratio Lower Upper

276 100

277 30.6 19.1 28.7#

138 35.1 23.1 34.7#



Abundance Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

