

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE021015\  
 Data File : BE089566.D  
 Acq On : 11 Feb 2015 2:14  
 Operator : TP/IZ  
 Sample : MDL-05-W  
 Misc : MDL-WATER-0.1/0.2  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 MDL-05-W

Quant Time: Feb 11 03:08:30 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIMPAH-BE021015.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Feb 11 01:27:13 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.41  | 152  | 50609    | 5.00 | ng    | 0.00     |
| 2) Naphthalene-d8         | 12.32 | 136  | 181693   | 5.00 | ng    | 0.00     |
| 6) Acenaphthene-d10       | 16.50 | 164  | 72208    | 5.00 | ng    | 0.00     |
| 11) Phenanthrene-d10      | 19.84 | 188  | 110788   | 5.00 | ng    | 0.00     |
| 16) Chrysene-d12          | 23.71 | 240  | 142745   | 5.00 | ng    | 0.00     |
| 22) Perylene-d12          | 25.40 | 264  | 162886   | 5.00 | ng    | 0.00     |

|                             |       |     |        |      |    |      |
|-----------------------------|-------|-----|--------|------|----|------|
| System Monitoring Compounds |       |     |        |      |    |      |
| 3) Nitrobenzene-d5          | 10.68 | 82  | 98617  | 8.47 | ng | 0.00 |
| 7) 2-Fluorobiphenyl         | 14.95 | 172 | 136254 | 6.96 | ng | 0.00 |
| 18) Terphenyl-d14           | 22.35 | 244 | 136951 | 7.70 | ng | 0.00 |

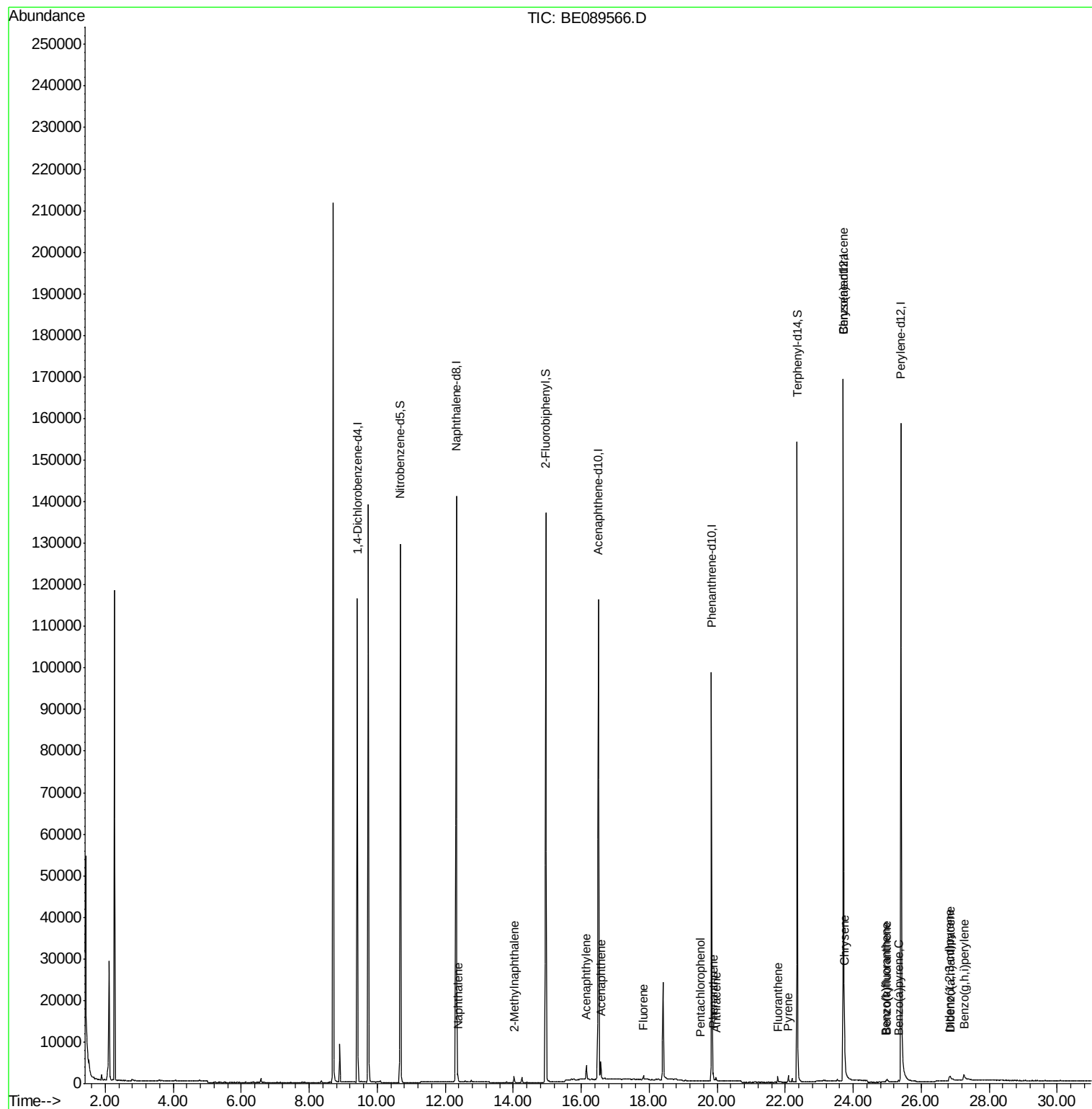
|                            |       |     |       |      |    |        |
|----------------------------|-------|-----|-------|------|----|--------|
| Target Compounds           |       |     |       |      |    | Qvalue |
| 4) Naphthalene             | 12.37 | 128 | 2221  | 0.05 | ng | # 95   |
| 5) 2-Methylnaphthalene     | 14.02 | 142 | 1066  | 0.05 | ng | 95     |
| 8) Acenaphthylene          | 16.15 | 152 | 4848  | 0.04 | ng | 95     |
| 9) Acenaphthene            | 16.58 | 154 | 870   | 0.05 | ng | 87     |
| 10) Fluorene               | 17.83 | 166 | 832   | 0.04 | ng | 99     |
| 12) Pentachlorophenol      | 19.51 | 266 | 22    | 0.34 | ng | # 75   |
| 13) Phenanthrene           | 19.88 | 178 | 1464  | 0.05 | ng | 100    |
| 14) Anthracene             | 19.97 | 178 | 997m  | 0.04 | ng |        |
| 15) Fluoranthene           | 21.78 | 202 | 1175  | 0.04 | ng | 98     |
| 17) Pyrene                 | 22.09 | 202 | 1278  | 0.04 | ng | 99     |
| 19) Benzo(a)anthracene     | 23.70 | 228 | 6564  | 0.06 | ng | # 94   |
| 20) Chrysene               | 23.74 | 228 | 7500  | 0.06 | ng | 94     |
| 21) Indeno(1,2,3-cd)pyrene | 26.83 | 276 | 3083  | 0.06 | ng | # 83   |
| 23) Benzo(b)fluoranthene   | 24.97 | 252 | 586   | 0.25 | ng | # 82   |
| 24) Benzo(k)fluoranthene   | 24.99 | 252 | 1212m | 0.03 | ng |        |
| 25) Benzo(a)pyrene         | 25.33 | 252 | 650   | 0.21 | ng | # 74   |
| 26) Dibenzo(a,h)anthracene | 26.87 | 278 | 418   | 0.14 | ng | # 61   |
| 27) Benzo(g,h,i)perylene   | 27.26 | 276 | 3603  | 0.03 | ng | # 73   |

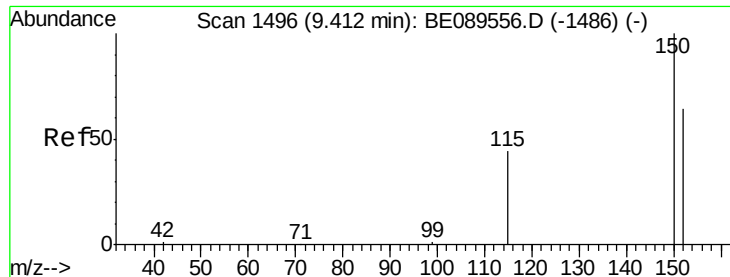
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 9.41 min Scan# 1496

Delta R.T. -0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampled :

MDL-05-W

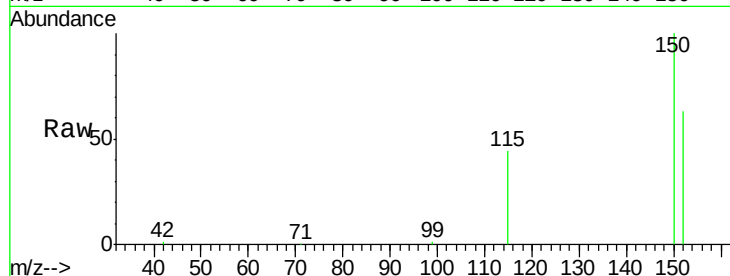
Tgt Ion:152 Resp: 50609

Ion Ratio Lower Upper

152 100

150 158.5 125.6 188.4

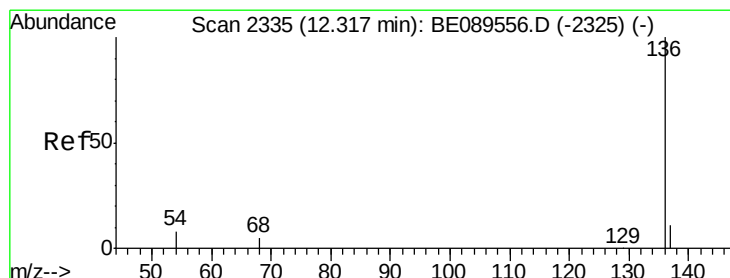
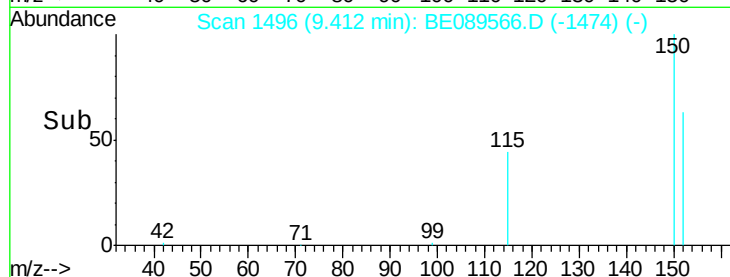
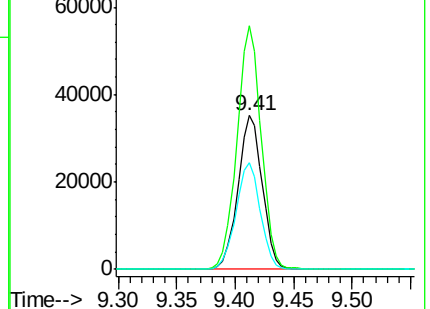
115 69.6 55.8 83.6



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



#2

Naphthalene-d8

Concen: 5.00 ng

RT: 12.32 min Scan# 2336

Delta R.T. 0.01 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

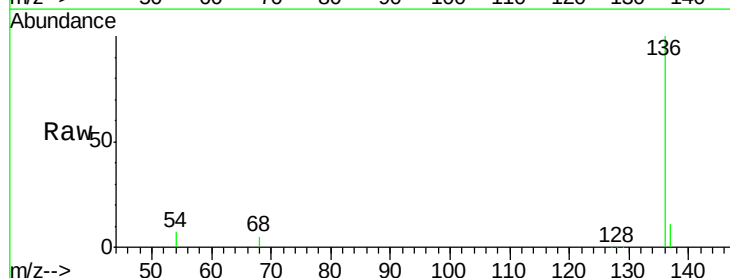
Tgt Ion:136 Resp: 181693

Ion Ratio Lower Upper

136 100

137 10.8 8.6 13.0

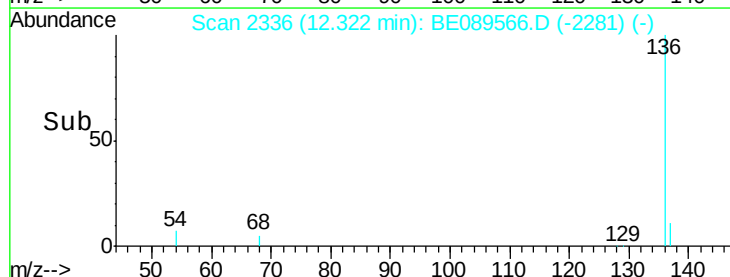
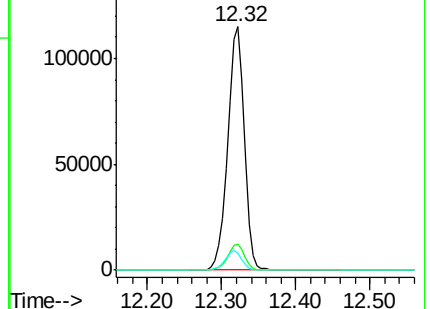
54 7.0 6.6 9.8

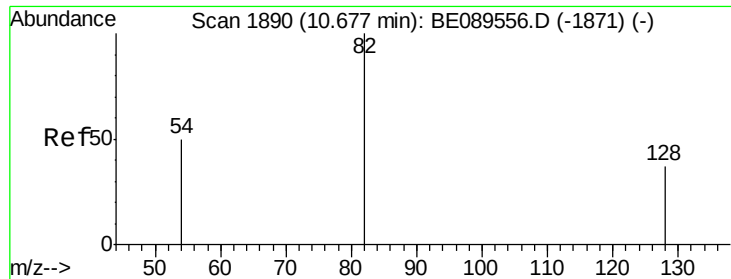


Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BE0





#3

Nitrobenzene-d5

Concen: 8.47 ng

RT: 10.68 min Scan# 1891

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

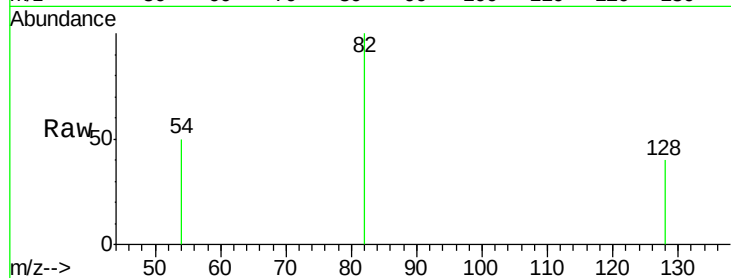
Tgt Ion: 82 Resp: 98617

Ion Ratio Lower Upper

82 100

128 40.3 30.4 45.6

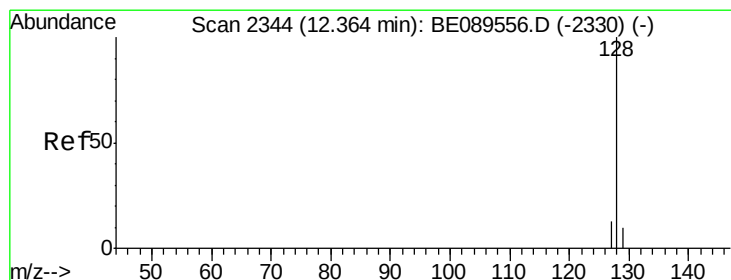
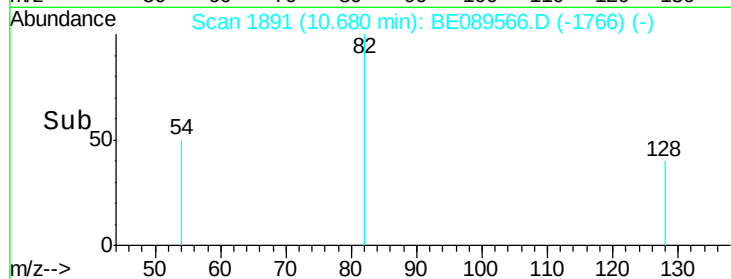
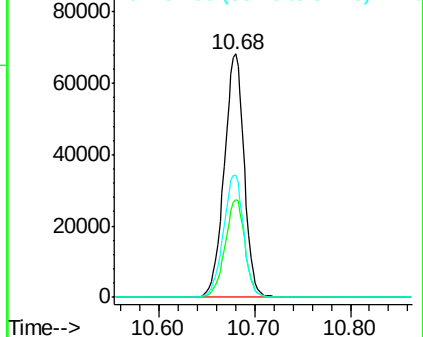
54 50.1 40.7 61.1



Abundance Ion 82.00 (81.70 to 82.70): BE0

Ion 128.00 (127.70 to 128.70): BE0

Ion 54.00 (53.70 to 54.70): BE0



#4

Naphthalene

Concen: 0.05 ng

RT: 12.37 min Scan# 2345

Delta R.T. 0.01 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

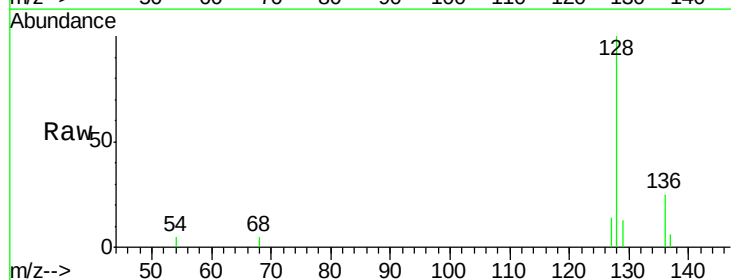
Tgt Ion: 128 Resp: 2221

Ion Ratio Lower Upper

128 100

129 13.3 8.5 12.7#

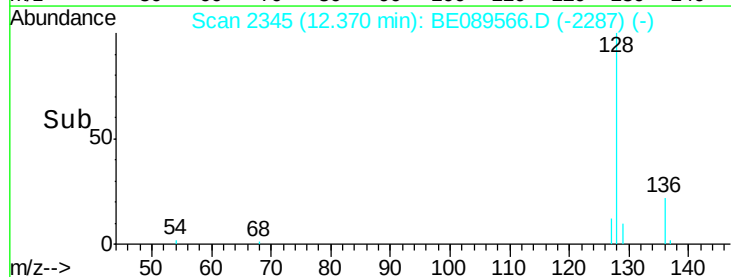
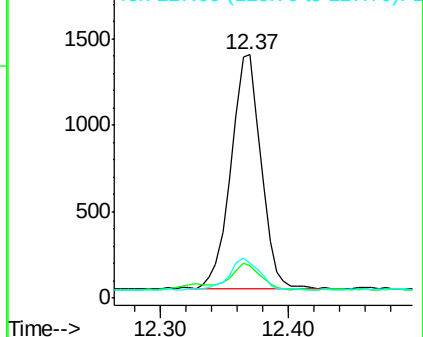
127 14.4 10.6 15.8

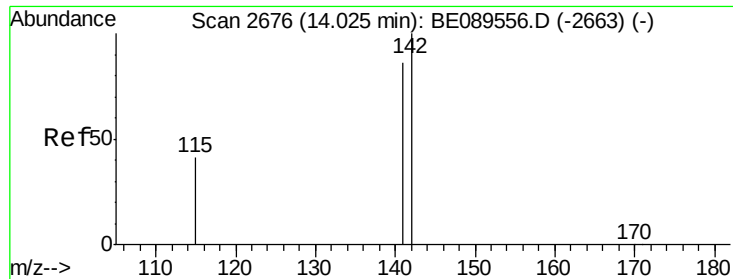


Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E





#5

2-Methylnaphthalene

Concen: 0.05 ng

RT: 14.02 min Scan# 2676

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

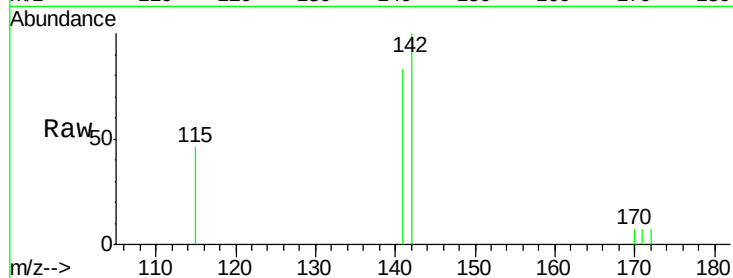
Tgt Ion:142 Resp: 1066

Ion Ratio Lower Upper

142 100

141 82.7 68.6 102.8

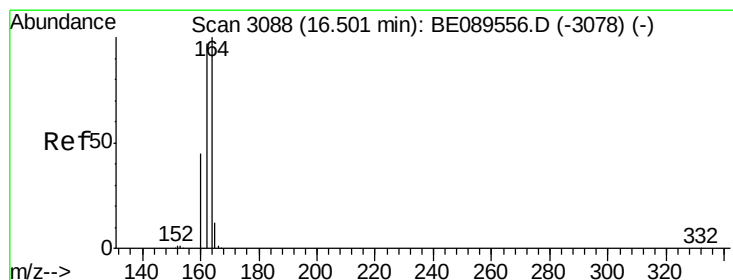
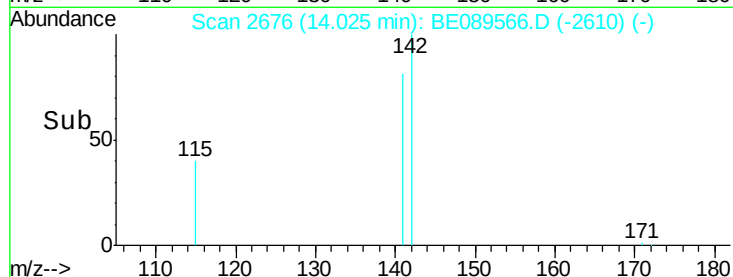
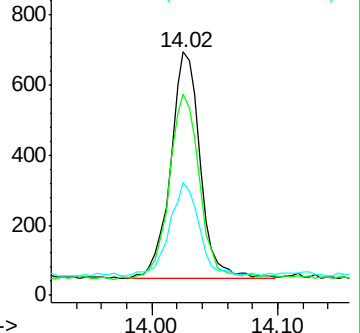
115 46.2 33.0 49.6



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



#6

Acenaphthene-d10

Concen: 5.00 ng

RT: 16.50 min Scan# 3088

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

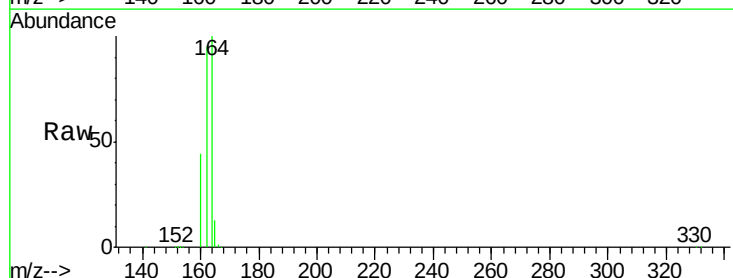
Tgt Ion:164 Resp: 72208

Ion Ratio Lower Upper

164 100

162 95.3 77.8 116.6

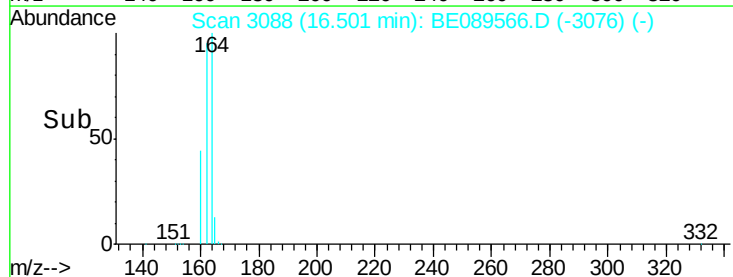
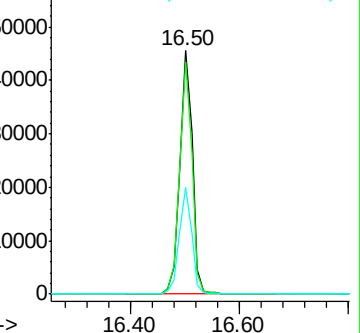
160 44.0 36.2 54.2

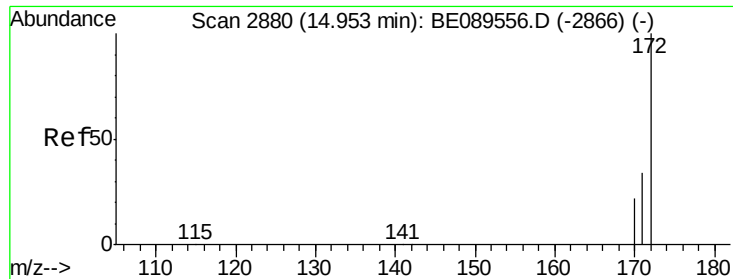


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#7

2-Fluorobiphenyl

Concen: 6.96 ng

RT: 14.95 min Scan# 2880

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

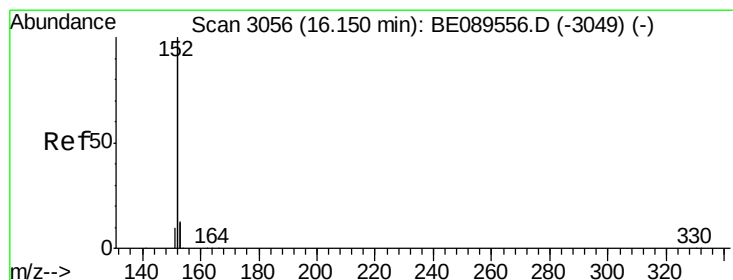
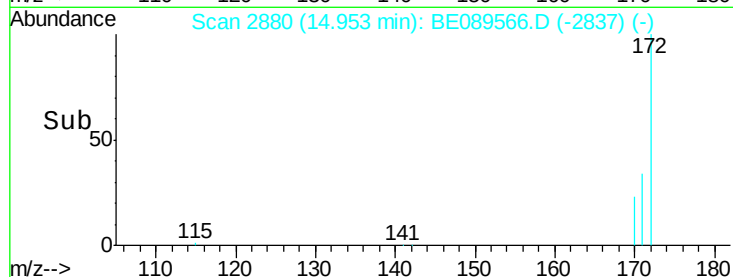
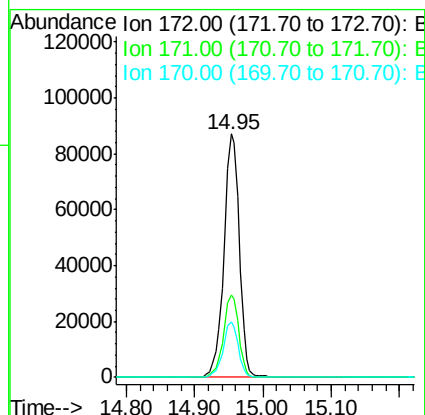
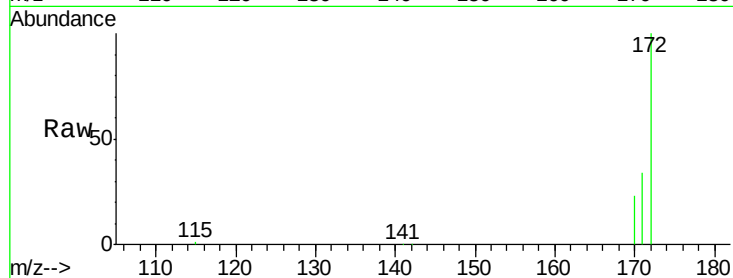
Tgt Ion:172 Resp: 136254

Ion Ratio Lower Upper

172 100

171 33.9 27.4 41.0

170 22.7 18.3 27.5



#8

Acenaphthylene

Concen: 0.04 ng

RT: 16.15 min Scan# 3056

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

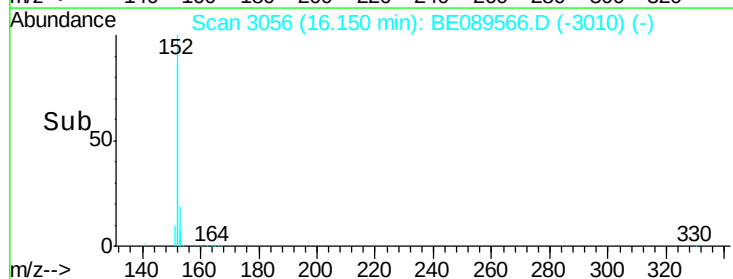
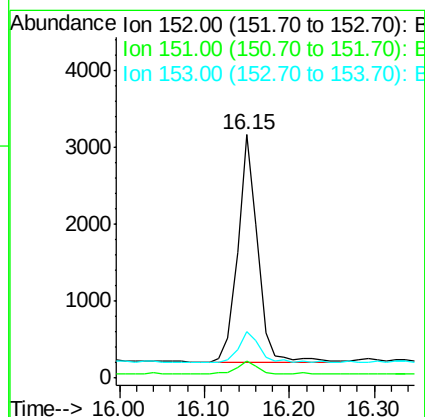
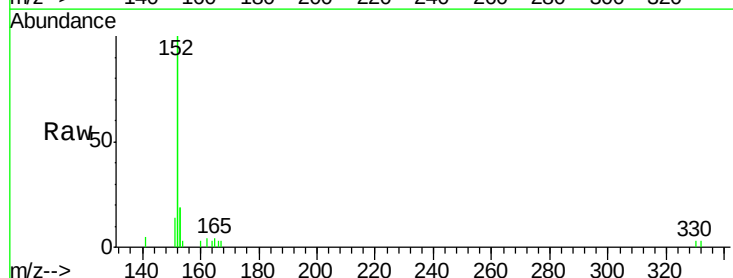
Tgt Ion:152 Resp: 4848

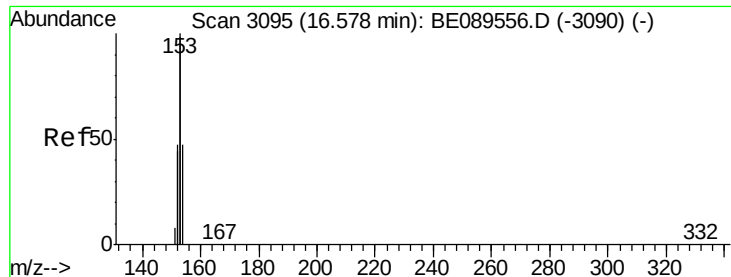
Ion Ratio Lower Upper

152 100

151 5.5 3.9 5.9

153 15.3 10.4 15.6





#9

Acenaphthene

Concen: 0.05 ng

RT: 16.58 min Scan# 3095

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

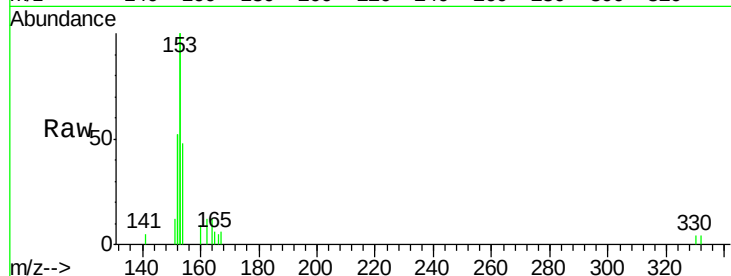
Tgt Ion:154 Resp: 870

Ion Ratio Lower Upper

154 100

153 465.2 349.0 523.4

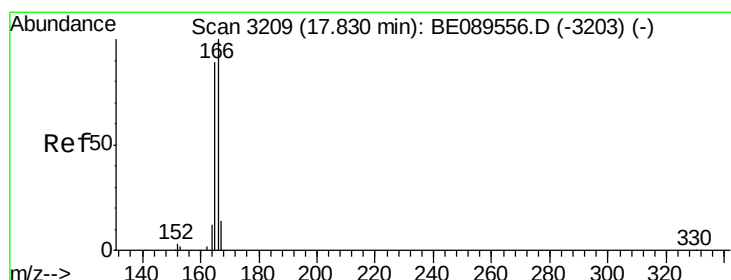
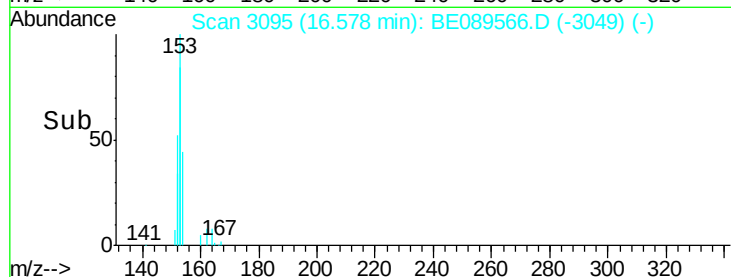
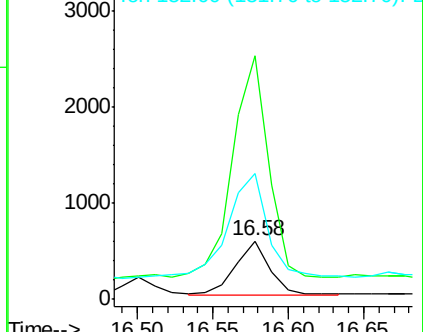
152 240.3 173.0 259.4



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



#10

Fluorene

Concen: 0.04 ng

RT: 17.83 min Scan# 3209

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

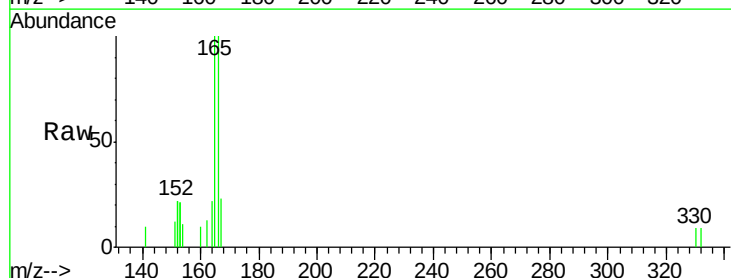
Tgt Ion:166 Resp: 832

Ion Ratio Lower Upper

166 100

165 94.6 75.1 112.7

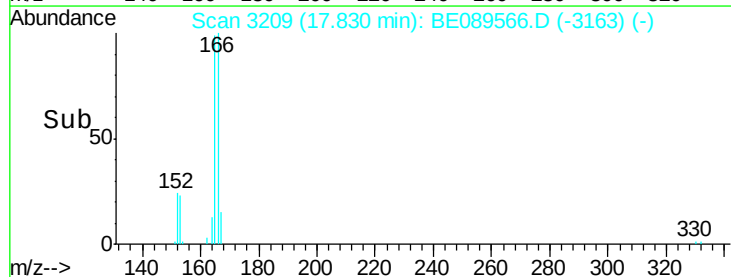
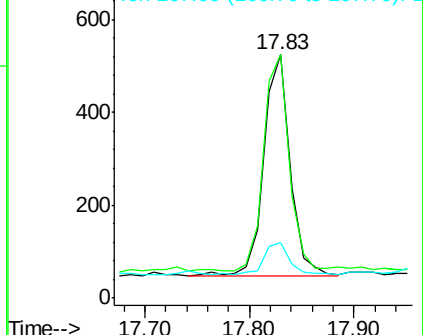
167 14.8 10.6 16.0

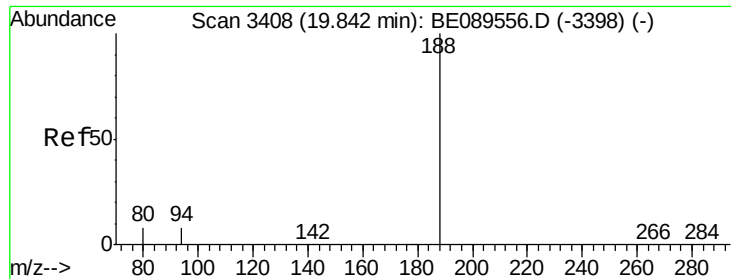


Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E

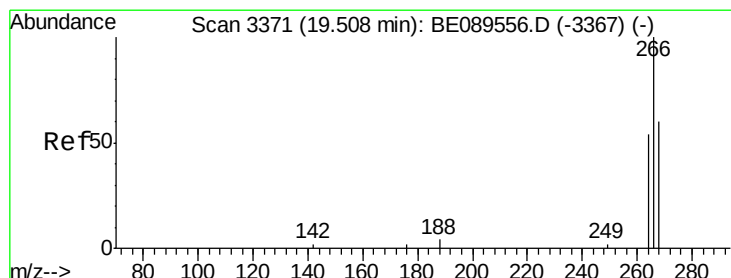
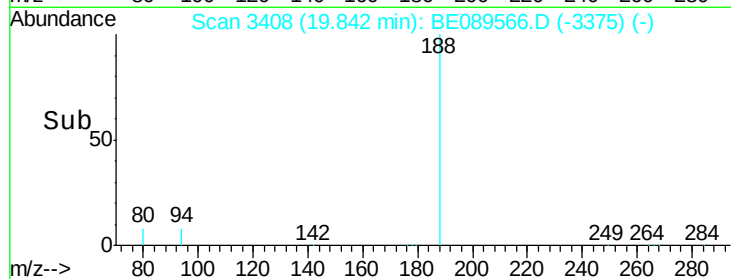
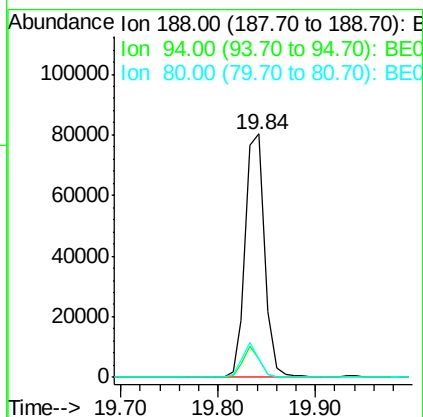
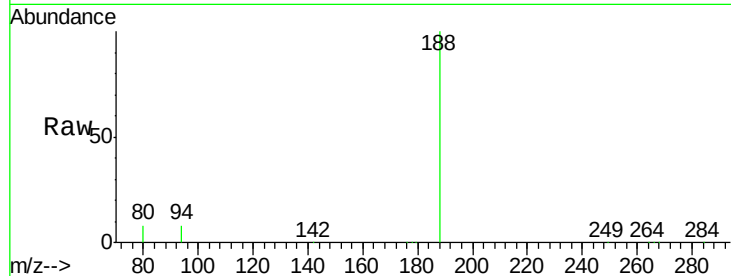




#11  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 19.84 min Scan# 3408  
Delta R.T. 0.00 min  
Lab File: BE089566.D  
Acq: 11 Feb 2015 2:14

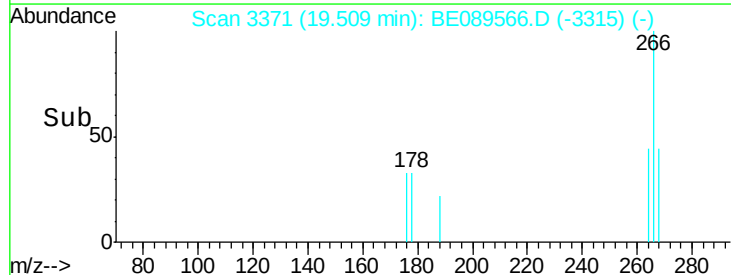
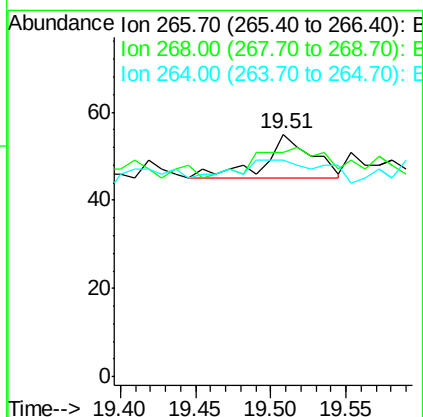
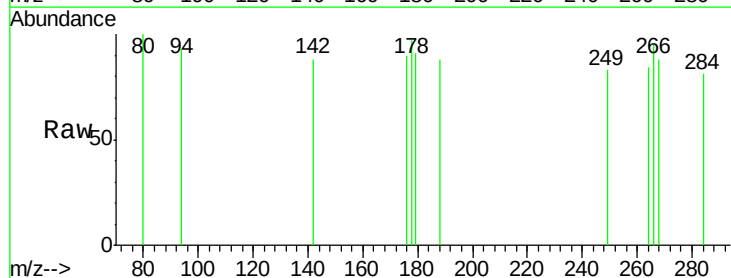
Instrument :  
BNA\_E  
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MDL-05-W

Tgt Ion:188 Resp: 110788  
Ion Ratio Lower Upper  
188 100  
94 7.7 6.2 9.2  
80 7.7 6.4 9.6

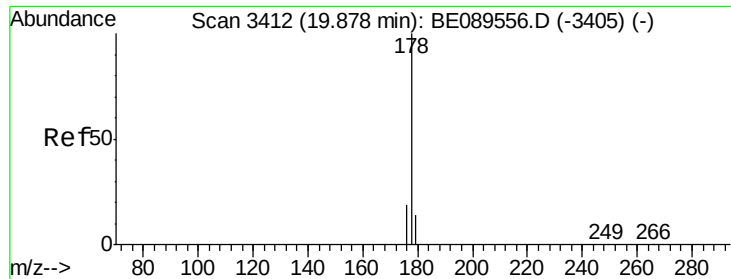


#12  
Pentachlorophenol  
Concen: 0.34 ng  
RT: 19.51 min Scan# 3371  
Delta R.T. 0.00 min  
Lab File: BE089566.D  
Acq: 11 Feb 2015 2:14

Tgt Ion:266 Resp: 22  
Ion Ratio Lower Upper  
266 100  
268 92.7 57.9 86.9#  
264 89.1 54.6 81.8#







#13

Phenanthrene

Concen: 0.05 ng

RT: 19.88 min Scan# 3412

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

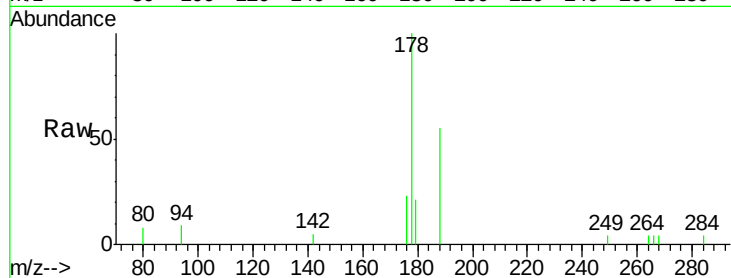
Tgt Ion:178 Resp: 1464

Ion Ratio Lower Upper

178 100

176 19.1 15.1 22.7

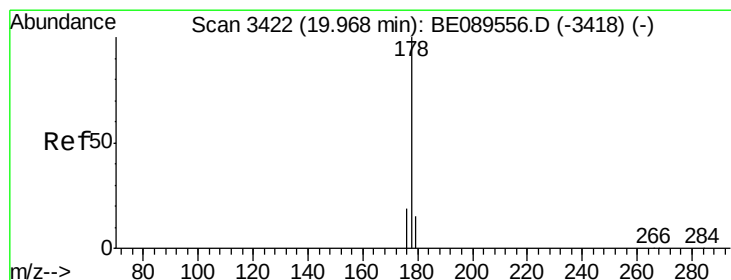
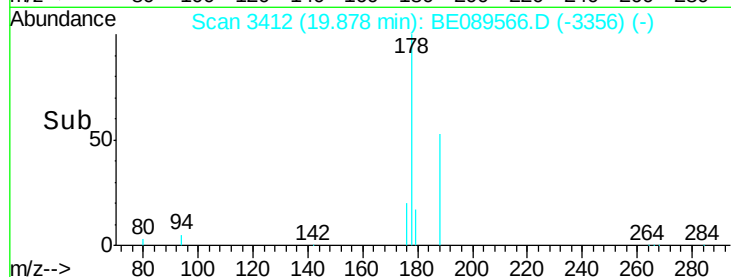
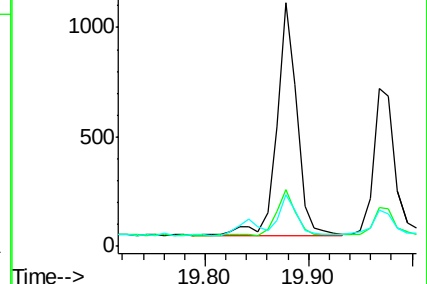
179 15.0 12.1 18.1



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



#14

Anthracene

Concen: 0.04 ng m

RT: 19.97 min Scan# 3422

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

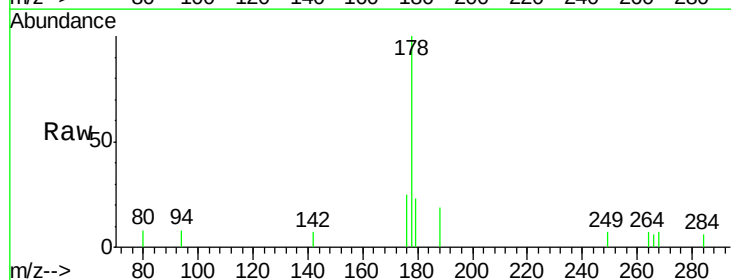
Tgt Ion:178 Resp: 997

Ion Ratio Lower Upper

178 100

176 28.1 14.6 21.8#

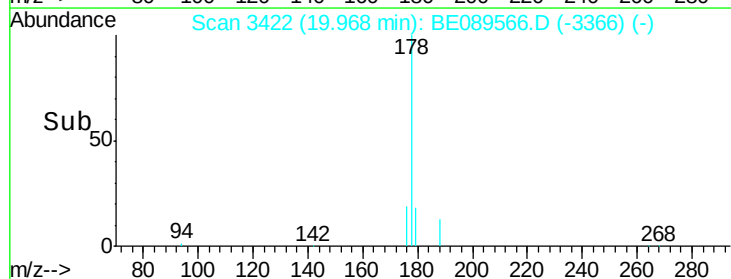
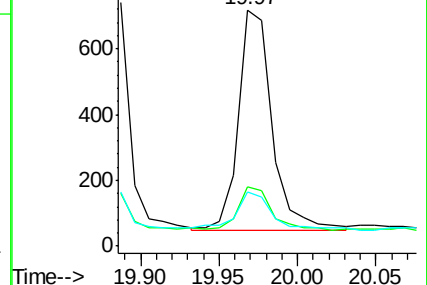
179 22.1 12.7 19.1#

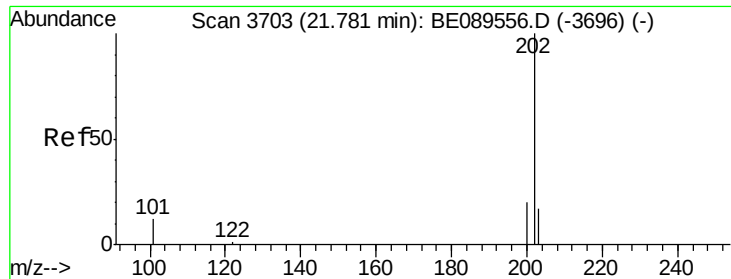


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E

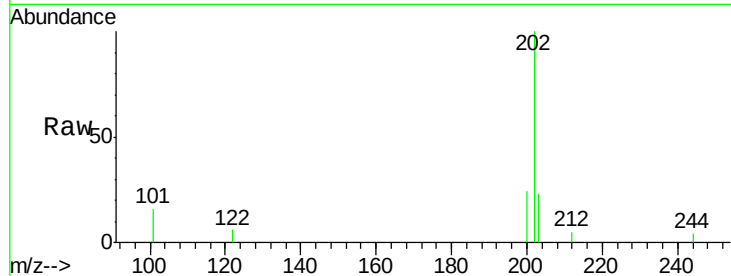




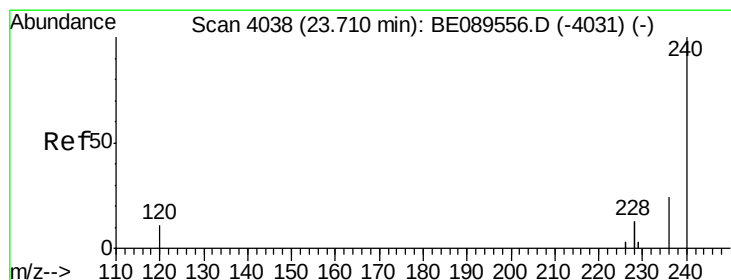
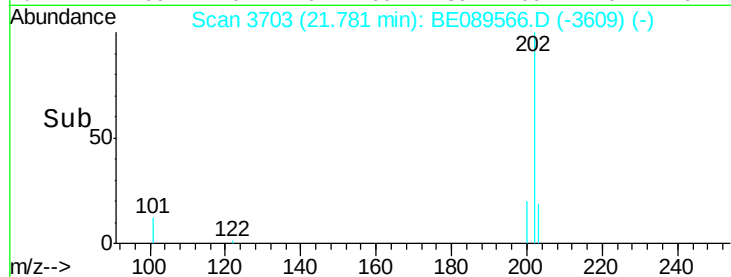
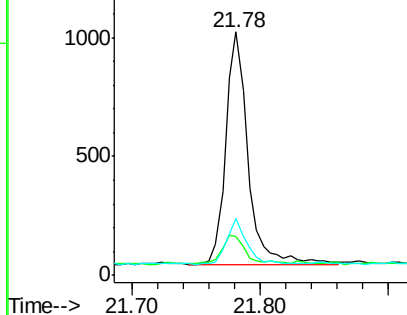
#15  
 Fluoranthene  
 Concen: 0.04 ng  
 RT: 21.78 min Scan# 3703  
 Delta R.T. -0.00 min  
 Lab File: BE089566.D  
 Acq: 11 Feb 2015 2:14

Instrument :  
 BNA\_E  
 ClientSampleId :  
 MDL-05-W

Tgt Ion: 202 Resp: 1175  
 Ion Ratio Lower Upper  
 202 100  
 101 11.9 10.4 15.6  
 203 17.4 13.6 20.4

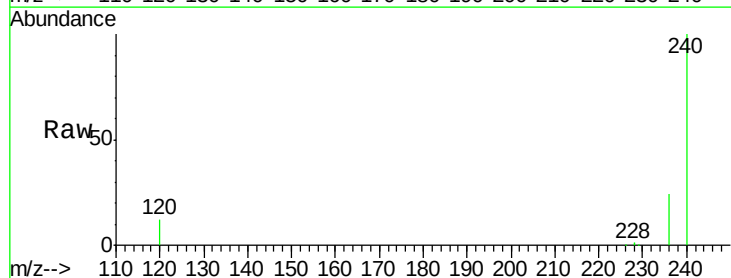


Abundance Ion 202.00 (201.70 to 202.70): E  
 Ion 101.00 (100.70 to 101.70): E  
 Ion 203.00 (202.70 to 203.70): E

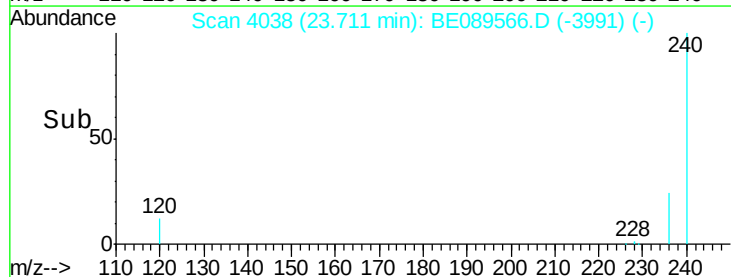
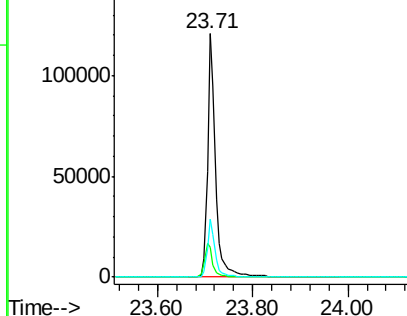


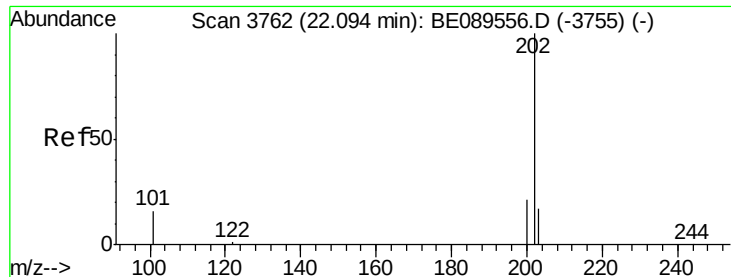
#16  
 Chrysene-d12  
 Concen: 5.00 ng  
 RT: 23.71 min Scan# 4038  
 Delta R.T. 0.00 min  
 Lab File: BE089566.D  
 Acq: 11 Feb 2015 2:14

Tgt Ion: 240 Resp: 142745  
 Ion Ratio Lower Upper  
 240 100  
 120 12.1 9.3 13.9  
 236 24.1 19.3 28.9



Abundance Ion 240.00 (239.70 to 240.70): E  
 Ion 120.00 (119.70 to 120.70): E  
 Ion 236.00 (235.70 to 236.70): E

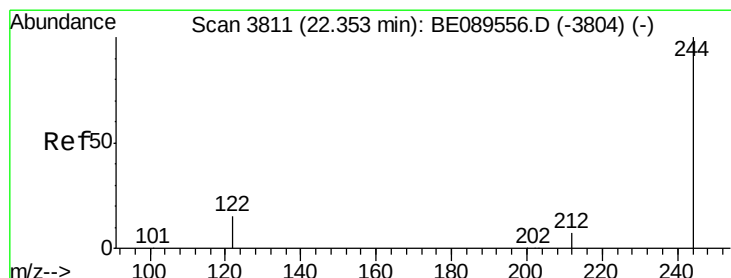
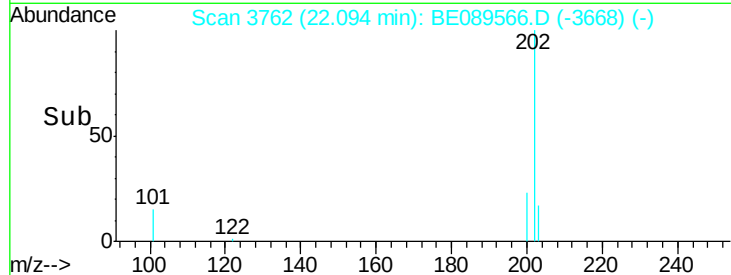
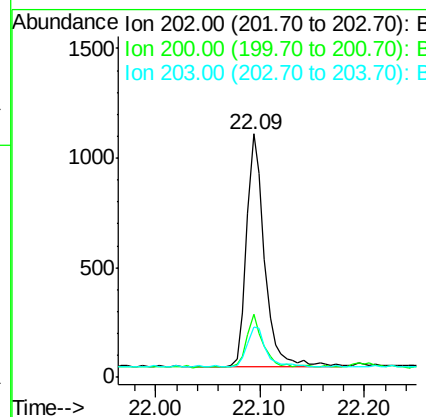
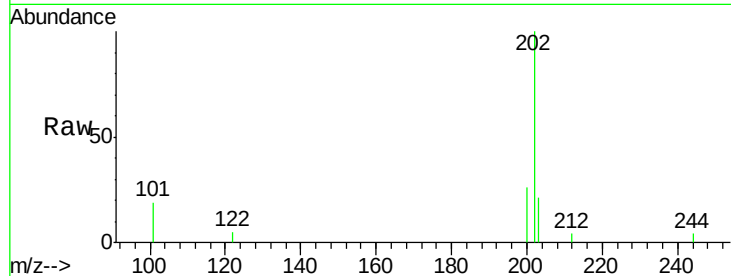




#17  
 Pyrene  
 Concen: 0.04 ng  
 RT: 22.09 min Scan# 3762  
 Delta R.T. -0.00 min  
 Lab File: BE089566.D  
 Acq: 11 Feb 2015 2:14

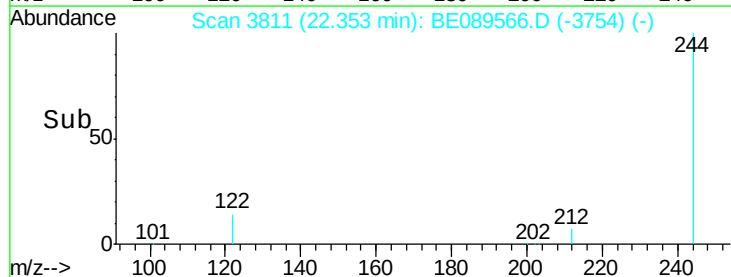
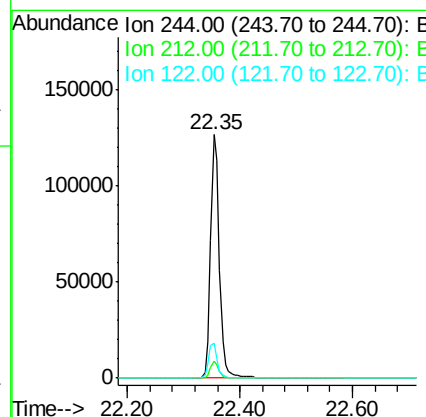
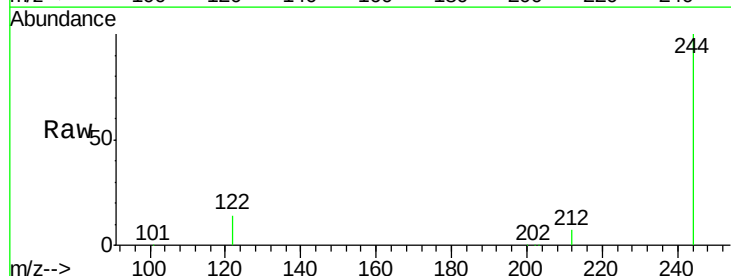
Instrument :  
 BNA\_E  
 ClientSampled :  
 MDL-05-W

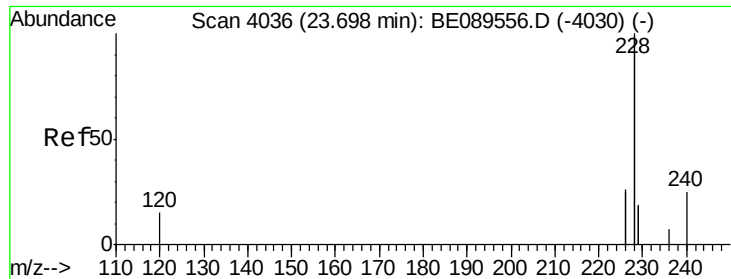
Tgt Ion: 202 Resp: 1278  
 Ion Ratio Lower Upper  
 202 100  
 200 20.8 16.6 24.8  
 203 18.5 14.2 21.2



#18  
 Terphenyl-d14  
 Concen: 7.70 ng  
 RT: 22.35 min Scan# 3811  
 Delta R.T. -0.00 min  
 Lab File: BE089566.D  
 Acq: 11 Feb 2015 2:14

Tgt Ion: 244 Resp: 136951  
 Ion Ratio Lower Upper  
 244 100  
 212 7.0 5.9 8.9  
 122 14.2 12.2 18.2





#19

Benzo(a)anthracene

Concen: 0.06 ng

RT: 23.70 min Scan# 4037

Delta R.T. 0.01 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

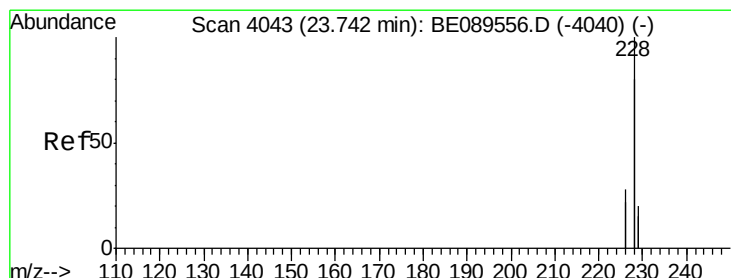
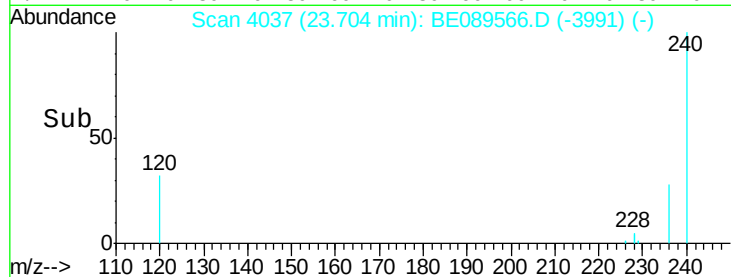
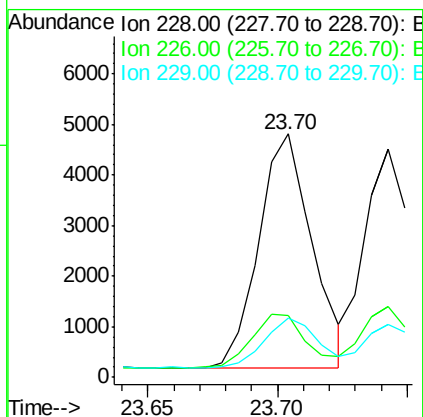
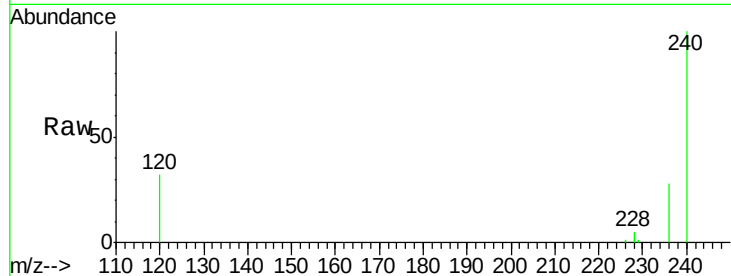
Tgt Ion:228 Resp: 6564

Ion Ratio Lower Upper

228 100

226 25.2 21.0 31.4

229 24.4 15.2 22.8#



#20

Chrysene

Concen: 0.06 ng

RT: 23.74 min Scan# 4043

Delta R.T. 0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

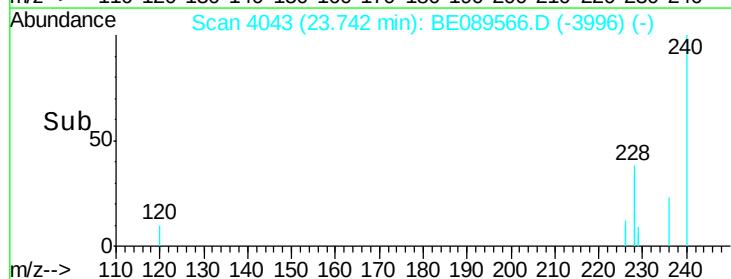
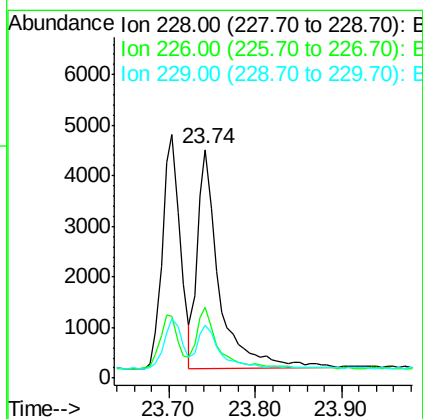
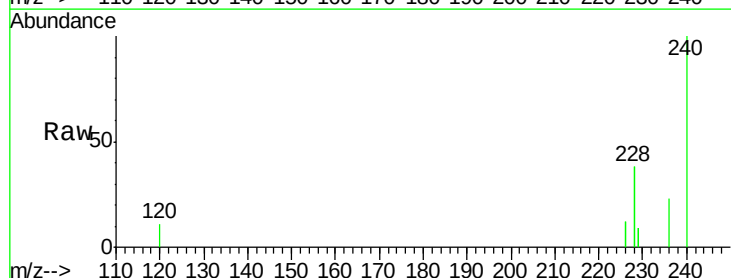
Tgt Ion:228 Resp: 7500

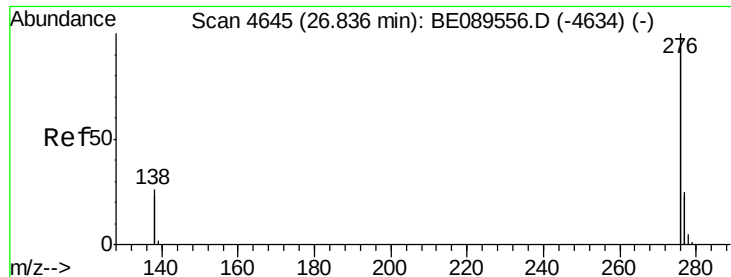
Ion Ratio Lower Upper

228 100

226 31.0 22.6 34.0

229 23.1 15.6 23.4





#21

Indeno(1,2,3-cd)pyrene

Concen: 0.06 ng

RT: 26.83 min Scan# 4644

Delta R.T. -0.01 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

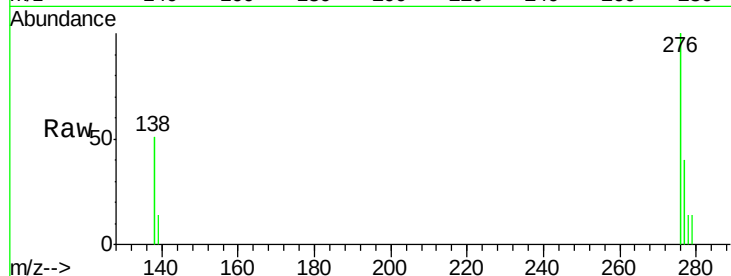
Tgt Ion:276 Resp: 3083

Ion Ratio Lower Upper

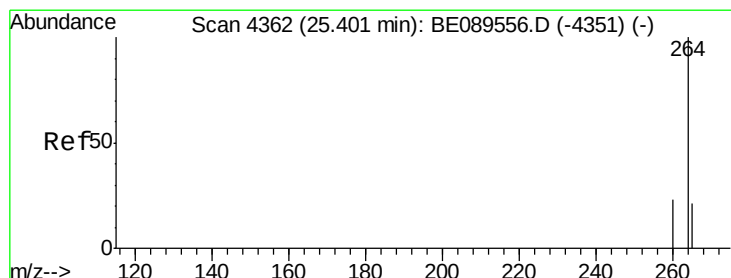
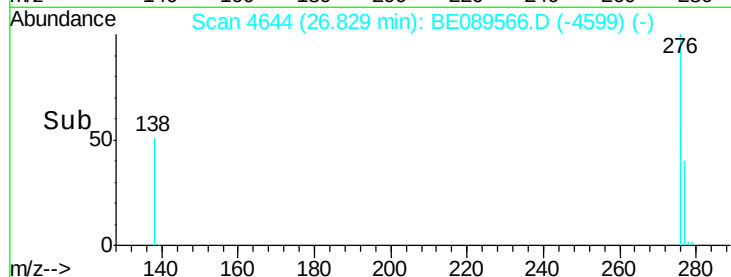
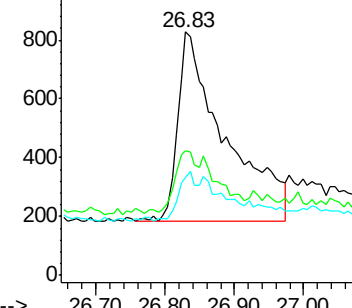
276 100

138 27.9 20.2 30.4

277 10.4 19.6 29.4#



Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 138.00 (137.70 to 138.70): E  
Ion 277.00 (276.70 to 277.70): E



#22

Perylene-d12

Concen: 5.00 ng

RT: 25.40 min Scan# 4362

Delta R.T. -0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

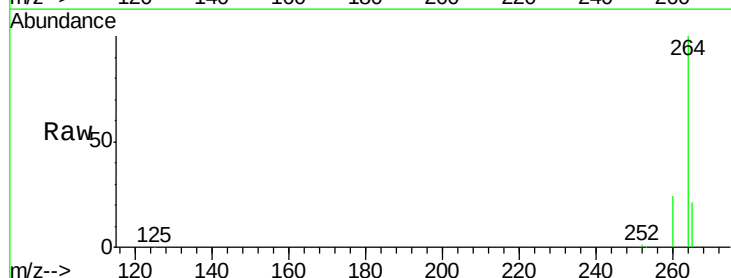
Tgt Ion:264 Resp: 162886

Ion Ratio Lower Upper

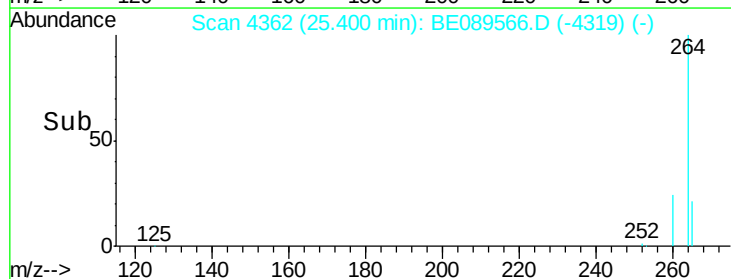
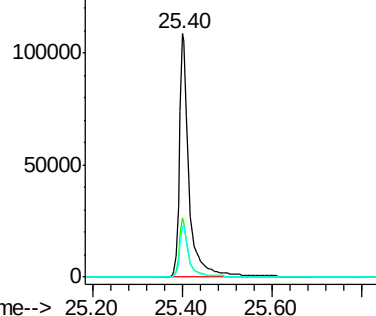
264 100

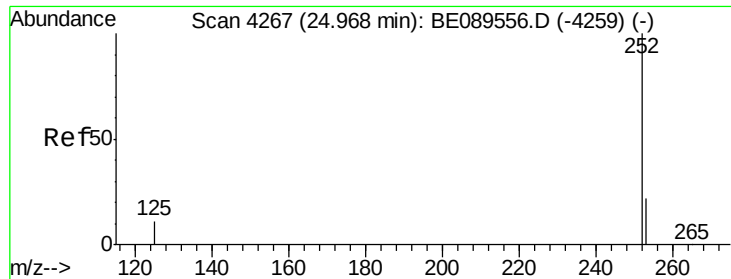
260 24.3 18.7 28.1

265 20.6 16.8 25.2



Abundance Ion 264.00 (263.70 to 264.70): E  
Ion 260.00 (259.70 to 260.70): E  
Ion 265.00 (264.70 to 265.70): E





#23

Benzo(b)fluoranthene

Concen: 0.25 ng

RT: 24.97 min Scan# 4267

Delta R.T. -0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

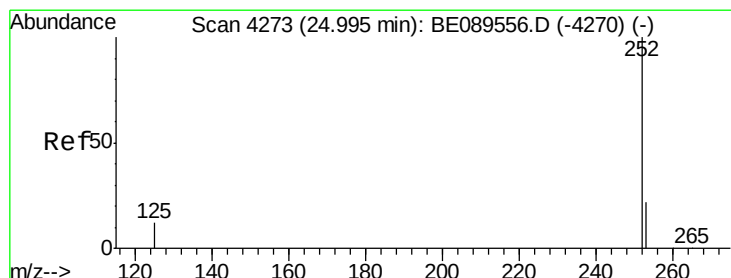
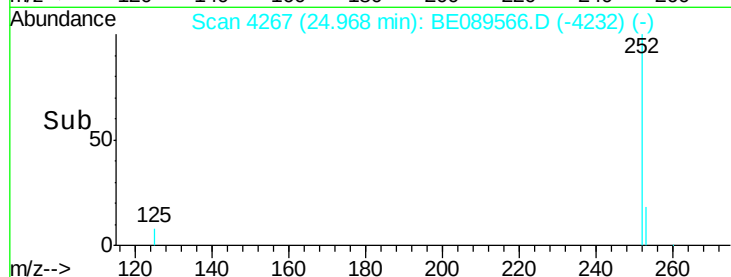
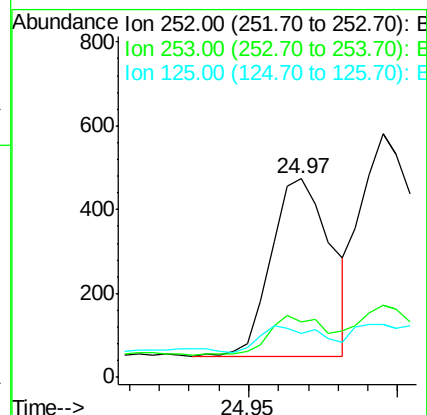
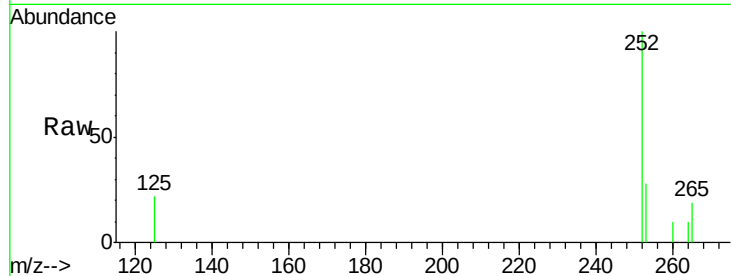
Tgt Ion:252 Resp: 586

Ion Ratio Lower Upper

252 100

253 28.1 17.8 26.8#

125 22.4 9.3 13.9#



#24

Benzo(k)fluoranthene

Concen: 0.03 ng m

RT: 24.99 min Scan# 4273

Delta R.T. -0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

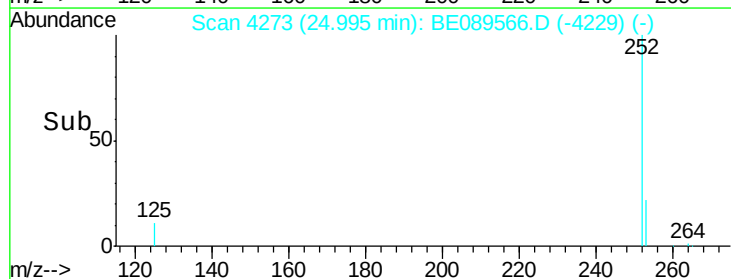
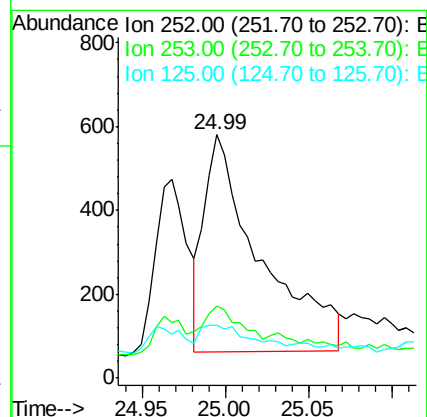
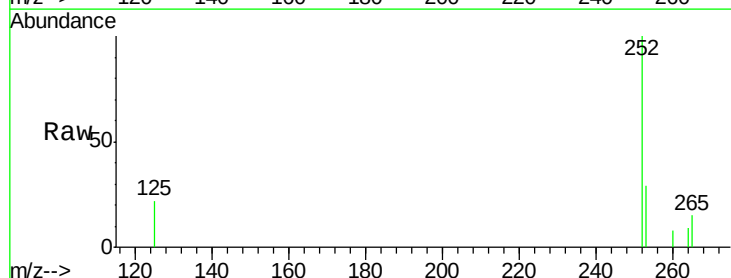
Tgt Ion:252 Resp: 1212

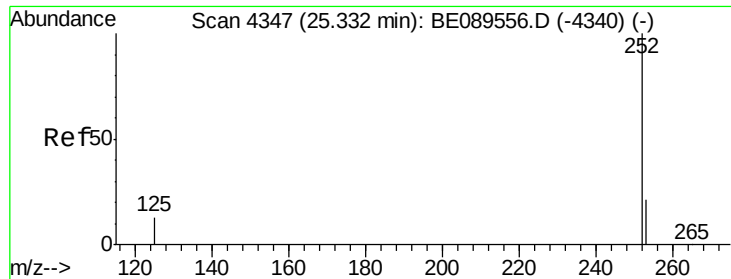
Ion Ratio Lower Upper

252 100

253 29.4 17.5 26.3#

125 22.0 9.6 14.4#





#25

Benzo(a)pyrene

Concen: 0.21 ng

RT: 25.33 min Scan# 4347

Delta R.T. -0.00 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W

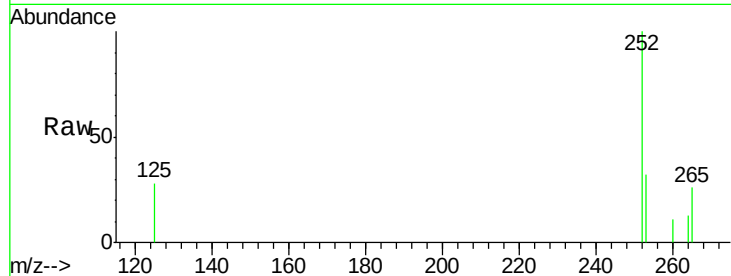
Tgt Ion: 252 Resp: 650

Ion Ratio Lower Upper

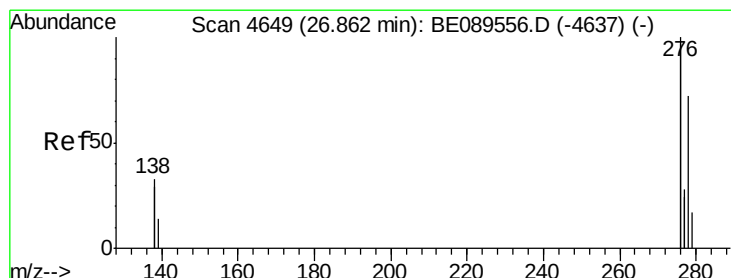
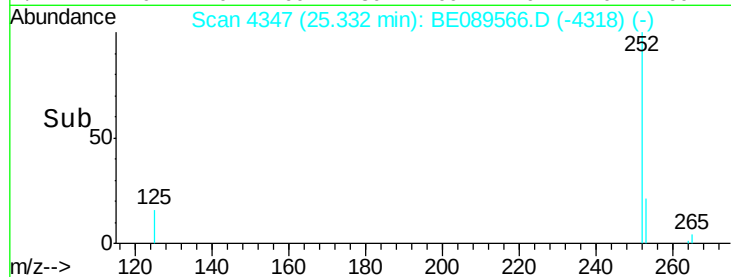
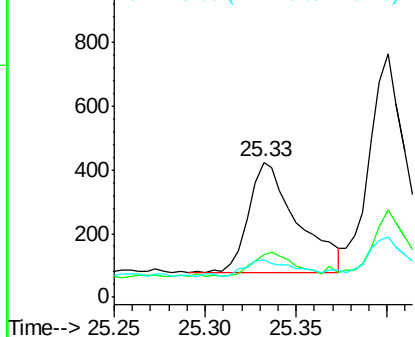
252 100

253 31.6 17.4 26.0#

125 27.8 11.1 16.7#



Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



#26

Dibenzo(a,h)anthracene

Concen: 0.14 ng

RT: 26.87 min Scan# 4650

Delta R.T. 0.01 min

Lab File: BE089566.D

Acq: 11 Feb 2015 2:14

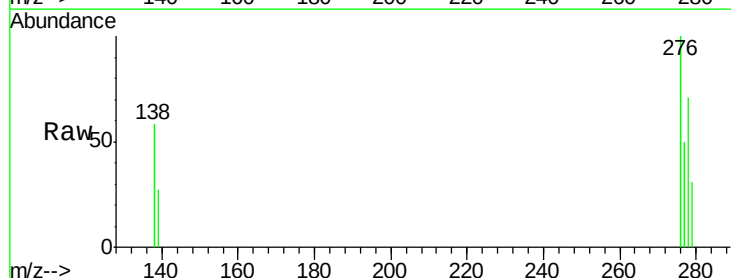
Tgt Ion: 278 Resp: 418

Ion Ratio Lower Upper

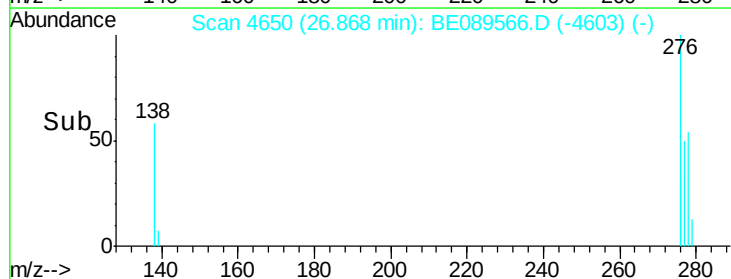
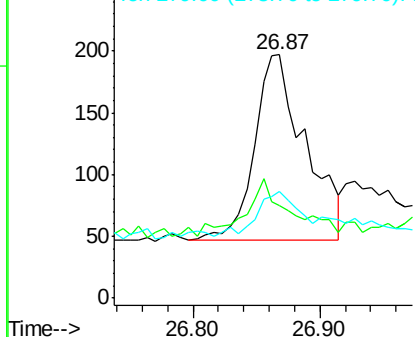
278 100

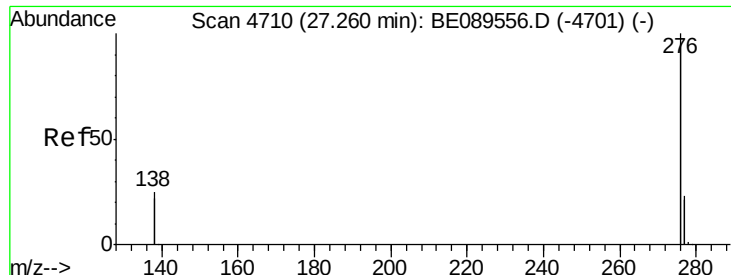
139 38.1 16.1 24.1#

279 43.7 19.6 29.4#



Abundance Ion 278.00 (277.70 to 278.70): E  
Ion 139.00 (138.70 to 139.70): E  
Ion 279.00 (278.70 to 279.70): E





#27

Benzo(g,h,i)perylene

Concen: 0.03 ng

RT: 27.26 min Scan# 4710

Delta R.T. 0.00 min

Lab File: BE089566.D

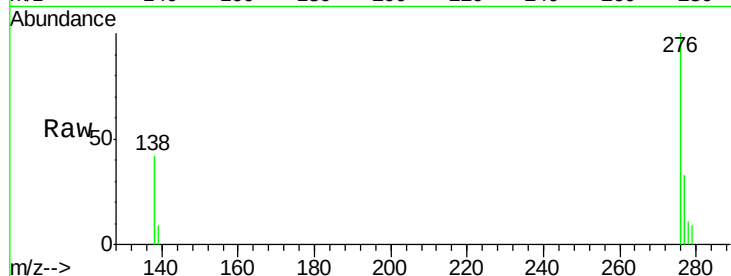
Acq: 11 Feb 2015 2:14

Instrument :

BNA\_E

ClientSampleId :

MDL-05-W



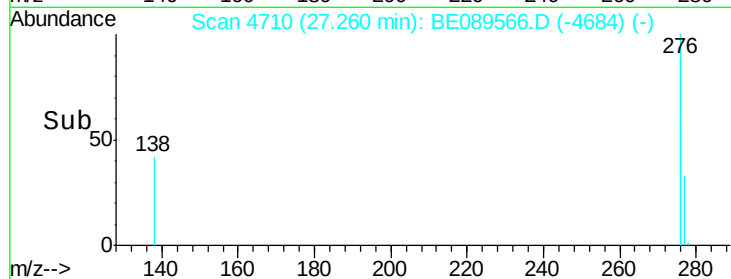
Tgt Ion: 276 Resp: 3603

Ion Ratio Lower Upper

276 100

277 32.7 18.7 28.1#

138 41.8 19.7 29.5#



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

