

Data Path : Z:\HPCHEM1\BNA\_E\Data\BE021815\  
 Data File : BE089620.D  
 Acq On : 18 Feb 2015 16:17  
 Operator : TP/IZ  
 Sample : MDL-BLK-W  
 Misc : MDL-WATER-BLK  
 ALS Vial : 7 Sample Multiplier: 1

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

Quant Time: Feb 19 04:38:07 2015  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIMPAH-BE021815.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Feb 18 13:01:39 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.34  | 152  | 36859    | 5.00 | ng    | 0.00     |
| 4) Naphthalene-d8         | 12.25 | 136  | 148025   | 5.00 | ng    | 0.00     |
| 8) Acenaphthene-d10       | 16.42 | 164  | 74511    | 5.00 | ng    | 0.00     |
| 13) Phenanthrene-d10      | 19.77 | 188  | 146762   | 5.00 | ng    | 0.00     |
| 19) Chrysene-d12          | 23.66 | 240  | 135952   | 5.00 | ng    | 0.00     |
| 25) Perylene-d12          | 25.34 | 264  | 109030   | 5.00 | ng    | 0.00     |

|                             |       |     |        |       |    |      |
|-----------------------------|-------|-----|--------|-------|----|------|
| System Monitoring Compounds |       |     |        |       |    |      |
| 5) Nitrobenzene-d5          | 10.61 | 82  | 70456  | 10.95 | ng | 0.00 |
| 9) 2-Fluorobiphenyl         | 14.88 | 172 | 194556 | 9.75  | ng | 0.00 |
| 21) Terphenyl-d14           | 22.31 | 244 | 225944 | 11.56 | ng | 0.00 |

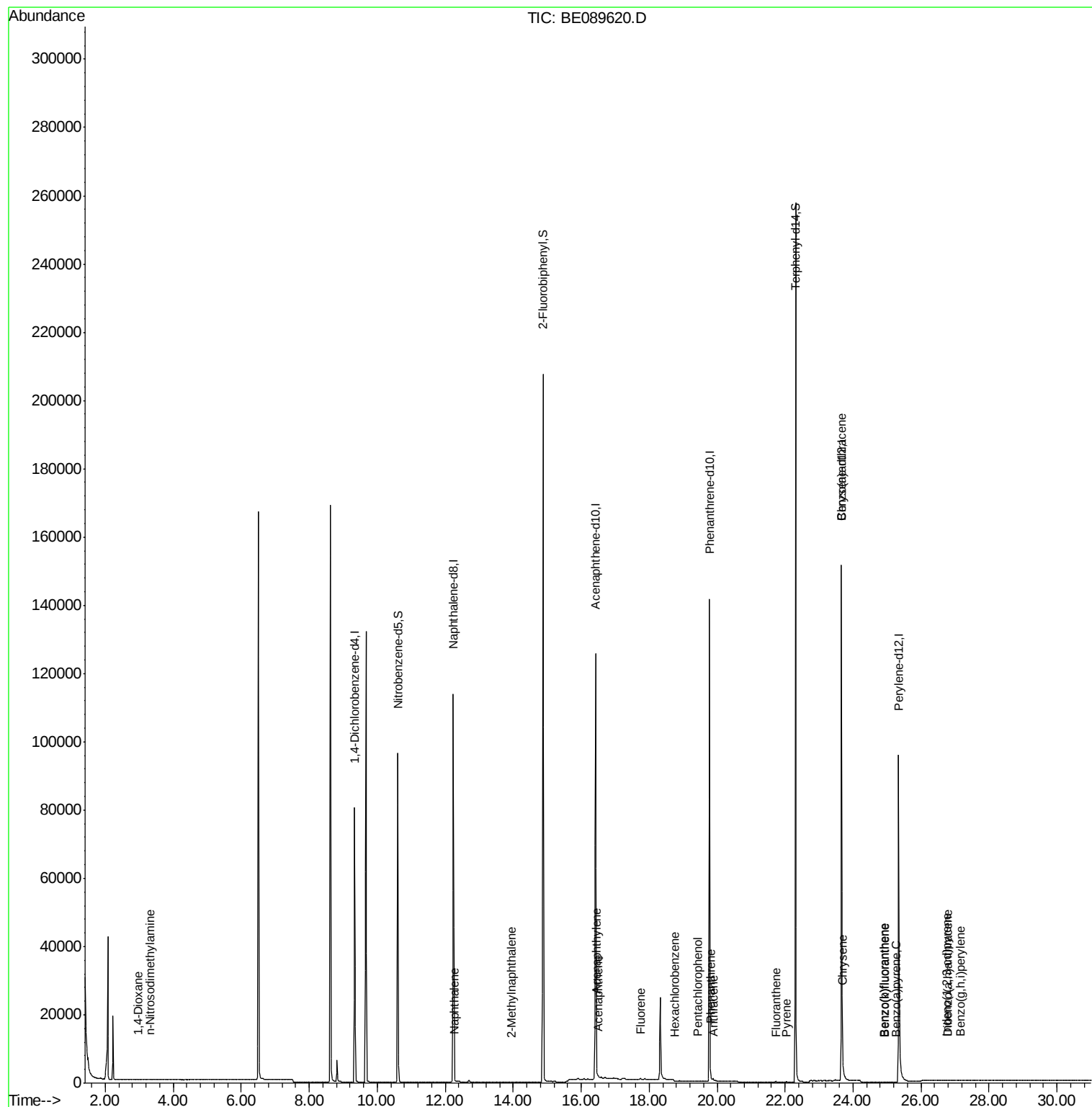
|                            |       |     |      |      |    |        |
|----------------------------|-------|-----|------|------|----|--------|
| Target Compounds           |       |     |      |      |    | Qvalue |
| 2) 1,4-Dioxane             | 2.96  | 88  | 25   | 0.01 | ng | # 25   |
| 3) n-Nitrosodimethylamine  | 3.33  | 42  | 4    | 0.00 | ng | # 1    |
| 6) Naphthalene             | 12.28 | 128 | 24   | 0.00 | ng | # 1    |
| 7) 2-Methylnaphthalene     | 13.96 | 142 | 14   | 0.00 | ng | # 53   |
| 10) Acenaphthylene         | 16.45 | 152 | 997  | 0.01 | ng | # 1    |
| 11) Acenaphthene           | 16.50 | 154 | 34   | 0.00 | ng | # 1    |
| 12) Fluorene               | 17.74 | 166 | 98   | 0.00 | ng | # 52   |
| 14) Hexachlorobenzene      | 18.74 | 284 | 119  | 0.02 | ng | # 1    |
| 15) Pentachlorophenol      | 19.44 | 266 | 75   | 0.06 | ng | # 74   |
| 16) Phenanthrene           | 19.81 | 178 | 224  | 0.01 | ng | # 82   |
| 17) Anthracene             | 19.91 | 178 | 37   | 0.00 | ng | # 30   |
| 18) Fluoranthene           | 21.73 | 202 | 173  | 0.01 | ng | # 99   |
| 20) Pyrene                 | 22.04 | 202 | 171  | 0.01 | ng | # 96   |
| 22) Benzo(a)anthracene     | 23.66 | 228 | 1788 | 0.01 | ng | # 78   |
| 23) Chrysene               | 23.69 | 228 | 1445 | 0.01 | ng | # 72   |
| 24) Indeno(1,2,3-cd)pyrene | 26.75 | 276 | 178  | 0.18 | ng | # 85   |
| 26) Benzo(b)fluoranthene   | 24.91 | 252 | 46   | 0.27 | ng | # 1    |
| 27) Benzo(k)fluoranthene   | 24.94 | 252 | 42   | 0.00 | ng | # 1    |
| 28) Benzo(a)pyrene         | 25.27 | 252 | 37   | 0.24 | ng | # 1    |
| 29) Dibenzo(a,h)anthracene | 26.78 | 278 | 36   | 0.23 | ng | # 1    |
| 30) Benzo(g,h,i)perylene   | 27.16 | 276 | 164  | 0.13 | ng | # 1    |

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

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Misc : MDL-WATER-BLK  
ALS Vial : 7 Sample Multiplier: 1

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

Quant Time: Feb 19 04:38:07 2015  
Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIMPAH-BE021815.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Feb 18 13:01:39 2015  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 9.34 min Scan# 1299

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

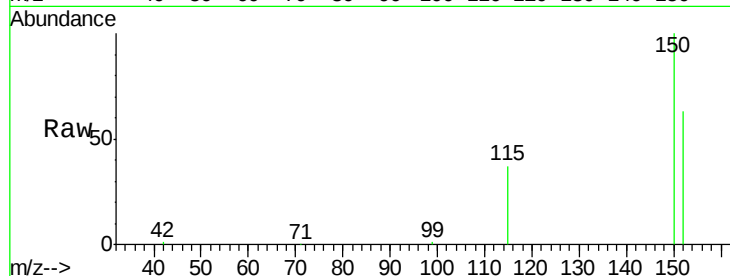
Tgt Ion:152 Resp: 36859

Ion Ratio Lower Upper

152 100

150 159.1 122.4 183.6

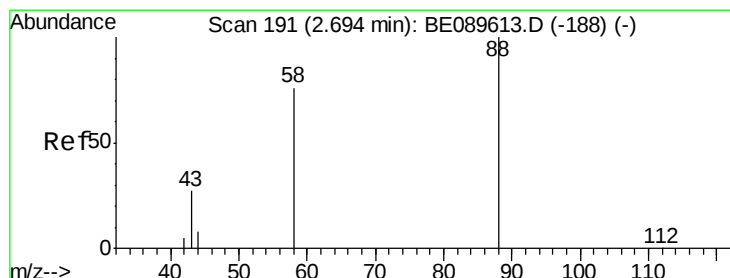
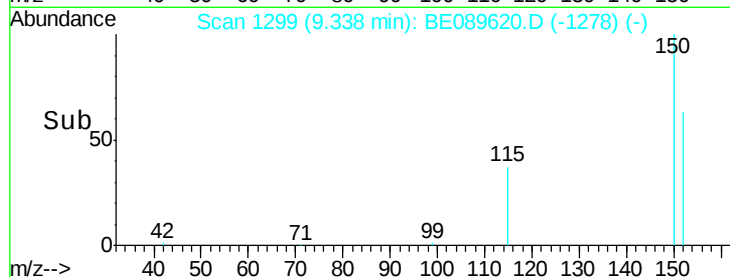
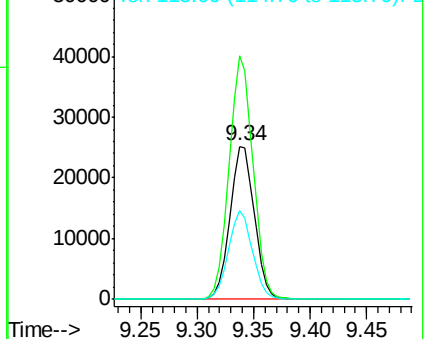
115 58.4 44.2 66.2



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

1,4-Dioxane

Concen: 0.01 ng

RT: 2.96 min Scan# 230

Delta R.T. 0.26 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

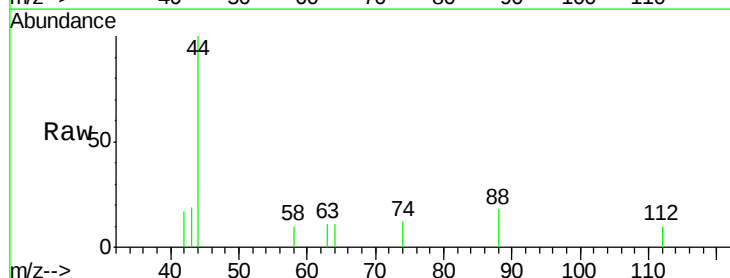
Tgt Ion: 88 Resp: 25

Ion Ratio Lower Upper

88 100

58 0.0 54.6 81.8#

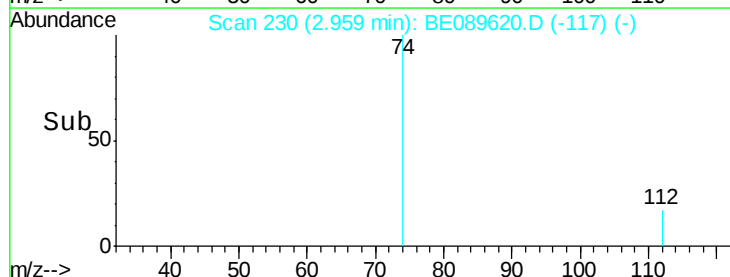
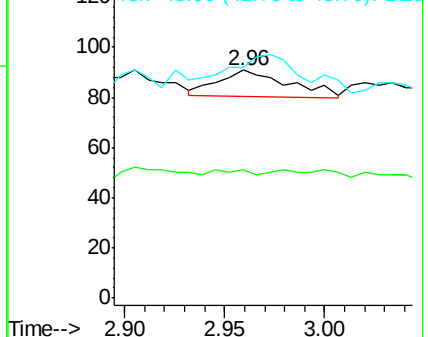
43 0.0 20.6 30.8#

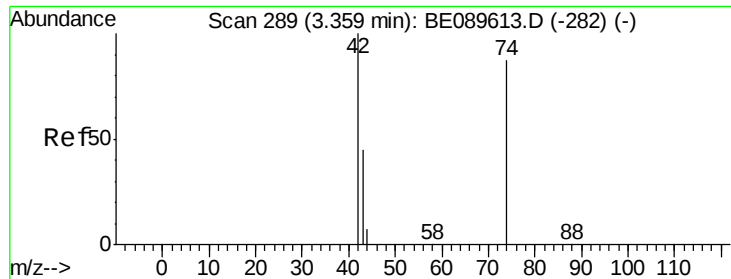


Abundance Ion 88.00 (87.70 to 88.70): BE0

Ion 58.00 (57.70 to 58.70): BE0

Ion 43.00 (42.70 to 43.70): BE0



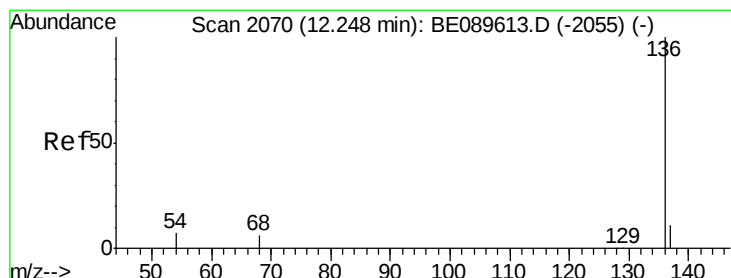
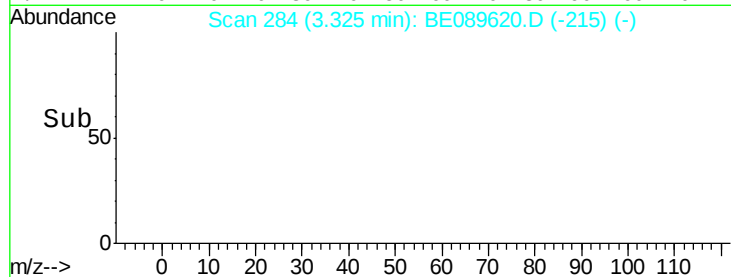
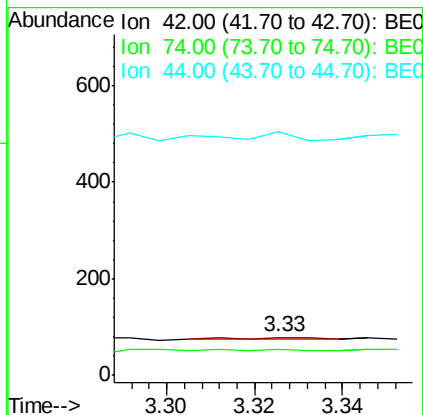
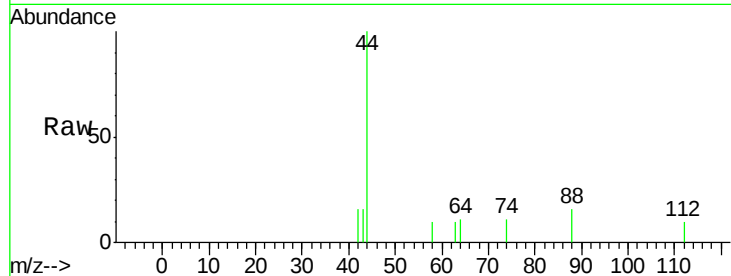


#3

n-Nitrosodimethylamine  
 Concen: 0.00 ng  
 RT: 3.33 min Scan# 284  
 Delta R.T. -0.03 min  
 Lab File: BE089620.D  
 Acq: 18 Feb 2015 16:17

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

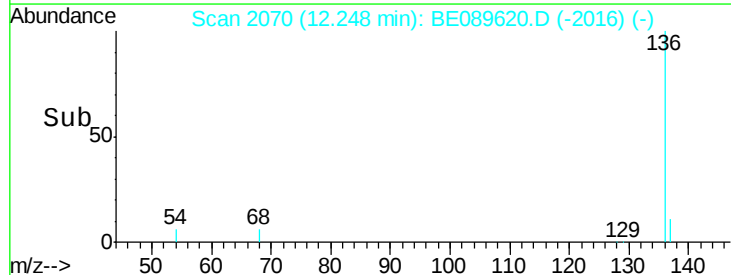
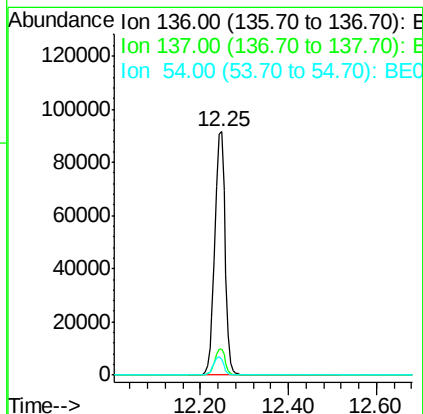
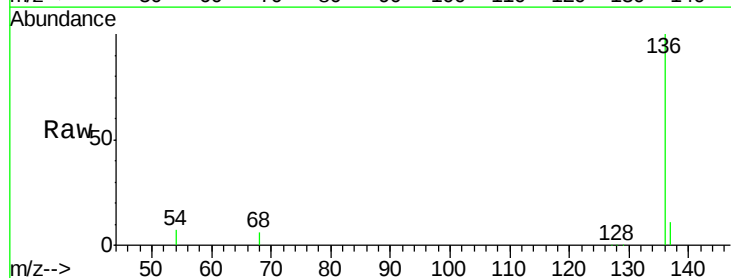
Tgt Ion: 42 Resp: 4  
 Ion Ratio Lower Upper  
 42 100  
 74 0.0 121.4 182.0#  
 44 0.0 4.5 6.7#

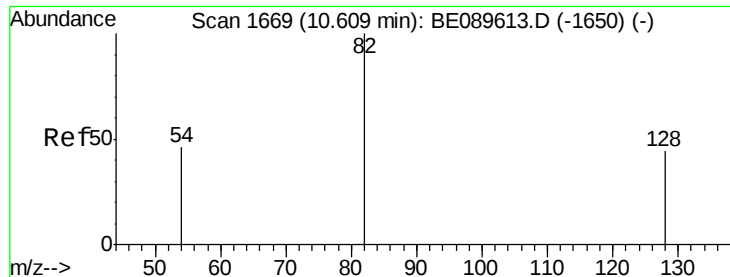


#4

Naphthalene-d8  
 Concen: 5.00 ng  
 RT: 12.25 min Scan# 2070  
 Delta R.T. -0.00 min  
 Lab File: BE089620.D  
 Acq: 18 Feb 2015 16:17

Tgt Ion: 136 Resp: 148025  
 Ion Ratio Lower Upper  
 136 100  
 137 10.9 8.9 13.3  
 54 6.5 5.3 7.9





#5

Nitrobenzene-d5

Concen: 10.95 ng

RT: 10.61 min Scan# 1668

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

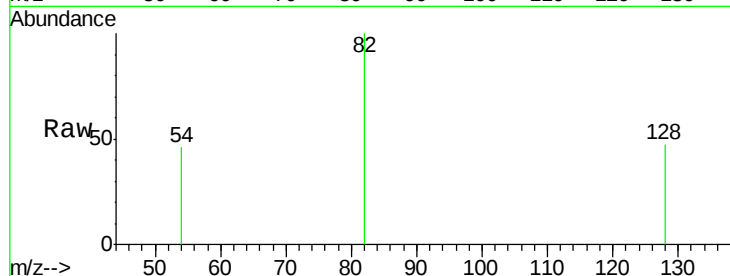
Tgt Ion: 82 Resp: 70456

Ion Ratio Lower Upper

82 100

128 47.0 35.5 53.3

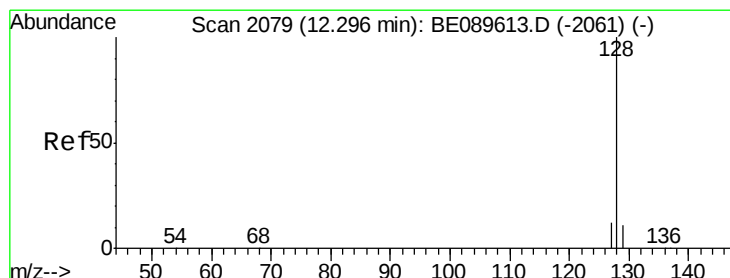
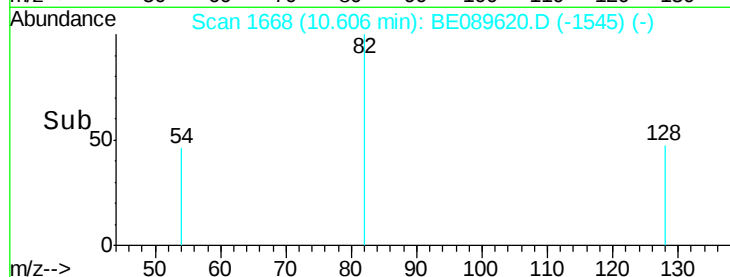
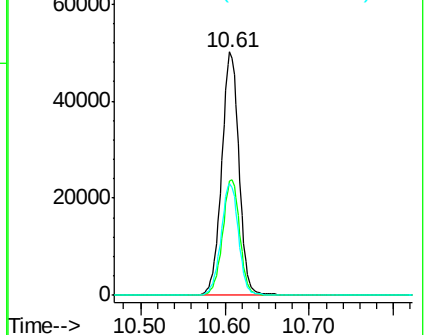
54 45.8 37.5 56.3



Abundance Ion 82.00 (81.70 to 82.70): BE089620.D (-1545) (-)

Ion 128.00 (127.70 to 128.70): BE089620.D (-1545) (-)

Ion 54.00 (53.70 to 54.70): BE089620.D (-1545) (-)



#6

Naphthalene

Concen: 0.00 ng

RT: 12.28 min Scan# 2077

Delta R.T. -0.01 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

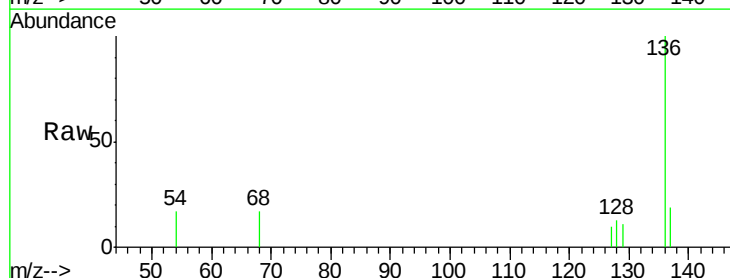
Tgt Ion: 128 Resp: 24

Ion Ratio Lower Upper

128 100

129 86.9 8.9 13.3#

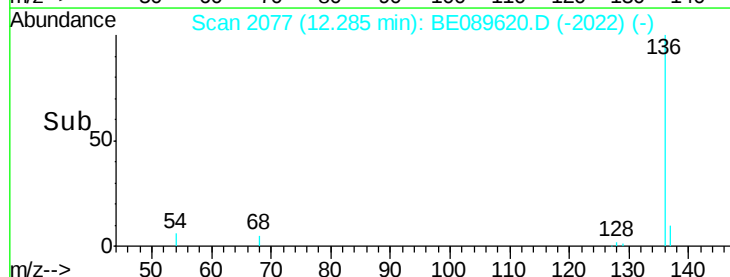
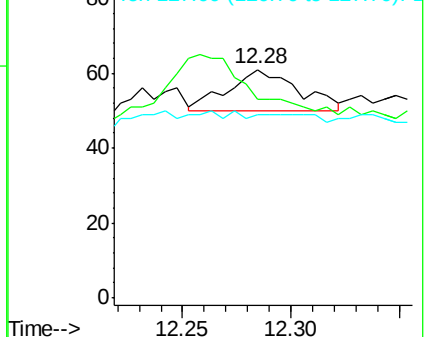
127 80.3 9.8 14.8#

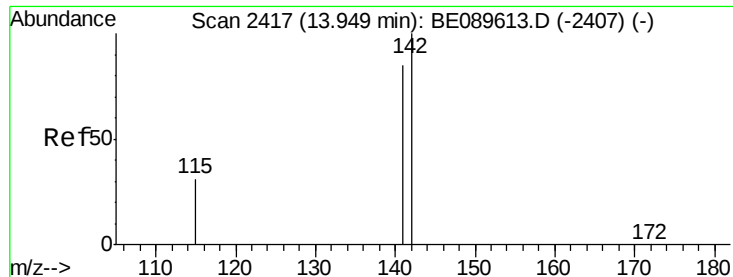


Abundance Ion 128.00 (127.70 to 128.70): BE089620.D (-2022) (-)

Ion 129.00 (128.70 to 129.70): BE089620.D (-2022) (-)

Ion 127.00 (126.70 to 127.70): BE089620.D (-2022) (-)





#7

2-Methylnaphthalene

Concen: 0.00 ng

RT: 13.96 min Scan# 2419

Delta R.T. 0.01 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

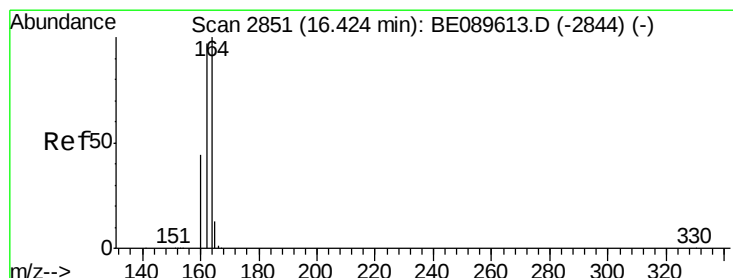
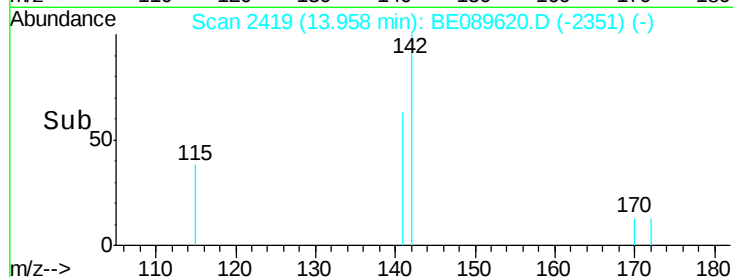
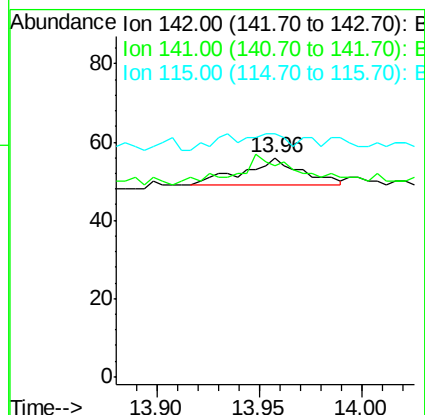
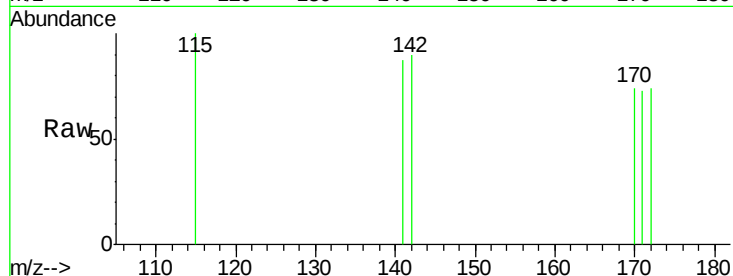
Tgt Ion:142 Resp: 14

Ion Ratio Lower Upper

142 100

141 96.4 68.3 102.5

115 110.7 25.1 37.7#



#8

Acenaphthene-d10

Concen: 5.00 ng

RT: 16.42 min Scan# 2852

Delta R.T. 0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

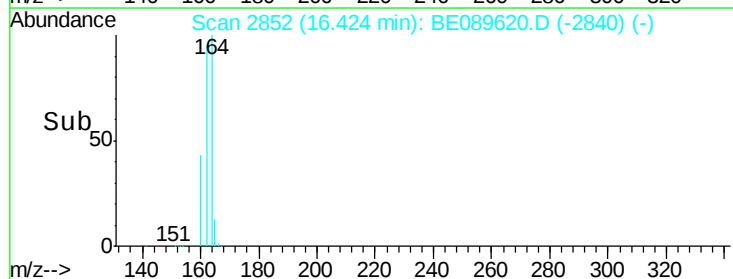
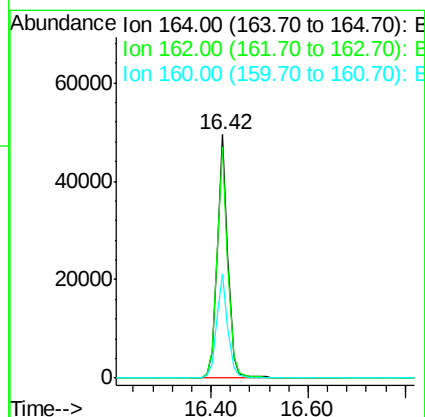
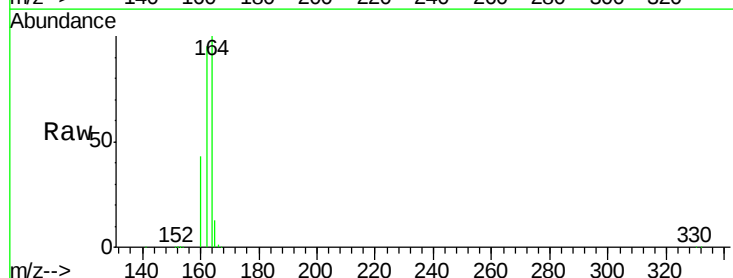
Tgt Ion:164 Resp: 74511

Ion Ratio Lower Upper

164 100

162 94.7 77.5 116.3

160 42.8 35.5 53.3





#9

2-Fluorobiphenyl

Concen: 9.75 ng

RT: 14.88 min Scan# 2622

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

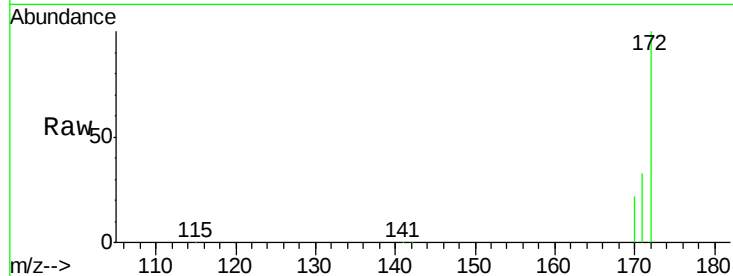
Tgt Ion:172 Resp: 194556

Ion Ratio Lower Upper

172 100

171 33.5 26.9 40.3

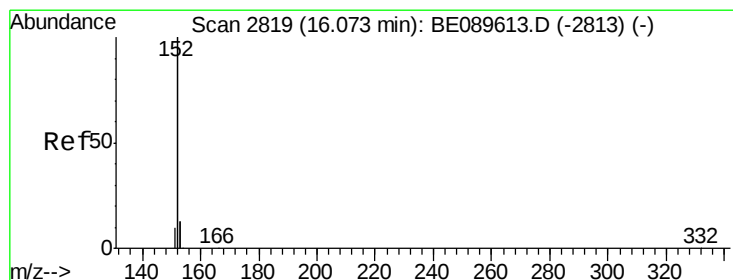
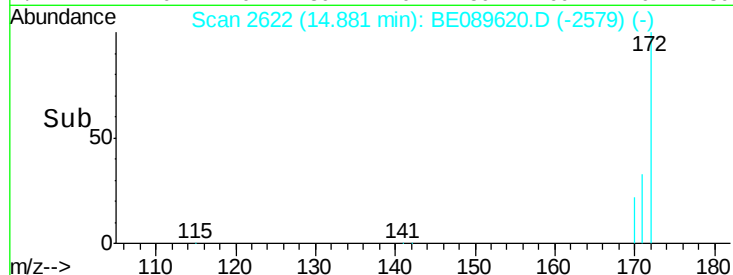
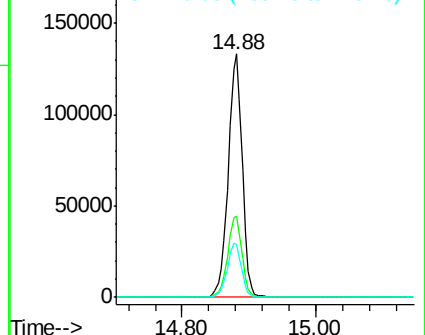
170 22.0 17.4 26.0



Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E



#10

Acenaphthylene

Concen: 0.01 ng

RT: 16.45 min Scan# 2854

Delta R.T. 0.37 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

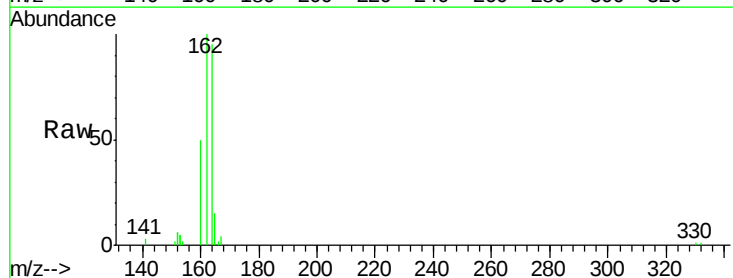
Tgt Ion:152 Resp: 997

Ion Ratio Lower Upper

152 100

151 0.0 3.9 5.9#

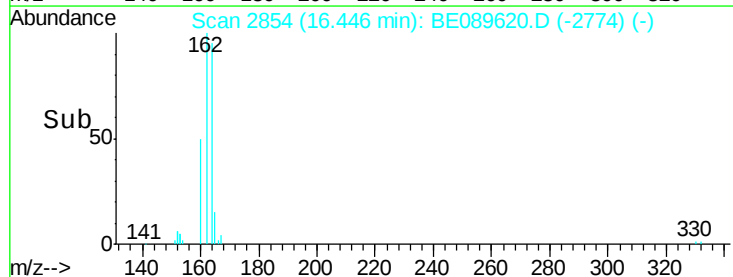
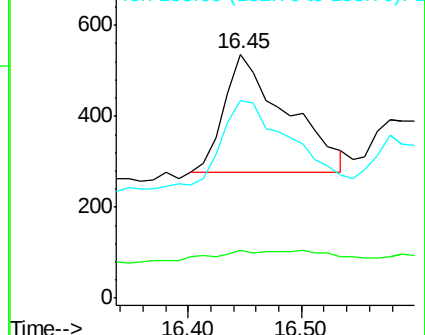
153 76.1 10.5 15.7#

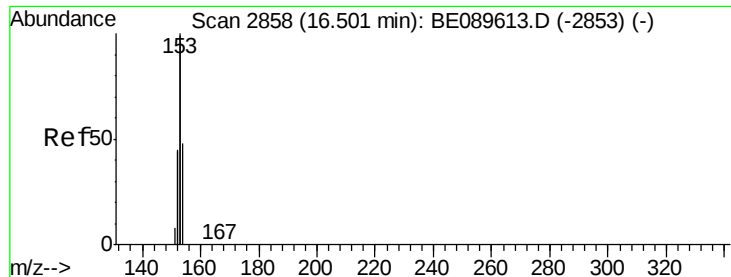


Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E





#11

Acenaphthene

Concen: 0.00 ng

RT: 16.50 min Scan# 2859

Delta R.T. 0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

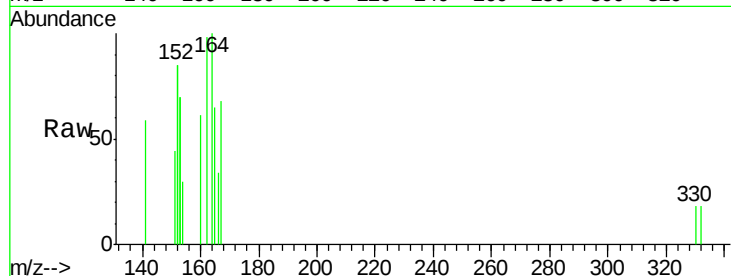
Tgt Ion:154 Resp: 34

Ion Ratio Lower Upper

154 100

153 0.0 348.9 523.3#

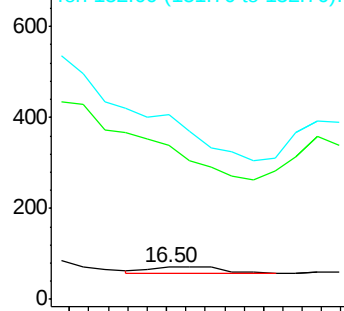
152 0.0 166.6 249.8#



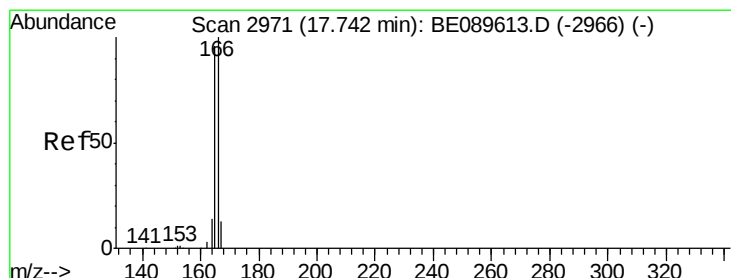
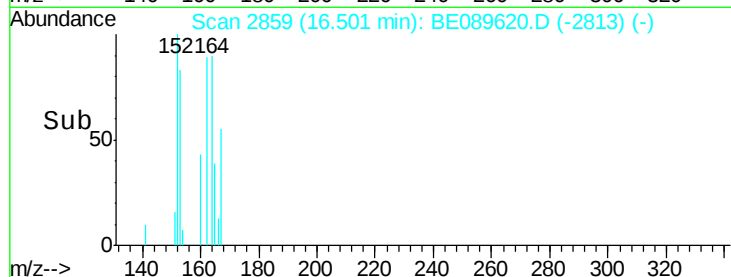
Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E



Time-->



#12

Fluorene

Concen: 0.00 ng

RT: 17.74 min Scan# 2972

Delta R.T. 0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

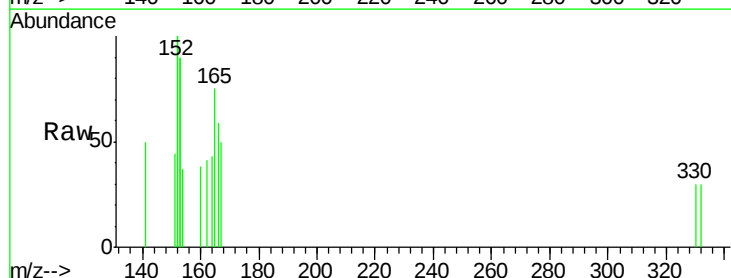
Tgt Ion:166 Resp: 98

Ion Ratio Lower Upper

166 100

165 134.7 74.7 112.1#

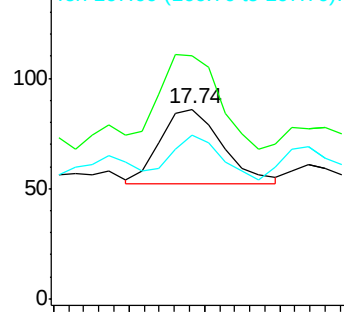
167 45.9 10.5 15.7#



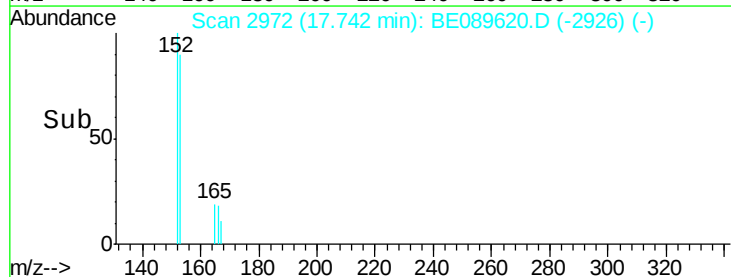
Abundance Ion 166.00 (165.70 to 166.70): E

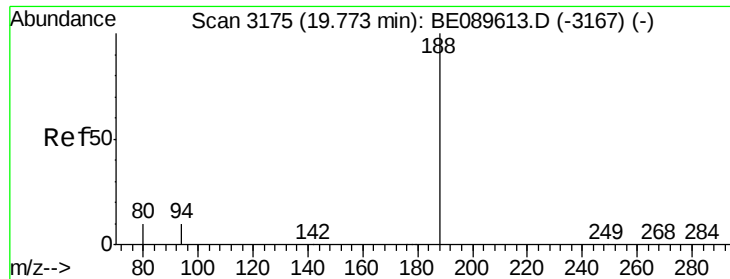
Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E



Time-->

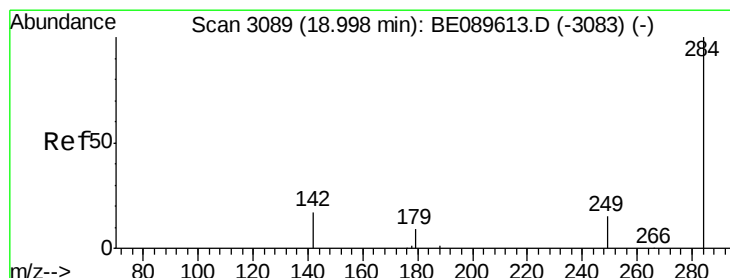
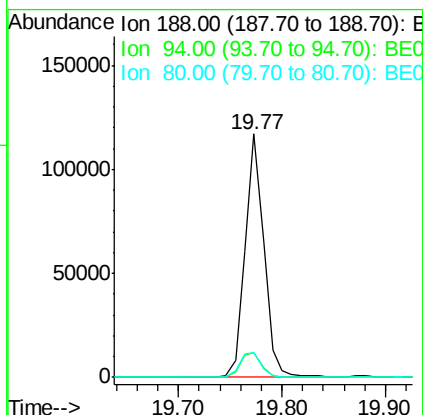
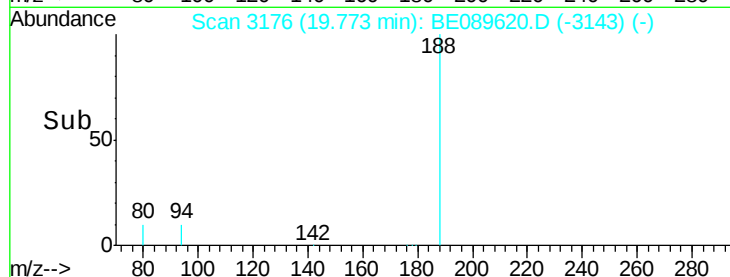
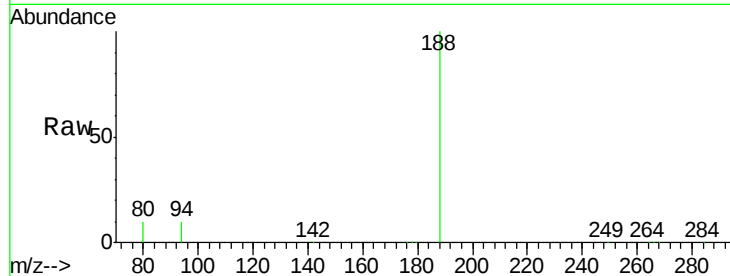




#13  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 19.77 min Scan# 3176  
Delta R.T. 0.00 min  
Lab File: BE089620.D  
Acq: 18 Feb 2015 16:17

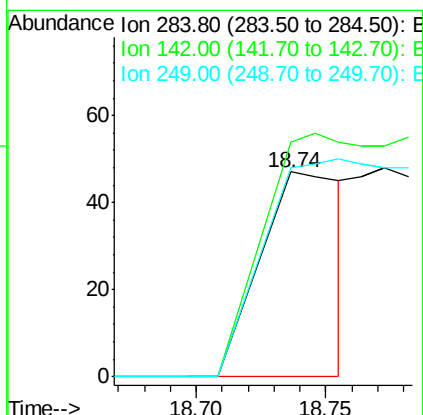
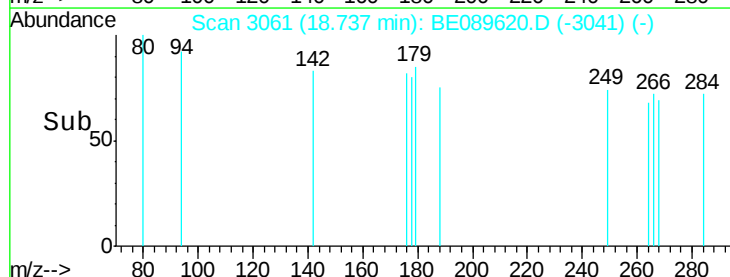
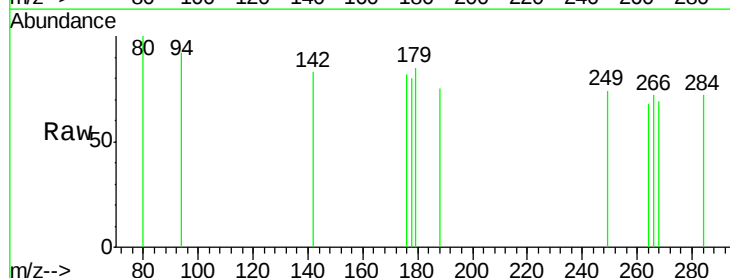
Instrument :  
BNA\_E  
ClientSampleId :  
MDL-BLK-W

Tgt Ion:188 Resp: 146762  
Ion Ratio Lower Upper  
188 100  
94 10.3 8.2 12.4  
80 10.3 8.1 12.1



#14  
Hexachlorobenzene  
Concen: 0.02 ng  
RT: 18.74 min Scan# 3061  
Delta R.T. -0.26 min  
Lab File: BE089620.D  
Acq: 18 Feb 2015 16:17

Tgt Ion:284 Resp: 119  
Ion Ratio Lower Upper  
284 100  
142 145.4 32.3 48.5#  
249 221.8 22.3 33.5#

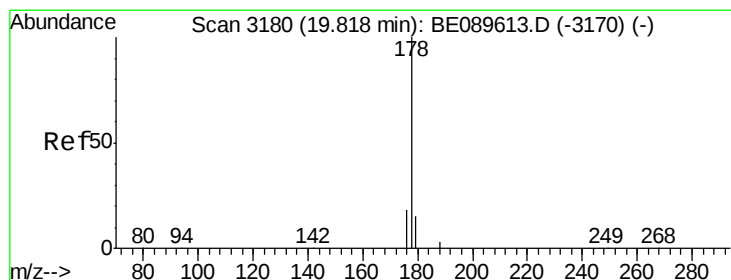
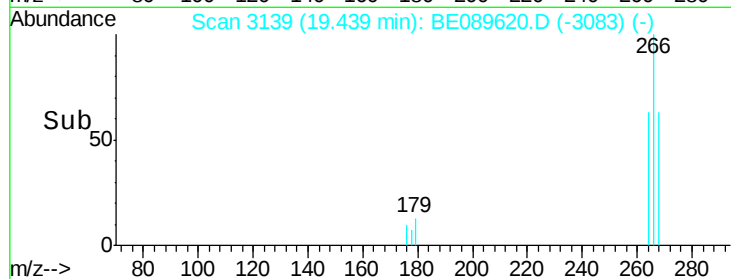
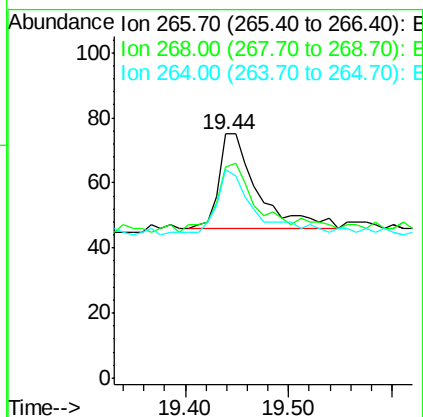
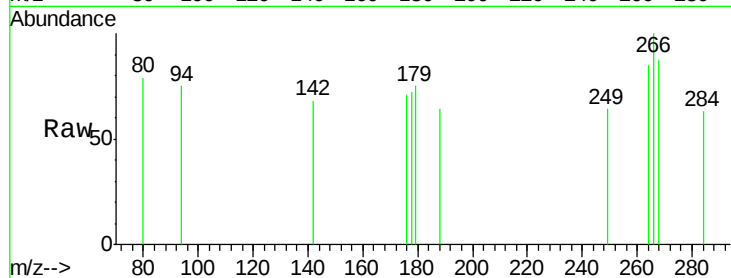




#15  
 Pentachlorophenol  
 Concen: 0.06 ng  
 RT: 19.44 min Scan# 3139  
 Delta R.T. 0.00 min  
 Lab File: BE089620.D  
 Acq: 18 Feb 2015 16:17

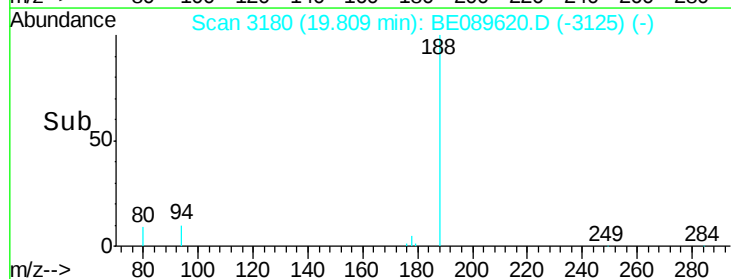
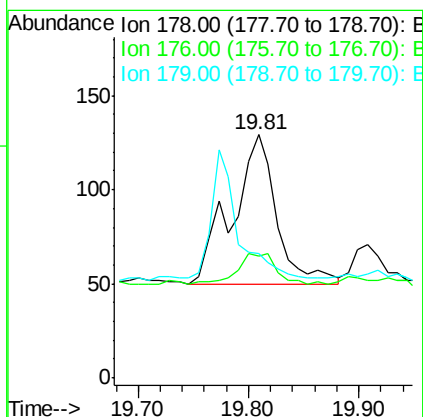
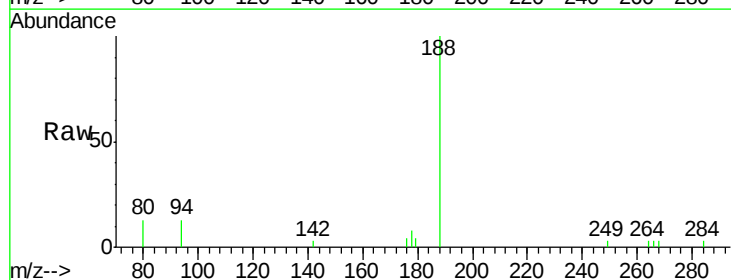
Instrument :  
 BNA\_E  
 ClientSampleId :  
 MDL-BLK-W

Tgt Ion: 266 Resp: 75  
 Ion Ratio Lower Upper  
 266 100  
 268 86.7 52.6 79.0#  
 264 85.3 51.8 77.8#



#16  
 Phenanthrene  
 Concen: 0.01 ng  
 RT: 19.81 min Scan# 3180  
 Delta R.T. -0.01 min  
 Lab File: BE089620.D  
 Acq: 18 Feb 2015 16:17

Tgt Ion: 178 Resp: 224  
 Ion Ratio Lower Upper  
 178 100  
 176 17.4 15.1 22.7  
 179 0.0 12.3 18.5#

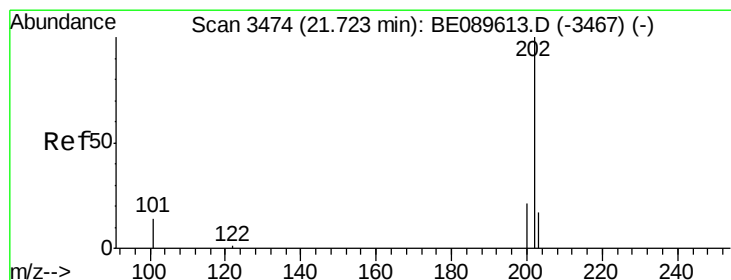
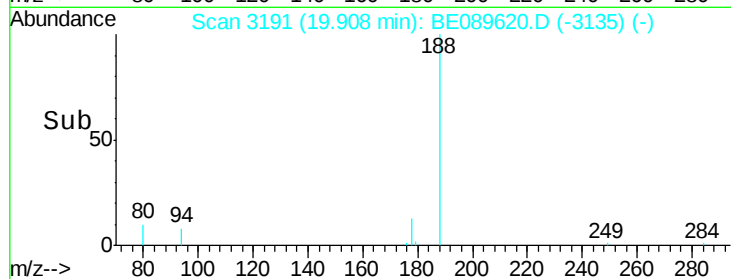
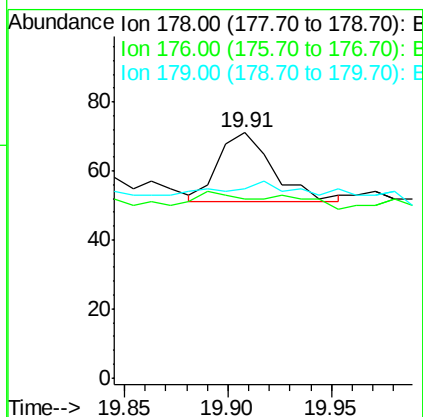
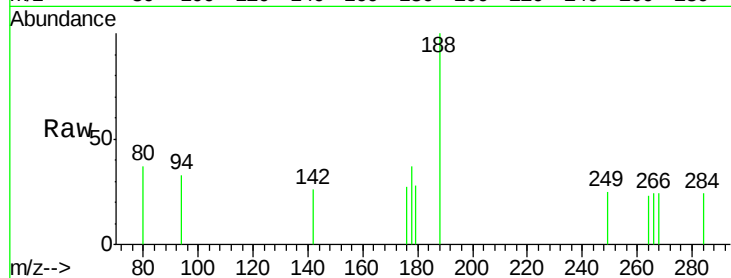




#17  
 Anthracene  
 Concen: 0.00 ng  
 RT: 19.91 min Scan# 3191  
 Delta R.T. 0.00 min  
 Lab File: BE089620.D  
 Acq: 18 Feb 2015 16:17

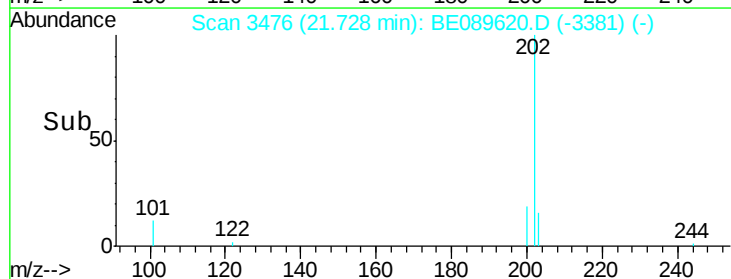
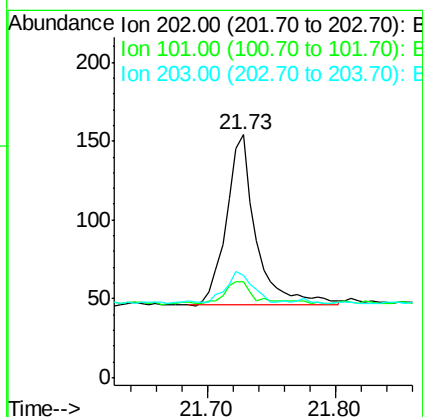
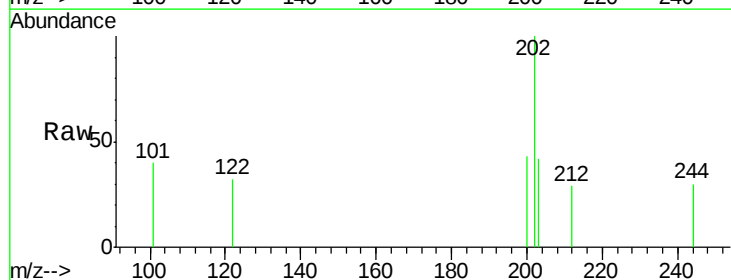
Instrument :  
 BNA\_E  
 ClientSampleId :  
 MDL-BLK-W

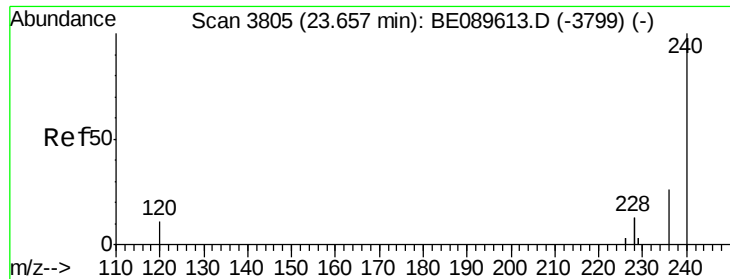
Tgt Ion:178 Resp: 37  
 Ion Ratio Lower Upper  
 178 100  
 176 0.0 14.6 22.0#  
 179 59.5 12.3 18.5#



#18  
 Fluoranthene  
 Concen: 0.01 ng  
 RT: 21.73 min Scan# 3476  
 Delta R.T. 0.01 min  
 Lab File: BE089620.D  
 Acq: 18 Feb 2015 16:17

Tgt Ion:202 Resp: 173  
 Ion Ratio Lower Upper  
 202 100  
 101 13.3 10.4 15.6  
 203 17.9 13.9 20.9





#19

Chrysene-d12

Concen: 5.00 ng

RT: 23.66 min Scan# 3806

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

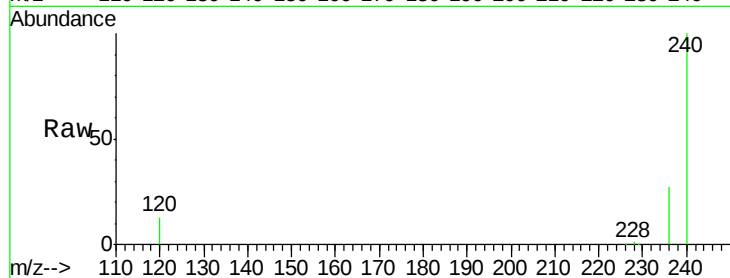
Tgt Ion:240 Resp: 135952

Ion Ratio Lower Upper

240 100

120 13.4 9.0 13.4

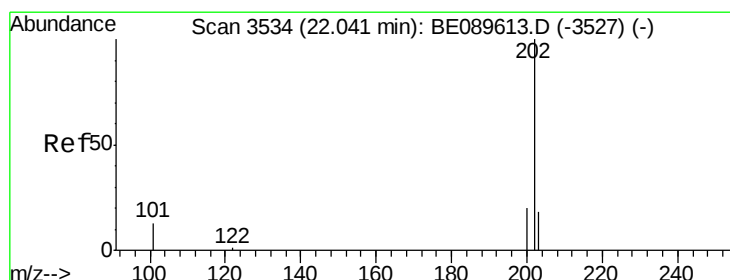
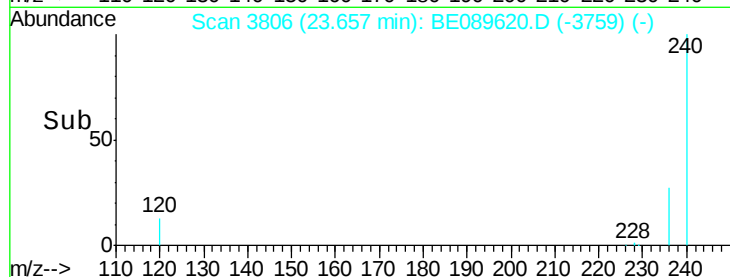
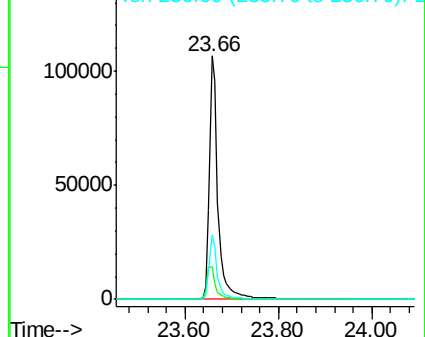
236 26.6 21.0 31.6



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



#20

Pyrene

Concen: 0.01 ng

RT: 22.04 min Scan# 3535

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

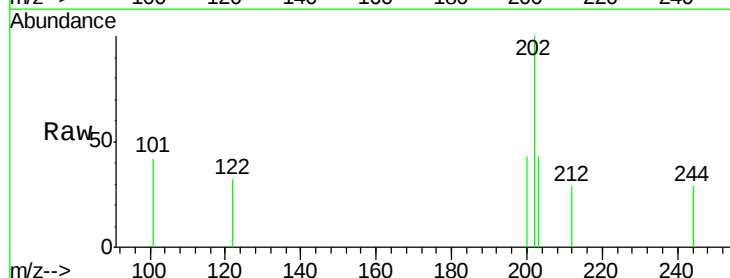
Tgt Ion:202 Resp: 171

Ion Ratio Lower Upper

202 100

200 21.6 16.3 24.5

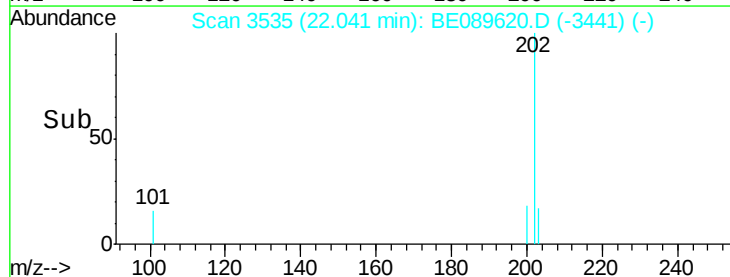
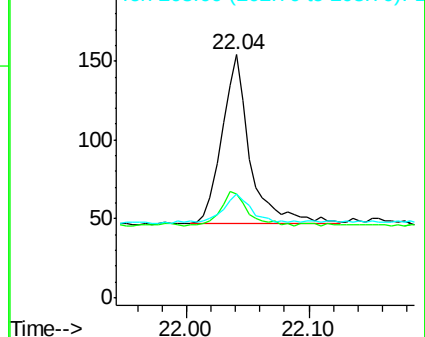
203 19.3 13.8 20.8



Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E





#21

Terphenyl-d14

Concen: 11.56 ng

RT: 22.31 min Scan# 3585

Delta R.T. 0.01 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

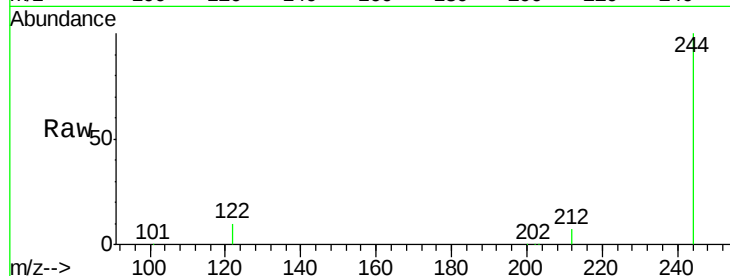
Tgt Ion:244 Resp: 225944

Ion Ratio Lower Upper

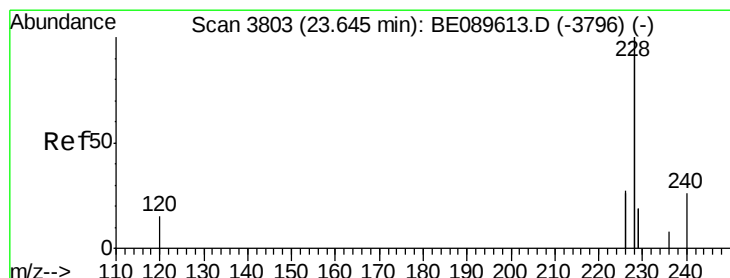
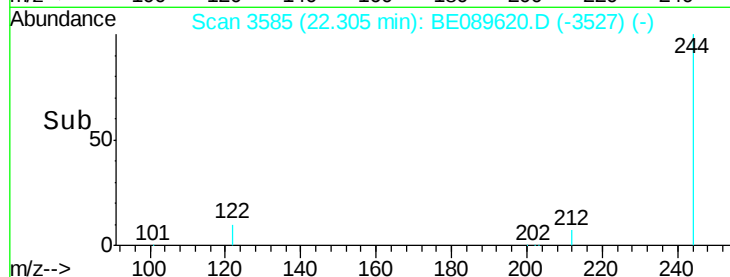
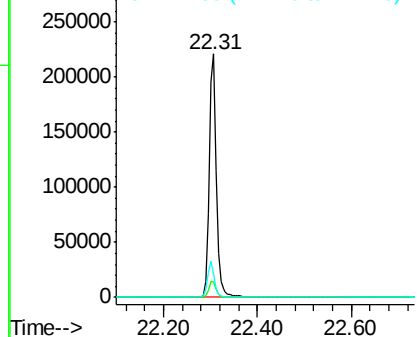
244 100

212 6.6 5.8 8.8

122 9.6 11.8 17.8#



Abundance Ion 244.00 (243.70 to 244.70): E  
Ion 212.00 (211.70 to 212.70): E  
Ion 122.00 (121.70 to 122.70): E



#22

Benzo(a)anthracene

Concen: 0.01 ng

RT: 23.66 min Scan# 3806

Delta R.T. 0.01 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

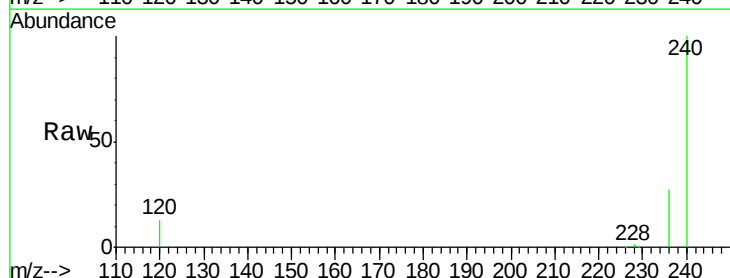
Tgt Ion:228 Resp: 1788

Ion Ratio Lower Upper

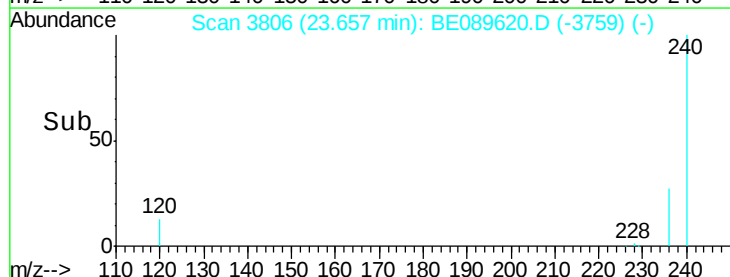
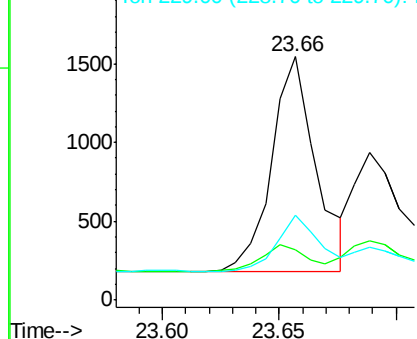
228 100

226 20.5 21.2 31.8#

229 34.8 15.2 22.8#



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: 0.01 ng

RT: 23.69 min Scan# 3811

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

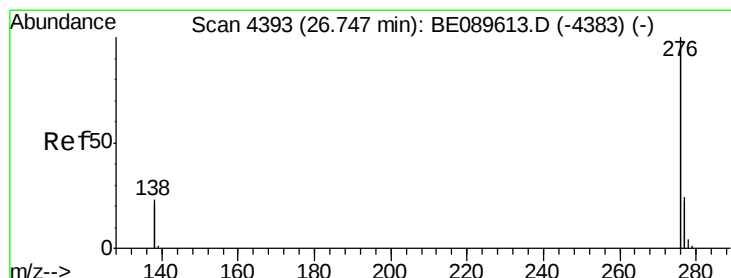
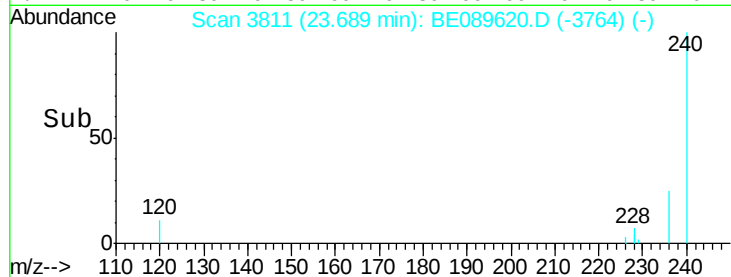
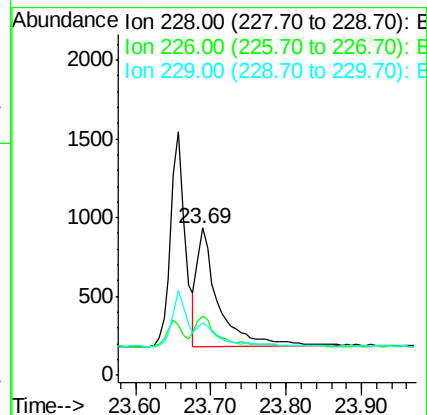
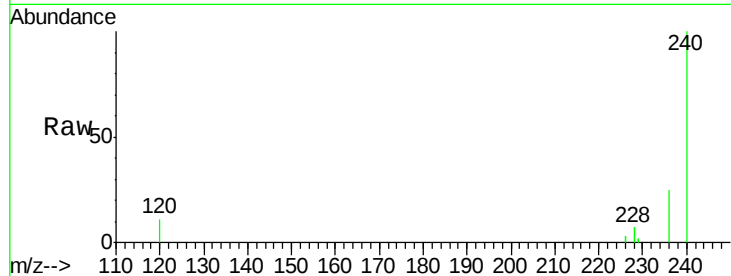
Tgt Ion:228 Resp: 1445

Ion Ratio Lower Upper

228 100

226 40.4 22.2 33.4#

229 35.5 16.0 24.0#



#24

Indeno(1,2,3-cd)pyrene

Concen: 0.18 ng

RT: 26.75 min Scan# 4394

Delta R.T. 0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

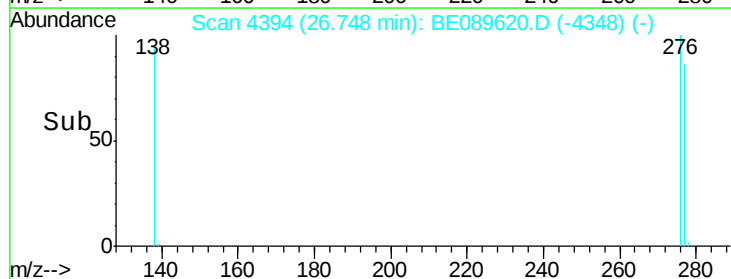
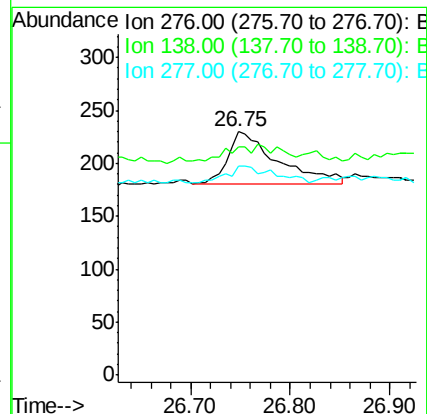
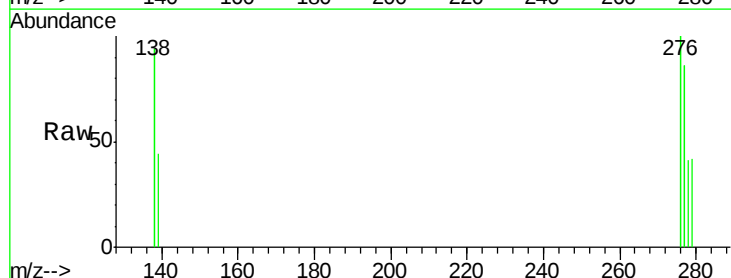
Tgt Ion:276 Resp: 178

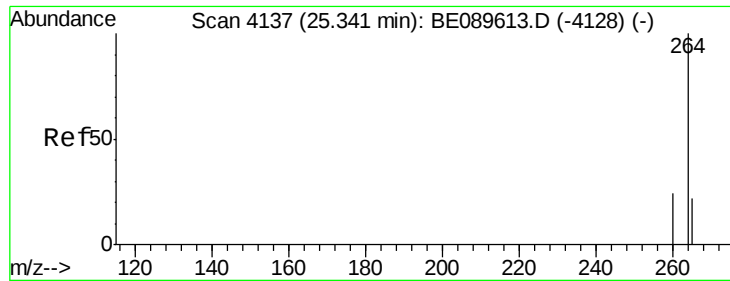
Ion Ratio Lower Upper

276 100

138 14.6 21.4 32.2#

277 27.5 19.9 29.9

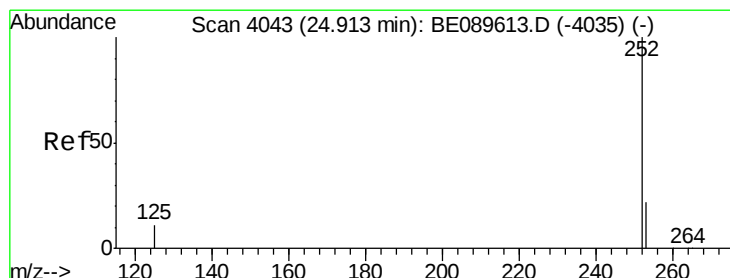
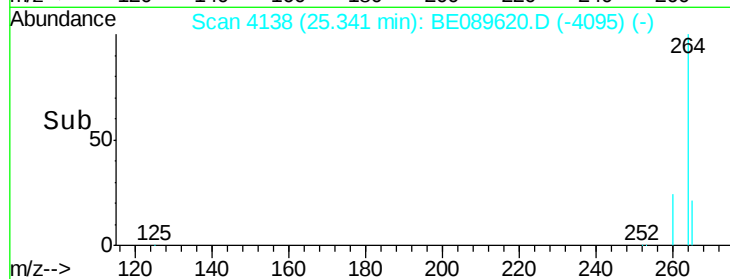
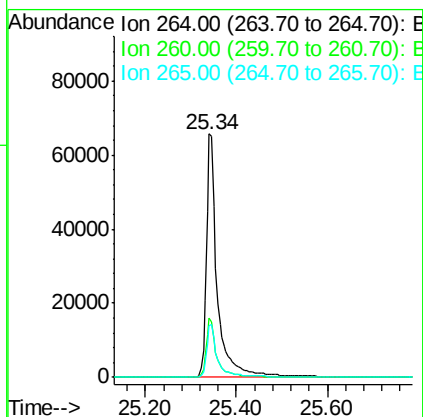
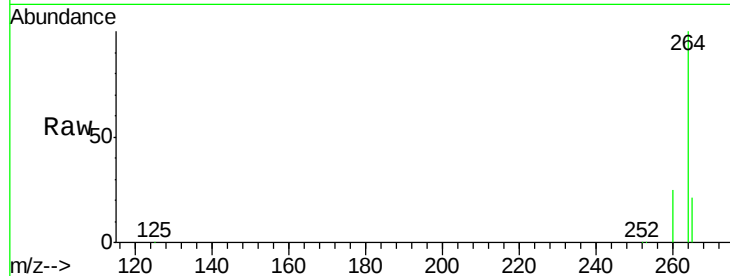




#25  
Perylene-d12  
Concen: 5.00 ng  
RT: 25.34 min Scan# 4138  
Delta R.T. -0.00 min  
Lab File: BE089620.D  
Acq: 18 Feb 2015 16:17

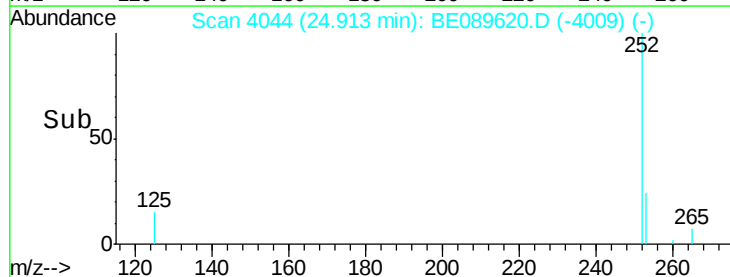
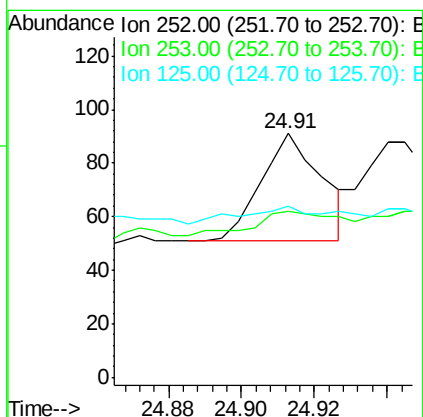
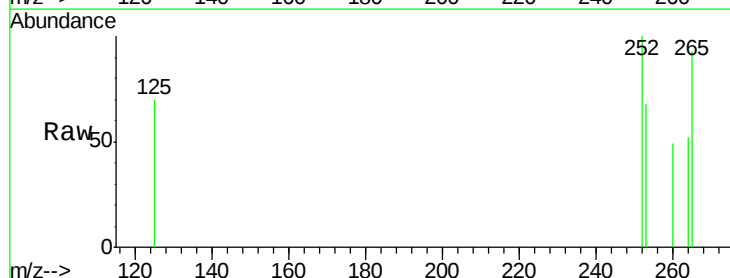
Instrument :  
BNA\_E  
ClientSampleId :  
MDL-BLK-W

Tgt Ion: 264 Resp: 109030  
Ion Ratio Lower Upper  
264 100  
260 24.5 19.0 28.6  
265 21.0 17.4 26.0



#26  
Benzo(b)fluoranthene  
Concen: 0.27 ng  
RT: 24.91 min Scan# 4044  
Delta R.T. 0.00 min  
Lab File: BE089620.D  
Acq: 18 Feb 2015 16:17

Tgt Ion: 252 Resp: 46  
Ion Ratio Lower Upper  
252 100  
253 68.1 17.6 26.4#  
125 70.3 8.8 13.2#





#27

Benzo(k)fluoranthene

Concen: 0.00 ng

RT: 24.94 min Scan# 4050

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

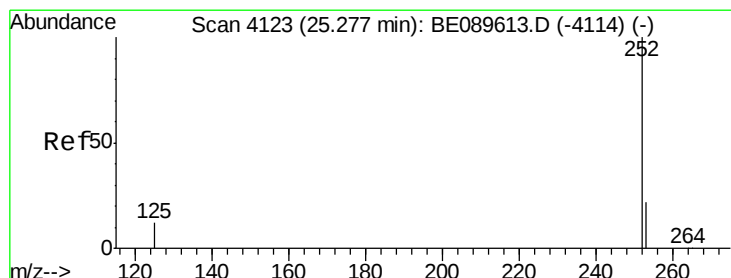
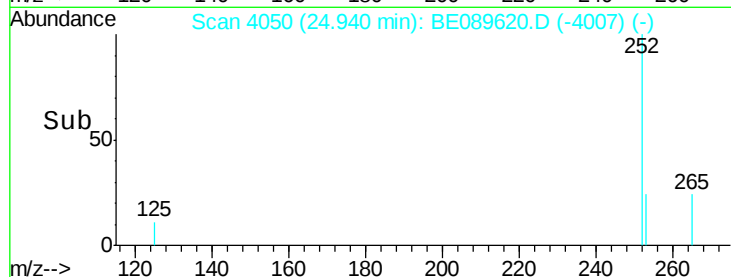
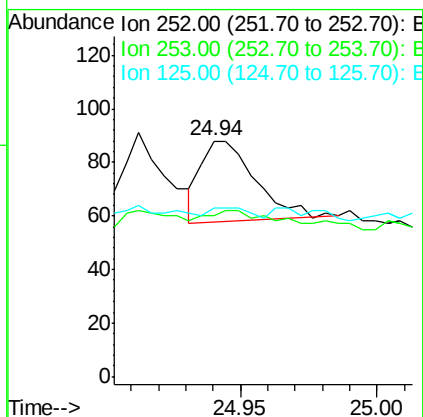
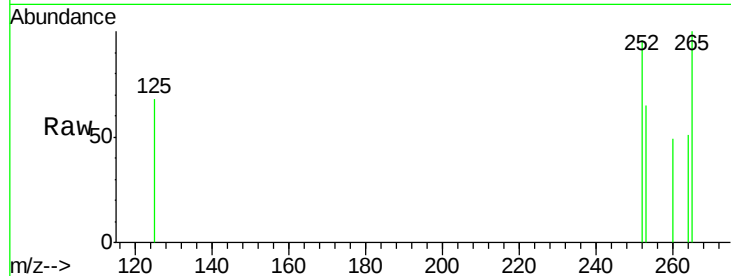
Tgt Ion:252 Resp: 42

Ion Ratio Lower Upper

252 100

253 68.2 17.7 26.5#

125 71.6 8.8 13.2#



#28

Benzo(a)pyrene

Concen: 0.24 ng

RT: 25.27 min Scan# 4123

Delta R.T. -0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

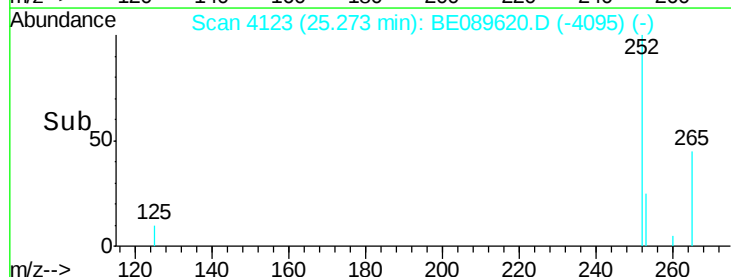
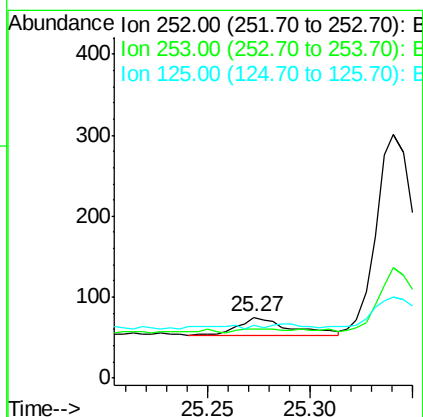
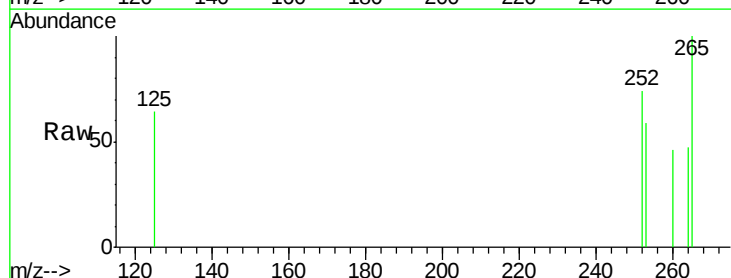
Tgt Ion:252 Resp: 37

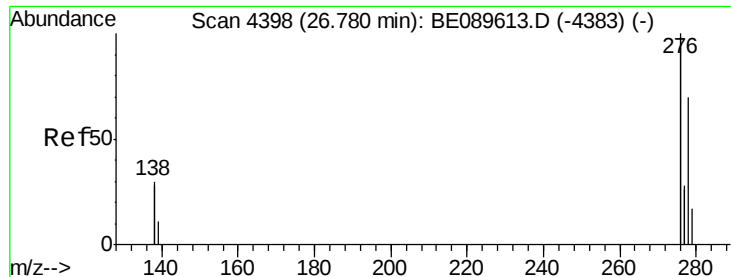
Ion Ratio Lower Upper

252 100

253 80.0 18.1 27.1#

125 86.7 9.6 14.4#





#29

Dibenzo(a,h)anthracene

Concen: 0.23 ng

RT: 26.78 min Scan# 4399

Delta R.T. 0.00 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

Instrument :

BNA\_E

ClientSampleId :

MDL-BLK-W

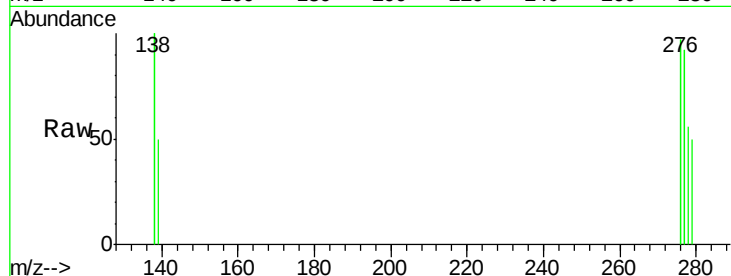
Tgt Ion: 278 Resp: 36

Ion Ratio Lower Upper

278 100

139 88.1 13.7 20.5#

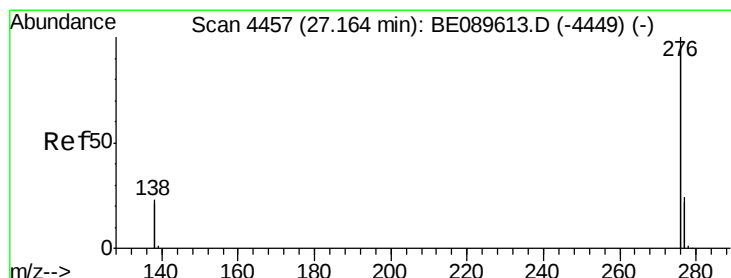
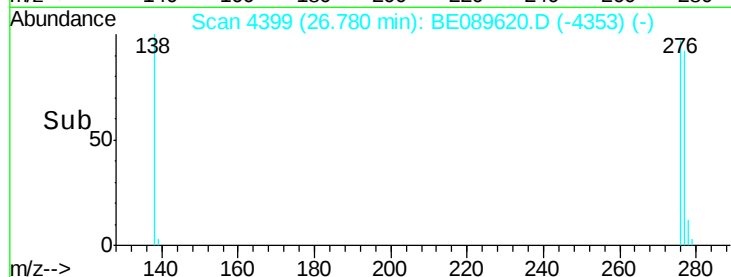
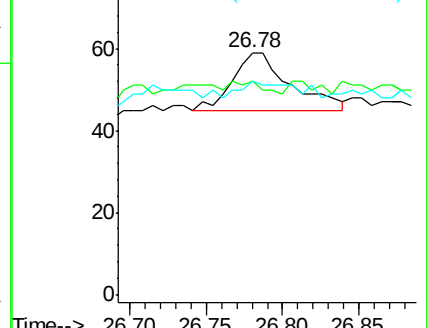
279 88.1 19.7 29.5#



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



#30

Benzo(g,h,i)perylene

Concen: 0.13 ng

RT: 27.16 min Scan# 4457

Delta R.T. -0.01 min

Lab File: BE089620.D

Acq: 18 Feb 2015 16:17

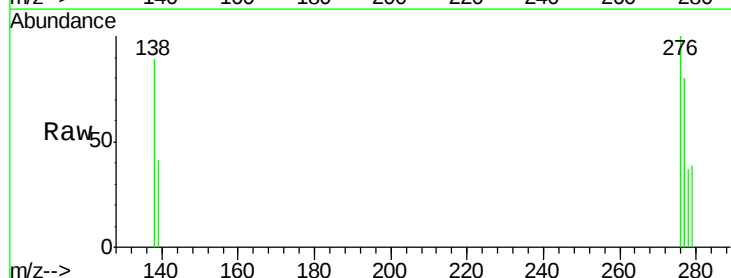
Tgt Ion: 276 Resp: 164

Ion Ratio Lower Upper

276 100

277 80.5 19.1 28.7#

138 89.4 18.7 28.1#



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

