

Data Path : Z:\HPCHEM1\BNA\_E\Data\BE080316\  
 Data File : BE092173.D  
 Acq On : 4 Aug 2016 8:42  
 Operator : UM/SJ  
 Sample : H4221-18  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 GW-48-7.7-15.0

Quant Time: Aug 04 14:03:01 2016  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\8270-PAH-BE080216.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Aug 02 16:59:37 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.17  | 152  | 10902    | 5.00 | ng    | 0.00     |
| 6) Naphthalene-d8         | 10.98 | 136  | 53902    | 5.00 | ng    | -0.01    |
| 10) Acenaphthene-d10      | 14.83 | 164  | 31248    | 5.00 | ng    | -0.02    |
| 16) Phenanthrene-d10      | 17.56 | 188  | 72856    | 5.00 | ng    | -0.02    |
| 22) Chrysene-d12          | 21.75 | 240  | 88723    | 5.00 | ng    | 0.00     |
| 28) Perylene-d12          | 24.14 | 264  | 88415    | 5.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|-----------------------------|-------|------|----------|------|-------|----------|
| 4) 2-Fluorophenol           | 5.69  | 112  | 6361     | 2.27 | ng    | 0.00     |
| 5) Phenol-d6                | 7.35  | 99   | 6600     | 1.77 | ng    | 0.00     |
| 7) Nitrobenzene-d5          | 9.34  | 82   | 10773    | 2.53 | ng    | -0.01    |
| 11) 2,4,6-Tribromophenol    | 16.33 | 330  | 7990     | 7.87 | ng    | 0.00     |
| 12) 2-Fluorobiphenyl        | 13.46 | 172  | 29481    | 2.98 | ng    | 0.00     |
| 24) Terphenyl-d14           | 20.19 | 244  | 57214    | 4.49 | ng    | -0.02    |

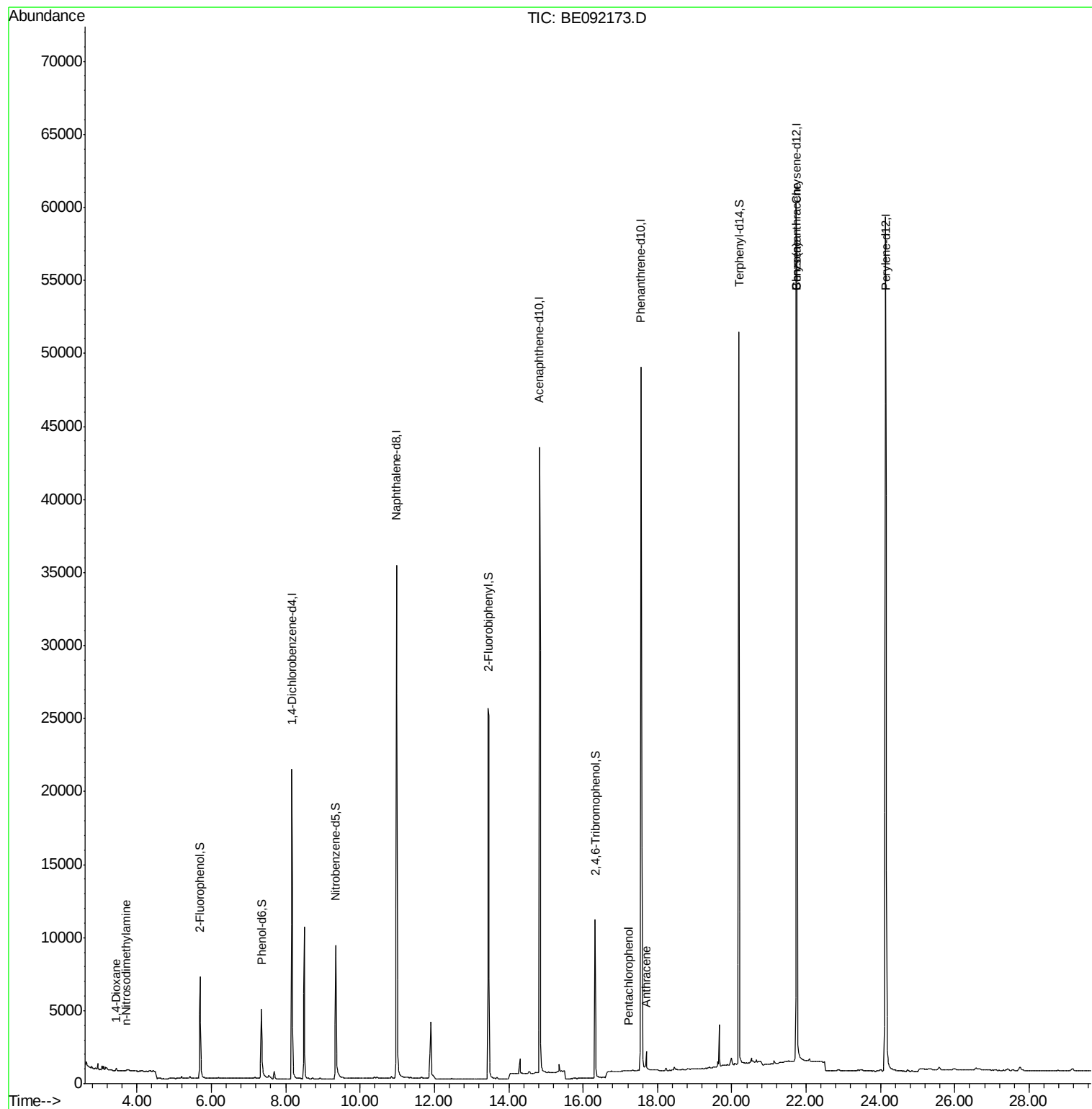
| Target Compounds          | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|---------------------------|-------|------|----------|-----------|-------|--------|
| 2) 1,4-Dioxane            | 3.44  | 88   | 171      | 0.12      | ng    | # 75   |
| 3) n-Nitrosodimethylamine | 3.70  | 42   | 108      | 0.14      | ng    | # 6    |
| 8) Naphthalene            | 11.03 | 128  | 109      | Below Cal |       | # 2    |
| 18) Pentachlorophenol     | 17.24 | 266  | 17       | 0.21      | ng    | # 77   |
| 19) Phenanthrene          | 17.61 | 178  | 341      | Below Cal |       | # 73   |
| 20) Anthracene            | 17.70 | 178  | 1652     | 0.09      | ng    | 99     |
| 25) Benzo(a)anthracene    | 21.73 | 228  | 2102     | 0.02      | ng    | # 62   |
| 26) Chrysene              | 21.73 | 228  | 2130     | 0.02      | ng    | # 64   |
| 30) Benzo(k)fluoranthene  | 23.46 | 252  | 47       | Below Cal |       | # 1    |

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

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QLast Update : Tue Aug 02 16:59:37 2016  
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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 8.17 min Scan# 479

Delta R.T. -0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

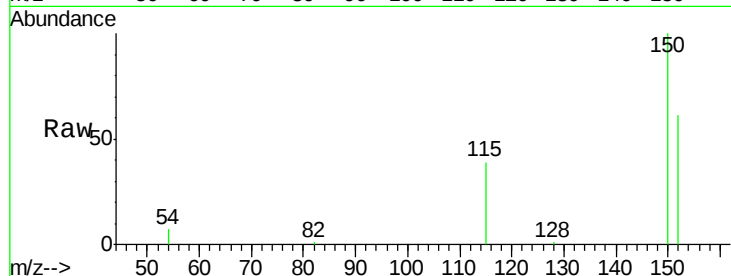
Tgt Ion:152 Resp: 10902

Ion Ratio Lower Upper

152 100

150 163.9 106.0 159.0#

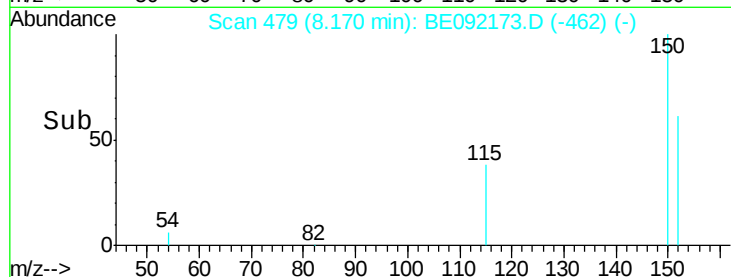
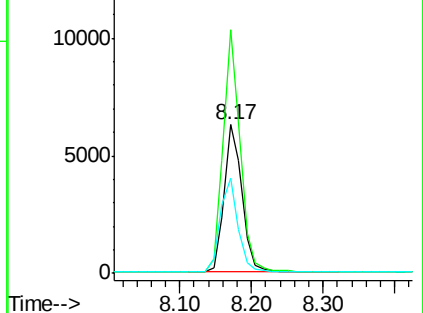
115 63.7 36.9 55.3#



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: 0.12 ng

RT: 3.44 min Scan# 73

Delta R.T. -0.01 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

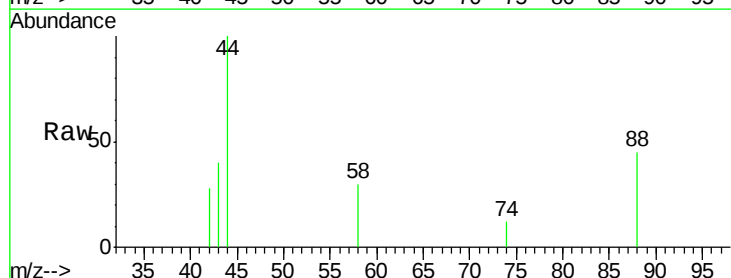
Tgt Ion: 88 Resp: 171

Ion Ratio Lower Upper

88 100

58 76.0 62.1 93.1

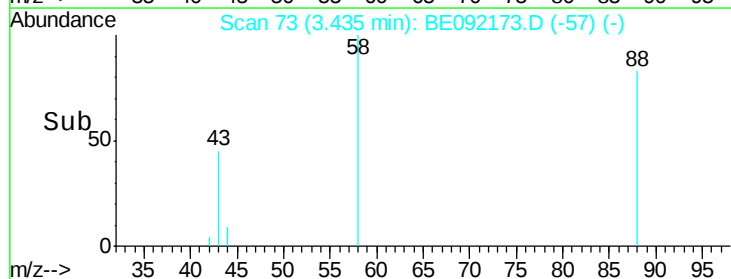
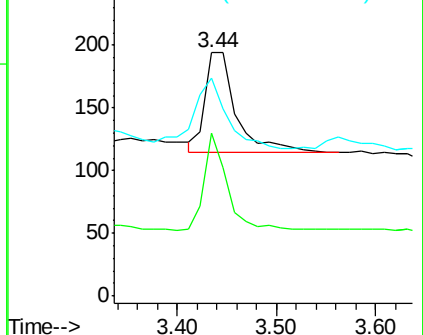
43 77.8 27.2 40.8#

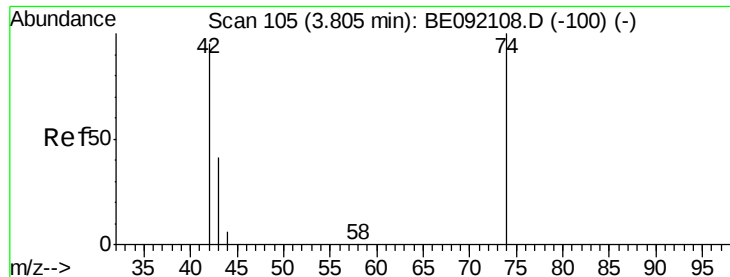


Abundance Ion 88.00 (87.70 to 88.70): BE0

Ion 58.00 (57.70 to 58.70): BE0

Ion 43.00 (42.70 to 43.70): BE0





#3

n-Nitrosodimethylamine

Concen: 0.14 ng

RT: 3.70 min Scan# 96

Delta R.T. -0.10 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

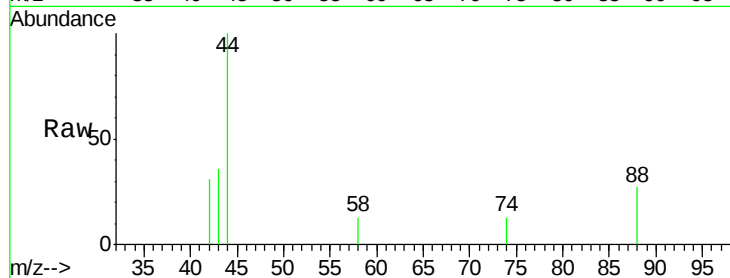
Tgt Ion: 42 Resp: 108

Ion Ratio Lower Upper

42 100

74 0.0 82.8 124.2#

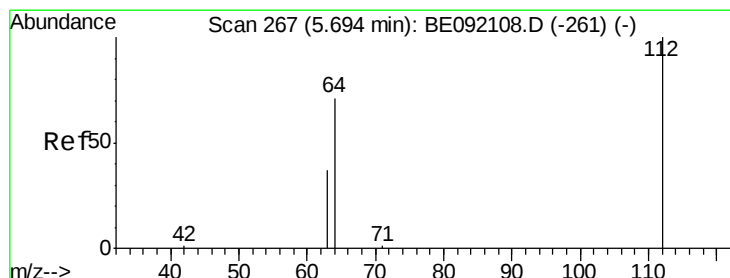
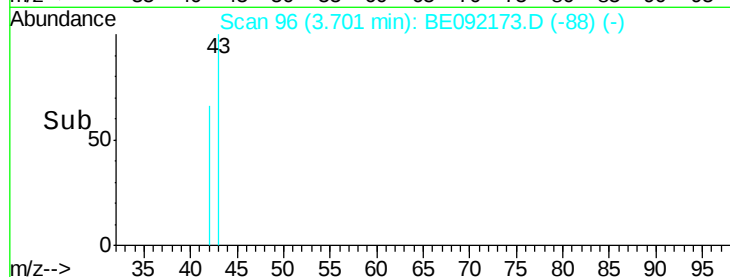
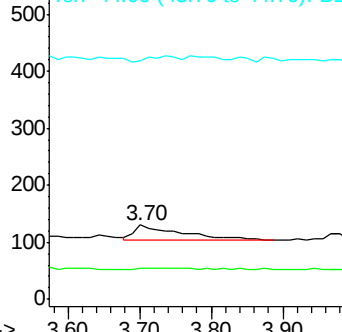
44 0.0 9.0 13.4#



Abundance Ion 42.00 (41.70 to 42.70): BE0

Ion 74.00 (73.70 to 74.70): BE0

Ion 44.00 (43.70 to 44.70): BE0



#4

2-Fluorophenol

Concen: 2.27 ng

RT: 5.69 min Scan# 267

Delta R.T. -0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

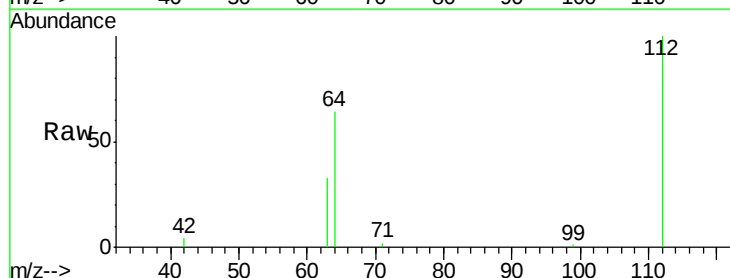
Tgt Ion: 112 Resp: 6361

Ion Ratio Lower Upper

112 100

64 67.2 55.9 83.9

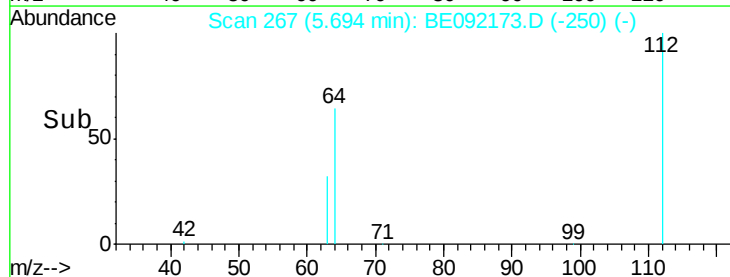
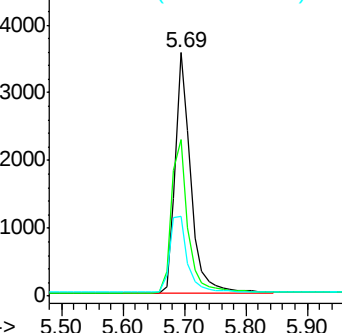
63 36.2 31.1 46.7



Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BE0

Ion 63.00 (62.70 to 63.70): BE0





#5

Phenol-d6

Concen: 1.77 ng

RT: 7.35 min Scan# 410

Delta R.T. -0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

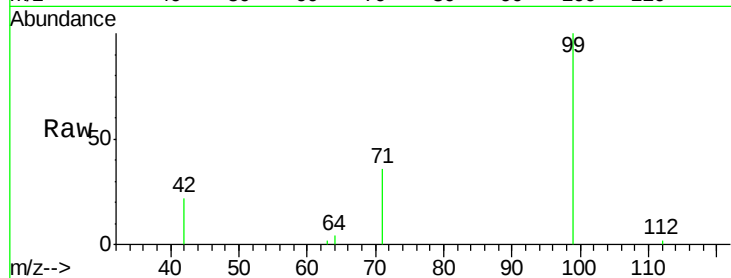
Tgt Ion: 99 Resp: 6600

Ion Ratio Lower Upper

99 100

42 23.5 22.4 33.6

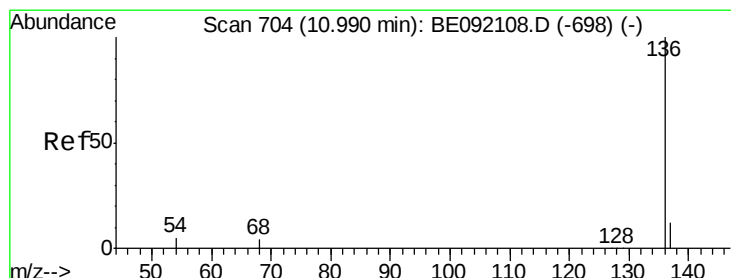
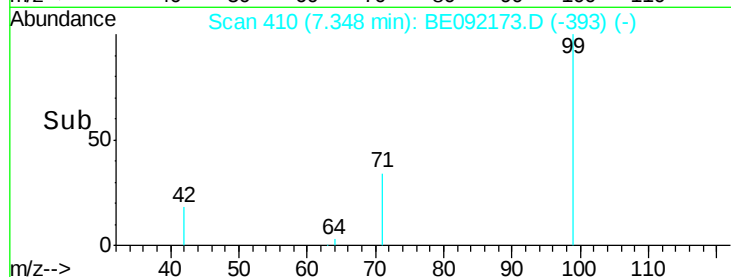
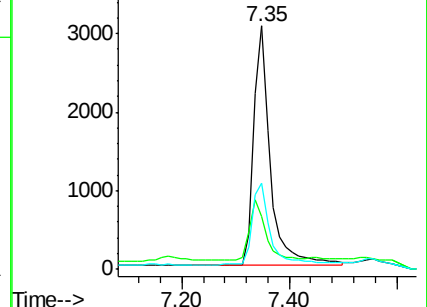
71 36.6 28.9 43.3



Abundance Ion 99.00 (98.70 to 99.70): BE0

Ion 42.00 (41.70 to 42.70): BE0

Ion 71.00 (70.70 to 71.70): BE0



#6

Naphthalene-d8

Concen: 5.00 ng

RT: 10.98 min Scan# 703

Delta R.T. -0.01 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Tgt Ion: 136 Resp: 53902

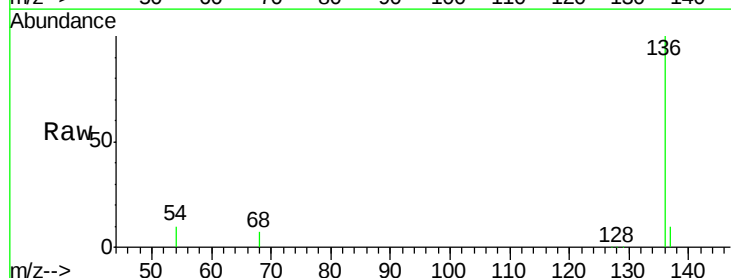
Ion Ratio Lower Upper

136 100

137 10.4 9.1 13.7

54 10.0 2.7 4.1#

68 7.0 2.2 3.4#

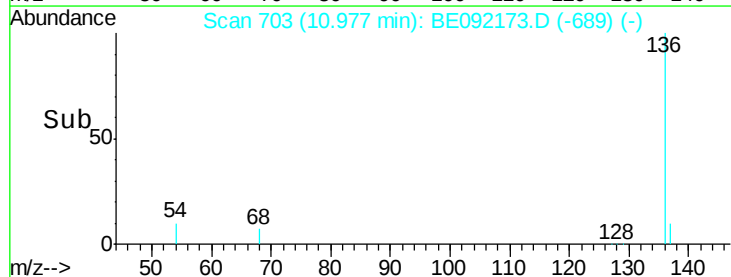
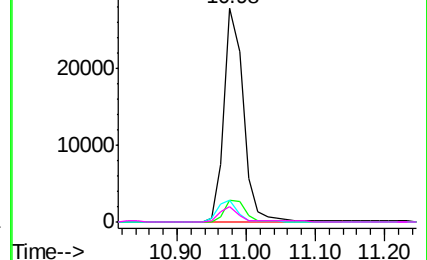


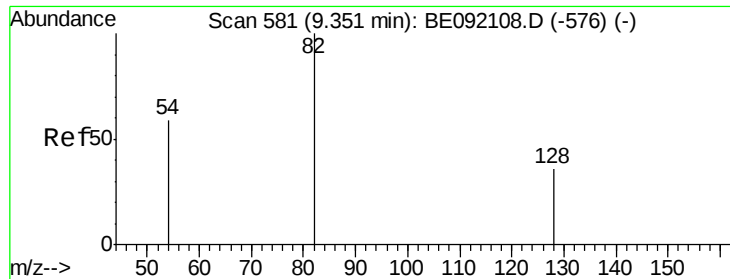
Abundance Ion 136.00 (135.70 to 136.70): E

Ion 137.00 (136.70 to 137.70): E

Ion 54.00 (53.70 to 54.70): BE0

Ion 68.00 (67.70 to 68.70): BE0





#7

Nitrobenzene-d5

Concen: 2.53 ng

RT: 9.34 min Scan# 580

Delta R.T. -0.01 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

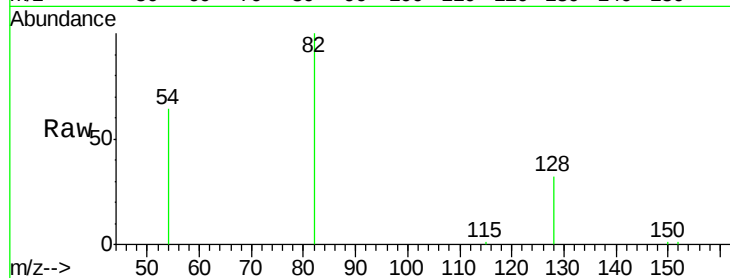
Tgt Ion: 82 Resp: 10773

Ion Ratio Lower Upper

82 100

128 32.3 33.0 49.4#

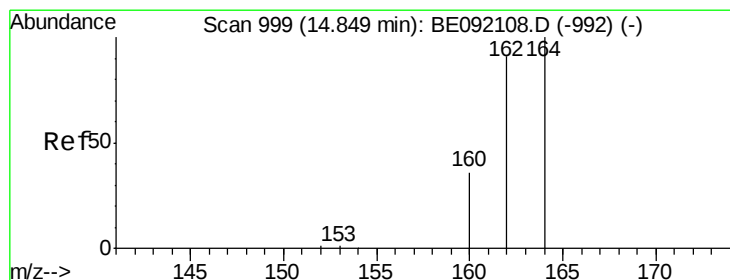
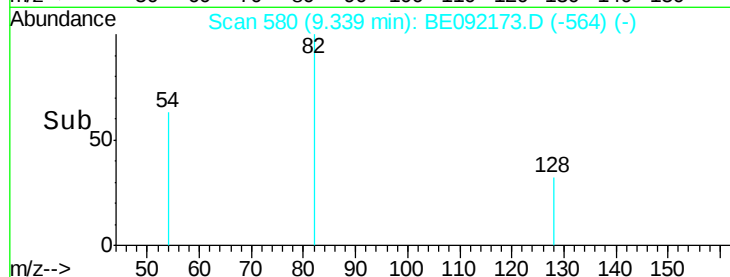
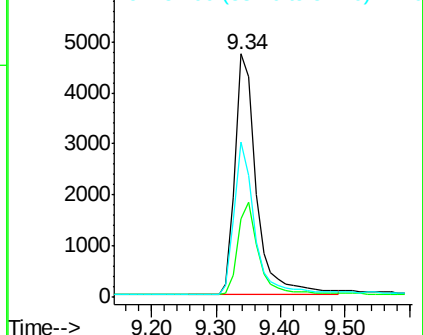
54 63.6 42.6 63.8



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



#10

Acenaphthene-d10

Concen: 5.00 ng

RT: 14.83 min Scan# 998

Delta R.T. -0.02 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

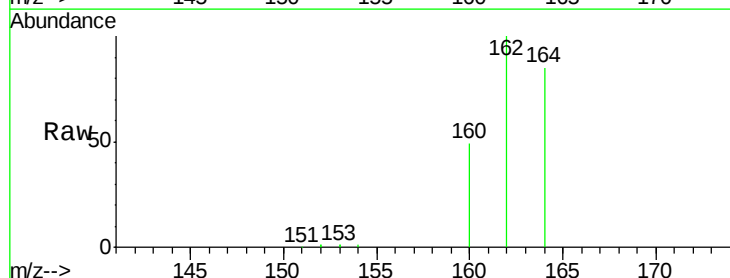
Tgt Ion: 164 Resp: 31248

Ion Ratio Lower Upper

164 100

162 117.3 69.5 104.3#

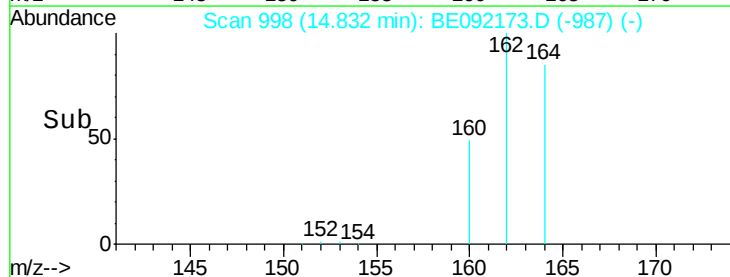
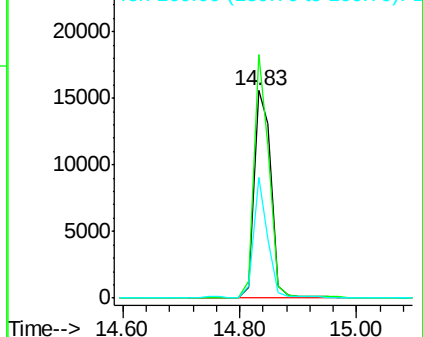
160 58.0 27.6 41.4#

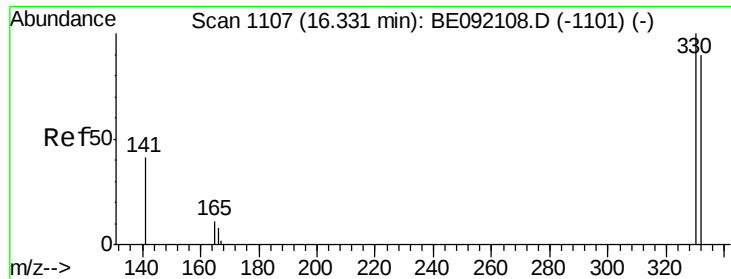


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E

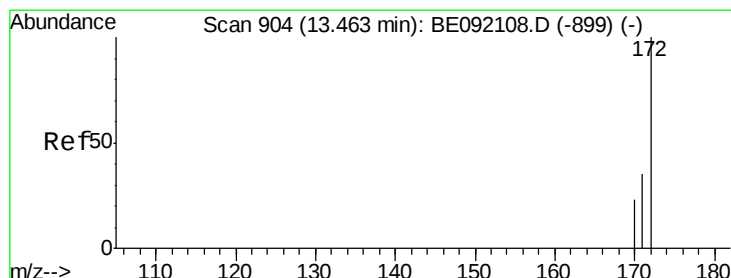
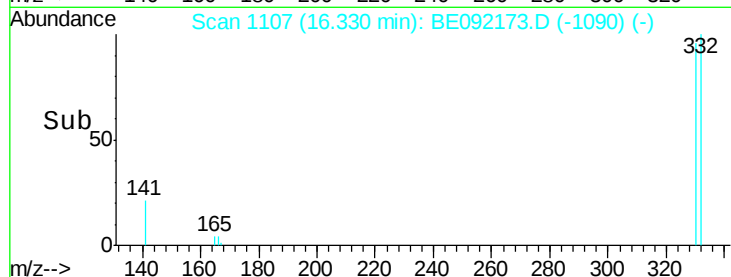
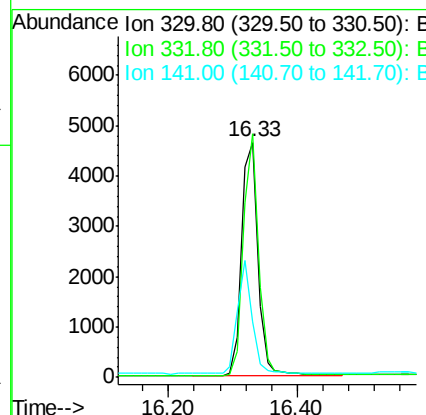
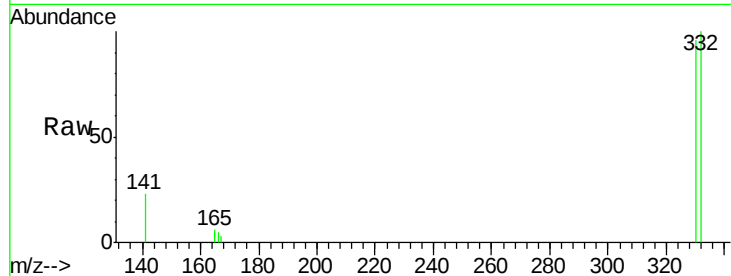




#11  
 2,4,6-Tribromophenol  
 Concen: 7.87 ng  
 RT: 16.33 min Scan# 1107  
 Delta R.T. -0.00 min  
 Lab File: BE092173.D  
 Acq: 4 Aug 2016 8:42

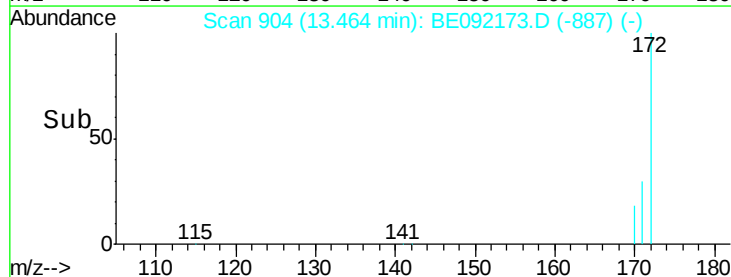
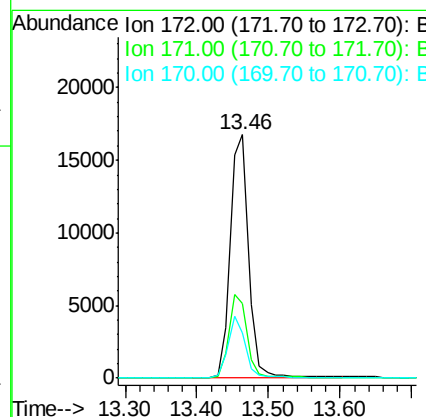
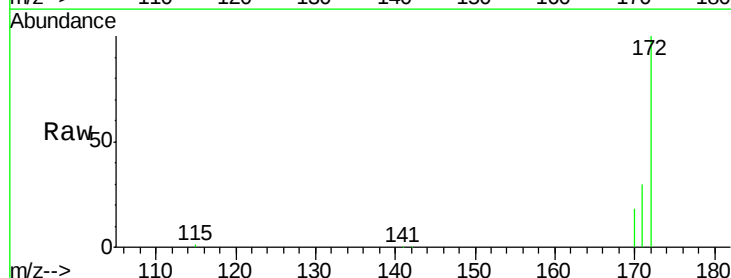
Instrument :  
 BNA\_E  
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 GW-48-7.7-15.0

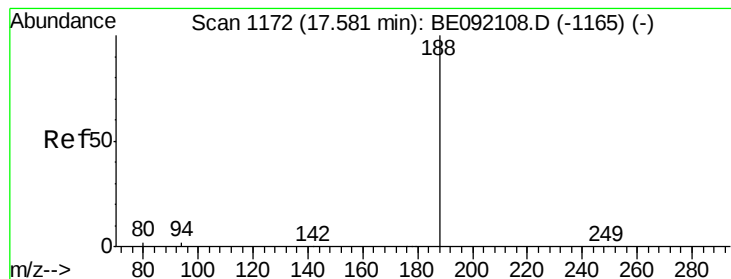
Tgt Ion: 330 Resp: 7990  
 Ion Ratio Lower Upper  
 330 100  
 332 96.5 74.2 111.4  
 141 43.5 139.8 209.8#



#12  
 2-Fluorobiphenyl  
 Concen: 2.98 ng  
 RT: 13.46 min Scan# 904  
 Delta R.T. 0.00 min  
 Lab File: BE092173.D  
 Acq: 4 Aug 2016 8:42

Tgt Ion: 172 Resp: 29481  
 Ion Ratio Lower Upper  
 172 100  
 171 30.5 30.3 45.5  
 170 18.4 21.6 32.4#





#16

Phenanthrene-d10

Concen: 5.00 ng

RT: 17.56 min Scan# 1171

Delta R.T. -0.02 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

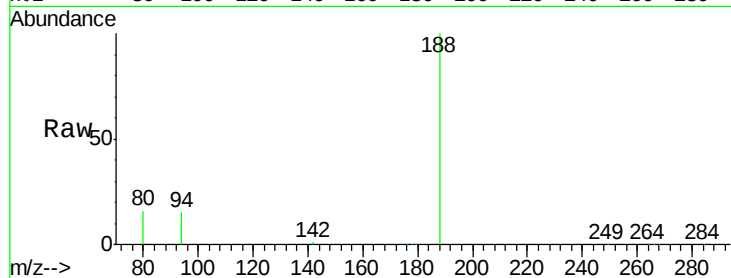
Tgt Ion:188 Resp: 72856

Ion Ratio Lower Upper

188 100

94 15.0 3.9 5.9#

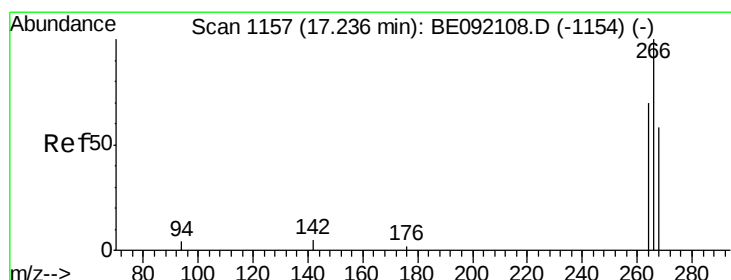
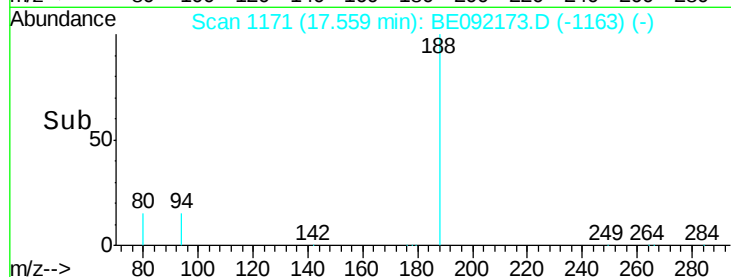
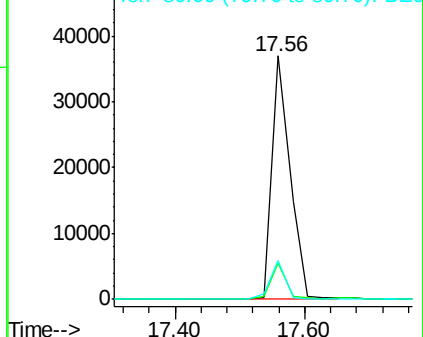
80 15.7 3.4 5.0#



Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BE0

Ion 80.00 (79.70 to 80.70): BE0



#18

Pentachlorophenol

Concen: 0.21 ng

RT: 17.24 min Scan# 1157

Delta R.T. 0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

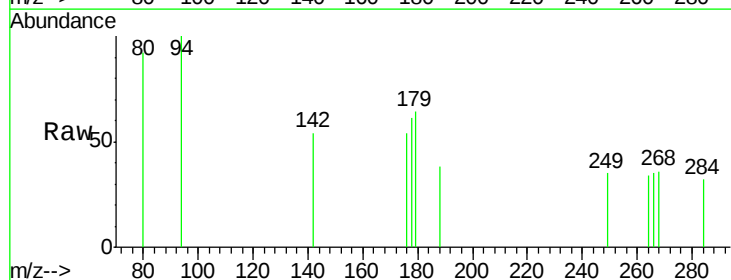
Tgt Ion:266 Resp: 17

Ion Ratio Lower Upper

266 100

268 102.0 62.7 94.1#

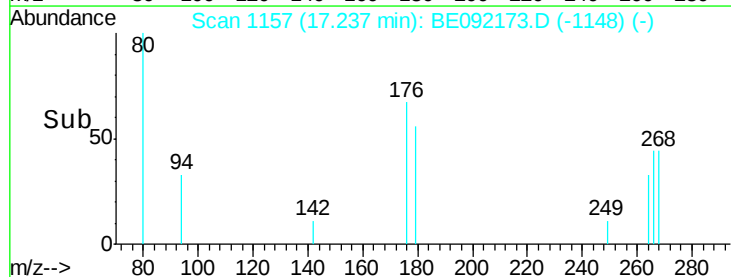
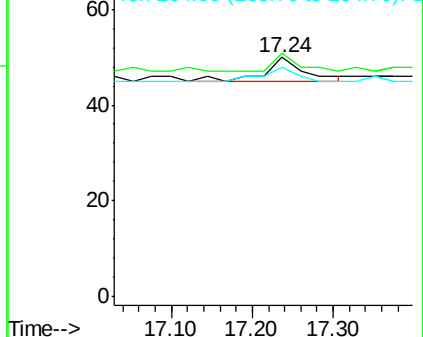
264 96.0 63.5 95.3#

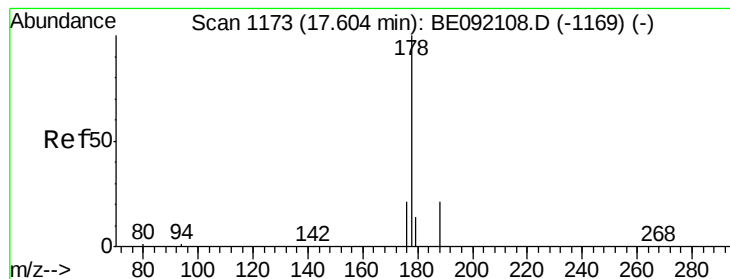


Abundance Ion 265.70 (265.40 to 266.40): E

Ion 268.00 (267.70 to 268.70): E

Ion 264.00 (263.70 to 264.70): E





#19

Phenanthrene

Concen: Below Cal

RT: 17.61 min Scan# 1173

Delta R.T. 0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

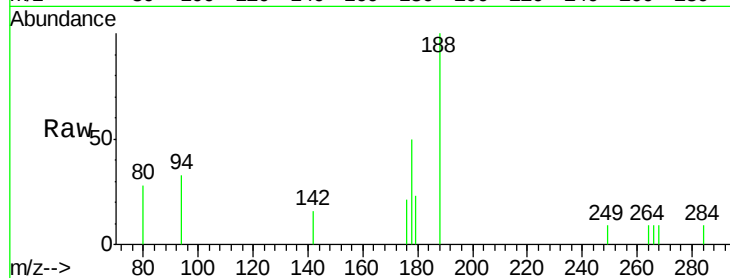
Tgt Ion:178 Resp: 341

Ion Ratio Lower Upper

178 100

176 16.7 15.4 23.0

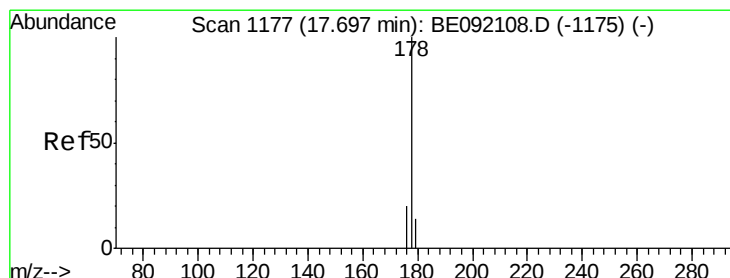
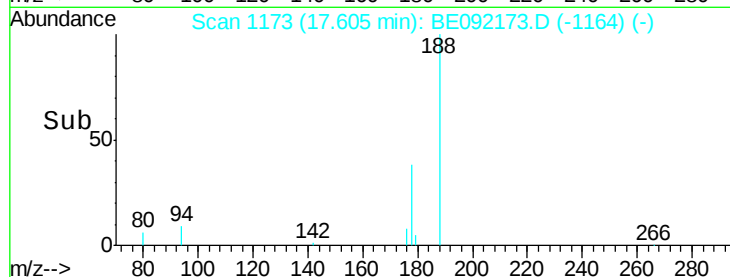
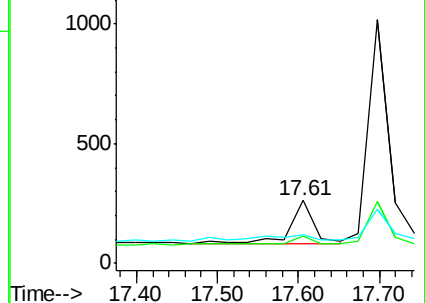
179 38.4 12.7 19.1#



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



#20

Anthracene

Concen: 0.09 ng

RT: 17.70 min Scan# 1177

Delta R.T. 0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

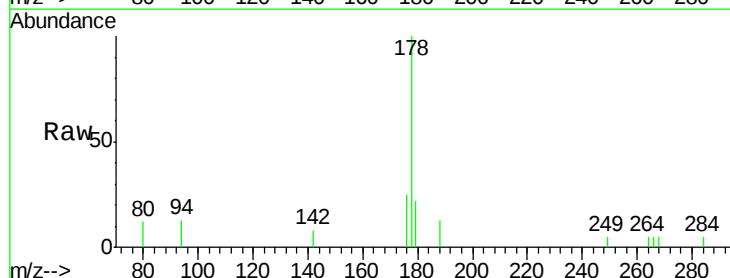
Tgt Ion:178 Resp: 1652

Ion Ratio Lower Upper

178 100

176 18.8 15.2 22.8

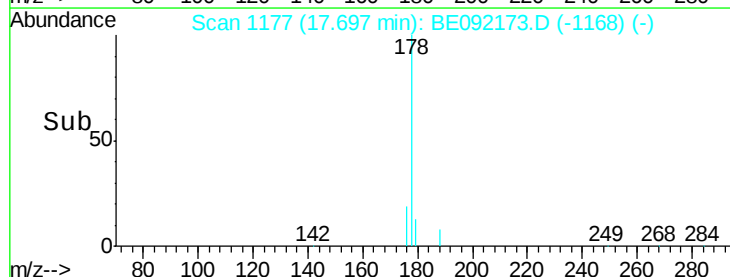
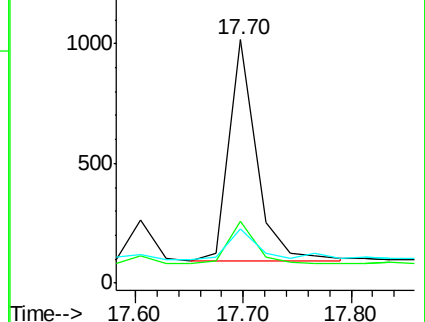
179 14.7 12.2 18.4

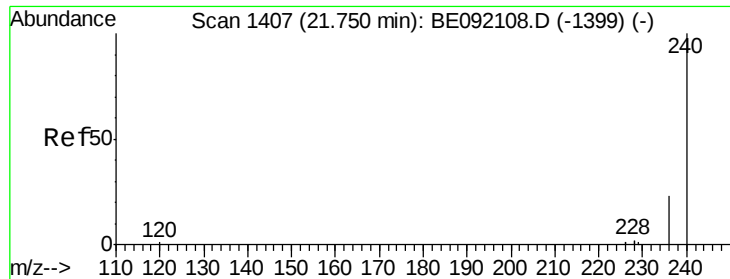


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E

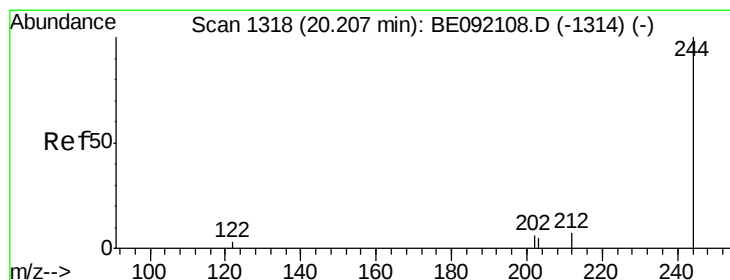
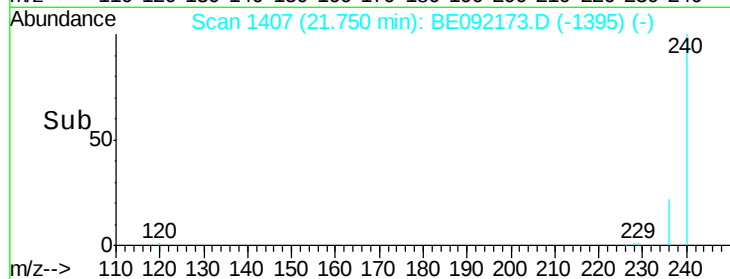
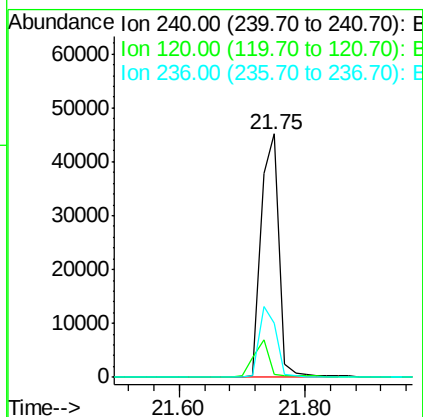
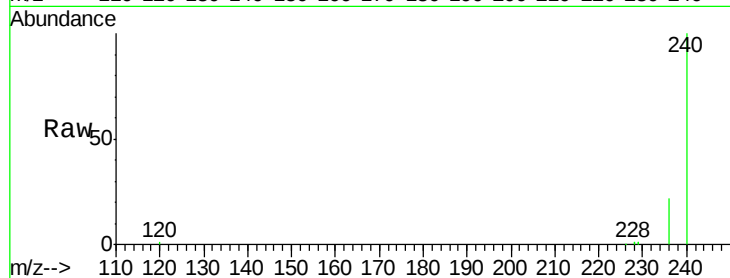




#22  
Chrysene-d12  
Concen: 5.00 ng  
RT: 21.75 min Scan# 1407  
Delta R.T. 0.00 min  
Lab File: BE092173.D  
Acq: 4 Aug 2016 8:42

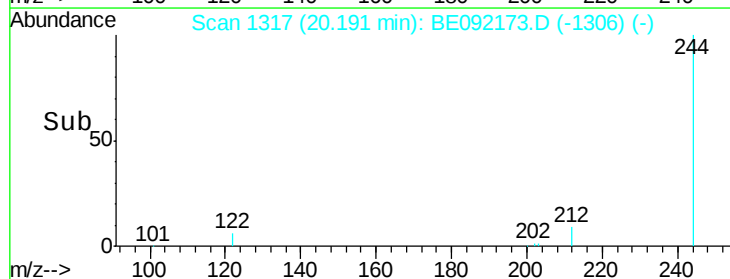
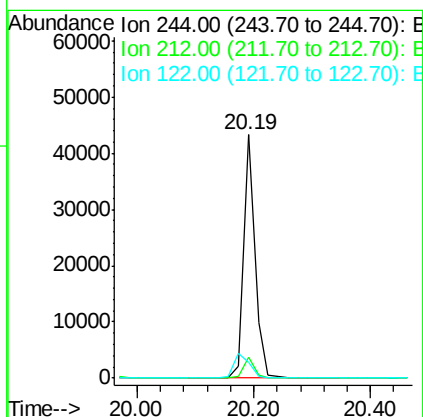
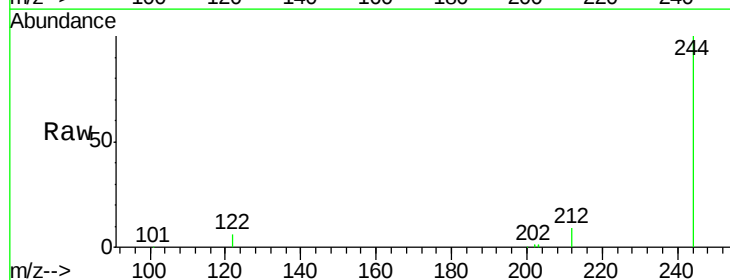
Instrument :  
BNA\_E  
ClientSampleId :  
GW-48-7.7-15.0

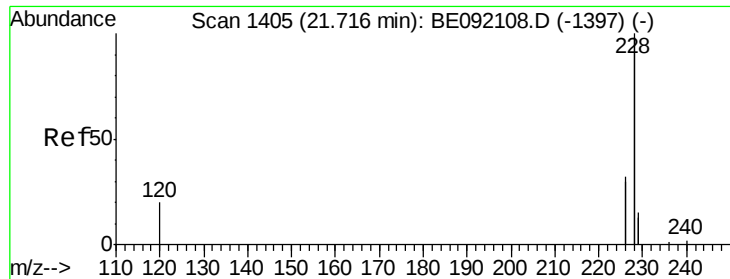
Tgt Ion:240 Resp: 88723  
Ion Ratio Lower Upper  
240 100  
120 1.3 0.6 1.0#  
236 22.0 18.2 27.4



#24  
Terphenyl-d14  
Concen: 4.49 ng  
RT: 20.19 min Scan# 1317  
Delta R.T. -0.02 min  
Lab File: BE092173.D  
Acq: 4 Aug 2016 8:42

Tgt Ion:244 Resp: 57214  
Ion Ratio Lower Upper  
244 100  
212 8.7 9.1 13.7#  
122 6.3 11.0 16.4#





#25

Benzo(a)anthracene

Concen: 0.02 ng

RT: 21.73 min Scan# 1406

Delta R.T. 0.02 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

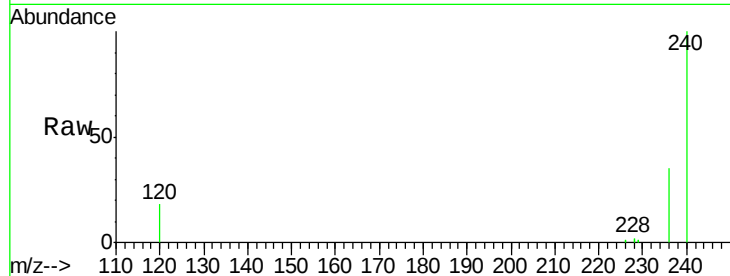
Tgt Ion:228 Resp: 2102

Ion Ratio Lower Upper

228 100

226 35.0 22.1 33.1#

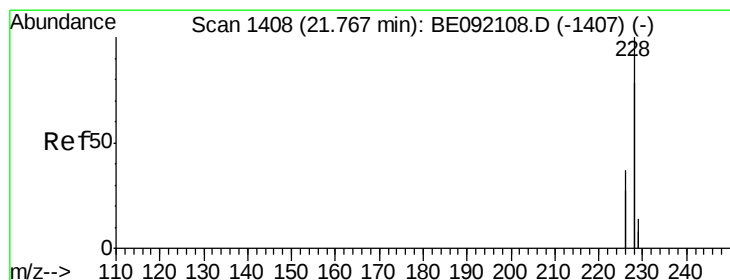
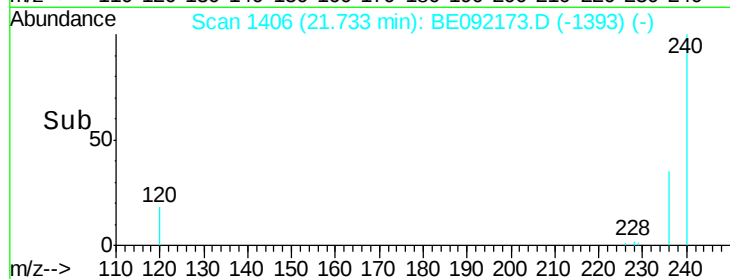
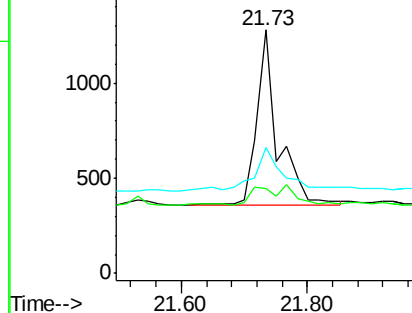
229 51.7 15.1 22.7#



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



#26

Chrysene

Concen: 0.02 ng

RT: 21.73 min Scan# 1406

Delta R.T. -0.03 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

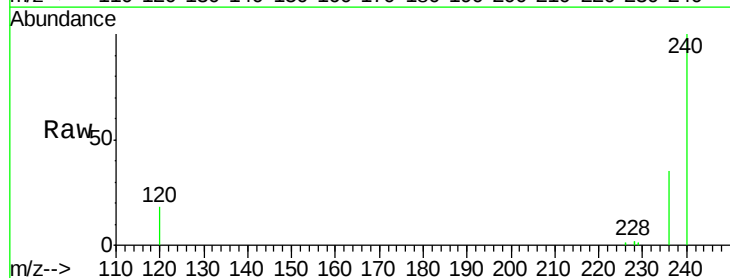
Tgt Ion:228 Resp: 2130

Ion Ratio Lower Upper

228 100

226 35.0 22.3 33.5#

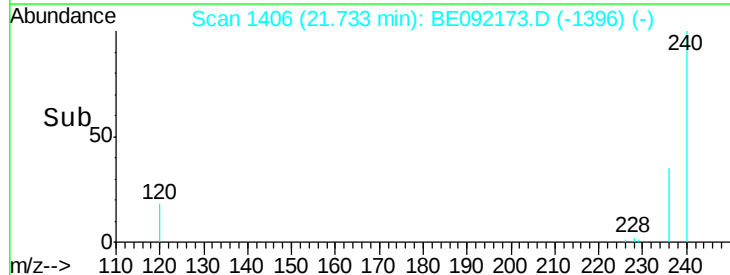
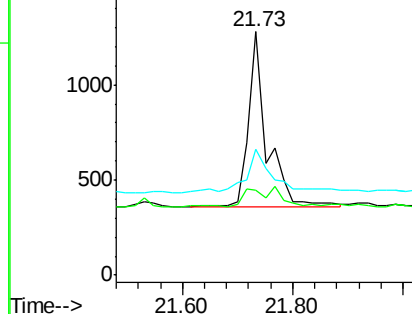
229 51.7 16.9 25.3#

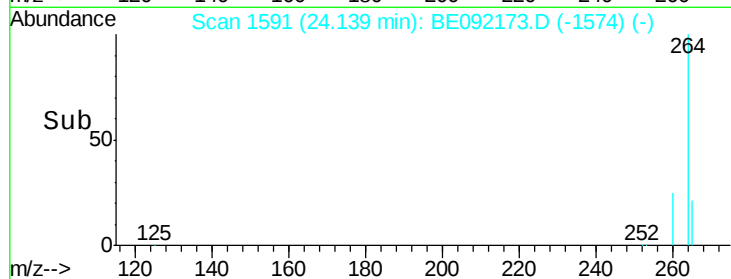
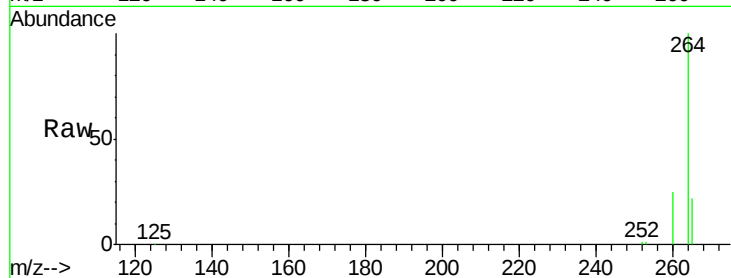
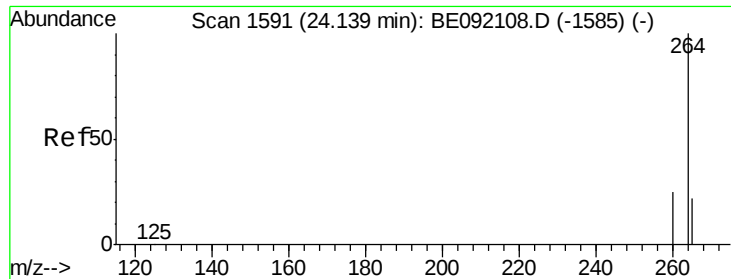


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#28

Perylene-d12

Concen: 5.00 ng

RT: 24.14 min Scan# 1591

Delta R.T. 0.00 min

Lab File: BE092173.D

Acq: 4 Aug 2016 8:42

Instrument :

BNA\_E

ClientSampleId :

GW-48-7.7-15.0

Tgt Ion:264 Resp: 88415

Ion Ratio Lower Upper

264 100

260 25.0 20.8 31.2

265 22.0 16.6 25.0

