

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE102414\  
 Data File : BE088236.D  
 Acq On : 25 Oct 2014 7:14  
 Operator : TP/JJ  
 Sample : F4368-02  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB34-1014

Quant Time: Oct 27 13:48:02 2014  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE102414.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Oct 27 13:04:40 2014  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.11  | 152  | 25413    | 5.00 | ng    | 0.00     |
| 3) Naphthalene-d8         | 8.68  | 136  | 100958   | 5.00 | ng    | 0.00     |
| 7) Acenaphthene-d10       | 10.83 | 164  | 54734    | 5.00 | ng    | 0.00     |
| 12) Phenanthrene-d10      | 12.94 | 188  | 108832   | 5.00 | ng    | 0.00     |
| 16) Chrysene-d12          | 18.34 | 240  | 53315    | 5.00 | ng    | 0.00     |
| 22) Perylene-d12          | 21.40 | 264  | 41917    | 5.00 | ng    | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 4) Nitrobenzene-d5          | 7.81  | 82   | 523435   | 68.56 | ng    | 0.02     |
| 8) 2-Fluorobiphenyl         | 10.02 | 172  | 576816   | 37.79 | ng    | 0.01     |
| 18) Terphenyl-d14           | 16.13 | 244  | 483251   | 55.35 | ng    | 0.03     |

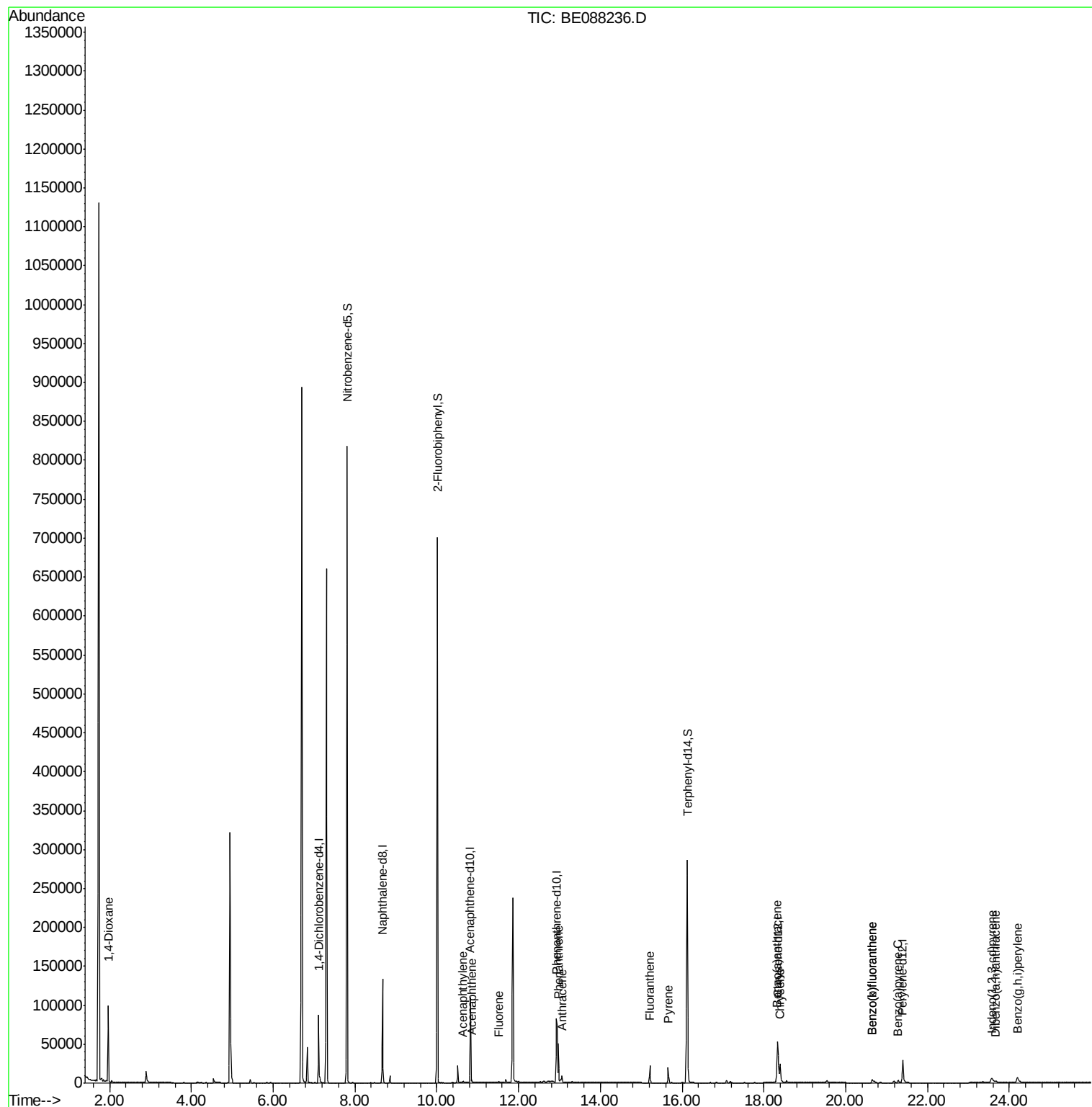
| Target Compounds           | R.T.  | QIon | Response | Conc | Units | Qvalue |
|----------------------------|-------|------|----------|------|-------|--------|
| 2) 1,4-Dioxane             | 1.97  | 88   | 3106     | 0.88 | ng    | # 1    |
| 9) Acenaphthylene          | 10.64 | 152  | 1929     | 0.02 | ng    | # 85   |
| 10) Acenaphthene           | 10.86 | 154  | 469      | 0.04 | ng    | # 77   |
| 11) Fluorene               | 11.52 | 166  | 575      | 0.04 | ng    | # 96   |
| 13) Phenanthrene           | 12.97 | 178  | 61712    | 0.59 | ng    | # 91   |
| 14) Anthracene             | 13.06 | 178  | 8740     | 0.11 | ng    | # 79   |
| 15) Fluoranthene           | 15.21 | 202  | 21574    | 1.35 | ng    | # 99   |
| 17) Pyrene                 | 15.67 | 202  | 18999    | 1.30 | ng    | # 97   |
| 19) Benzo(a)anthracene     | 18.32 | 228  | 30354    | 0.72 | ng    | # 97   |
| 20) Chrysene               | 18.40 | 228  | 34778    | 0.73 | ng    | # 98   |
| 21) Indeno(1,2,3-cd)pyrene | 23.57 | 276  | 16777    | 0.56 | ng    | # 68   |
| 23) Benzo(b)fluoranthene   | 20.64 | 252  | 8383     | 1.08 | ng    | # 96   |
| 24) Benzo(k)fluoranthene   | 20.64 | 252  | 8383     | 0.77 | ng    | # 95   |
| 25) Benzo(a)pyrene         | 21.28 | 252  | 5223     | 0.74 | ng    | # 96   |
| 26) Dibenzo(a,h)anthracene | 23.67 | 278  | 740      | 0.29 | ng    | # 74   |
| 27) Benzo(g,h,i)perylene   | 24.20 | 276  | 16018    | 0.48 | ng    | # 94   |

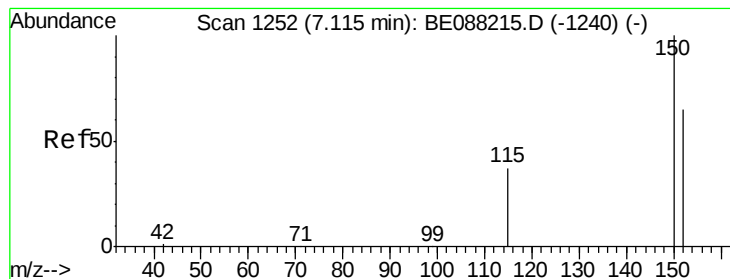
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 7.11 min Scan# 1252

Delta R.T. -0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

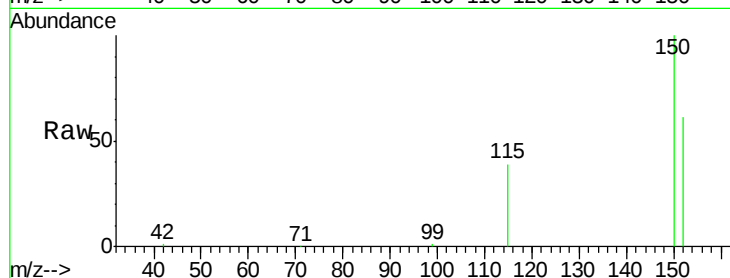
Tgt Ion:152 Resp: 25413

Ion Ratio Lower Upper

152 100

150 162.7 123.2 184.8

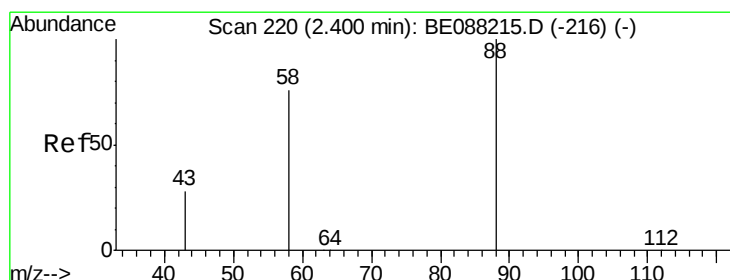
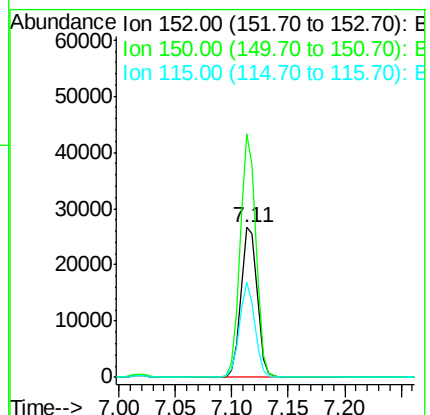
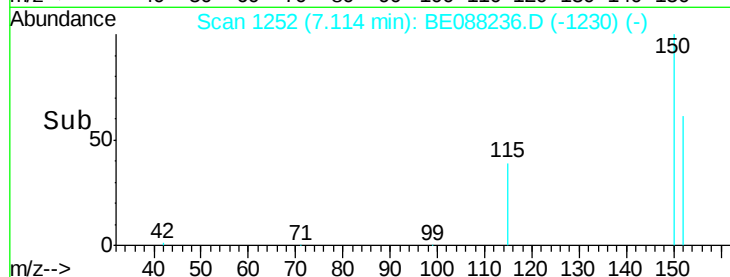
115 63.2 45.3 67.9



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: 0.88 ng

RT: 1.97 min Scan# 126

Delta R.T. -0.43 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

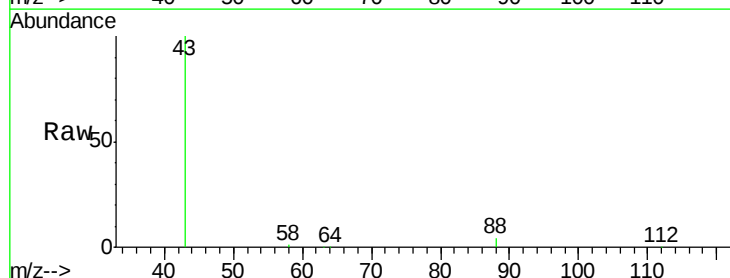
Tgt Ion: 88 Resp: 3106

Ion Ratio Lower Upper

88 100

58 25.5 59.0 88.4#

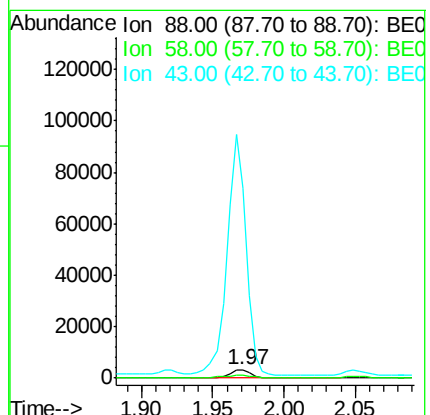
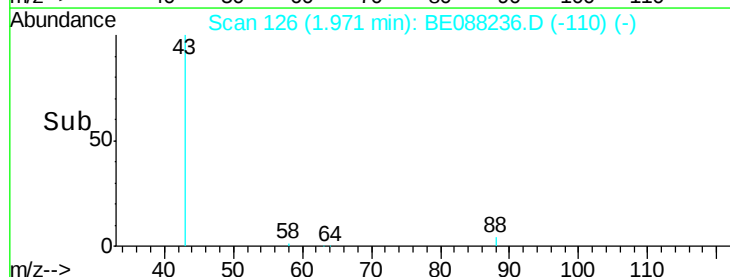
43 2813.1 21.9 32.9#

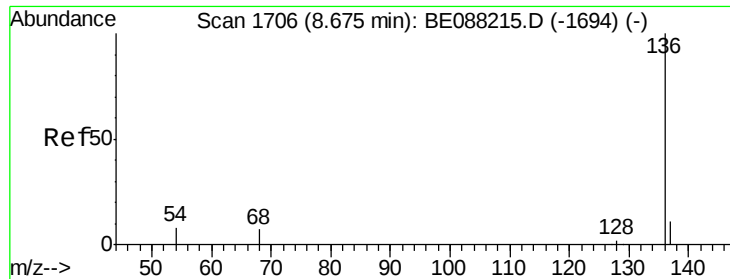


Abundance Ion 88.00 (87.70 to 88.70): BE0

Ion 58.00 (57.70 to 58.70): BE0

Ion 43.00 (42.70 to 43.70): BE0





#3

Naphthalene-d8

Concen: 5.00 ng

RT: 8.68 min Scan# 1707

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

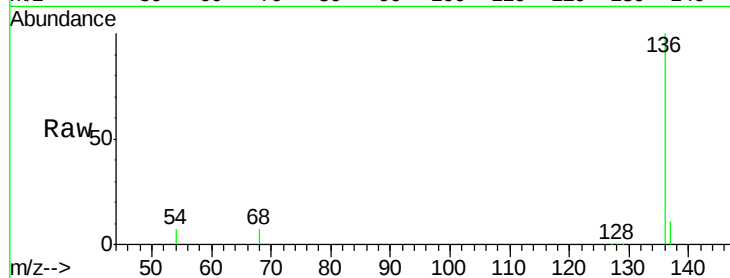
Tgt Ion: 136 Resp: 100958

Ion Ratio Lower Upper

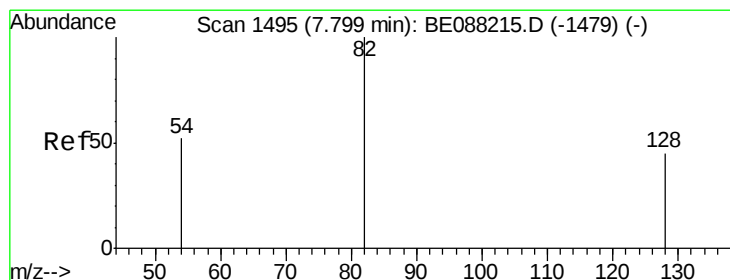
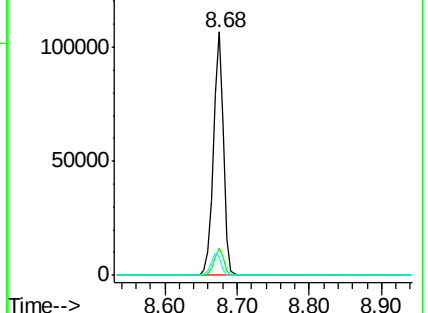
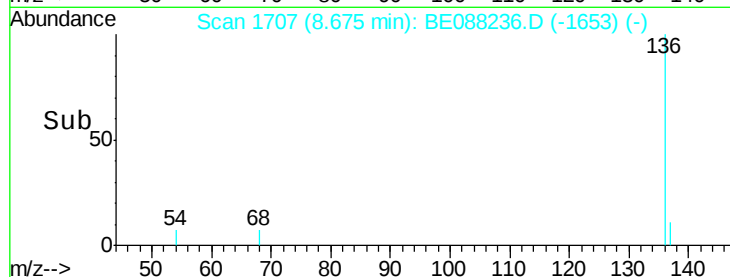
136 100

137 11.0 8.7 13.1

54 7.5 6.1 9.1



Abundance Ion 136.00 (135.70 to 136.70): BE088236.D (-1653) (-)



#4

Nitrobenzene-d5

Concen: 68.56 ng

RT: 7.81 min Scan# 1502

Delta R.T. 0.02 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

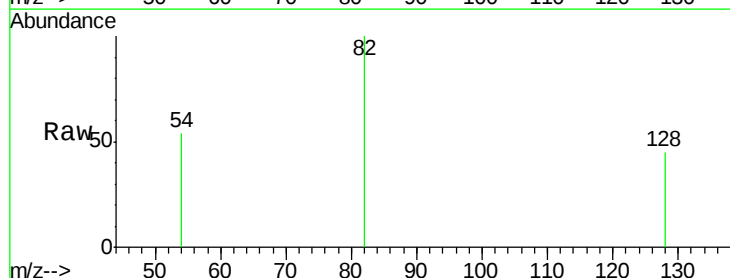
Tgt Ion: 82 Resp: 523435

Ion Ratio Lower Upper

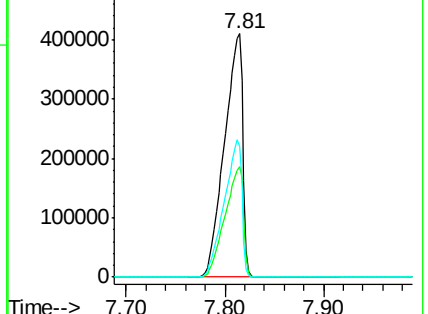
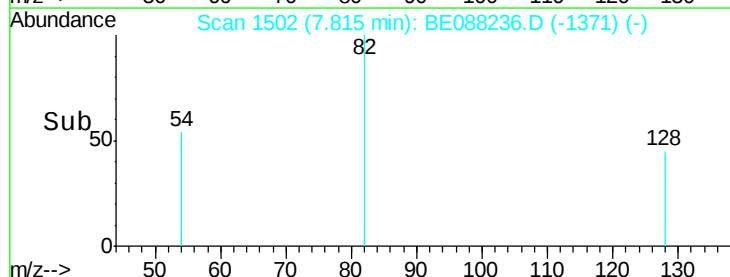
82 100

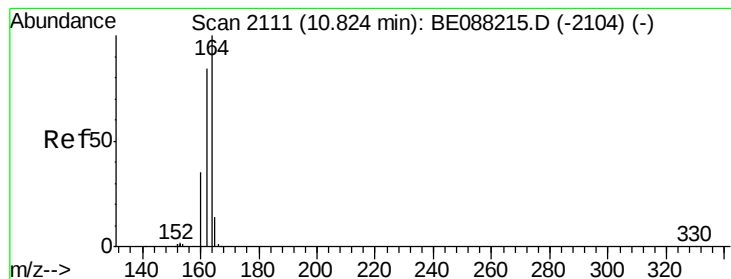
128 45.5 36.2 54.2

54 54.0 41.8 62.8



Abundance Ion 82.00 (81.70 to 82.70): BE088236.D (-1371) (-)





#7

Acenaphthene-d10

Concen: 5.00 ng

RT: 10.83 min Scan# 2112

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

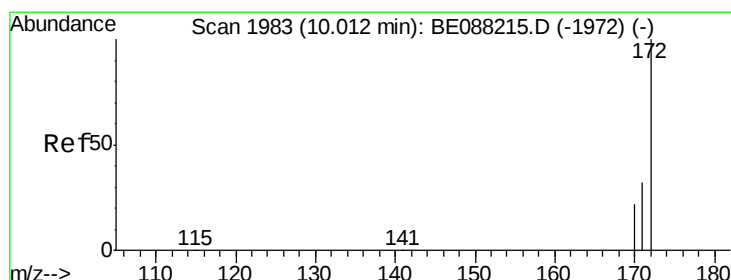
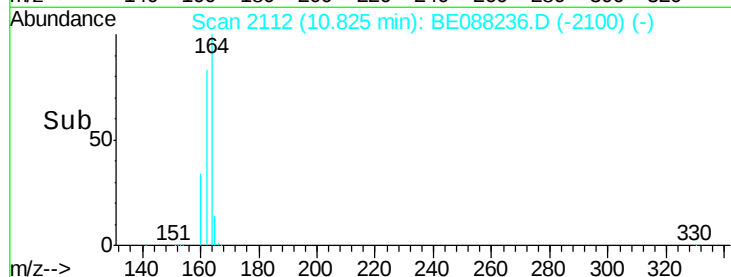
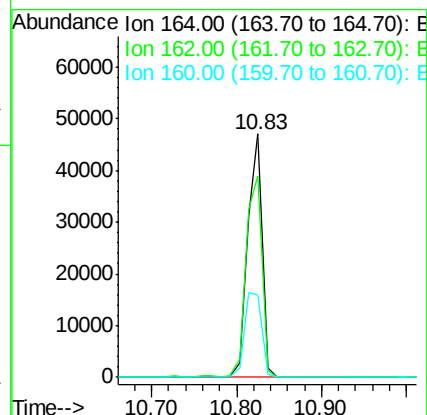
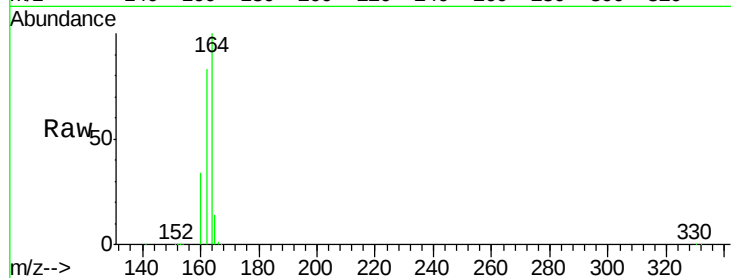
Tgt Ion:164 Resp: 54734

Ion Ratio Lower Upper

164 100

162 83.0 67.4 101.0

160 33.8 27.7 41.5



#8

2-Fluorobiphenyl

Concen: 37.79 ng

RT: 10.02 min Scan# 1986

Delta R.T. 0.01 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

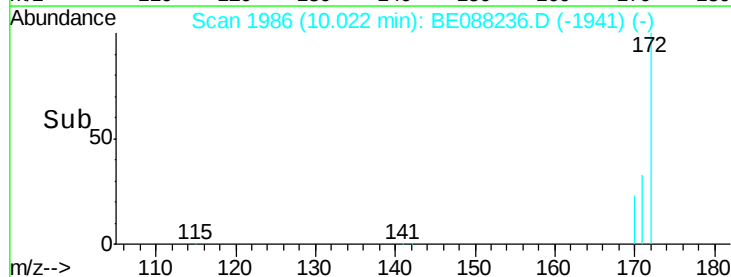
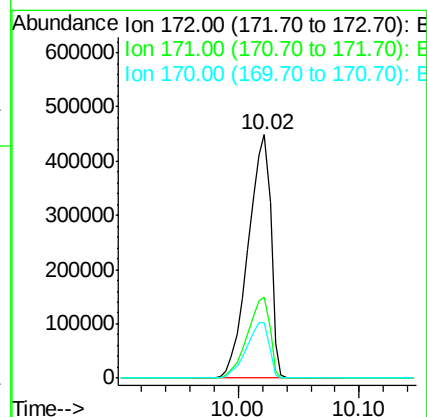
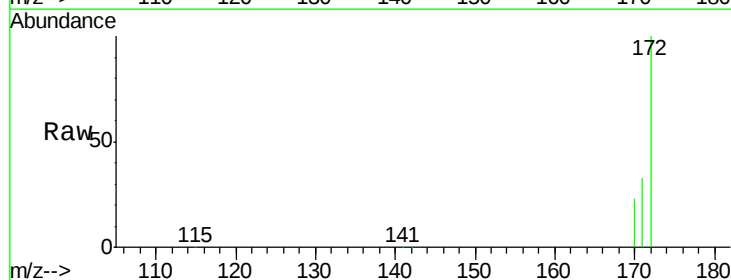
Tgt Ion:172 Resp: 576816

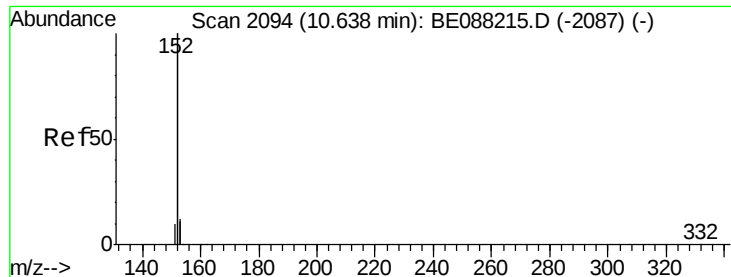
Ion Ratio Lower Upper

172 100

171 33.1 25.8 38.6

170 22.6 17.4 26.0





#9

Acenaphthylene

Concen: 0.02 ng

RT: 10.64 min Scan# 2095

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

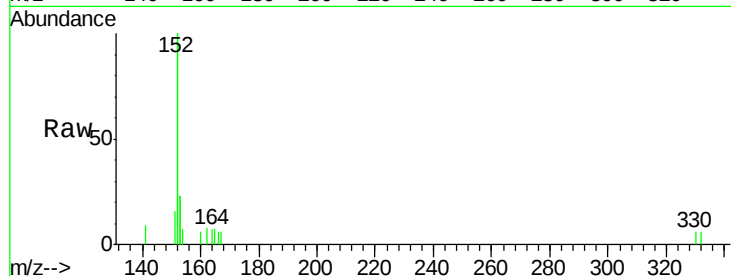
Tgt Ion:152 Resp: 1929

Ion Ratio Lower Upper

152 100

151 11.6 3.7 5.5#

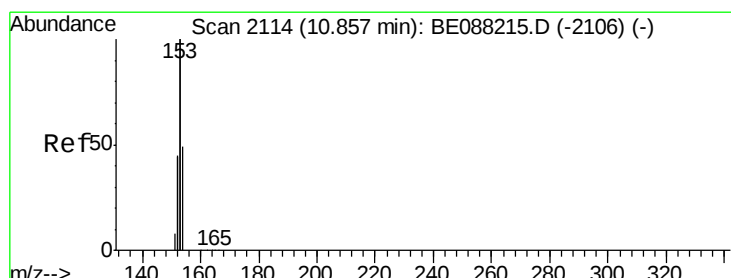
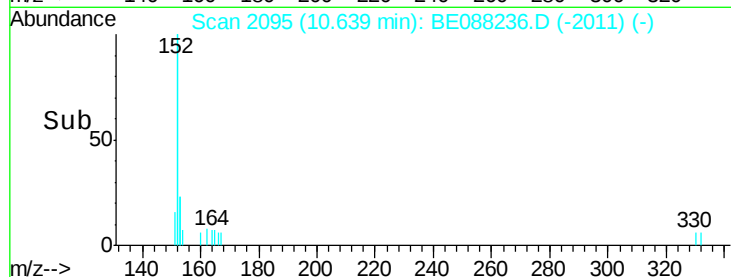
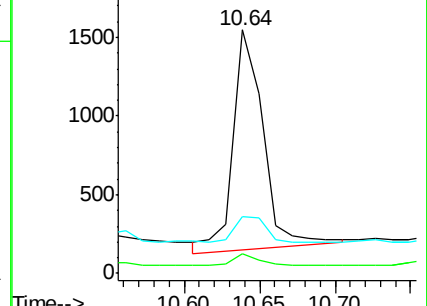
153 17.9 10.3 15.5#



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



#10

Acenaphthene

Concen: 0.04 ng

RT: 10.86 min Scan# 2115

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

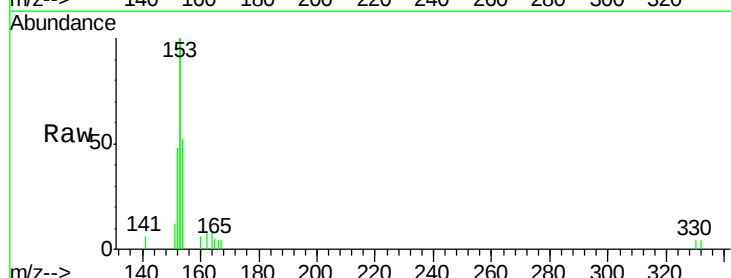
Tgt Ion:154 Resp: 469

Ion Ratio Lower Upper

154 100

153 443.1 326.0 489.0

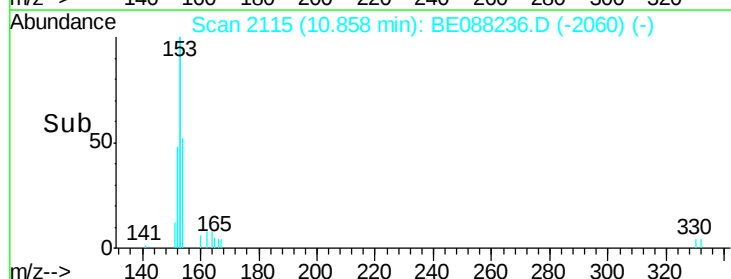
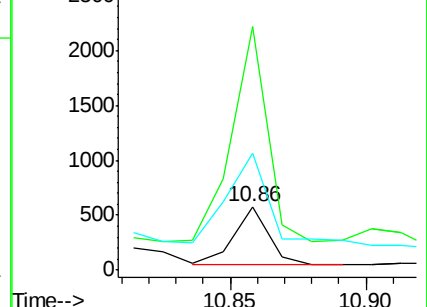
152 252.2 155.6 233.4#

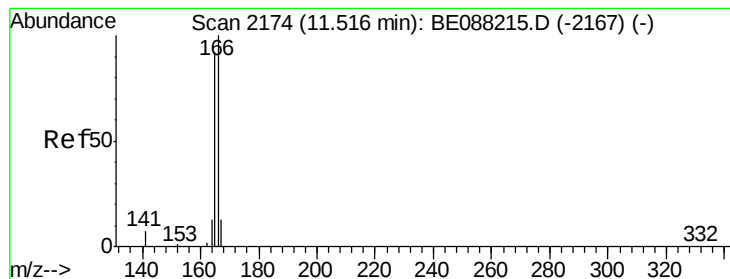


Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E





#11

Fluorene

Concen: 0.04 ng

RT: 11.52 min Scan# 2175

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

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ClientSampleId :

YS19-SB34-1014

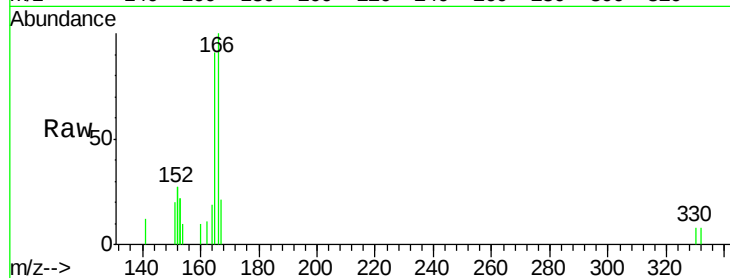
Tgt Ion:166 Resp: 575

Ion Ratio Lower Upper

166 100

165 86.1 71.8 107.6

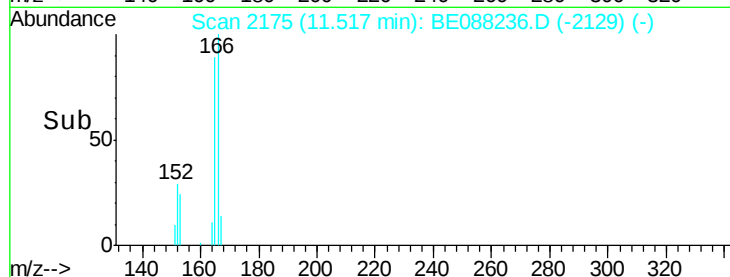
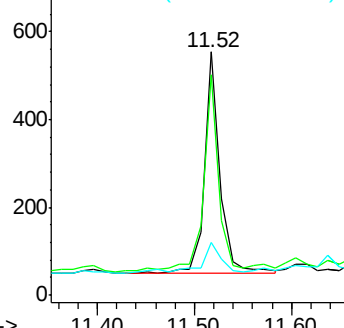
167 15.0 10.7 16.1



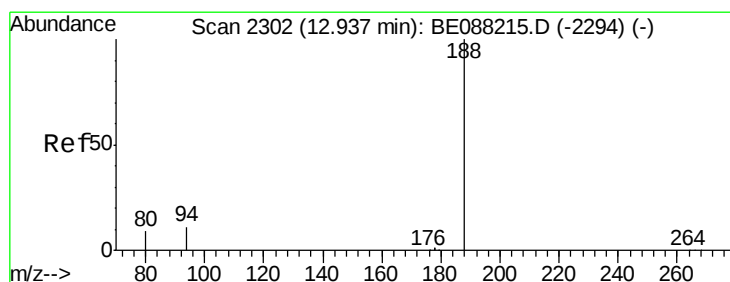
Abundance Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E



Time-->



#12

Phenanthrene-d10

Concen: 5.00 ng

RT: 12.94 min Scan# 2303

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

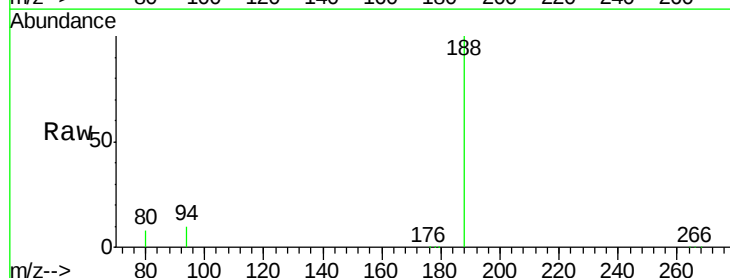
Tgt Ion:188 Resp: 108832

Ion Ratio Lower Upper

188 100

94 9.7 8.5 12.7

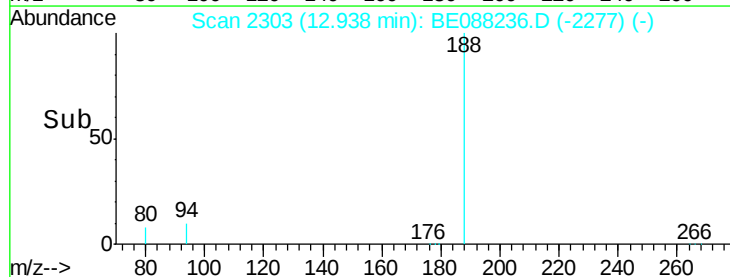
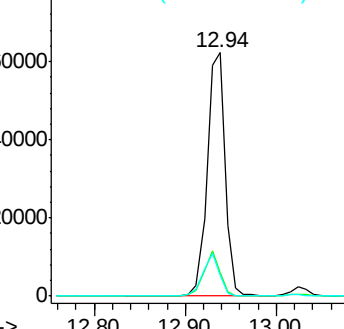
80 8.4 7.4 11.0



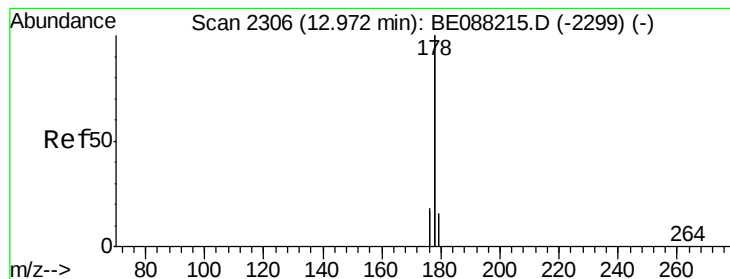
Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BE0

Ion 80.00 (79.70 to 80.70): BE0



Time-->



#13

Phenanthrene

Concen: 0.59 ng

RT: 12.97 min Scan# 2307

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

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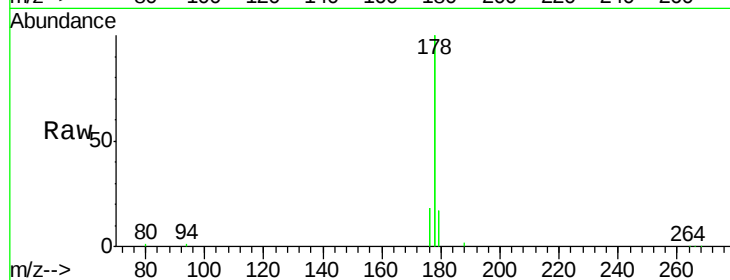
Tgt Ion:178 Resp: 61712

Ion Ratio Lower Upper

178 100

176 15.6 14.0 21.0

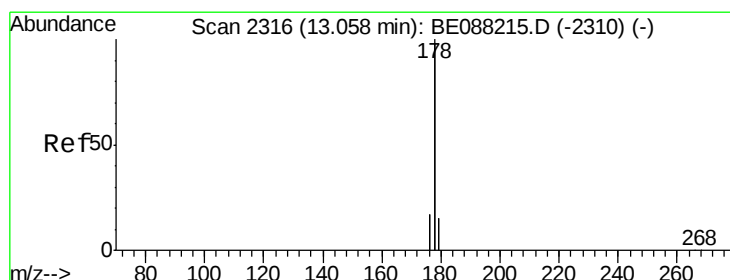
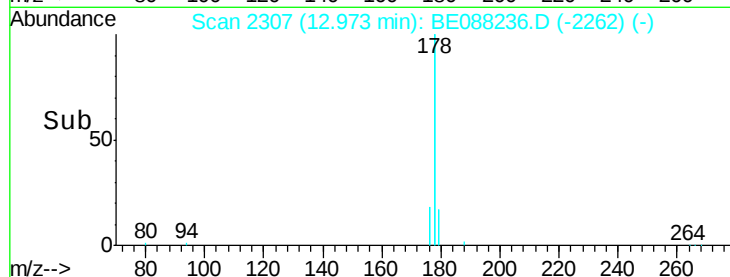
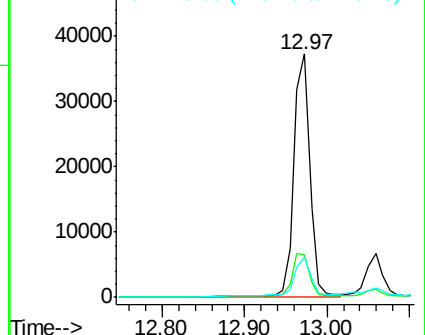
179 20.4 11.8 17.6#



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: 0.11 ng

RT: 13.06 min Scan# 2317

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

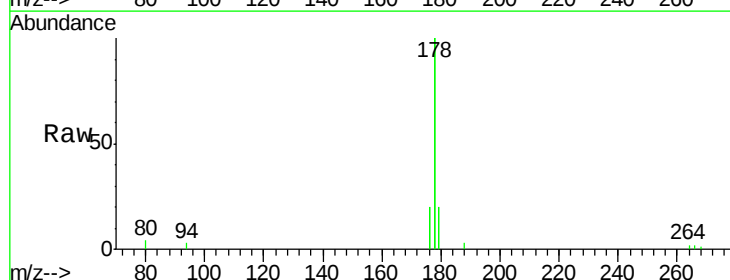
Tgt Ion:178 Resp: 8740

Ion Ratio Lower Upper

178 100

176 21.6 14.7 22.1

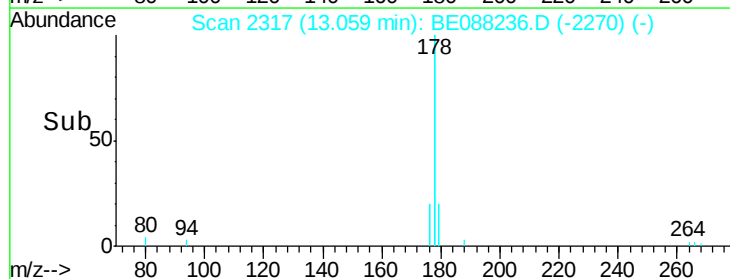
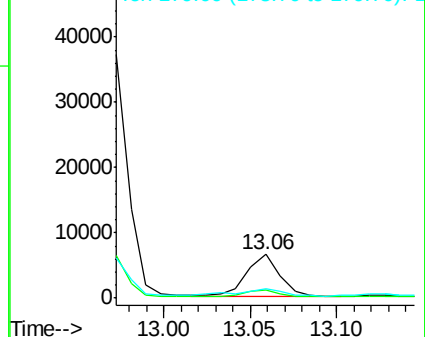
179 31.3 12.3 18.5#

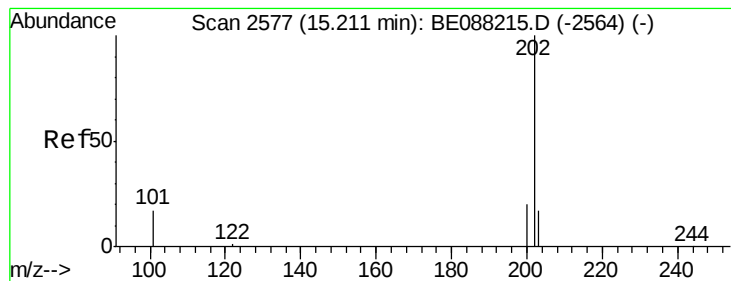


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#15

Fluoranthene

Concen: 1.35 ng

RT: 15.21 min Scan# 2578

Delta R.T. -0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

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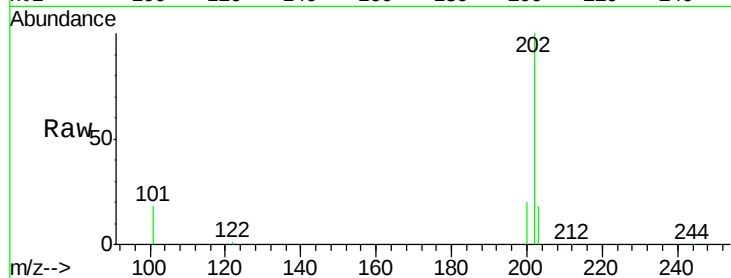
Tgt Ion: 202 Resp: 21574

Ion Ratio Lower Upper

202 100

101 18.3 14.4 21.6

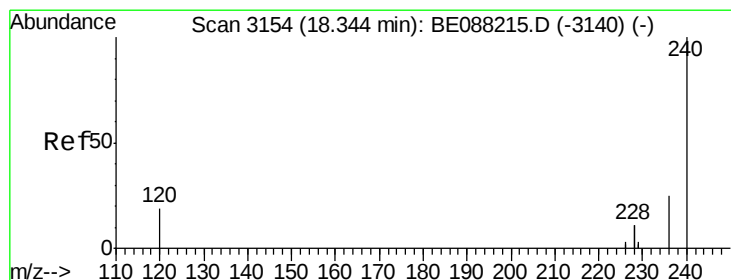
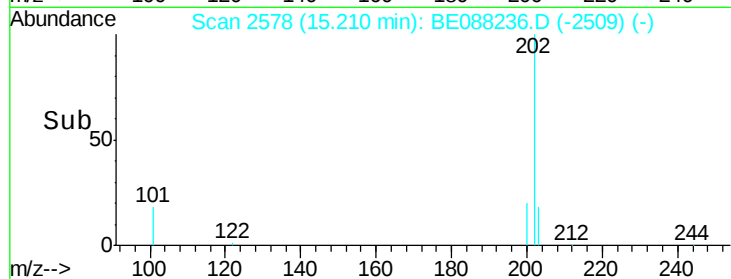
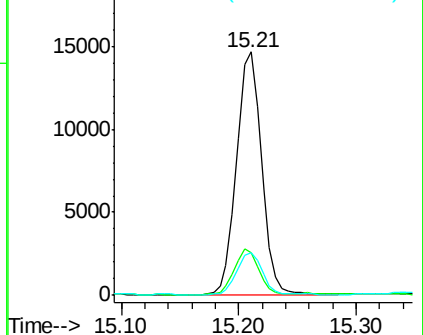
203 17.3 13.4 20.2



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: 18.34 min Scan# 3155

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

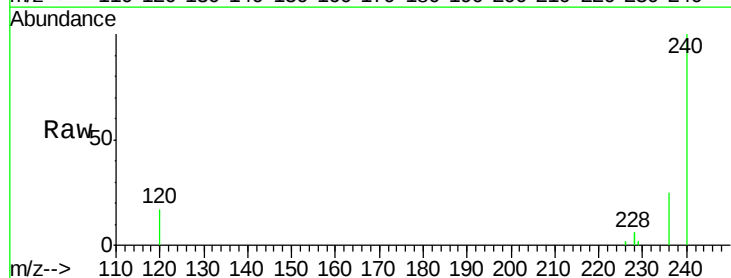
Tgt Ion: 240 Resp: 53315

Ion Ratio Lower Upper

240 100

120 17.2 15.1 22.7

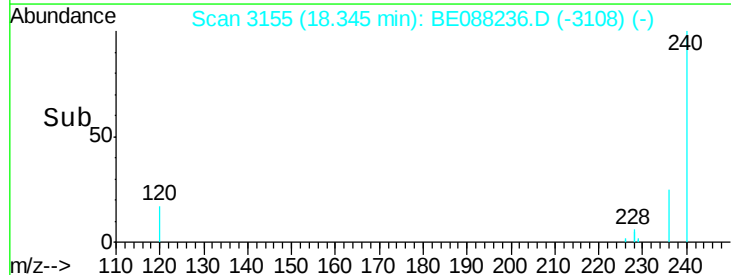
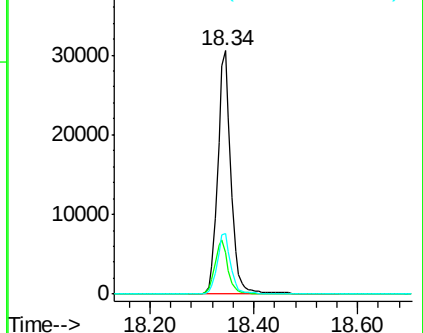
236 25.0 20.1 30.1

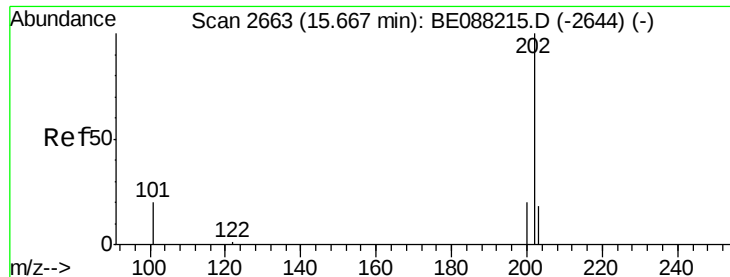


Abundance Ion 240.00 (239.70 to 240.70): E

Ion 120.00 (119.70 to 120.70): E

Ion 236.00 (235.70 to 236.70): E

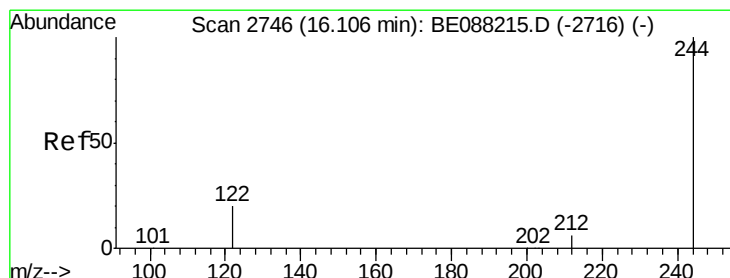
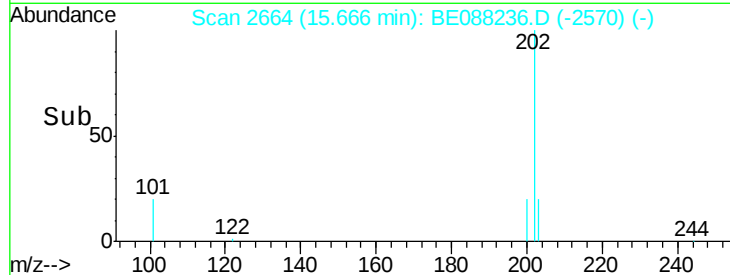
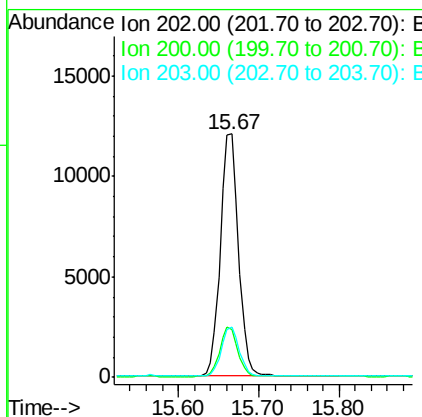
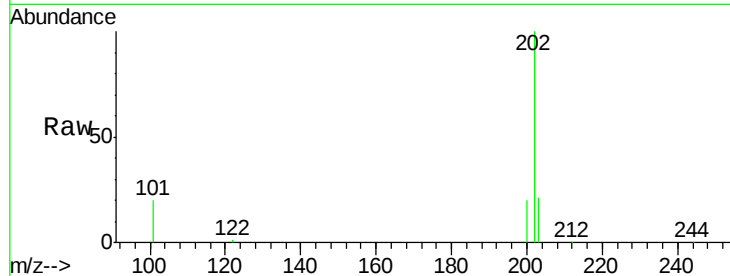




#17  
 Pyrene  
 Concen: 1.30 ng  
 RT: 15.67 min Scan# 2664  
 Delta R.T. -0.00 min  
 Lab File: BE088236.D  
 Acq: 25 Oct 2014 7:14

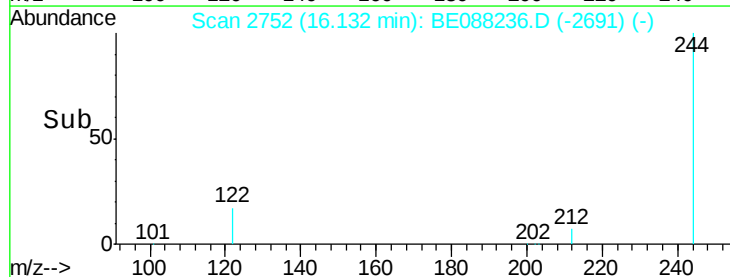
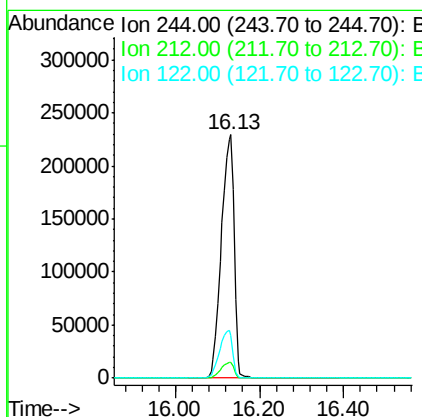
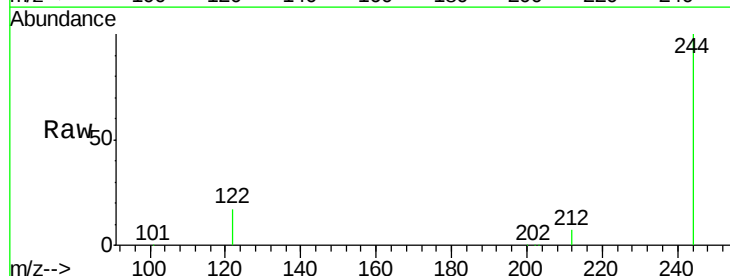
Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB34-1014

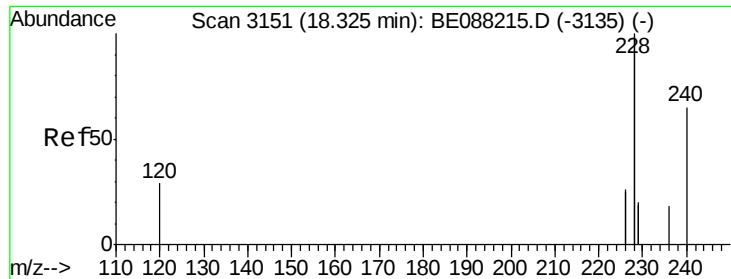
Tgt Ion: 202 Resp: 18999  
 Ion Ratio Lower Upper  
 202 100  
 200 20.0 16.2 24.2  
 203 19.9 13.8 20.8



#18  
 Terphenyl-d14  
 Concen: 55.35 ng  
 RT: 16.13 min Scan# 2752  
 Delta R.T. 0.03 min  
 Lab File: BE088236.D  
 Acq: 25 Oct 2014 7:14

Tgt Ion: 244 Resp: 483251  
 Ion Ratio Lower Upper  
 244 100  
 212 6.7 5.4 8.2  
 122 17.5 16.7 25.1





#19

Benzo(a)anthracene

Concen: 0.72 ng

RT: 18.32 min Scan# 3151

Delta R.T. -0.01 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

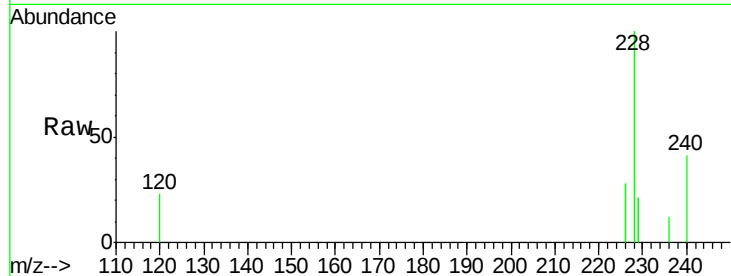
Tgt Ion:228 Resp: 30354

Ion Ratio Lower Upper

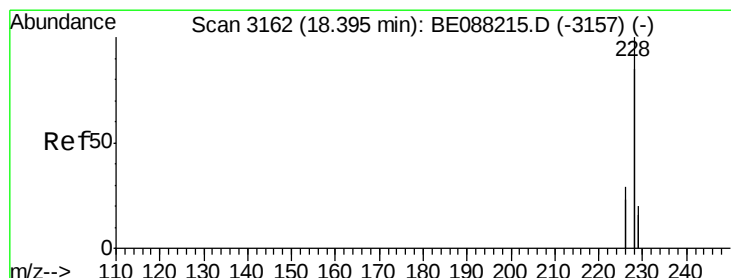
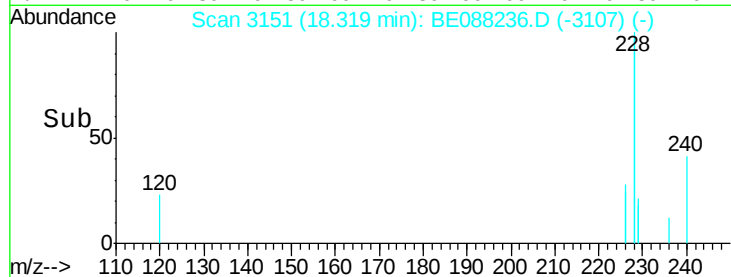
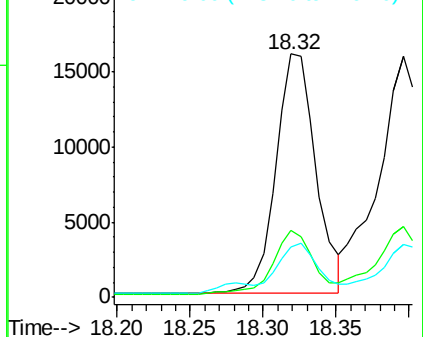
228 100

226 27.5 20.5 30.7

229 20.9 16.1 24.1



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



#20

Chrysene

Concen: 0.73 ng

RT: 18.40 min Scan# 3163

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

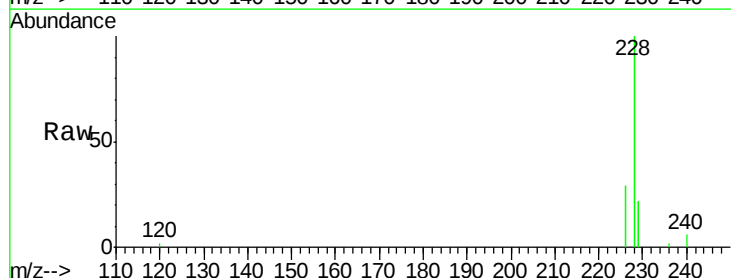
Tgt Ion:228 Resp: 34778

Ion Ratio Lower Upper

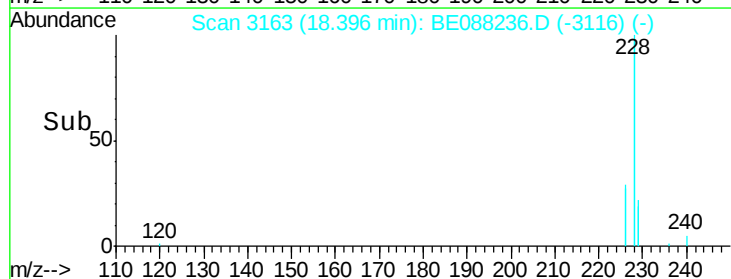
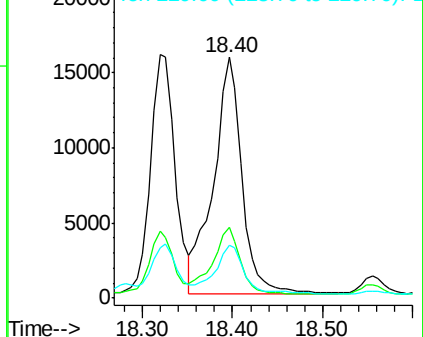
228 100

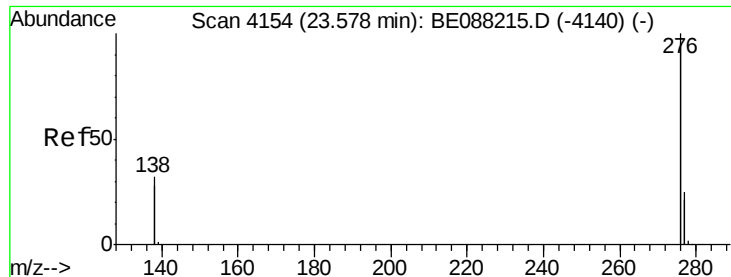
226 29.2 23.3 34.9

229 22.0 15.6 23.4



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





#21

Indeno(1,2,3-cd)pyrene

Concen: 0.56 ng

RT: 23.57 min Scan# 4154

Delta R.T. -0.01 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

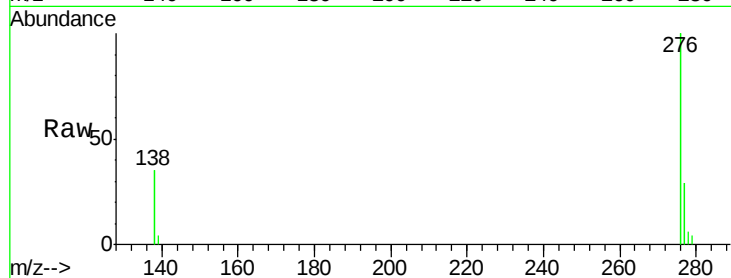
Tgt Ion:276 Resp: 16777

Ion Ratio Lower Upper

276 100

138 31.4 13.9 20.9#

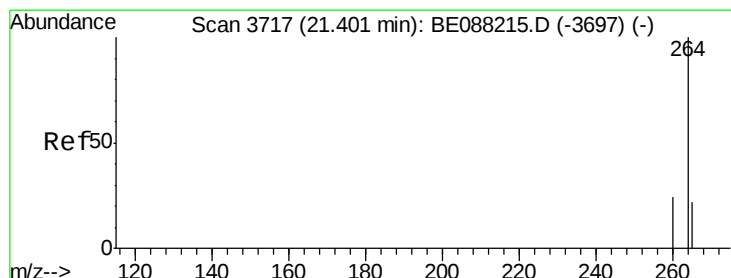
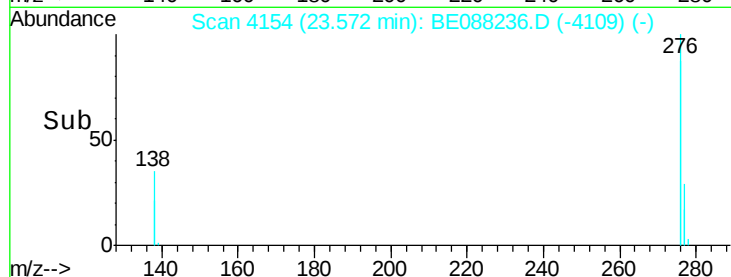
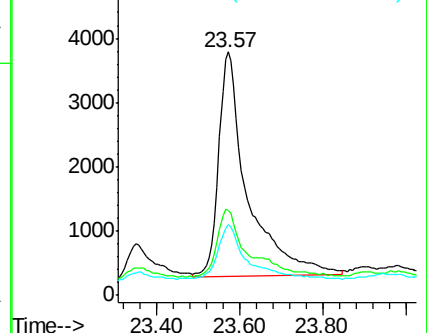
277 25.8 10.7 16.1#



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: 21.40 min Scan# 3717

Delta R.T. -0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

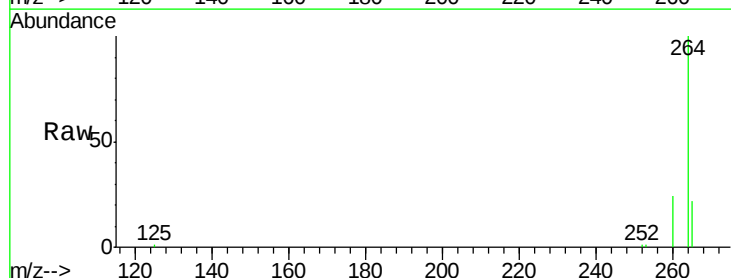
Tgt Ion:264 Resp: 41917

Ion Ratio Lower Upper

264 100

260 23.6 19.0 28.4

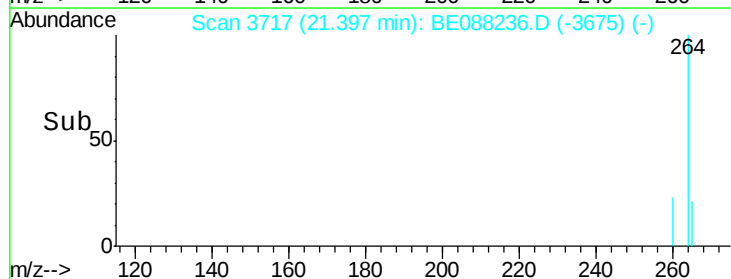
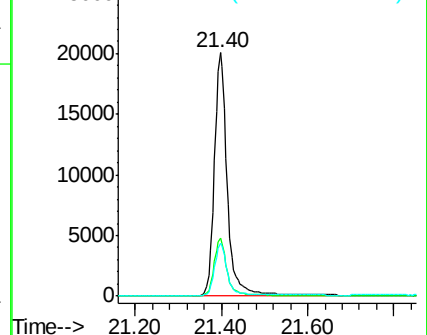
265 21.5 17.4 26.2

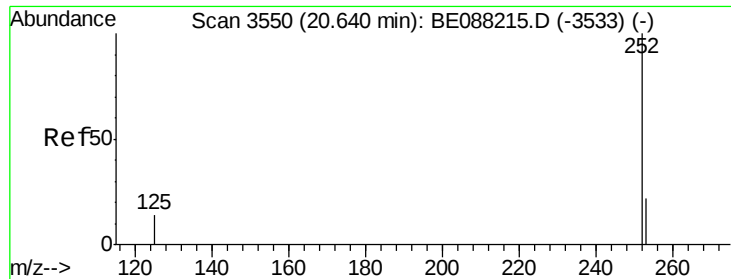


Abundance Ion 264.00 (263.70 to 264.70): E

Ion 260.00 (259.70 to 260.70): E

Ion 265.00 (264.70 to 265.70): E





#23

Benzo(b)fluoranthene

Concen: 1.08 ng

RT: 20.64 min Scan# 3551

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

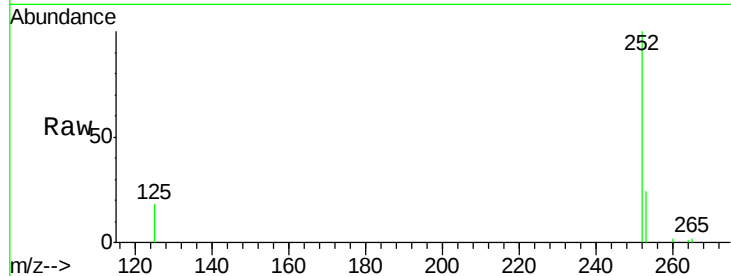
Tgt Ion:252 Resp: 8383

Ion Ratio Lower Upper

252 100

253 23.7 17.9 26.9

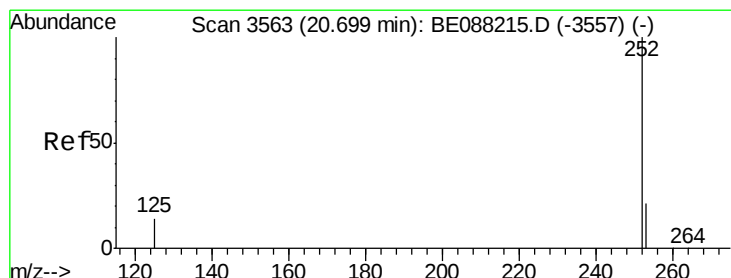
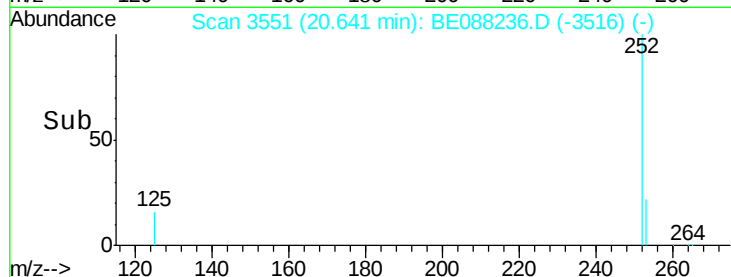
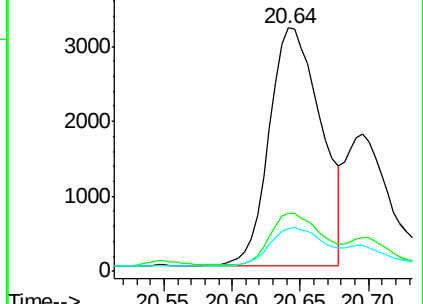
125 17.5 12.2 18.2



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



#24

Benzo(k)fluoranthene

Concen: 0.77 ng

RT: 20.64 min Scan# 3551

Delta R.T. -0.06 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

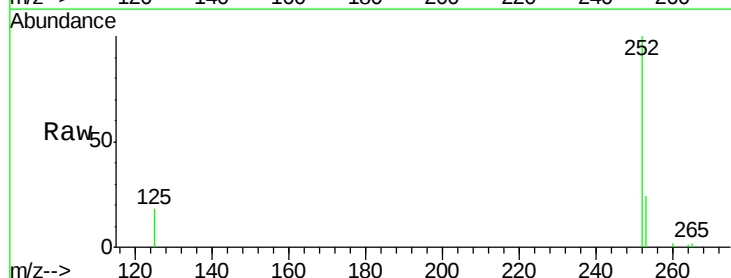
Tgt Ion:252 Resp: 8383

Ion Ratio Lower Upper

252 100

253 23.7 17.6 26.4

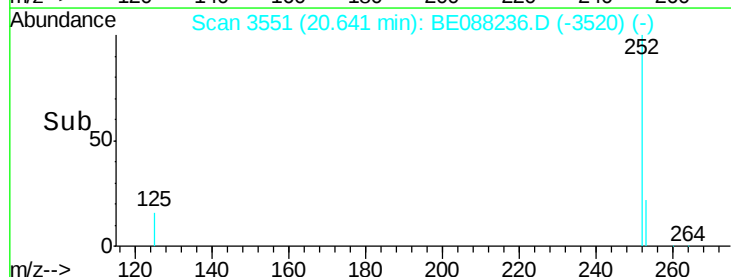
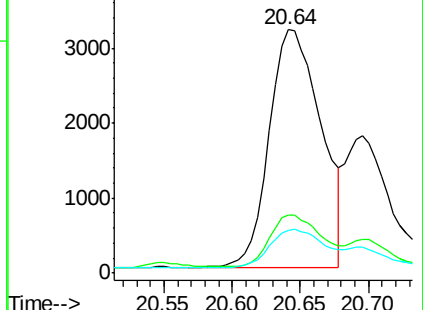
125 17.5 12.1 18.1

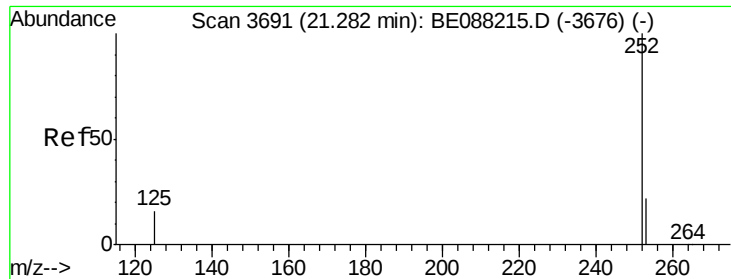


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#25

Benzo(a)pyrene

Concen: 0.74 ng

RT: 21.28 min Scan# 3691

Delta R.T. -0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014

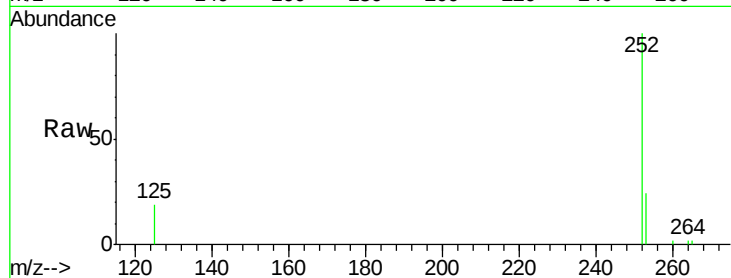
Tgt Ion: 252 Resp: 5223

Ion Ratio Lower Upper

252 100

253 24.3 17.8 26.8

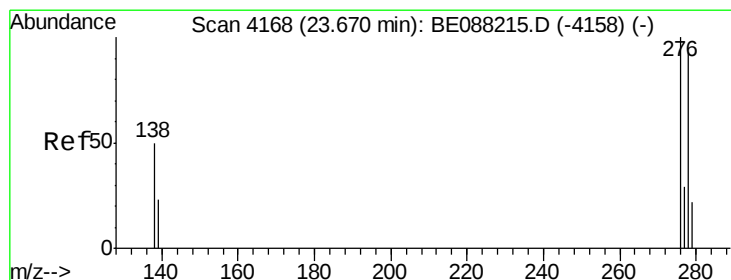
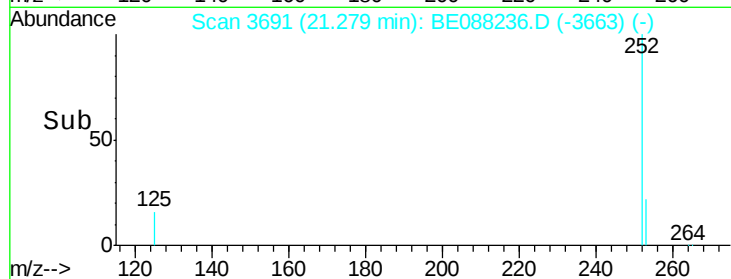
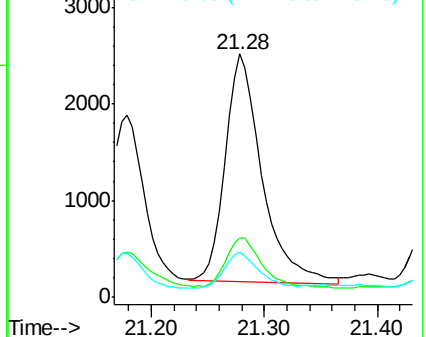
125 18.7 13.5 20.3



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: 0.29 ng

RT: 23.67 min Scan# 4169

Delta R.T. 0.00 min

Lab File: BE088236.D

Acq: 25 Oct 2014 7:14

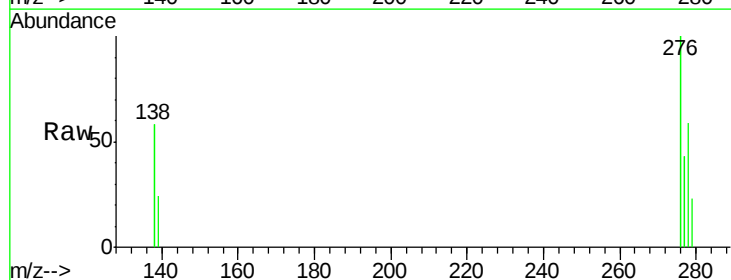
Tgt Ion: 278 Resp: 740

Ion Ratio Lower Upper

278 100

139 40.3 22.1 33.1#

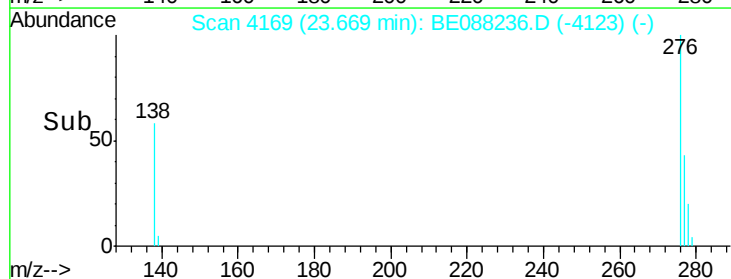
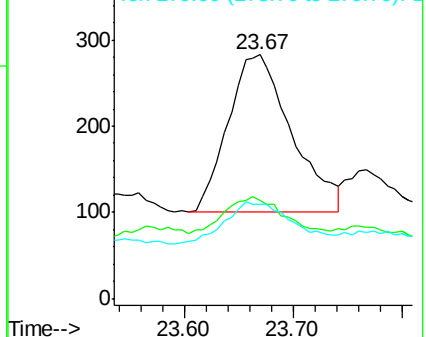
279 38.9 20.2 30.2#

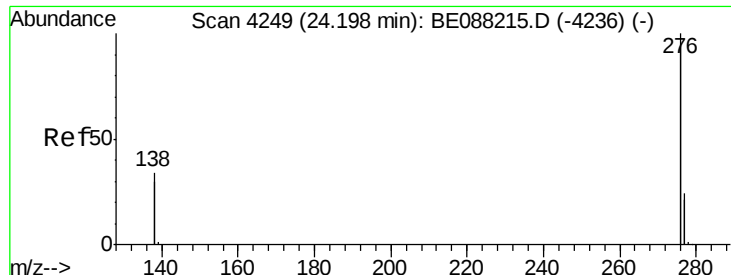


Abundance Ion 278.00 (277.70 to 278.70): E

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: 0.48 ng

RT: 24.20 min Scan# 4250

Delta R.T. -0.00 min

Lab File: BE088236.D

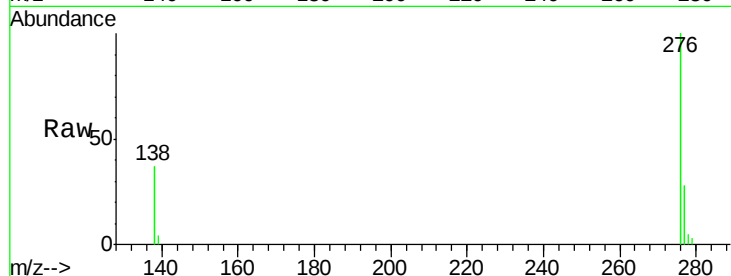
Acq: 25 Oct 2014 7:14

Instrument :

BNA\_E

ClientSampleId :

YS19-SB34-1014



Tgt Ion: 276 Resp: 16018

Ion Ratio Lower Upper

276 100

277 27.7 19.4 29.2

138 37.1 27.3 40.9

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

