

Data Path : Z:\HPCHEM1\BNA M\DATA\BM092217\  
 Data File : BM011686.D  
 Acq On : 22 Sep 2017 10:59  
 Operator : SJ/JU  
 Sample : I5283-11  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :

Quant Time: Sep 22 23:52:22 2017  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM-EPA-BM090817MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Sep 22 23:48:55 2017  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.96  | 152  | 548461   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.77 | 136  | 2460147  | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.59 | 164  | 1381479  | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.33 | 188  | 2842268  | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.50 | 240  | 2228412  | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 23.87 | 264  | 2413714  | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

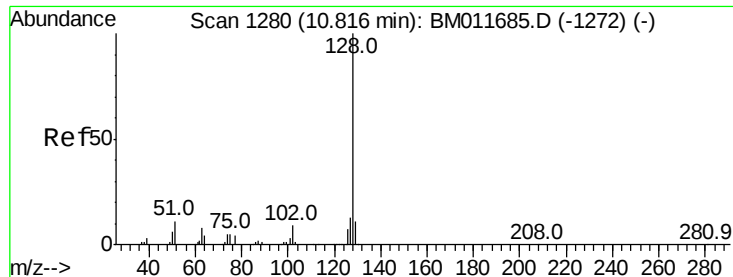
|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.39  | 96  | 23509   | 1.93  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 7.11  | 99  | 506302  | 9.61  | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.28  | 67  | 410232  | 11.56 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.49  | 132 | 434618  | 10.95 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.66  | 113 | 362317  | 8.81  | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.12  | 128 | 217486  | 11.65 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.85  | 143 | 229428  | 11.82 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.38 | 165 | 395596  | 10.12 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.90 | 131 | 243807  | 5.65  | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 13.99 | 166 | 1306964 | 11.19 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.29 | 160 | 1601556 | 11.34 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.78 | 143 | 44573   | 2.03  | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.58 | 176 | 1136995 | 11.24 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.69 | 200 | 69092   | 4.18  | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.43 | 188 | 1575922 | 11.26 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.72 | 212 | 1564665 | 15.00 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 23.72 | 264 | 1221851 | 10.62 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |        | Ovalue |    |
|----------------------------|-------|-----|---------|--------|--------|----|
| 28) Naphthalene            | 10.82 | 128 | 292406  | 2.292  | ng/ul  | 99 |
| 34) 2-Methylnaphthalene    | 12.42 | 142 | 172633  | 1.822  | ng/ul  | 97 |
| 35) 1-Methylnaphthalene    | 12.64 | 142 | 129464  | 1.435  | ng/ul  | 94 |
| 45) Dimethylphthalate      | 14.04 | 163 | 383898  | 3.433  | ng/ul# | 98 |
| 50) Acenaphthene           | 14.66 | 153 | 208092  | 2.166  | ng/ul  | 99 |
| 54) Dibenzofuran           | 14.99 | 168 | 144504  | 1.075  | ng/ul  | 95 |
| 59) Fluorene               | 15.63 | 166 | 187910  | 1.669  | ng/ul  | 97 |
| 70) Phenanthrene           | 17.37 | 178 | 3728828 | 23.537 | ng/ul  | 99 |
| 72) Anthracene             | 17.47 | 178 | 586063  | 3.605  | ng/ul  | 99 |
| 75) Carbazole              | 17.73 | 167 | 193148  | 1.393  | ng/ul# | 94 |
| 77) Fluoranthene           | 19.39 | 202 | 4112567 | 25.238 | ng/ul# | 94 |
| 80) Pyrene                 | 19.75 | 202 | 4625583 | 35.577 | ng/ul# | 92 |
| 83) Benzo(a)anthracene     | 21.49 | 228 | 1878657 | 15.311 | ng/ul  | 97 |
| 85) Chrysene               | 21.54 | 228 | 2073576 | 18.642 | ng/ul  | 98 |
| 88) Benzo(b)fluoranthene   | 23.15 | 252 | 2718160 | 18.719 | ng/ul# | 91 |
| 89) Benzo(k)fluoranthene   | 23.15 | 252 | 2718160 | 19.491 | ng/ul# | 90 |
| 91) Benzo(a)pyrene         | 23.77 | 252 | 2071163 | 15.111 | ng/ul# | 97 |
| 92) Indeno(1,2,3-cd)pyrene | 26.31 | 276 | 1769088 | 11.734 | ng/ul# | 93 |
| 93) Dibenzo(a,h)anthracene | 26.30 | 278 | 508275  | 3.976  | ng/ul# | 90 |
| 94) Benzo(g,h,i)perylene   | 27.07 | 276 | 2074404 | 16.989 | ng/ul# | 93 |

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





#28

Naphthalene

Concen: 2.292 ng/ul

RT: 10.82 min Scan# 1280

Delta R.T. 0.00 min

Lab File: BM011686.D

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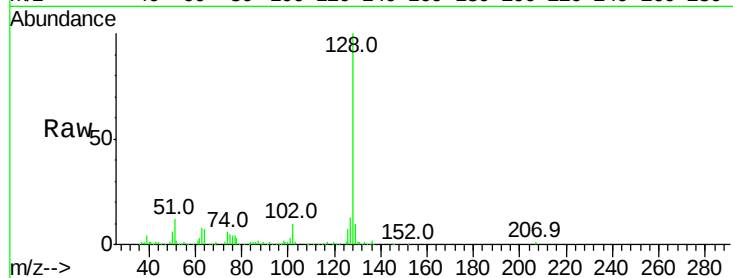
Instrument :

BNA\_M

ClientSampleId :

Tot Ion:128 Resp: 292406

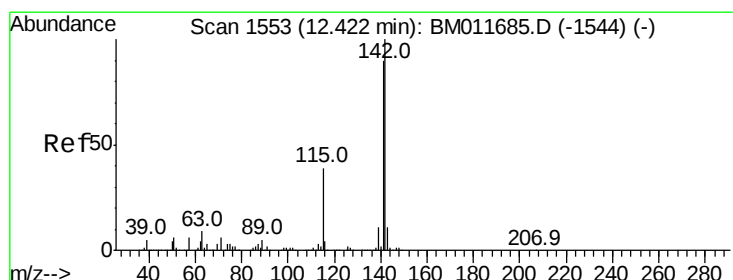
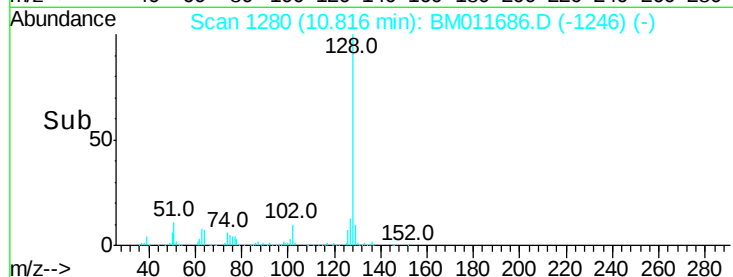
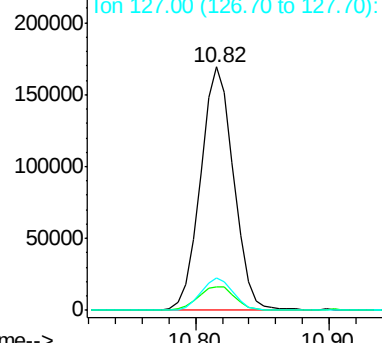
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 129 | 9.9   | 8.3   | 12.5  |
| 127 | 13.1  | 10.8  | 16.2  |



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



#34

2-Methylnaphthalene

Concen: 1.822 ng/ul

RT: 12.42 min Scan# 1553

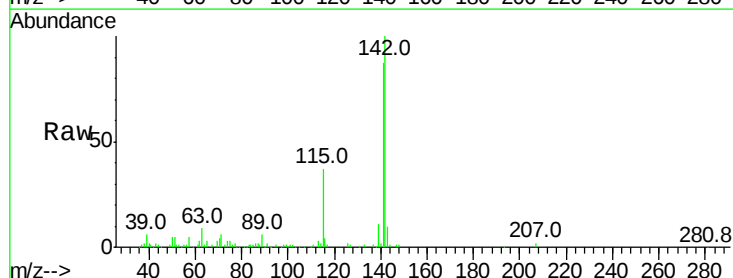
Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

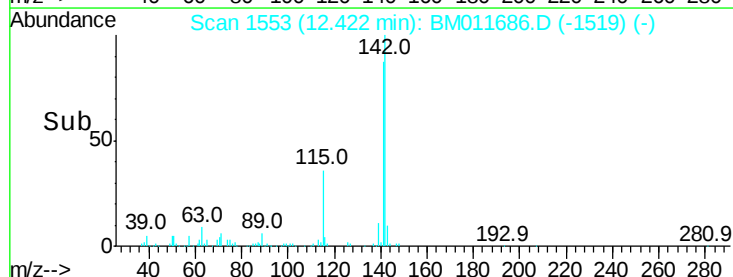
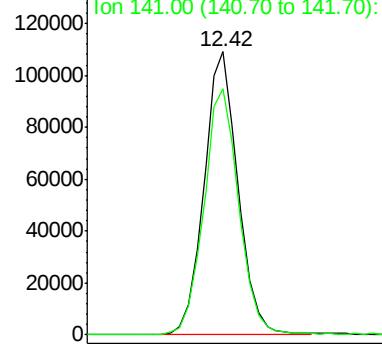
Tgt Ion:142 Resp: 172633

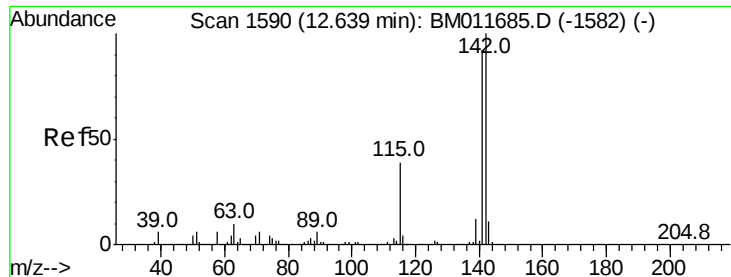
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 142 | 100   |       |       |
| 141 | 86.8  | 71.4  | 107.2 |



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

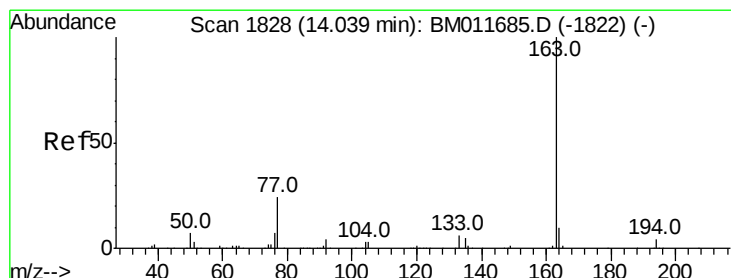
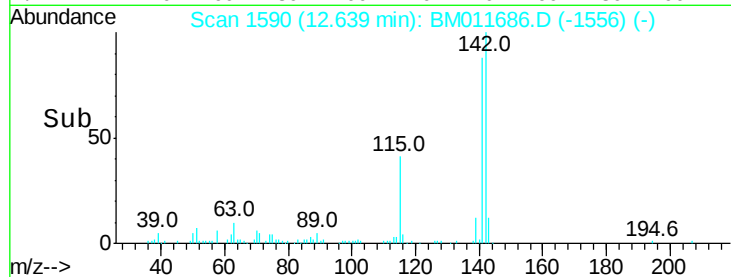
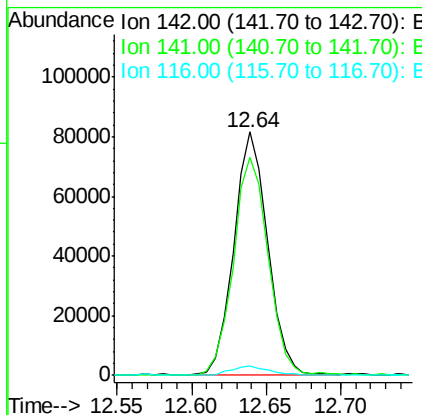
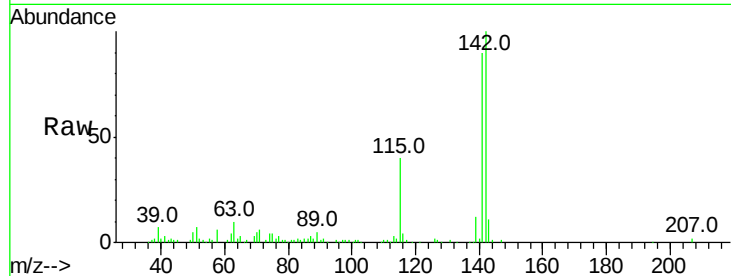




#35  
1-Methylnaphthalene  
Concen: 1.435 ng/ul  
RT: 12.64 min Scan# 1590  
Delta R.T. 0.00 min  
Lab File: BM011686.D  
Acq: 22 Sep 2017 10:59

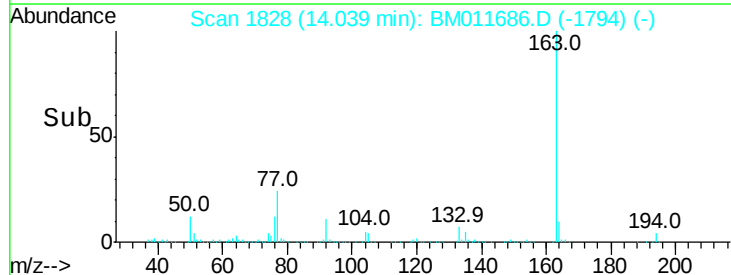
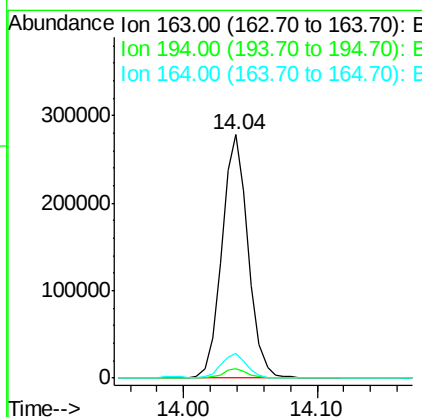
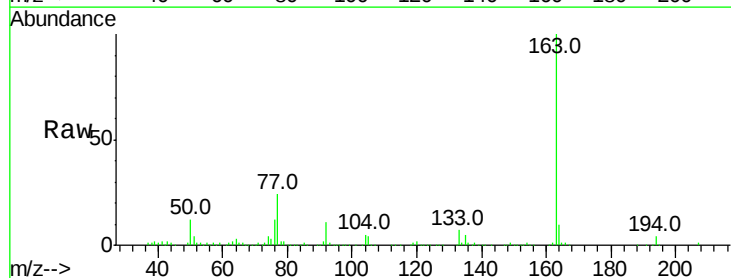
Instrument :  
BNA\_M  
ClientSampleId :

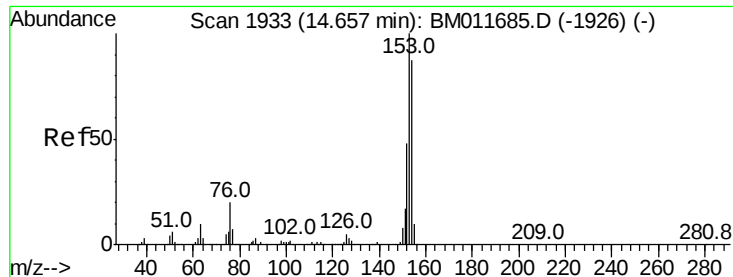
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 89.6  | 76.6  | 115.0 |
| 116     | 3.7   | 3.6   | 5.4   |



#45  
Dimethylphthalate  
Concen: 3.433 ng/ul  
RT: 14.04 min Scan# 1828  
Delta R.T. 0.00 min  
Lab File: BM011686.D  
Acq: 22 Sep 2017 10:59

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 3.8   | 4.0   | 6.0#  |
| 164     | 10.0  | 8.4   | 12.6  |





#50

Acenaphthene

Concen: 2.166 ng/ul

RT: 14.66 min Scan# 1933

Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Instrument :

BNA\_M

ClientSampleId :

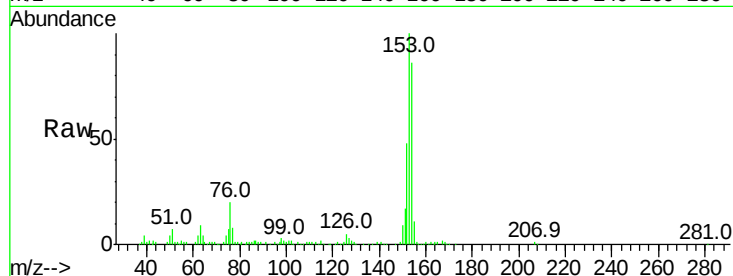
Tot Ion:153 Resp: 208092

Ion Ratio Lower Upper

153 100

152 48.5 37.9 56.9

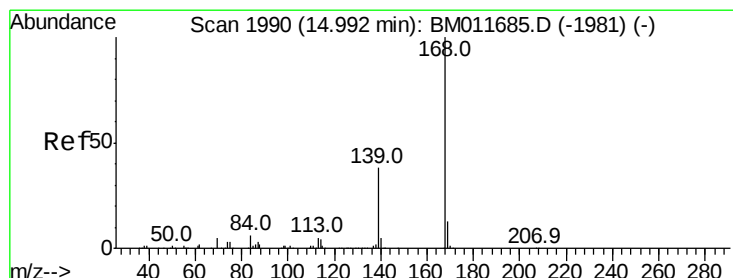
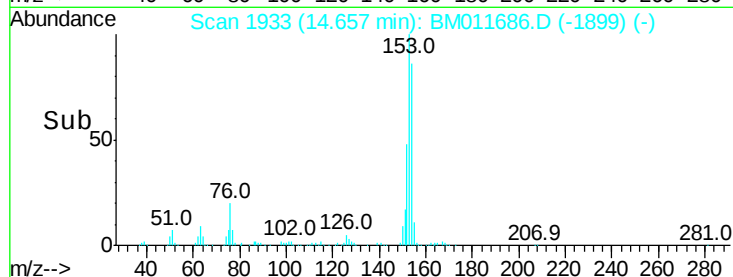
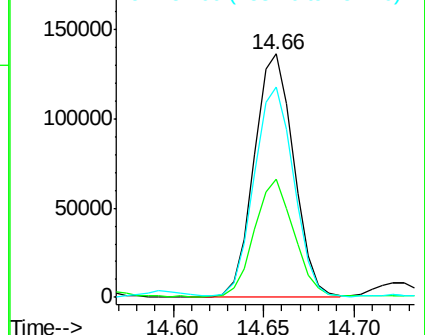
154 86.3 69.8 104.6



Abundance Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#54

Dibenzofuran

Concen: 1.075 ng/ul

RT: 14.99 min Scan# 1989

Delta R.T. -0.01 min

Lab File: BM011686.D

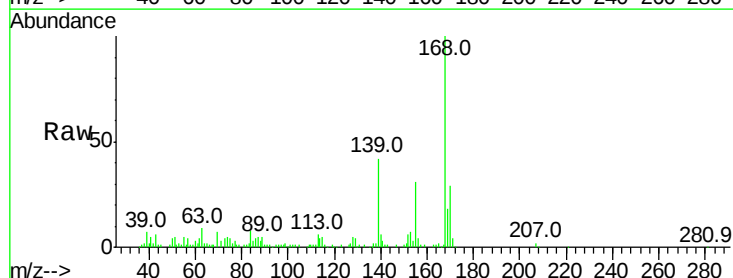
Acq: 22 Sep 2017 10:59

Tgt Ion:168 Resp: 144504

Ion Ratio Lower Upper

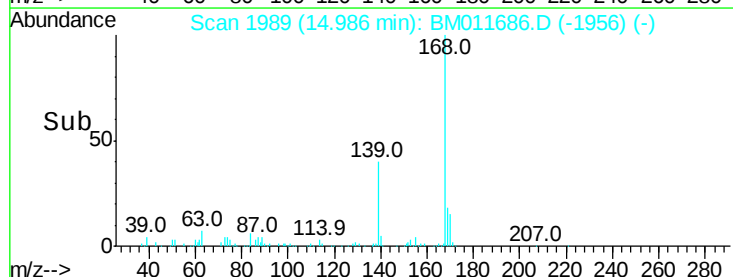
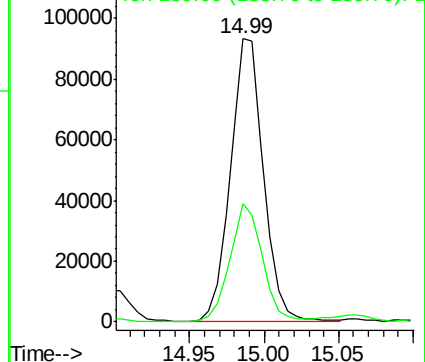
168 100

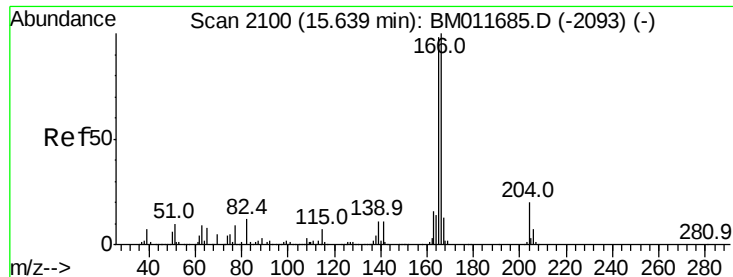
139 41.7 31.0 46.4



Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E





#59

Fluorene

Concen: 1.669 ng/ul

RT: 15.63 min Scan# 2099

Delta R.T. -0.01 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

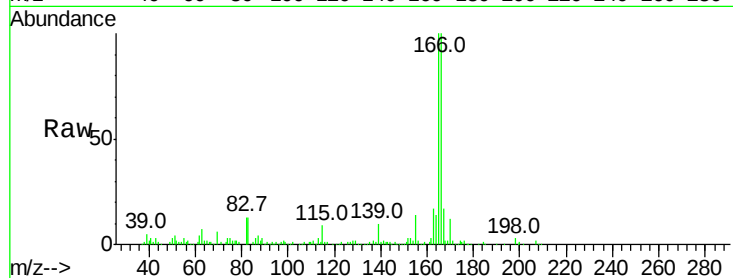
Instrument :

BNA\_M

ClientSampleId :

Tot Ion:166 Resp: 187910

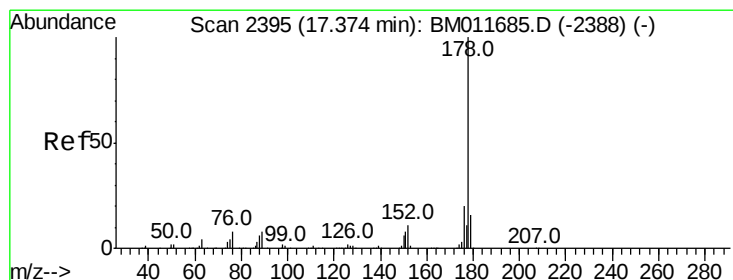
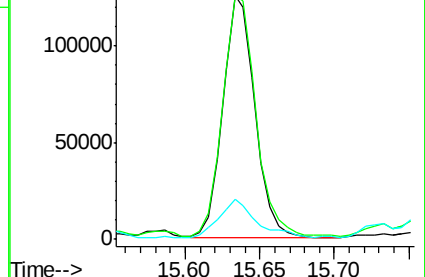
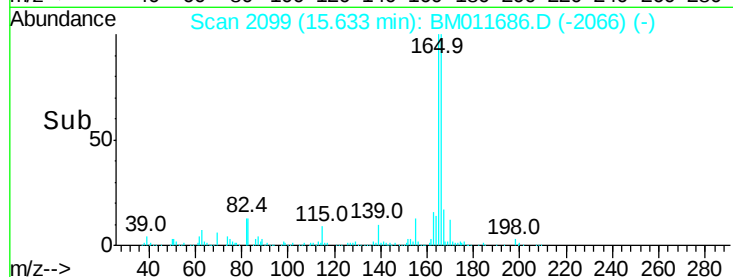
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 166 | 100   |       |       |
| 165 | 100.2 | 78.4  | 117.6 |
| 167 | 16.5  | 11.1  | 16.7  |



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



#70

Phenanthrene

Concen: 23.537 ng/ul

RT: 17.37 min Scan# 2395

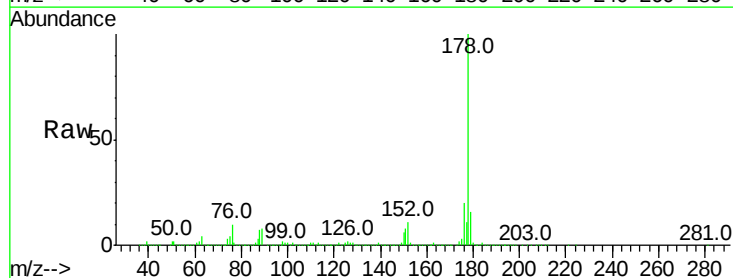
Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Tgt Ion:178 Resp: 3728828

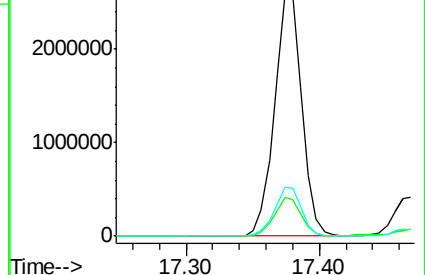
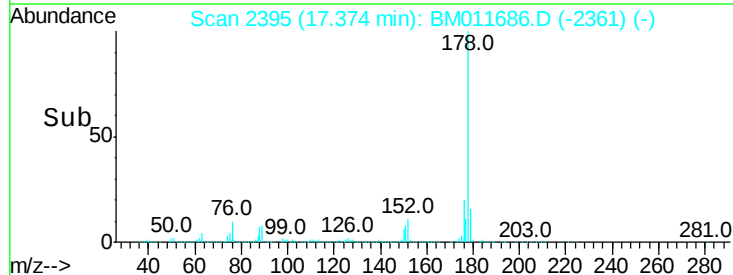
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 178 | 100   |       |       |
| 179 | 15.9  | 12.3  | 18.5  |
| 176 | 19.9  | 15.4  | 23.0  |

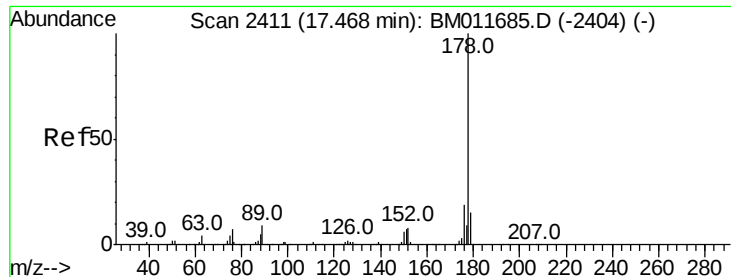


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E





#72

Anthracene

Concen: 3.605 ng/ul

RT: 17.47 min Scan# 2411

Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Instrument :

BNA\_M

ClientSampleId :

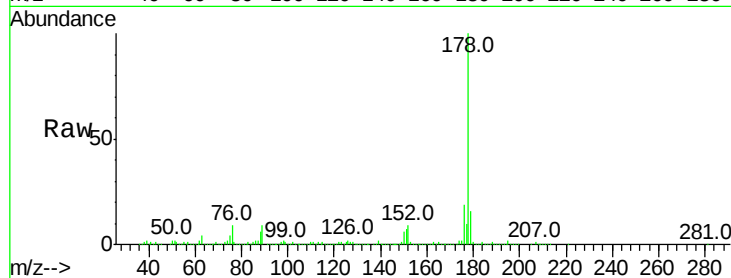
Tot Ion:178 Resp: 586063

Ion Ratio Lower Upper

178 100

179 16.0 13.4 20.2

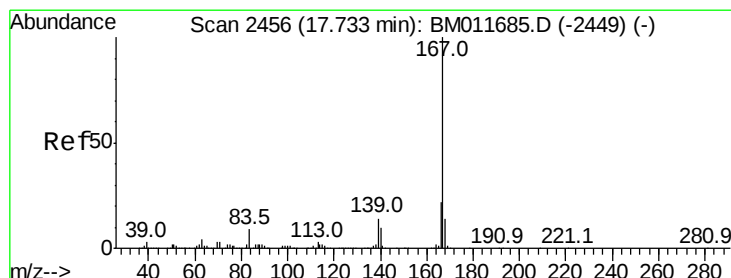
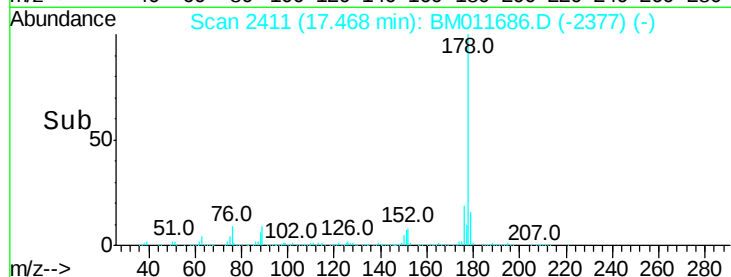
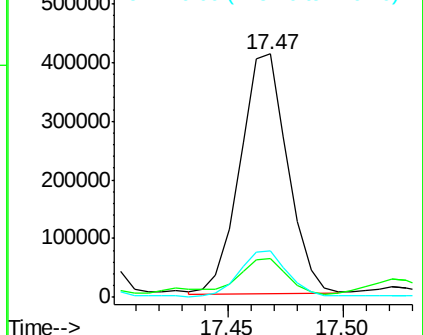
176 18.9 15.4 23.0



Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E



#75

Carbazole

Concen: 1.393 ng/ul

RT: 17.73 min Scan# 2456

Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

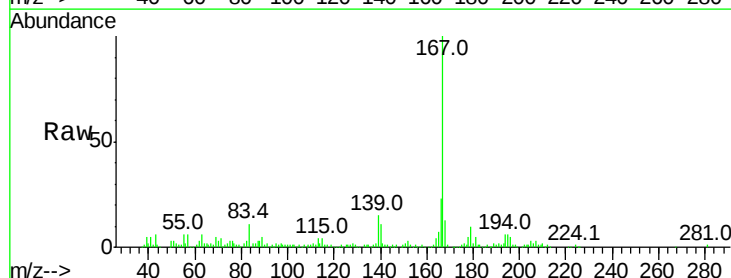
Tgt Ion:167 Resp: 193148

Ion Ratio Lower Upper

167 100

166 23.3 17.0 25.4

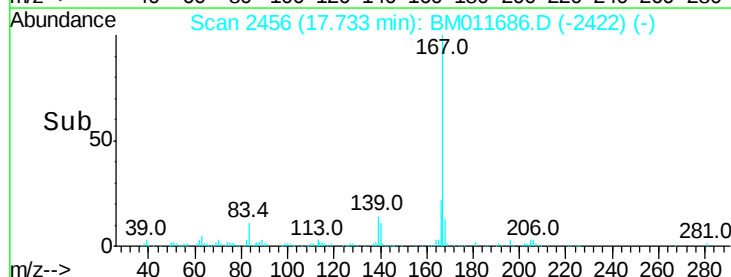
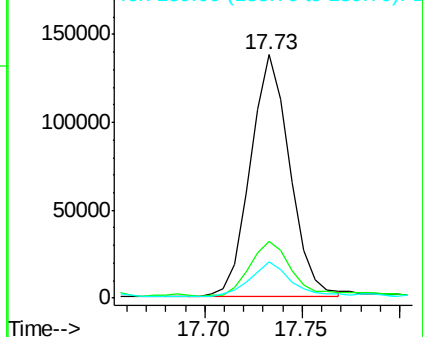
139 14.9 9.1 13.7#

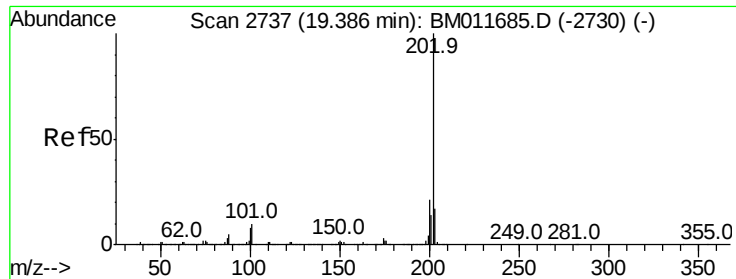


Abundance Ion 167.00 (166.70 to 167.70): E

Ion 166.00 (165.70 to 166.70): E

Ion 139.00 (138.70 to 139.70): E



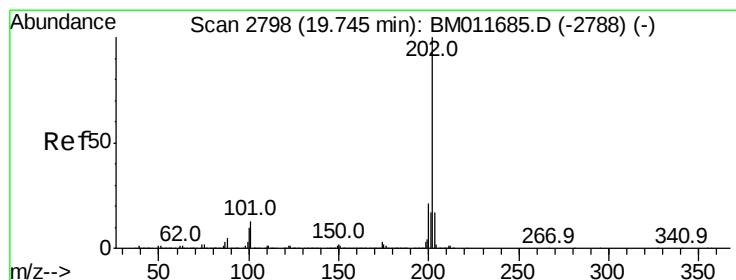
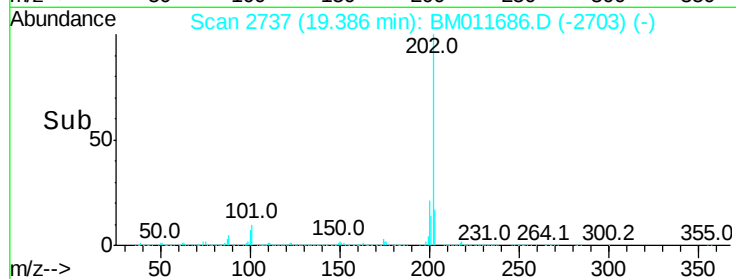
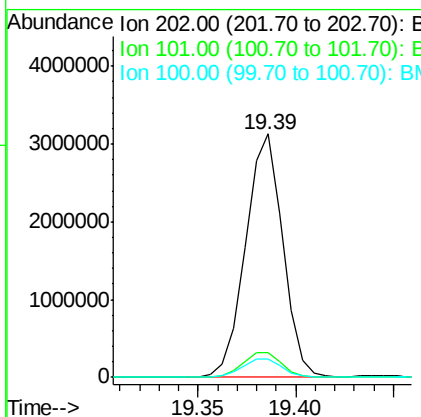
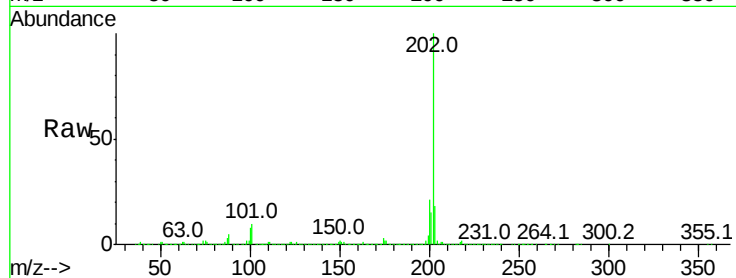


#77  
 Fluoranthene  
 Concen: 25.238 ng/ul  
 RT: 19.39 min Scan# 2737  
 Delta R.T. 0.00 min  
 Lab File: BM011686.D  
 Acq: 22 Sep 2017 10:59

Instrument :  
 BNA\_M  
 ClientSampleId :

Tot Ion:202 Resp: 4112567  

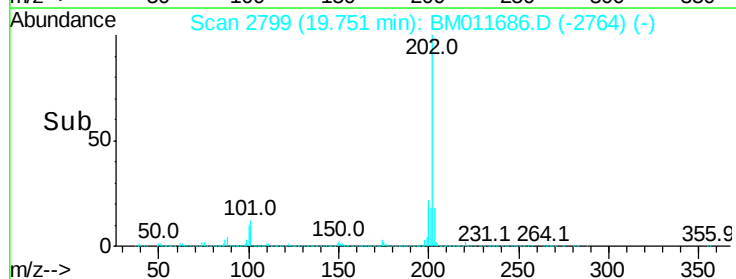
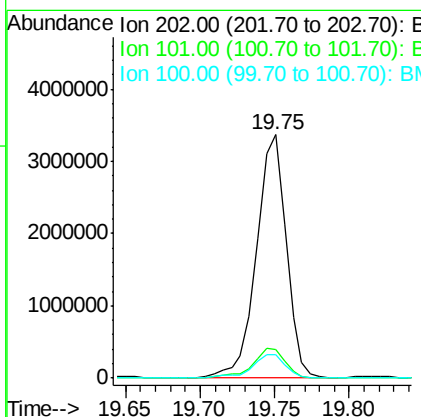
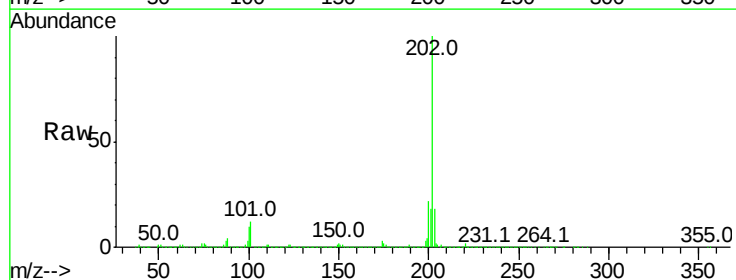
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 202 | 100   |       |       |
| 101 | 10.0  | 6.1   | 9.1#  |
| 100 | 7.6   | 4.6   | 7.0#  |

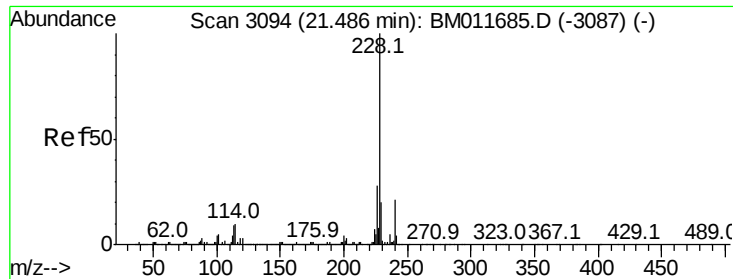


#80  
 Pyrene  
 Concen: 35.577 ng/ul  
 RT: 19.75 min Scan# 2799  
 Delta R.T. 0.01 min  
 Lab File: BM011686.D  
 Acq: 22 Sep 2017 10:59

Tgt Ion:202 Resp: 4625583  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 202 | 100   |       |       |
| 101 | 11.8  | 6.9   | 10.3# |
| 100 | 9.6   | 5.6   | 8.4#  |





#83

Benzo(a)anthracene

Concen: 15.311 ng/ul

RT: 21.49 min Scan# 3094

Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

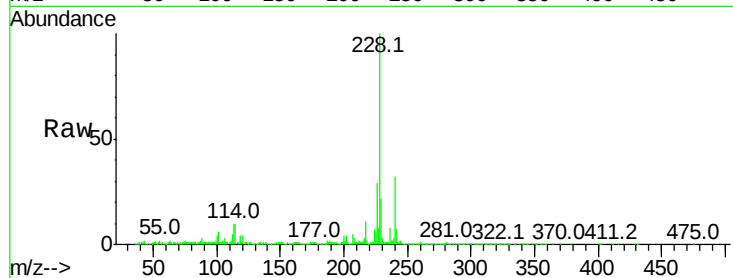
Instrument :

BNA\_M

ClientSampleId :

Tot Ion:228 Resp: 1878657

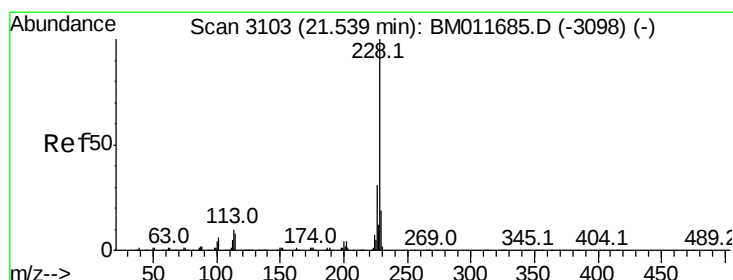
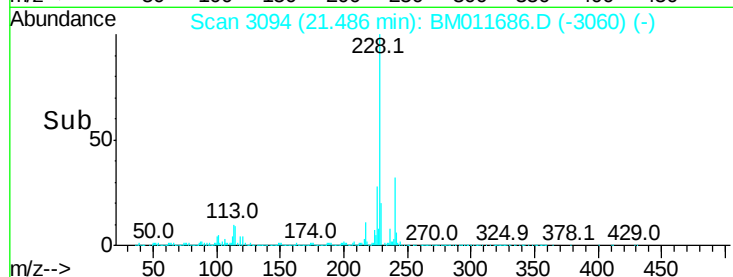
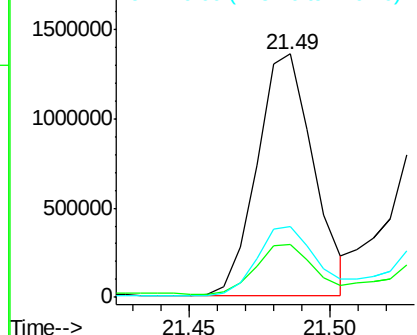
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 228 | 100   |       |       |
| 229 | 21.8  | 16.0  | 24.0  |
| 226 | 28.9  | 21.8  | 32.8  |



Abundance Ion 228.00 (227.70 to 228.70): E

Ion 229.00 (228.70 to 229.70): E

Ion 226.00 (225.70 to 226.70): E



#85

Chrysene

Concen: 18.642 ng/ul

RT: 21.54 min Scan# 3103

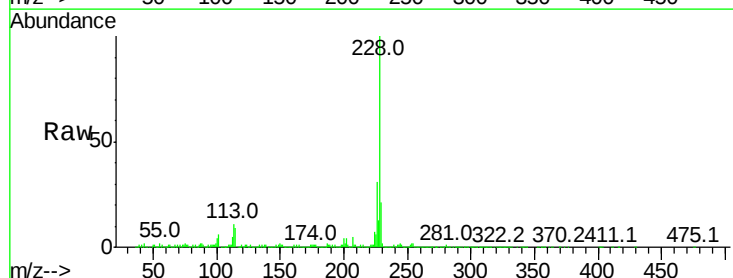
Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Tgt Ion:228 Resp: 2073576

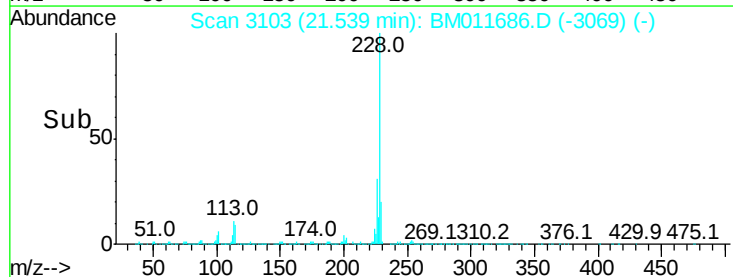
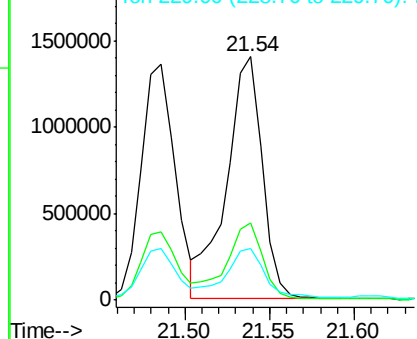
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 228 | 100   |       |       |
| 226 | 31.5  | 24.1  | 36.1  |
| 229 | 21.0  | 16.0  | 24.0  |

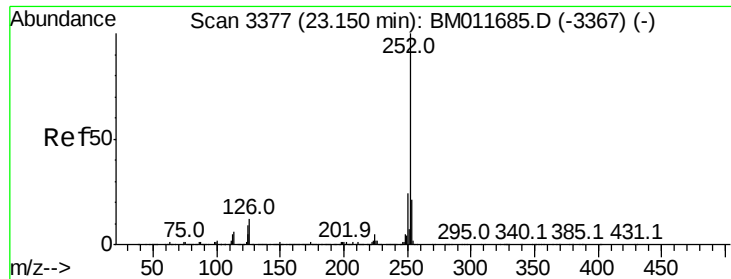


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#88

Benzo(b)fluoranthene

Concen: 18.719 ng/ul

RT: 23.15 min Scan# 3377

Delta R.T. 0.00 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Instrument :

BNA\_M

ClientSampled :

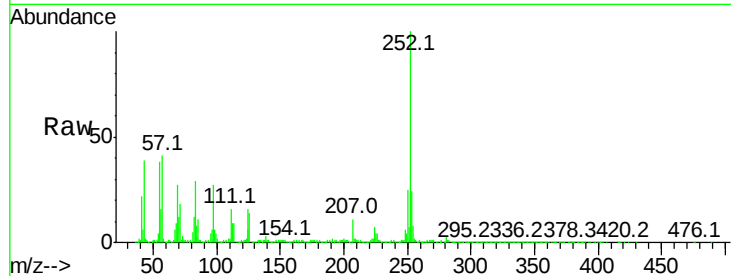
Tot Ion:252 Resp: 2718160

Ion Ratio Lower Upper

252 100

253 23.6 17.4 26.0

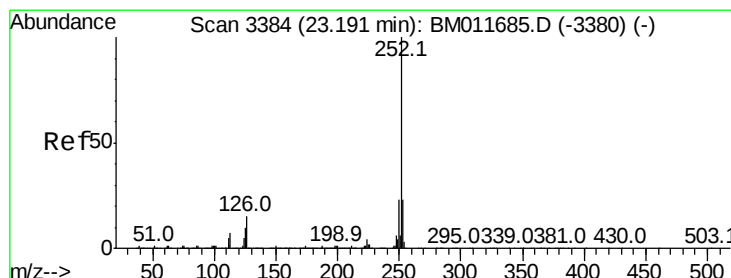
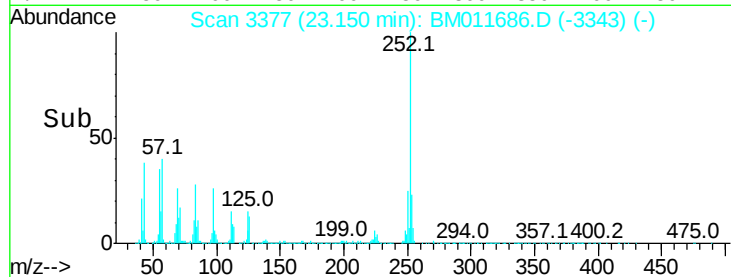
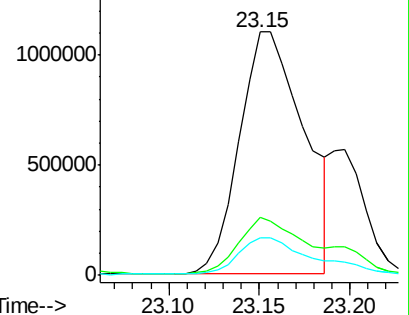
125 15.6 4.9 7.3#



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



#89

Benzo(k)fluoranthene

Concen: 19.491 ng/ul

RT: 23.15 min Scan# 3377

Delta R.T. -0.04 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

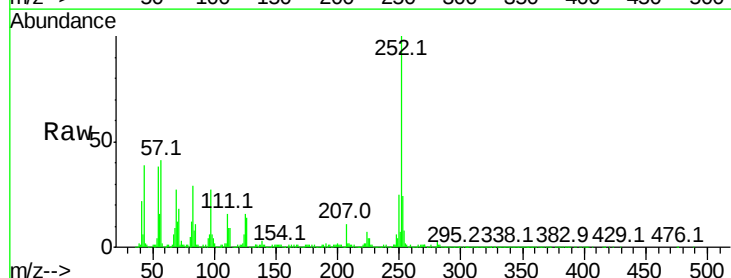
Tgt Ion:252 Resp: 2718160

Ion Ratio Lower Upper

252 100

253 23.6 17.1 25.7

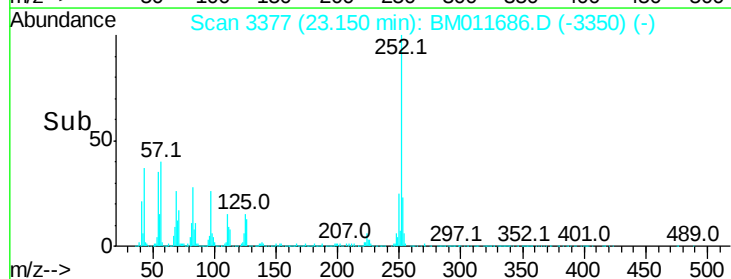
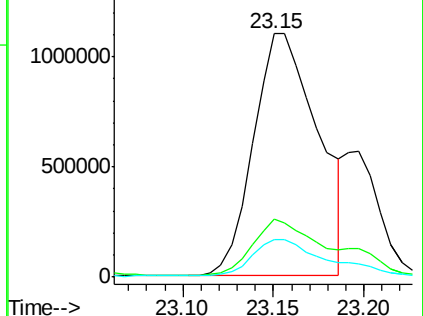
125 15.6 5.4 8.0#

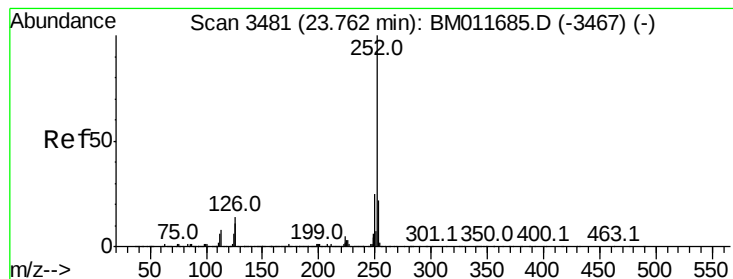


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#91

Benzo(a)pyrene

Concen: 15.111 ng/ul

RT: 23.77 min Scan# 3483

Delta R.T. 0.01 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Instrument :

BNA\_M

ClientSampleId :

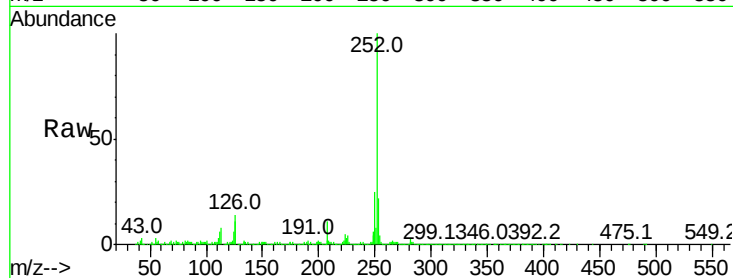
Tot Ion:252 Resp: 2071163

Ion Ratio Lower Upper

252 100

253 21.8 17.2 25.8

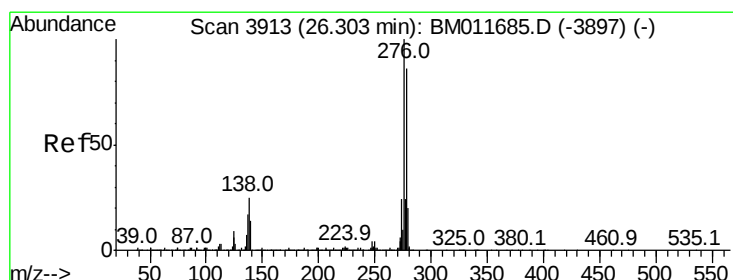
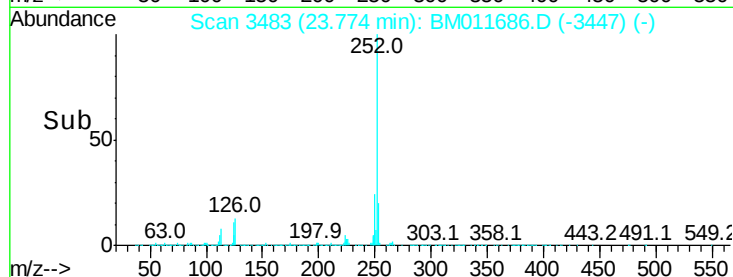
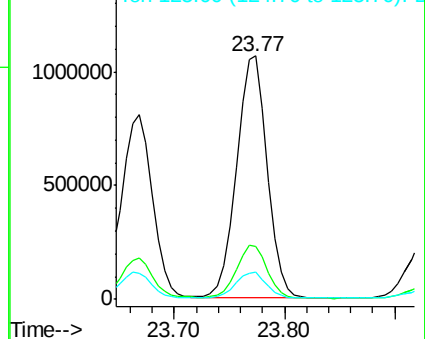
125 11.2 5.8 8.6#



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



#92

Indeno(1,2,3-cd)pyrene

Concen: 11.734 ng/ul

RT: 26.31 min Scan# 3914

Delta R.T. 0.01 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

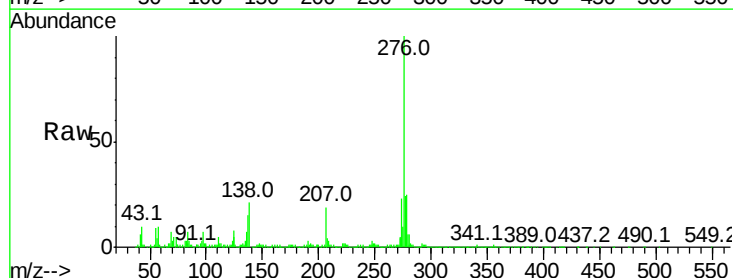
Tgt Ion:276 Resp: 1769088

Ion Ratio Lower Upper

276 100

138 20.6 10.9 16.3#

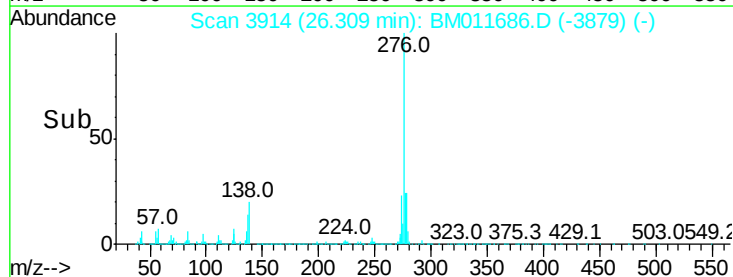
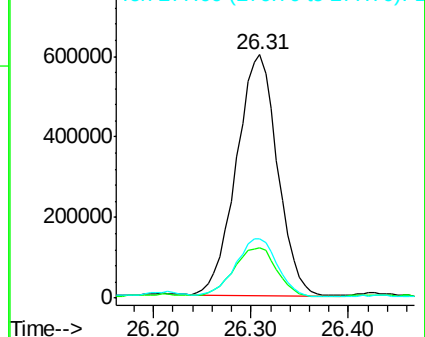
277 24.2 18.9 28.3

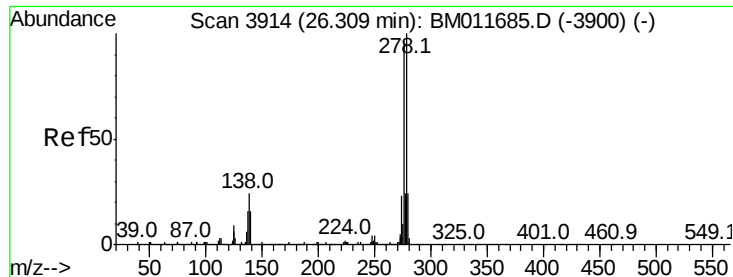


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#93

Dibenzo(a,h)anthracene

Concen: 3.976 ng/ul

RT: 26.30 min Scan# 3913

Delta R.T. -0.01 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Instrument :

BNA\_M

ClientSampleId :

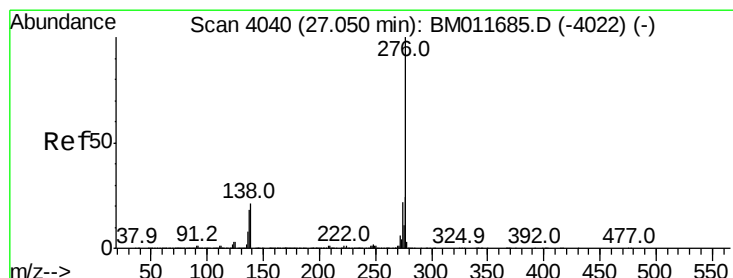
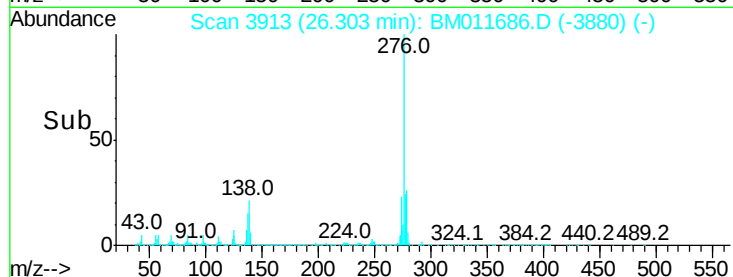
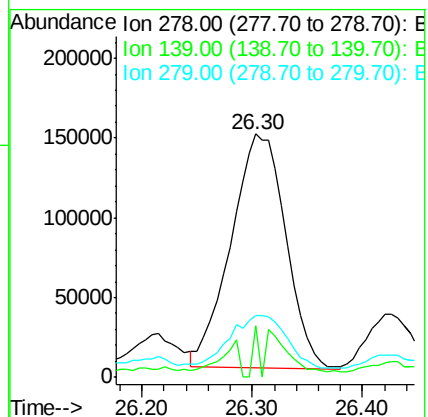
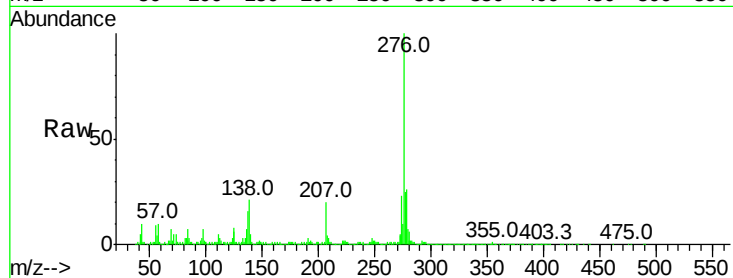
Tot Ion:278 Resp: 508275

Ion Ratio Lower Upper

278 100

139 20.9 9.0 13.4#

279 25.6 19.1 28.7



#94

Benzo(g,h,i)perylene

Concen: 16.989 ng/ul

RT: 27.07 min Scan# 4043

Delta R.T. 0.02 min

Lab File: BM011686.D

Acq: 22 Sep 2017 10:59

Tgt Ion:276 Resp: 2074404

Ion Ratio Lower Upper

276 100

138 21.0 11.2 16.8#

277 23.5 19.0 28.6

