

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG121815\  
 Data File : BG020255.D  
 Acq On : 17 Dec 2015 21:10  
 Operator : UM/SJ  
 Sample : G4767-07DL 5X  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N29DL

Quant Time: Dec 18 02:43:45 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.10  | 152  | 17380    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.91 | 136  | 76277    | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.73 | 164  | 55014    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.47 | 188  | 139238   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.74 | 240  | 180770   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 25.02 | 264  | 176012   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |       |      |       |      |
|--------------------------------|-------|-----|-------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 0.00  | 96  | 0     | 0.00 | ng/uL |      |
| 5) Phenol-d5                   | 7.24  | 99  | 4929  | 3.22 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.41  | 67  | 3326  | 3.64 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.62  | 132 | 4013  | 3.60 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.79  | 113 | 4312  | 3.29 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.26  | 128 | 2089  | 3.51 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.99  | 143 | 2553  | 3.86 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.52 | 165 | 4270  | 3.19 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 11.04 | 131 | 6376  | 4.24 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.12 | 166 | 18345 | 4.12 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.42 | 160 | 19244 | 3.72 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.92 | 143 | 2197  | 2.75 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.72 | 176 | 15592 | 3.86 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.83 | 200 | 1239  | 1.50 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.57 | 188 | 25106 | 3.91 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.85 | 212 | 30848 | 3.66 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 24.79 | 264 | 33544 | 3.82 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |        |        | Qvalue |
|----------------------------|-------|-----|---------|--------|--------|--------|
| 17) Hexachloroethane       | 9.28  | 117 | 729     | 1.49   | ng/ul# | 1      |
| 28) Naphthalene            | 10.96 | 128 | 426351  | 107.03 | ng/ul  | 98     |
| 30) 4-Chloroaniline        | 10.96 | 127 | 58655   | 38.17  | ng/ul# | 13     |
| 34) 2-Methylnaphthalene    | 12.56 | 142 | 239246  | 78.63  | ng/ul  | 99     |
| 35) 1-Methylnaphthalene    | 12.78 | 142 | 108541  | 37.11  | ng/ul# | 94     |
| 41) 1,1'-Biphenyl          | 13.56 | 154 | 97967   | 23.60  | ng/ul  | 94     |
| 45) Dimethylphthalate      | 14.17 | 163 | 9389    | 2.07   | ng/ul# | 95     |
| 48) Acenaphthylene         | 14.45 | 152 | 24660   | 4.48   | ng/ul# | 93     |
| 50) Acenaphthene           | 14.79 | 153 | 411481  | 111.19 | ng/ul  | 99     |
| 54) Dibenzofuran           | 15.12 | 168 | 430933  | 78.28  | ng/ul  | 97     |
| 59) Fluorene               | 15.77 | 166 | 441149  | 99.79  | ng/ul  | 98     |
| 61) 4-Nitroaniline         | 15.77 | 138 | 5631    | 5.71   | ng/ul# | 10     |
| 70) Phenanthrene           | 17.61 | 178 | 390711  | 51.30  | ng/ul  | 99     |
| 72) Anthracene             | 17.61 | 178 | 390711  | 50.58  | ng/ul  | 98     |
| 75) Carbazole              | 17.87 | 167 | 132713  | 20.45  | ng/ul  | 98     |
| 77) Fluoranthene           | 19.52 | 202 | 1080992 | 121.45 | ng/ul  | 99     |
| 80) Pyrene                 | 19.89 | 202 | 749602  | 68.51  | ng/ul  | 99     |
| 83) Benzo(a)anthracene     | 21.73 | 228 | 191104  | 18.12  | ng/ul  | 99     |
| 85) Chrysene               | 21.79 | 228 | 155072  | 15.61  | ng/ul  | 97     |
| 88) Benzo(b)fluoranthene   | 23.98 | 252 | 84637   | 7.99   | ng/ul  | 99     |
| 89) Benzo(k)fluoranthene   | 24.04 | 252 | 27185   | 2.67   | ng/ul  | 98     |
| 91) Benzo(a)pyrene         | 24.86 | 252 | 48205   | 4.80   | ng/ul  | 98     |
| 92) Indeno(1,2,3-cd)pyrene | 28.73 | 276 | 14902   | 1.25   | ng/ul# | 92     |

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BNA\_G  
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Quant Time: Dec 18 02:43:45 2015  
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Quant Title : SVOA CALIBRATION  
QLast Update : Fri Dec 18 02:40:02 2015  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

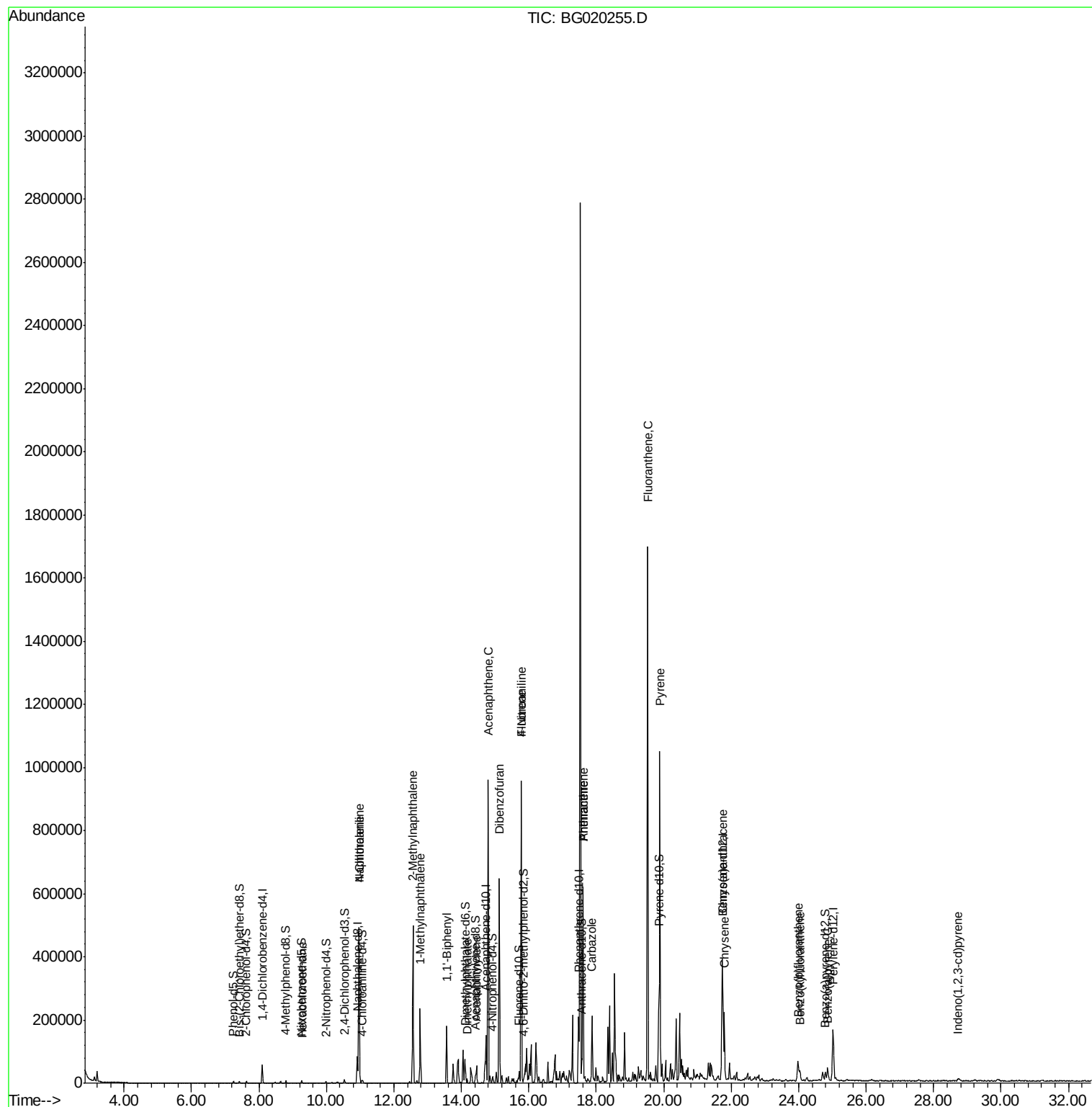
|       |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|
| ----- |  |  |  |  |  |  |
| ----- |  |  |  |  |  |  |

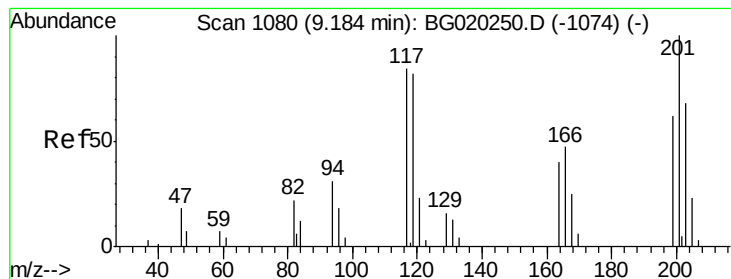
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#17

Hexachloroethane

Concen: 1.49 ng/ul

RT: 9.28 min Scan# 1097

Delta R.T. 0.10 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

D9N29DL

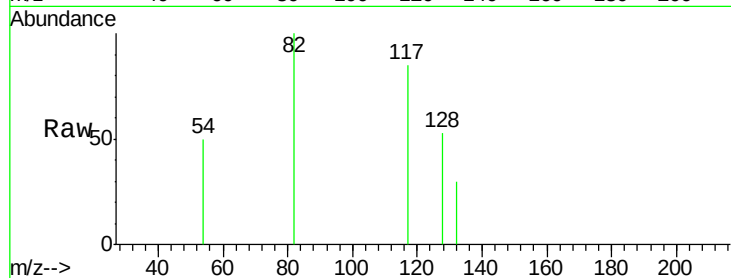
Tgt Ion:117 Resp: 729

Ion Ratio Lower Upper

117 100

201 0.0 102.7 154.1#

199 0.0 65.8 98.8#

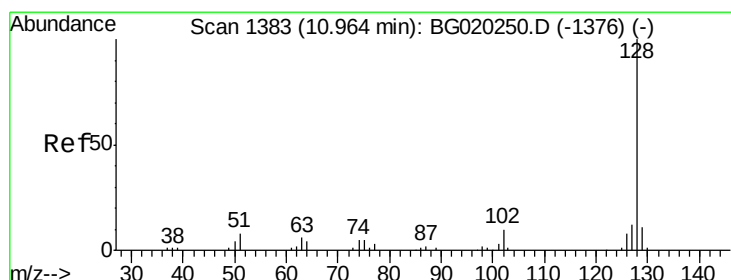
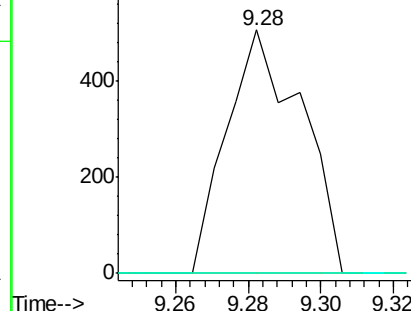
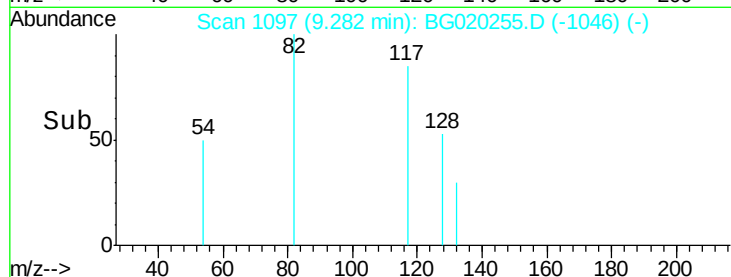


Abundance Ion 117.00 (116.70 to 117.70): E

Ion 201.00 (200.70 to 201.70): E

Ion 199.00 (198.70 to 199.70): E

Time-->



#28

Naphthalene

Concen: 107.03 ng/ul

RT: 10.96 min Scan# 1383

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

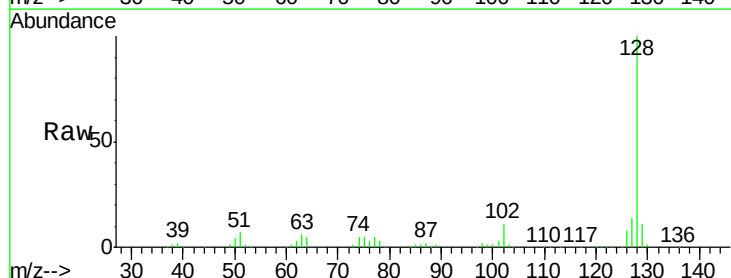
Tgt Ion:128 Resp: 426351

Ion Ratio Lower Upper

128 100

129 11.2 8.6 12.8

127 13.9 10.1 15.1

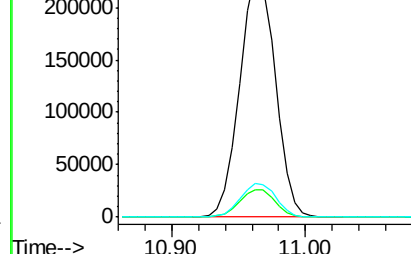
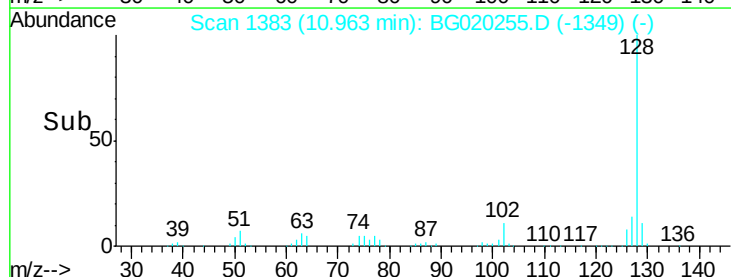


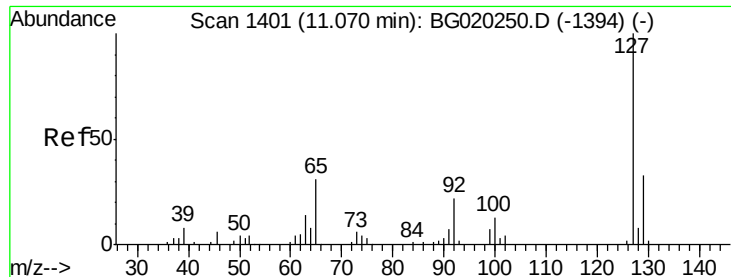
Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E

Time-->

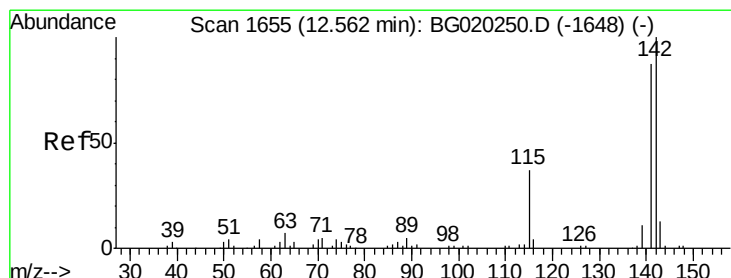
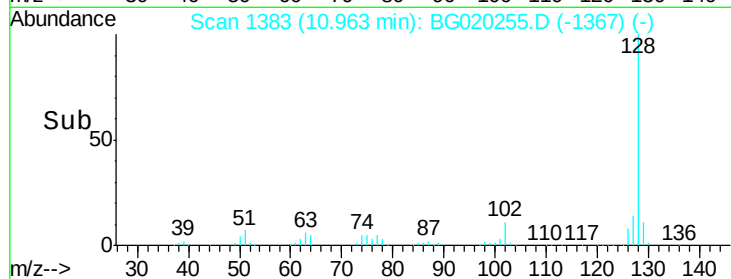
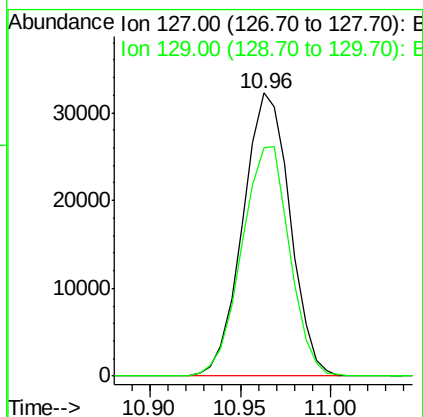
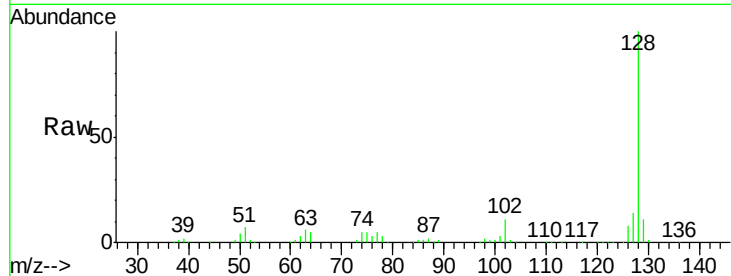




#30  
4-Chloroaniline  
Concen: 38.17 ng/ul  
RT: 10.96 min Scan# 1383  
Delta R.T. -0.11 min  
Lab File: BG020255.D  
Acq: 17 Dec 2015 21:10

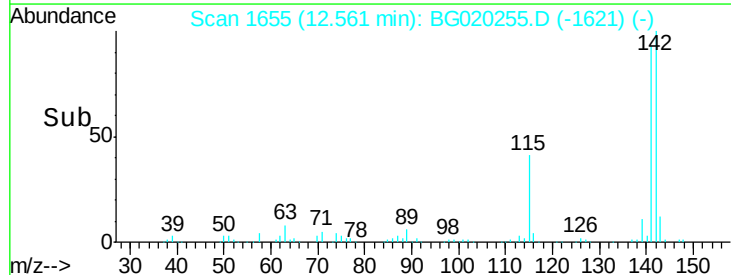
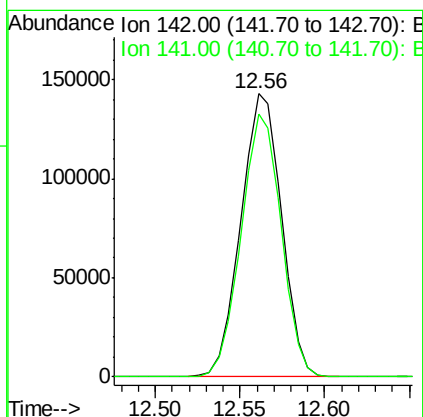
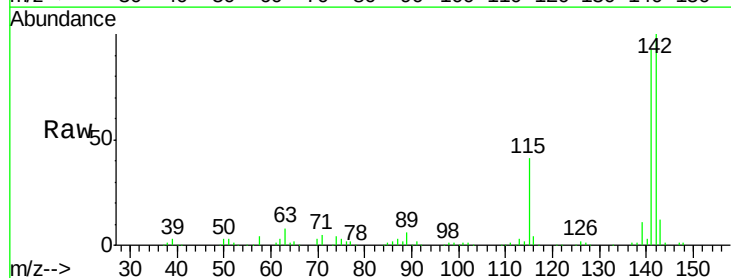
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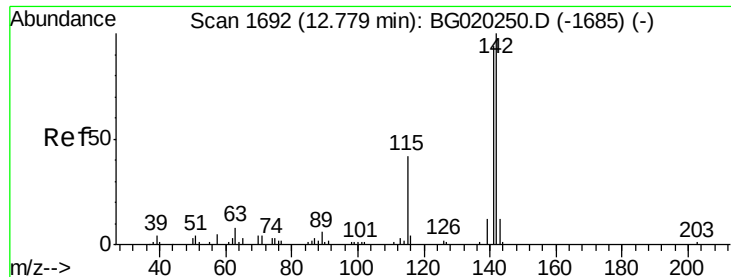
Tgt Ion:127 Resp: 58655  
Ion Ratio Lower Upper  
127 100  
129 80.8 25.7 38.5#



#34  
2-Methylnaphthalene  
Concen: 78.63 ng/ul  
RT: 12.56 min Scan# 1655  
Delta R.T. -0.00 min  
Lab File: BG020255.D  
Acq: 17 Dec 2015 21:10

Tgt Ion:142 Resp: 239246  
Ion Ratio Lower Upper  
142 100  
141 93.0 74.9 112.3

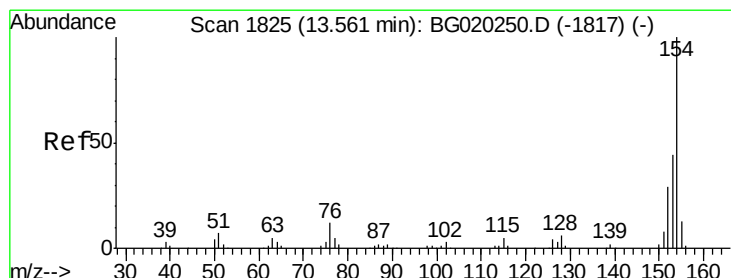
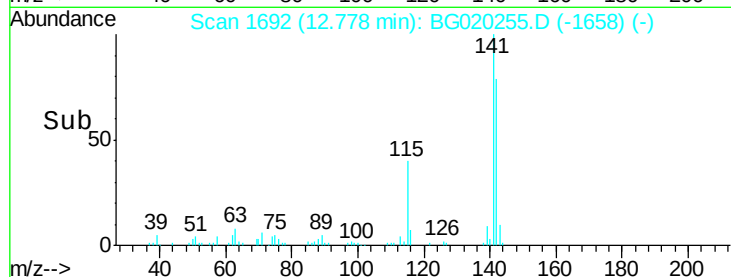
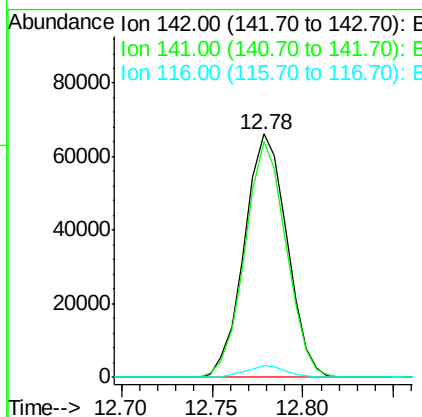
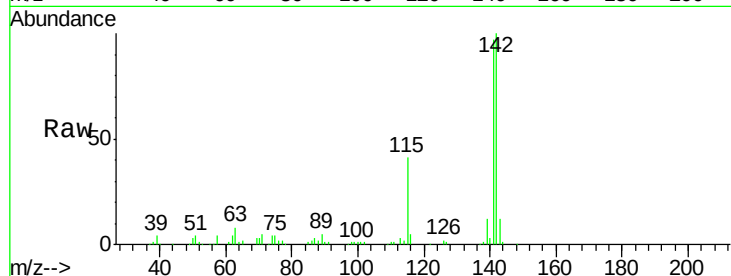




#35  
 1-Methylnaphthalene  
 Concen: 37.11 ng/ul  
 RT: 12.78 min Scan# 1692  
 Delta R.T. -0.00 min  
 Lab File: BG020255.D  
 Acq: 17 Dec 2015 21:10

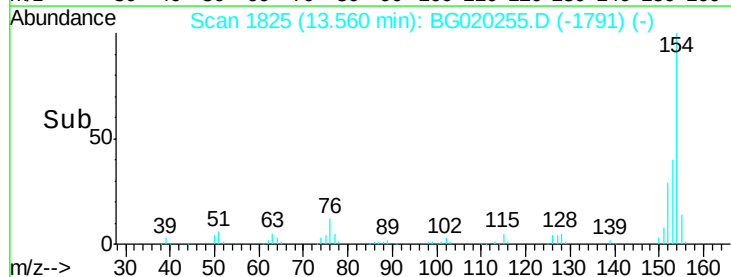
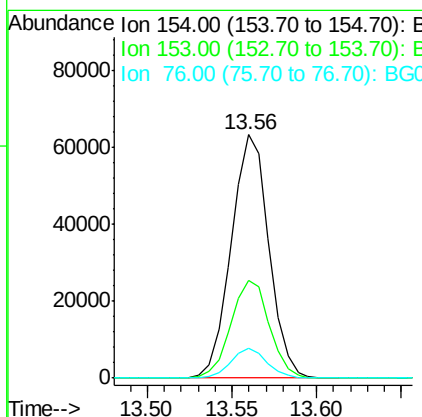
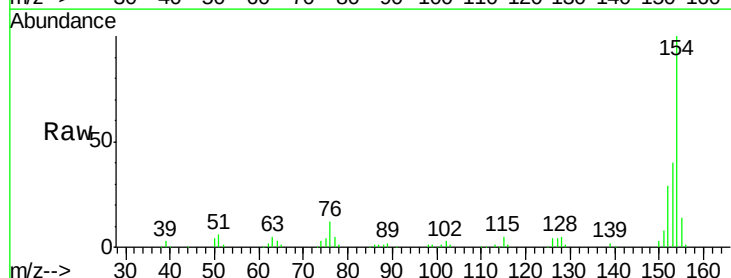
Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N29DL

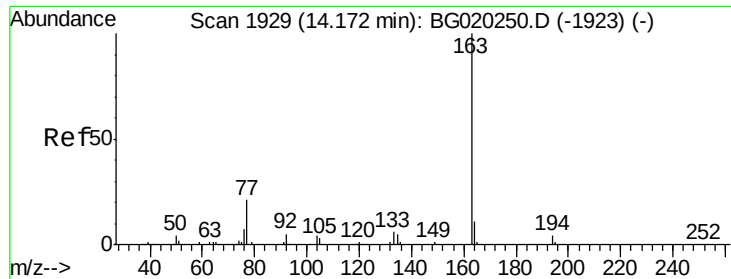
Tgt Ion:142 Resp: 108541  
 Ion Ratio Lower Upper  
 142 100  
 141 96.9 73.0 109.6  
 116 4.7 3.0 4.6#



#41  
 1,1'-Biphenyl  
 Concen: 23.60 ng/ul  
 RT: 13.56 min Scan# 1825  
 Delta R.T. -0.00 min  
 Lab File: BG020255.D  
 Acq: 17 Dec 2015 21:10

Tgt Ion:154 Resp: 97967  
 Ion Ratio Lower Upper  
 154 100  
 153 40.2 35.5 53.3  
 76 12.0 10.4 15.6





#45

Dimethylphthalate

Concen: 2.07 ng/ul

RT: 14.17 min Scan# 1929

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

D9N29DL

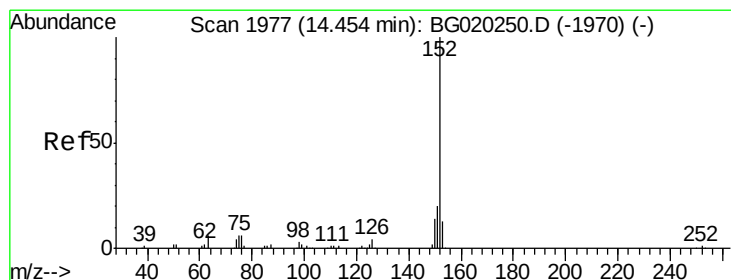
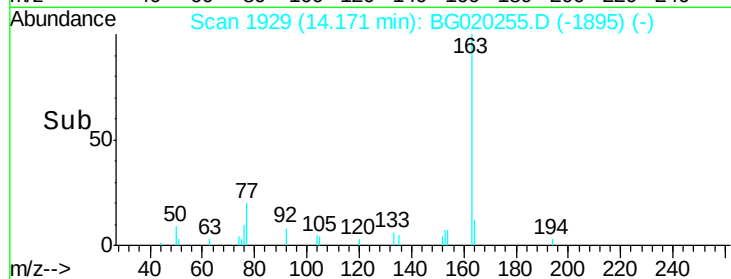
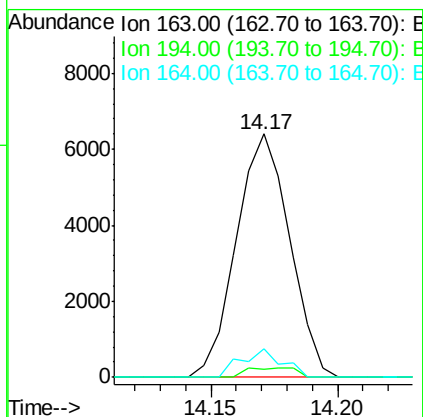
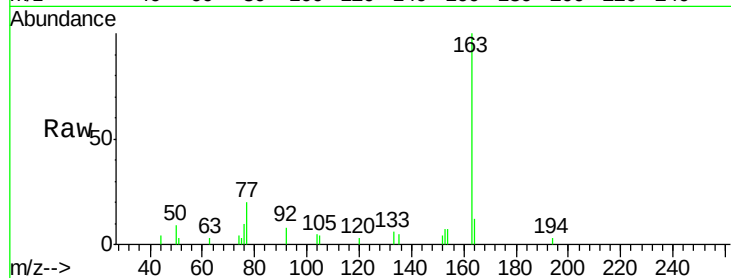
Tgt Ion:163 Resp: 9389

Ion Ratio Lower Upper

163 100

194 3.2 3.5 5.3#

164 11.6 7.7 11.5#



#48

Acenaphthylene

Concen: 4.48 ng/ul

RT: 14.45 min Scan# 1976

Delta R.T. -0.01 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

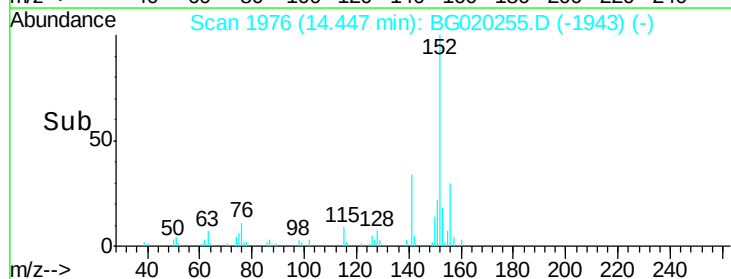
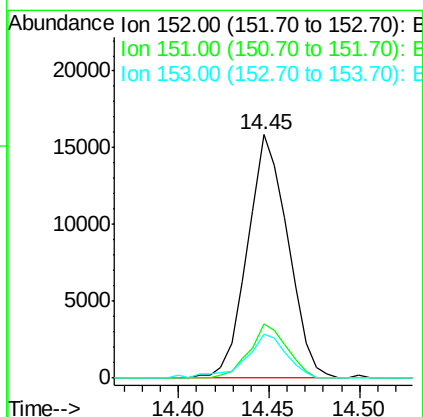
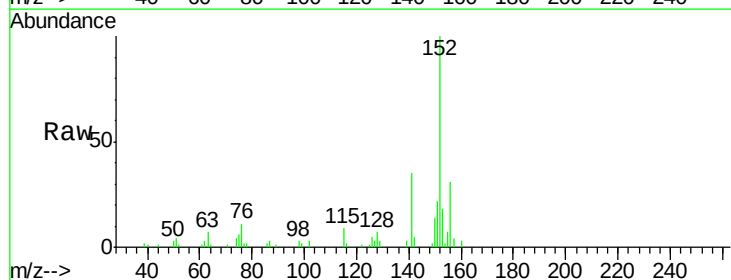
Tgt Ion:152 Resp: 24660

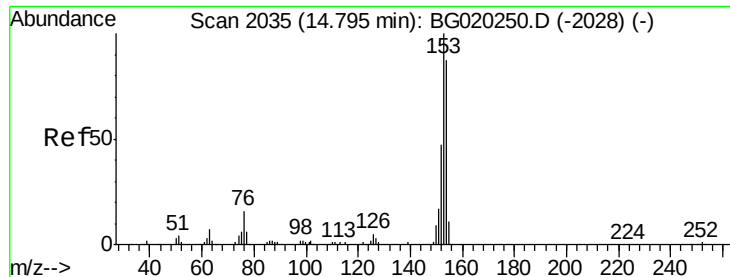
Ion Ratio Lower Upper

152 100

151 22.1 16.4 24.6

153 17.9 10.4 15.6#





#50

Acenaphthene

Concen: 111.19 ng/ul

RT: 14.79 min Scan# 2035

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

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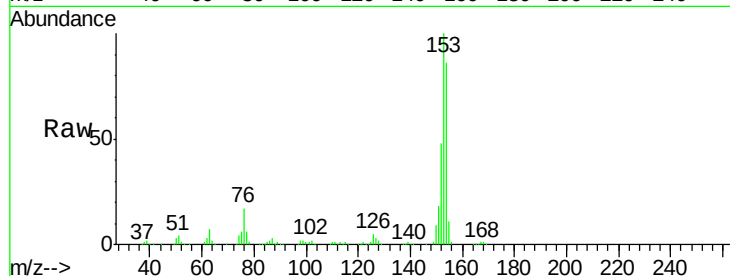
Tgt Ion:153 Resp: 411481

Ion Ratio Lower Upper

153 100

152 47.8 37.6 56.4

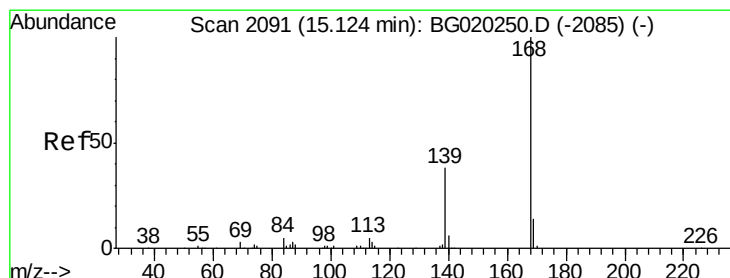
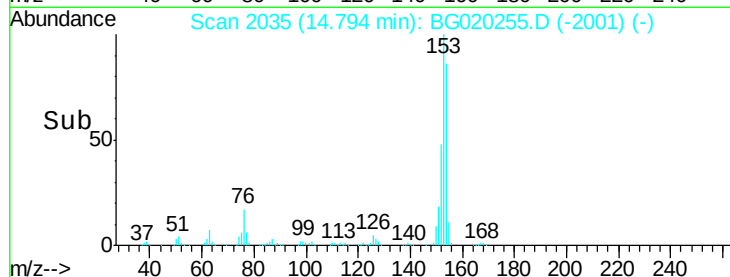
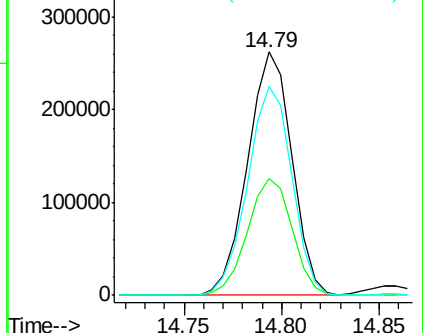
154 85.7 67.9 101.9



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: 78.28 ng/ul

RT: 15.12 min Scan# 2091

Delta R.T. -0.00 min

Lab File: BG020255.D

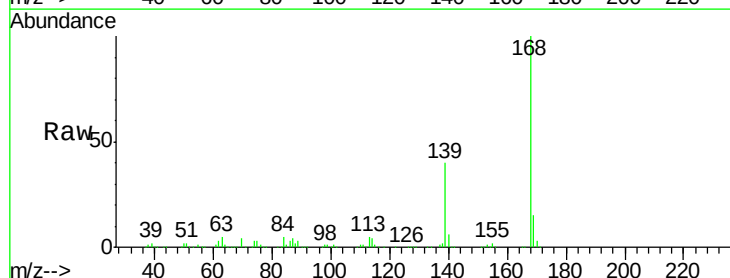
Acq: 17 Dec 2015 21:10

Tgt Ion:168 Resp: 430933

Ion Ratio Lower Upper

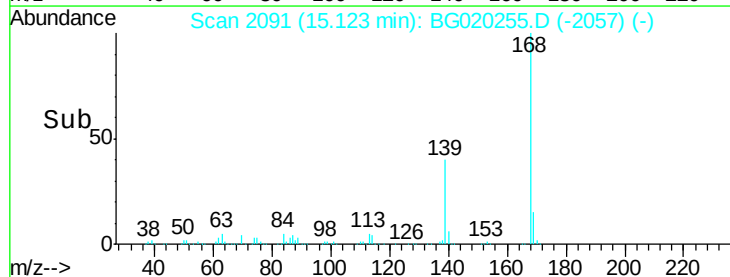
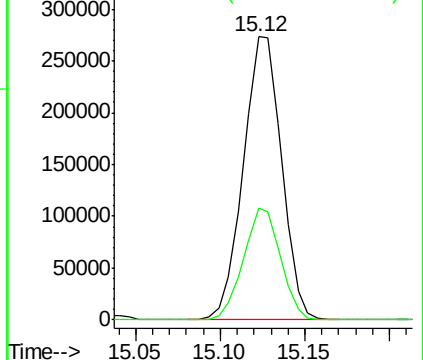
168 100

139 39.7 30.5 45.7

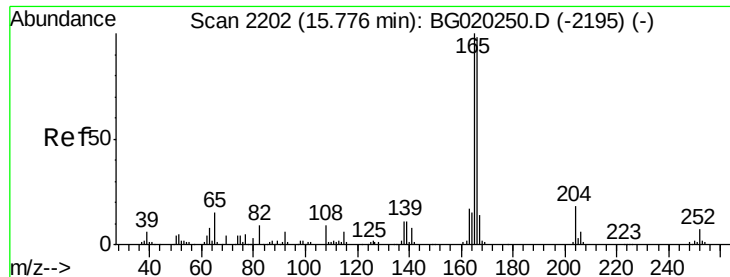


Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E







#59

Fluorene

Concen: 99.79 ng/ul

RT: 15.77 min Scan# 2202

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

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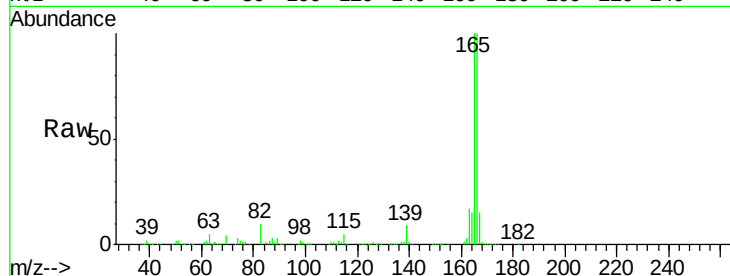
Tgt Ion:166 Resp: 441149

Ion Ratio Lower Upper

166 100

165 99.5 81.4 122.0

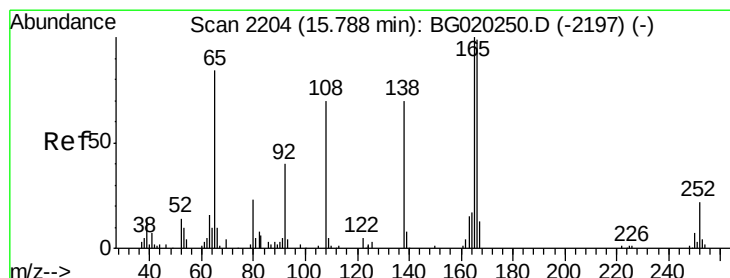
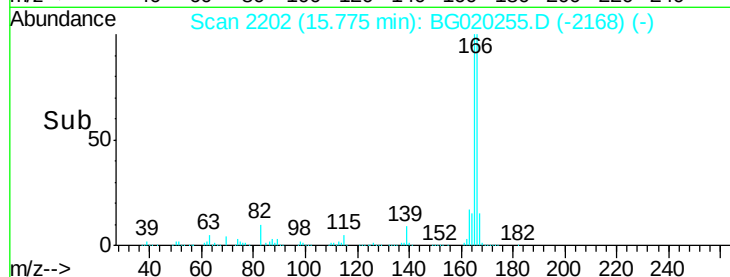
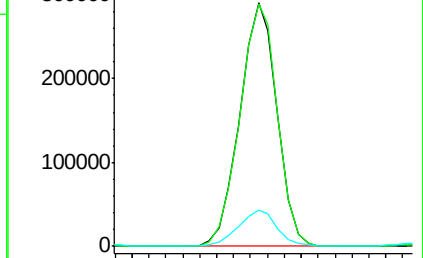
167 14.7 11.2 16.8



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



#61

4-Nitroaniline

Concen: 5.71 ng/ul

RT: 15.77 min Scan# 2202

Delta R.T. -0.01 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

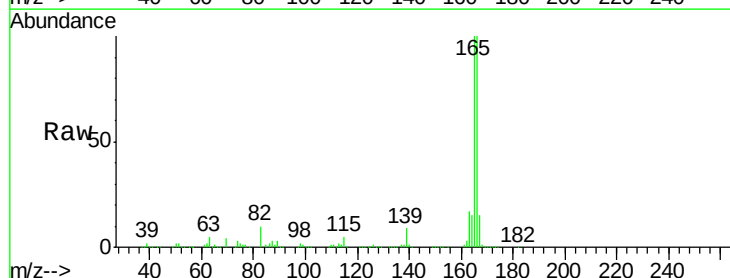
Tgt Ion:138 Resp: 5631

Ion Ratio Lower Upper

138 100

92 0.0 45.2 67.8#

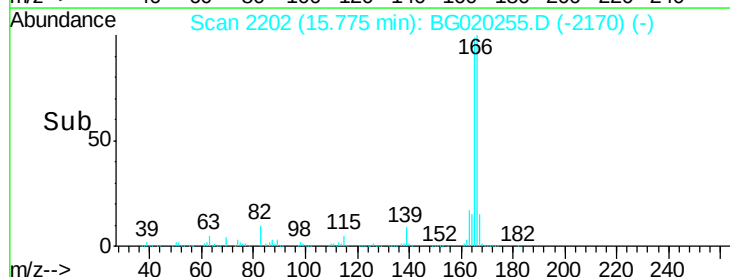
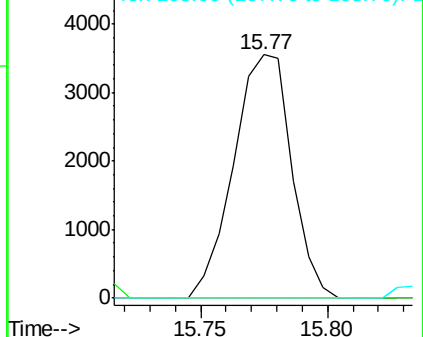
108 0.0 75.4 113.0#

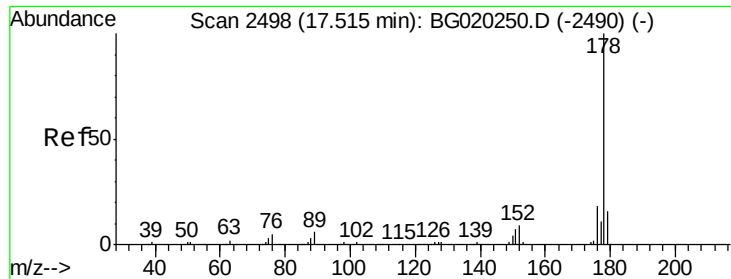


Abundance Ion 138.00 (137.70 to 138.70): E

Ion 92.00 (91.70 to 92.70): BG

Ion 108.00 (107.70 to 108.70): E

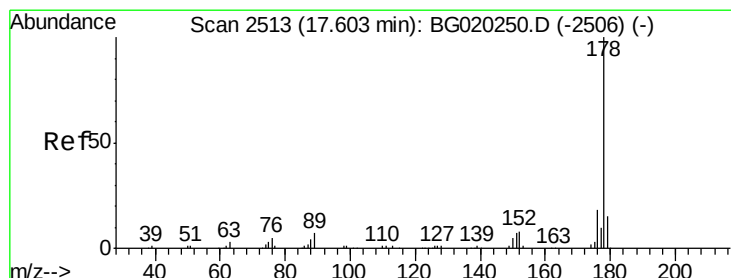
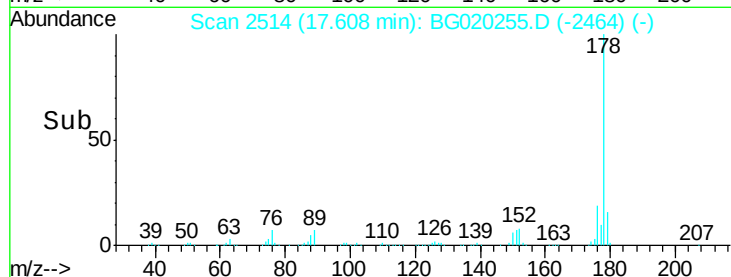
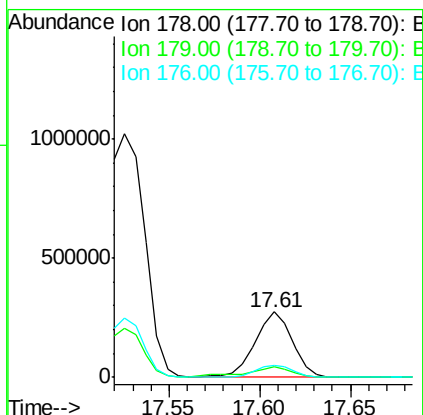
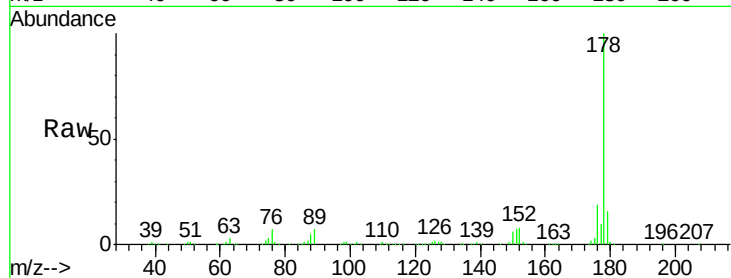




#70  
Phenanthrene  
Concen: 51.30 ng/ul  
RT: 17.61 min Scan# 2514  
Delta R.T. 0.09 min  
Lab File: BG020255.D  
Acq: 17 Dec 2015 21:10

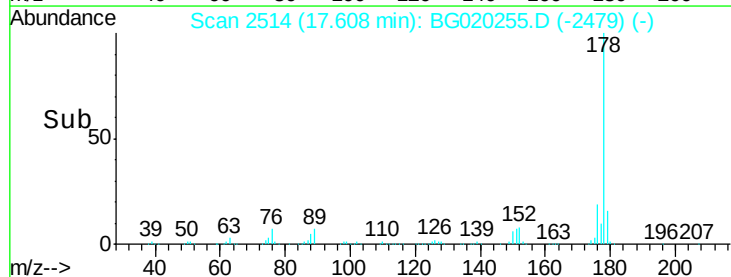
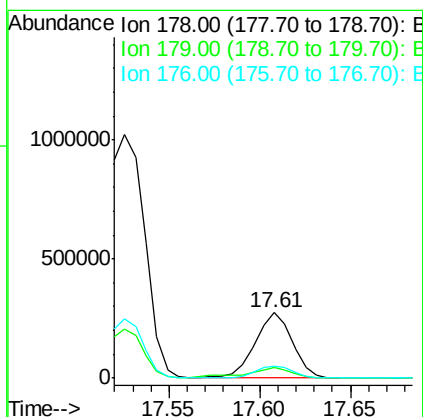
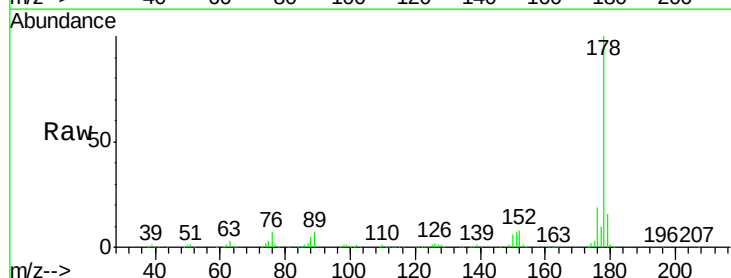
Instrument :  
BNA\_G  
ClientSampleId :  
D9N29DL

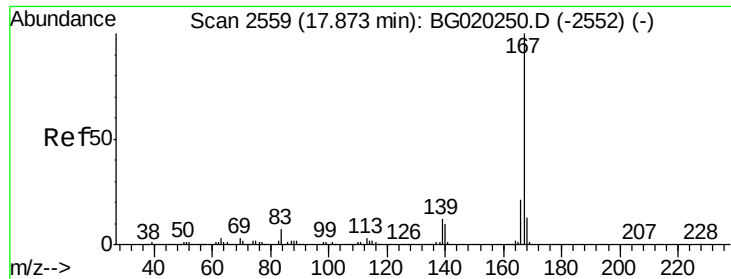
Tgt Ion:178 Resp: 390711  
Ion Ratio Lower Upper  
178 100  
179 16.4 12.9 19.3  
176 18.7 15.3 22.9



#72  
Anthracene  
Concen: 50.58 ng/ul  
RT: 17.61 min Scan# 2514  
Delta R.T. 0.00 min  
Lab File: BG020255.D  
Acq: 17 Dec 2015 21:10

Tgt Ion:178 Resp: 390711  
Ion Ratio Lower Upper  
178 100  
179 16.4 12.3 18.5  
176 18.7 14.3 21.5





#75

Carbazole

Concen: 20.45 ng/ul

RT: 17.87 min Scan# 2559

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

D9N29DL

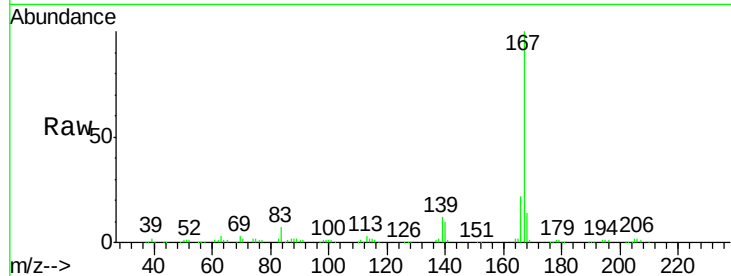
Tgt Ion:167 Resp: 132713

Ion Ratio Lower Upper

167 100

166 22.4 17.0 25.6

139 11.7 10.1 15.1



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

120000

100000

80000

60000

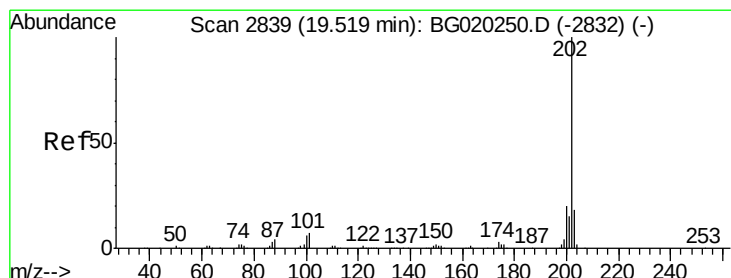
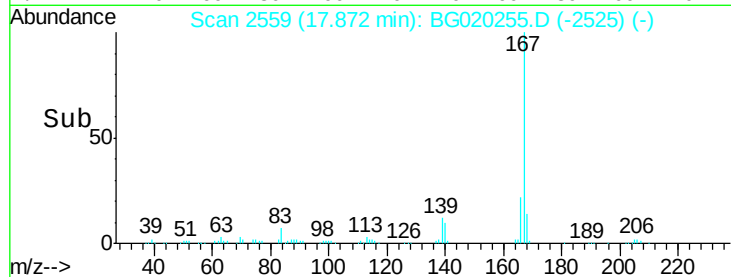
40000

20000

0

17.80 17.85 17.90

Time-->



#77

Fluoranthene

Concen: 121.45 ng/ul

RT: 19.52 min Scan# 2840

Delta R.T. 0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

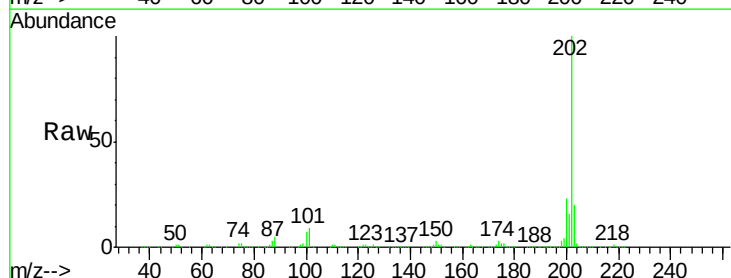
Tgt Ion:202 Resp: 1080992

Ion Ratio Lower Upper

202 100

101 8.6 6.2 9.4

100 6.6 5.1 7.7



Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B

1000000

800000

600000

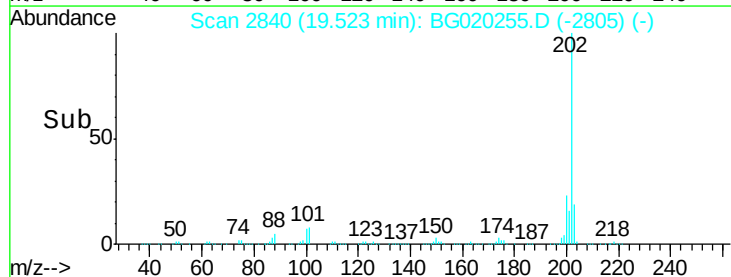
400000

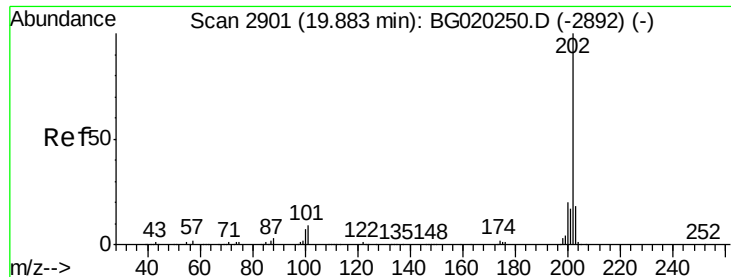
200000

0

19.45 19.50 19.55

Time-->

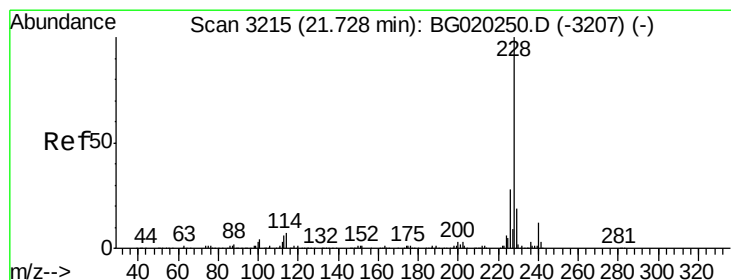
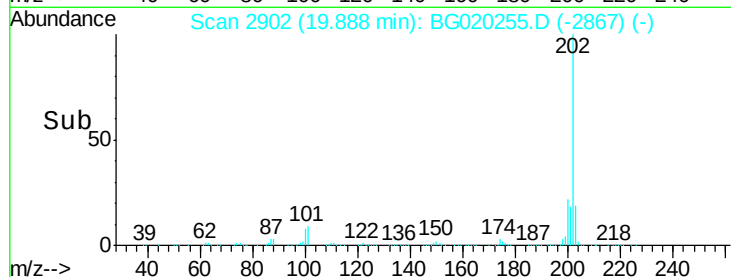
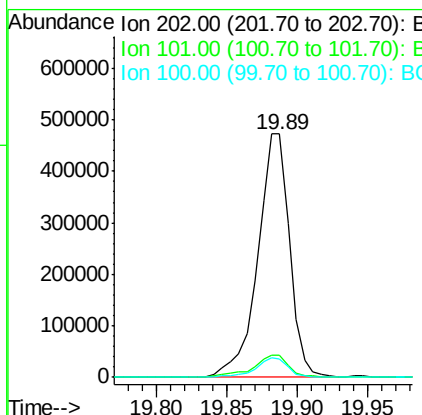
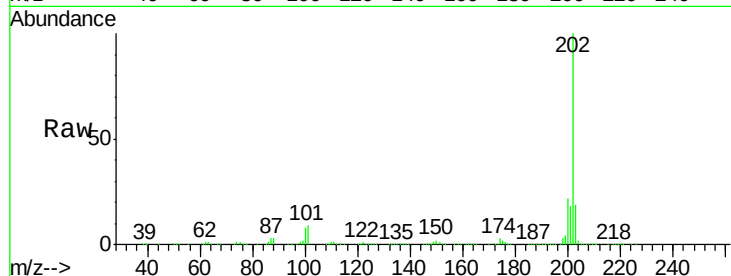




#80  
 Pyrene  
 Concen: 68.51 ng/ul  
 RT: 19.89 min Scan# 2902  
 Delta R.T. 0.00 min  
 Lab File: BG020255.D  
 Acq: 17 Dec 2015 21:10

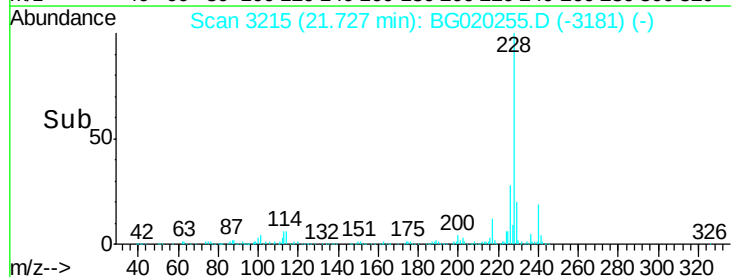
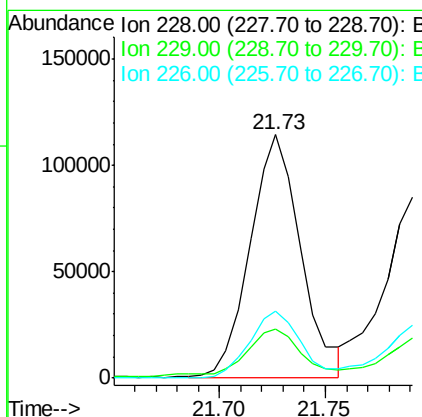
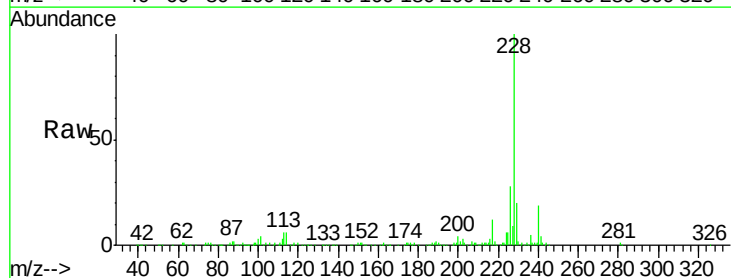
Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N29DL

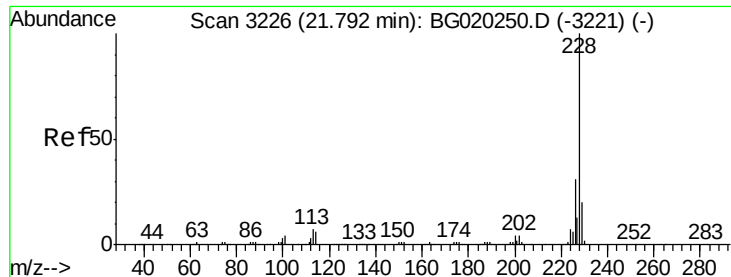
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 8.9   | 7.0   | 10.4  |
| 100     | 7.6   | 6.4   | 9.6   |



#83  
 Benzo(a)anthracene  
 Concen: 18.12 ng/ul  
 RT: 21.73 min Scan# 3215  
 Delta R.T. -0.00 min  
 Lab File: BG020255.D  
 Acq: 17 Dec 2015 21:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.4  | 15.8  | 23.8  |
| 226     | 27.5  | 21.8  | 32.6  |





#85

Chrysene

Concen: 15.61 ng/ul

RT: 21.79 min Scan# 3226

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

D9N29DL

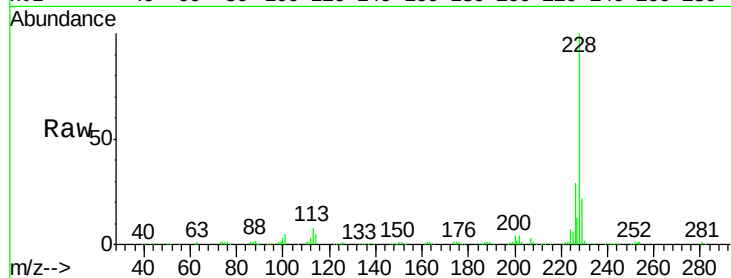
Tgt Ion:228 Resp: 155072

Ion Ratio Lower Upper

228 100

226 29.0 23.9 35.9

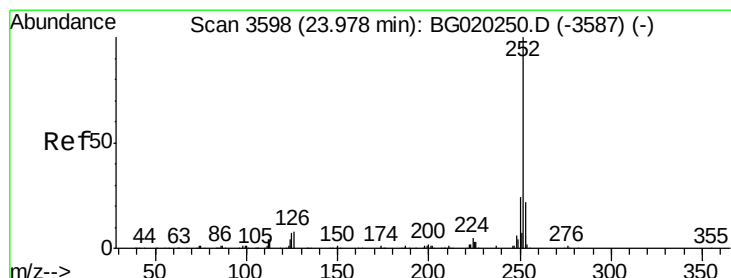
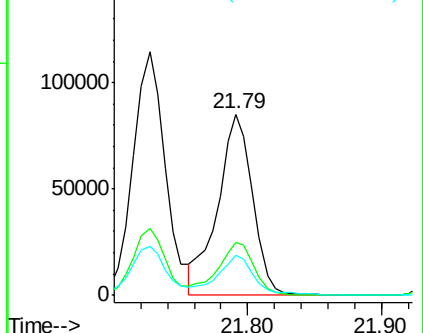
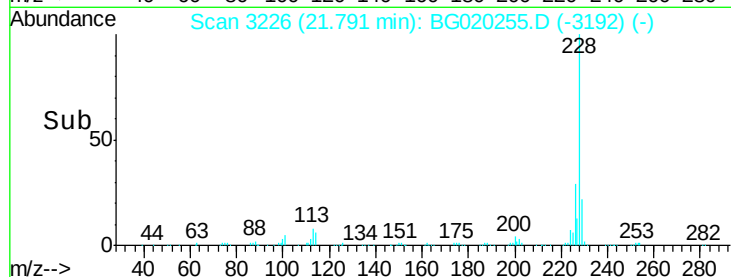
229 22.0 15.6 23.4



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



#88

Benzo(b)fluoranthene

Concen: 7.99 ng/ul

RT: 23.98 min Scan# 3598

Delta R.T. -0.00 min

Lab File: BG020255.D

Acq: 17 Dec 2015 21:10

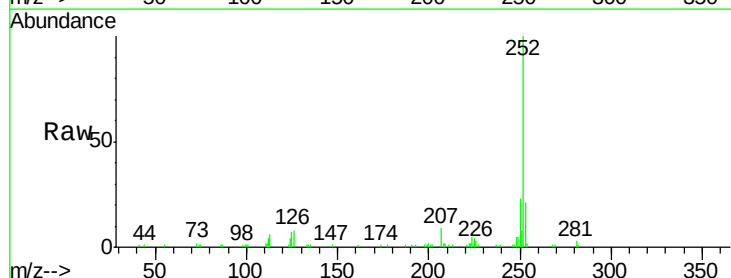
Tgt Ion:252 Resp: 84637

Ion Ratio Lower Upper

252 100

253 20.7 16.7 25.1

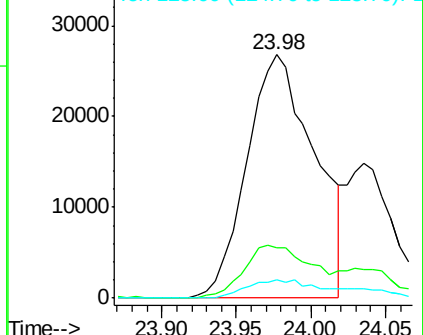
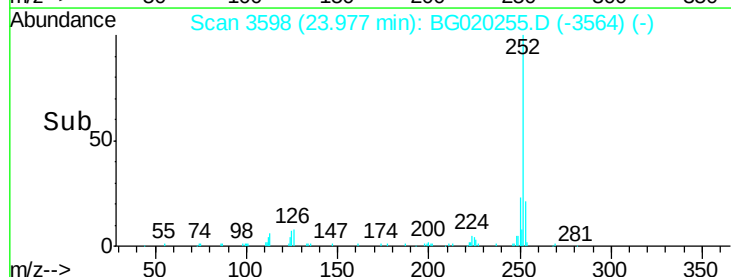
125 7.5 6.2 9.2

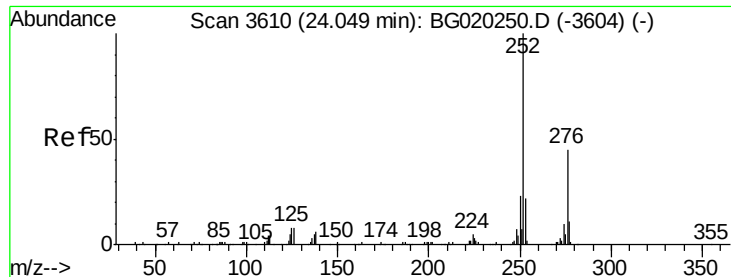


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E

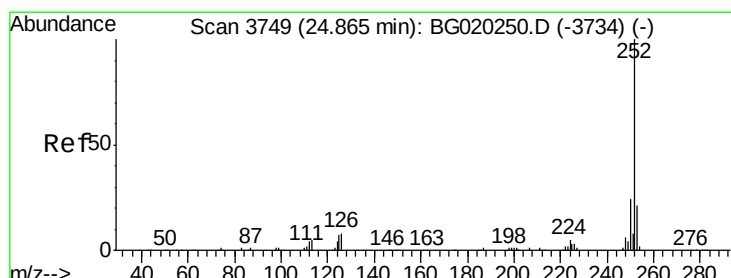
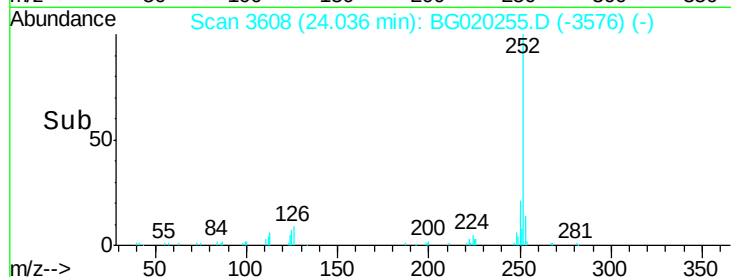
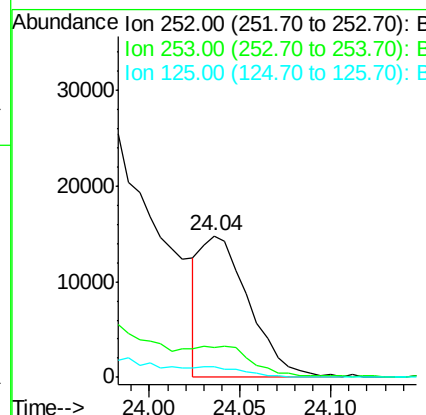
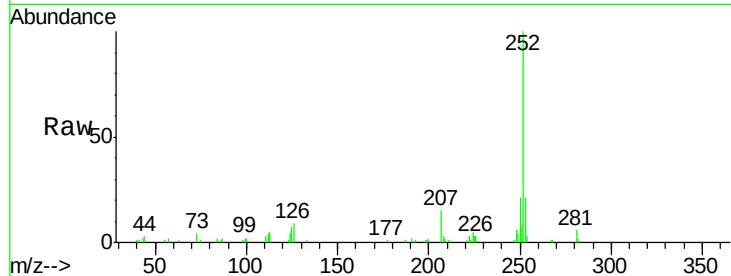




#89  
Benzo(k)fluoranthene  
Concen: 2.67 ng/ul  
RT: 24.04 min Scan# 3608  
Delta R.T. -0.01 min  
Lab File: BG020255.D  
Acq: 17 Dec 2015 21:10

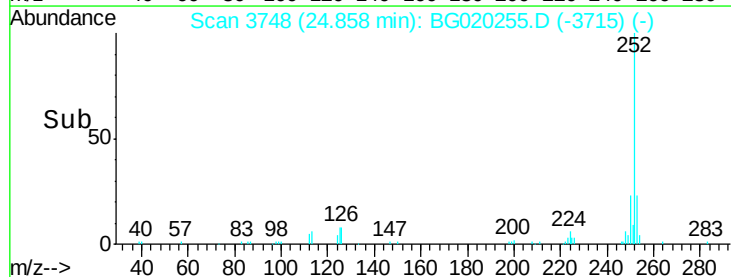
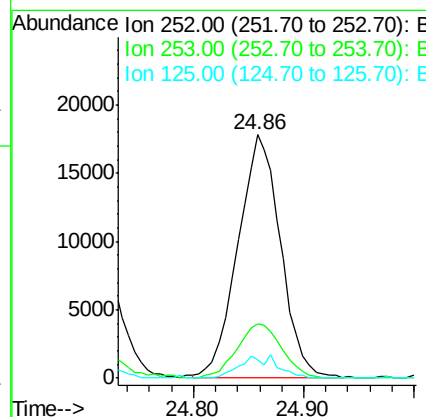
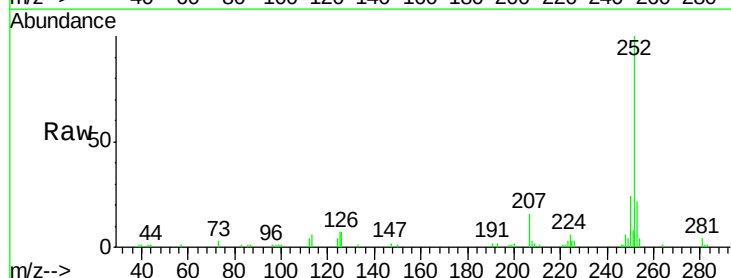
Instrument :  
BNA\_G  
ClientSampleId :  
D9N29DL

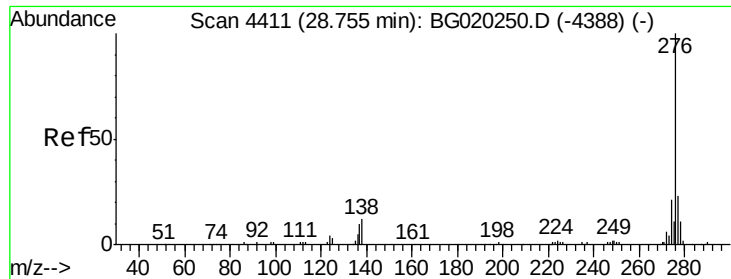
Tgt Ion:252 Resp: 27185  
Ion Ratio Lower Upper  
252 100  
253 21.2 17.9 26.9  
125 7.4 5.8 8.6



#91  
Benzo(a)pyrene  
Concen: 4.80 ng/ul  
RT: 24.86 min Scan# 3748  
Delta R.T. -0.01 min  
Lab File: BG020255.D  
Acq: 17 Dec 2015 21:10

Tgt Ion:252 Resp: 48205  
Ion Ratio Lower Upper  
252 100  
253 22.4 17.0 25.4  
125 7.4 6.2 9.4





#92

Indeno(1,2,3-cd)pyrene

Concen: 1.25 ng/ul

RT: 28.73 min Scan# 4407

Delta R.T. -0.02 min

Lab File: BG020255.D

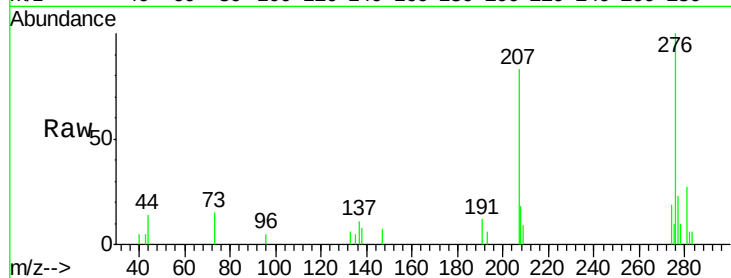
Acq: 17 Dec 2015 21:10

Instrument :

BNA\_G

ClientSampleId :

D9N29DL



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 14902 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 8.0   | 11.4  | 17.0# |
| 277       | 22.9  | 17.4  | 26.0  |

