

Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG011216\  
 Data File : BG020701.D  
 Acq On : 13 Jan 2016 11:04  
 Operator : SJ/IZ  
 Sample : H1094-10  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 BC961

Manual Integrations  
 APPROVED

MMdadoda  
 1/13/2016 3:31:23 PM

Quant Time: Jan 13 12:19:23 2016  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG011216.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Wed Jan 13 07:56:00 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.04  | 152  | 13364    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.86 | 136  | 62136    | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.68 | 164  | 43592    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.43 | 188  | 107802   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.70 | 240  | 123171   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 24.95 | 264  | 116789   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.40  | 96  | 551    | 2.01  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 7.20  | 99  | 16797  | 14.67 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.36  | 67  | 11001  | 15.97 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.57  | 132 | 14685  | 16.35 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.76  | 113 | 14040  | 14.53 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.21  | 128 | 7777   | 15.86 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.94  | 143 | 8818   | 15.48 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.48 | 165 | 16329  | 15.06 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 11.00 | 131 | 14208  | 13.24 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.08 | 166 | 60663  | 15.95 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.37 | 160 | 72230  | 16.91 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.91 | 143 | 4081   | 7.99  | ng/ul | 0.01 |
| 58) Fluorene-d10               | 15.67 | 176 | 56992  | 16.81 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.80 | 200 | 6565   | 11.20 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.53 | 188 | 90467  | 17.12 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.81 | 212 | 102922 | 17.56 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 24.72 | 264 | 109334 | 17.56 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |        |       |        | Qvalue |
|----------------------------|-------|-----|--------|-------|--------|--------|
| 28) Naphthalene            | 10.91 | 128 | 4845   | 1.38  | ng/ul  | 98     |
| 45) Dimethylphthalate      | 14.13 | 163 | 37040  | 9.06  | ng/ul  | 99     |
| 50) Acenaphthene           | 14.75 | 153 | 3512   | 1.13  | ng/ul  | 95     |
| 59) Fluorene               | 15.72 | 166 | 4726   | 1.24  | ng/ul# | 95     |
| 70) Phenanthrene           | 17.47 | 178 | 122482 | 19.10 | ng/ul  | 98     |
| 72) Anthracene             | 17.56 | 178 | 16420  | 2.54  | ng/ul  | 97     |
| 75) Carbazole              | 17.83 | 167 | 9937   | 1.87  | ng/ul# | 83     |
| 77) Fluoranthene           | 19.48 | 202 | 276069 | 35.41 | ng/ul  | 99     |
| 80) Pyrene                 | 19.84 | 202 | 330945 | 42.37 | ng/ul  | 99     |
| 83) Benzo(a)anthracene     | 21.68 | 228 | 156452 | 20.36 | ng/ul  | 96     |
| 85) Chrysene               | 21.75 | 228 | 190325 | 26.20 | ng/ul  | 97     |
| 88) Benzo(b)fluoranthene   | 23.92 | 252 | 205356 | 27.29 | ng/ul  | 97     |
| 89) Benzo(k)fluoranthene   | 23.98 | 252 | 64327m | 8.66  | ng/ul  |        |
| 91) Benzo(a)pyrene         | 24.80 | 252 | 165444 | 22.85 | ng/ul  | 99     |
| 92) Indeno(1,2,3-cd)pyrene | 28.68 | 276 | 109631 | 12.83 | ng/ul  | 99     |
| 93) Dibenzo(a,h)anthracene | 28.70 | 278 | 31427m | 4.47  | ng/ul  |        |
| 94) Benzo(g,h,i)perylene   | 29.84 | 276 | 109500 | 15.54 | ng/ul  | 99     |

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

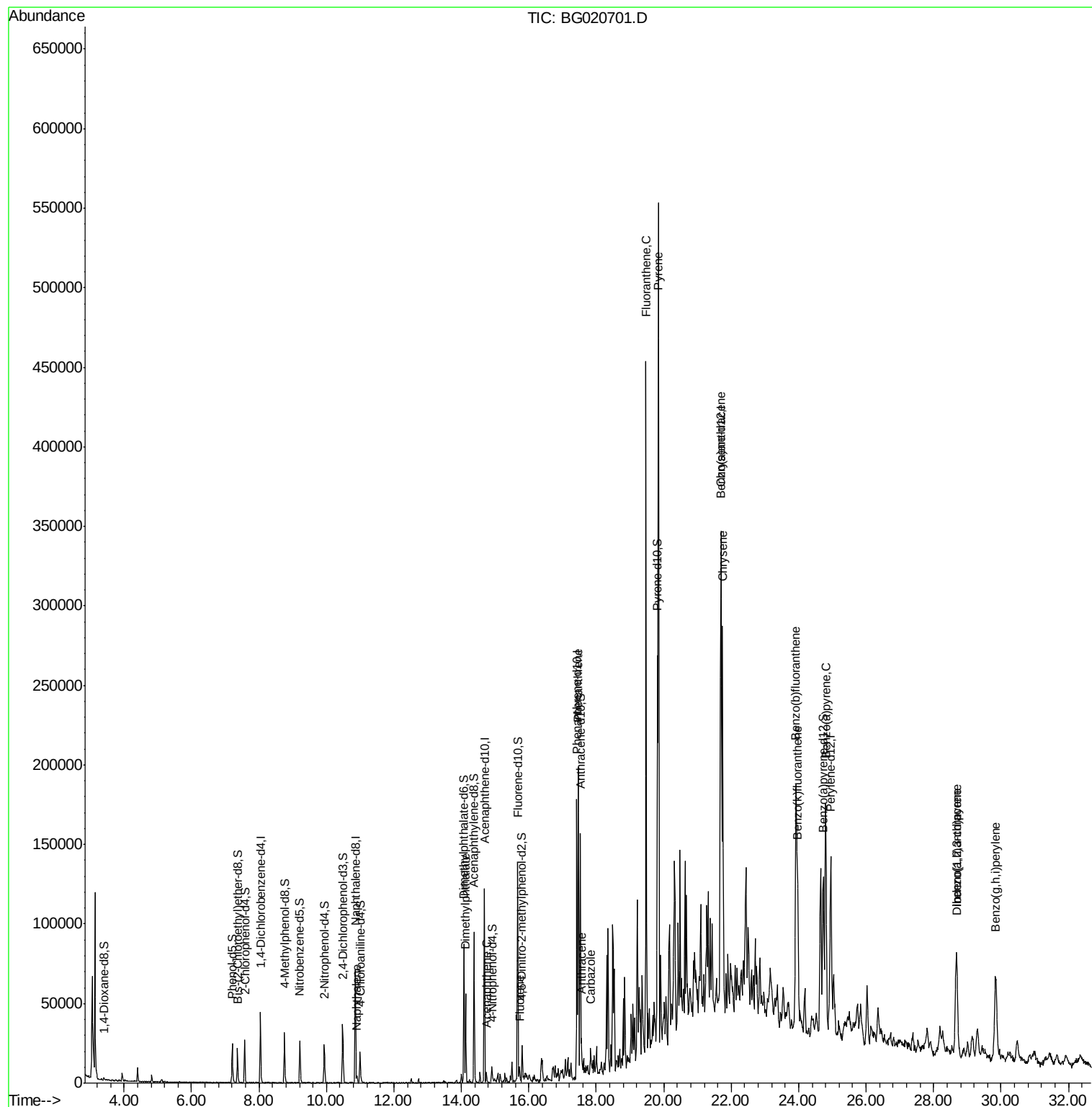
Data Path : Z:\HPCHEM1\BNA\_G\DATA\BG011216\  
Data File : BG020701.D  
Acq On : 13 Jan 2016 11:04  
Operator : SJ/IZ  
Sample : H1094-10  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

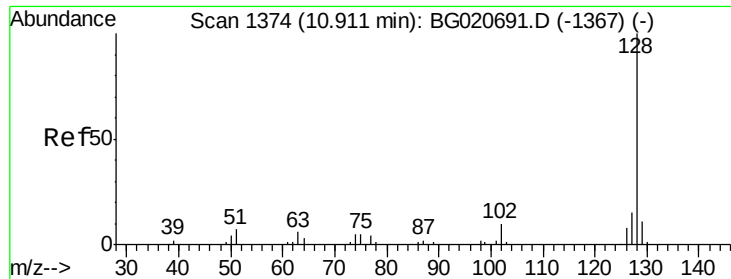
Instrument :  
BNA\_G  
ClientSampleId :  
BC961

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Quant Time: Jan 13 12:19:23 2016  
Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG011216.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Wed Jan 13 07:56:00 2016  
Response via : Initial Calibration





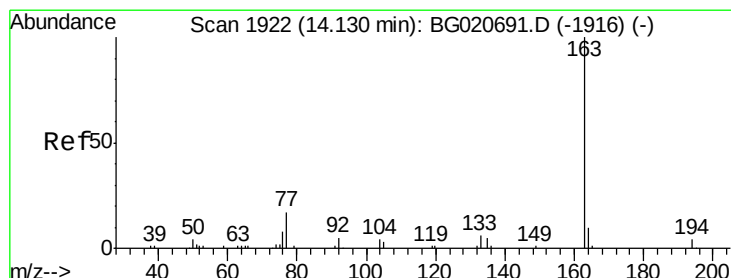
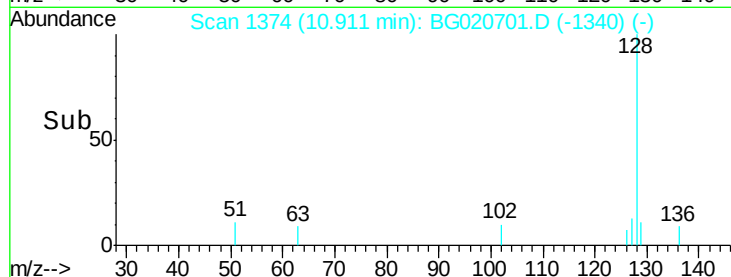
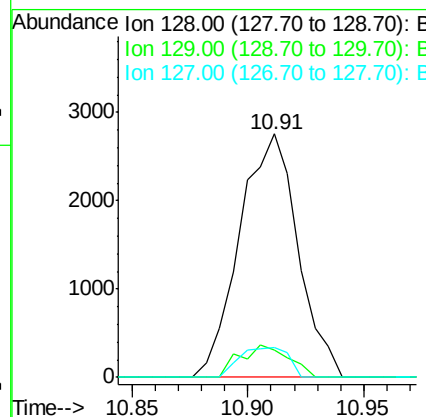
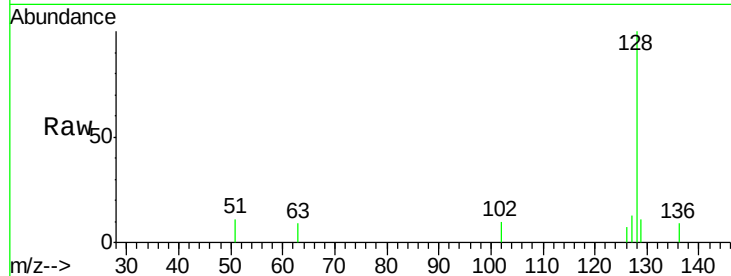
#28  
Naphthalene  
Concen: 1.38 ng/ul  
RT: 10.91 min Scan# 1374  
Delta R.T. 0.00 min  
Lab File: BG020701.D  
Acq: 13 Jan 2016 11:04

Instrument :  
BNA\_G  
ClientSampleId :  
BC961

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.1  | 8.3   | 12.5  |
| 127     | 12.5  | 10.8  | 16.2  |

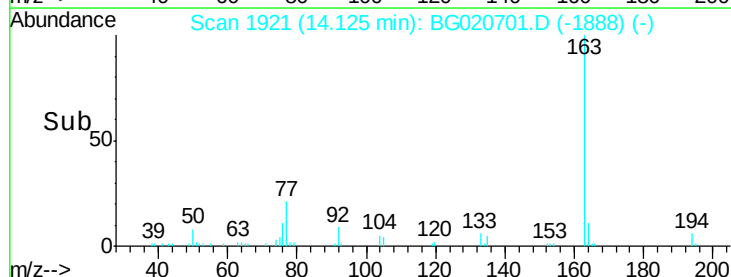
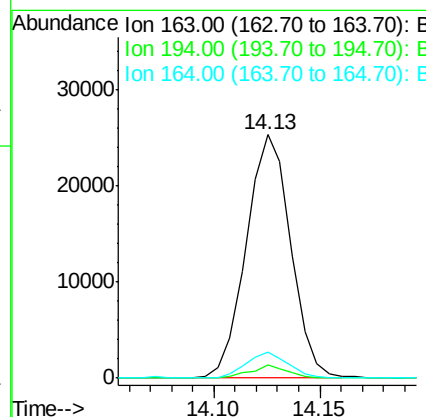
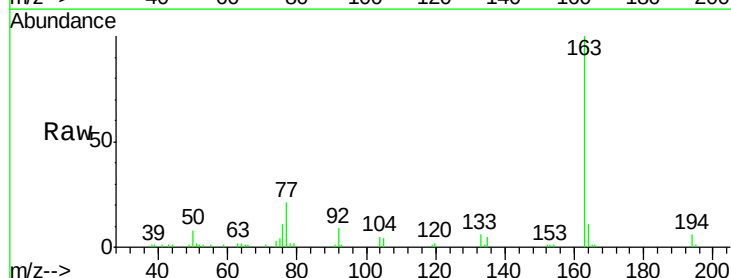
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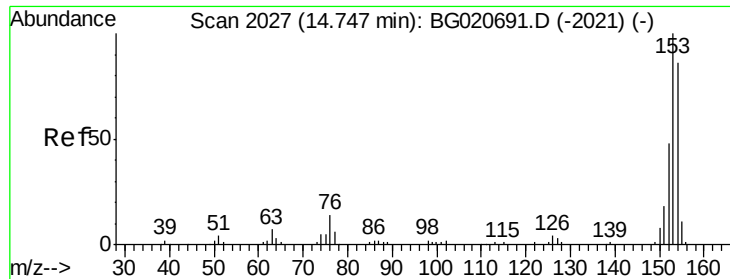
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#45  
Dimethylphthalate  
Concen: 9.06 ng/ul  
RT: 14.13 min Scan# 1921  
Delta R.T. -0.01 min  
Lab File: BG020701.D  
Acq: 13 Jan 2016 11:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 5.7   | 4.0   | 6.0   |
| 164     | 10.9  | 8.4   | 12.6  |





#50

Acenaphthene

Concen: 1.13 ng/ul

RT: 14.75 min Scan# 2027

Delta R.T. 0.00 min

Lab File: BG020701.D

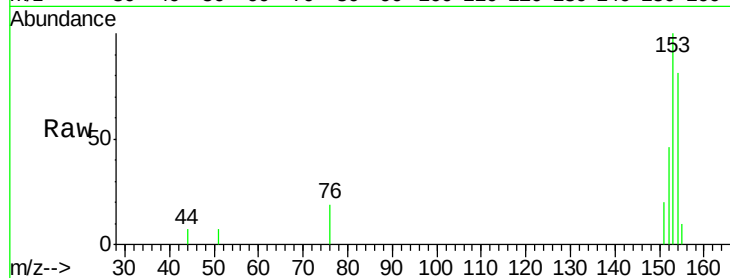
Acq: 13 Jan 2016 11:04

Instrument :

BNA\_G

ClientSampleId :

BC961



Tgt Ion:153 Resp: 3512

Ion Ratio Lower Upper

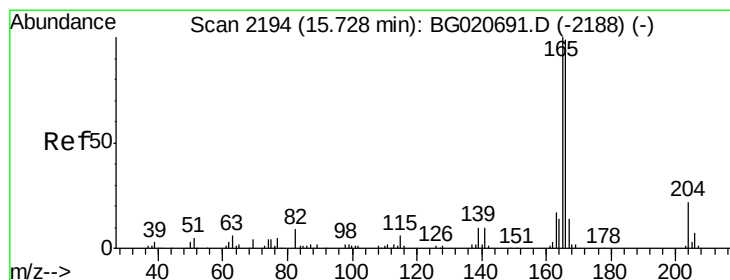
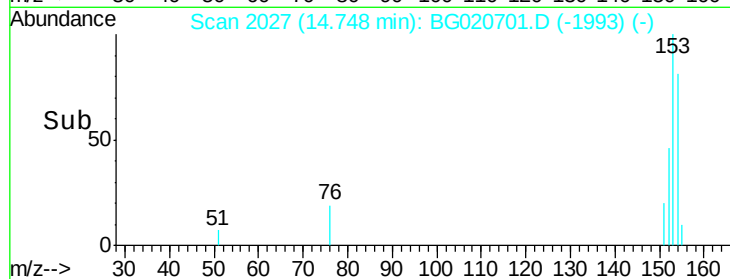
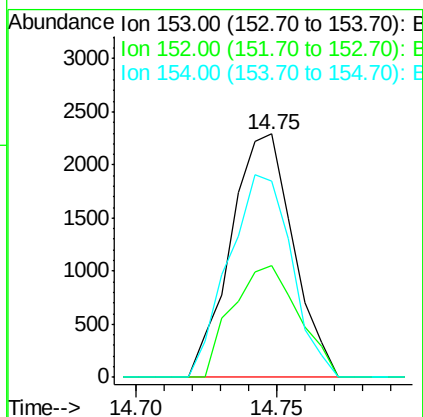
153 100

152 45.8 37.9 56.9

154 80.5 69.8 104.6

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#59

Fluorene

Concen: 1.24 ng/ul

RT: 15.72 min Scan# 2193

Delta R.T. -0.01 min

Lab File: BG020701.D

Acq: 13 Jan 2016 11:04

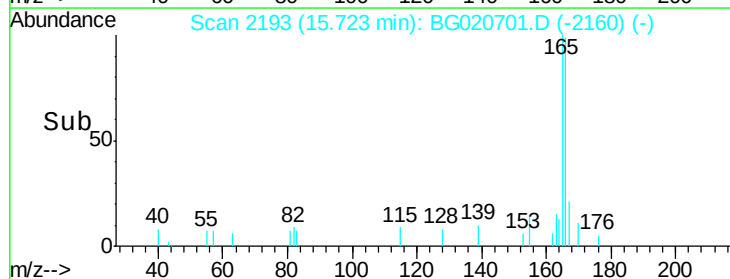
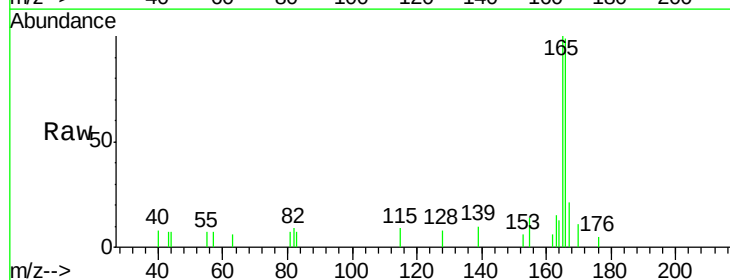
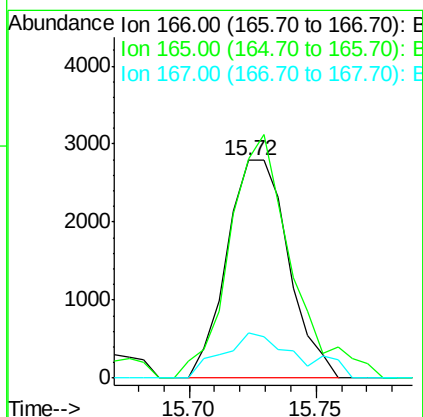
Tgt Ion:166 Resp: 4726

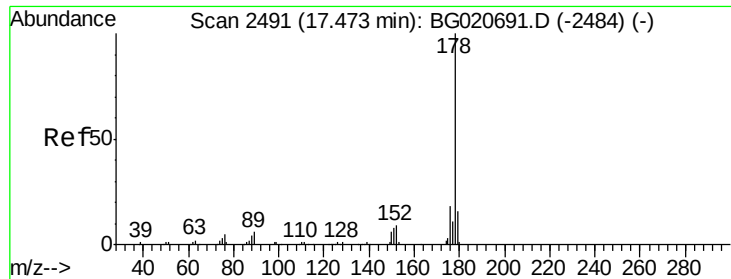
Ion Ratio Lower Upper

166 100

165 100.9 78.4 117.6

167 20.9 11.1 16.7#





#70

Phenanthrene

Concen: 19.10 ng/ul

RT: 17.47 min Scan# 2490

Delta R.T. -0.01 min

Lab File: BG020701.D

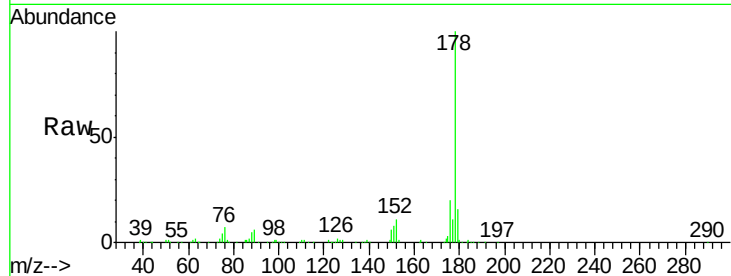
Acq: 13 Jan 2016 11:04

Instrument :

BNA\_G

ClientSampleId :

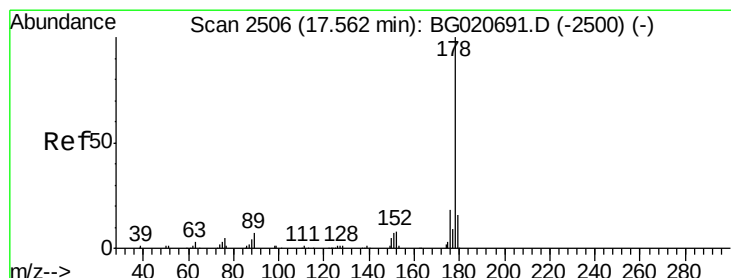
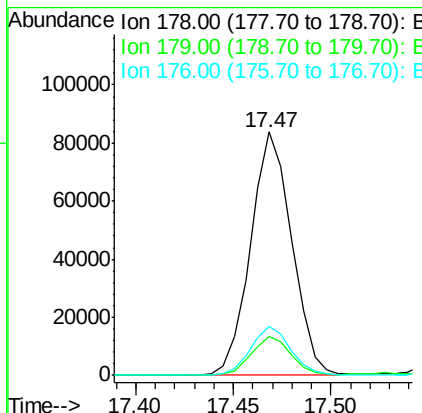
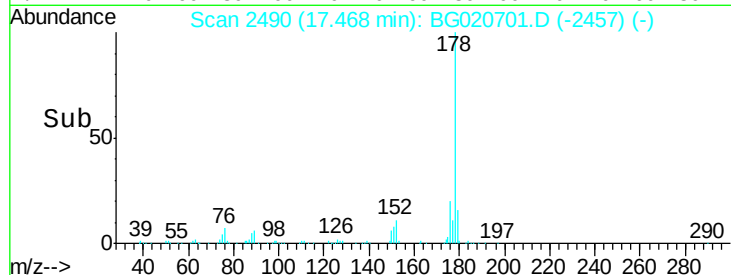
BC961



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 122482 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 16.0  | 12.3  | 18.5   |
| 176       | 20.3  | 15.4  | 23.0   |

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#72

Anthracene

Concen: 2.54 ng/ul

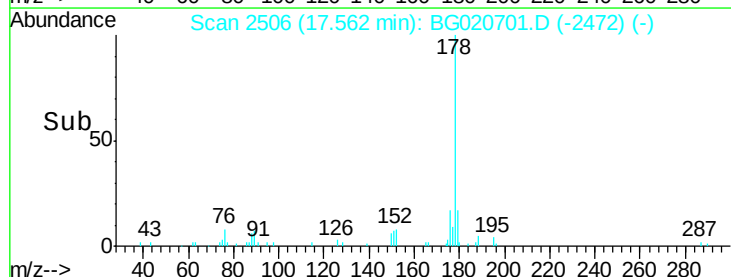
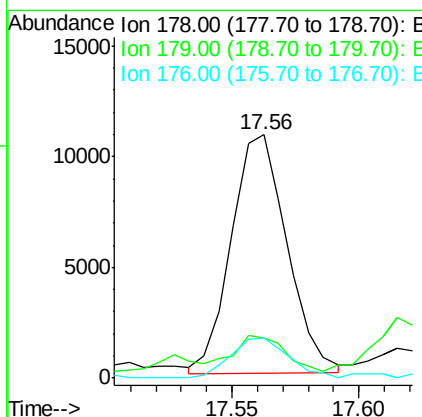
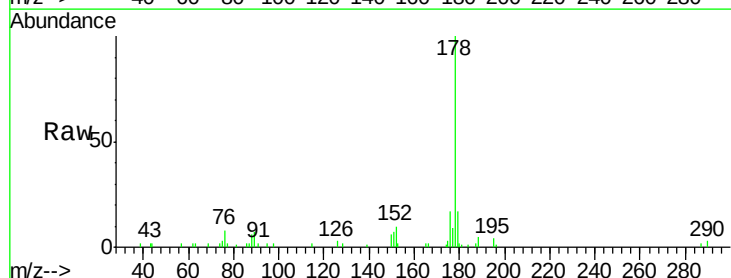
RT: 17.56 min Scan# 2506

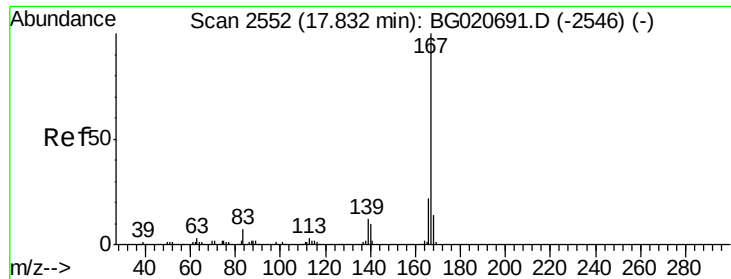
Delta R.T. 0.00 min

Lab File: BG020701.D

Acq: 13 Jan 2016 11:04

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 178   | Resp: | 16420 |
| Ion Ratio | Lower | Upper |       |
| 178       | 100   |       |       |
| 179       | 16.6  | 13.4  | 20.2  |
| 176       | 16.7  | 15.4  | 23.0  |





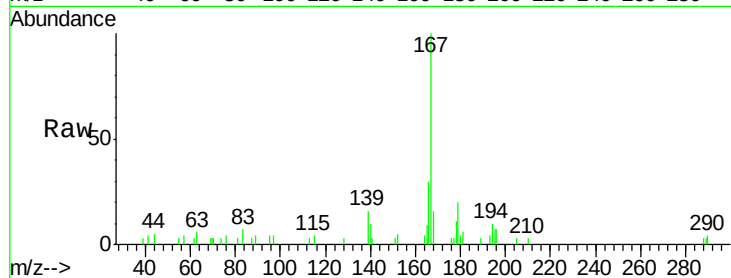
#75  
 Carbazole  
 Concen: 1.87 ng/ul  
 RT: 17.83 min Scan# 2552  
 Delta R.T. 0.00 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

Instrument :  
 BNA\_G  
 ClientSampleId :  
 BC961

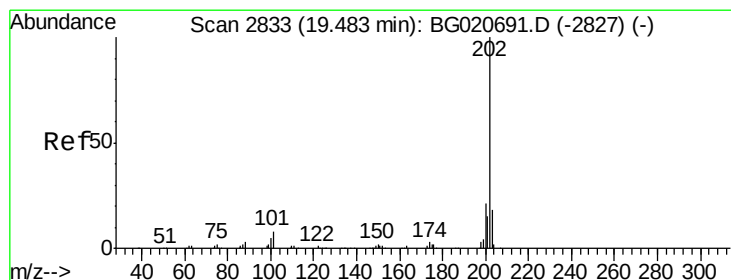
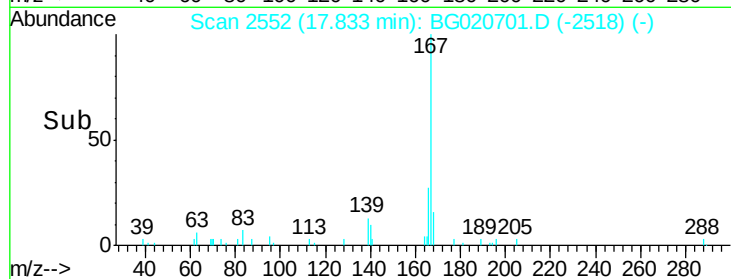
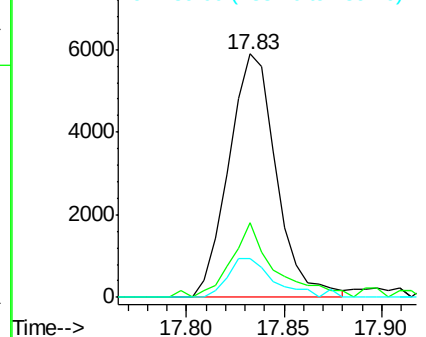
| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 167     | 100   | 9937 |       |       |
| 166     | 30.4  |      | 17.0  | 25.4# |
| 139     | 15.7  |      | 9.1   | 13.7# |

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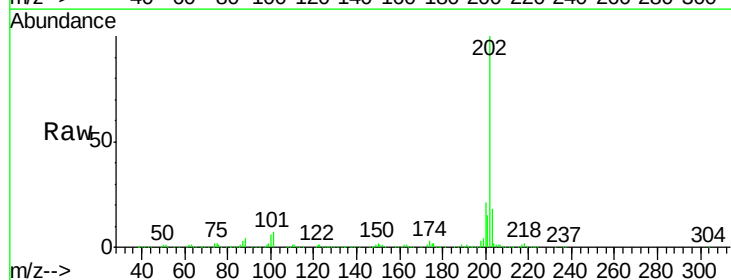


Abundance Ion 167.00 (166.70 to 167.70): E  
 Ion 166.00 (165.70 to 166.70): E  
 Ion 139.00 (138.70 to 139.70): E

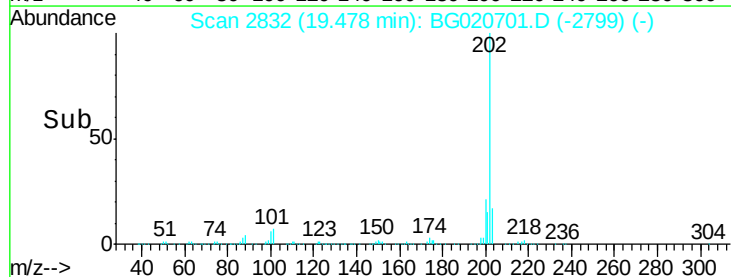
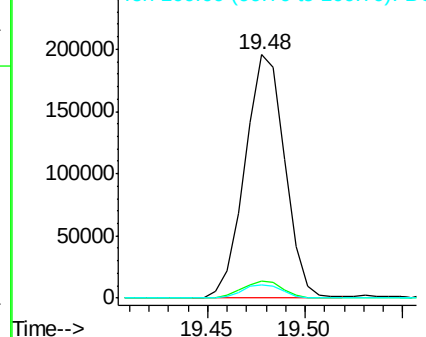


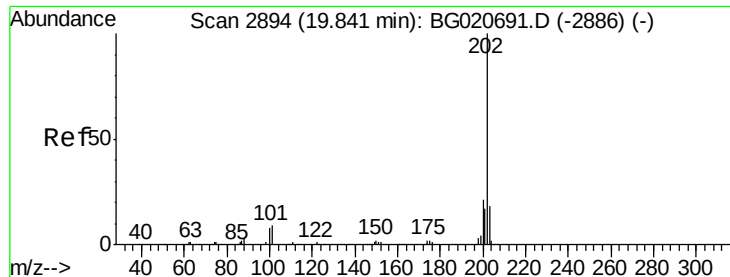
#77  
 Fluoranthene  
 Concen: 35.41 ng/ul  
 RT: 19.48 min Scan# 2832  
 Delta R.T. -0.01 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 202     | 100   | 276069 |       |       |
| 101     | 7.2   |        | 6.1   | 9.1   |
| 100     | 5.6   |        | 4.6   | 7.0   |



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





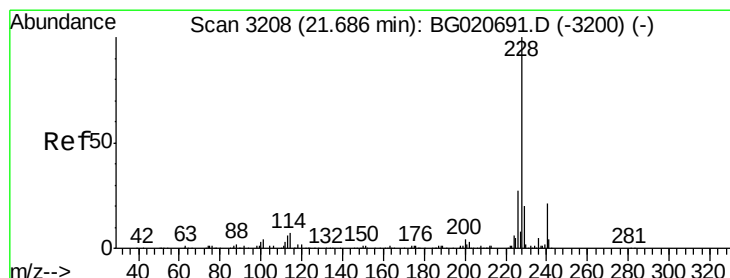
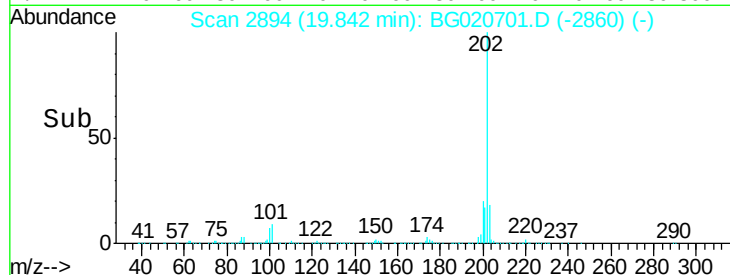
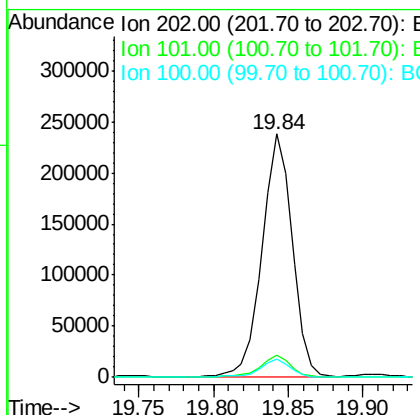
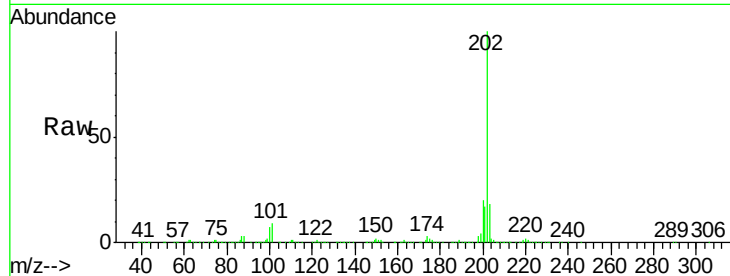
#80  
 Pyrene  
 Concen: 42.37 ng/ul  
 RT: 19.84 min Scan# 2894  
 Delta R.T. 0.00 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

Instrument :  
 BNA\_G  
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| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 202     | 100   |            |            |
| 101     | 9.0   | 6.9        | 10.3       |
| 100     | 7.4   | 5.6        | 8.4        |

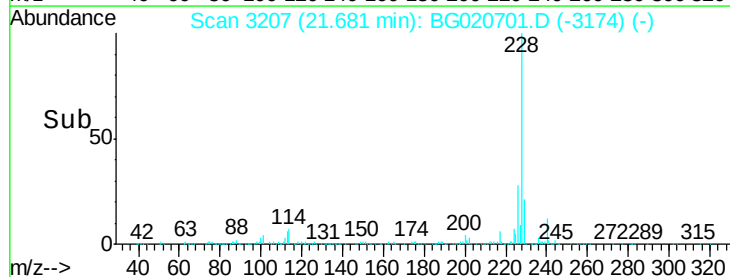
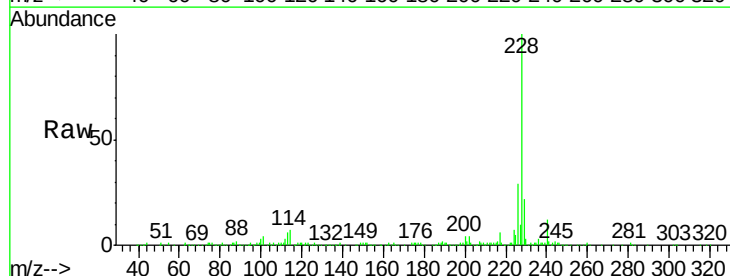
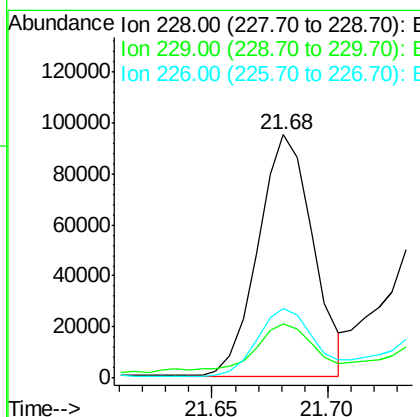
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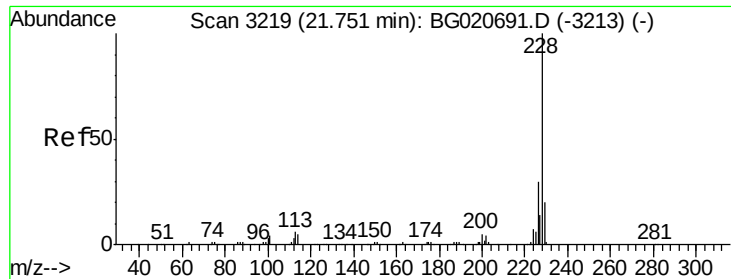
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#83  
 Benzo(a)anthracene  
 Concen: 20.36 ng/ul  
 RT: 21.68 min Scan# 3207  
 Delta R.T. -0.01 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 228     | 100   |            |            |
| 229     | 22.5  | 16.0       | 24.0       |
| 226     | 28.7  | 21.8       | 32.8       |





#85

Chrysene

Concen: 26.20 ng/ul

RT: 21.75 min Scan# 3218

Delta R.T. -0.01 min

Lab File: BG020701.D

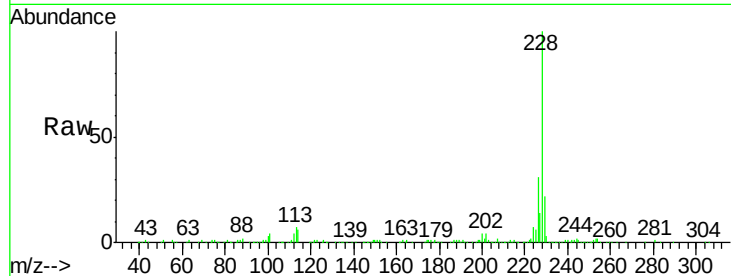
Acq: 13 Jan 2016 11:04

Instrument :

BNA\_G

ClientSampleId :

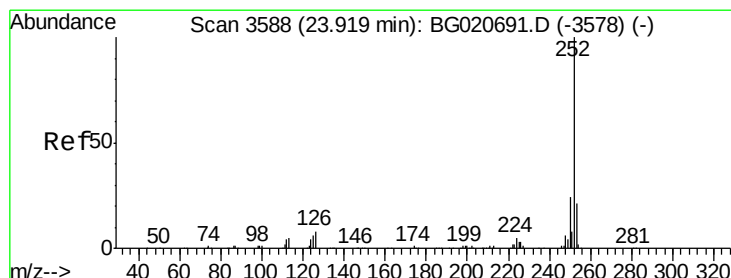
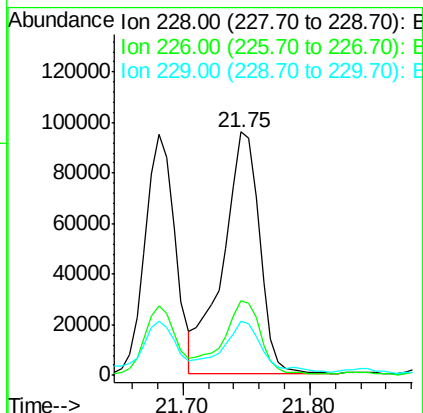
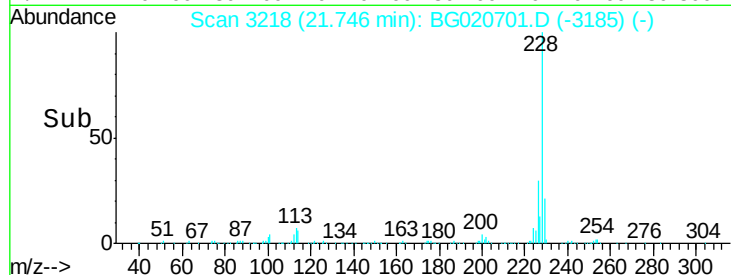
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| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 30.7  | 24.1  | 36.1  |
| 229     | 22.3  | 16.0  | 24.0  |

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#88

Benzo(b)fluoranthene

Concen: 27.29 ng/ul

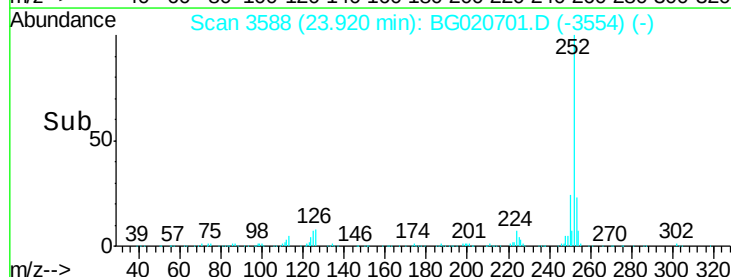
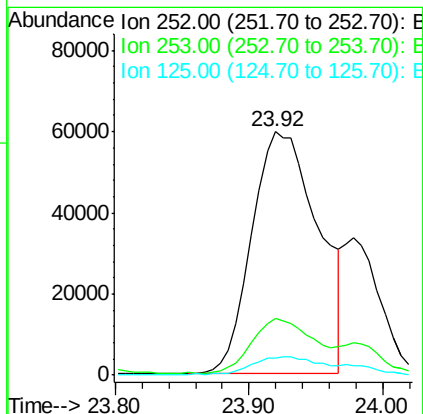
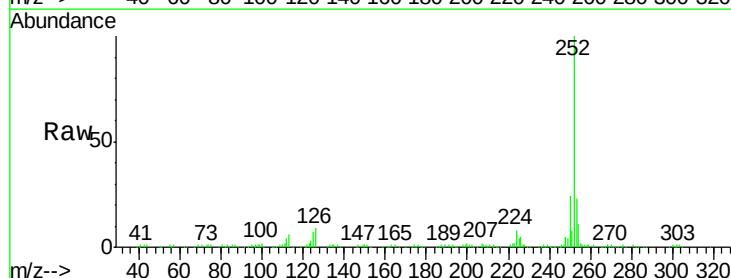
RT: 23.92 min Scan# 3588

Delta R.T. 0.00 min

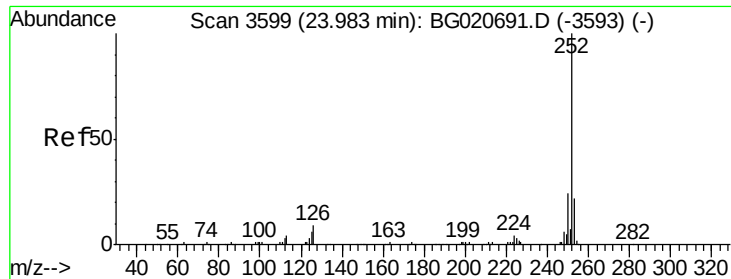
Lab File: BG020701.D

Acq: 13 Jan 2016 11:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.2  | 17.4  | 26.0  |
| 125     | 6.9   | 4.9   | 7.3   |







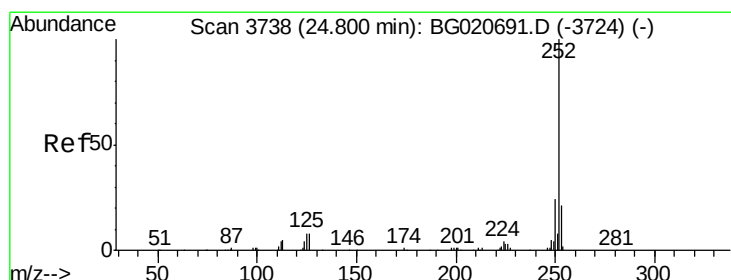
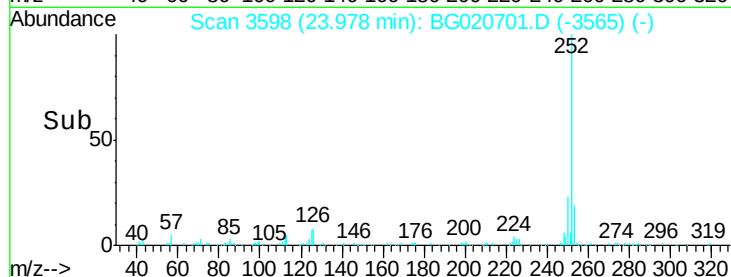
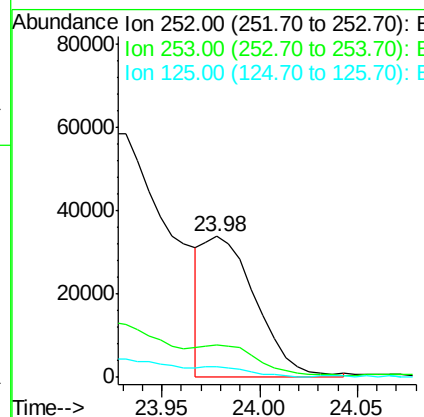
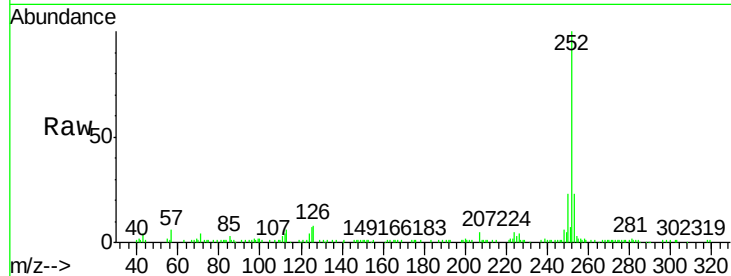
#89  
Benzo(k)fluoranthene  
Concen: 8.66 ng/ul m  
RT: 23.98 min Scan# 3598  
Delta R.T. -0.01 min  
Lab File: BG020701.D  
Acq: 13 Jan 2016 11:04

Instrument :  
BNA\_G  
ClientSampleId :  
BC961

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.3  | 17.1  | 25.7  |
| 125     | 7.3   | 5.4   | 8.0   |

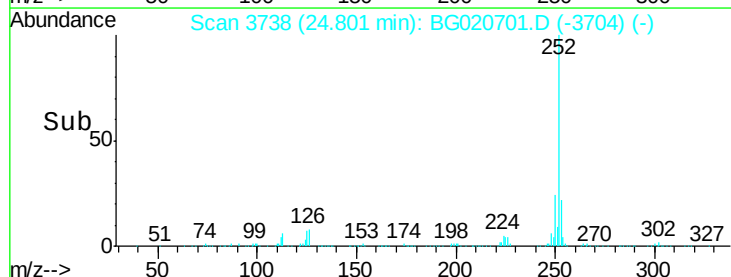
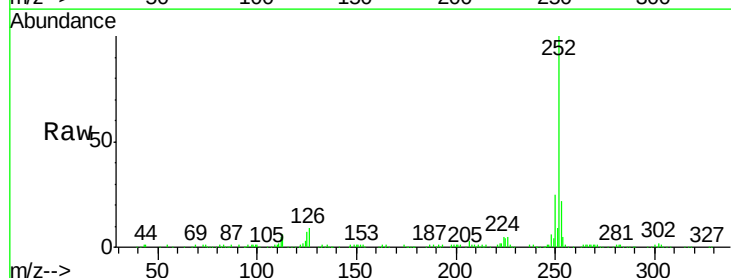
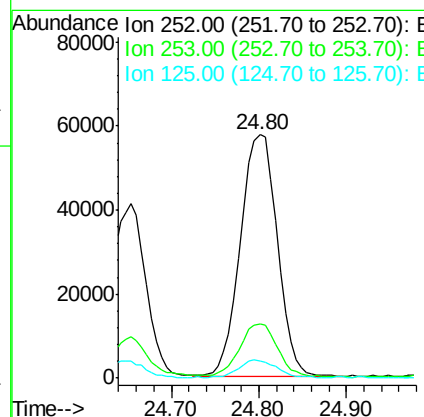
Manual Integrations  
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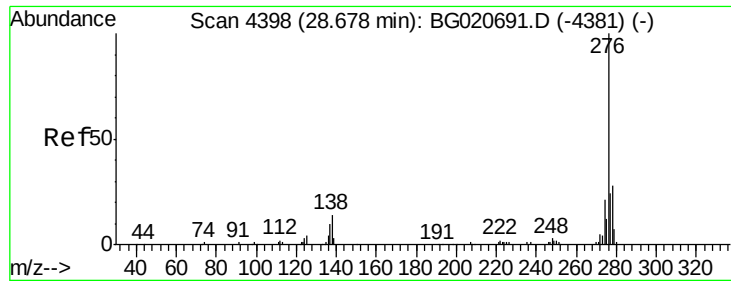
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#91  
Benzo(a)pyrene  
Concen: 22.85 ng/ul  
RT: 24.80 min Scan# 3738  
Delta R.T. 0.00 min  
Lab File: BG020701.D  
Acq: 13 Jan 2016 11:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.1  | 17.2  | 25.8  |
| 125     | 7.3   | 5.8   | 8.6   |





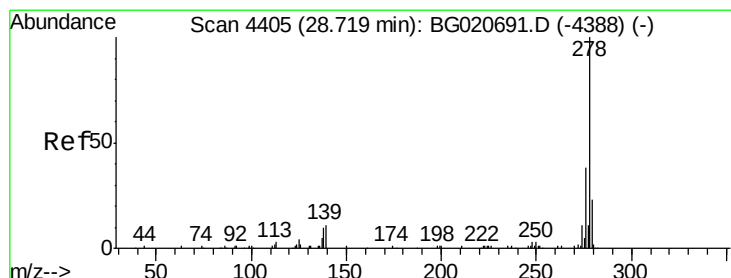
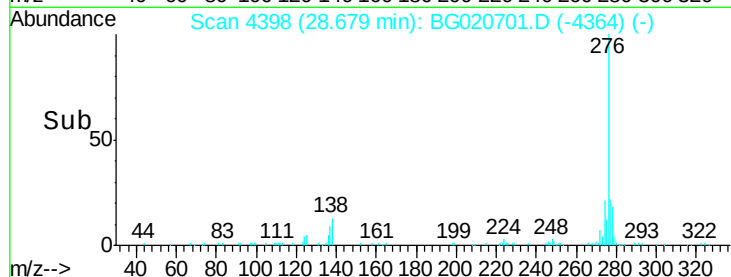
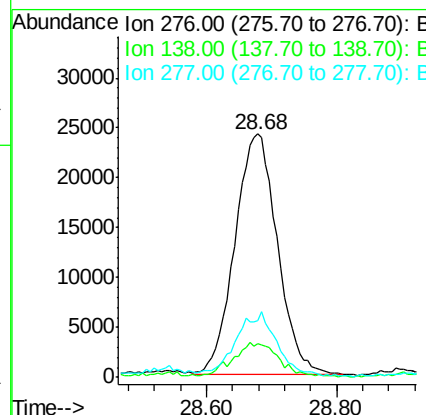
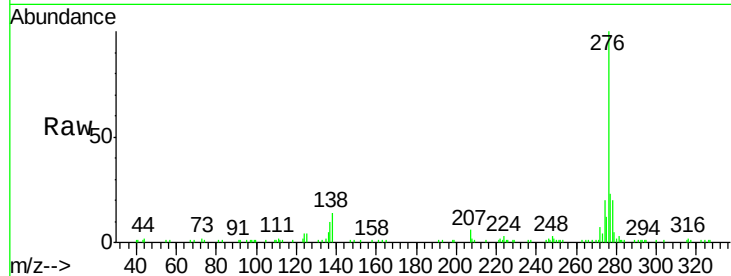
#92  
 Indeno(1,2,3-cd)pyrene  
 Concen: 12.83 ng/ul  
 RT: 28.68 min Scan# 4398  
 Delta R.T. 0.00 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

Instrument :  
 BNA\_G  
 ClientSampleId :  
 BC961

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 276     | 100   |            |            |
| 138     | 13.8  | 10.9       | 16.3       |
| 277     | 23.2  | 18.9       | 28.3       |

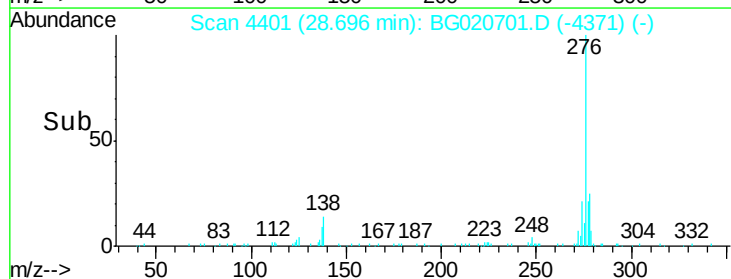
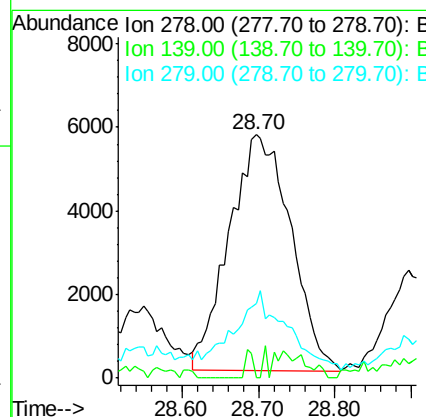
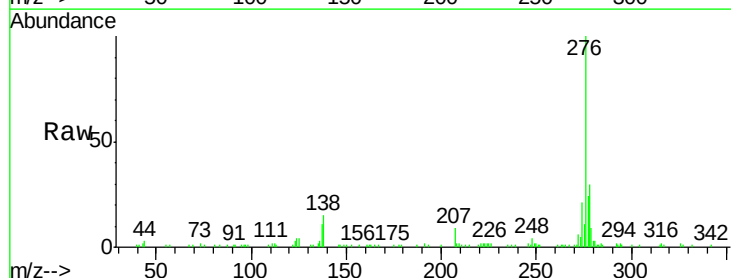
Manual Integrations  
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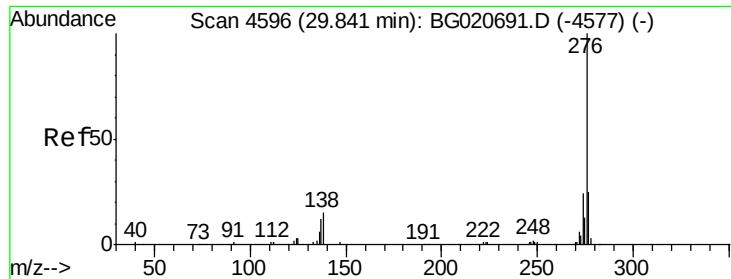
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#93  
 Dibenzo(a,h)anthracene  
 Concen: 4.47 ng/ul m  
 RT: 28.70 min Scan# 4401  
 Delta R.T. -0.02 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 278     | 100   |            |            |
| 139     | 0.0   | 9.0        | 13.4#      |
| 279     | 30.5  | 19.1       | 28.7#      |





#94  
 Benzo(g,h,i)perylene  
 Concen: 15.54 ng/ul  
 RT: 29.84 min Scan# 4595  
 Delta R.T. -0.01 min  
 Lab File: BG020701.D  
 Acq: 13 Jan 2016 11:04

Instrument :  
 BNA\_G  
 ClientSampleId :  
 BC961

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 14.5  | 11.2  | 16.8  |
| 277     | 24.0  | 19.0  | 28.6  |

Manual Integrations  
 APPROVED

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