

Data Path : Z:\HPCHEM1\BNA G\DATA\BG101615\  
 Data File : BG019235.D  
 Acq On : 16 Oct 2015 22:37  
 Operator : UM/NP  
 Sample : G3996-15  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 E5LK2

Manual Integrations  
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MMdadoda  
 10/19/2015 6:29:32 PM

Quant Time: Oct 19 15:49:07 2015  
 Quant Title :  
 QLast Update : Mon Oct 19 18:55:21 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.01  | 152  | 27643    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.82 | 136  | 112305   | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.66 | 164  | 68273    | 20.00 | ng/ul | 0.03     |
| 62) Phenanthrene-d10      | 17.44 | 188  | 151108   | 20.00 | ng/ul | 0.05     |
| 78) Chrysene-d12          | 21.74 | 240  | 169182   | 20.00 | ng/ul | 0.08     |
| 86) Perylene-d12          | 25.06 | 264  | 159960m  | 20.00 | ng/ul | 0.20     |

## System Monitoring Compounds

|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.45  | 96  | 1072    | 2.16  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 7.20  | 99  | 35203   | 14.59 | ng/ul | 0.03 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.33  | 67  | 23450   | 15.11 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.55  | 132 | 28164   | 16.02 | ng/ul | 0.01 |
| 13) 4-Methylphenol-d8          | 8.74  | 113 | 29896   | 14.63 | ng/ul | 0.03 |
| 19) Nitrobenzene-d5            | 9.17  | 128 | 15157   | 17.52 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.90  | 143 | 16479   | 17.94 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.46 | 165 | 28329   | 15.58 | ng/ul | 0.03 |
| 29) 4-Chloroaniline-d4         | 10.97 | 131 | 32789m  | 14.00 | ng/ul | 0.02 |
| 44) Dimethylphthalate-d6       | 14.10 | 166 | 91358m  | 15.30 | ng/ul | 0.05 |
| 47) Acenaphthylene-d8          | 14.36 | 160 | 101750  | 15.76 | ng/ul | 0.03 |
| 52) 4-Nitrophenol-d4           | 0.00  | 143 | 0d      | 0.00  | ng/ul |      |
| 58) Fluorene-d10               | 15.65 | 176 | 191259  | 37.48 | ng/ul | 0.03 |
| 63) 4,6-Dinitro-2-methylphenol | 0.00  | 200 | 0d      | 0.00  | ng/ul |      |
| 71) Anthracene-d10             | 17.54 | 188 | 140682  | 19.71 | ng/ul | 0.06 |
| 79) Pyrene-d10                 | 19.83 | 212 | 160072  | 20.86 | ng/ul | 0.07 |
| 90) Benzo(a)pyrene-d12         | 24.82 | 264 | 123408m | 15.27 | ng/ul | 0.19 |

## Target Compounds

|                         |       |     |         |        |        | Qvalue |
|-------------------------|-------|-----|---------|--------|--------|--------|
| 14) Acetophenone        | 8.83  | 105 | 9194    | 2.66   | ng/ul# | 51     |
| 24) 2,4-Dimethylphenol  | 10.04 | 107 | 248682m | 105.20 | ng/ul  |        |
| 28) Naphthalene         | 10.87 | 128 | 154609  | 26.34  | ng/ul  | 97     |
| 34) 2-Methylnaphthalene | 12.48 | 142 | 177623  | 38.17  | ng/ul  | 100    |
| 35) 1-Methylnaphthalene | 12.70 | 142 | 180541  | 39.62  | ng/ul# | 99     |
| 41) 1,1'-Biphenyl       | 13.49 | 154 | 95243   | 17.87  | ng/ul  | 94     |
| 50) Acenaphthene        | 14.73 | 153 | 80880   | 16.97  | ng/ul# | 90     |
| 54) Dibenzofuran        | 15.07 | 168 | 466264  | 69.21  | ng/ul# | 81     |
| 59) Fluorene            | 15.73 | 166 | 407891  | 70.75  | ng/ul# | 97     |
| 70) Phenanthrene        | 17.49 | 178 | 1699175 | 201.39 | ng/ul# | 85     |
| 72) Anthracene          | 17.58 | 178 | 329795  | 38.47  | ng/ul# | 84     |
| 77) Fluoranthene        | 19.50 | 202 | 814081  | 77.08  | ng/ul  | 95     |
| 80) Pyrene              | 19.87 | 202 | 917269  | 91.35  | ng/ul# | 93     |
| 83) Benzo(a)anthracene  | 21.71 | 228 | 229048  | 23.97  | ng/ul# | 76     |
| 85) Chrysene            | 21.78 | 228 | 265622  | 29.39  | ng/ul# | 78     |
| 91) Benzo(a)pyrene      | 24.90 | 252 | 90383m  | 10.36  | ng/ul  |        |

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

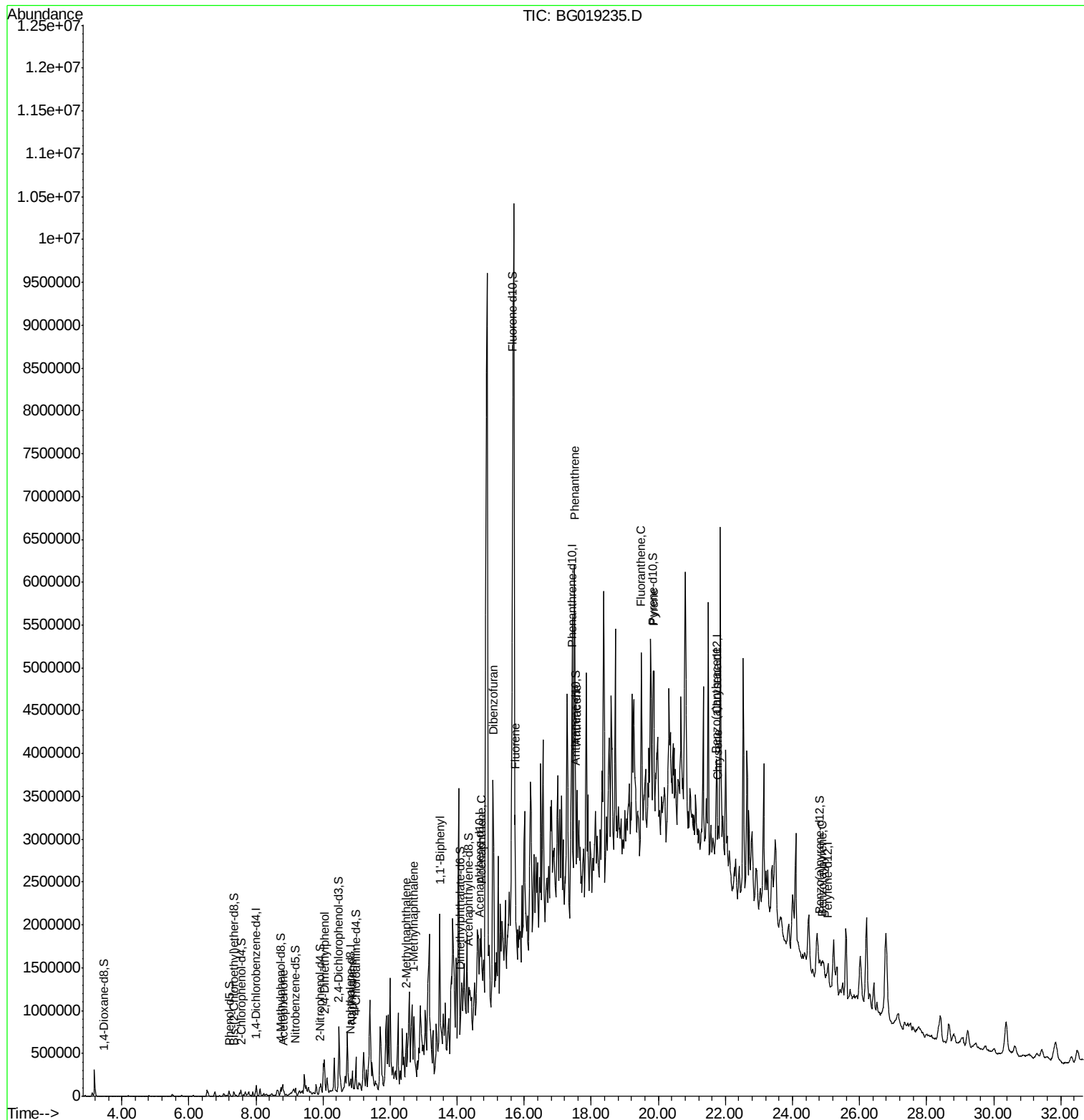
Data Path : Z:\HPCHEM1\BNA G\DATA\BG101615\  
Data File : BG019235.D  
Acq On : 16 Oct 2015 22:37  
Operator : UM/NP  
Sample : G3996-15  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

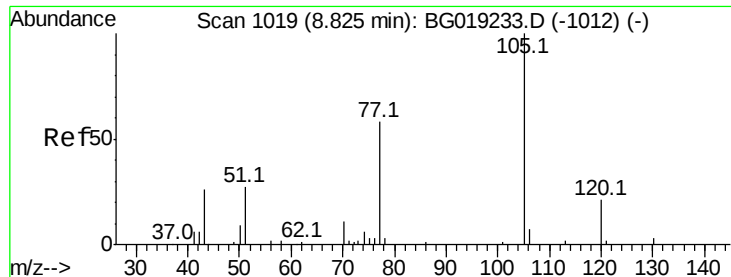
Instrument :  
BNA\_G  
ClientSampleId :  
E5LK2

Quant Time: Oct 19 15:49:07 2015  
Quant Title :  
QLast Update : Mon Oct 19 18:55:21 2015  
Response via : Initial Calibration

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#14

Acetophenone

Concen: 2.66 ng/ul

RT: 8.83 min Scan# 1019

Delta R.T. 0.00 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

Instrument :

BNA\_G

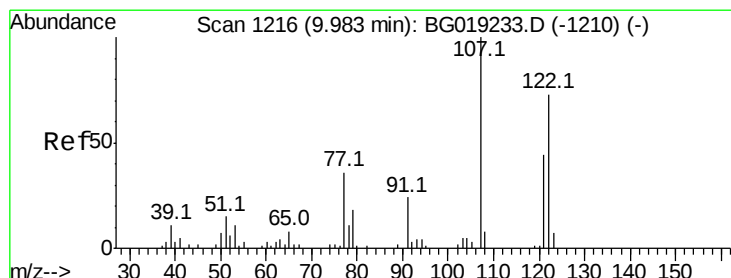
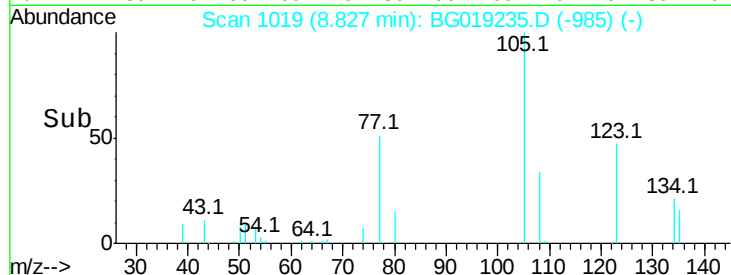
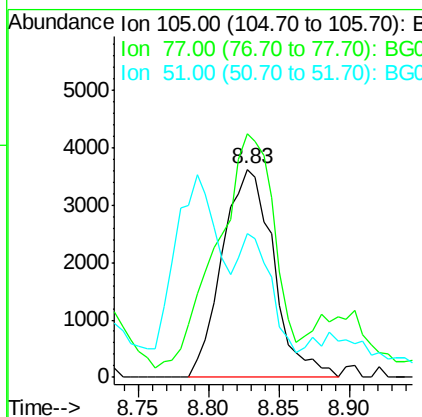
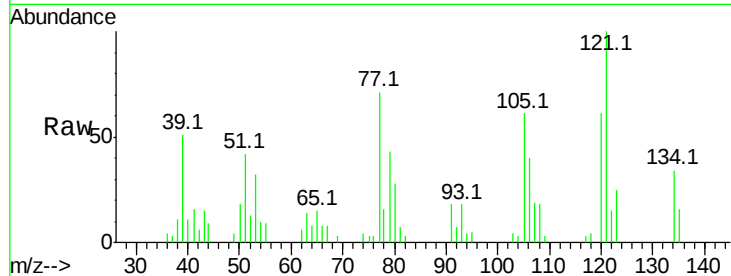
ClientSampleId :

E5LK2

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 105   | Resp: | 9194  |
| Ion Ratio | Lower | Upper |       |
| 105       | 100   |       |       |
| 77        | 117.1 | 63.8  | 95.6# |
| 51        | 69.1  | 26.1  | 39.1# |

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#24

2,4-Dimethylphenol

Concen: 105.20 ng/ul m

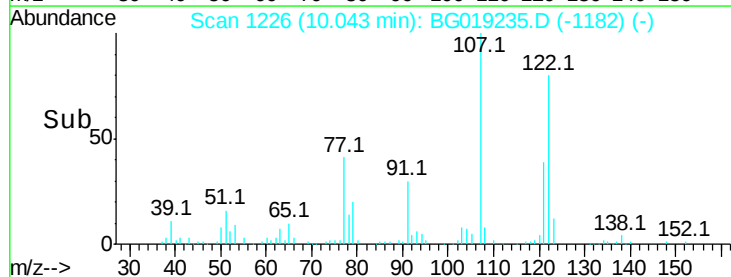
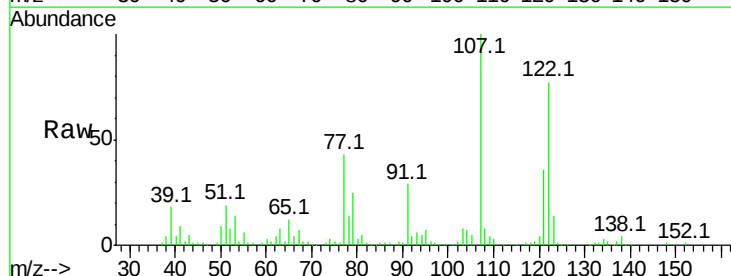
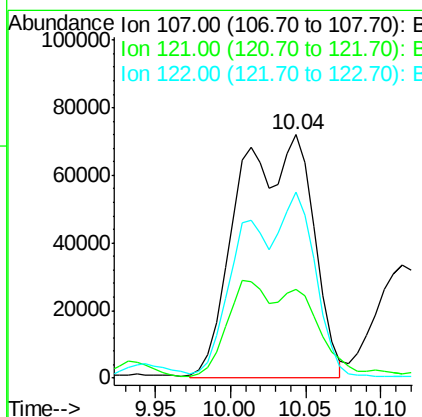
RT: 10.04 min Scan# 1226

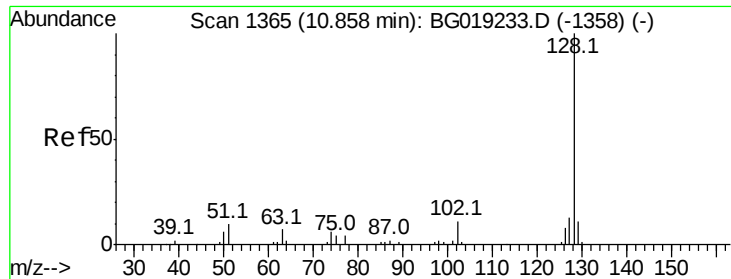
Delta R.T. 0.06 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 107   | Resp: | 248682 |
| Ion Ratio | Lower | Upper |        |
| 107       | 100   |       |        |
| 121       | 36.5  | 37.2  | 55.8#  |
| 122       | 76.5  | 67.6  | 101.4  |





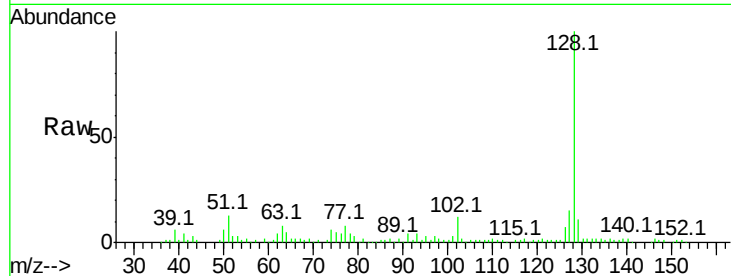
#28  
Naphthalene  
Concen: 26.34 ng/ul  
RT: 10.87 min Scan# 1367  
Delta R.T. 0.01 min  
Lab File: BG019235.D  
Acq: 16 Oct 2015 22:37

Instrument :  
BNA\_G  
ClientSampleId :  
E5LK2

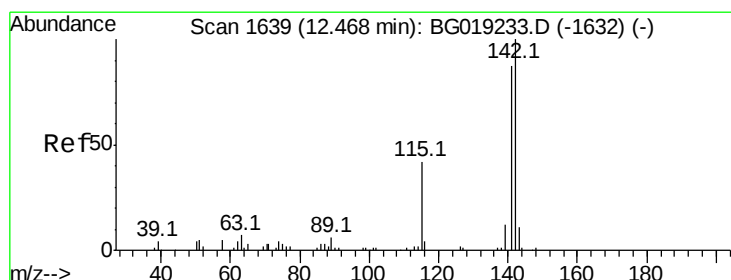
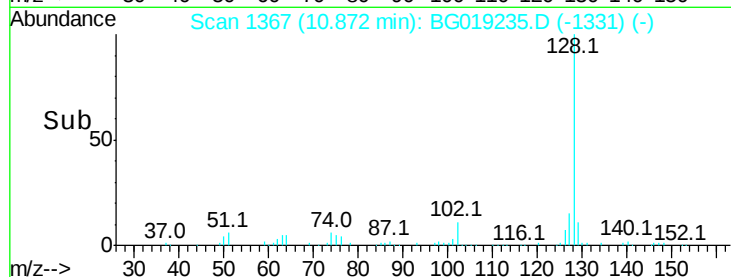
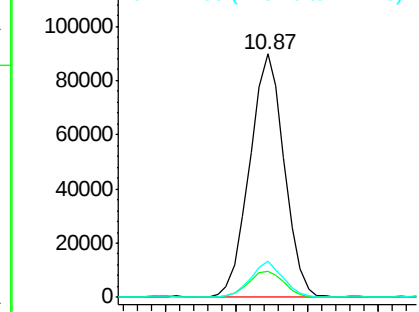
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.8  | 9.6   | 14.4  |
| 127     | 15.0  | 11.3  | 16.9  |

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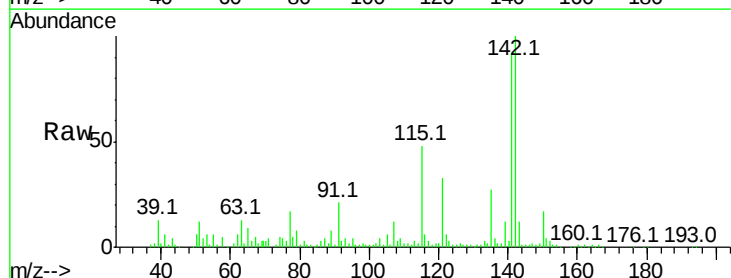


Abundance Ion 128.00 (127.70 to 128.70): E  
Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E

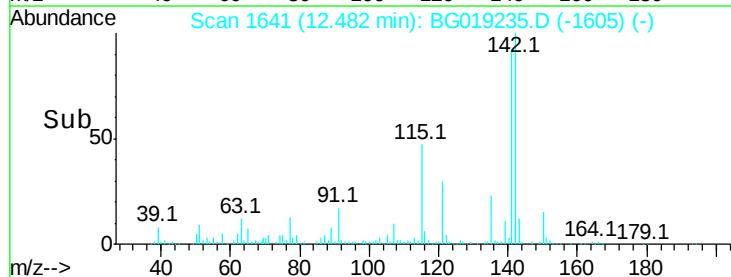
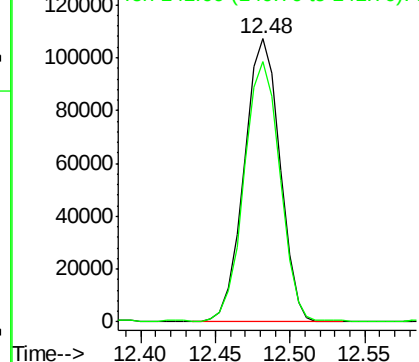


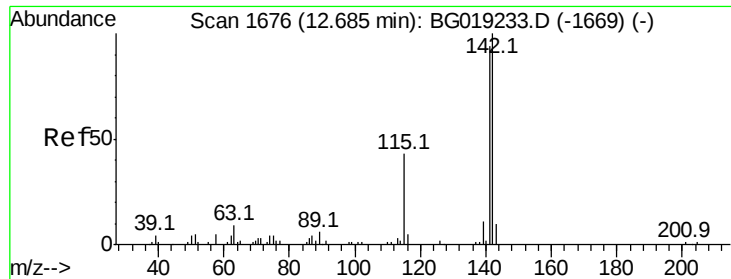
#34  
2-Methylnaphthalene  
Concen: 38.17 ng/ul  
RT: 12.48 min Scan# 1641  
Delta R.T. 0.01 min  
Lab File: BG019235.D  
Acq: 16 Oct 2015 22:37

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 91.9  | 73.4  | 110.0 |



Abundance Ion 142.00 (141.70 to 142.70): E  
Ion 141.00 (140.70 to 141.70): E





#35

1-Methylnaphthalene

Concen: 39.62 ng/ul

RT: 12.70 min Scan# 1678

Delta R.T. 0.01 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

Instrument :

BNA\_G

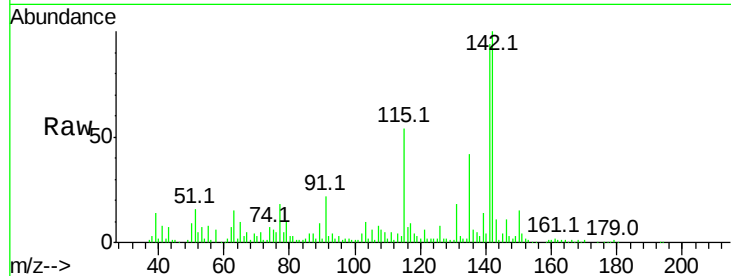
ClientSampleId :

E5LK2

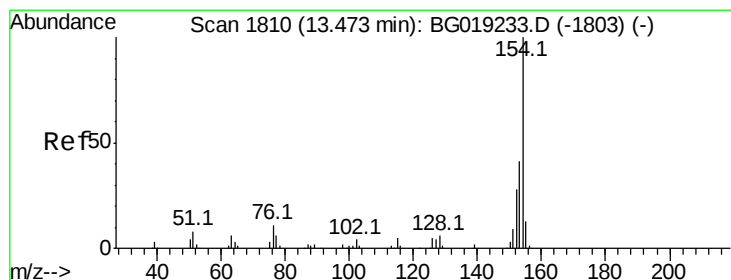
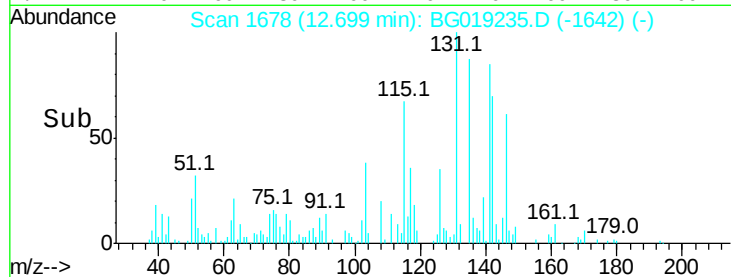
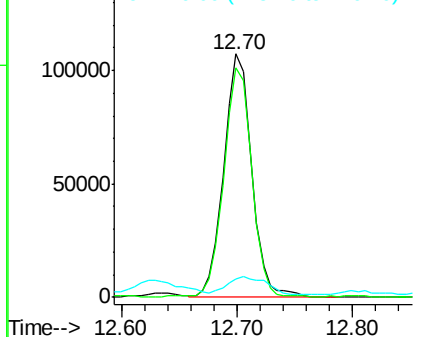
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 142   | Resp: | 180541 |
| Ion Ratio | Lower | Upper |        |
| 142       | 100   |       |        |
| 141       | 94.2  | 74.8  | 112.2  |
| 116       | 7.4   | 3.2   | 4.8#   |

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Abundance Ion 142.00 (141.70 to 142.70): E  
Ion 141.00 (140.70 to 141.70): E  
Ion 116.00 (115.70 to 116.70): E



#41

1,1'-Biphenyl

Concen: 17.87 ng/ul

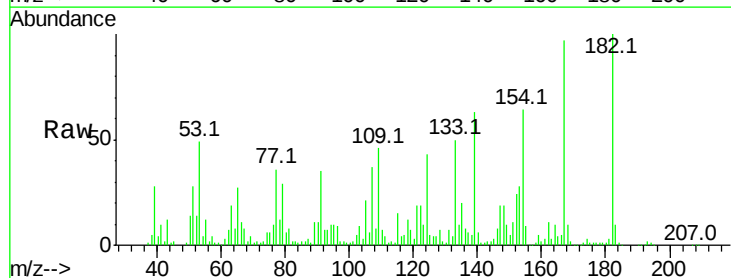
RT: 13.49 min Scan# 1812

Delta R.T. 0.01 min

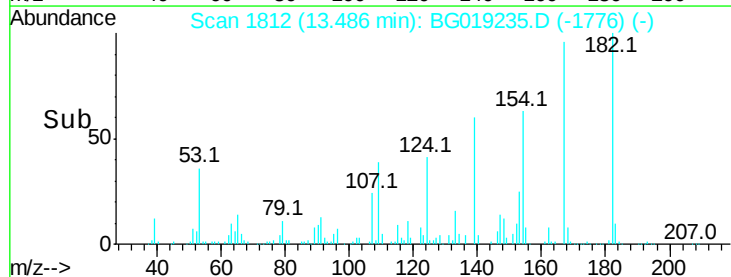
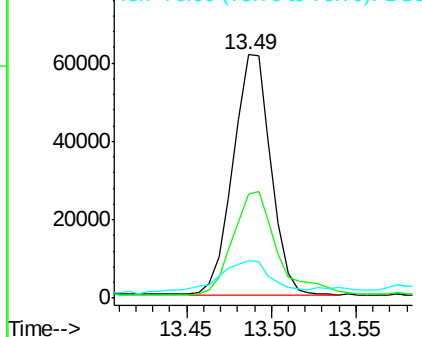
Lab File: BG019235.D

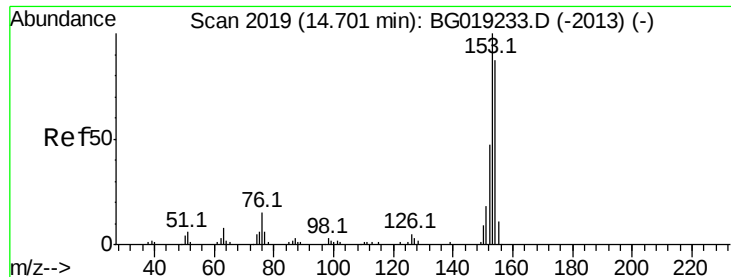
Acq: 16 Oct 2015 22:37

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 154   | Resp: | 95243 |
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 42.9  | 31.4  | 47.0  |
| 76        | 15.6  | 10.8  | 16.2  |



Abundance Ion 154.00 (153.70 to 154.70): E  
Ion 153.00 (152.70 to 153.70): E  
Ion 76.00 (75.70 to 76.70): BG





#50

Acenaphthene

Concen: 16.97 ng/ul

RT: 14.73 min Scan# 2023

Delta R.T. 0.03 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

Instrument :

BNA\_G

ClientSampled :

E5LK2

Tot Ion:153 Resp: 80880

Ion Ratio Lower Upper

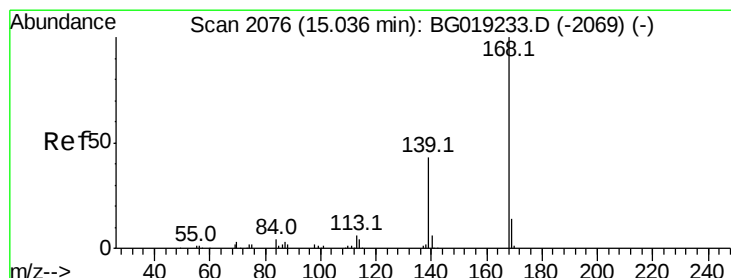
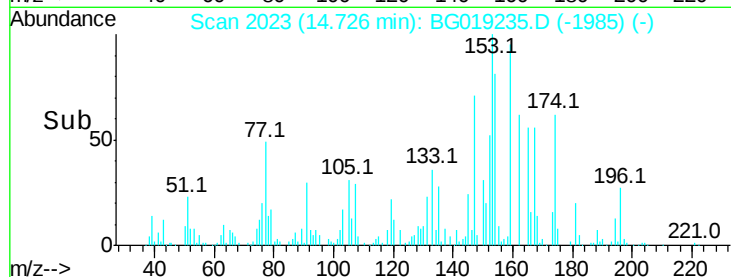
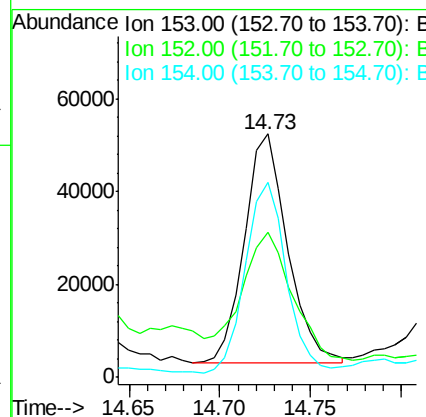
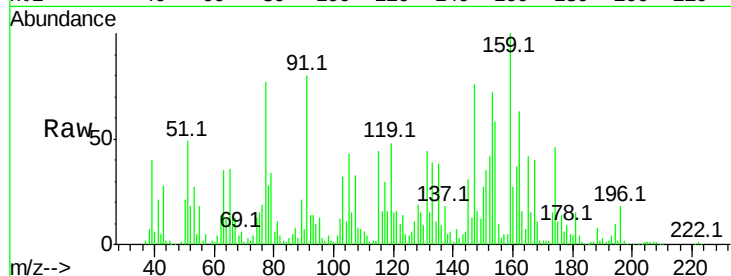
153 100

152 59.3 36.2 54.2#

154 80.3 67.5 101.3

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#54

Dibenzofuran

Concen: 69.21 ng/ul

RT: 15.07 min Scan# 2082

Delta R.T. 0.04 min

Lab File: BG019235.D

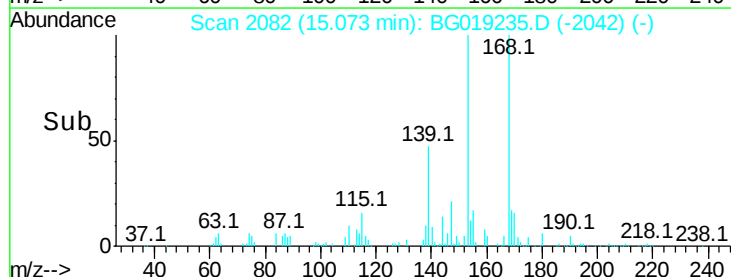
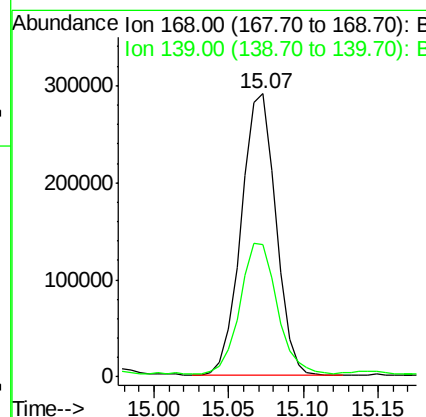
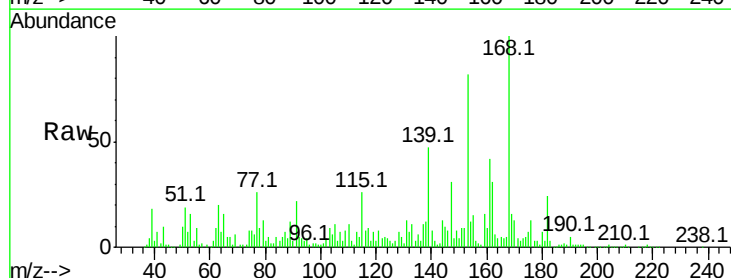
Acq: 16 Oct 2015 22:37

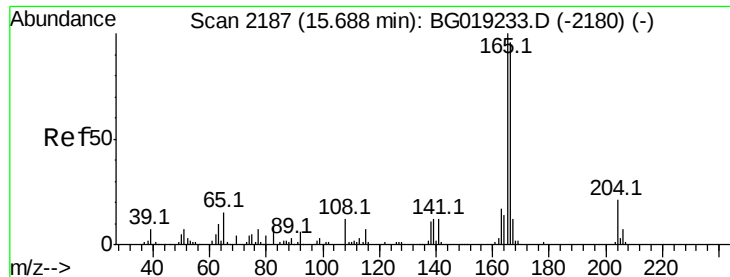
Tgt Ion:168 Resp: 466264

Ion Ratio Lower Upper

168 100

139 47.0 28.5 42.7#





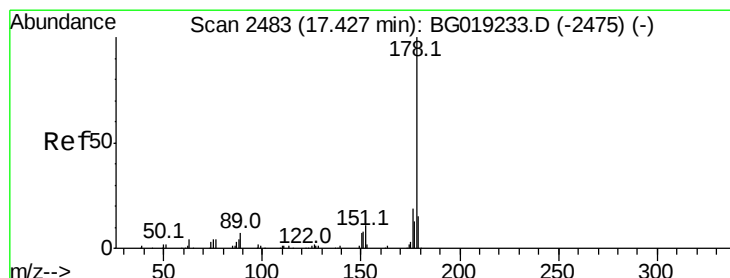
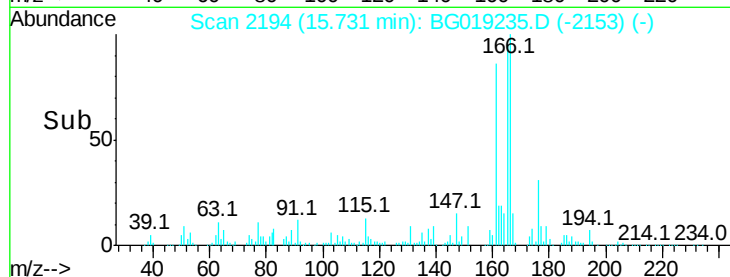
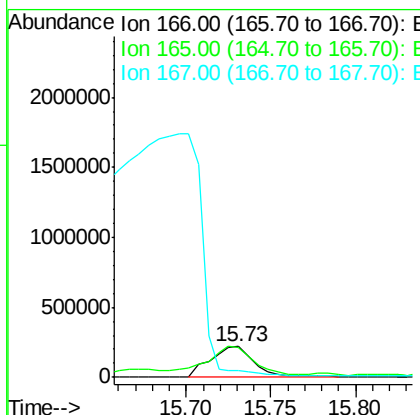
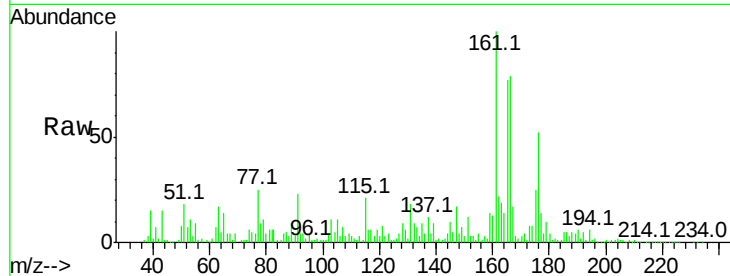
#59  
**Fluorene**  
 Concen: 70.75 ng/ul  
 RT: 15.73 min Scan# 2194  
 Delta R.T. 0.04 min  
 Lab File: BG019235.D  
 Acq: 16 Oct 2015 22:37

Instrument :  
 BNA\_G  
 ClientSampleId :  
 E5LK2

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 166     | 100   | 407891 |       |       |
| 165     | 97.8  | 77.7   | 116.5 |       |
| 167     | 21.1  | 10.4   | 15.6# |       |

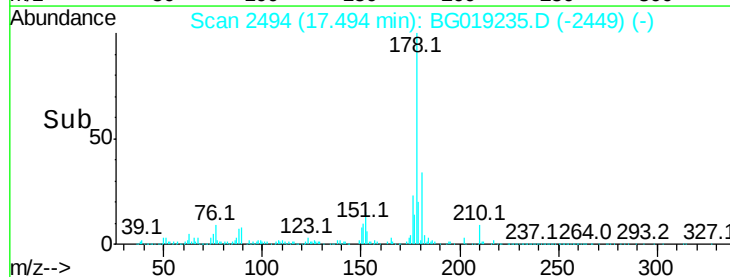
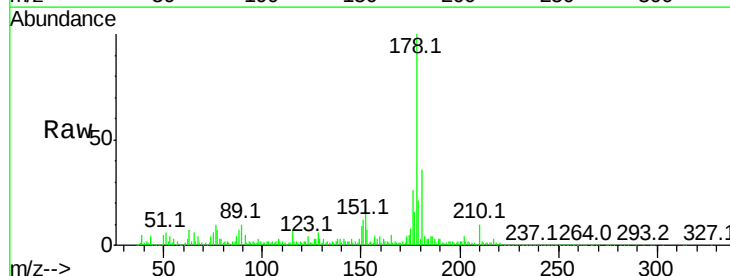
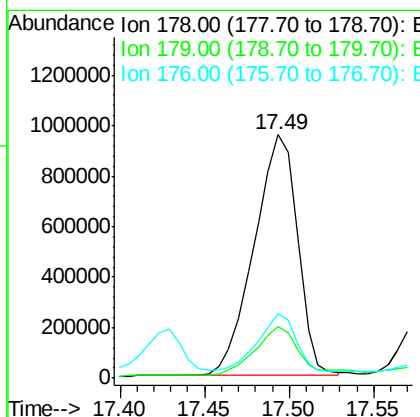
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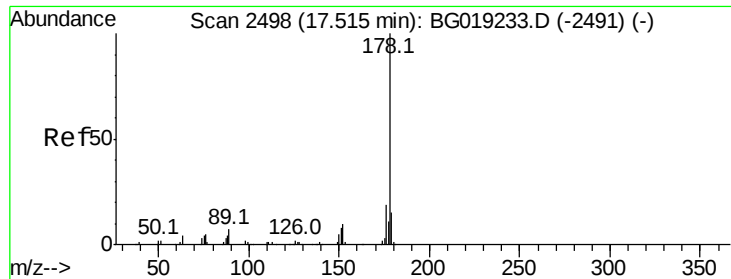
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#70  
**Phenanthrene**  
 Concen: 201.39 ng/ul  
 RT: 17.49 min Scan# 2494  
 Delta R.T. 0.07 min  
 Lab File: BG019235.D  
 Acq: 16 Oct 2015 22:37

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 178     | 100   | 1699175 |       |       |
| 179     | 21.3  | 12.5    | 18.7# |       |
| 176     | 26.3  | 15.4    | 23.0# |       |





#72

Anthracene

Concen: 38.47 ng/ul

RT: 17.58 min Scan# 2508

Delta R.T. 0.06 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

Instrument :

BNA\_G

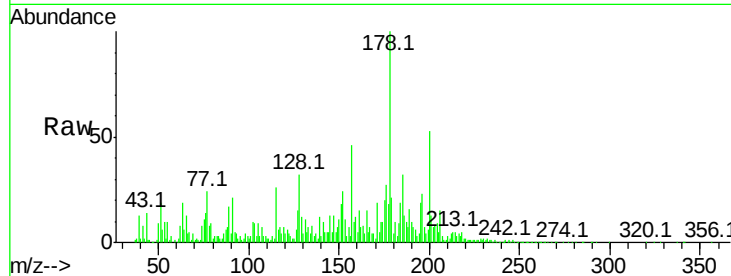
ClientSampleId :

E5LK2

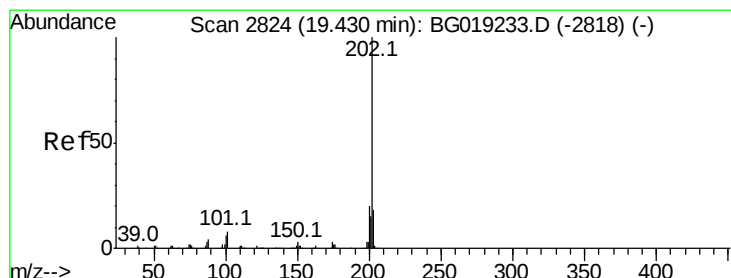
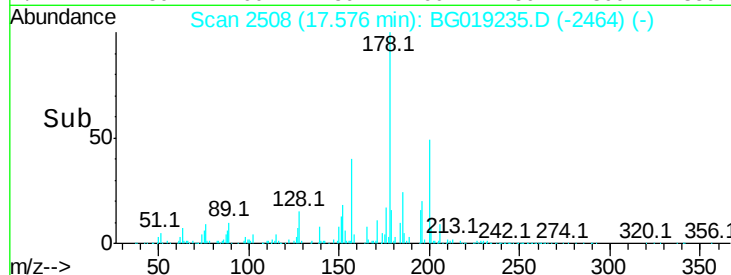
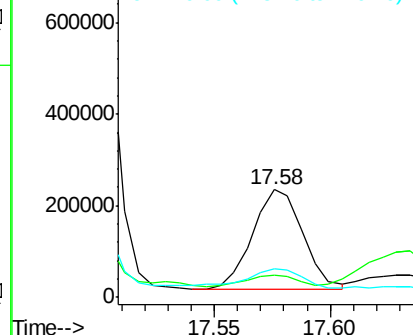
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 178   | Resp: | 329795 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 21.1  | 12.2  | 18.4#  |
| 176       | 27.0  | 15.0  | 22.6#  |

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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



#77

Fluoranthene

Concen: 77.08 ng/ul

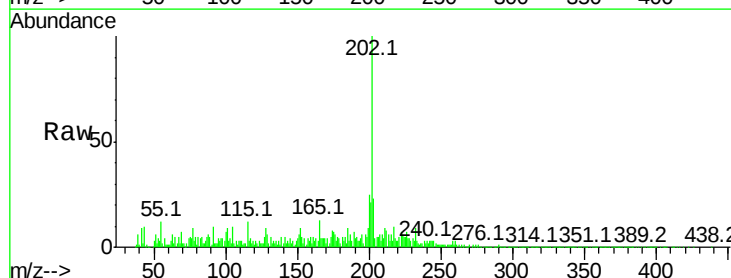
RT: 19.50 min Scan# 2835

Delta R.T. 0.07 min

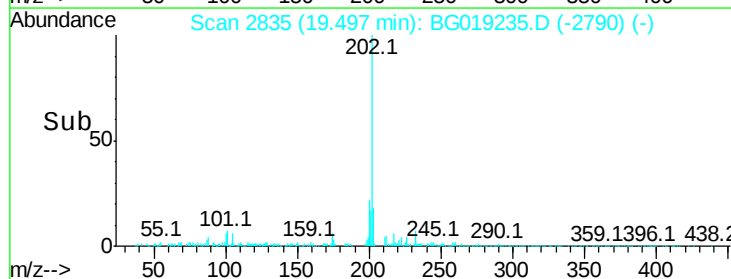
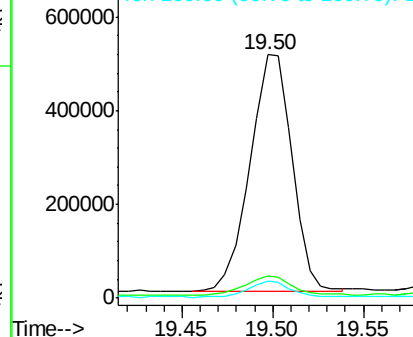
Lab File: BG019235.D

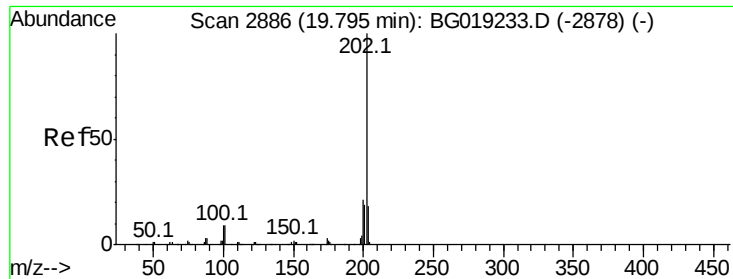
Acq: 16 Oct 2015 22:37

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 814081 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 9.1   | 9.0   | 13.4   |
| 100       | 7.0   | 6.9   | 10.3   |



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





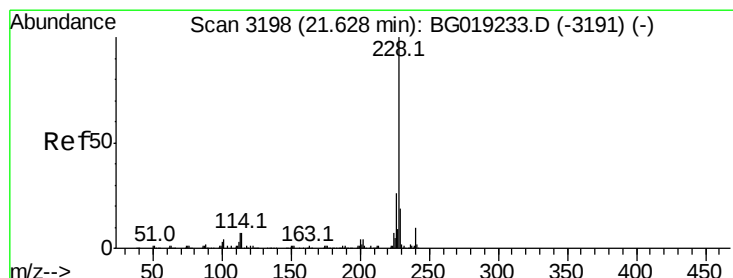
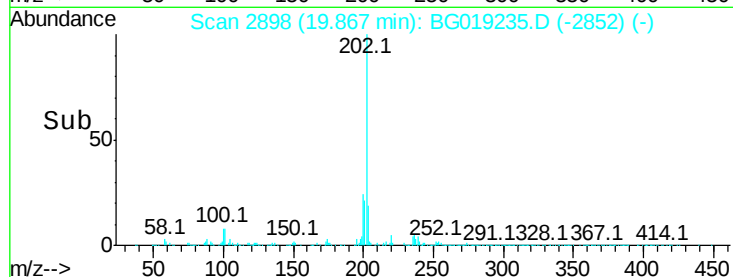
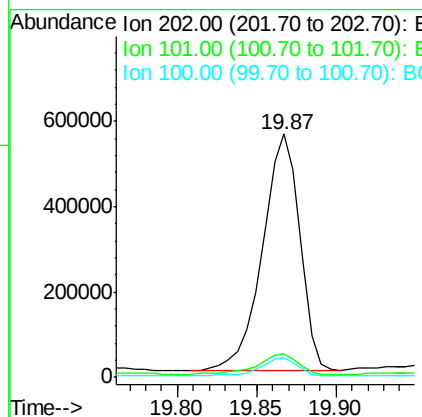
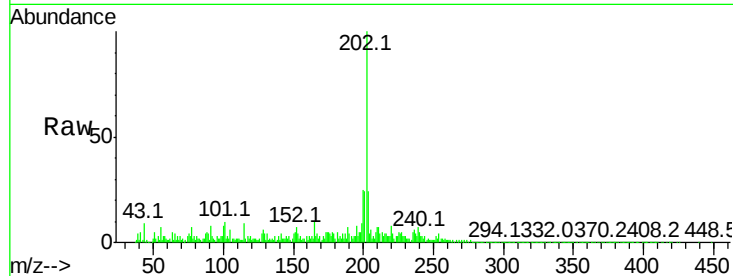
#80  
Pvrene  
Concen: 91.35 ng/ul  
RT: 19.87 min Scan# 2898  
Delta R.T. 0.07 min  
Lab File: BG019235.D  
Acq: 16 Oct 2015 22:37

Instrument :  
BNA\_G  
ClientSampleId :  
E5LK2

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 202     | 100   |            |       |
| 101     | 9.9   | 10.2       | 15.2# |
| 100     | 8.0   | 8.5        | 12.7# |

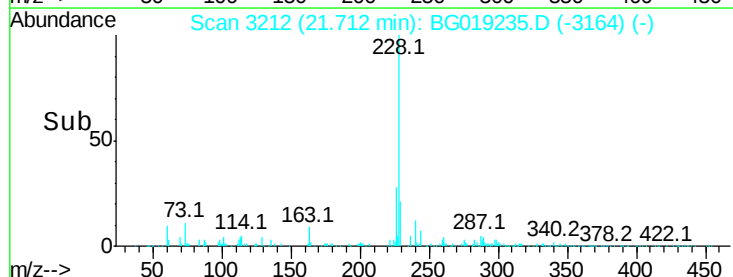
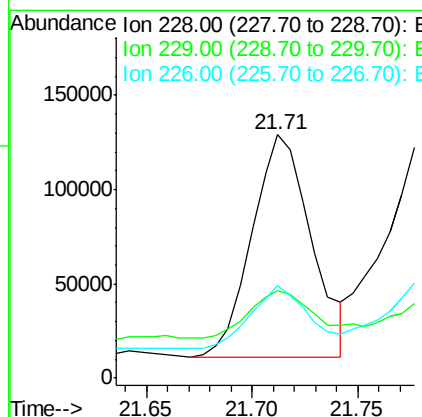
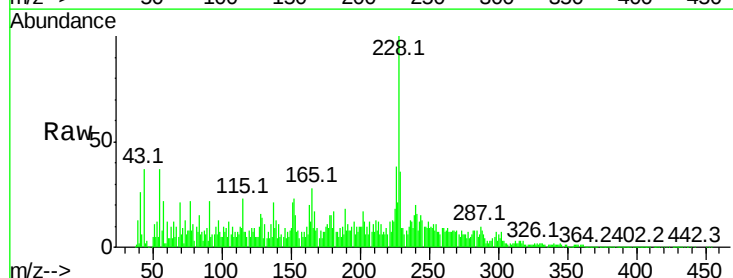
Manual Integrations  
APPROVED

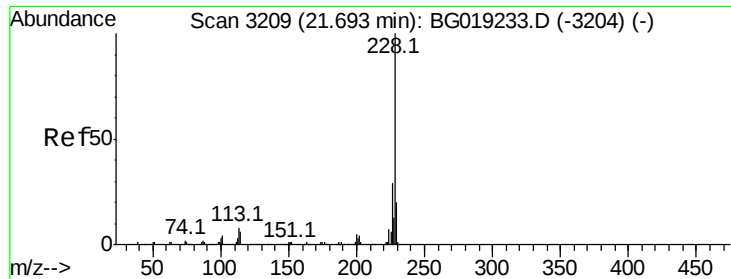
MMdadoda  
10/19/2015 6:29:32 PM



#83  
Benzo(a)anthracene  
Concen: 23.97 ng/ul  
RT: 21.71 min Scan# 3212  
Delta R.T. 0.08 min  
Lab File: BG019235.D  
Acq: 16 Oct 2015 22:37

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 228     | 100   |            |       |
| 229     | 35.7  | 16.6       | 24.8# |
| 226     | 37.9  | 22.8       | 34.2# |





#85

Chrysene

Concen: 29.39 ng/ul

RT: 21.78 min Scan# 3224

Delta R.T. 0.09 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

Instrument :

BNA\_G

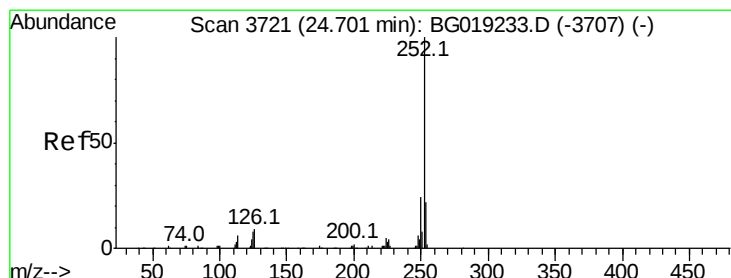
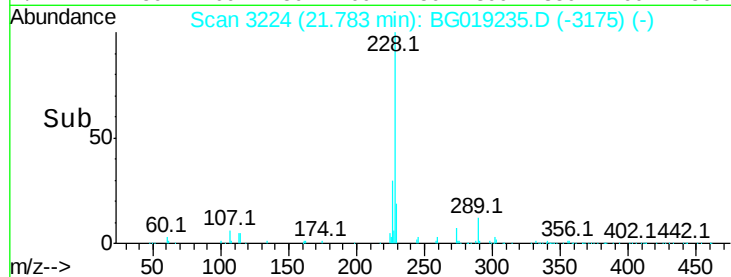
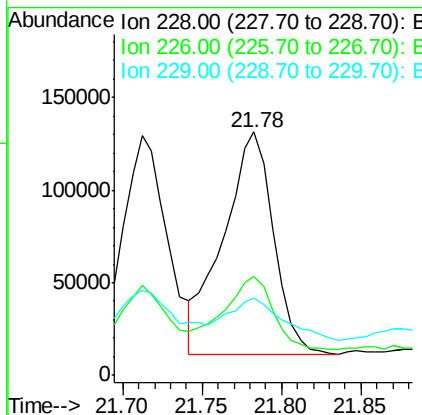
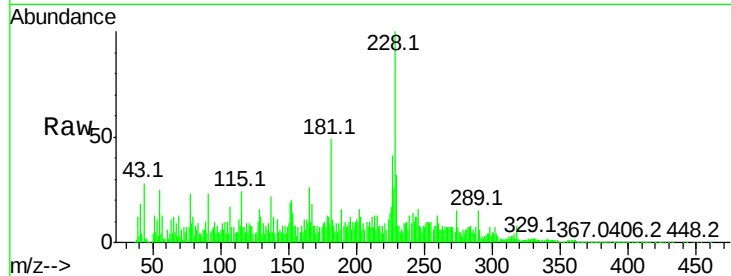
ClientSampleId :

E5LK2

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 265622 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 40.7  | 24.2  | 36.2#  |
| 229       | 31.7  | 15.6  | 23.4#  |

Manual Integrations  
APPROVED

MMdadoda  
10/19/2015 6:29:32 PM



#91

Benzo(a)pyrene

Concen: 10.36 ng/ul m

RT: 24.90 min Scan# 3755

Delta R.T. 0.20 min

Lab File: BG019235.D

Acq: 16 Oct 2015 22:37

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 90383 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 41.6  | 18.1  | 27.1# |
| 125       | 14.5  | 9.4   | 14.2# |

