

Data Path : Z:\HPCHEM1\BNA G\DATA\BG122515\  
 Data File : BG020540.D  
 Acq On : 26 Dec 2015 14:50  
 Operator : UM/SJ  
 Sample : G4802-19  
 Misc :  
 ALS Vial : 77 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D94

Manual Integrations  
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Sohil  
 12/28/2015 6:07:09 PM

Quant Time: Dec 28 07:17:49 2015  
 Quant Method : Z:\HPCHEM1\BNA G\METHODS\SOM02.2-EPA-BG122415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Mon Dec 28 06:13:05 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.07  | 152  | 18895    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.89 | 136  | 81408    | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.71 | 164  | 57400    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.46 | 188  | 134010   | 20.00 | ng/ul | 0.01     |
| 78) Chrysene-d12          | 21.75 | 240  | 165717   | 20.00 | ng/ul | 0.02     |
| 86) Perylene-d12          | 25.03 | 264  | 171128   | 20.00 | ng/ul | 0.04     |

## System Monitoring Compounds

|                                |       |     |        |       |       |      |
|--------------------------------|-------|-----|--------|-------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.44  | 96  | 822    | 2.40  | ng/uL | 0.00 |
| 5) Phenol-d5                   | 7.23  | 99  | 23957  | 15.80 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.40  | 67  | 14505  | 16.15 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.60  | 132 | 19505  | 16.77 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.78  | 113 | 18634  | 14.61 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.24  | 128 | 10964  | 17.18 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.97  | 143 | 12651  | 17.44 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.51 | 165 | 23206  | 16.53 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 11.03 | 131 | 11620  | 7.24  | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.11 | 166 | 75489  | 15.96 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.41 | 160 | 97838  | 17.85 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.91 | 143 | 9811   | 12.44 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.70 | 176 | 73026  | 17.07 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.83 | 200 | 8154   | 9.18  | ng/ul | 0.01 |
| 71) Anthracene-d10             | 17.56 | 188 | 114119 | 18.18 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.85 | 212 | 132927 | 18.53 | ng/ul | 0.01 |
| 90) Benzo(a)pyrene-d12         | 24.80 | 264 | 151769 | 17.54 | ng/ul | 0.04 |

## Target Compounds

|                            |       |     |          |        |        | Ovalue |
|----------------------------|-------|-----|----------|--------|--------|--------|
| 28) Naphthalene            | 10.94 | 128 | 43965    | 10.16  | ng/ul  | 97     |
| 34) 2-Methylnaphthalene    | 12.54 | 142 | 24277    | 7.58   | ng/ul  | 99     |
| 41) 1,1'-Biphenyl          | 13.54 | 154 | 5652     | 1.28   | ng/ul  | 96     |
| 45) Dimethylphthalate      | 14.15 | 163 | 31585    | 6.57   | ng/ul  | 97     |
| 48) Acenaphthylene         | 14.44 | 152 | 84793    | 14.72  | ng/ul  | 98     |
| 50) Acenaphthene           | 14.77 | 153 | 16503    | 4.24   | ng/ul  | 98     |
| 54) Dibenzofuran           | 15.11 | 168 | 21446    | 3.70   | ng/ul  | 98     |
| 59) Fluorene               | 15.76 | 166 | 35120    | 7.48   | ng/ul  | 99     |
| 70) Phenanthrene           | 17.50 | 178 | 794707   | 106.58 | ng/ul  | 98     |
| 72) Anthracene             | 17.59 | 178 | 185796   | 24.37  | ng/ul  | 98     |
| 75) Carbazole              | 17.86 | 167 | 31378    | 4.88   | ng/ul  | 96     |
| 77) Fluoranthene           | 19.52 | 202 | 1715667m | 182.97 | ng/ul  |        |
| 80) Pyrene                 | 19.89 | 202 | 1997116m | 213.11 | ng/ul  |        |
| 83) Benzo(a)anthracene     | 21.73 | 228 | 1312980  | 134.91 | ng/ul# | 90     |
| 85) Chrysene               | 21.80 | 228 | 1229976  | 132.68 | ng/ul# | 89     |
| 88) Benzo(b)fluoranthene   | 24.01 | 252 | 1599800  | 155.75 | ng/ul  | 95     |
| 89) Benzo(k)fluoranthene   | 24.05 | 252 | 490385   | 49.39  | ng/ul  | 97     |
| 91) Benzo(a)pyrene         | 24.90 | 252 | 1314914  | 133.19 | ng/ul  | 95     |
| 92) Indeno(1,2,3-cd)pyrene | 28.81 | 276 | 825854   | 69.84  | ng/ul  | 95     |
| 93) Dibenzo(a,h)anthracene | 28.83 | 278 | 229891   | 23.43  | ng/ul  | 96     |
| 94) Benzo(a,h,i)perylene   | 29.99 | 276 | 796837   | 82.05  | ng/ul  | 99     |

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Data File : BG020540.D  
Acq On : 26 Dec 2015 14:50  
Operator : UM/SJ  
Sample : G4802-19  
Misc :  
ALS Vial : 77 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

Manual Integrations  
APPROVED

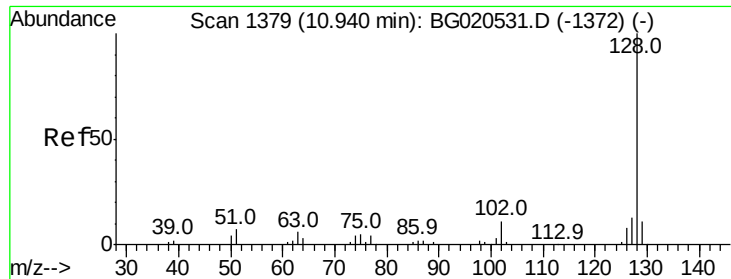
Sohil  
12/28/2015 6:07:09 PM

Quant Time: Dec 28 07:17:49 2015  
Quant Method : Z:\HPCHEM1\BNA G\METHODS\SOM02.2-EPA-BG122415.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Mon Dec 28 06:13:05 2015  
Response via : Initial Calibration

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

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





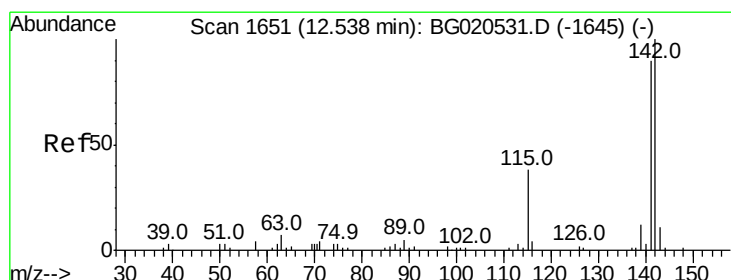
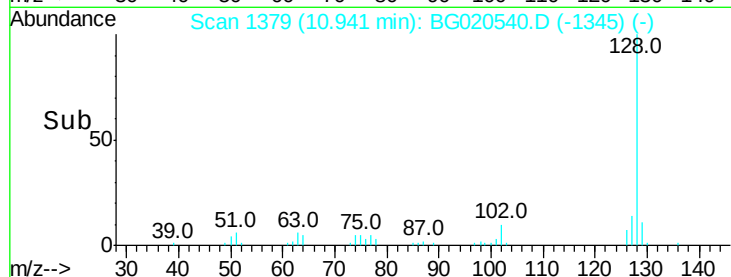
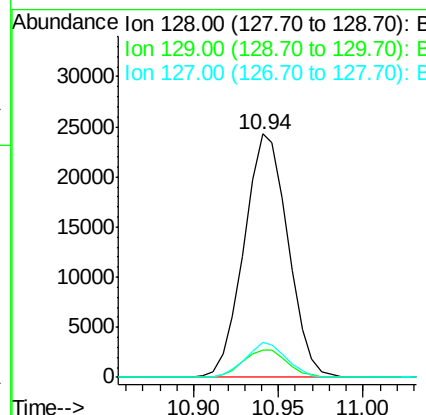
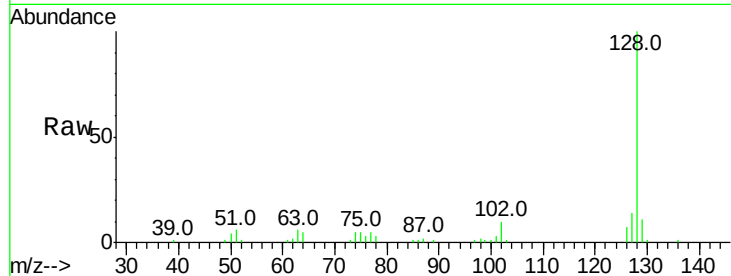
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Naphthalene  
Concen: 10.16 ng/ul  
RT: 10.94 min Scan# 1379  
Delta R.T. 0.00 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.1  | 8.6   | 12.8  |
| 127     | 14.2  | 10.1  | 15.1  |

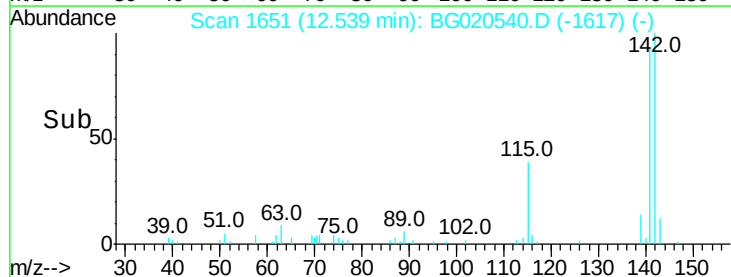
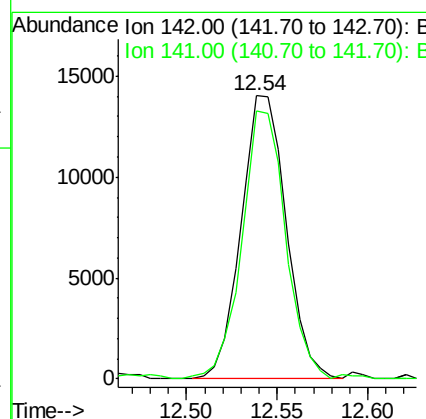
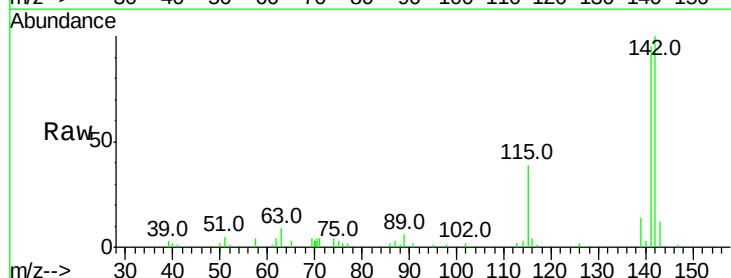
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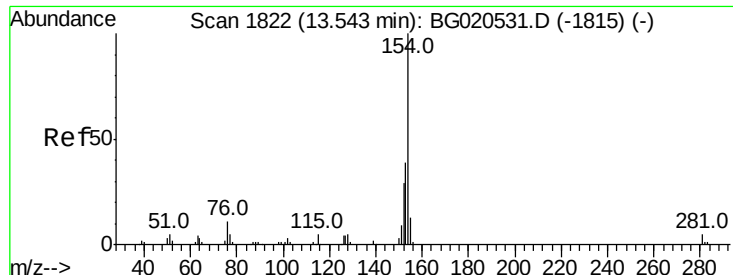
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#34  
2-Methylnaphthalene  
Concen: 7.58 ng/ul  
RT: 12.54 min Scan# 1651  
Delta R.T. 0.00 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 94.5  | 74.9  | 112.3 |





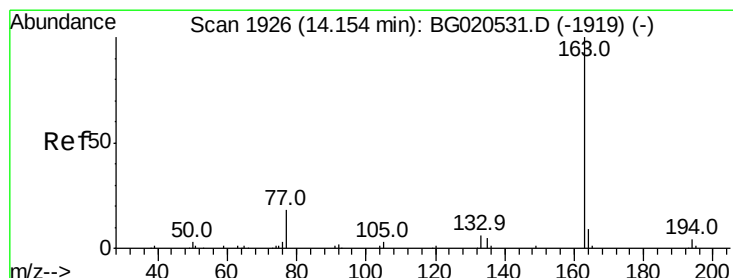
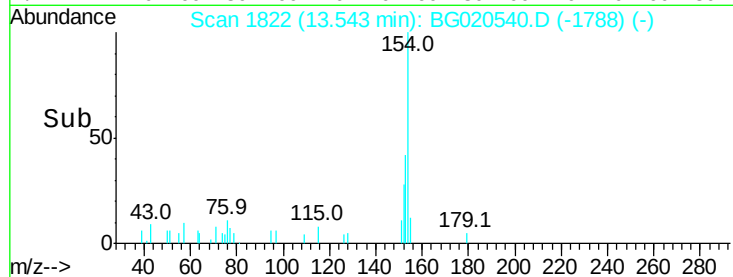
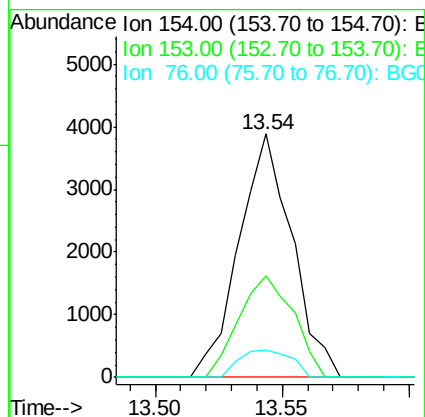
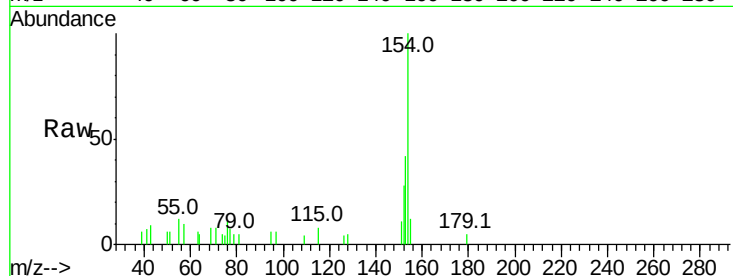
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 1,1'-Biphenyl  
 Concen: 1.28 ng/ul  
 RT: 13.54 min Scan# 1822  
 Delta R.T. 0.00 min  
 Lab File: BG020540.D  
 Acq: 26 Dec 2015 14:50

Instrument :  
 BNA\_G  
 ClientSampled :  
 G9D94

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 154   | Resp: | 5652 |
| Ion Ratio | Lower | Upper |      |
| 154       | 100   |       |      |
| 153       | 41.6  | 35.5  | 53.3 |
| 76        | 11.1  | 10.4  | 15.6 |

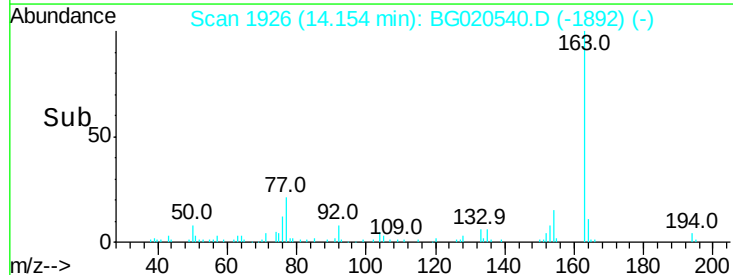
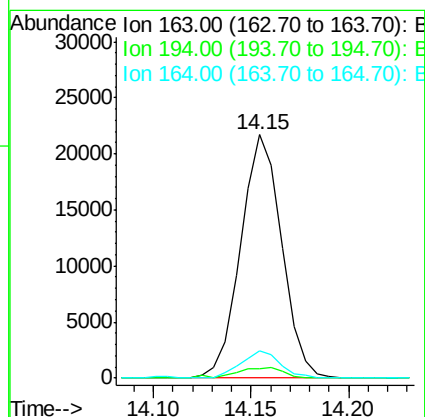
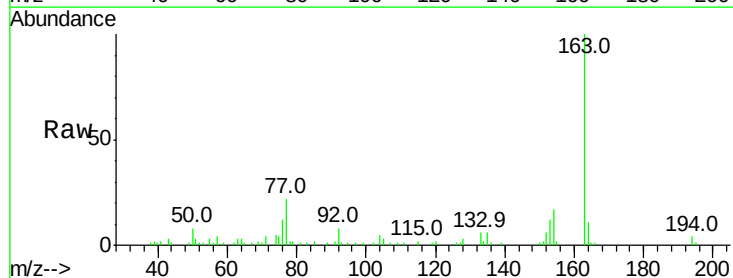
Manual Integrations  
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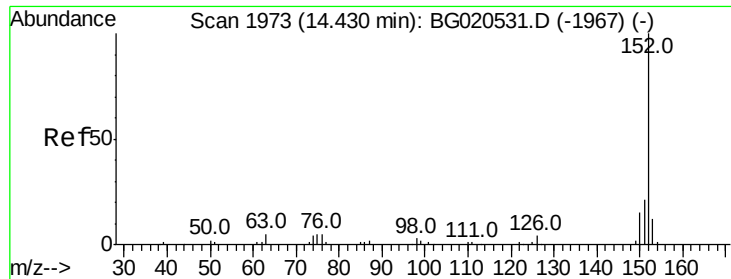
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#45  
 Dimethylphthalate  
 Concen: 6.57 ng/ul  
 RT: 14.15 min Scan# 1926  
 Delta R.T. 0.00 min  
 Lab File: BG020540.D  
 Acq: 26 Dec 2015 14:50

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 163   | Resp: | 31585 |
| Ion Ratio | Lower | Upper |       |
| 163       | 100   |       |       |
| 194       | 4.0   | 3.5   | 5.3   |
| 164       | 11.3  | 7.7   | 11.5  |





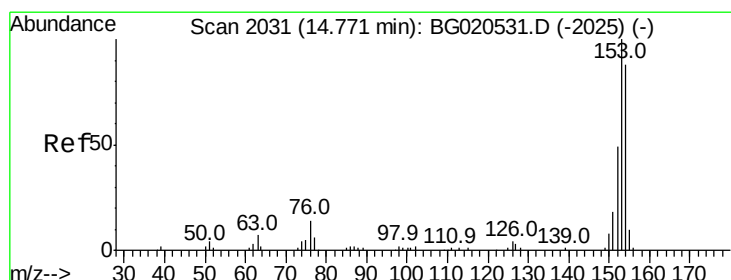
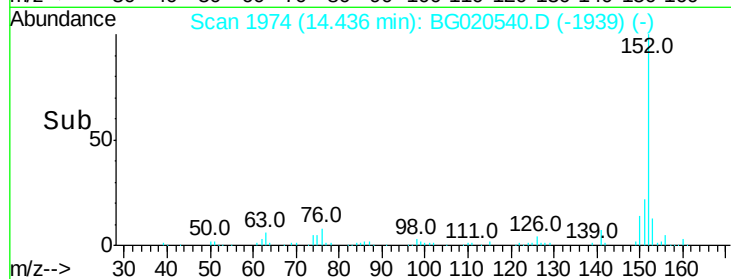
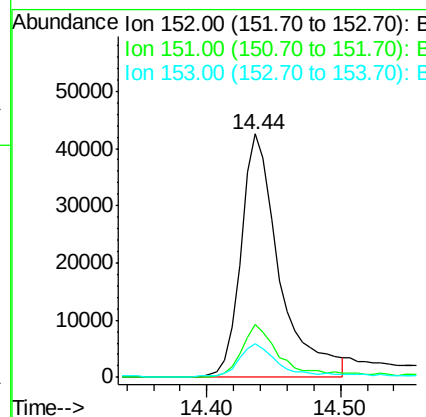
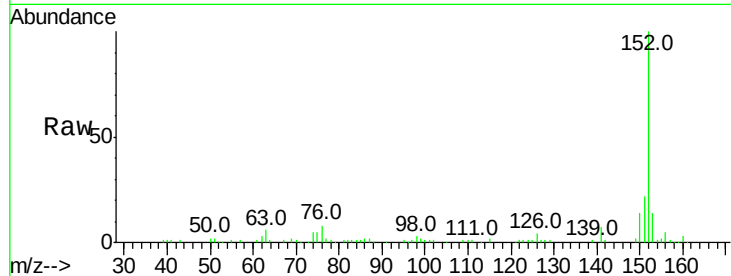
#48  
Acenaphthylene  
Concen: 14.72 ng/ul  
RT: 14.44 min Scan# 1974  
Delta R.T. 0.01 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 152   | Resp: | 84793 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 21.6  | 16.4  | 24.6  |
| 153       | 13.7  | 10.4  | 15.6  |

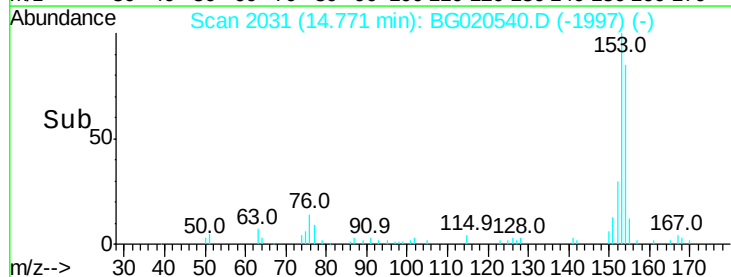
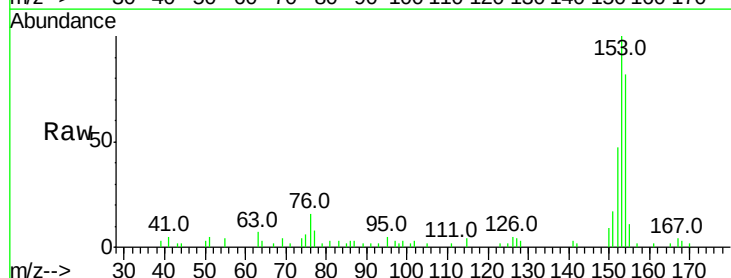
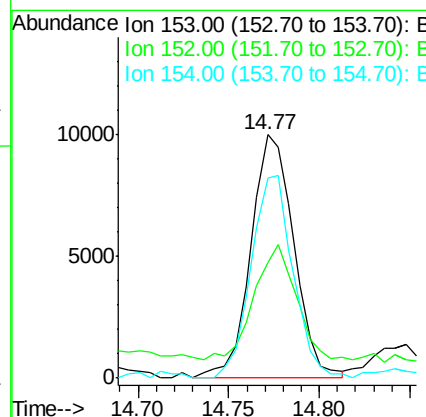
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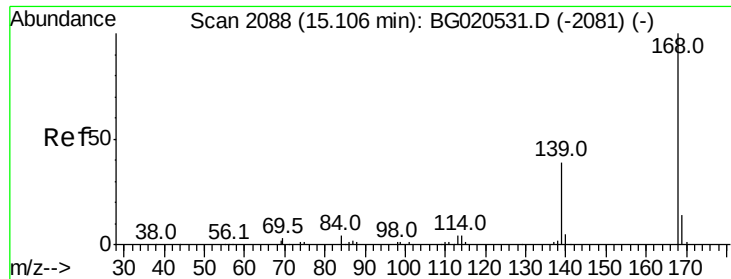
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#50  
Acenaphthene  
Concen: 4.24 ng/ul  
RT: 14.77 min Scan# 2031  
Delta R.T. 0.00 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 16503 |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 47.4  | 37.6  | 56.4  |
| 154       | 82.1  | 67.9  | 101.9 |





#54

Dibenzenofuran

Concen: 3.70 ng/ul

RT: 15.11 min Scan# 2088

Delta R.T. 0.00 min

Lab File: BG020540.D

Acq: 26 Dec 2015 14:50

Instrument :

BNA\_G

ClientSampled :

G9D94

Tot Ion:168 Resp: 21446

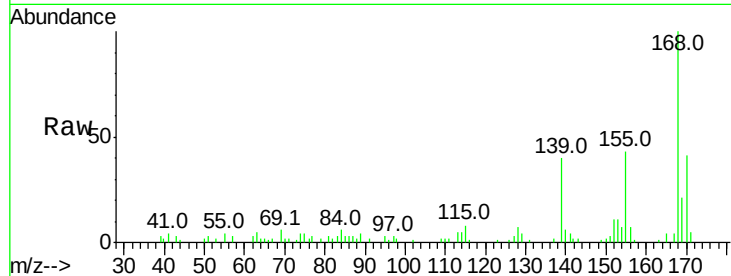
Ion Ratio Lower Upper

168 100

139 39.5 30.5 45.7

Manual Integrations  
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Abundance Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E

15.11

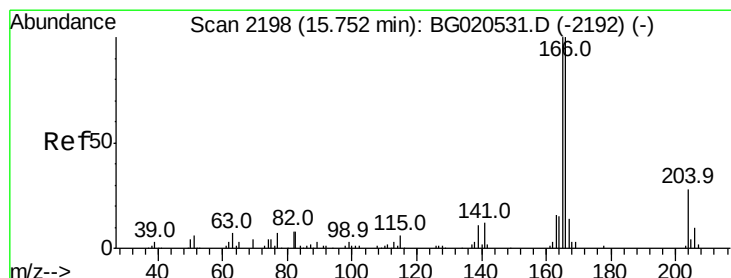
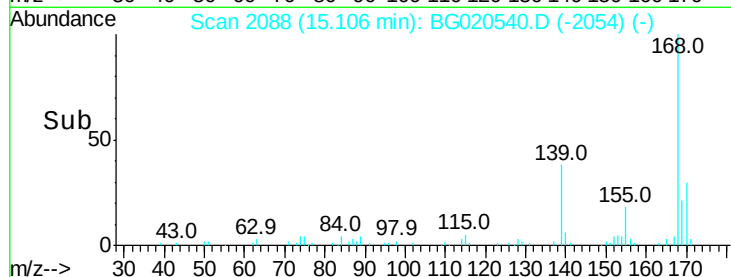
15000

10000

5000

0

Time-->



#59

Fluorene

Concen: 7.48 ng/ul

RT: 15.76 min Scan# 2199

Delta R.T. 0.01 min

Lab File: BG020540.D

Acq: 26 Dec 2015 14:50

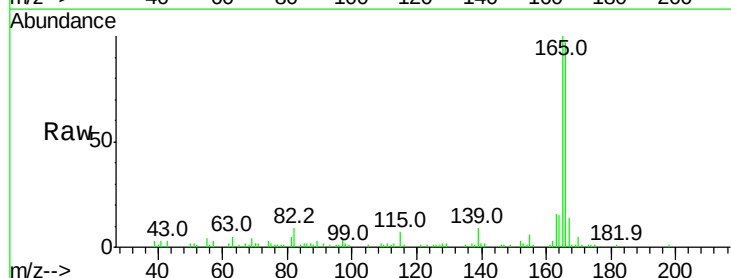
Tgt Ion:166 Resp: 35120

Ion Ratio Lower Upper

166 100

165 103.1 81.4 122.0

167 14.3 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

15.76

25000

20000

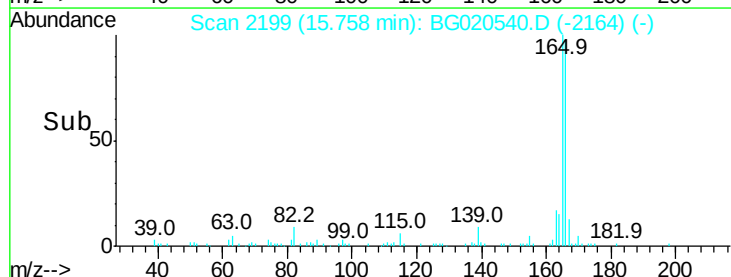
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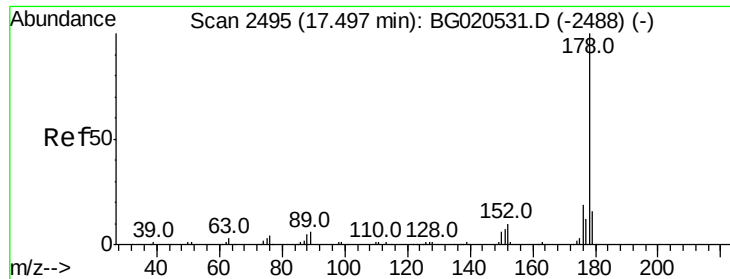
10000

5000

0

Time-->





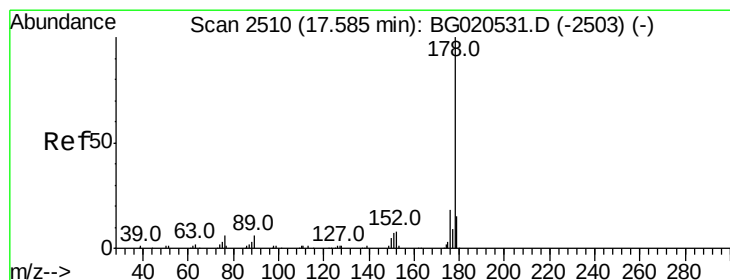
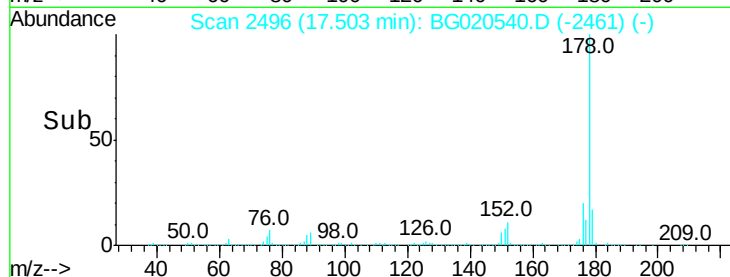
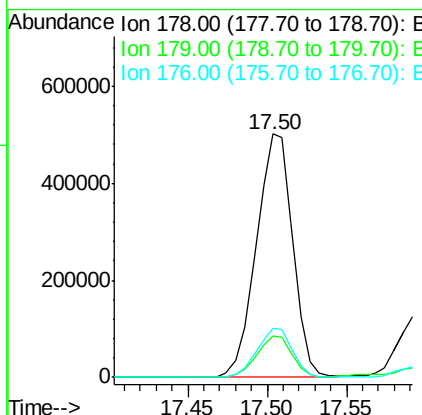
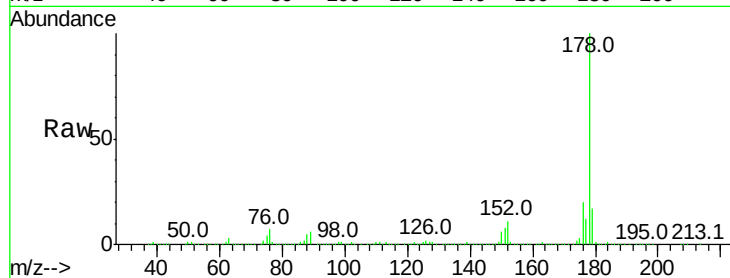
#70  
Phenanthrene  
Concen: 106.58 ng/ul  
RT: 17.50 min Scan# 2496  
Delta R.T. 0.01 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 16.9  | 12.9  | 19.3  |
| 176     | 20.3  | 15.3  | 22.9  |

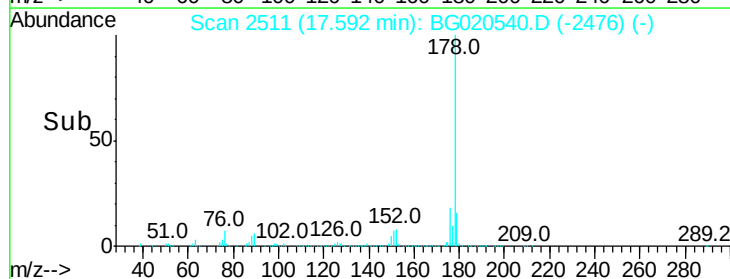
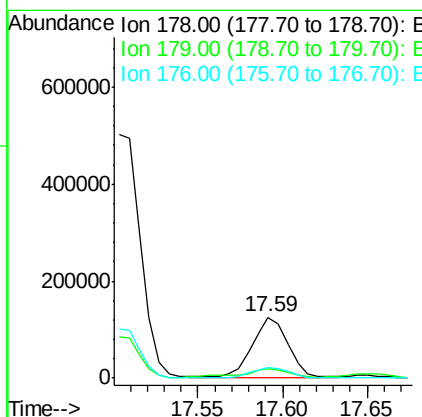
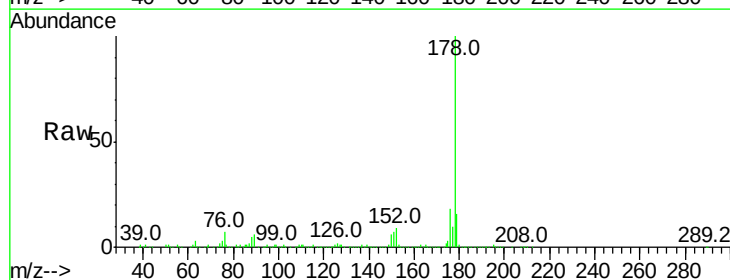
Manual Integrations  
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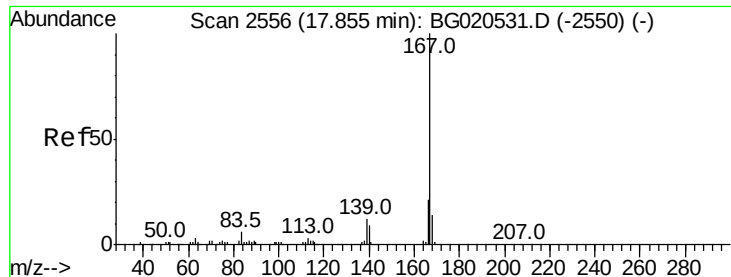


#72  
Anthracene  
Concen: 24.37 ng/ul  
RT: 17.59 min Scan# 2511  
Delta R.T. 0.01 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 16.4  | 12.3  | 18.5  |
| 176     | 18.3  | 14.3  | 21.5  |







#75

Carbazole

Concen: 4.88 ng/ul

RT: 17.86 min Scan# 2557

Delta R.T. 0.01 min

Lab File: BG020540.D

Acq: 26 Dec 2015 14:50

Instrument :

BNA\_G

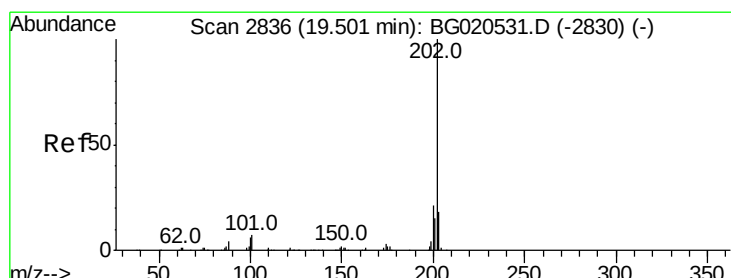
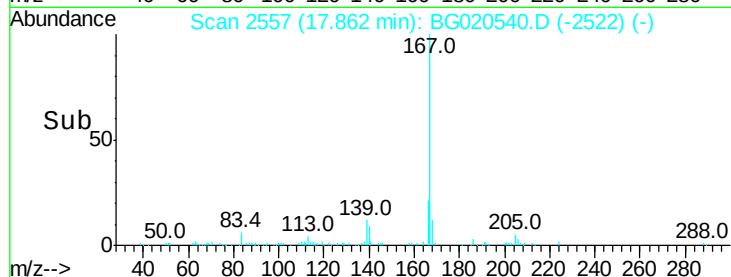
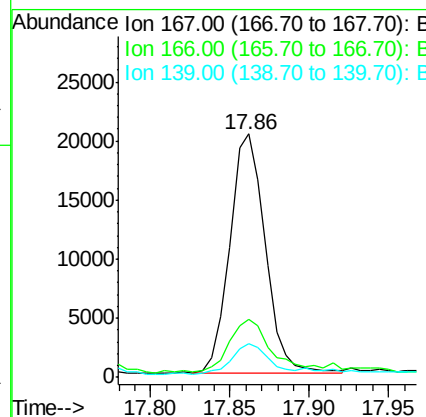
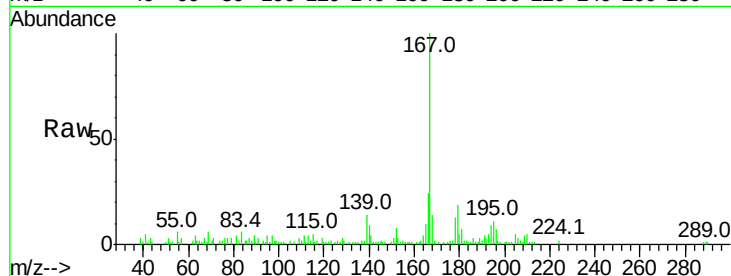
ClientSampleId :

G9D94

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 167   | Resp: | 31378 |
| Ion Ratio | Lower | Upper |       |
| 167       | 100   |       |       |
| 166       | 23.8  | 17.0  | 25.6  |
| 139       | 13.8  | 10.1  | 15.1  |

Manual Integrations  
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#77

Fluoranthene

Concen: 182.97 ng/ul m

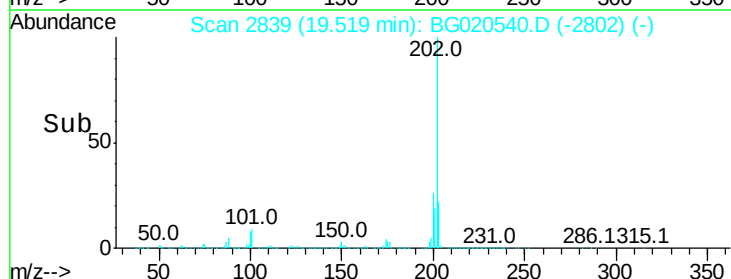
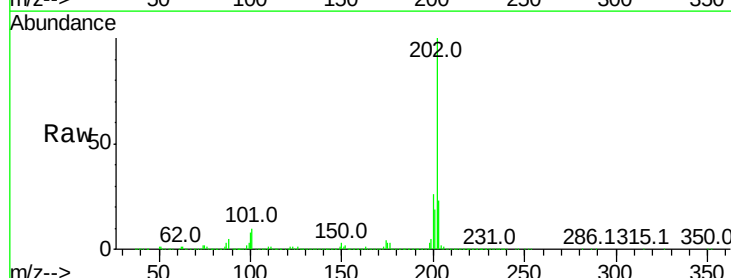
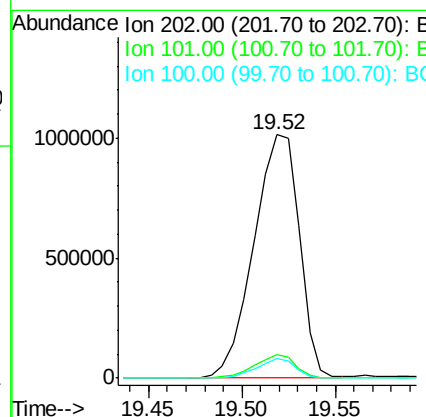
RT: 19.52 min Scan# 2839

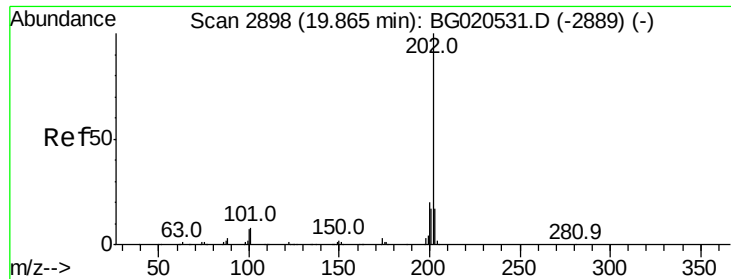
Delta R.T. 0.02 min

Lab File: BG020540.D

Acq: 26 Dec 2015 14:50

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 1715667 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 9.8   | 6.2   | 9.4#    |
| 100       | 8.0   | 5.1   | 7.7#    |





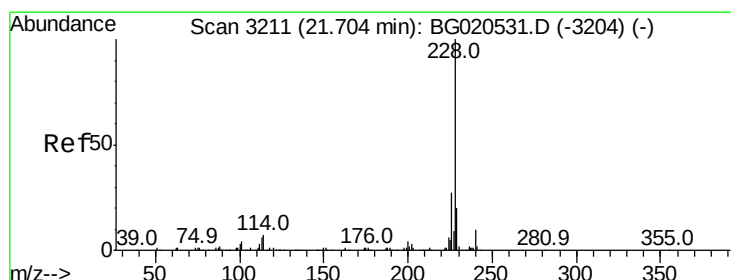
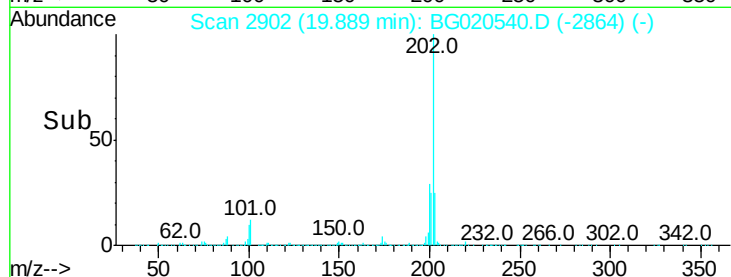
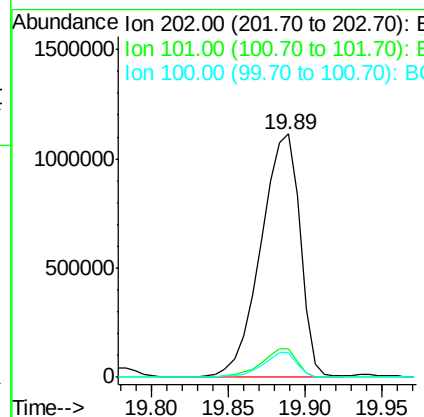
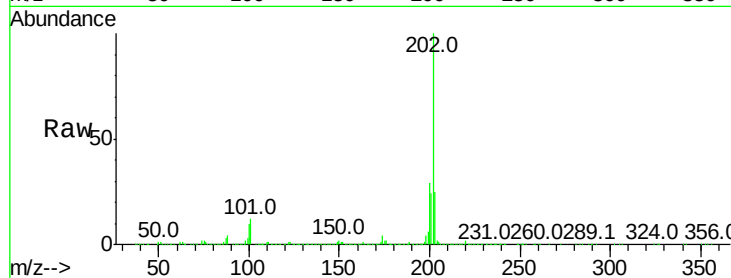
#80  
Pvrene  
Concen: 213.11 ng/ul m  
RT: 19.89 min Scan# 2902  
Delta R.T. 0.02 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 11.7  | 7.0   | 10.4# |
| 100     | 10.0  | 6.4   | 9.6#  |

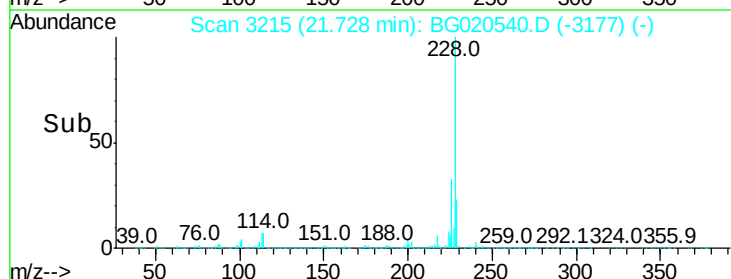
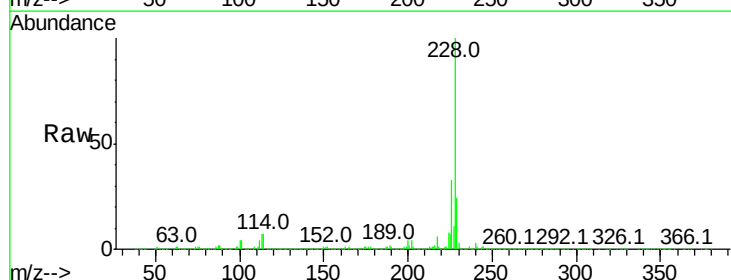
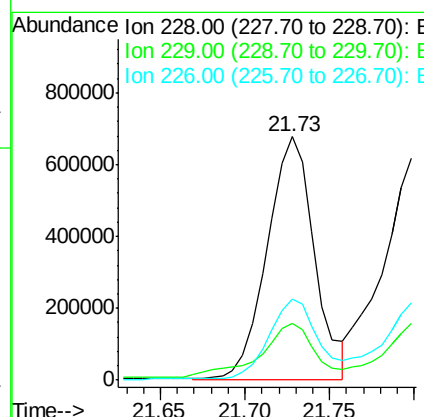
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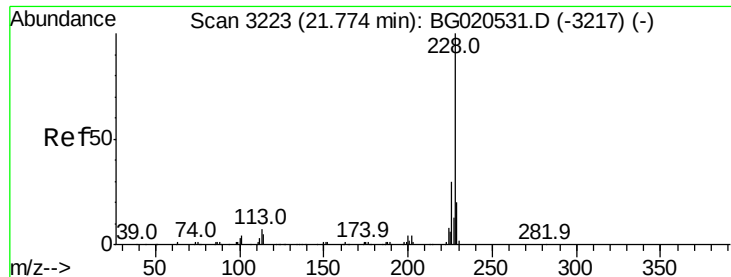
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#83  
Benzo(a)anthracene  
Concen: 134.91 ng/ul  
RT: 21.73 min Scan# 3215  
Delta R.T. 0.02 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 23.6  | 15.8  | 23.8  |
| 226     | 33.4  | 21.8  | 32.6# |





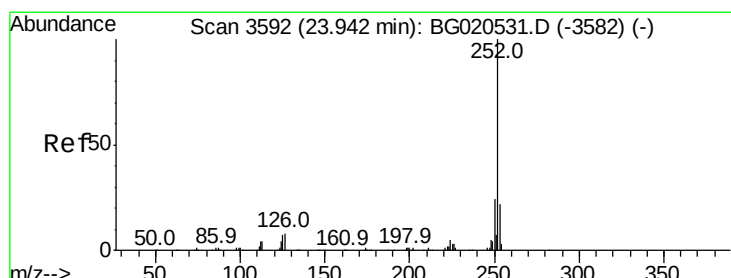
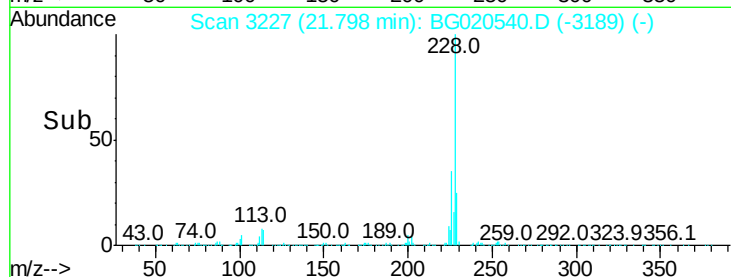
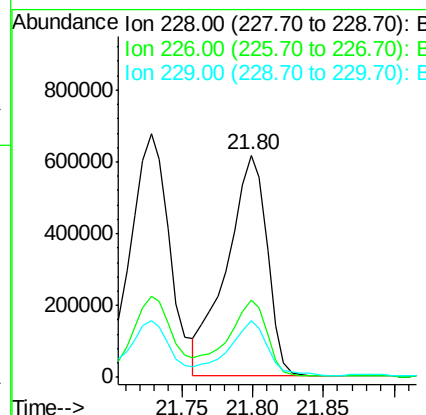
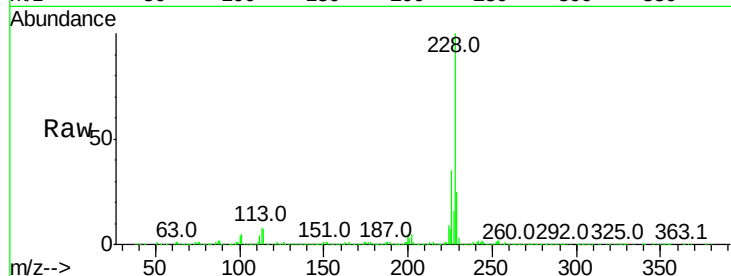
#85  
Chrysene  
Concen: 132.68 ng/ul  
RT: 21.80 min Scan# 3227  
Delta R.T. 0.02 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 35.0  | 23.9  | 35.9  |
| 229     | 25.3  | 15.6  | 23.4  |

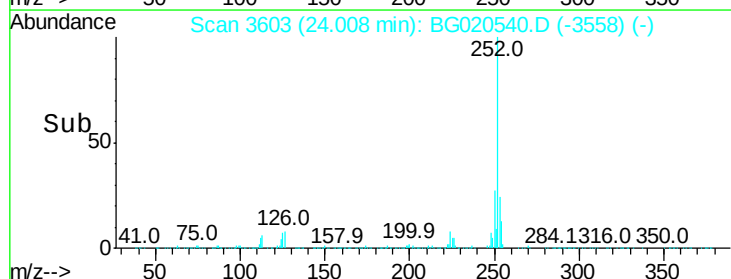
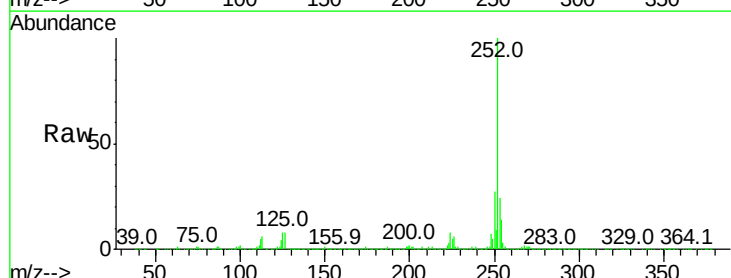
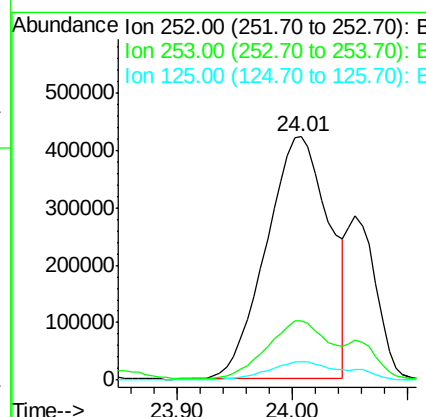
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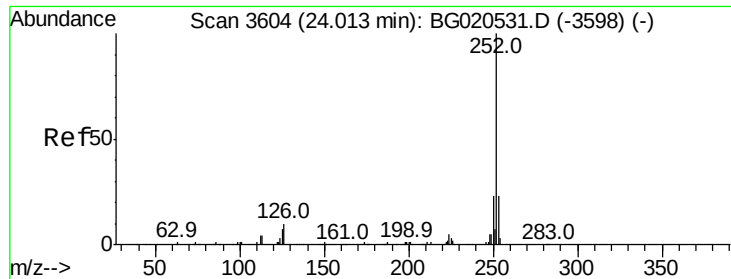
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#88  
Benzo(b)fluoranthene  
Concen: 155.75 ng/ul  
RT: 24.01 min Scan# 3603  
Delta R.T. 0.07 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.3  | 16.7  | 25.1  |
| 125     | 7.5   | 6.2   | 9.2   |





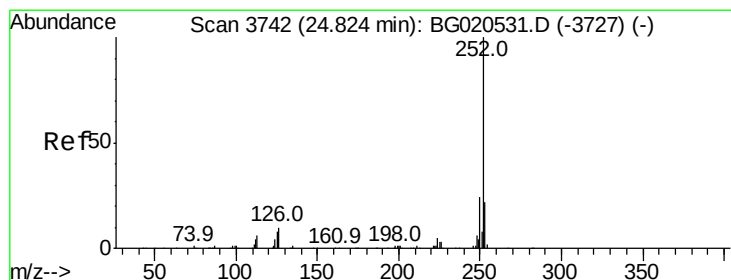
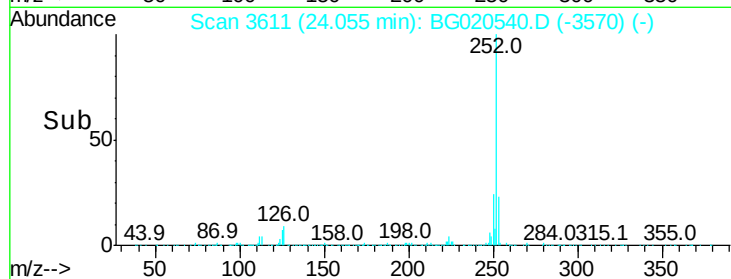
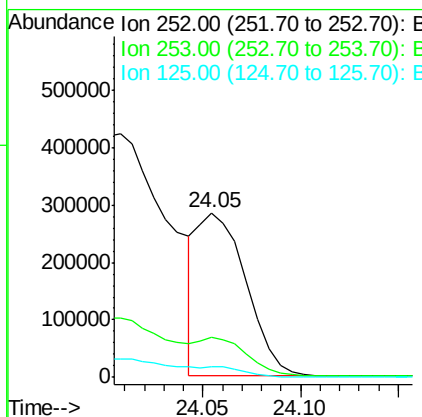
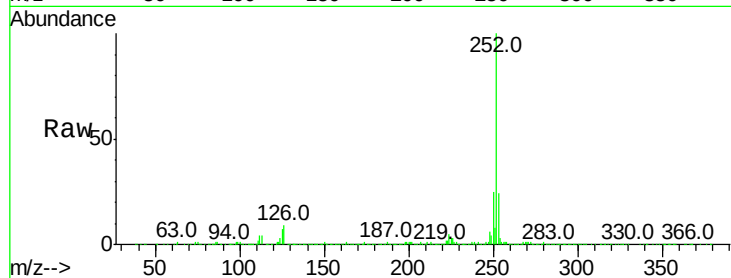
#89  
Benzo(k)fluoranthene  
Concen: 49.39 ng/ul  
RT: 24.05 min Scan# 3611  
Delta R.T. 0.04 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

Instrument :  
BNA\_G  
ClientSampleId :  
G9D94

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 252     | 100   | 490385 |       |       |
| 253     | 24.4  |        | 17.9  | 26.9  |
| 125     | 6.8   |        | 5.8   | 8.6   |

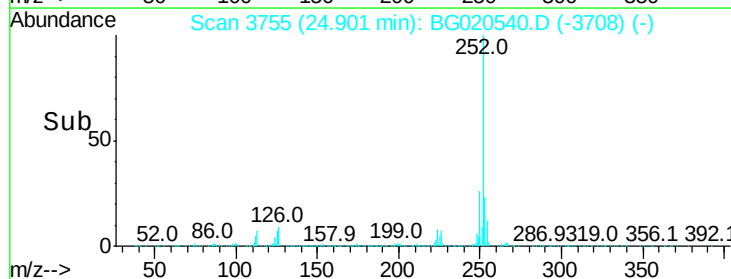
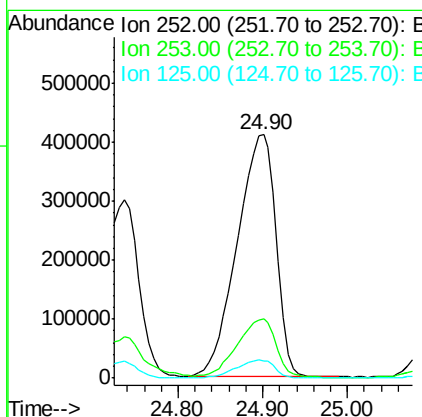
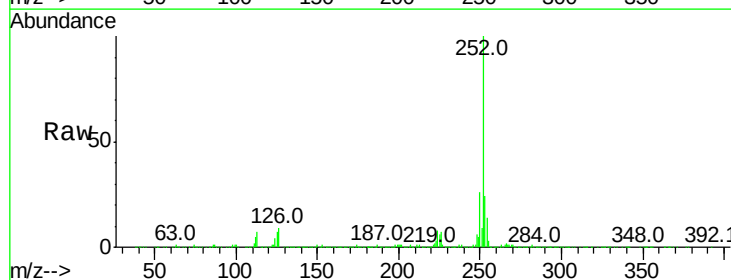
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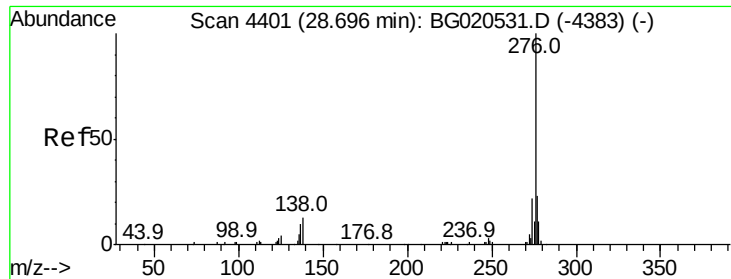
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#91  
Benzo(a)pyrene  
Concen: 133.19 ng/ul  
RT: 24.90 min Scan# 3755  
Delta R.T. 0.08 min  
Lab File: BG020540.D  
Acq: 26 Dec 2015 14:50

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 252     | 100   | 1314914 |       |       |
| 253     | 24.1  |         | 17.0  | 25.4  |
| 125     | 7.1   |         | 6.2   | 9.4   |





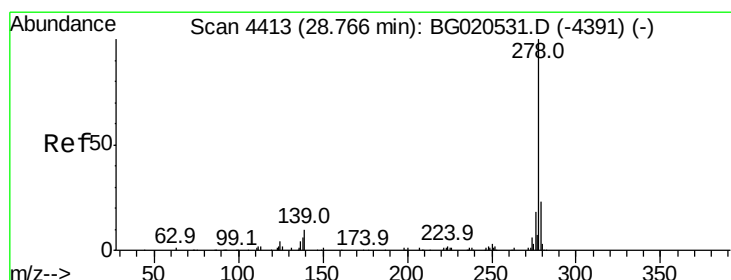
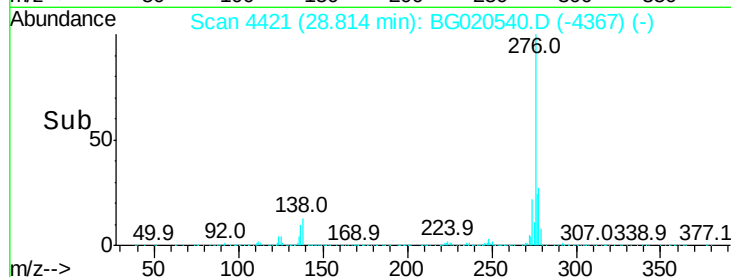
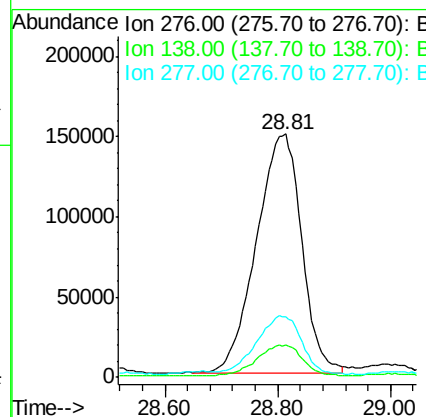
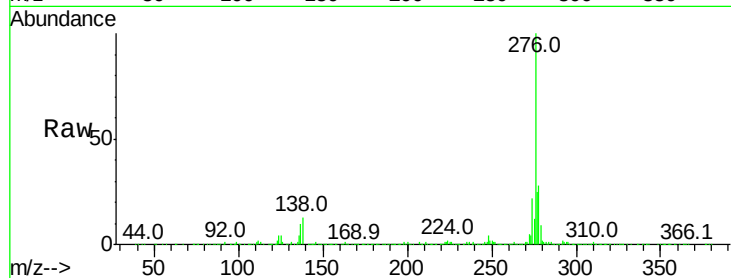
#92  
 Indeno(1,2,3-cd)pyrene  
 Concen: 69.84 ng/ul  
 RT: 28.81 min Scan# 4421  
 Delta R.T. 0.12 min  
 Lab File: BG020540.D  
 Acq: 26 Dec 2015 14:50

Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D94

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 13.2  | 11.4  | 17.0  |
| 277     | 24.8  | 17.4  | 26.0  |

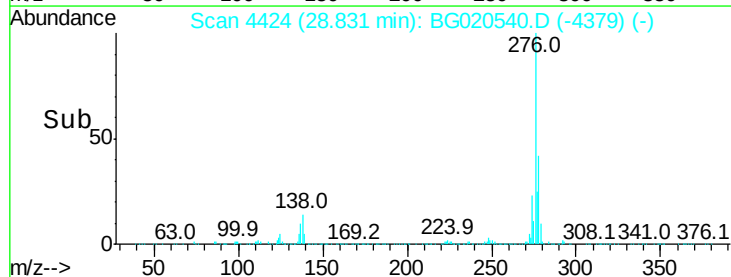
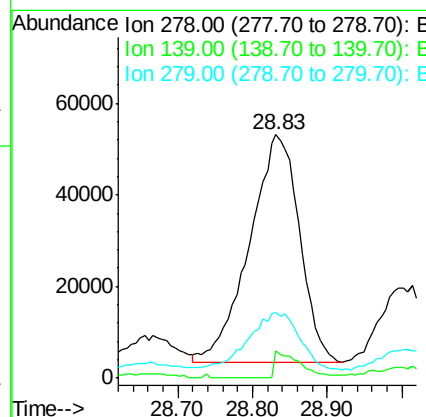
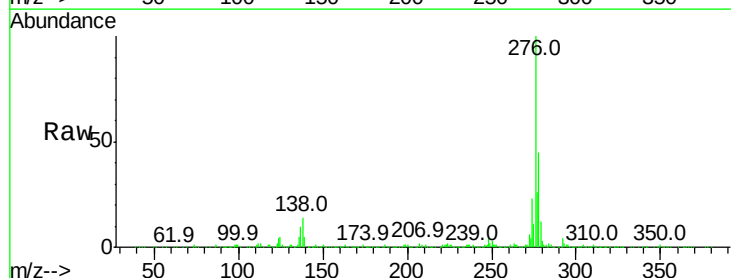
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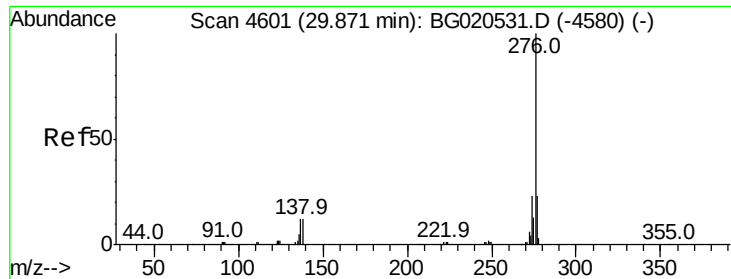
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#93  
 Dibenzo(a,h)anthracene  
 Concen: 23.43 ng/ul  
 RT: 28.83 min Scan# 4424  
 Delta R.T. 0.07 min  
 Lab File: BG020540.D  
 Acq: 26 Dec 2015 14:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 11.2  | 9.4   | 14.2  |
| 279     | 26.9  | 19.4  | 29.0  |





#94  
 Benzo(a,h,i)perylene  
 Concen: 82.05 ng/ul  
 RT: 29.99 min Scan# 4622  
 Delta R.T. 0.12 min  
 Lab File: BG020540.D  
 Acq: 26 Dec 2015 14:50

Instrument :  
 BNA\_G  
 ClientSampleId :  
 G9D94

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 276  | Resp: | 796837 |
| Ion Ratio |      | Lower | Upper  |
| 276       | 100  |       |        |
| 138       | 13.0 | 10.8  | 16.2   |
| 277       | 25.4 | 19.9  | 29.9   |

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