

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM081016\  
 Data File : BM007006.D  
 Acq On : 10 Aug 2016 18:47  
 Operator : UM/SJ  
 Sample : H4301-04MSD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 DA0E5MSD

Manual Integrations  
 APPROVED

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 8/10/2016 8:15:28 PM

Quant Time: Aug 10 19:37:54 2016  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM080916.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Wed Aug 10 01:30:54 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.82  | 152  | 334248   | 20.00 | ng/ul | 0.00     |
| 7) Naphthalene-d8         | 10.60 | 136  | 1496822  | 20.00 | ng/ul | 0.00     |
| 15) Acenaphthene-d10      | 14.45 | 164  | 904720   | 20.00 | ng/ul | 0.00     |
| 23) Phenanthrene-d10      | 17.19 | 188  | 2140242  | 20.00 | ng/ul | 0.00     |
| 29) Chrysene-d12          | 21.37 | 240  | 2330552  | 20.00 | ng/ul | 0.00     |
| 34) Perylene-d12          | 23.65 | 264  | 2008976  | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 2) 1,4-Dioxane-d8              | 3.33  | 96  | 12601   | 1.72  | ng/uL | 0.00 |
| 3) Phenol-d5                   | 6.98  | 99  | 517745  | 17.40 | ng/ul | 0.00 |
| 4) Bis-(2-Chloroethyl)ether-d  | 7.15  | 67  | 320381  | 19.27 | ng/ul | 0.00 |
| 5) 2-Chlorophenol-d4           | 7.35  | 132 | 424224  | 18.80 | ng/ul | 0.00 |
| 6) 4-Methylphenol-d8           | 8.52  | 113 | 340831  | 13.53 | ng/ul | 0.00 |
| 8) Nitrobenzene-d5             | 8.97  | 128 | 218364  | 19.10 | ng/ul | 0.00 |
| 9) 2-Nitrophenol-d4            | 9.69  | 143 | 235711  | 18.00 | ng/ul | 0.00 |
| 10) 2,4-Dichlorophenol-d3      | 10.22 | 165 | 474289  | 18.55 | ng/ul | 0.00 |
| 12) 4-Chloroaniline-d4         | 10.74 | 131 | 372560  | 12.46 | ng/ul | 0.00 |
| 16) Dimethylphthalate-d6       | 13.86 | 166 | 1561804 | 20.20 | ng/ul | 0.00 |
| 17) Acenaphthylene-d8          | 14.14 | 160 | 1928926 | 21.30 | ng/ul | 0.00 |
| 20) 4-Nitrophenol-d4           | 14.63 | 143 | 182479  | 13.15 | ng/ul | 0.00 |
| 21) Fluorene-d10               | 15.44 | 176 | 1367235 | 20.80 | ng/ul | 0.00 |
| 24) 4,6-Dinitro-2-methylphenol | 15.55 | 200 | 145096  | 12.51 | ng/ul | 0.00 |
| 26) Anthracene-d10             | 17.29 | 188 | 2115821 | 21.22 | ng/ul | 0.00 |
| 30) Pyrene-d10                 | 19.58 | 212 | 2454549 | 23.16 | ng/ul | 0.00 |
| 37) Benzo(a)pyrene-d12         | 23.51 | 264 | 1961344 | 21.24 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |       |       | Qvalue |
|----------------------------|-------|-----|---------|-------|-------|--------|
| 18) Acenaphthylene         | 14.17 | 152 | 150989  | 1.61  | ng/ul | 99     |
| 19) Acenaphthene           | 14.52 | 153 | 1291742 | 21.35 | ng/ul | 99     |
| 25) Phenanthrene           | 17.23 | 178 | 1638285 | 14.29 | ng/ul | 99     |
| 27) Anthracene             | 17.33 | 178 | 307951  | 2.60  | ng/ul | 99     |
| 28) Fluoranthene           | 19.25 | 202 | 3888339 | 26.92 | ng/ul | 97     |
| 31) Pyrene                 | 19.62 | 202 | 6007221 | 44.43 | ng/ul | 98     |
| 32) Benzo(a)anthracene     | 21.36 | 228 | 2368871 | 17.26 | ng/ul | 98     |
| 33) Chrysene               | 21.41 | 228 | 2238041 | 17.97 | ng/ul | 97     |
| 35) Benzo(b)fluoranthene   | 22.97 | 252 | 2950206 | 23.64 | ng/ul | 98     |
| 36) Benzo(k)fluoranthene   | 23.01 | 252 | 934512m | 7.93  | ng/ul |        |
| 38) Benzo(a)pyrene         | 23.55 | 252 | 1879073 | 16.37 | ng/ul | 98     |
| 39) Indeno(1,2,3-cd)pyrene | 25.95 | 276 | 1261545 | 11.08 | ng/ul | 97     |
| 40) Dibenzo(a,h)anthracene | 25.96 | 278 | 368740m | 3.91  | ng/ul |        |
| 41) Benzo(g,h,i)perylene   | 26.66 | 276 | 1148446 | 12.27 | ng/ul | 99     |

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

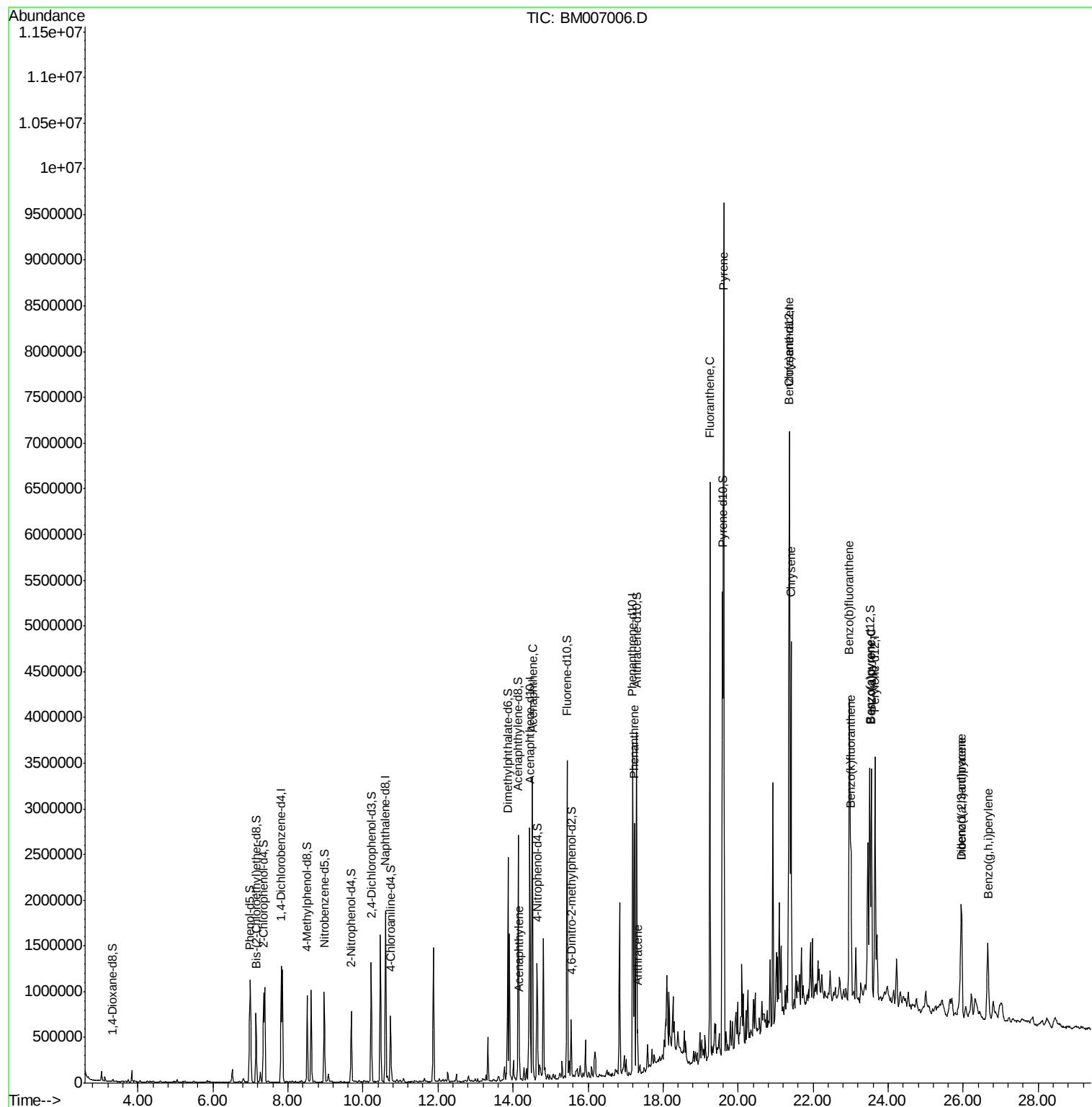
Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM081016\  
Data File : BM007006.D  
Acq On : 10 Aug 2016 18:47  
Operator : UM/SJ  
Sample : H4301-04MSD  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

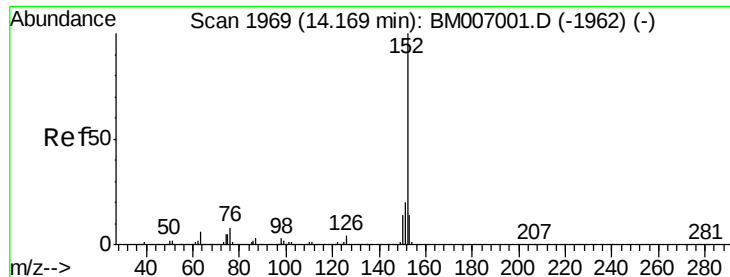
Instrument :  
BNA\_M  
ClientSampleId :  
DA0E5MSD

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Quant Time: Aug 10 19:37:54 2016  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM080916.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Wed Aug 10 01:30:54 2016  
Response via : Initial Calibration





#18

Acenaphthylene

Concen: 1.61 ng/ul

RT: 14.17 min Scan# 1969

Delta R.T. -0.01 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

Instrument :

BNA\_M

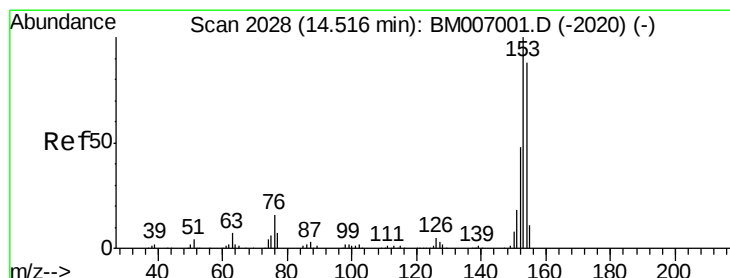
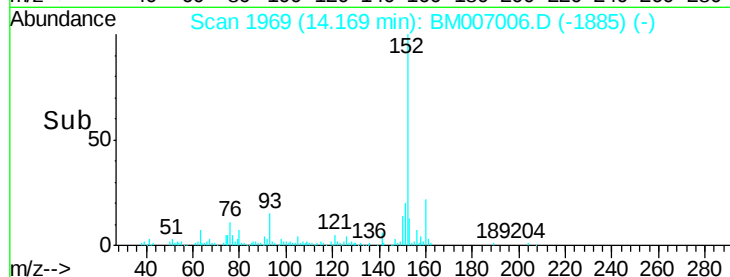
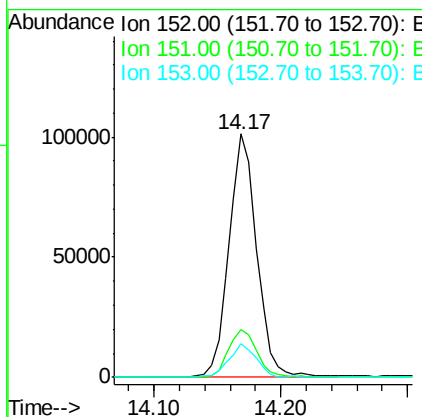
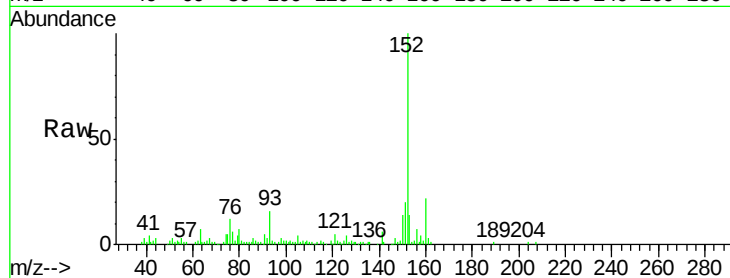
ClientSampleId :

DA0E5MSD

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 150989 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 151       | 19.6  | 16.1  | 24.1   |
| 153       | 13.8  | 10.4  | 15.6   |

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#19

Acenaphthene

Concen: 21.35 ng/ul

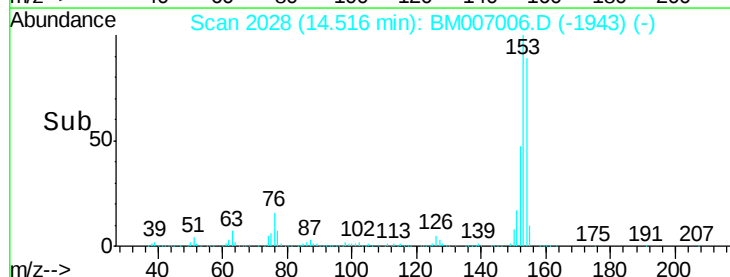
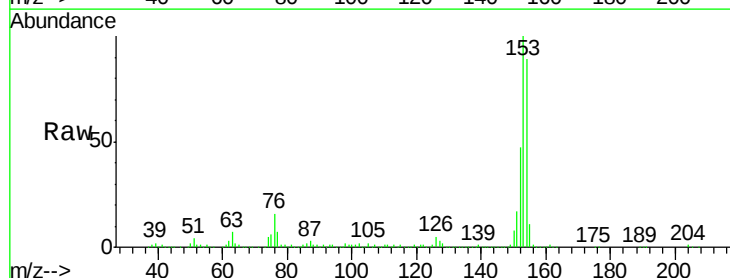
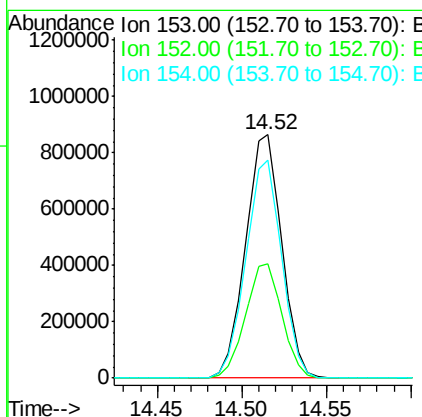
RT: 14.52 min Scan# 2028

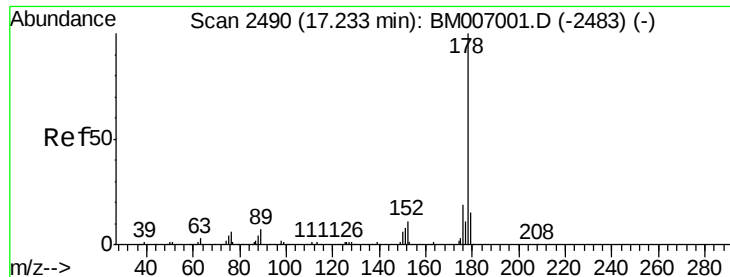
Delta R.T. 0.00 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 153   | Resp: | 1291742 |
| Ion Ratio | Lower | Upper |         |
| 153       | 100   |       |         |
| 152       | 47.0  | 37.0  | 55.6    |
| 154       | 89.4  | 70.9  | 106.3   |





#25

Phenanthrene

Concen: 14.29 ng/ul

RT: 17.23 min Scan# 2490

Delta R.T. -0.01 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

Instrument :

BNA\_M

ClientSampled :

DA0E5MSD

Tgt Ion:178 Resp: 1638285

Ion Ratio Lower Upper

178 100

179 15.2 12.2 18.2

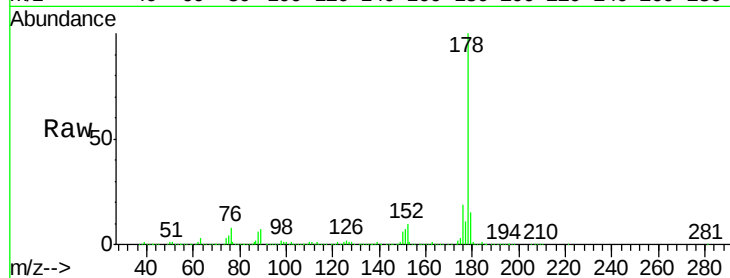
176 18.6 15.2 22.8

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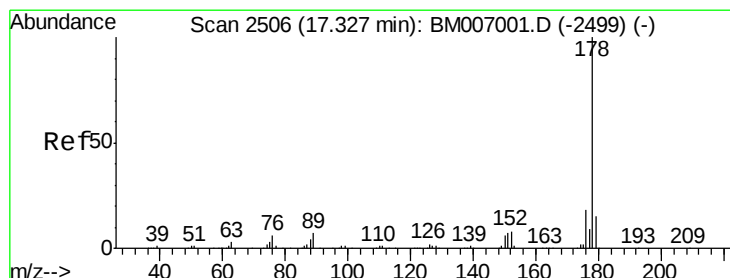
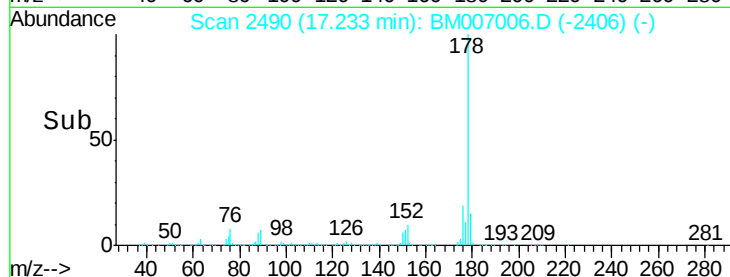
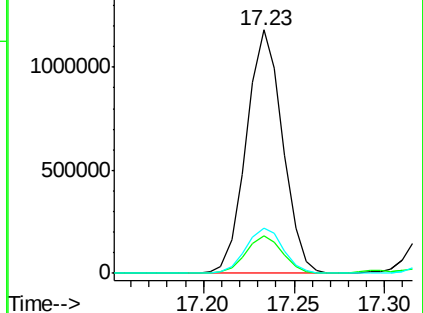
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Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E



#27

Anthracene

Concen: 2.60 ng/ul

RT: 17.33 min Scan# 2506

Delta R.T. 0.00 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

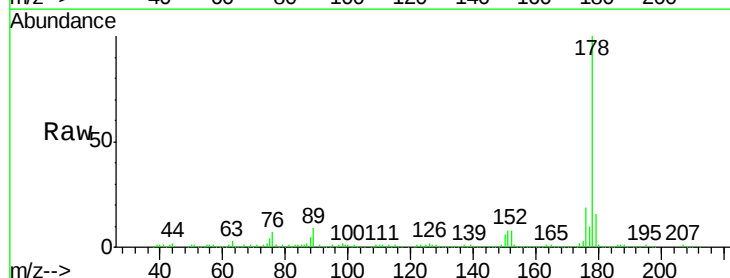
Tgt Ion:178 Resp: 307951

Ion Ratio Lower Upper

178 100

179 15.8 12.5 18.7

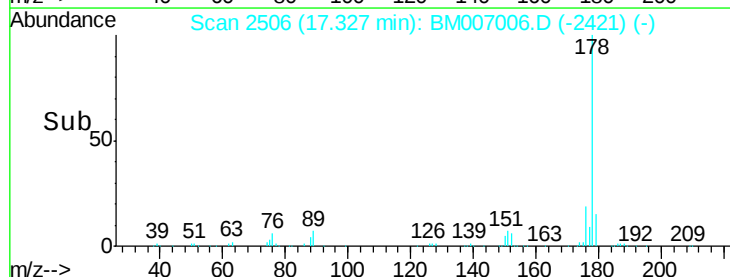
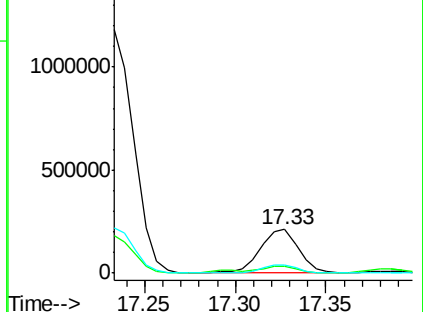
176 19.4 15.0 22.4

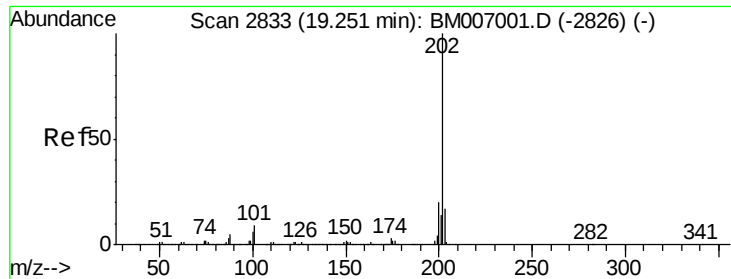


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 179.00 (178.70 to 179.70): E

Ion 176.00 (175.70 to 176.70): E





#28

Fluoranthene

Concen: 26.92 ng/ul

RT: 19.25 min Scan# 2833

Delta R.T. 0.00 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

Instrument :

BNA\_M

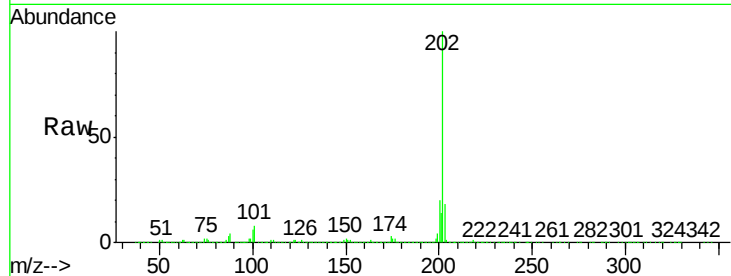
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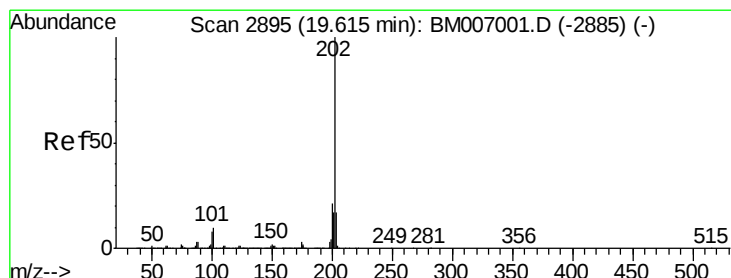
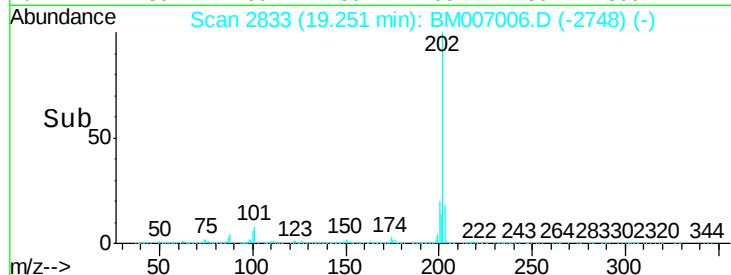
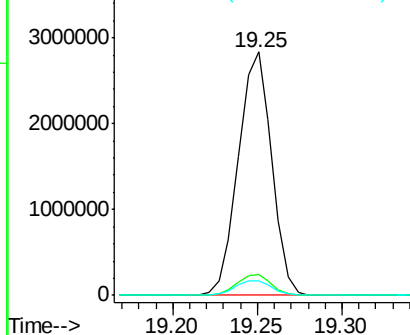
|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 3888339 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 8.4   | 7.4   | 11.2    |
| 100       | 6.2   | 5.8   | 8.6     |

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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



#31

Pyrene

Concen: 44.43 ng/ul

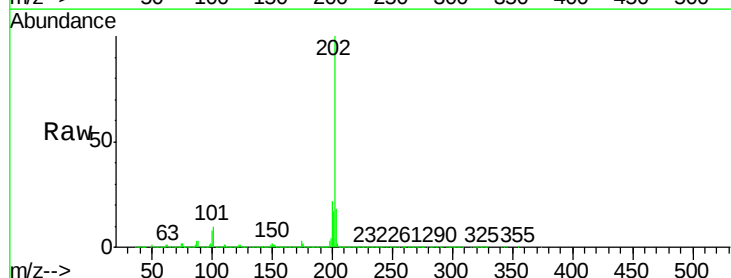
RT: 19.62 min Scan# 2895

Delta R.T. 0.00 min

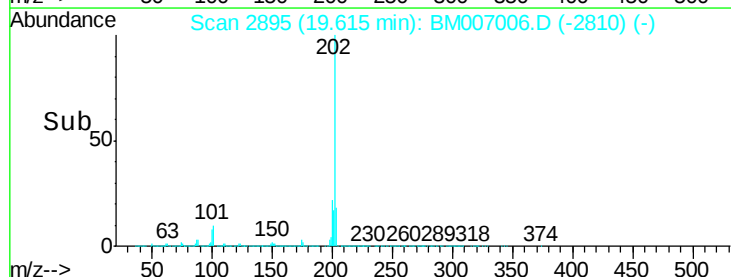
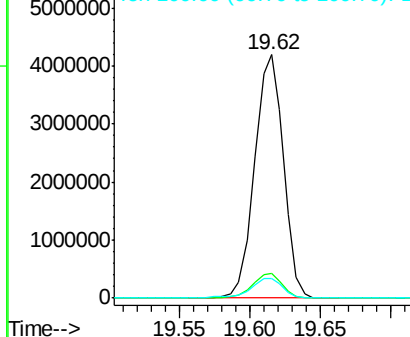
Lab File: BM007006.D

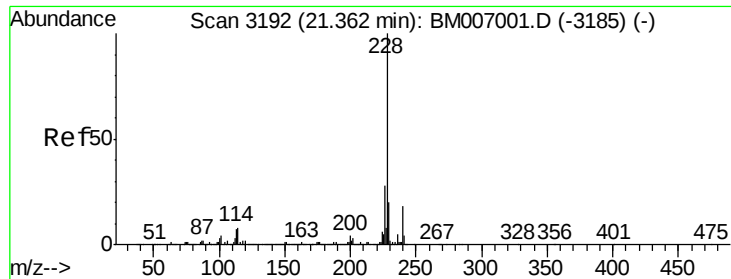
Acq: 10 Aug 2016 18:47

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 6007221 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 10.1  | 8.5   | 12.7    |
| 100       | 8.2   | 7.1   | 10.7    |



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





#32

Benzo(a)anthracene

Concen: 17.26 ng/ul

RT: 21.36 min Scan# 3191

Delta R.T. -0.01 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

Instrument :

BNA\_M

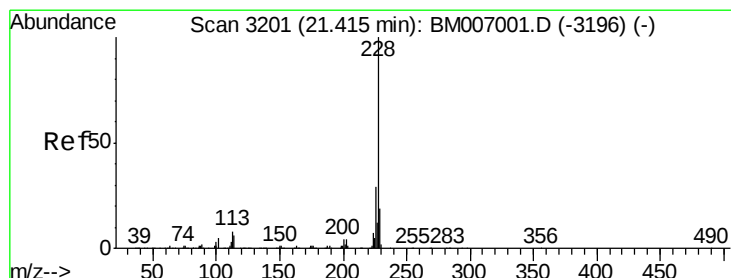
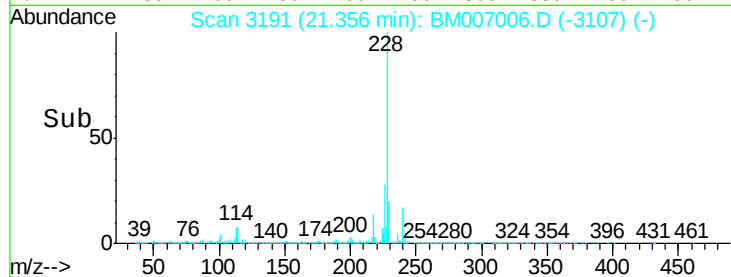
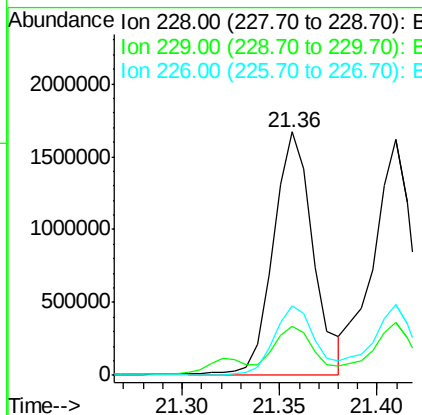
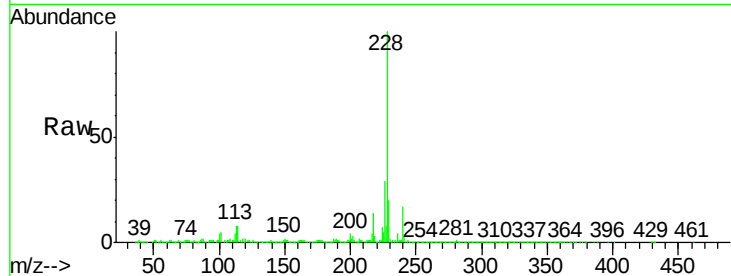
ClientSampleId :

DA0E5MSD

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 228   | Resp: | 2368871 |
| Ion      | Ratio | Lower | Upper   |
| 228      | 100   |       |         |
| 229      | 20.3  | 15.8  | 23.6    |
| 226      | 28.7  | 21.9  | 32.9    |

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#33

Chrysene

Concen: 17.97 ng/ul

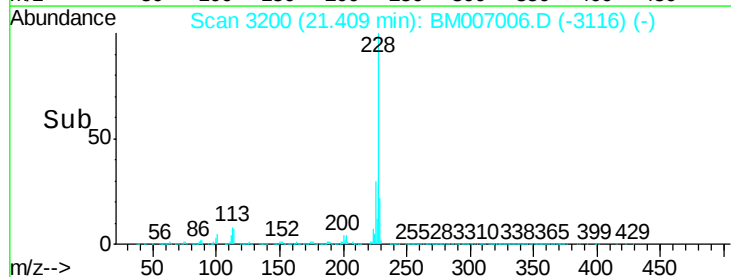
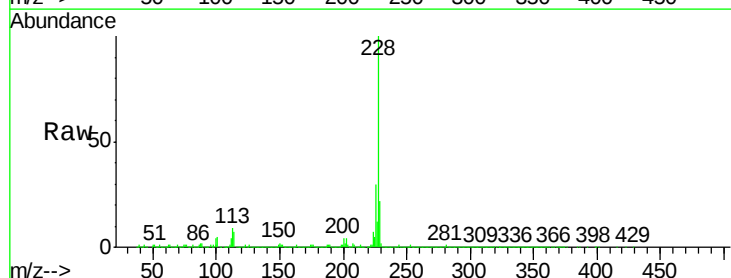
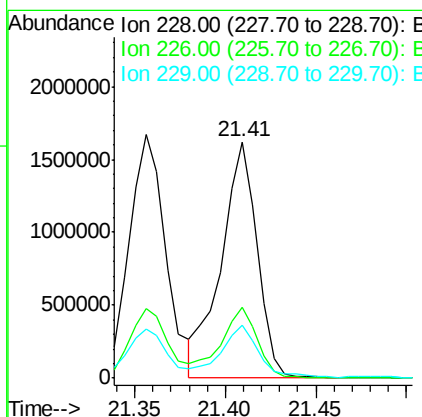
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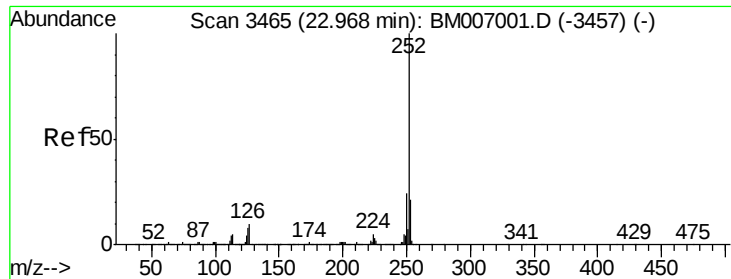
Delta R.T. -0.01 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 228   | Resp: | 2238041 |
| Ion      | Ratio | Lower | Upper   |
| 228      | 100   |       |         |
| 226      | 29.8  | 24.2  | 36.4    |
| 229      | 22.3  | 15.9  | 23.9    |





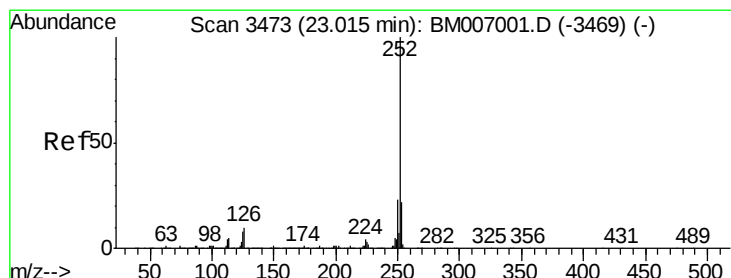
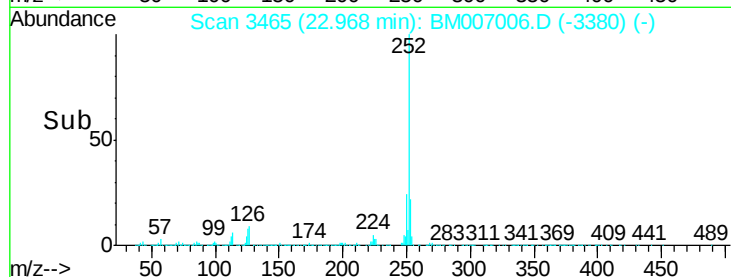
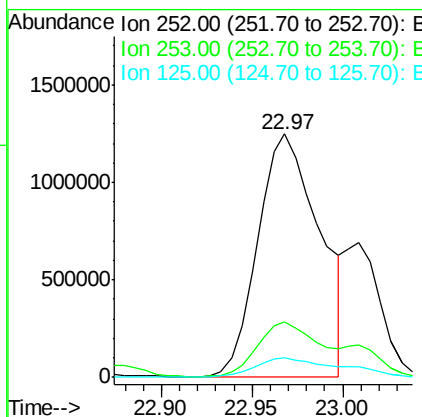
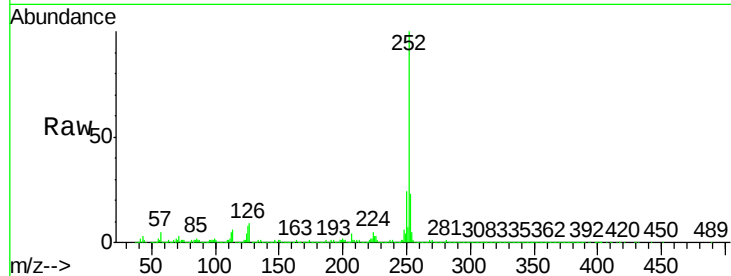
#35  
Benzo(b)fluoranthene  
Concen: 23.64 ng/ul  
RT: 22.97 min Scan# 3465  
Delta R.T. 0.00 min  
Lab File: BM007006.D  
Acq: 10 Aug 2016 18:47

Instrument :  
BNA\_M  
ClientSampleId :  
DA0E5MSD

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.8  | 17.4  | 26.2  |
| 125     | 8.1   | 6.0   | 9.0   |

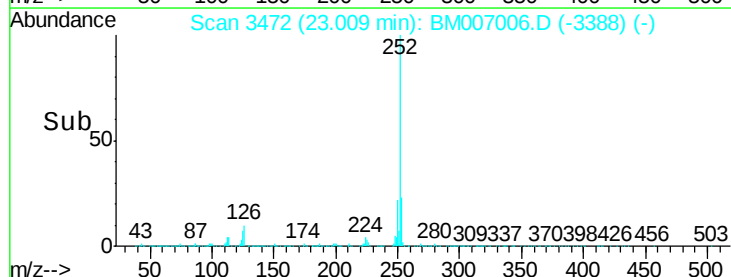
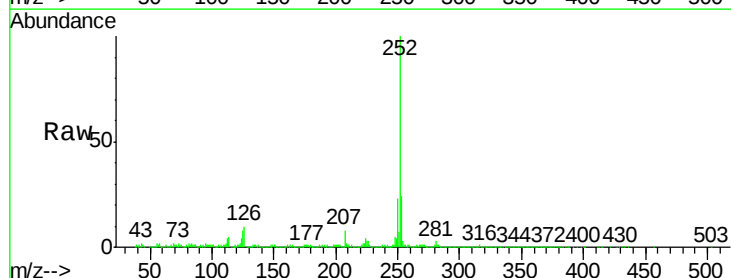
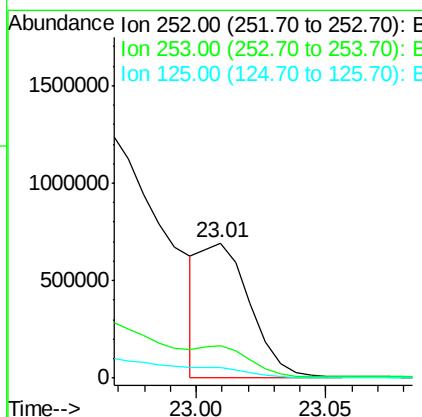
Manual Integrations  
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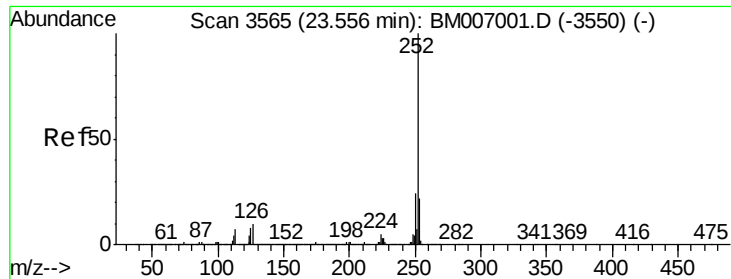
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8/10/2016 8:15:28 PM



#36  
Benzo(k)fluoranthene  
Concen: 7.93 ng/ul m  
RT: 23.01 min Scan# 3472  
Delta R.T. -0.01 min  
Lab File: BM007006.D  
Acq: 10 Aug 2016 18:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.5  | 17.8  | 26.6  |
| 125     | 7.6   | 6.2   | 9.4   |





#38

Benzo(a)pyrene

Concen: 16.37 ng/ul

RT: 23.55 min Scan# 3564

Delta R.T. -0.01 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

Instrument :

BNA\_M

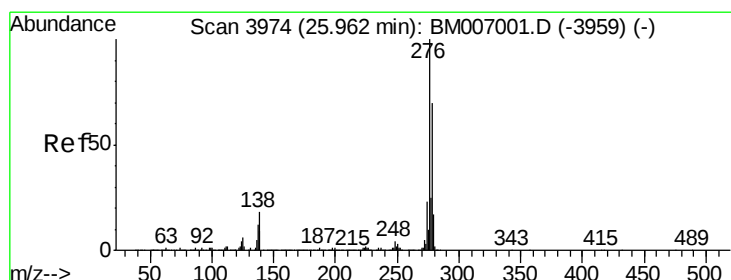
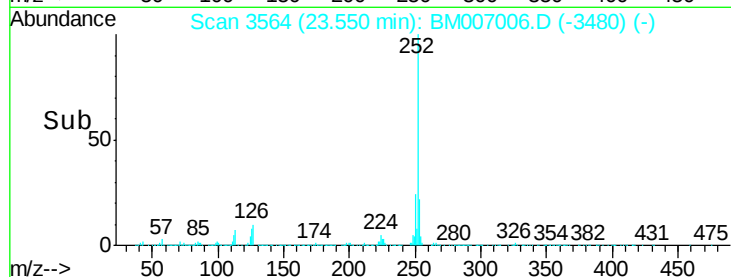
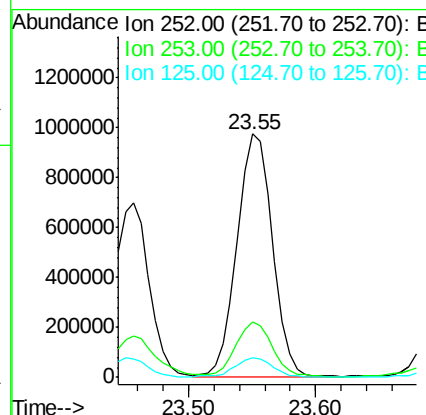
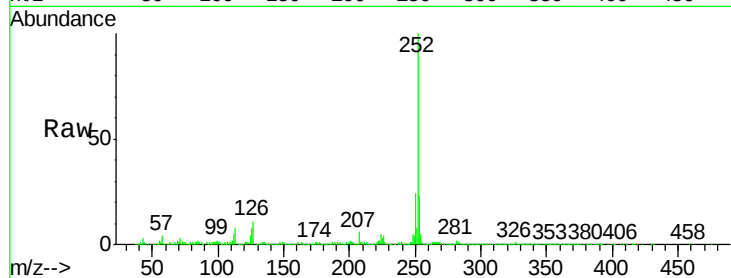
ClientSampleId :

DA0E5MSD

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 252   | Resp: | 1879073 |
| Ion Ratio | Lower | Upper |         |
| 252       | 100   |       |         |
| 253       | 23.0  | 17.7  | 26.5    |
| 125       | 8.2   | 6.8   | 10.2    |

Manual Integrations  
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#39

Indeno(1,2,3-cd)pyrene

Concen: 11.08 ng/ul

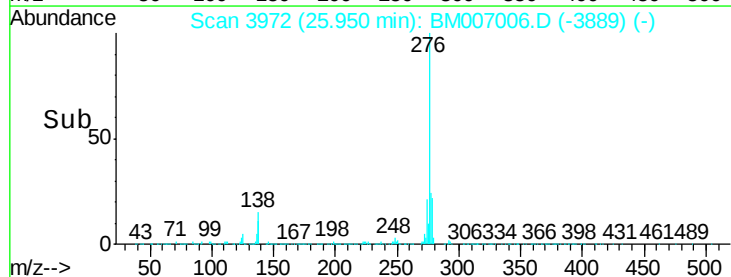
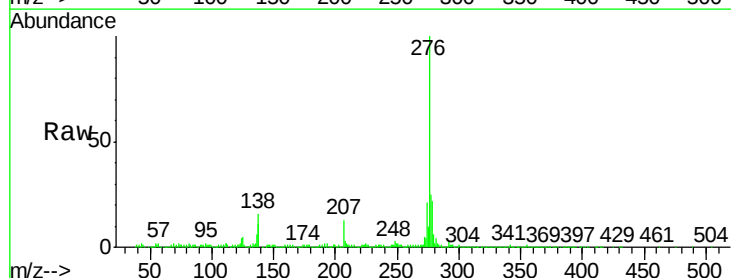
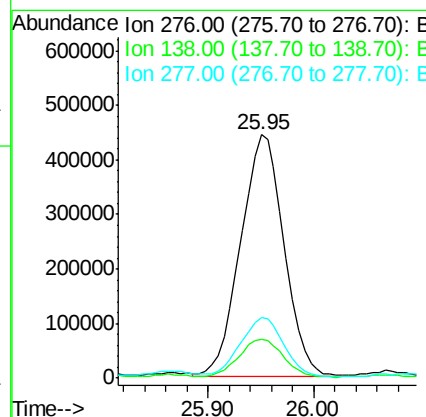
RT: 25.95 min Scan# 3972

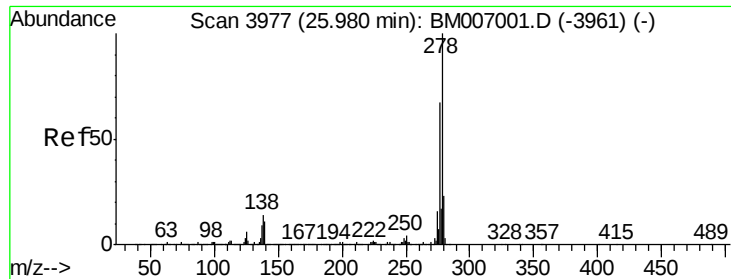
Delta R.T. -0.01 min

Lab File: BM007006.D

Acq: 10 Aug 2016 18:47

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 276   | Resp: | 1261545 |
| Ion Ratio | Lower | Upper |         |
| 276       | 100   |       |         |
| 138       | 15.9  | 14.9  | 22.3    |
| 277       | 25.0  | 19.8  | 29.6    |





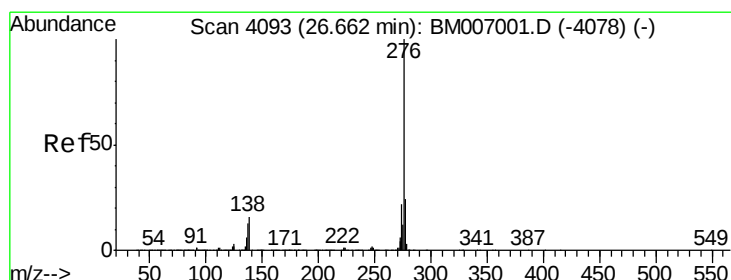
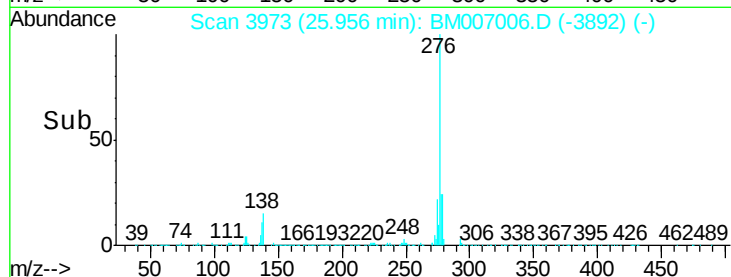
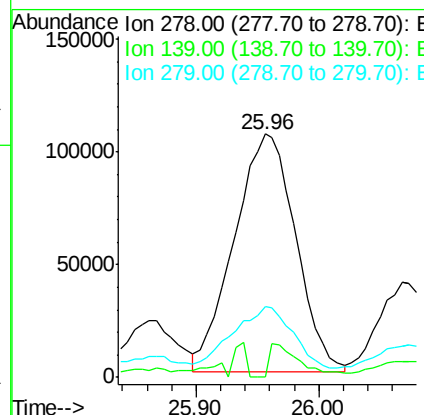
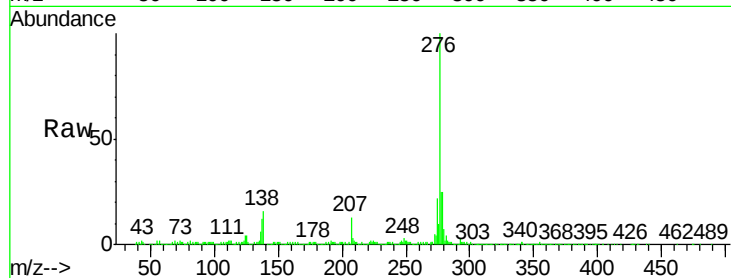
#40  
Dibenzo(a,h)anthracene  
Concen: 3.91 ng/ul m  
RT: 25.96 min Scan# 3973  
Delta R.T. -0.02 min  
Lab File: BM007006.D  
Acq: 10 Aug 2016 18:47

Instrument :  
BNA\_M  
ClientSampled :  
DA0E5MSD

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 0.0   | 10.3  | 15.5# |
| 279     | 29.1  | 18.8  | 28.2# |

Manual Integrations  
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#41  
Benzo(g,h,i)perylene  
Concen: 12.27 ng/ul  
RT: 26.66 min Scan# 4092  
Delta R.T. -0.01 min  
Lab File: BM007006.D  
Acq: 10 Aug 2016 18:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 16.4  | 14.0  | 21.0  |
| 277     | 24.2  | 19.6  | 29.4  |

