

Data Path : Z:\HPCHEM1\BNA M\DATA\BM040717\  
 Data File : BM009593.D  
 Acq On : 06 Apr 2017 14:47  
 Operator : SJ/MA  
 Sample : I2524-05  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 CB325

Manual Integrations  
 APPROVED

mohammad  
 4/7/2017 2:10:05 PM

Quant Time: Apr 06 15:24:32 2017  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM-EPA-BM040417-PAH.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Thu Apr 06 10:55:00 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.84  | 152  | 131544   | 20.00 | ng/ul | 0.00     |
| 2) Naphthalene-d8           | 10.64 | 136  | 512581   | 20.00 | ng/ul | 0.00     |
| 6) Acenaphthene-d10         | 14.49 | 164  | 292173   | 20.00 | ng/ul | 0.00     |
| 12) Phenanthrene-d10        | 17.23 | 188  | 677845   | 20.00 | ng/ul | 0.00     |
| 18) Chrysene-d12            | 21.42 | 240  | 931766   | 20.00 | ng/ul | 0.00     |
| 23) Perylene-d12            | 23.74 | 264  | 893679   | 20.00 | ng/ul | 0.00     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 3) 2,4-Dichlorophenol-d3    | 10.25 | 165  | 90644    | 11.50 | ng/uL | 0.00     |
| 7) Acenaphthylene-d8        | 14.18 | 160  | 682475   | 23.83 | ng/ul | 0.00     |
| 10) Fluorene-d10            | 15.48 | 176  | 507755   | 24.65 | ng/ul | 0.00     |
| 15) Anthracene-d10          | 17.33 | 188  | 796543   | 24.56 | ng/ul | 0.00     |
| 19) Pyrene-d10              | 19.63 | 212  | 981913   | 25.64 | ng/ul | 0.00     |
| 26) Benzo(a)pyrene-d12      | 23.59 | 264  | 999253   | 25.32 | ng/ul | 0.00     |
| Target Compounds            |       |      |          |       |       |          |
|                             |       |      |          |       |       | Qvalue   |
| 4) Naphthalene              | 10.69 | 128  | 45471    | 1.73  | ng/ul | 96       |
| 5) 2-Methylnaphthalene      | 12.30 | 142  | 28545    | 1.49  | ng/ul | 95       |
| 8) Acenaphthylene           | 14.21 | 152  | 48947    | 1.70  | ng/ul | 96       |
| 9) Acenaphthene             | 14.55 | 153  | 52250    | 2.64  | ng/ul | 98       |
| 11) Fluorene                | 15.53 | 166  | 73799    | 3.06  | ng/ul | 99       |
| 14) Phenanthrene            | 17.27 | 178  | 1397649  | 36.67 | ng/ul | 98       |
| 16) Anthracene              | 17.37 | 178  | 291635   | 7.40  | ng/ul | 97       |
| 17) Fluoranthene            | 19.29 | 202  | 2299679  | 48.45 | ng/ul | 95       |
| 20) Pyrene                  | 19.66 | 202  | 2004189  | 39.50 | ng/ul | 95       |
| 21) Benzo(a)anthracene      | 21.40 | 228  | 1135801  | 21.56 | ng/ul | 98       |
| 22) Chrysene                | 21.45 | 228  | 1032244  | 21.38 | ng/ul | 97       |
| 24) Benzo(b)fluoranthene    | 23.04 | 252  | 1319443  | 23.87 | ng/ul | 98       |
| 25) Benzo(k)fluoranthene    | 23.07 | 252  | 553218m  | 10.51 | ng/ul |          |
| 27) Benzo(a)pyrene          | 23.64 | 252  | 974268m  | 18.54 | ng/ul |          |
| 28) Indeno(1,2,3-cd)pyrene  | 26.10 | 276  | 645781   | 10.96 | ng/ul | 95       |
| 29) Dibenzo(a,h)anthracene  | 26.10 | 278  | 176826   | 3.53  | ng/ul | 95       |
| 30) Benzo(a,h,i)perylene    | 26.83 | 276  | 558224   | 11.49 | ng/ul | 94       |

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

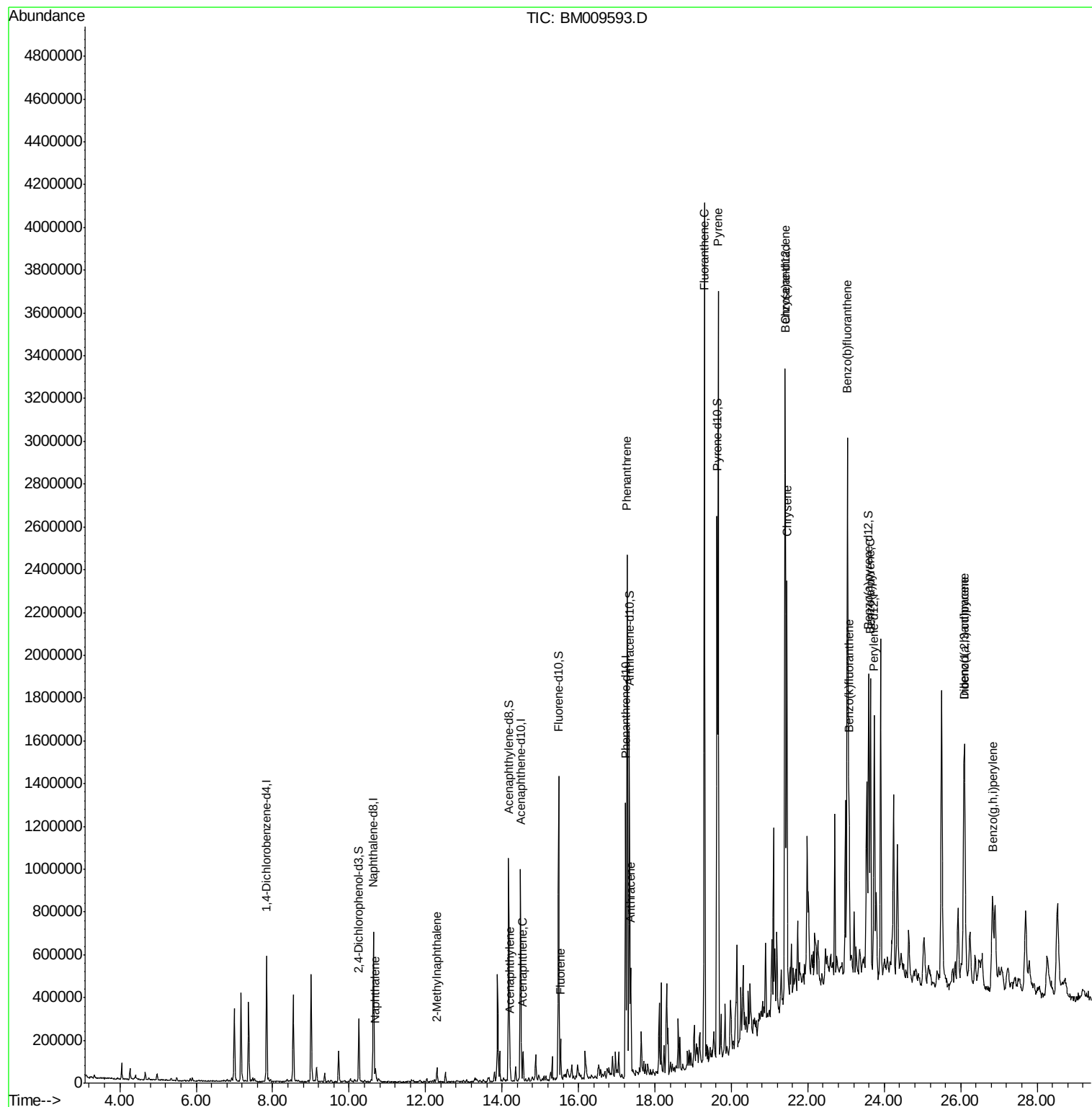
Data Path : Z:\HPCHEM1\BNA M\DATA\BM040717\  
Data File : BM009593.D  
Acq On : 06 Apr 2017 14:47  
Operator : SJ/MA  
Sample : I2524-05  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

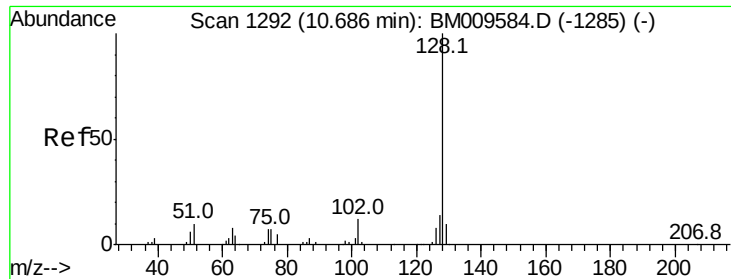
Instrument :  
BNA\_M  
ClientSampleId :  
CB325

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Quant Time: Apr 06 15:24:32 2017  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM-EPA-BM040417-PAH.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Thu Apr 06 10:55:00 2017  
Response via : Initial Calibration





#4

Naphthalene

Concen: 1.73 ng/ul

RT: 10.69 min Scan# 1292

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

Instrument :

BNA\_M

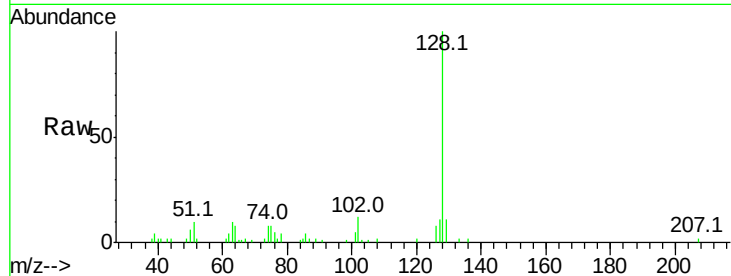
ClientSampled :

CB325

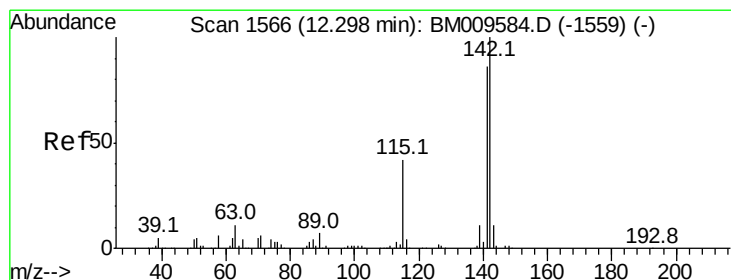
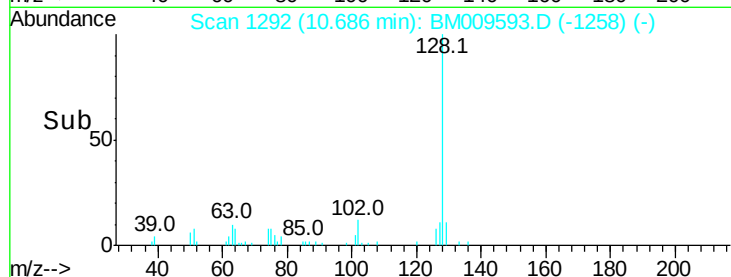
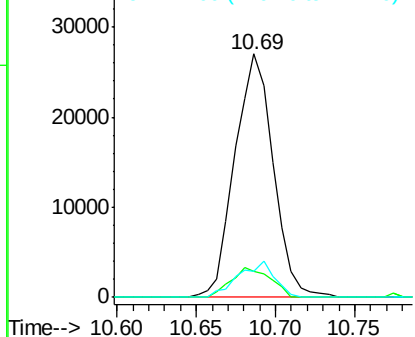
|             |       |       |
|-------------|-------|-------|
| Tot Ion:128 | Resp: | 45471 |
| Ion Ratio   | Lower | Upper |
| 128 100     |       |       |
| 129 10.9    | 9.1   | 13.7  |
| 127 10.7    | 10.6  | 15.8  |

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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



#5

2-Methylnaphthalene

Concen: 1.49 ng/ul

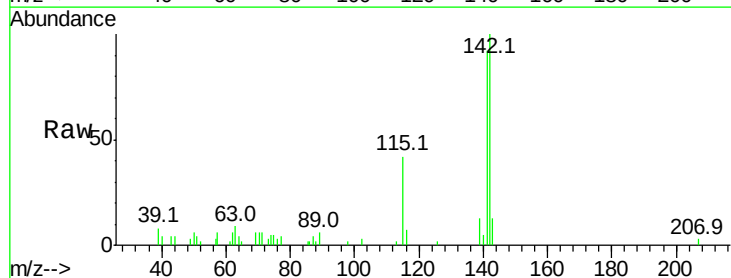
RT: 12.30 min Scan# 1566

Delta R.T. 0.00 min

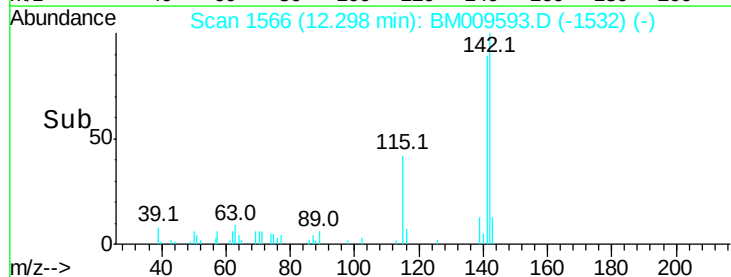
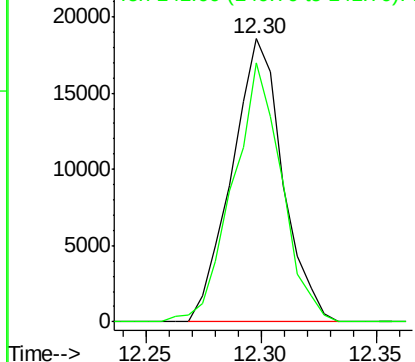
Lab File: BM009593.D

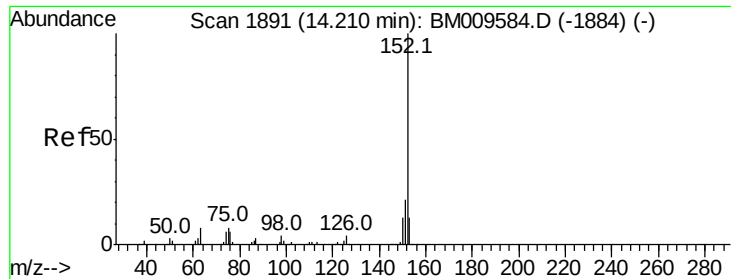
Acq: 06 Apr 2017 14:47

|             |       |       |
|-------------|-------|-------|
| Tgt Ion:142 | Resp: | 28545 |
| Ion Ratio   | Lower | Upper |
| 142 100     |       |       |
| 141 91.5    | 69.8  | 104.8 |



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





#8

Acenaphthylene

Concen: 1.70 ng/ul

RT: 14.21 min Scan# 1891

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

Instrument :

BNA\_M

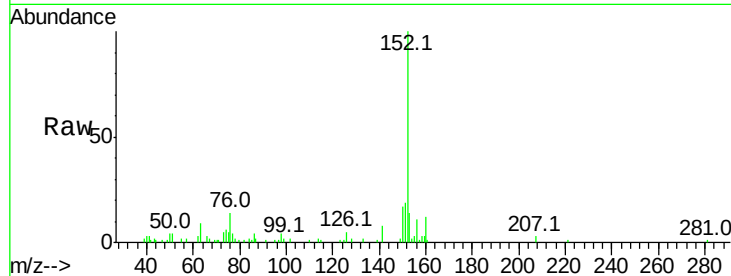
ClientSampleId :

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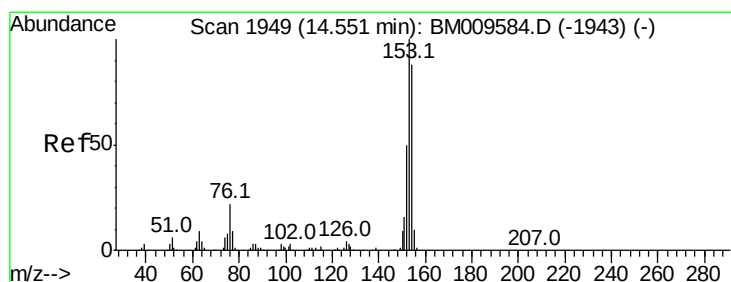
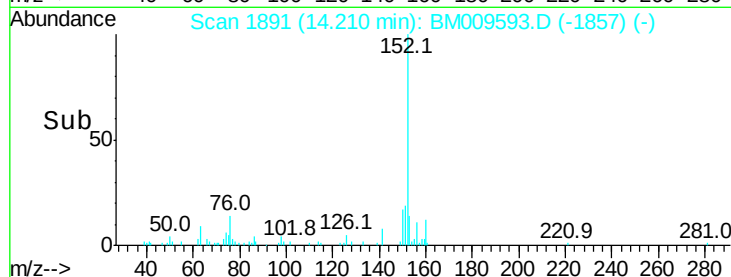
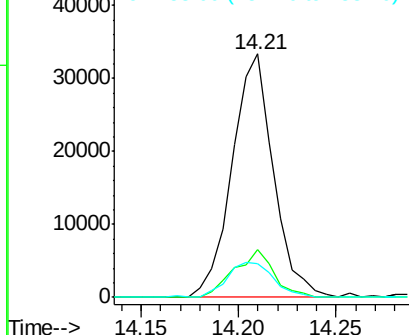
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 152   | Resp: | 48947 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 19.5  | 17.5  | 26.3  |
| 153       | 13.9  | 10.6  | 16.0  |

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Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 151.00 (150.70 to 151.70): E  
Ion 153.00 (152.70 to 153.70): E



#9

Acenaphthene

Concen: 2.64 ng/ul

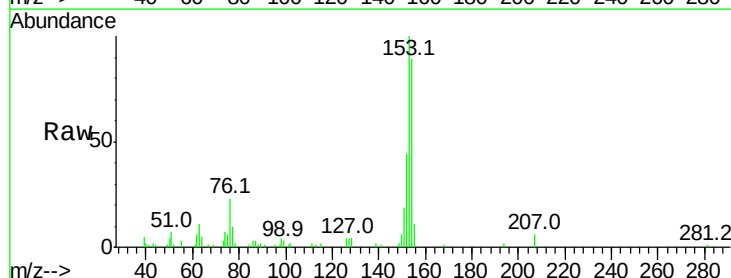
RT: 14.55 min Scan# 1949

Delta R.T. 0.00 min

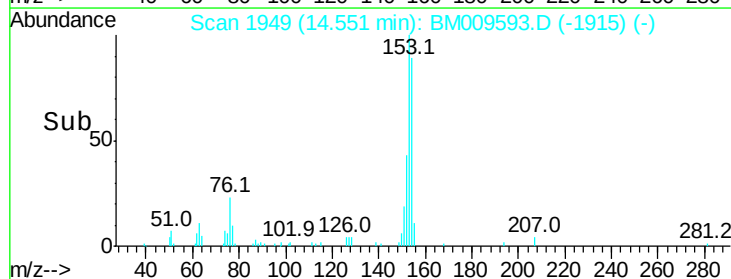
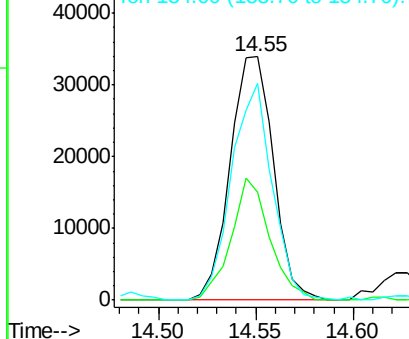
Lab File: BM009593.D

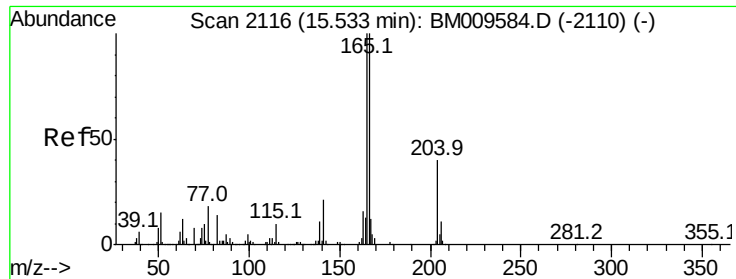
Acq: 06 Apr 2017 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 52250 |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 44.3  | 37.9  | 56.9  |
| 154       | 89.0  | 71.6  | 107.4 |



Abundance Ion 153.00 (152.70 to 153.70): E  
Ion 152.00 (151.70 to 152.70): E  
Ion 154.00 (153.70 to 154.70): E





#11

Fluorene

Concen: 3.06 ng/ul

RT: 15.53 min Scan# 2116

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

Instrument :

BNA\_M

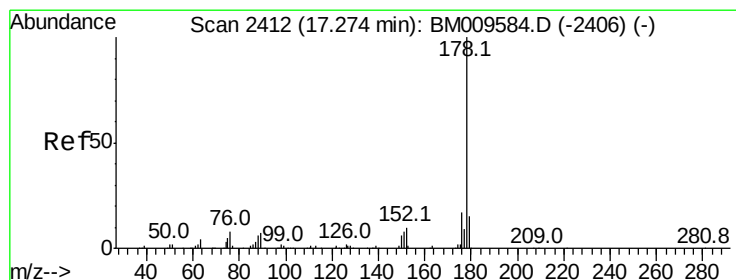
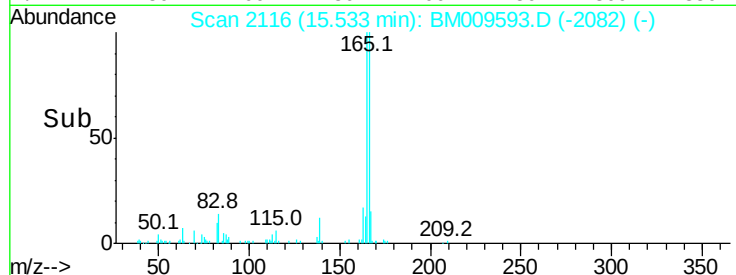
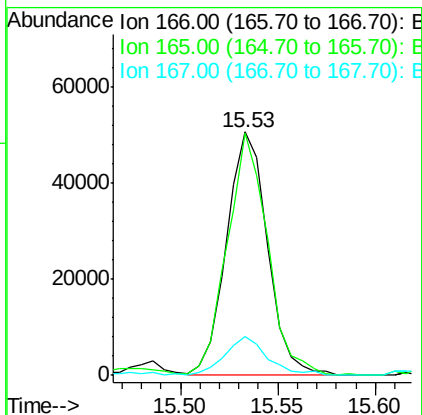
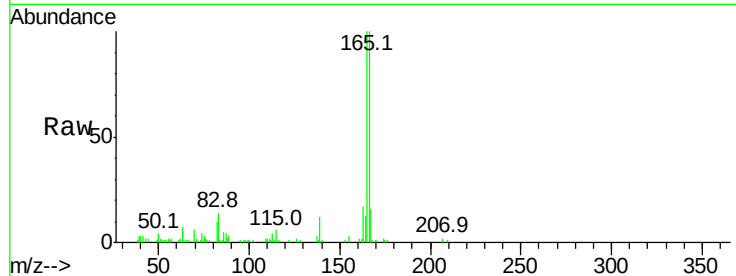
ClientSampleId :

CB325

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 99.6  | 80.0  | 120.0 |
| 167     | 16.0  | 11.6  | 17.4  |

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#14

Phenanthrene

Concen: 36.67 ng/ul

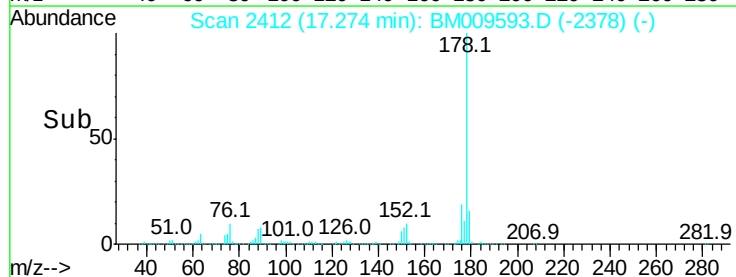
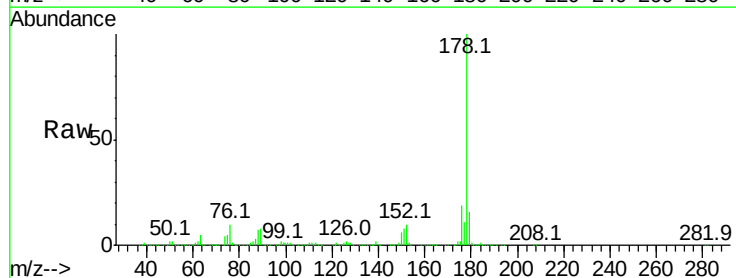
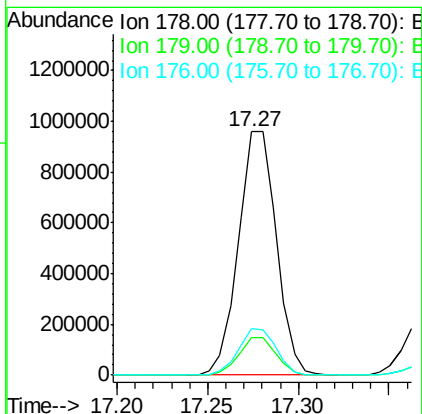
RT: 17.27 min Scan# 2412

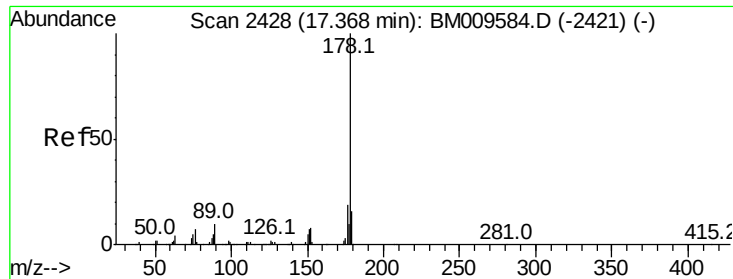
Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.6  | 12.2  | 18.4  |
| 176     | 18.8  | 16.4  | 24.6  |





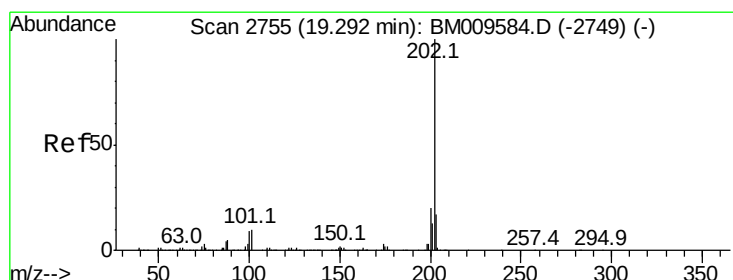
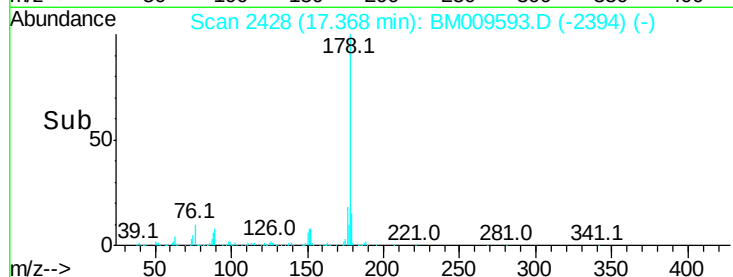
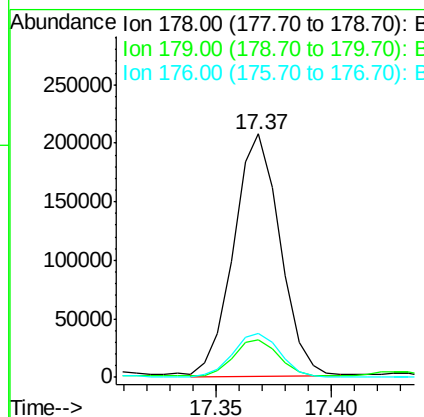
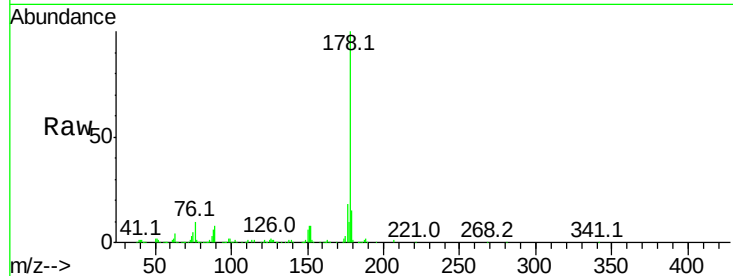
#16  
 Anthracene  
 Concen: 7.40 ng/ul  
 RT: 17.37 min Scan# 2428  
 Delta R.T. 0.00 min  
 Lab File: BM009593.D  
 Acq: 06 Apr 2017 14:47

Instrument :  
 BNA\_M  
 ClientSampled :  
 CB325

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.3  | 12.7  | 19.1  |
| 176     | 18.2  | 15.8  | 23.8  |

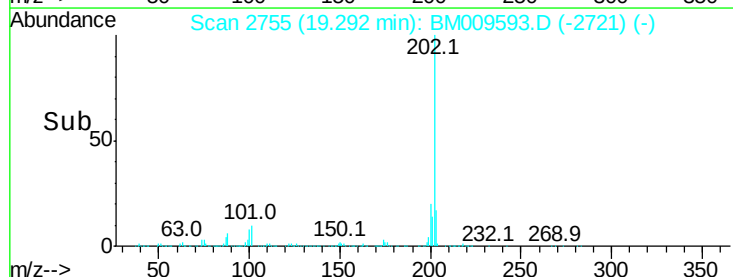
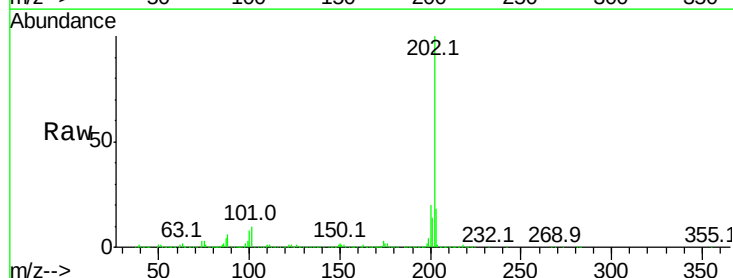
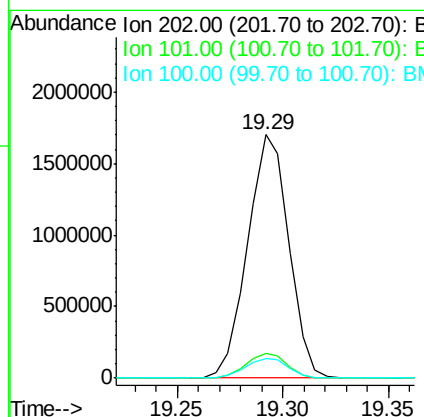
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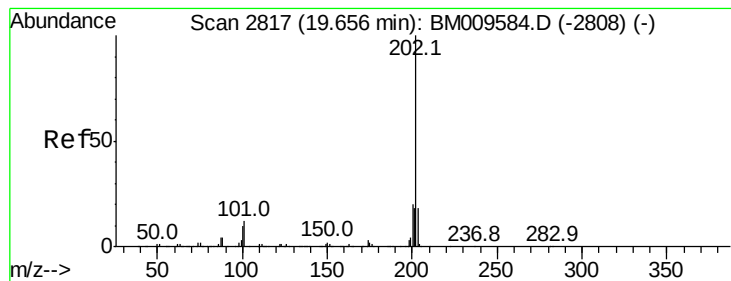
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#17  
 Fluoranthene  
 Concen: 48.45 ng/ul  
 RT: 19.29 min Scan# 2755  
 Delta R.T. 0.00 min  
 Lab File: BM009593.D  
 Acq: 06 Apr 2017 14:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 10.0  | 9.8   | 14.8  |
| 100     | 8.3   | 7.5   | 11.3  |





#20

Pvrene

Concen: 39.50 ng/ul

RT: 19.66 min Scan# 2817

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

Instrument :

BNA\_M

ClientSampleId :

CB325

Tot Ion:202 Resp: 2004189

Ion Ratio Lower Upper

202 100

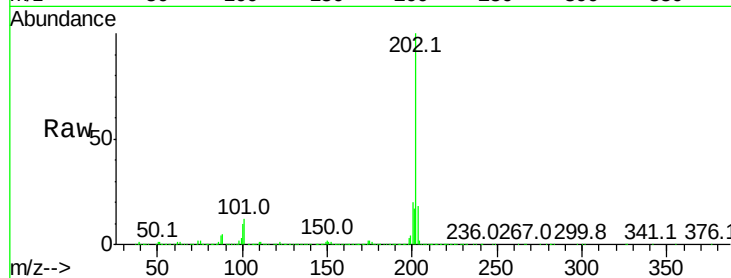
101 12.3 11.2 16.8

100 10.3 9.8 14.6

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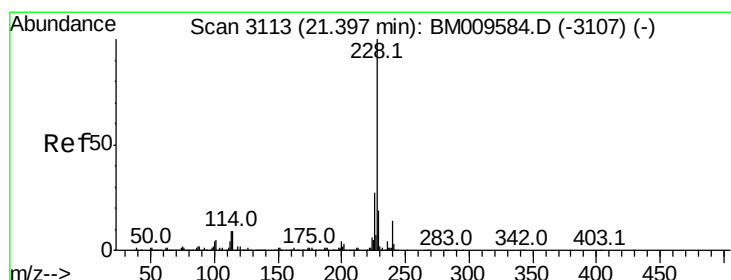
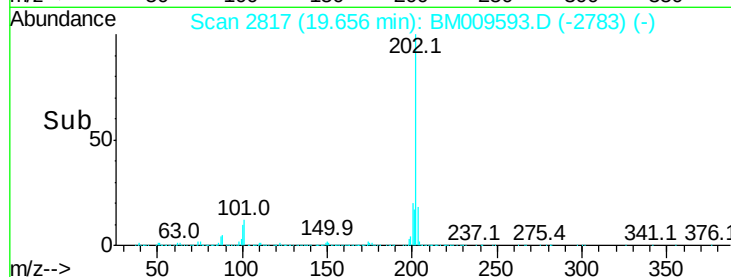
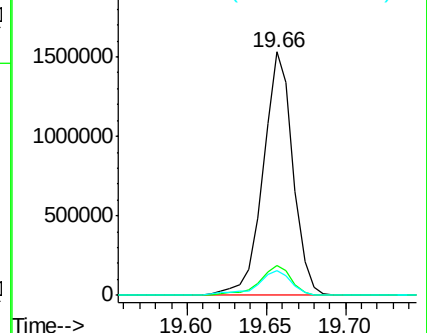
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Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): E



#21

Benzo(a)anthracene

Concen: 21.56 ng/ul

RT: 21.40 min Scan# 3113

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

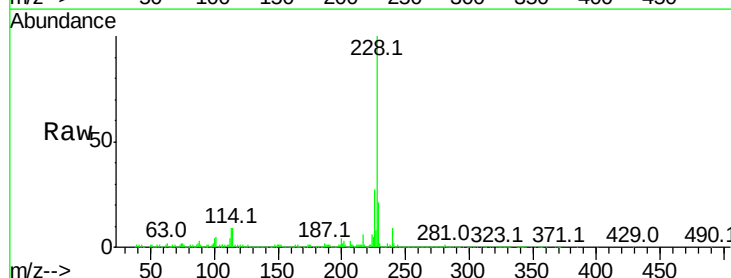
Tgt Ion:228 Resp: 1135801

Ion Ratio Lower Upper

228 100

229 21.3 15.9 23.9

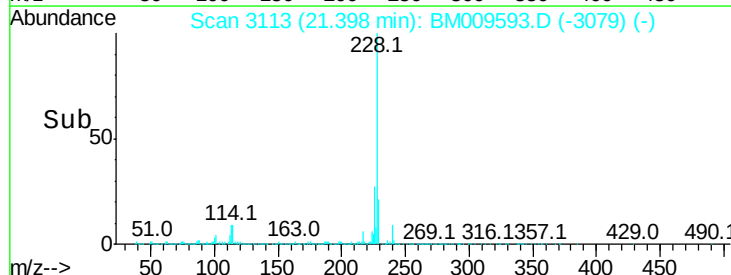
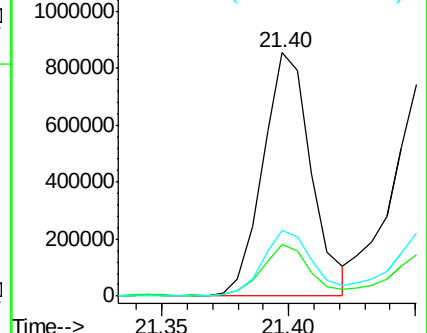
226 27.0 22.1 33.1

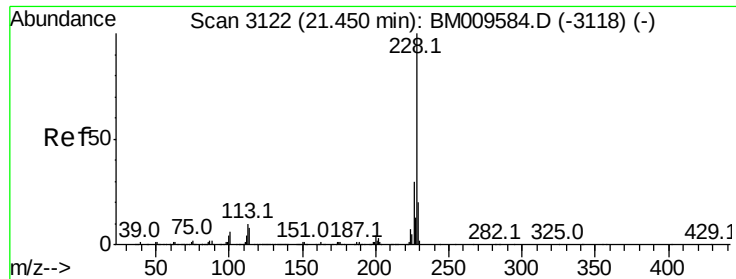


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 229.00 (228.70 to 229.70): E

Ion 226.00 (225.70 to 226.70): E





#22

Chrysene

Concen: 21.38 ng/ul

RT: 21.45 min Scan# 3122

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

Instrument :

BNA\_M

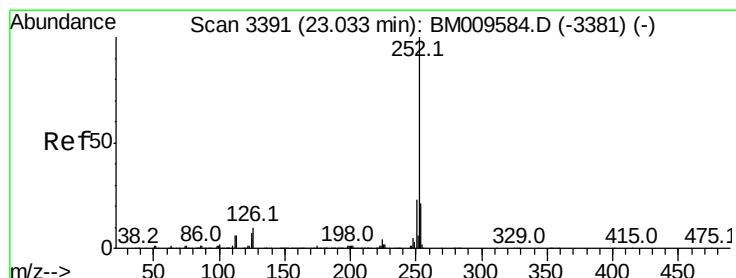
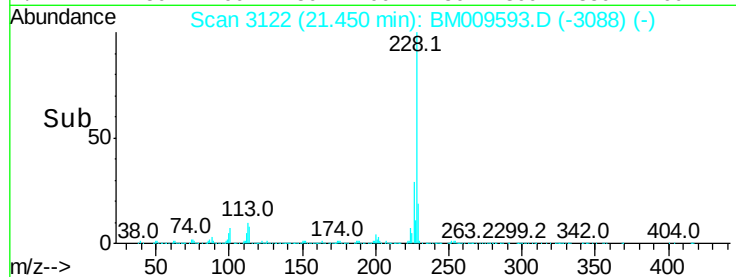
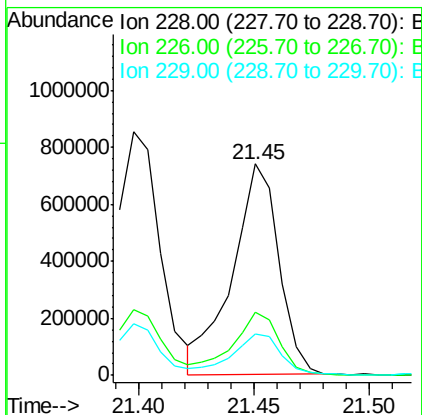
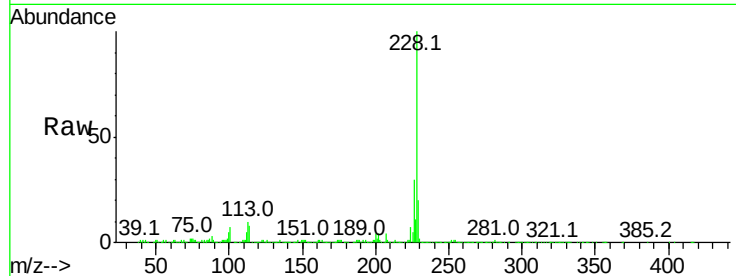
ClientSampled :

CB325

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 228   | Resp: | 1032244 |
| Ion      | Ratio | Lower | Upper   |
| 228      | 100   |       |         |
| 226      | 29.6  | 25.0  | 37.6    |
| 229      | 19.5  | 16.6  | 25.0    |

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#24

Benzo(b)fluoranthene

Concen: 23.87 ng/ul

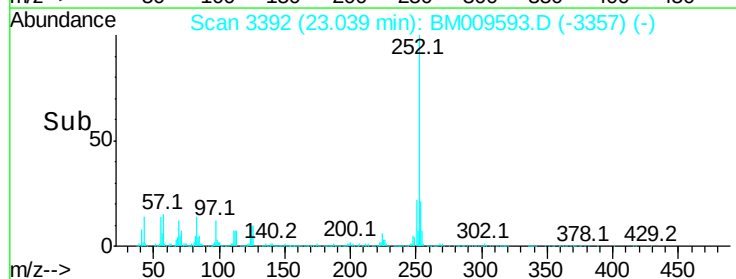
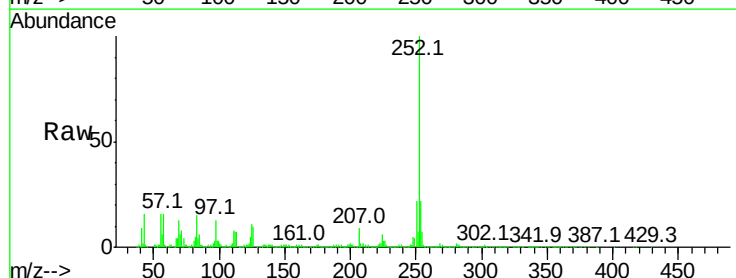
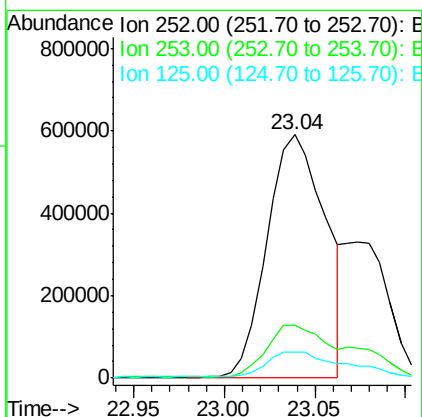
RT: 23.04 min Scan# 3392

Delta R.T. 0.01 min

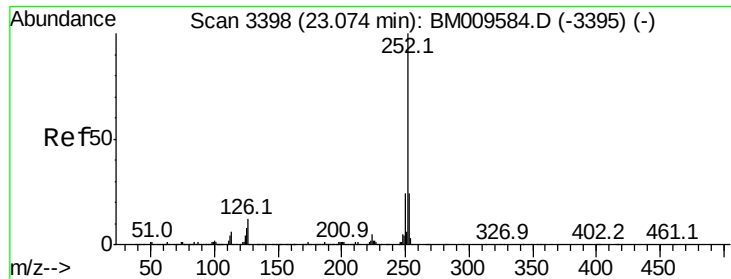
Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 252   | Resp: | 1319443 |
| Ion      | Ratio | Lower | Upper   |
| 252      | 100   |       |         |
| 253      | 21.7  | 17.8  | 26.6    |
| 125      | 10.7  | 9.4   | 14.0    |







#25

Benzo(k)fluoranthene

Concen: 10.51 ng/ul m

RT: 23.07 min Scan# 3398

Delta R.T. 0.00 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

Instrument :

BNA\_M

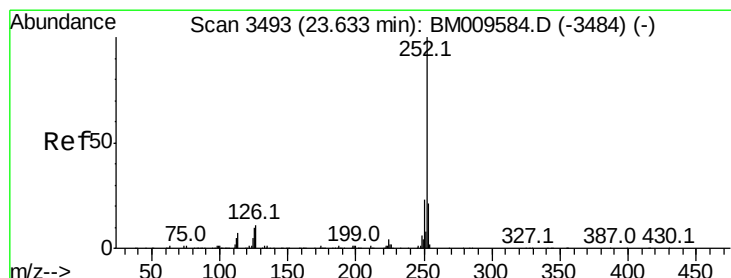
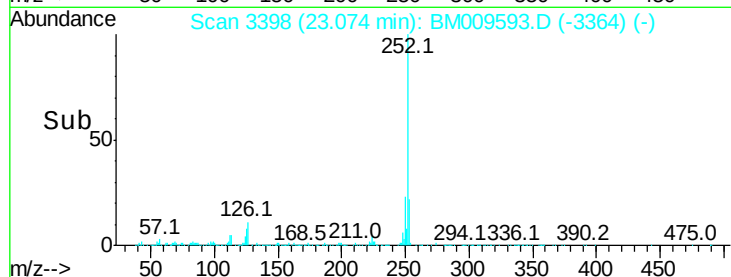
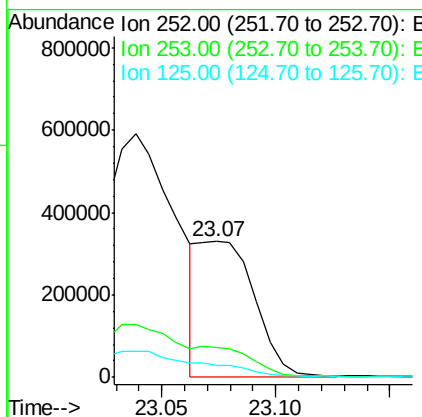
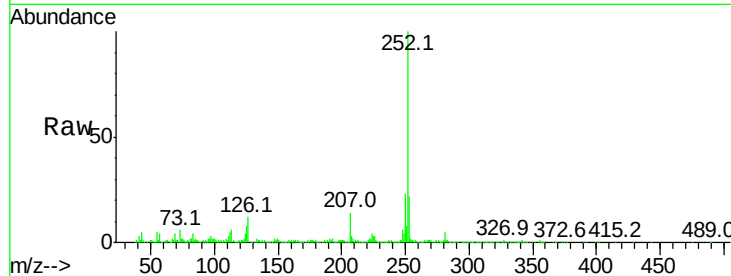
ClientSampleId :

CB325

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 553218 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 22.1  | 17.4  | 26.2   |
| 125       | 8.4   | 8.8   | 13.2#  |

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#27

Benzo(a)pyrene

Concen: 18.54 ng/ul m

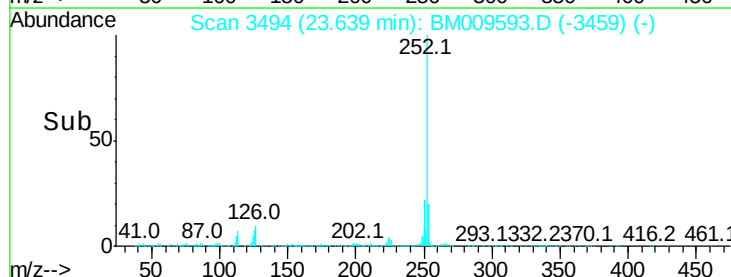
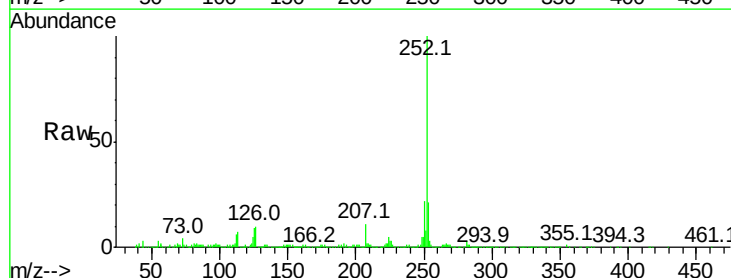
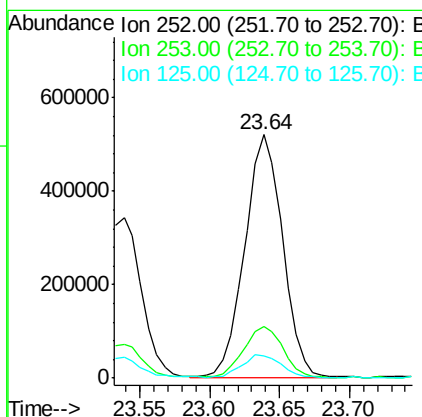
RT: 23.64 min Scan# 3494

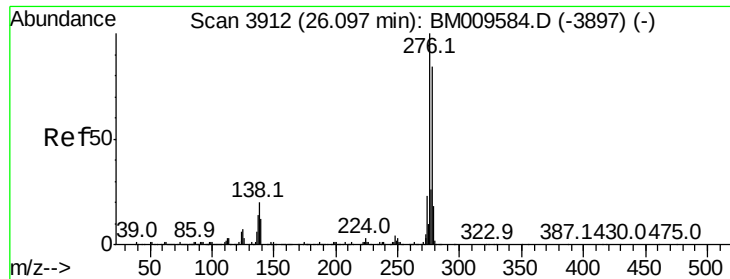
Delta R.T. 0.01 min

Lab File: BM009593.D

Acq: 06 Apr 2017 14:47

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 974268 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 21.3  | 17.1  | 25.7   |
| 125       | 9.0   | 9.4   | 14.2#  |





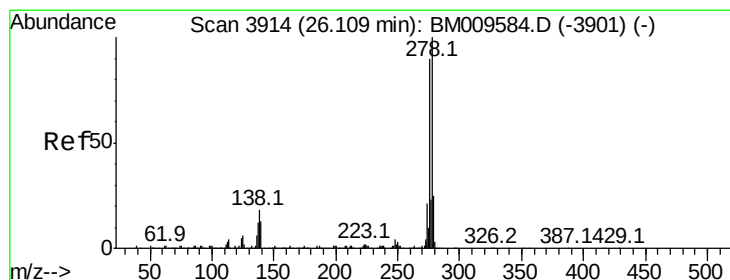
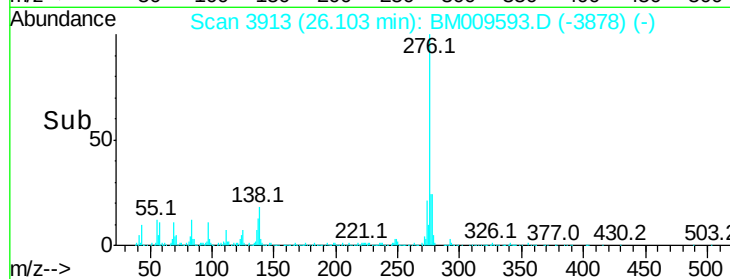
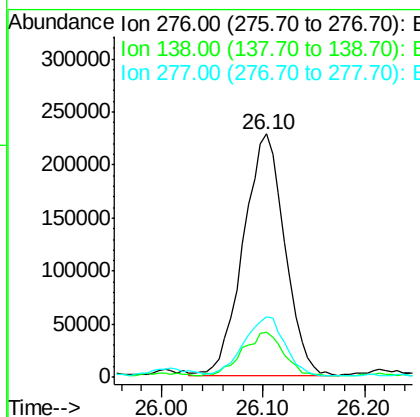
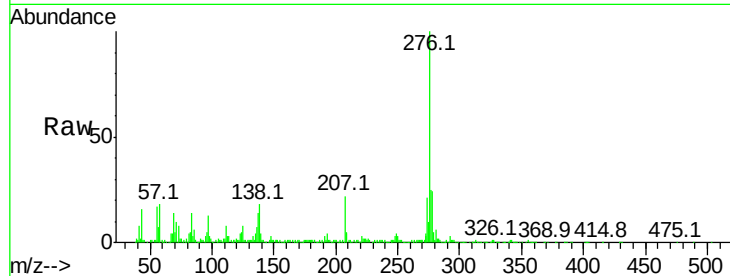
#28  
 Indeno(1,2,3-cd)pyrene  
 Concen: 10.96 ng/ul  
 RT: 26.10 min Scan# 3913  
 Delta R.T. 0.01 min  
 Lab File: BM009593.D  
 Acq: 06 Apr 2017 14:47

Instrument :  
 BNA\_M  
 ClientSampleId :  
 CB325

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 18.4  | 17.8  | 26.6  |
| 277     | 24.9  | 19.4  | 29.0  |

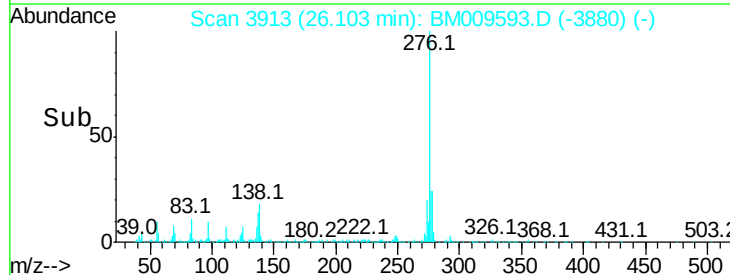
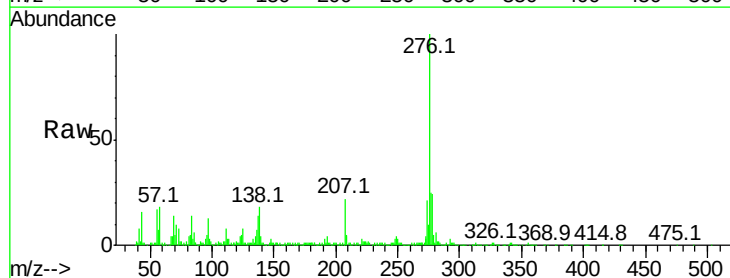
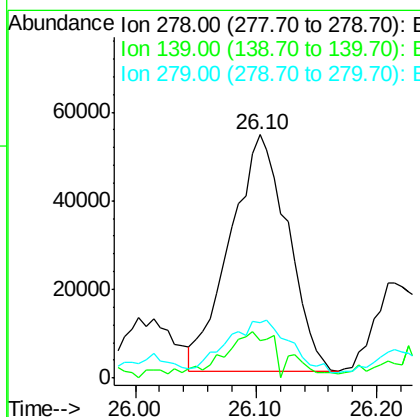
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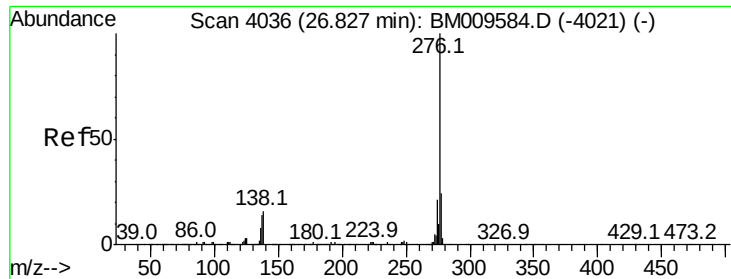
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#29  
 Dibenzo(a,h)anthracene  
 Concen: 3.53 ng/ul  
 RT: 26.10 min Scan# 3913  
 Delta R.T. -0.01 min  
 Lab File: BM009593.D  
 Acq: 06 Apr 2017 14:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 15.6  | 14.0  | 21.0  |
| 279     | 22.8  | 20.6  | 31.0  |





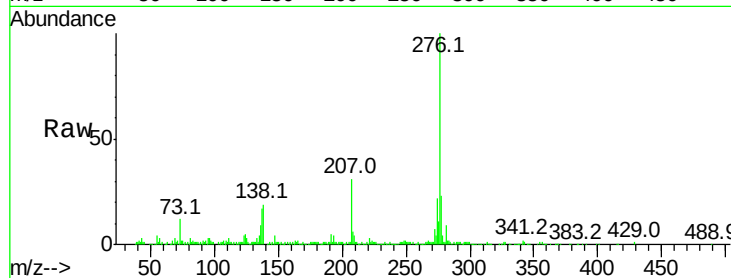
#30  
 Benzo(a,h,i)perylene  
 Concen: 11.49 ng/ul  
 RT: 26.83 min Scan# 4037  
 Delta R.T. 0.01 min  
 Lab File: BM009593.D  
 Acq: 06 Apr 2017 14:47

Instrument :  
 BNA\_M  
 ClientSampleId :  
 CB325

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 558224 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 19.0  | 19.0  | 28.4   |
| 277       | 23.1  | 19.7  | 29.5   |

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Abundance Ion 276.00 (275.70 to 276.70): E  
 Ion 138.00 (137.70 to 138.70): E  
 Ion 277.00 (276.70 to 277.70): E

