

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM020816\  
 Data File : BM004200.D  
 Acq On : 08 Feb 2016 15:11  
 Operator : SJ/IZ  
 Sample : H1340-16 5X  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 C04P4

Manual Integrations  
 APPROVED

Sohil  
 2/9/2016 3:31:22 PM

Quant Time: Feb 09 00:41:44 2016  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM012016.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Tue Feb 09 00:07:17 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.66  | 152  | 26039    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.45 | 136  | 127212   | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.32 | 164  | 78826    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.07 | 188  | 187901   | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.29 | 240  | 210565   | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 23.52 | 264  | 214429   | 20.00 | ng/ul | 0.01     |

## System Monitoring Compounds

|                                |       |     |       |      |       |      |
|--------------------------------|-------|-----|-------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 0.00  | 96  | 0     | 0.00 | ng/uL |      |
| 5) Phenol-d5                   | 6.84  | 99  | 10247 | 4.03 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 6.99  | 67  | 5136  | 3.80 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.19  | 132 | 8933  | 4.52 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.37  | 113 | 8058  | 3.70 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.82  | 128 | 3808  | 4.04 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.54  | 143 | 4162  | 3.98 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.07 | 165 | 9036  | 4.65 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.59 | 131 | 9697  | 3.92 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 13.72 | 166 | 32815 | 4.84 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.00 | 160 | 39245 | 4.97 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.55 | 143 | 2382  | 1.75 | ng/ul | 0.02 |
| 58) Fluorene-d10               | 15.31 | 176 | 31091 | 5.34 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.46 | 200 | 1987  | 1.72 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.17 | 188 | 49288 | 5.39 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.48 | 212 | 56715 | 6.01 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 23.38 | 264 | 63173 | 5.65 | ng/ul | 0.01 |

## Target Compounds

|                                |       |     |         |        |        | Qvalue |
|--------------------------------|-------|-----|---------|--------|--------|--------|
| 28) Naphthalene                | 10.49 | 128 | 64450   | 9.00   | ng/ul  | 100    |
| 34) 2-Methylnaphthalene        | 12.12 | 142 | 22727   | 4.21   | ng/ul  | 99     |
| 41) 1,1'-Biphenyl              | 13.14 | 154 | 8644    | 1.28   | ng/ul  | 98     |
| 45) Dimethylphthalate          | 13.77 | 163 | 10734   | 1.50   | ng/ul# | 95     |
| 50) Acenaphthene               | 14.38 | 153 | 206569  | 34.95  | ng/ul  | 99     |
| 54) Dibenzofuran               | 14.72 | 168 | 122469  | 14.58  | ng/ul  | 99     |
| 59) Fluorene                   | 15.37 | 166 | 166239  | 23.80  | ng/ul  | 100    |
| 70) Phenanthrene               | 17.12 | 178 | 1614337 | 140.77 | ng/ul  | 100    |
| 72) Anthracene                 | 17.20 | 178 | 486665  | 41.84  | ng/ul  | 99     |
| 75) Carbazole                  | 17.47 | 167 | 227785  | 21.53  | ng/ul  | 100    |
| 77) Fluoranthene               | 19.16 | 202 | 2372610 | 177.76 | ng/ul  | 97     |
| 80) Pyrene                     | 19.52 | 202 | 2056821 | 158.87 | ng/ul  | 99     |
| 83) Benzo(a)anthracene         | 21.27 | 228 | 1302936 | 97.20  | ng/ul  | 99     |
| 84) Bis(2-ethylhexyl)phthalate | 21.19 | 149 | 295062  | 35.56  | ng/ul  | 99     |
| 85) Chrysene                   | 21.33 | 228 | 1246185 | 97.78  | ng/ul  | 97     |
| 88) Benzo(b)fluoranthene       | 22.86 | 252 | 1436287 | 104.93 | ng/ul  | 98     |
| 89) Benzo(k)fluoranthene       | 22.90 | 252 | 604708m | 47.42  | ng/ul  |        |
| 91) Benzo(a)pyrene             | 23.43 | 252 | 1003838 | 75.92  | ng/ul  | 98     |
| 92) Indeno(1,2,3-cd)pyrene     | 25.79 | 276 | 558701  | 35.40  | ng/ul  | 95     |
| 93) Dibenzo(a,h)anthracene     | 25.78 | 278 | 159238m | 12.10  | ng/ul  |        |
| 94) Benzo(g,h,i)perylene       | 26.47 | 276 | 392898  | 29.20  | ng/ul  | 99     |

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Operator : SJ/IZ  
Sample : H1340-16 5X  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
C04P4

Manual Integrations  
APPROVED

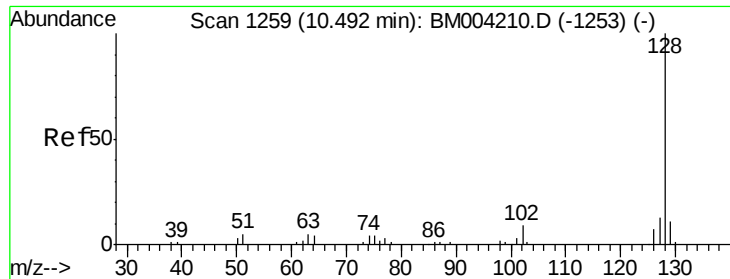
Sohil  
2/9/2016 3:31:22 PM

Quant Time: Feb 09 00:41:44 2016  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM02.2-EPA-BM012016.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Tue Feb 09 00:07:17 2016  
Response via : Initial Calibration

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

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





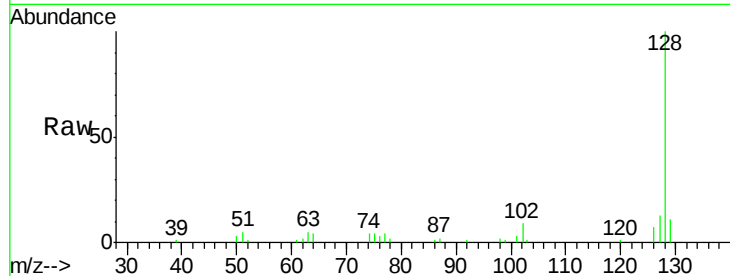
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Naphthalene  
Concen: 9.00 ng/ul  
RT: 10.49 min Scan# 1259  
Delta R.T. 0.00 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

Instrument :  
BNA\_M  
ClientSampled :  
C04P4

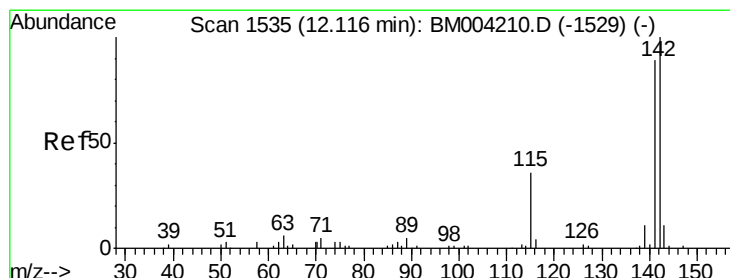
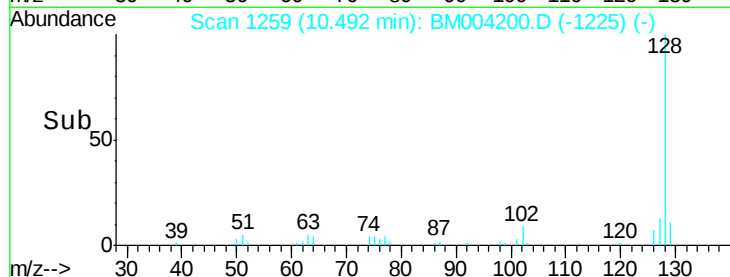
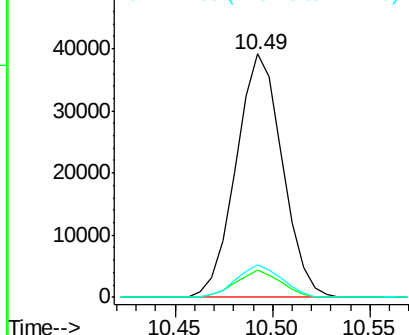
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.2  | 8.8   | 13.2  |
| 127     | 13.2  | 10.5  | 15.7  |

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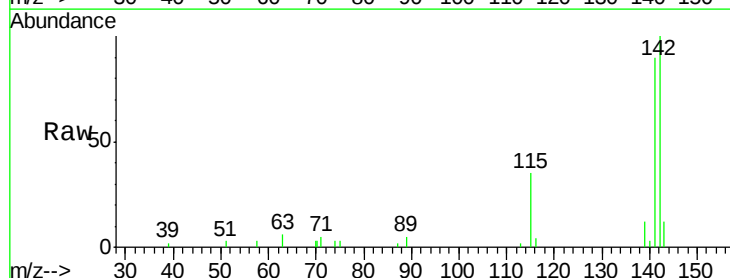


Abundance Ion 128.00 (127.70 to 128.70): E  
Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E

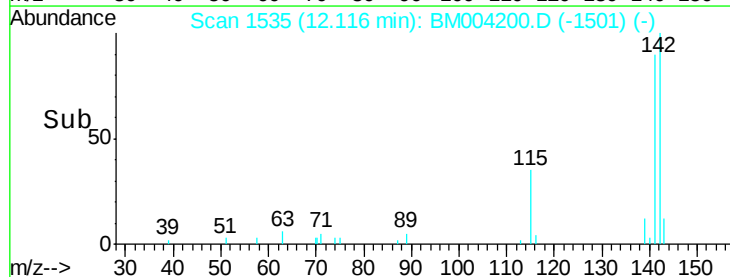
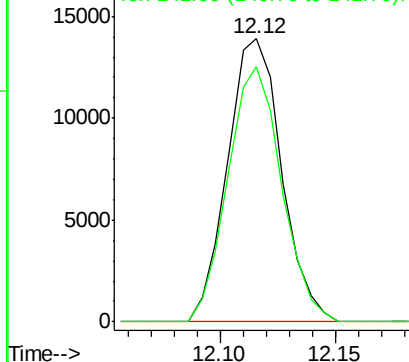


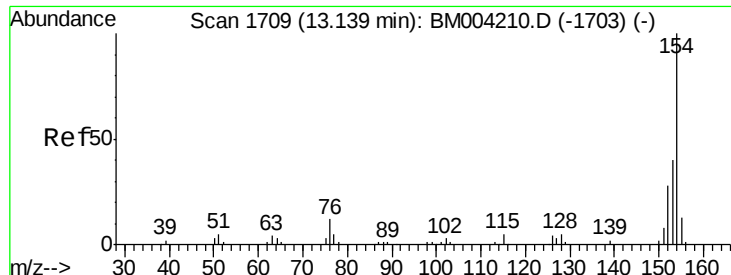
#34  
2-Methylnaphthalene  
Concen: 4.21 ng/ul  
RT: 12.12 min Scan# 1535  
Delta R.T. 0.00 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 90.2  | 71.6  | 107.4 |



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





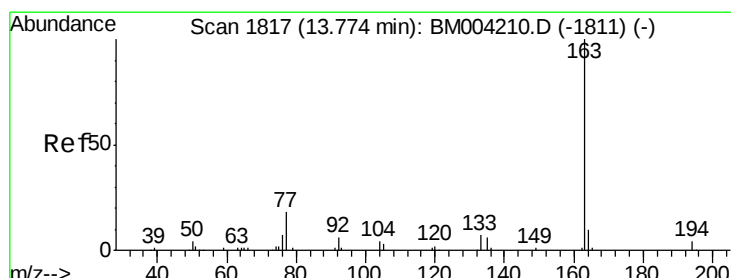
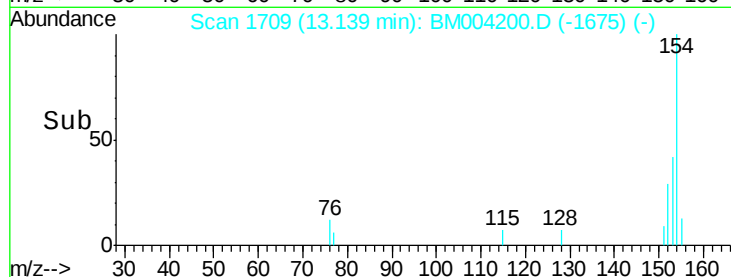
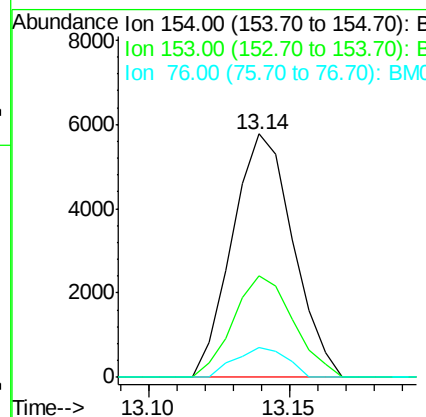
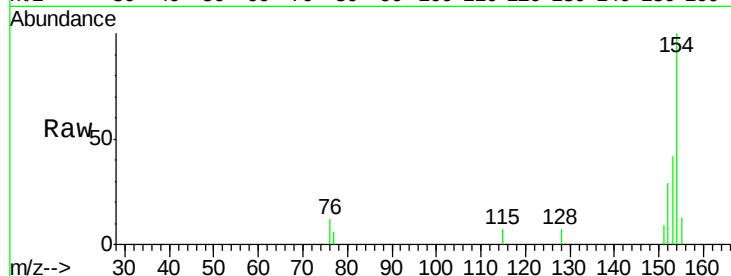
#41  
1,1'-Biphenyl  
Concen: 1.28 ng/ul  
RT: 13.14 min Scan# 1709  
Delta R.T. 0.00 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

Instrument :  
BNA\_M  
ClientSampleId :  
C04P4

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 41.7  | 32.1  | 48.1  |
| 76      | 12.2  | 9.5   | 14.3  |

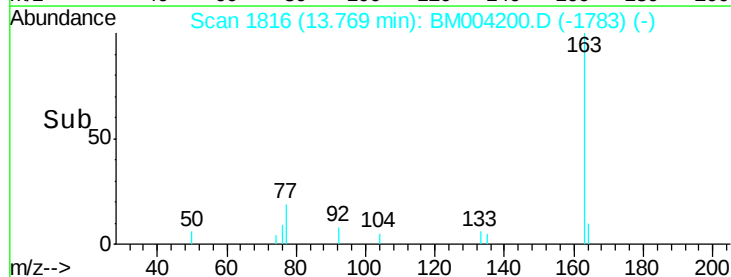
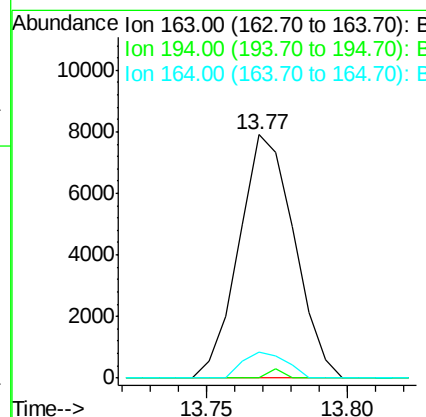
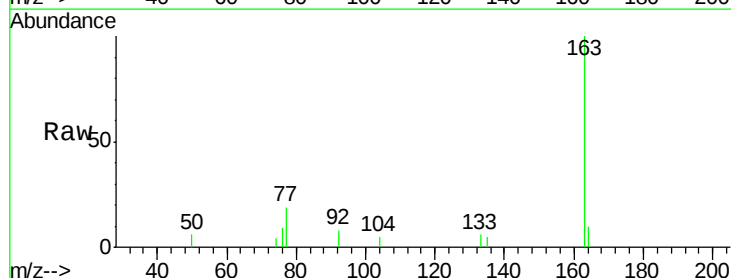
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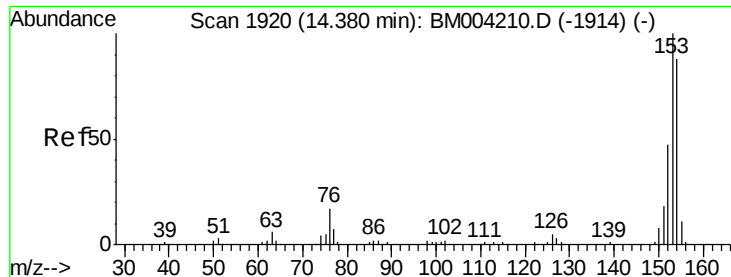
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#45  
Dimethylphthalate  
Concen: 1.50 ng/ul  
RT: 13.77 min Scan# 1816  
Delta R.T. -0.01 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 163     | 100   |       |       |
| 194     | 0.0   | 3.2   | 4.8#  |
| 164     | 10.5  | 7.8   | 11.8  |





#50

Acenaphthene

Concen: 34.95 ng/ul

RT: 14.38 min Scan# 1920

Delta R.T. 0.00 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

Instrument :

BNA\_M

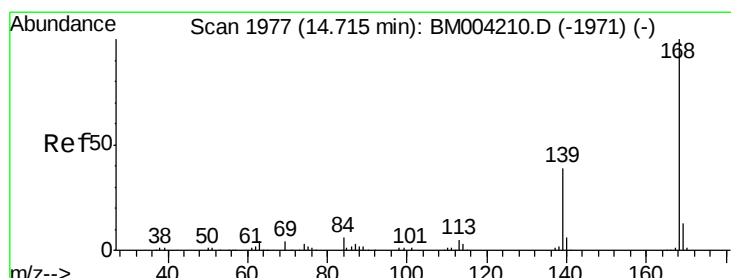
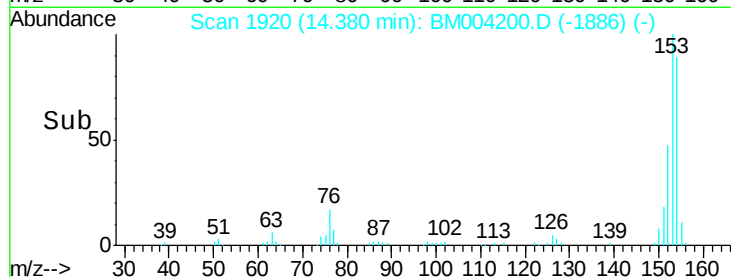
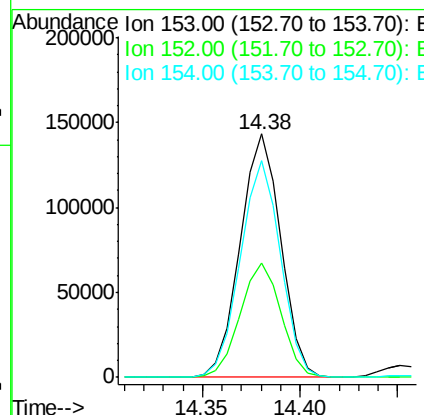
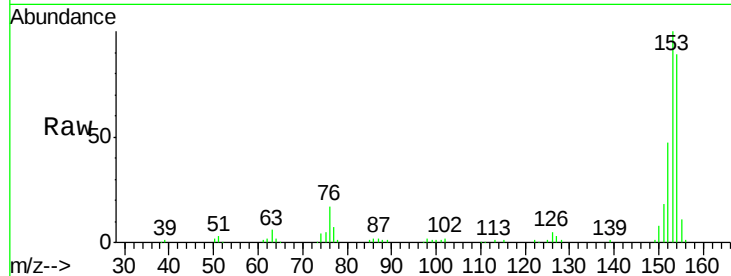
ClientSampleId :

C04P4

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 153   | Resp: | 206569 |
| Ion Ratio | Lower | Upper |        |
| 153       | 100   |       |        |
| 152       | 46.8  | 38.3  | 57.5   |
| 154       | 88.8  | 71.8  | 107.8  |

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#54

Dibenzofuran

Concen: 14.58 ng/ul

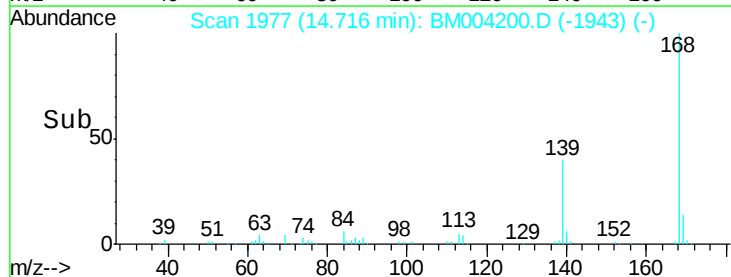
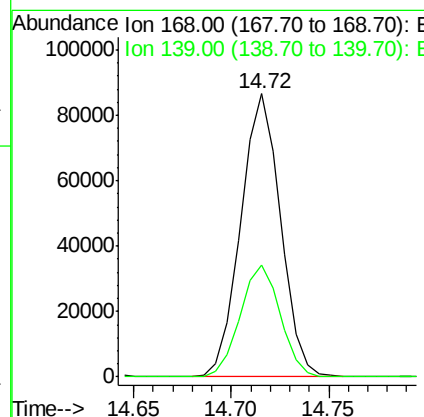
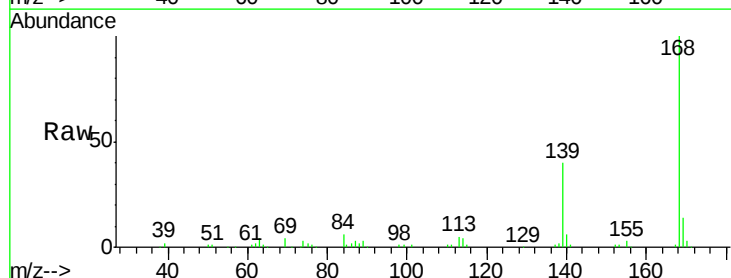
RT: 14.72 min Scan# 1977

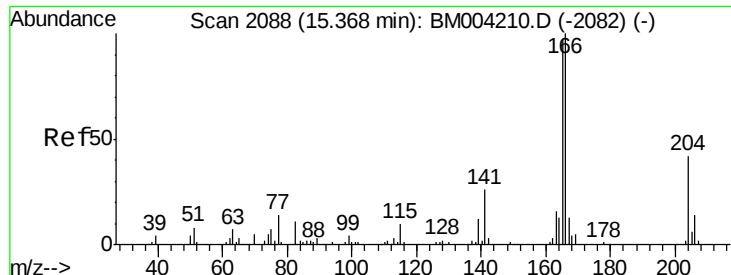
Delta R.T. 0.00 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 168   | Resp: | 122469 |
| Ion Ratio | Lower | Upper |        |
| 168       | 100   |       |        |
| 139       | 39.7  | 32.2  | 48.2   |





#59

Fluorene

Concen: 23.80 ng/ul

RT: 15.37 min Scan# 2088

Delta R.T. 0.00 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

Instrument :

BNA\_M

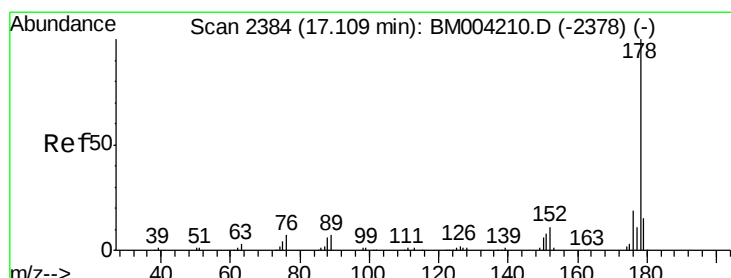
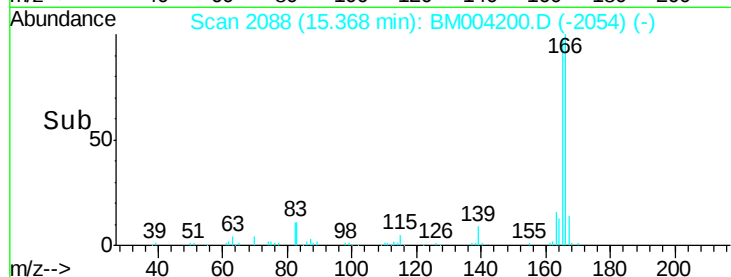
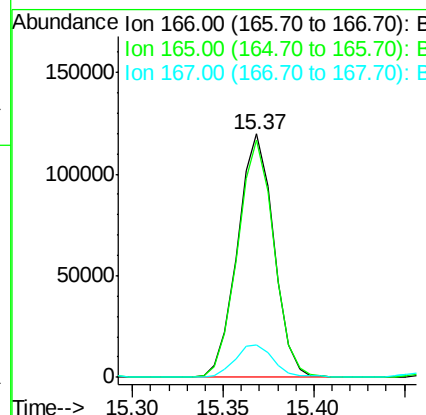
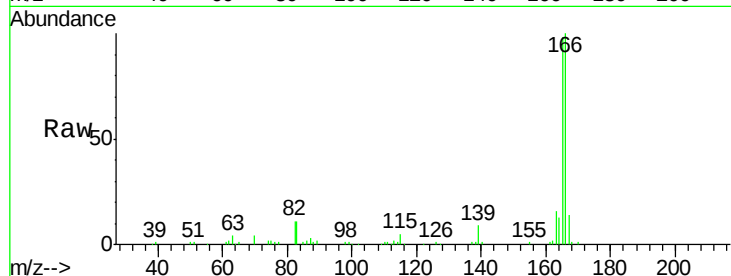
ClientSampleId :

C04P4

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 166   | Resp: | 166239 |
| Ion Ratio | Lower | Upper |        |
| 166       | 100   |       |        |
| 165       | 97.6  | 78.5  | 117.7  |
| 167       | 13.5  | 10.7  | 16.1   |

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#70

Phenanthrene

Concen: 140.77 ng/ul

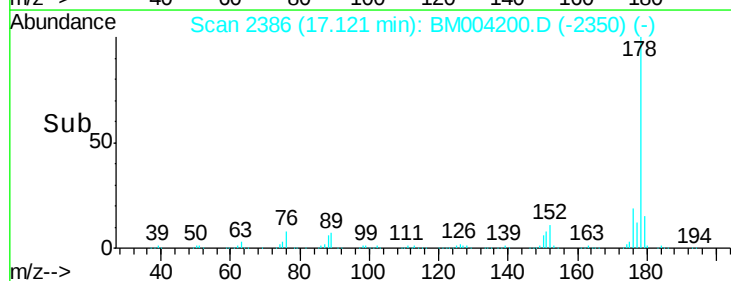
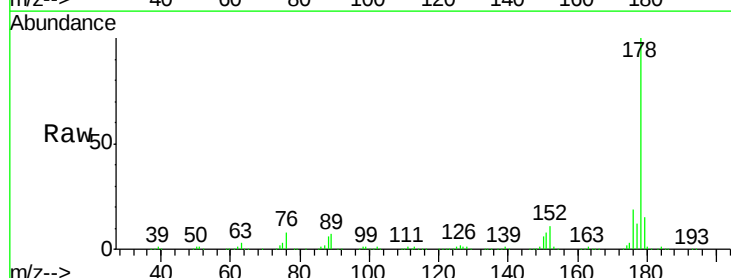
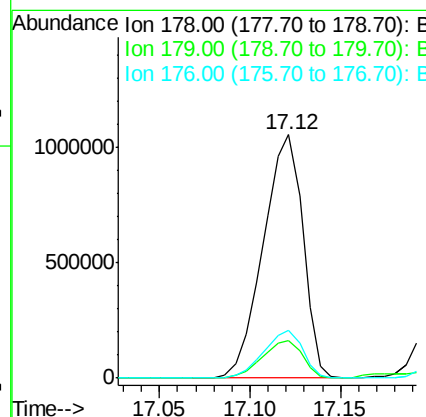
RT: 17.12 min Scan# 2386

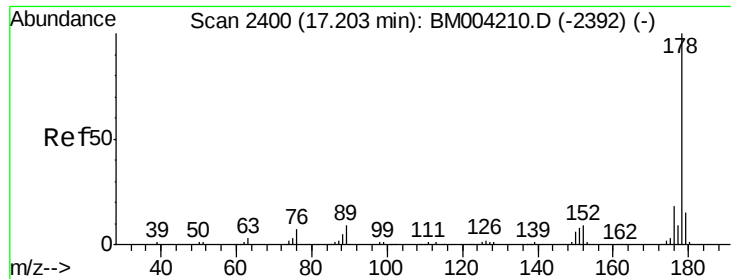
Delta R.T. 0.01 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 178   | Resp: | 1614337 |
| Ion Ratio | Lower | Upper |         |
| 178       | 100   |       |         |
| 179       | 15.3  | 12.2  | 18.4    |
| 176       | 19.4  | 15.6  | 23.4    |





#72

Anthracene

Concen: 41.84 ng/ul

RT: 17.20 min Scan# 2400

Delta R.T. 0.01 min

Lab File: BM004200.D

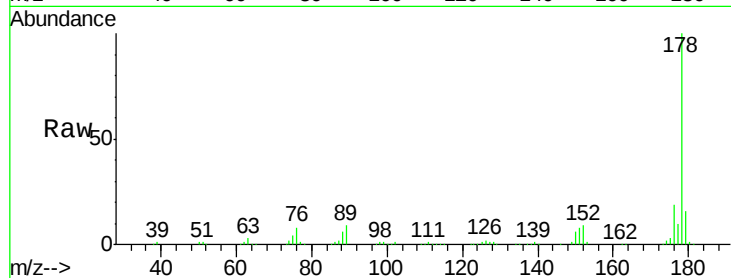
Acq: 08 Feb 2016 15:11

Instrument :

BNA\_M

ClientSampleId :

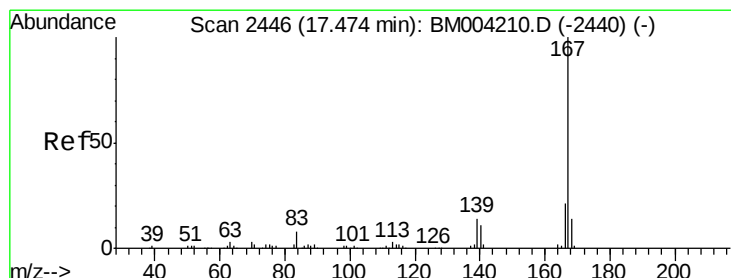
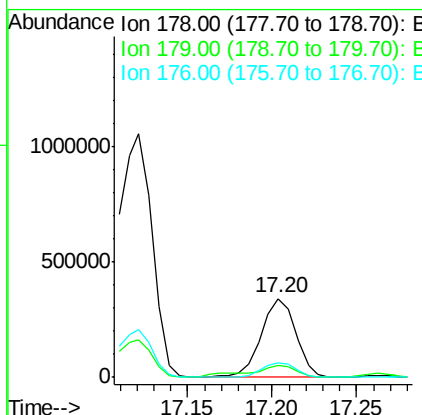
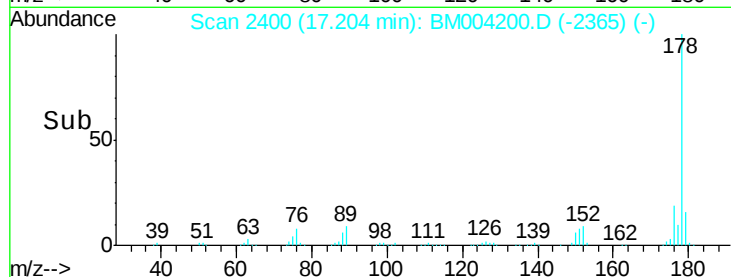
C04P4



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 486665 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 15.6  | 12.1  | 18.1   |
| 176       | 18.6  | 14.8  | 22.2   |

Manual Integrations  
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#75

Carbazole

Concen: 21.53 ng/ul

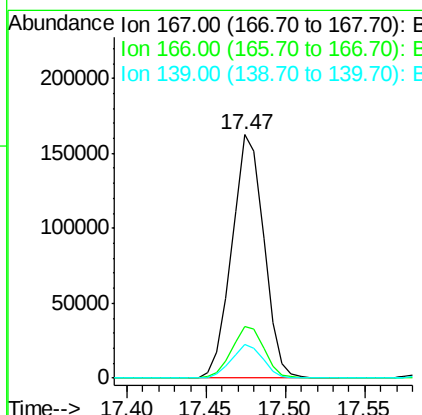
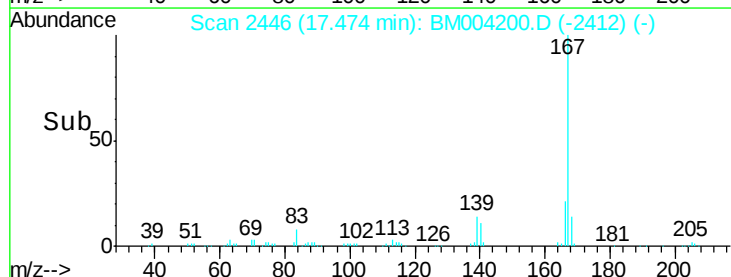
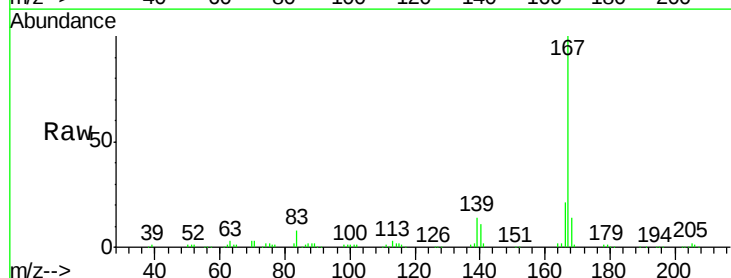
RT: 17.47 min Scan# 2446

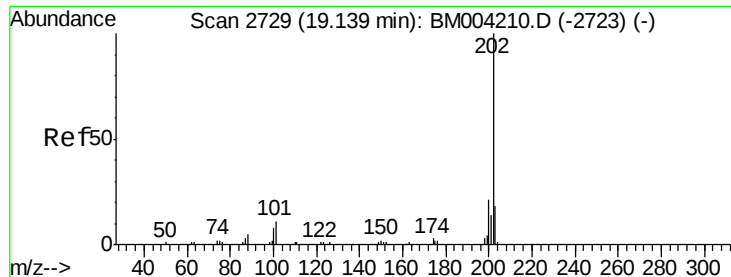
Delta R.T. 0.00 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 167   | Resp: | 227785 |
| Ion Ratio | Lower | Upper |        |
| 167       | 100   |       |        |
| 166       | 21.5  | 17.0  | 25.6   |
| 139       | 13.8  | 11.0  | 16.4   |





#77

Fluoranthene

Concen: 177.76 ng/ul

RT: 19.16 min Scan# 2732

Delta R.T. 0.02 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

Instrument :

BNA\_M

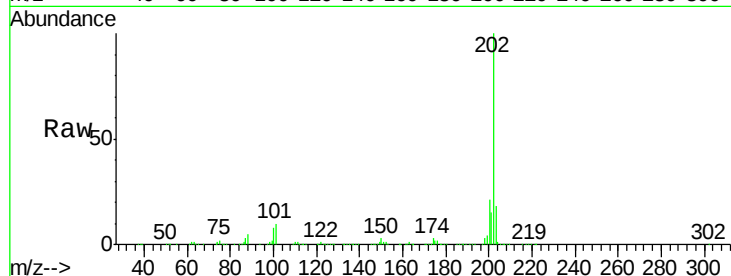
ClientSampleId :

C04P4

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 2372610 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 9.7   | 8.8   | 13.2    |
| 100       | 7.6   | 6.6   | 9.8     |

Manual Integrations  
APPROVED

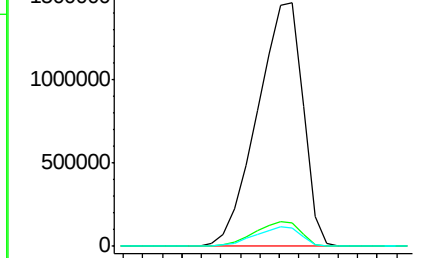
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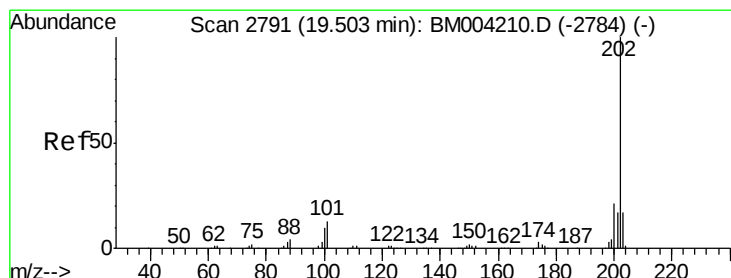
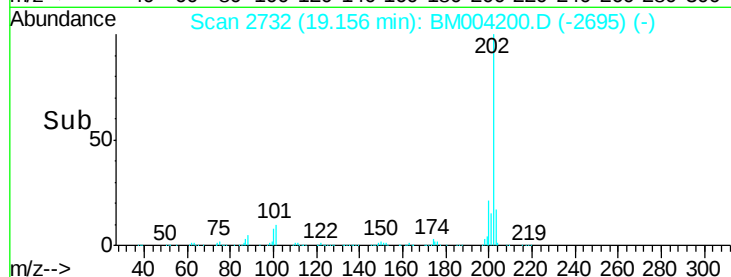
Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B



Time-->



#80

Pyrene

Concen: 158.87 ng/ul

RT: 19.52 min Scan# 2793

Delta R.T. 0.01 min

Lab File: BM004200.D

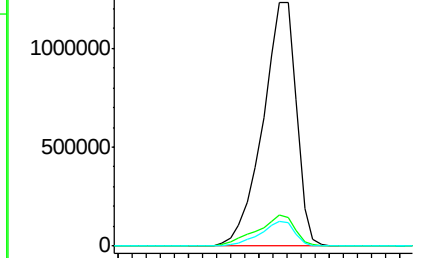
Acq: 08 Feb 2016 15:11

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 202   | Resp: | 2056821 |
| Ion Ratio | Lower | Upper |         |
| 202       | 100   |       |         |
| 101       | 12.6  | 10.2  | 15.2    |
| 100       | 10.3  | 8.5   | 12.7    |

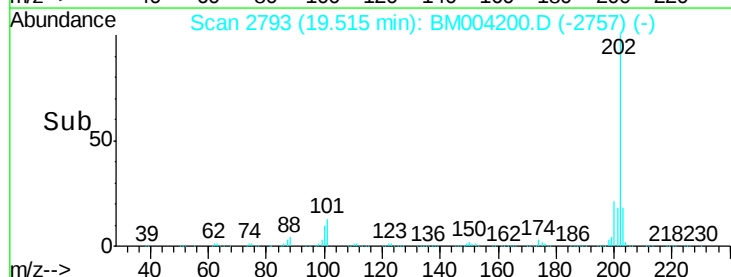
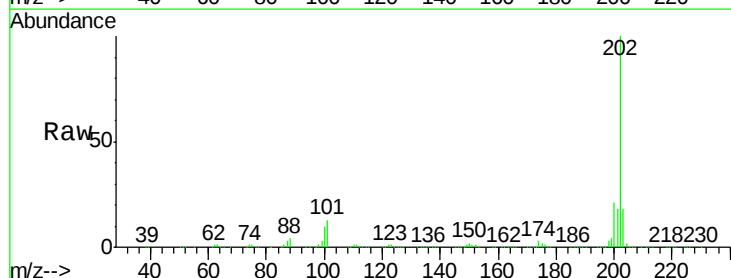
Abundance Ion 202.00 (201.70 to 202.70): E

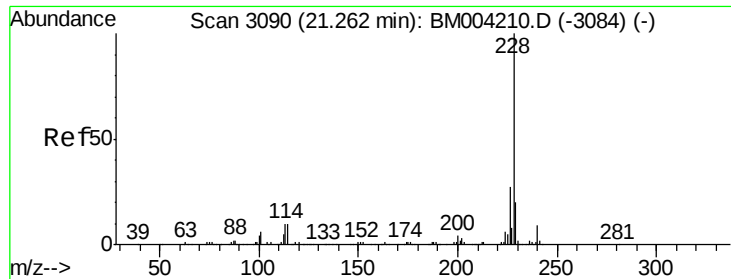
Ion 101.00 (100.70 to 101.70): E

Ion 100.00 (99.70 to 100.70): B



Time-->





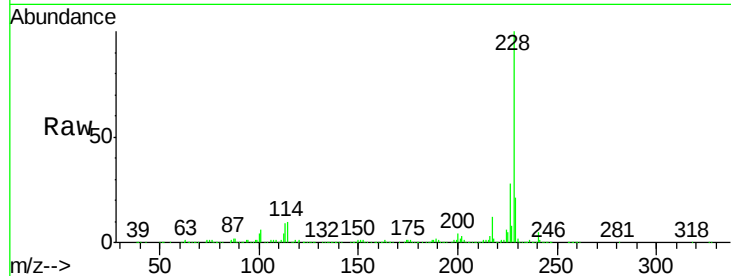
#83  
Benzo(a)anthracene  
Concen: 97.20 ng/ul  
RT: 21.27 min Scan# 3092  
Delta R.T. 0.01 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

Instrument :  
BNA\_M  
ClientSampled :  
C04P4

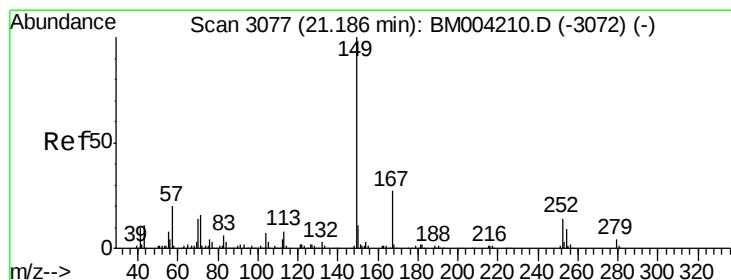
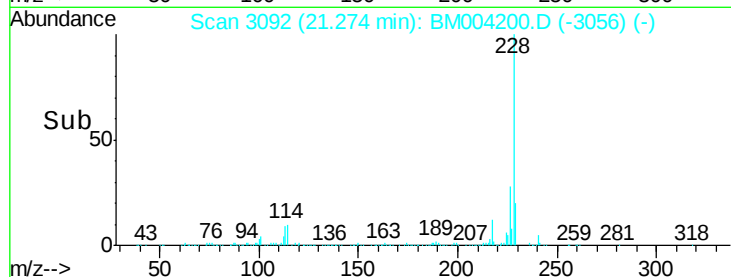
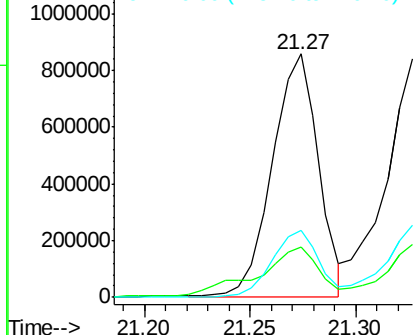
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.5  | 15.7  | 23.5  |
| 226     | 27.7  | 21.8  | 32.6  |

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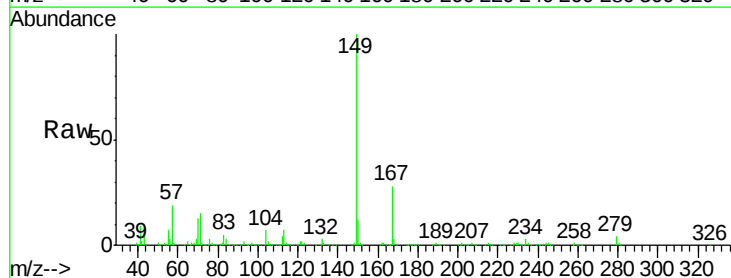


Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 229.00 (228.70 to 229.70): E  
Ion 226.00 (225.70 to 226.70): E

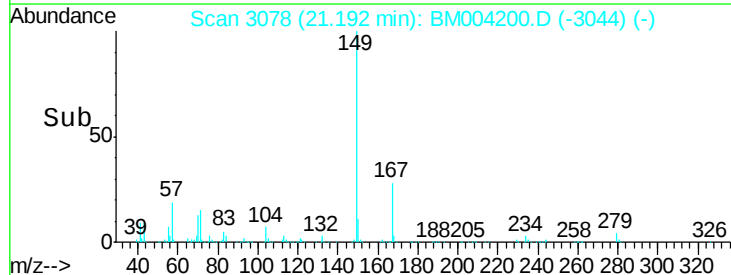
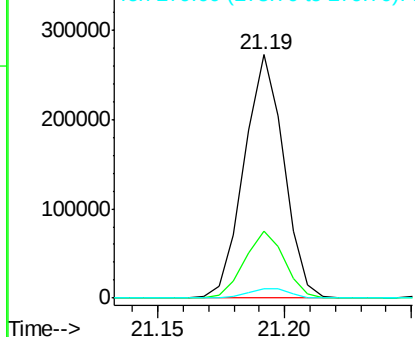


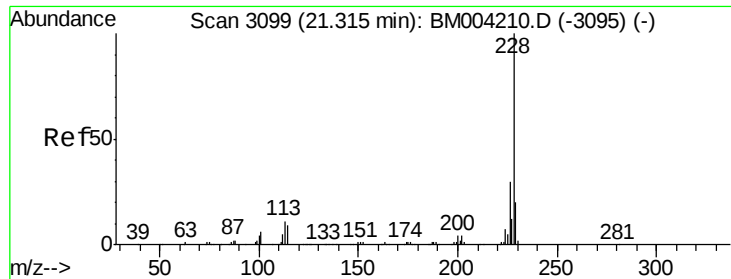
#84  
Bis(2-ethylhexyl)phthalate  
Concen: 35.56 ng/ul  
RT: 21.19 min Scan# 3078  
Delta R.T. 0.00 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 167     | 27.8  | 21.6  | 32.4  |
| 279     | 4.0   | 3.0   | 4.4   |



Abundance Ion 149.00 (148.70 to 149.70): E  
Ion 167.00 (166.70 to 167.70): E  
Ion 279.00 (278.70 to 279.70): E





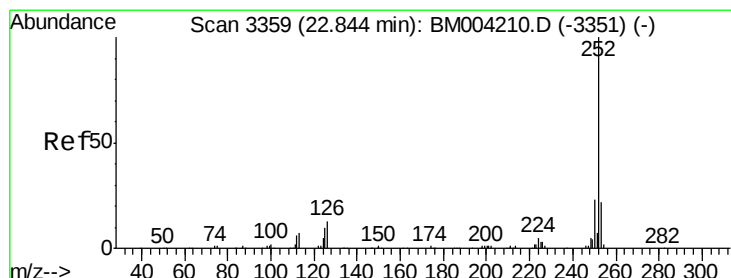
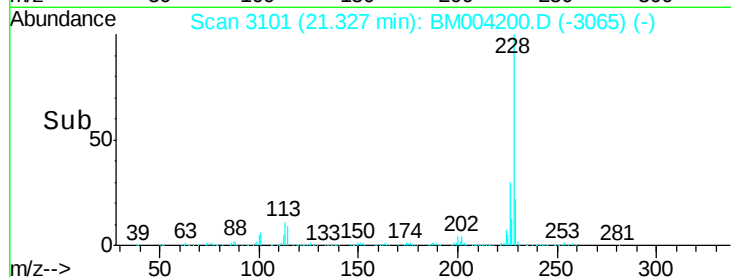
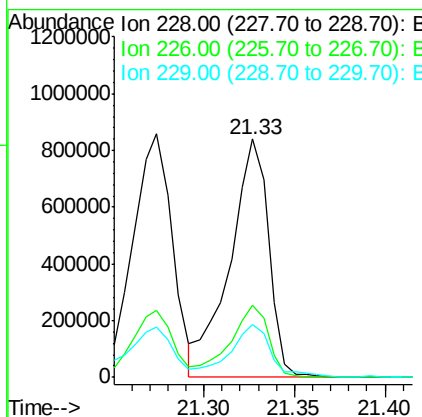
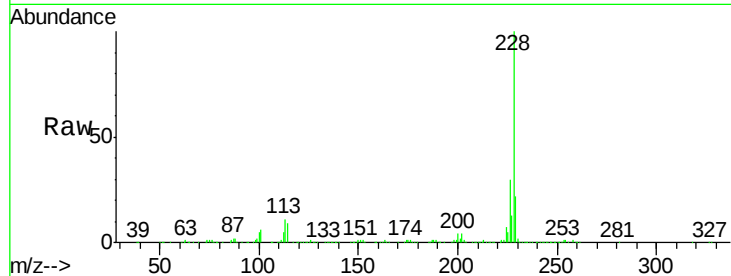
#85  
Chrysene  
Concen: 97.78 ng/ul  
RT: 21.33 min Scan# 3101  
Delta R.T. 0.01 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

Instrument :  
BNA\_M  
ClientSampleId :  
C04P4

Tgt Ion: 228 Resp: 1246185  
Ion Ratio Lower Upper  
228 100  
226 30.2 24.0 36.0  
229 22.4 15.6 23.4

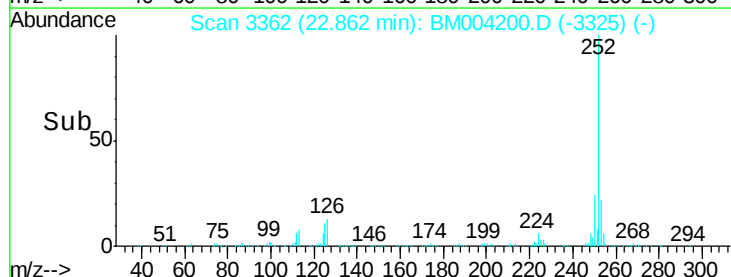
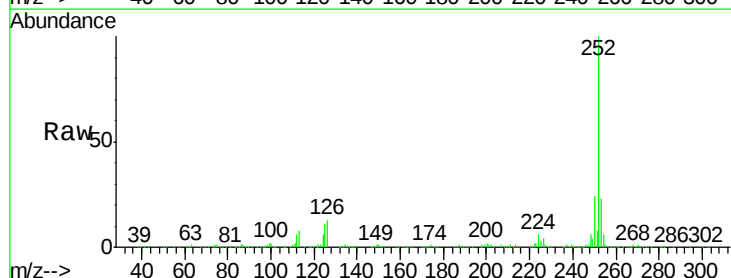
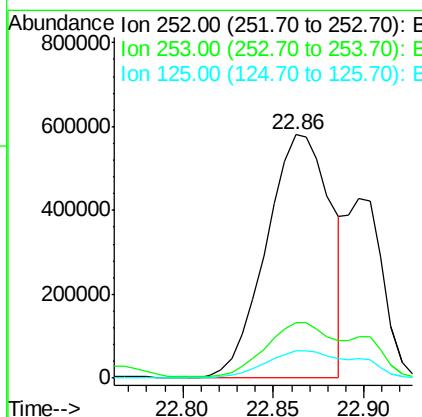
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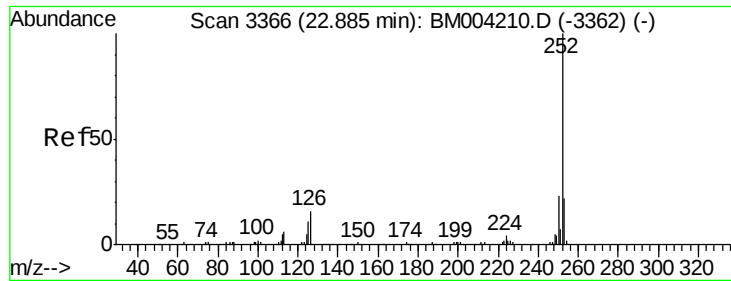
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#88  
Benzo(b)fluoranthene  
Concen: 104.93 ng/ul  
RT: 22.86 min Scan# 3362  
Delta R.T. 0.02 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

Tgt Ion: 252 Resp: 1436287  
Ion Ratio Lower Upper  
252 100  
253 22.8 17.5 26.3  
125 11.2 8.5 12.7





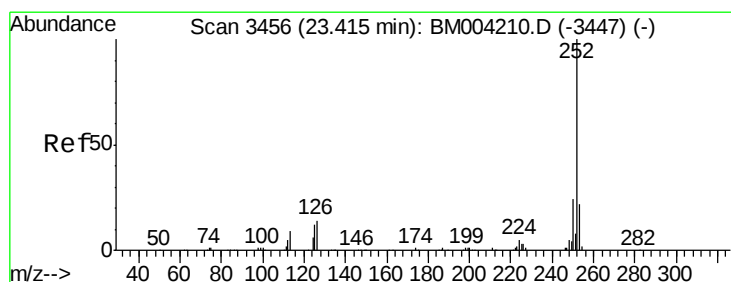
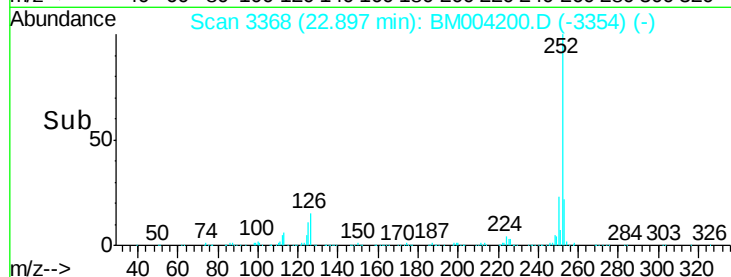
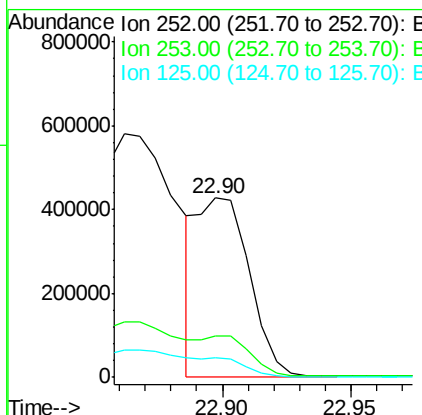
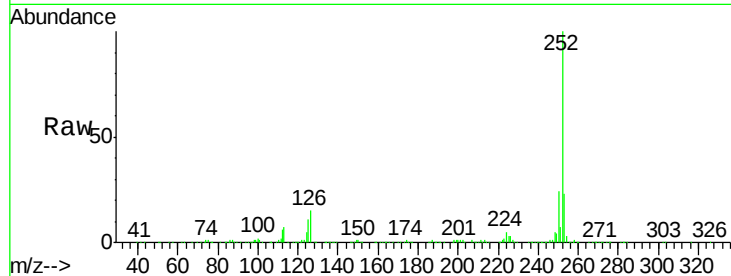
#89  
Benzo(k)fluoranthene  
Concen: 47.42 ng/ul m  
RT: 22.90 min Scan# 3368  
Delta R.T. 0.01 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

Instrument :  
BNA\_M  
ClientSampleId :  
C04P4

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.1  | 17.3  | 25.9  |
| 125     | 10.8  | 8.2   | 12.2  |

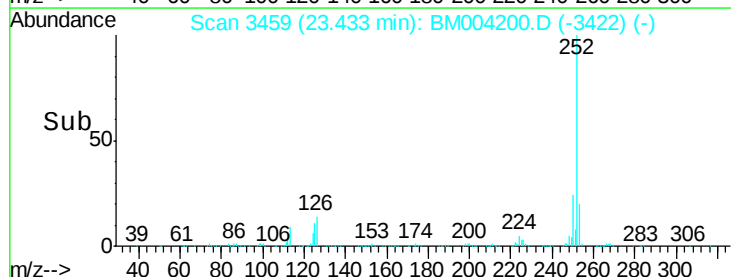
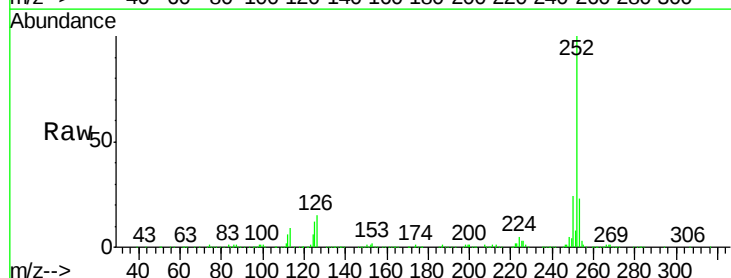
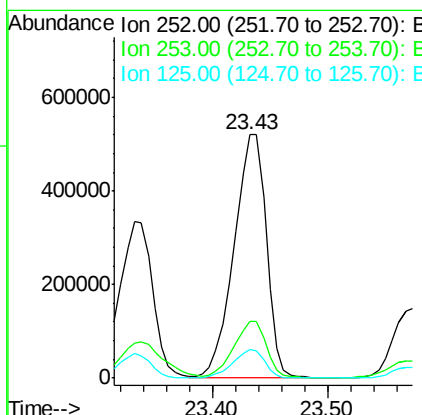
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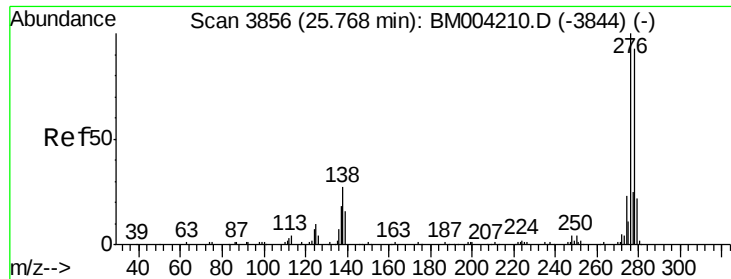
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#91  
Benzo(a)pyrene  
Concen: 75.92 ng/ul  
RT: 23.43 min Scan# 3459  
Delta R.T. 0.02 min  
Lab File: BM004200.D  
Acq: 08 Feb 2016 15:11

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.1  | 17.2  | 25.8  |
| 125     | 11.6  | 9.0   | 13.6  |





#92

Indeno(1,2,3-cd)pyrene

Concen: 35.40 ng/ul

RT: 25.79 min Scan# 3859

Delta R.T. 0.02 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

Instrument :

BNA\_M

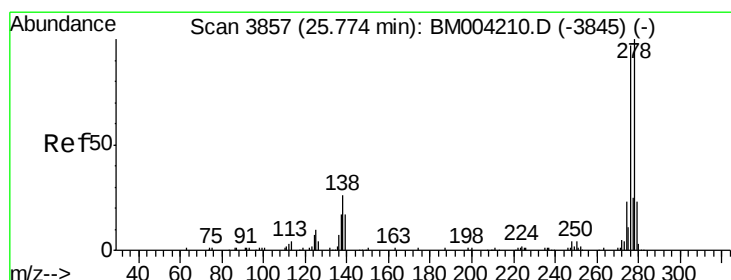
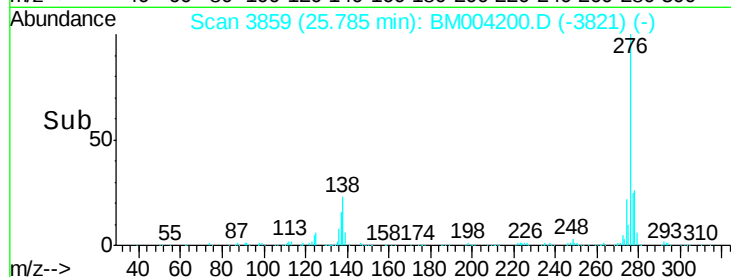
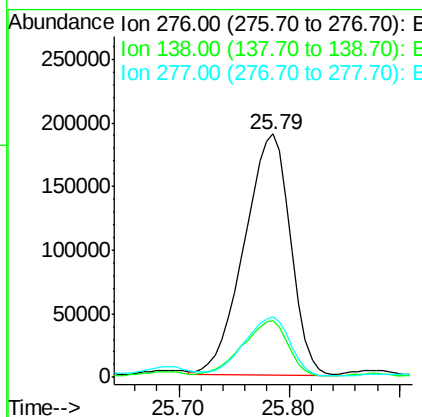
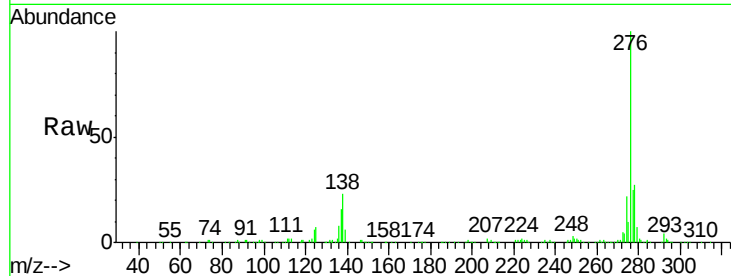
ClientSampleId :

C04P4

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 276  | Resp: | 558701 |
| Ion Ratio |      | Lower | Upper  |
| 276       | 100  |       |        |
| 138       | 23.1 | 22.3  | 33.5   |
| 277       | 24.8 | 20.2  | 30.2   |

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#93

Dibenzo(a,h)anthracene

Concen: 12.10 ng/ul m

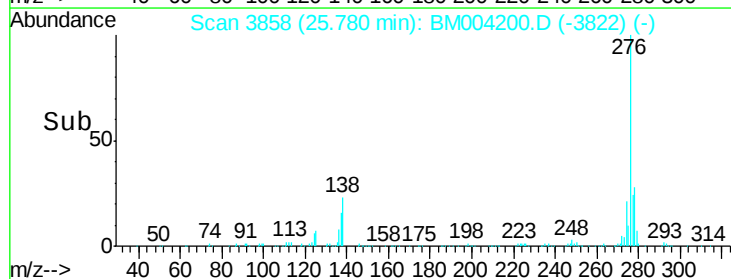
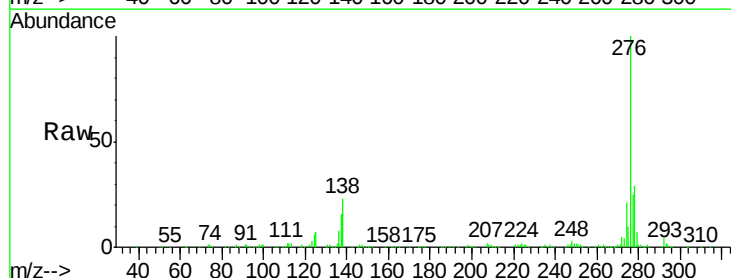
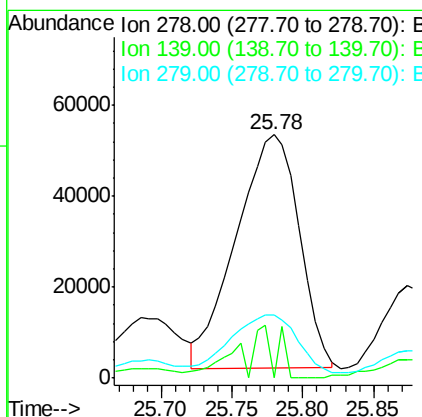
RT: 25.78 min Scan# 3858

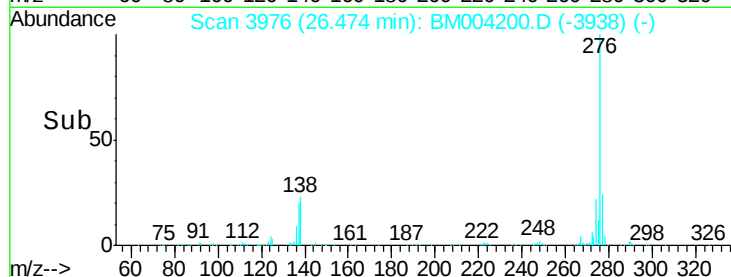
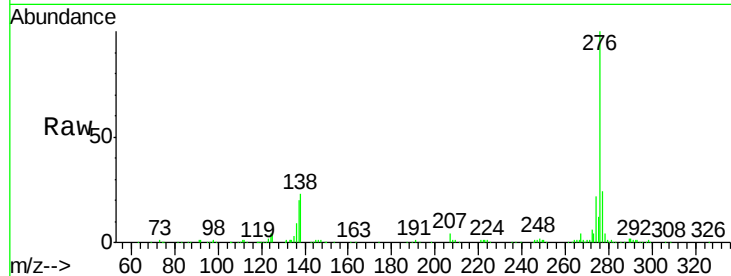
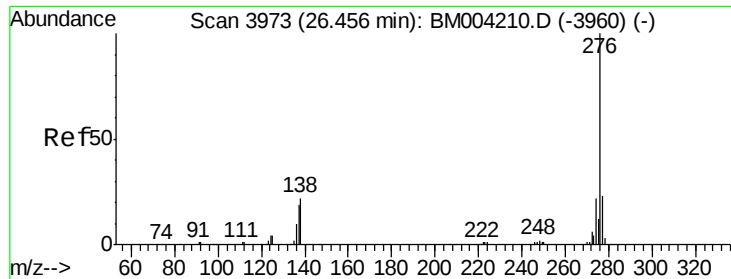
Delta R.T. 0.01 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 278  | Resp: | 159238 |
| Ion Ratio |      | Lower | Upper  |
| 278       | 100  |       |        |
| 139       | 0.0  | 13.9  | 20.9#  |
| 279       | 25.9 | 19.0  | 28.4   |





#94

Benzo(g,h,i)perylene

Concen: 29.20 ng/ul

RT: 26.47 min Scan# 3976

Delta R.T. 0.02 min

Lab File: BM004200.D

Acq: 08 Feb 2016 15:11

| Tgt | Ion  | Ratio | Resp   | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 276 | 100  |       | 392898 |       |       |
| 138 | 22.8 | 18.9  | 28.3   |       |       |
| 277 | 24.5 | 19.2  | 28.8   |       |       |

Instrument :

BNA\_M

ClientSampleId :

C04P4

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