

Data Path : Z:\HPCHEM1\BNA M\DATA\BM063016\  
 Data File : BM006171.D  
 Acq On : 30 Jun 2016 23:24  
 Operator : UM/SJ  
 Sample : H3777-16MSD  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 D9YC4MSD

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Quant Time: Jul 01 01:30:32 2016  
 Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM062816.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Wed Jun 29 00:57:09 2016  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.66  | 152  | 220300   | 20.00 | ng/ul | 0.00     |
| 7) Naphthalene-d8         | 10.44 | 136  | 866737   | 20.00 | ng/ul | 0.00     |
| 15) Acenaphthene-d10      | 14.31 | 164  | 452983   | 20.00 | ng/ul | 0.00     |
| 23) Phenanthrene-d10      | 17.06 | 188  | 993758   | 20.00 | ng/ul | 0.01     |
| 29) Chrysene-d12          | 21.26 | 240  | 1075523  | 20.00 | ng/ul | 0.00     |
| 34) Perylene-d12          | 23.49 | 264  | 1161493  | 20.00 | ng/ul | 0.02     |

## System Monitoring Compounds

|                                |       |     |         |       |       |      |
|--------------------------------|-------|-----|---------|-------|-------|------|
| 2) 1,4-Dioxane-d8              | 3.17  | 96  | 7462    | 1.57  | ng/uL | 0.00 |
| 3) Phenol-d5                   | 6.84  | 99  | 313078  | 17.40 | ng/ul | 0.01 |
| 4) Bis-(2-Chloroethyl)ether-d  | 6.99  | 67  | 204574  | 19.28 | ng/ul | 0.00 |
| 5) 2-Chlorophenol-d4           | 7.19  | 132 | 257802  | 18.66 | ng/ul | 0.00 |
| 6) 4-Methylphenol-d8           | 8.37  | 113 | 221577  | 15.30 | ng/ul | 0.00 |
| 8) Nitrobenzene-d5             | 8.81  | 128 | 127576  | 21.85 | ng/ul | 0.00 |
| 9) 2-Nitrophenol-d4            | 9.53  | 143 | 135199  | 20.23 | ng/ul | 0.00 |
| 10) 2,4-Dichlorophenol-d3      | 10.07 | 165 | 237282  | 19.46 | ng/ul | 0.01 |
| 12) 4-Chloroaniline-d4         | 10.58 | 131 | 166040  | 17.23 | ng/ul | 0.00 |
| 16) Dimethylphthalate-d6       | 13.72 | 166 | 668880  | 20.60 | ng/ul | 0.00 |
| 17) Acenaphthylene-d8          | 14.00 | 160 | 873648  | 22.17 | ng/ul | 0.00 |
| 20) 4-Nitrophenol-d4           | 14.53 | 143 | 95588   | 15.52 | ng/ul | 0.02 |
| 21) Fluorene-d10               | 15.30 | 176 | 591013  | 21.33 | ng/ul | 0.00 |
| 24) 4,6-Dinitro-2-methylphenol | 15.44 | 200 | 69829   | 19.84 | ng/ul | 0.01 |
| 26) Anthracene-d10             | 17.16 | 188 | 898969  | 22.55 | ng/ul | 0.00 |
| 30) Pyrene-d10                 | 19.46 | 212 | 1004860 | 23.20 | ng/ul | 0.01 |
| 37) Benzo(a)pyrene-d12         | 23.34 | 264 | 1033244 | 22.35 | ng/ul | 0.02 |

## Target Compounds

|                            |       |     |         |       |        | Ovalue |
|----------------------------|-------|-----|---------|-------|--------|--------|
| 19) Acenaphthene           | 14.37 | 153 | 525594  | 19.96 | ng/ul  | 99     |
| 25) Phenanthrene           | 17.10 | 178 | 420263  | 8.94  | ng/ul  | 99     |
| 27) Anthracene             | 17.19 | 178 | 91882   | 1.90  | ng/ul  | 99     |
| 28) Fluoranthene           | 19.13 | 202 | 658463  | 11.43 | ng/ul  | 99     |
| 31) Pyrene                 | 19.49 | 202 | 1607284 | 28.33 | ng/ul  | 96     |
| 32) Benzo(a)anthracene     | 21.24 | 228 | 299565  | 5.36  | ng/ul  | 95     |
| 33) Chrysene               | 21.29 | 228 | 302461  | 5.87  | ng/ul  | 95     |
| 35) Benzo(b)fluoranthene   | 22.81 | 252 | 440640  | 7.31  | ng/ul# | 93     |
| 36) Benzo(k)fluoranthene   | 22.86 | 252 | 114007m | 2.02  | ng/ul  |        |
| 38) Benzo(a)pyrene         | 23.39 | 252 | 281702  | 4.95  | ng/ul# | 94     |
| 39) Indeno(1,2,3-cd)pyrene | 25.71 | 276 | 216527  | 3.66  | ng/ul# | 93     |
| 40) Dibenzo(a,h)anthracene | 25.71 | 278 | 66817   | 1.36  | ng/ul# | 77     |
| 41) Benzo(g,h,i)perylene   | 26.40 | 276 | 267709  | 5.40  | ng/ul  | 96     |

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

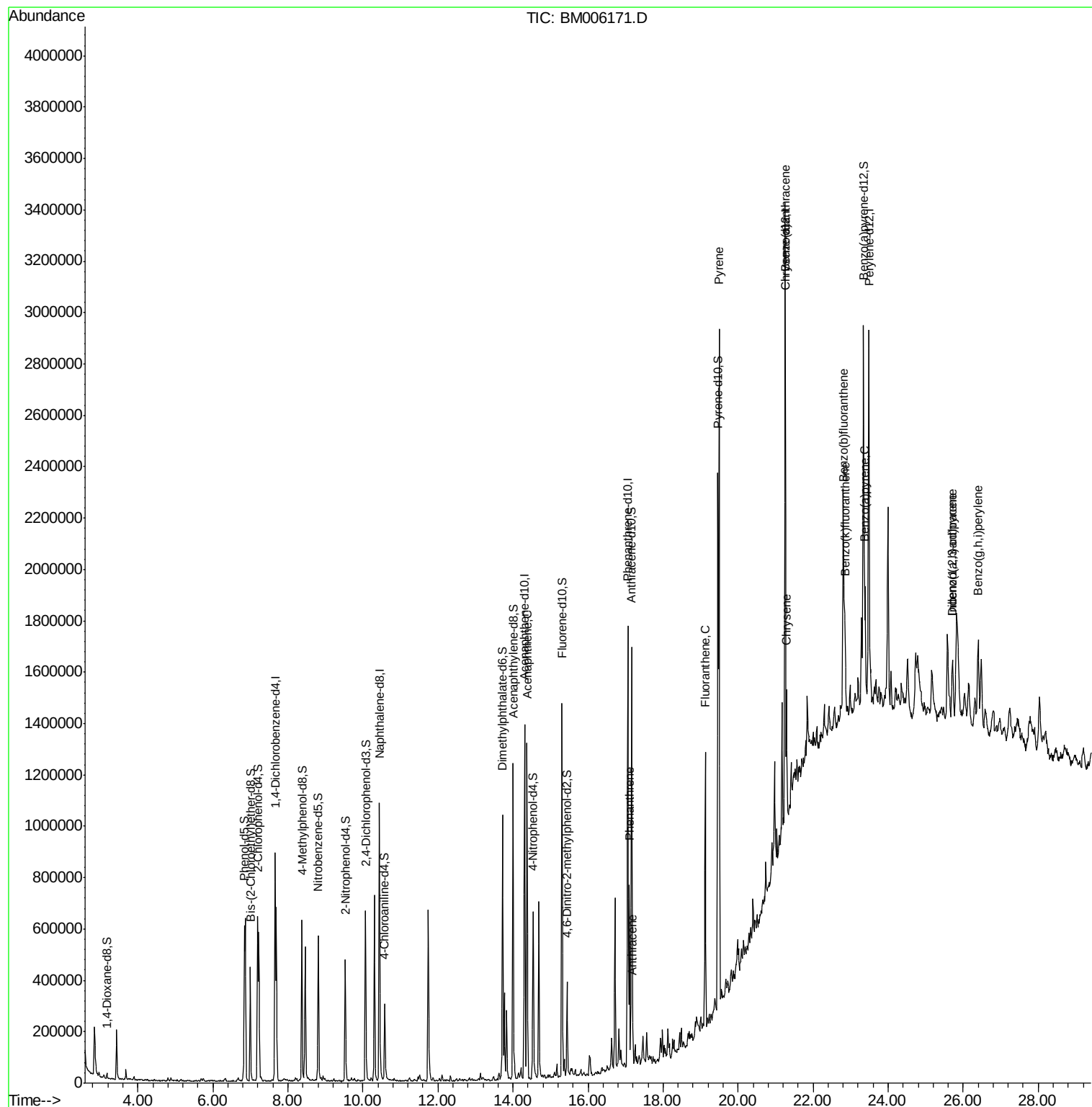
Data Path : Z:\HPCHEM1\BNA M\DATA\BM063016\  
Data File : BM006171.D  
Acq On : 30 Jun 2016 23:24  
Operator : UM/SJ  
Sample : H3777-16MSD  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

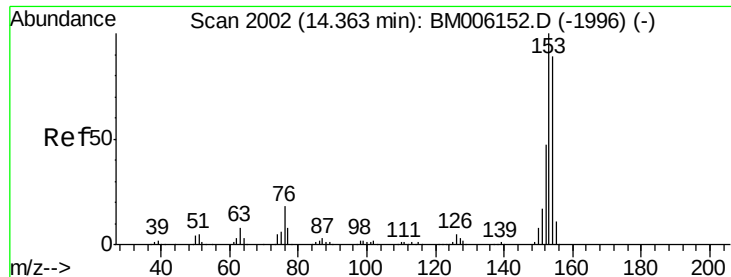
Instrument :  
BNA\_M  
ClientSampleId :  
D9YC4MSD

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Quant Time: Jul 01 01:30:32 2016  
Quant Method : Z:\HPCHEM1\BNA M\METHODS\SOM02.2-EPA-BM062816.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Wed Jun 29 00:57:09 2016  
Response via : Initial Calibration





#19

Acenaphthene

Concen: 19.96 ng/ul

RT: 14.37 min Scan# 2004

Delta R.T. 0.01 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

Instrument :

BNA\_M

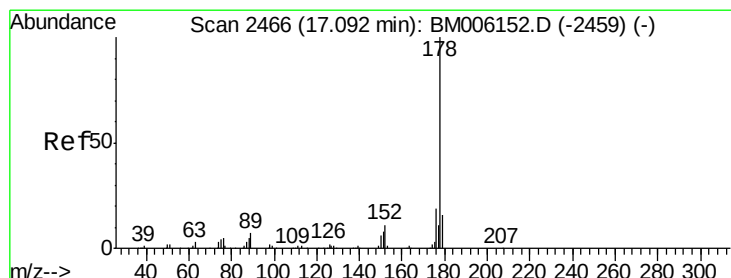
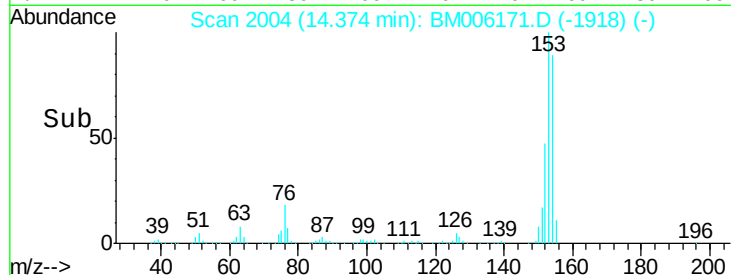
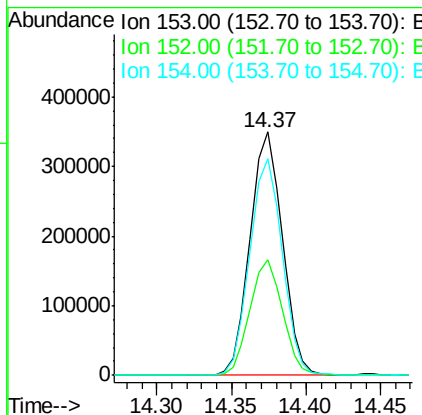
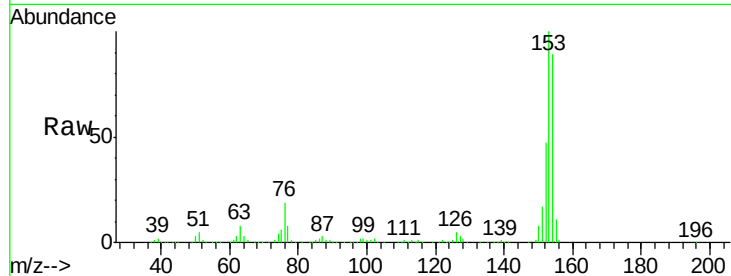
ClientSampleId :

D9YC4MSD

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 153   | Resp: | 525594 |
| Ion Ratio | Lower | Upper |        |
| 153       | 100   |       |        |
| 152       | 47.4  | 38.1  | 57.1   |
| 154       | 88.9  | 71.6  | 107.4  |

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#25

Phenanthrene

Concen: 8.94 ng/ul

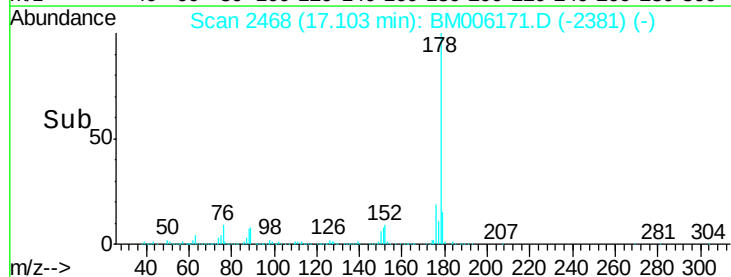
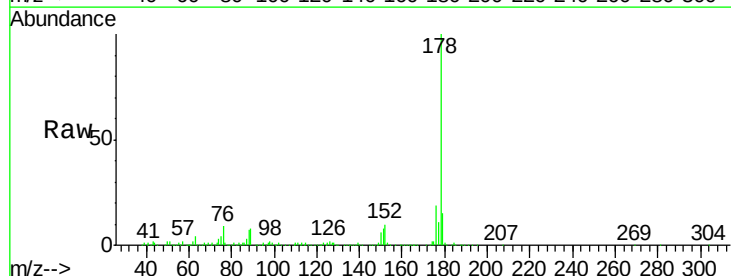
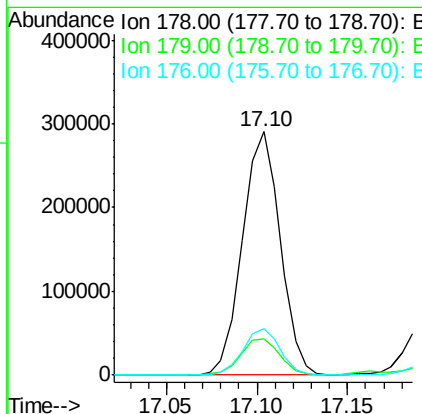
RT: 17.10 min Scan# 2468

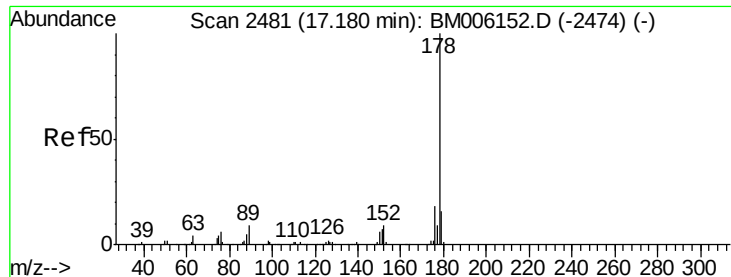
Delta R.T. 0.01 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 178   | Resp: | 420263 |
| Ion Ratio | Lower | Upper |        |
| 178       | 100   |       |        |
| 179       | 14.8  | 12.2  | 18.2   |
| 176       | 18.8  | 15.3  | 22.9   |





#27

Anthracene

Concen: 1.90 ng/ul

RT: 17.19 min Scan# 2483

Delta R.T. 0.01 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

Instrument :

BNA\_M

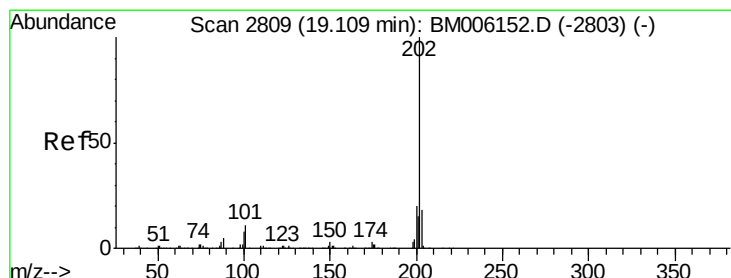
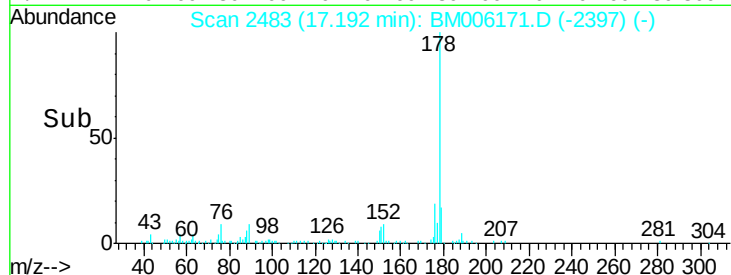
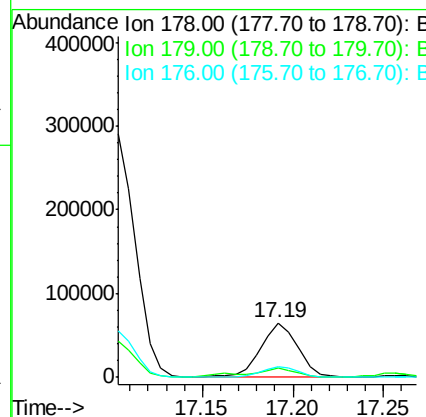
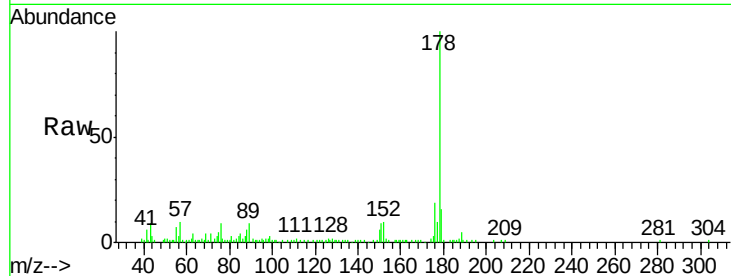
ClientSampleId :

D9YC4MSD

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 178   | Resp: | 91882 |
| Ion Ratio | Lower | Upper |       |
| 178       | 100   |       |       |
| 179       | 16.5  | 12.3  | 18.5  |
| 176       | 18.5  | 14.6  | 22.0  |

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#28

Fluoranthene

Concen: 11.43 ng/ul

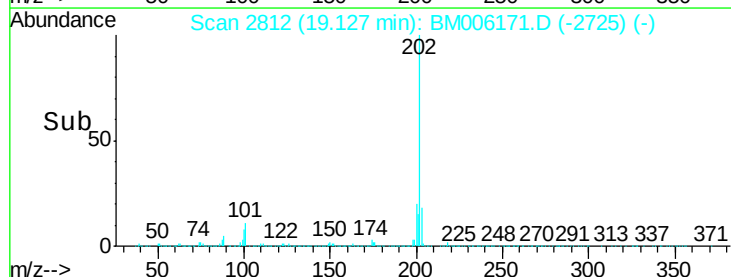
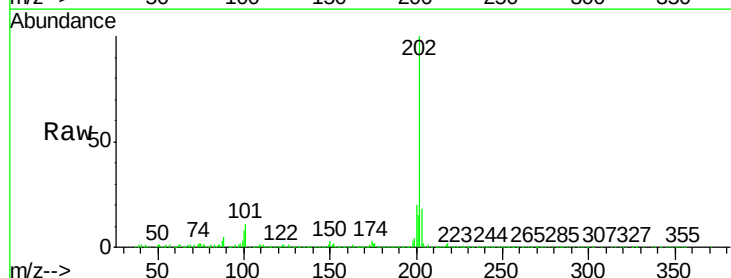
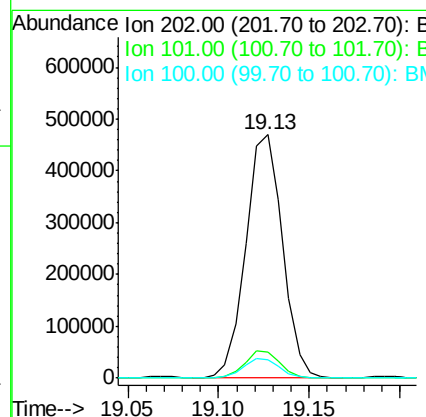
RT: 19.13 min Scan# 2812

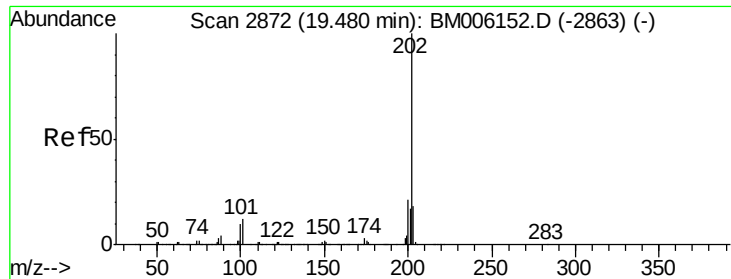
Delta R.T. 0.01 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 658463 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 10.6  | 8.5   | 12.7   |
| 100       | 7.7   | 6.5   | 9.7    |





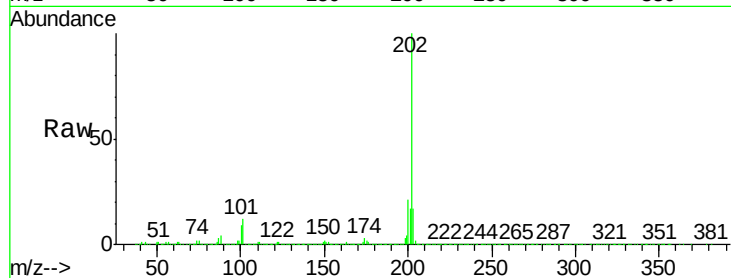
#31  
Pvrene  
Concen: 28.33 ng/ul  
RT: 19.49 min Scan# 2874  
Delta R.T. 0.01 min  
Lab File: BM006171.D  
Acq: 30 Jun 2016 23:24

Instrument :  
BNA\_M  
ClientSampleId :  
D9YC4MSD

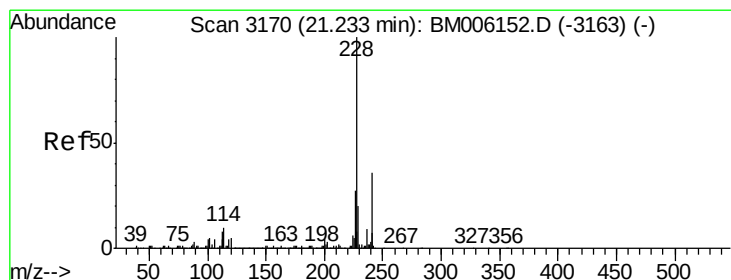
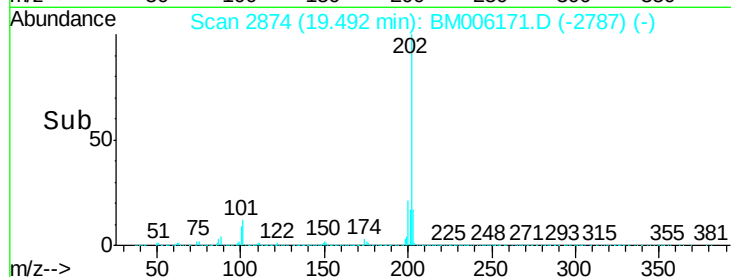
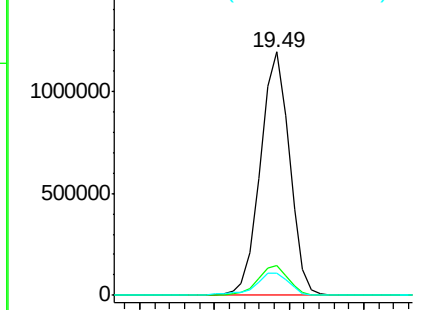
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 12.0  | 11.0  | 16.4  |
| 100     | 9.3   | 8.9   | 13.3  |

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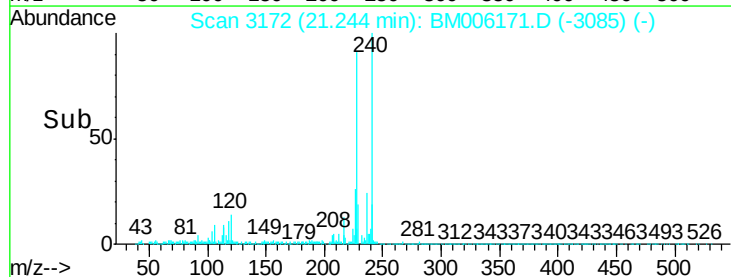
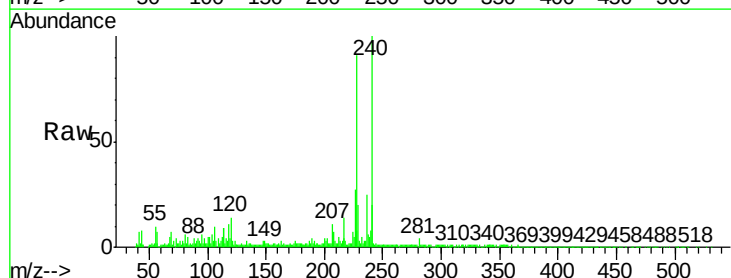
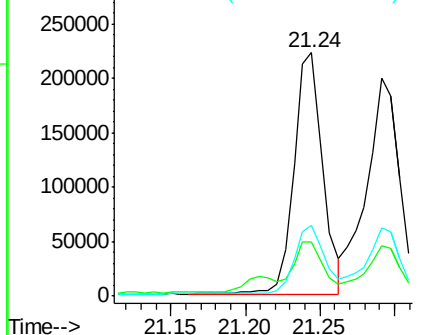
Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 100.00 (99.70 to 100.70): B

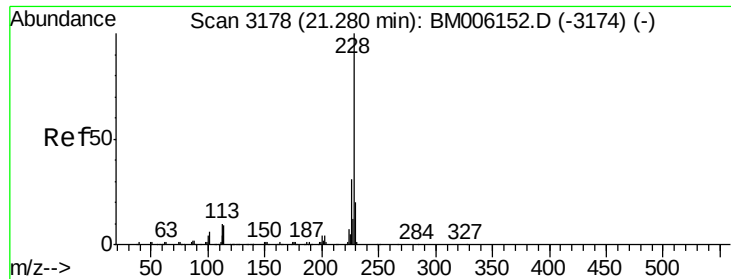


#32  
Benzo(a)anthracene  
Concen: 5.36 ng/ul  
RT: 21.24 min Scan# 3172  
Delta R.T. 0.01 min  
Lab File: BM006171.D  
Acq: 30 Jun 2016 23:24

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 22.5  | 15.6  | 23.4  |
| 226     | 29.1  | 21.6  | 32.4  |

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





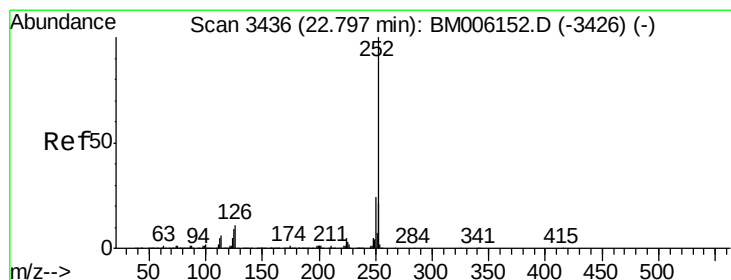
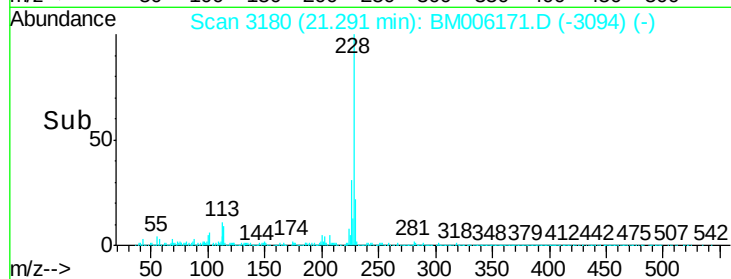
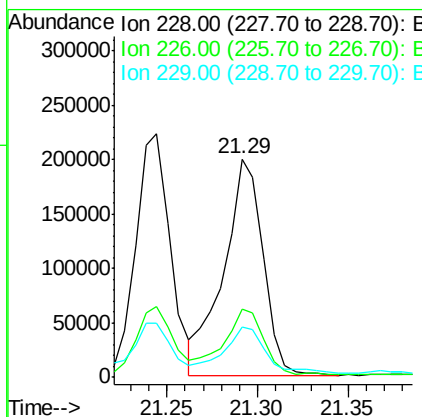
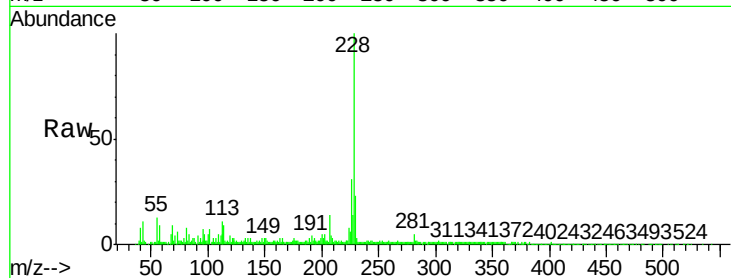
#33  
Chrysene  
Concen: 5.87 ng/ul  
RT: 21.29 min Scan# 3180  
Delta R.T. 0.01 min  
Lab File: BM006171.D  
Acq: 30 Jun 2016 23:24

Instrument :  
BNA\_M  
ClientSampleId :  
D9YC4MSD

| Tot Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 228     | 100  |       | 302461 |       |       |
| 226     | 31.2 |       | 23.8   | 35.6  |       |
| 229     | 23.3 |       | 15.8   | 23.6  |       |

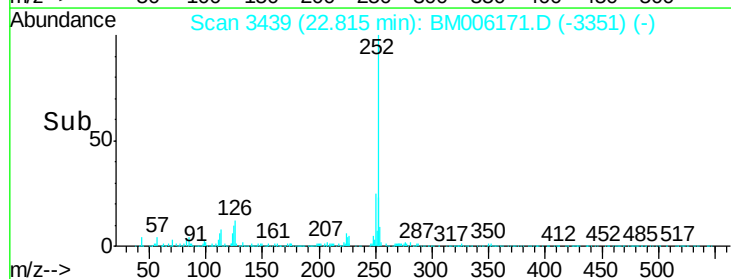
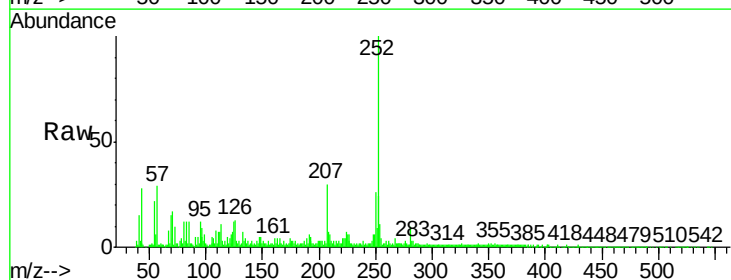
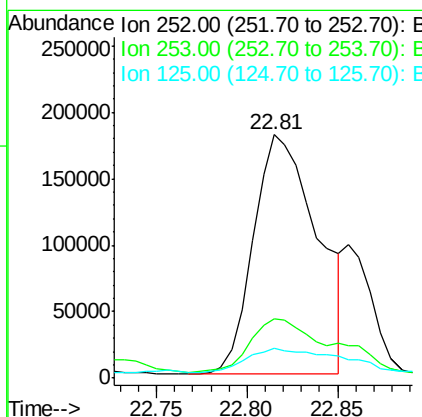
Manual Integrations  
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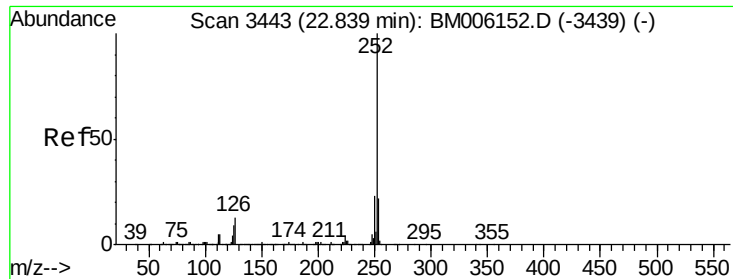
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#35  
Benzo(b)fluoranthene  
Concen: 7.31 ng/ul  
RT: 22.81 min Scan# 3439  
Delta R.T. 0.02 min  
Lab File: BM006171.D  
Acq: 30 Jun 2016 23:24

| Tgt Ion | Ion  | Ratio | Resp   | Lower | Upper |
|---------|------|-------|--------|-------|-------|
| 252     | 100  |       | 440640 |       |       |
| 253     | 24.4 |       | 17.2   | 25.8  |       |
| 125     | 12.4 |       | 7.8    | 11.6  |       |





#36

Benzo(k)fluoranthene

Concen: 2.02 ng/ul m

RT: 22.86 min Scan# 3446

Delta R.T. 0.01 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

Instrument :

BNA\_M

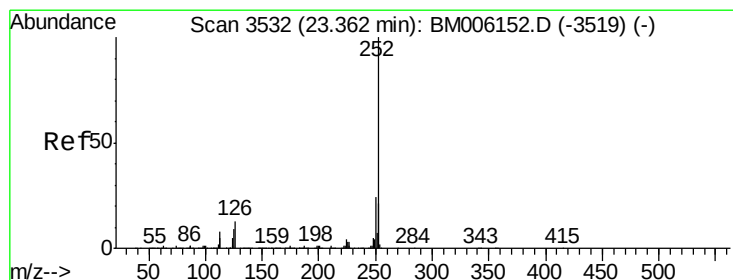
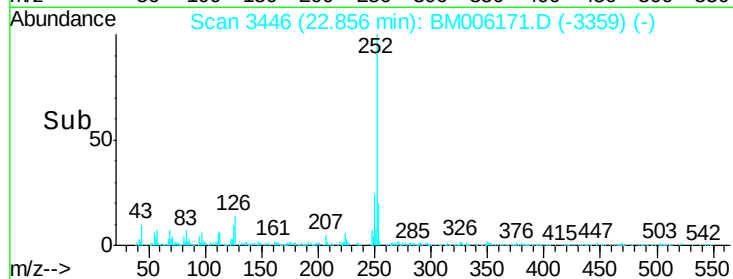
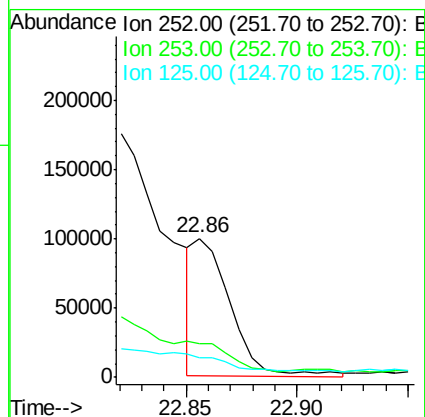
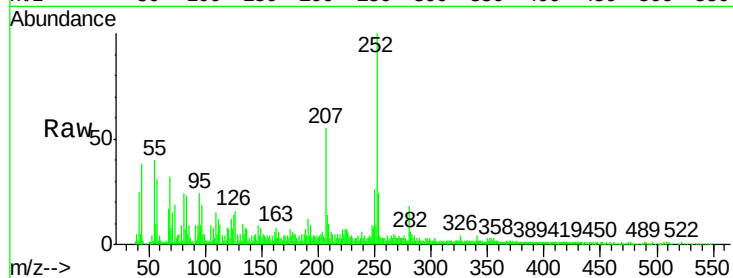
ClientSampleId :

D9YC4MSD

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 252   | Resp: | 114007 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 24.2  | 17.6  | 26.4   |
| 125       | 13.9  | 8.1   | 12.1#  |

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#38

Benzo(a)pyrene

Concen: 4.95 ng/ul

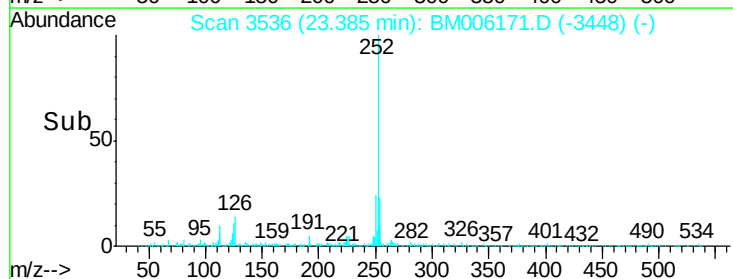
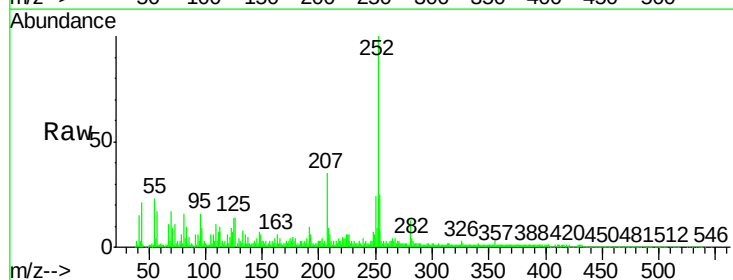
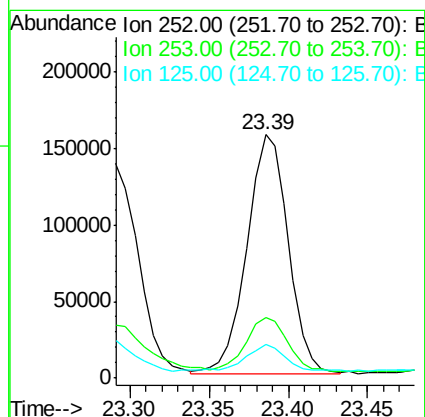
RT: 23.39 min Scan# 3536

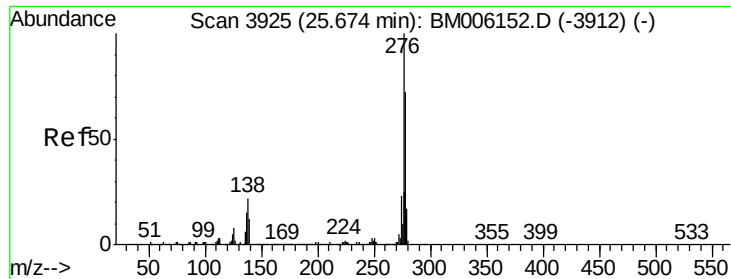
Delta R.T. 0.02 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 252   | Resp: | 281702 |
| Ion Ratio | Lower | Upper |        |
| 252       | 100   |       |        |
| 253       | 25.1  | 17.8  | 26.6   |
| 125       | 13.6  | 8.7   | 13.1#  |





#39

Indeno(1,2,3-cd)pyrene

Concen: 3.66 ng/ul

RT: 25.71 min Scan# 3931

Delta R.T. 0.02 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

Instrument :

BNA\_M

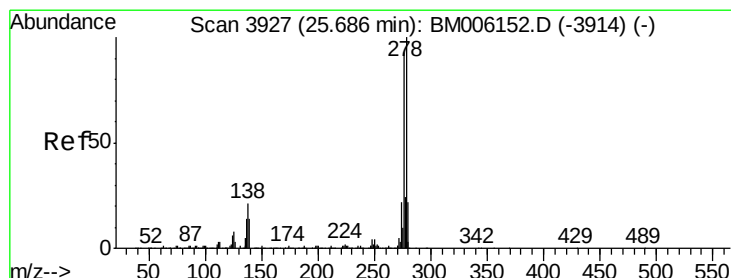
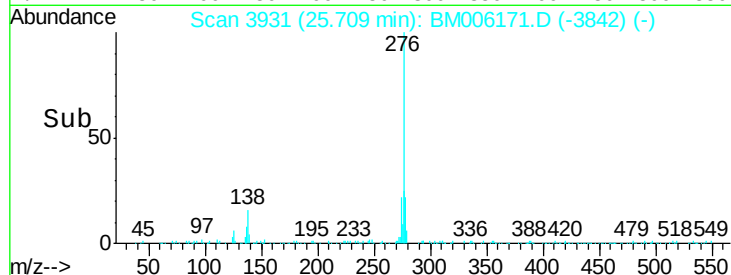
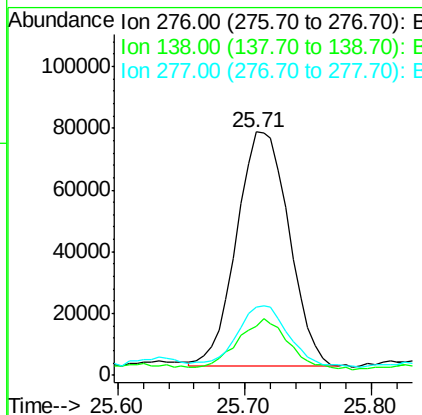
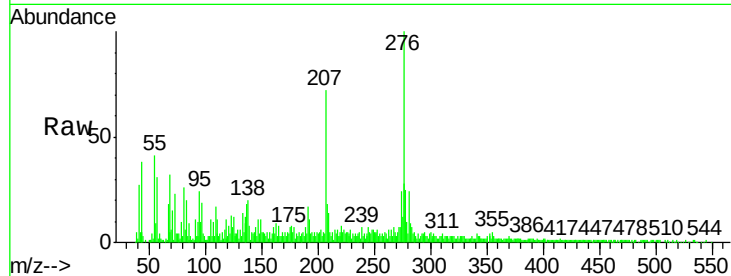
ClientSampleId :

D9YC4MSD

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 276  | Resp: | 216527 |
| Ion Ratio |      | Lower | Upper  |
| 276       | 100  |       |        |
| 138       | 20.1 | 20.4  | 30.6#  |
| 277       | 27.8 | 20.6  | 30.8   |

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#40

Dibenzo(a,h)anthracene

Concen: 1.36 ng/ul

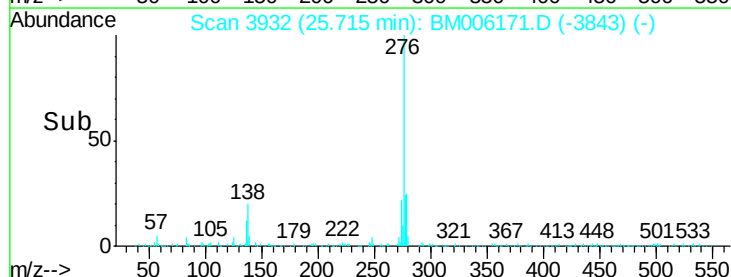
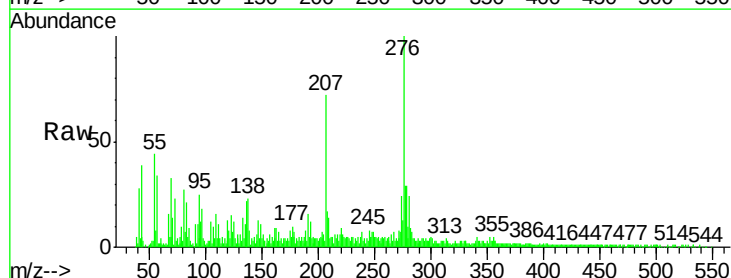
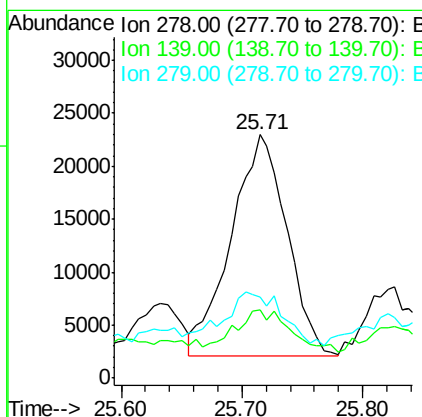
RT: 25.71 min Scan# 3932

Delta R.T. 0.02 min

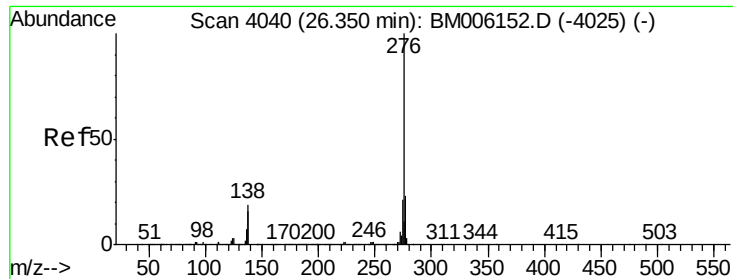
Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 278  | Resp: | 66817 |
| Ion Ratio |      | Lower | Upper |
| 278       | 100  |       |       |
| 139       | 28.1 | 13.0  | 19.4# |
| 279       | 33.3 | 18.8  | 28.2# |







#41

Benzo(a,h,i)perylene

Concen: 5.40 ng/ul

RT: 26.40 min Scan# 4049

Delta R.T. 0.05 min

Lab File: BM006171.D

Acq: 30 Jun 2016 23:24

Instrument :

BNA\_M

ClientSampleId :

D9YC4MSD

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 267709 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 21.1  | 16.6  | 25.0   |
| 277       | 26.6  | 18.9  | 28.3   |

Manual Integrations  
APPROVED

sohil  
7/1/2016 7:15:53 PM

