

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM101217\  
 Data File : BM012116.D  
 Acq On : 13 Oct 2017 01:39  
 Operator : SJ/JU  
 Sample : I5490-04 5X  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 B-70(5-7)-092717

Manual Integrations  
 APPROVED

Sohil  
 10/15/2017 12:36:24 PM

Quant Time: Oct 13 05:12:59 2017  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM101217.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Oct 13 04:53:53 2017  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.83  | 152  | 334259   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.63 | 136  | 1418993  | 20.00 | ng/ul | 0.00     |
| 35) Acenaphthene-d10      | 14.48 | 164  | 847431   | 20.00 | ng/ul | 0.00     |
| 61) Phenanthrene-d10      | 17.23 | 188  | 1960679  | 20.00 | ng/ul | 0.00     |
| 75) Chrysene-d12          | 21.40 | 240  | 1970485  | 20.00 | ng/ul | 0.00     |
| 83) Perylene-d12          | 23.72 | 264  | 1710093  | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |      |       |      |
|--------------------------------|-------|-----|--------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.25  | 96  | 5686   | 0.81 | ng/uL | 0.00 |
| 5) Phenol-d5                   | 6.99  | 99  | 90878  | 3.35 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.16  | 67  | 62289  | 3.83 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.36  | 132 | 80747  | 3.51 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.54  | 113 | 77284  | 3.31 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.00  | 128 | 38731  | 3.58 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.72  | 143 | 43933m | 3.47 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.26 | 165 | 81313  | 3.37 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.79 | 131 | 42110  | 1.86 | ng/ul | 0.01 |
| 43) Dimethylphthalate-d6       | 13.89 | 166 | 303502 | 4.05 | ng/ul | 0.00 |
| 46) Acenaphthylene-d8          | 14.17 | 160 | 354243 | 3.91 | ng/ul | 0.00 |
| 51) 4-Nitrophenol-d4           | 14.72 | 143 | 19416m | 1.72 | ng/ul | 0.03 |
| 57) Fluorene-d10               | 15.47 | 176 | 259128 | 4.22 | ng/ul | 0.00 |
| 62) 4,6-Dinitro-2-methylphenol | 15.60 | 200 | 23213  | 1.73 | ng/ul | 0.00 |
| 70) Anthracene-d10             | 17.32 | 188 | 410863 | 4.24 | ng/ul | 0.00 |
| 76) Pyrene-d10                 | 19.62 | 212 | 451223 | 4.51 | ng/ul | 0.00 |
| 87) Benzo(a)pyrene-d12         | 23.56 | 264 | 343401 | 4.17 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |       |        | Qvalue |
|----------------------------|-------|-----|---------|-------|--------|--------|
| 44) Dimethylphthalate      | 13.93 | 163 | 126412  | 1.68  | ng/ul  | 98     |
| 58) Fluorene               | 15.53 | 166 | 101028  | 1.41  | ng/ul  | 99     |
| 69) Phenanthrene           | 17.26 | 178 | 1712856 | 15.36 | ng/ul  | 99     |
| 71) Anthracene             | 17.36 | 178 | 435487  | 3.77  | ng/ul  | 98     |
| 72) Carbazole              | 17.63 | 167 | 144199  | 1.48  | ng/ul  | 95     |
| 74) Fluoranthene           | 19.28 | 202 | 2729636 | 20.28 | ng/ul# | 84     |
| 77) Pyrene                 | 19.64 | 202 | 1996725 | 15.34 | ng/ul# | 90     |
| 80) Benzo(a)anthracene     | 21.39 | 228 | 1266007 | 9.87  | ng/ul  | 97     |
| 82) Chrysene               | 21.44 | 228 | 1092392 | 9.07  | ng/ul  | 96     |
| 85) Benzo(b)fluoranthene   | 23.02 | 252 | 1260654 | 11.30 | ng/ul# | 95     |
| 86) Benzo(k)fluoranthene   | 23.06 | 252 | 457489m | 4.25  | ng/ul  |        |
| 88) Benzo(a)pyrene         | 23.62 | 252 | 859557  | 8.17  | ng/ul# | 98     |
| 89) Indeno(1,2,3-cd)pyrene | 26.07 | 276 | 506624  | 4.54  | ng/ul# | 95     |
| 90) Dibenzo(a,h)anthracene | 26.08 | 278 | 141583m | 1.51  | ng/ul  |        |
| 91) Benzo(g,h,i)perylene   | 26.80 | 276 | 403084  | 4.41  | ng/ul# | 93     |

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

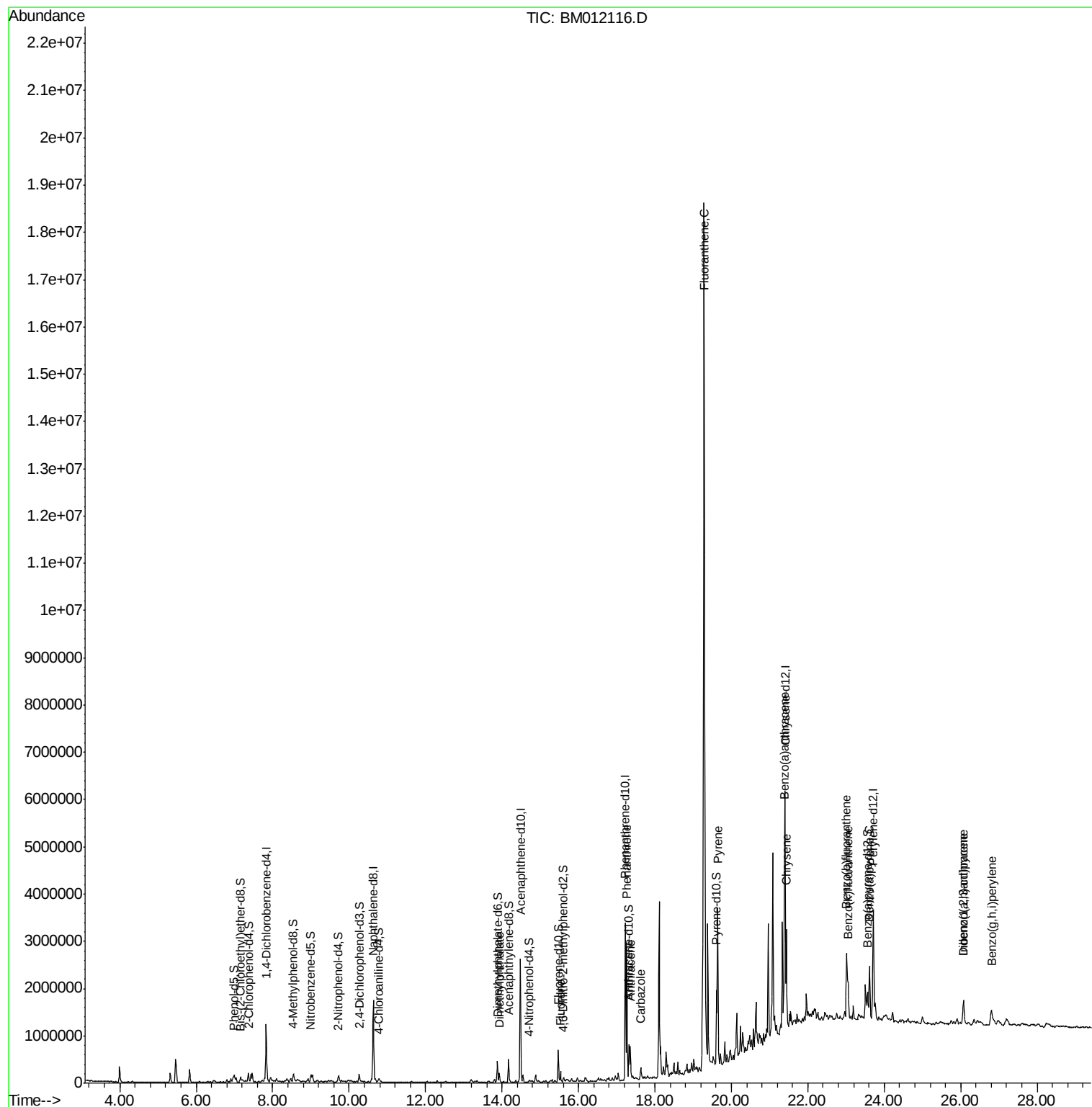
Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM101217\  
Data File : BM012116.D  
Acq On : 13 Oct 2017 01:39  
Operator : SJ/JU  
Sample : I5490-04 5X  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

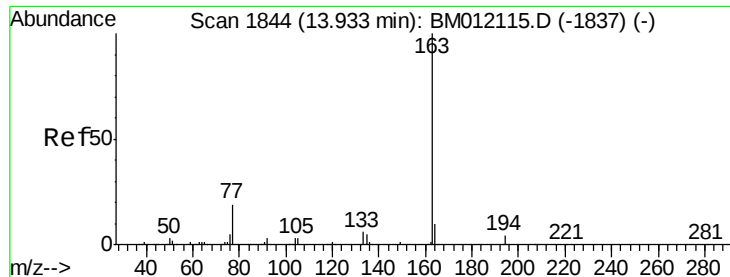
Instrument :  
BNA\_M  
ClientSampleId :  
B-70(5-7)-092717

Quant Time: Oct 13 05:12:59 2017  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM101217.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Fri Oct 13 04:53:53 2017  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Sohil  
10/15/2017 12:36:24 PM





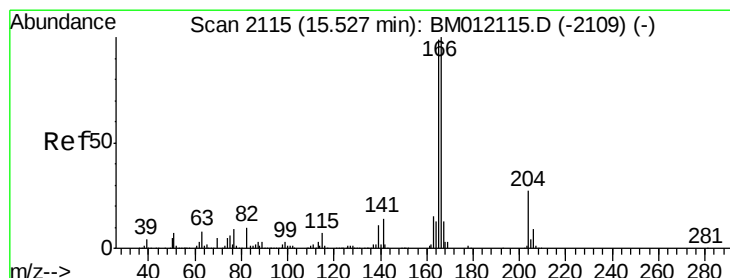
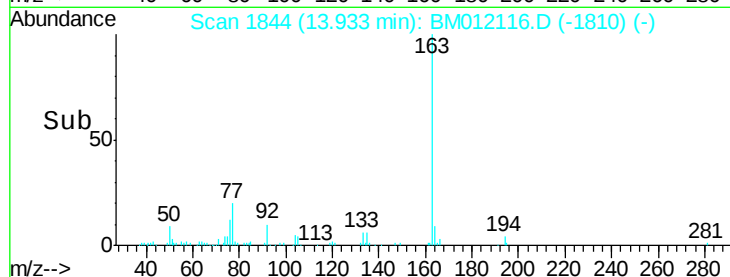
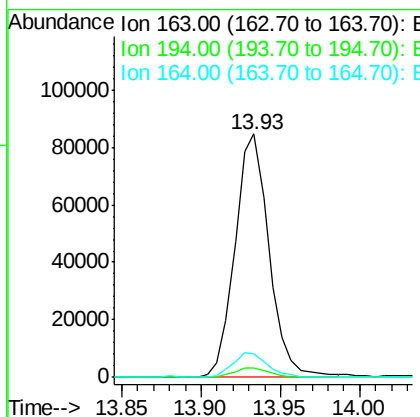
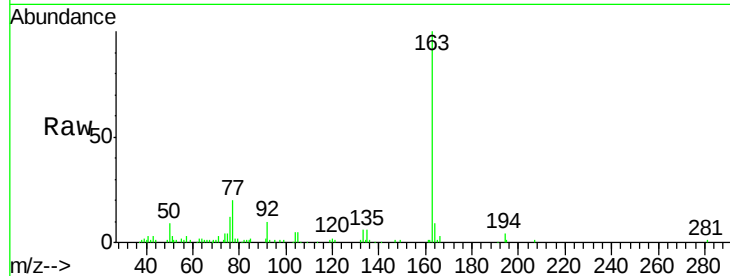
#44  
Dimethylphthalate  
Concen: 1.68 ng/ul  
RT: 13.93 min Scan# 1844  
Delta R.T. 0.00 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

Instrument :  
BNA\_M  
ClientSampleId :  
B-70(5-7)-092717

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 163     | 100   | 126412 |       |       |
| 194     | 3.9   |        | 3.5   | 5.3   |
| 164     | 9.5   |        | 8.2   | 12.4  |

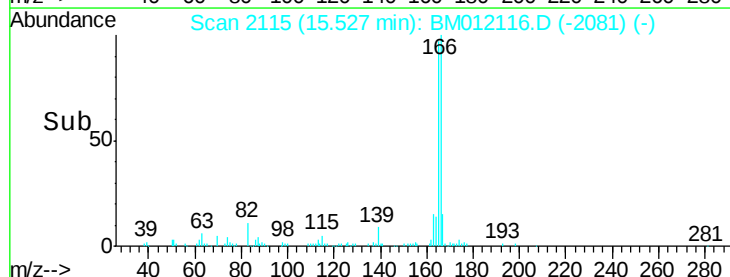
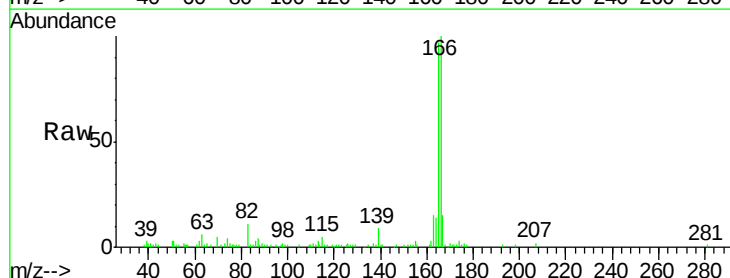
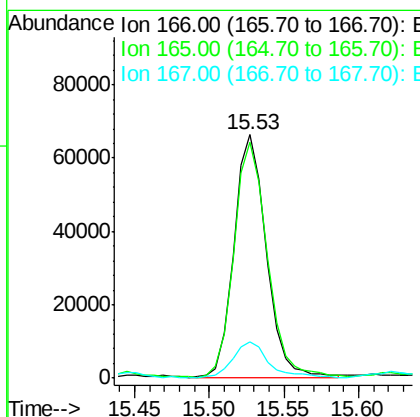
Manual Integrations  
APPROVED

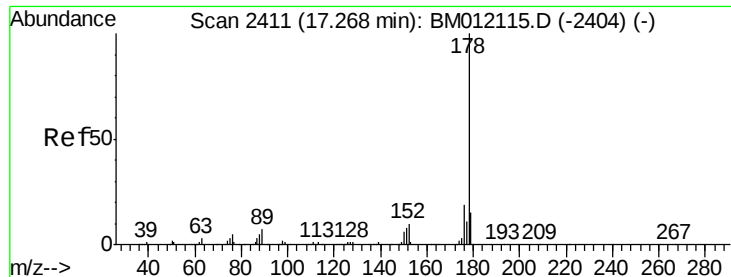
Sohil  
10/15/2017 12:36:24 PM



#58  
Fluorene  
Concen: 1.41 ng/ul  
RT: 15.53 min Scan# 2115  
Delta R.T. 0.00 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 166     | 100   | 101028 |       |       |
| 165     | 96.7  |        | 77.9  | 116.9 |
| 167     | 14.6  |        | 10.6  | 16.0  |





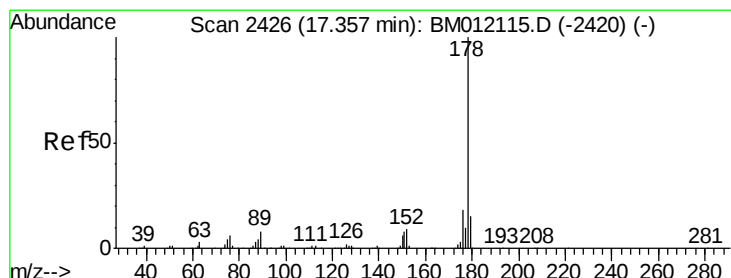
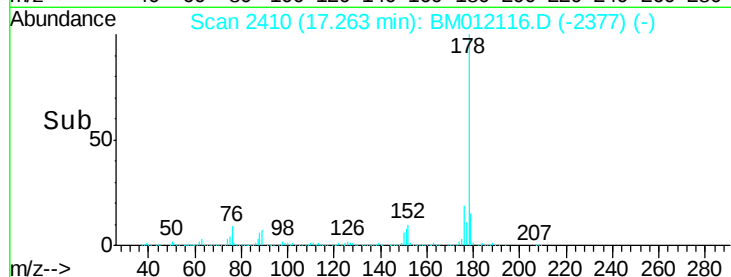
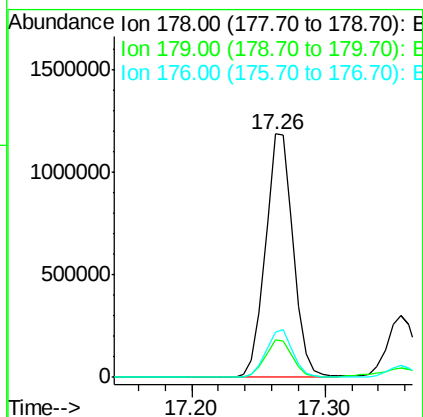
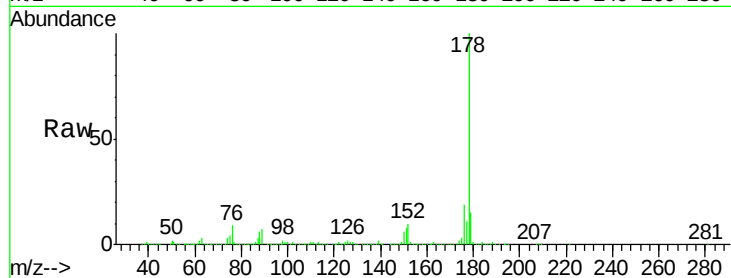
#69  
Phenanthrene  
Concen: 15.36 ng/ul  
RT: 17.26 min Scan# 2410  
Delta R.T. -0.01 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

Instrument :  
BNA\_M  
ClientSampleId :  
B-70(5-7)-092717

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.3  | 12.6  | 19.0  |
| 176     | 18.6  | 14.9  | 22.3  |

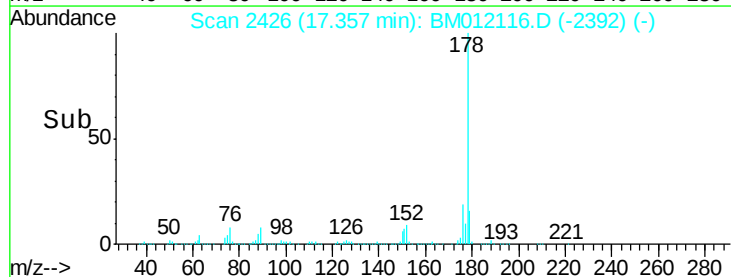
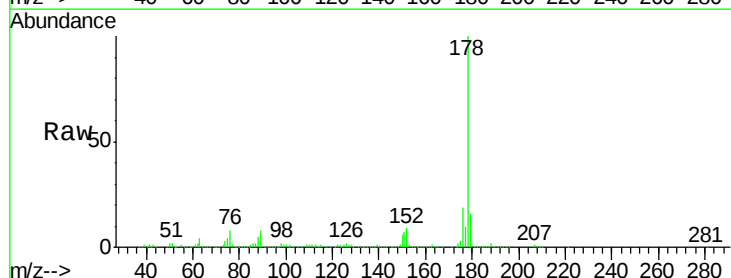
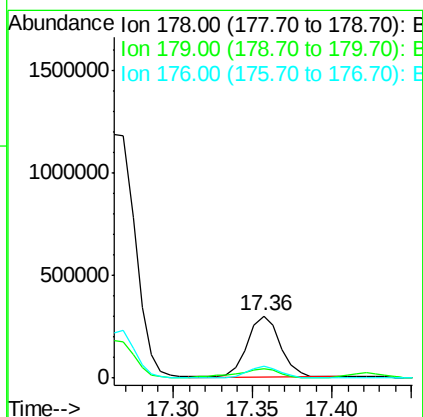
Manual Integrations  
APPROVED

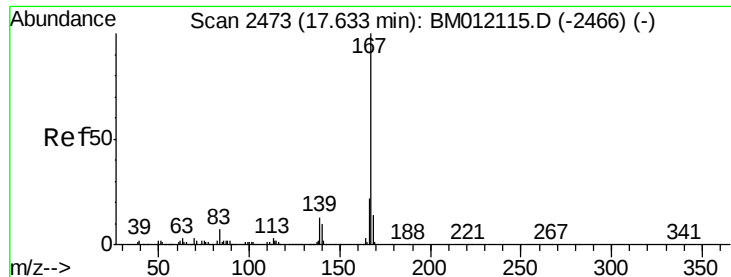
Sohil  
10/15/2017 12:36:24 PM



#71  
Anthracene  
Concen: 3.77 ng/ul  
RT: 17.36 min Scan# 2426  
Delta R.T. 0.00 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.8  | 11.7  | 17.5  |
| 176     | 18.9  | 14.6  | 21.8  |





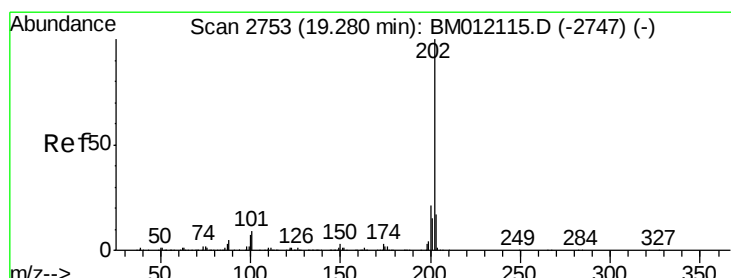
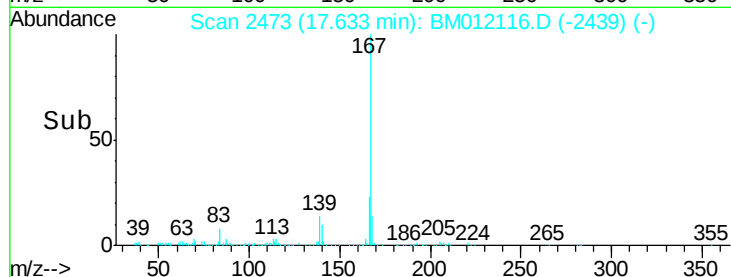
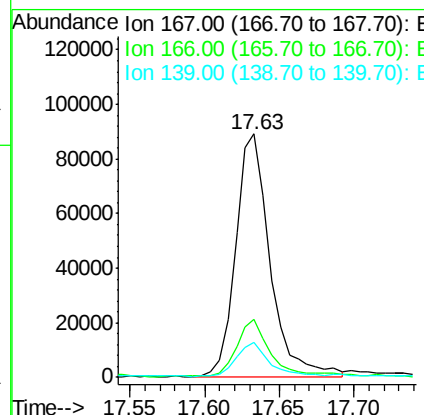
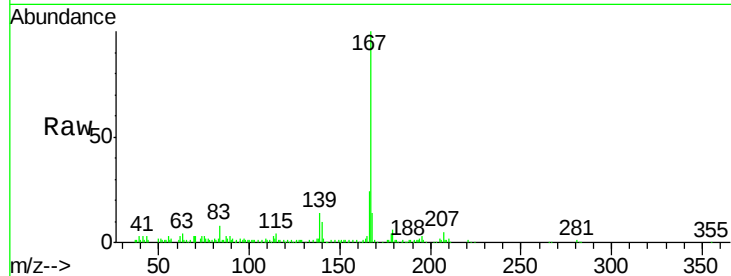
#72  
 Carbazole  
 Concen: 1.48 ng/ul  
 RT: 17.63 min Scan# 2473  
 Delta R.T. 0.00 min  
 Lab File: BM012116.D  
 Acq: 13 Oct 2017 01:39

Instrument :  
 BNA\_M  
 ClientSampleId :  
 B-70(5-7)-092717

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 167     | 100   | 144199 |       |       |
| 166     | 23.9  | 17.1   | 25.7  |       |
| 139     | 14.2  | 10.0   | 15.0  |       |

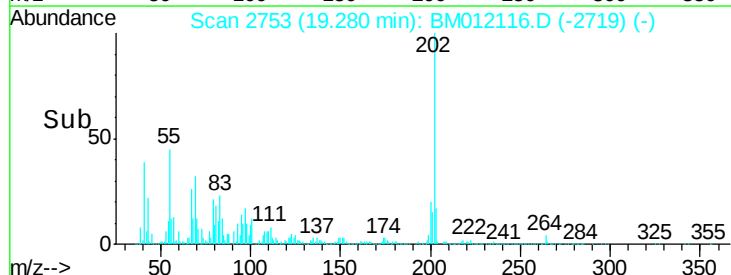
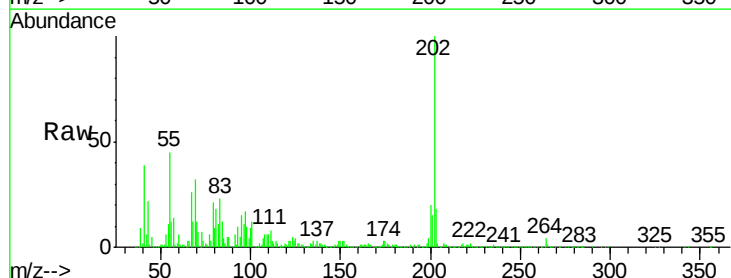
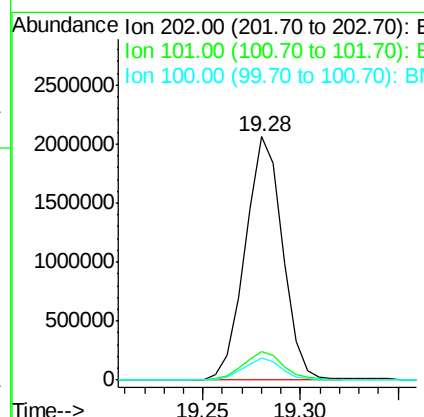
Manual Integrations  
 APPROVED

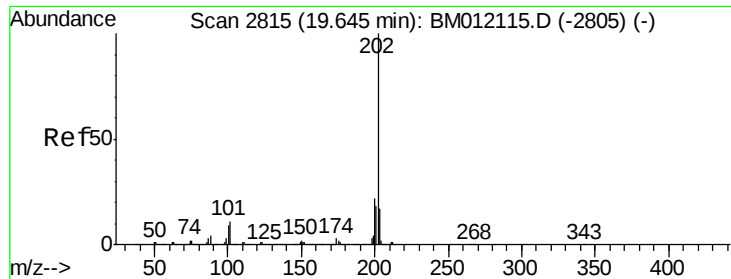
Sohil  
 10/15/2017 12:36:24 PM



#74  
 Fluoranthene  
 Concen: 20.28 ng/ul  
 RT: 19.28 min Scan# 2753  
 Delta R.T. 0.00 min  
 Lab File: BM012116.D  
 Acq: 13 Oct 2017 01:39

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 202     | 100   | 2729636 |       |       |
| 101     | 11.9  | 4.6     | 7.0#  |       |
| 100     | 8.9   | 3.4     | 5.2#  |       |





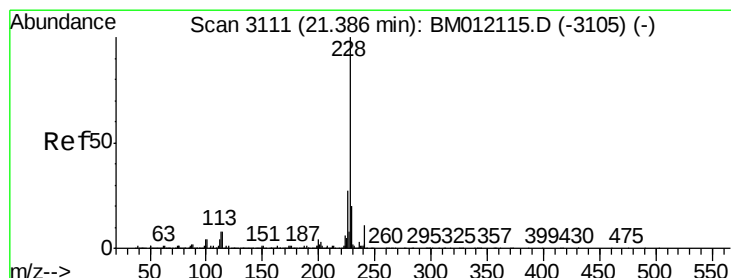
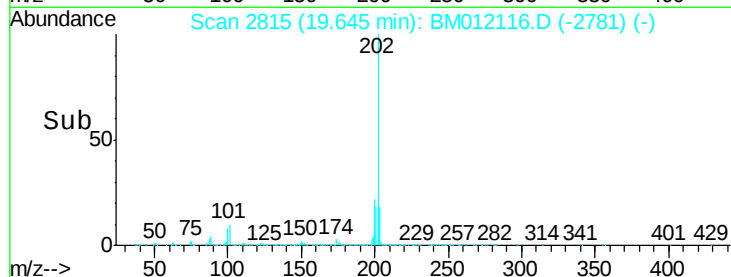
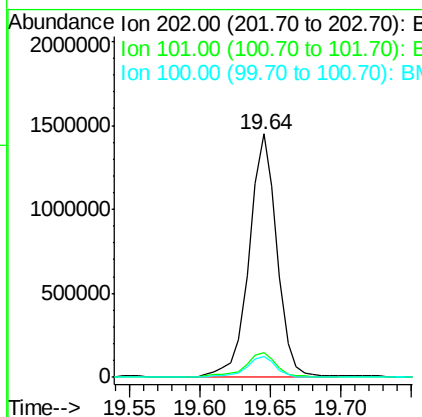
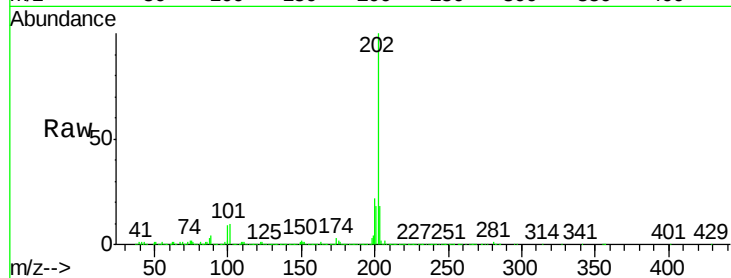
#77  
 Pyrene  
 Concen: 15.34 ng/ul  
 RT: 19.64 min Scan# 2815  
 Delta R.T. 0.00 min  
 Lab File: BM012116.D  
 Acq: 13 Oct 2017 01:39

Instrument :  
 BNA\_M  
 ClientSampleId :  
 B-70(5-7)-092717

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 10.4  | 5.1   | 7.7#  |
| 100     | 8.5   | 4.9   | 7.3#  |

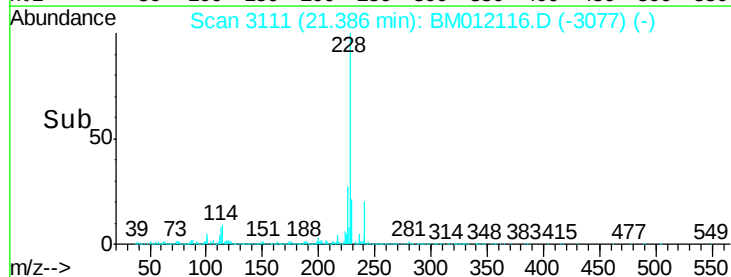
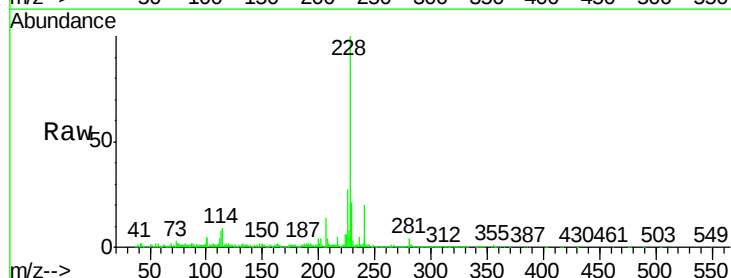
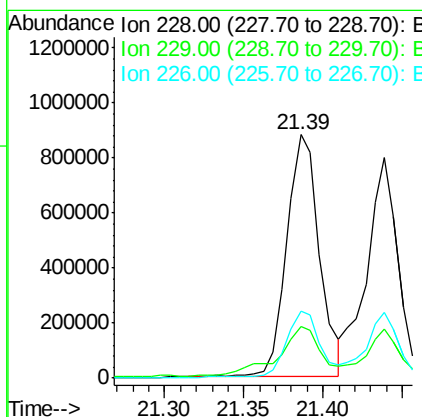
Manual Integrations  
 APPROVED

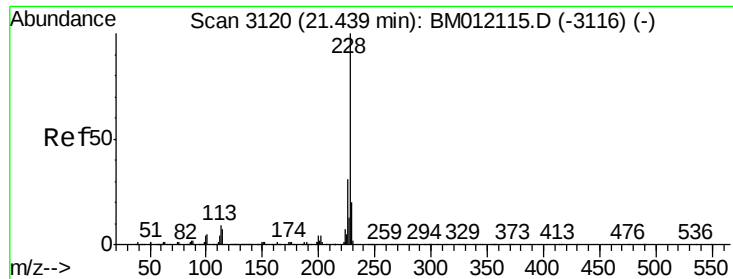
Sohil  
 10/15/2017 12:36:24 PM



#80  
 Benzo(a)anthracene  
 Concen: 9.87 ng/ul  
 RT: 21.39 min Scan# 3111  
 Delta R.T. 0.00 min  
 Lab File: BM012116.D  
 Acq: 13 Oct 2017 01:39

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 21.2  | 15.4  | 23.0  |
| 226     | 27.3  | 21.4  | 32.0  |





#82

Chrysene

Concen: 9.07 ng/ul

RT: 21.44 min Scan# 3120

Delta R.T. 0.00 min

Lab File: BM012116.D

Acq: 13 Oct 2017 01:39

Instrument :

BNA\_M

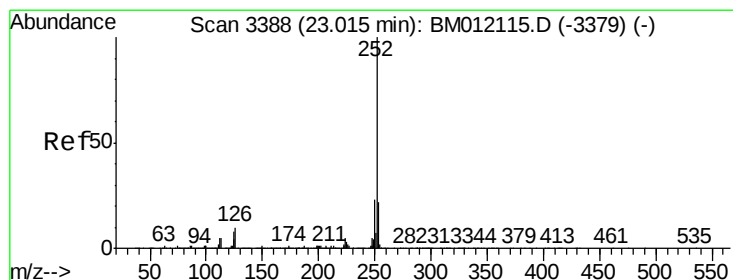
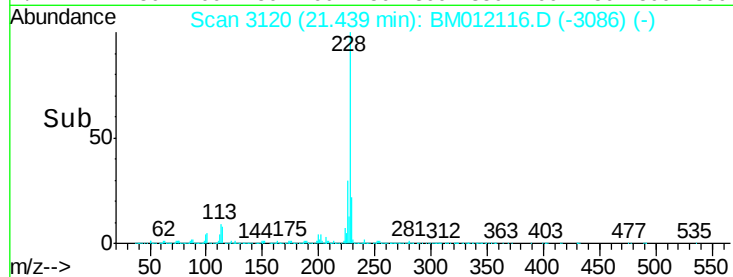
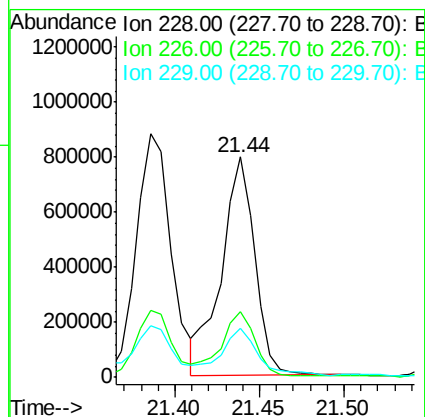
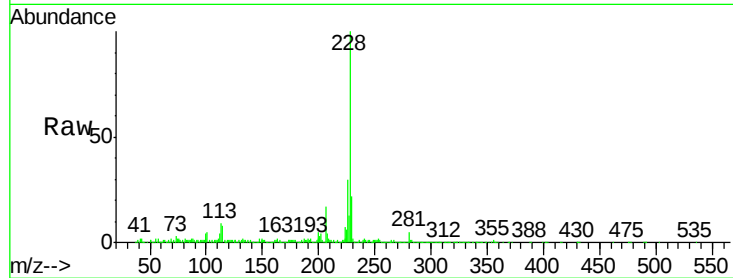
ClientSampleId :

B-70(5-7)-092717

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 228   | Resp: | 1092392 |
| Ion Ratio | Lower | Upper |         |
| 228       | 100   |       |         |
| 226       | 30.1  | 23.4  | 35.2    |
| 229       | 22.5  | 15.5  | 23.3    |

Manual Integrations  
APPROVED

Sohil  
10/15/2017 12:36:24 PM



#85

Benzo(b)fluoranthene

Concen: 11.30 ng/ul

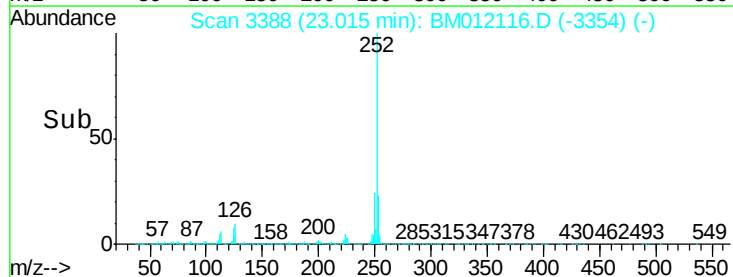
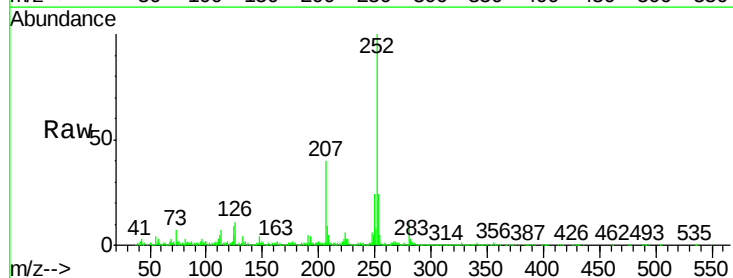
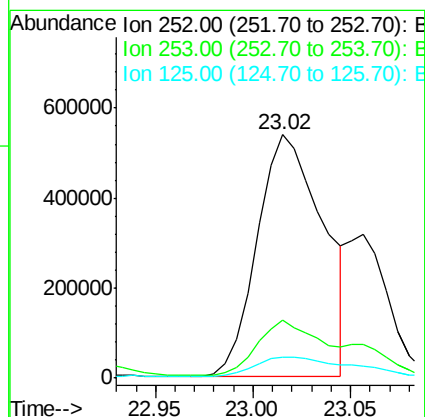
RT: 23.02 min Scan# 3388

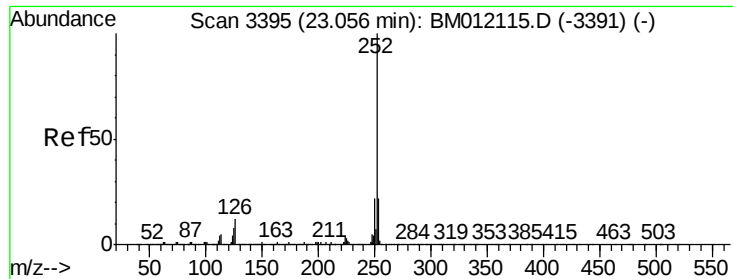
Delta R.T. 0.00 min

Lab File: BM012116.D

Acq: 13 Oct 2017 01:39

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 252   | Resp: | 1260654 |
| Ion Ratio | Lower | Upper |         |
| 252       | 100   |       |         |
| 253       | 23.8  | 17.9  | 26.9    |
| 125       | 8.8   | 3.6   | 5.4#    |





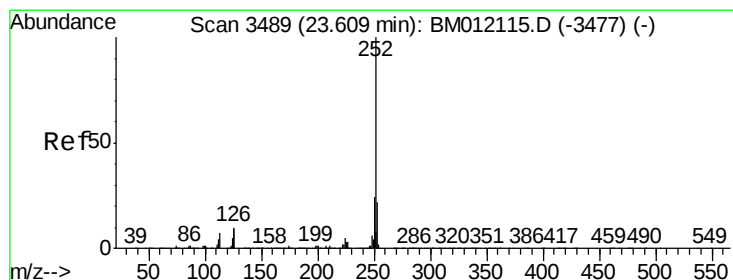
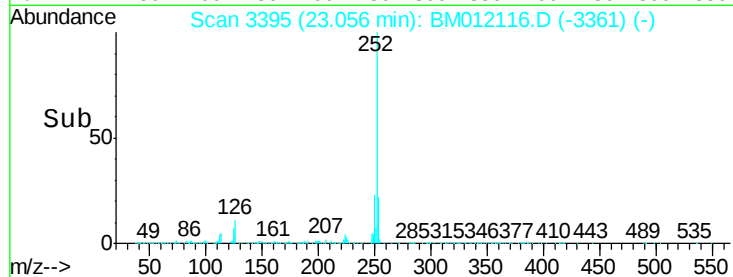
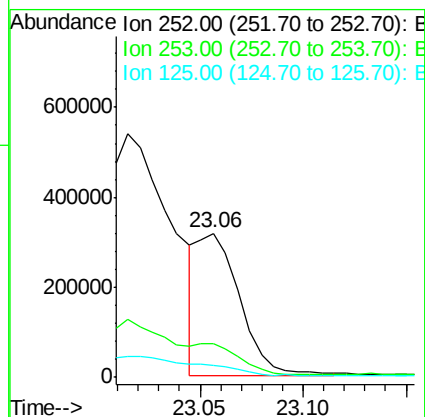
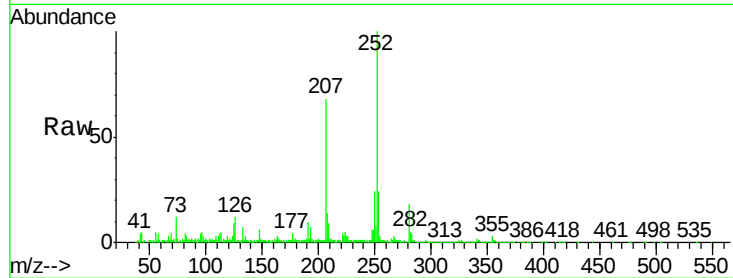
#86  
Benzo(k)fluoranthene  
Concen: 4.25 ng/ul m  
RT: 23.06 min Scan# 3395  
Delta R.T. 0.00 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

Instrument :  
BNA\_M  
ClientSampleId :  
B-70(5-7)-092717

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 252     | 100   |            |            |
| 253     | 23.6  | 17.1       | 25.7       |
| 125     | 8.6   | 3.4        | 5.2#       |

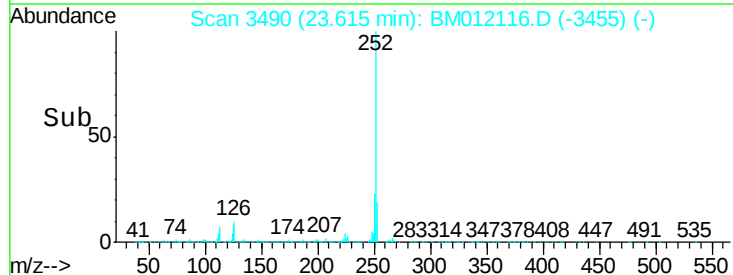
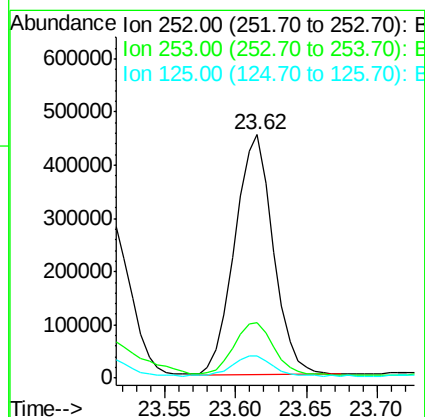
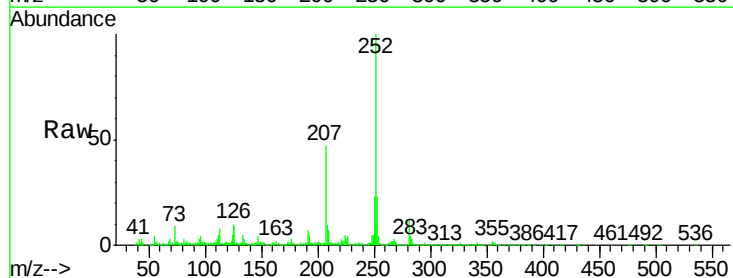
Manual Integrations  
APPROVED

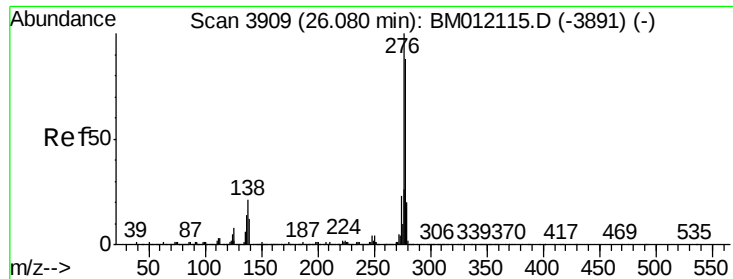
Sohil  
10/15/2017 12:36:24 PM



#88  
Benzo(a)pyrene  
Concen: 8.17 ng/ul  
RT: 23.62 min Scan# 3490  
Delta R.T. 0.01 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 252     | 100   |            |            |
| 253     | 22.7  | 18.2       | 27.2       |
| 125     | 9.3   | 4.0        | 6.0#       |





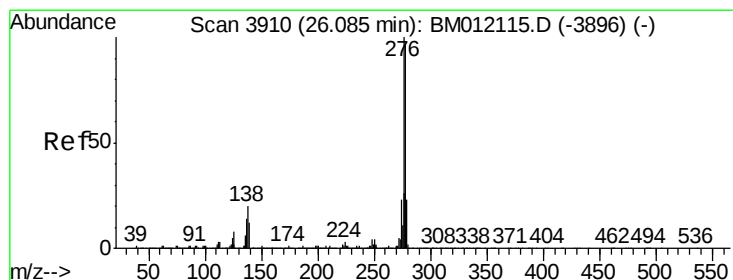
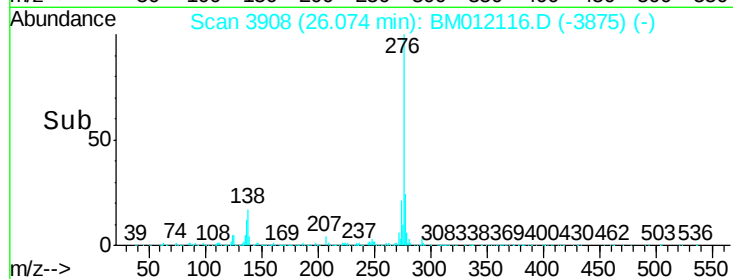
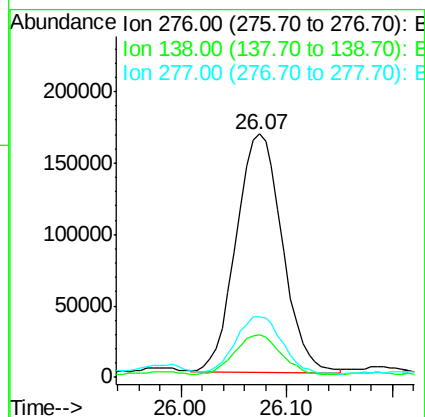
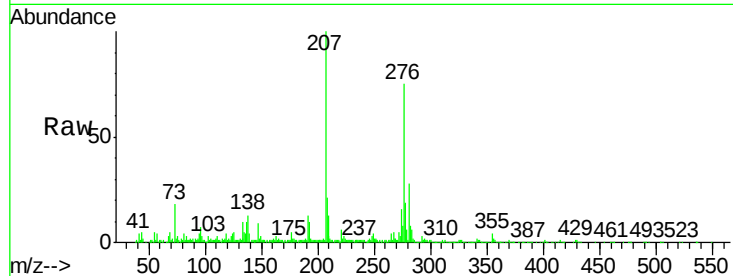
#89  
Indeno(1,2,3-cd)pyrene  
Concen: 4.54 ng/ul  
RT: 26.07 min Scan# 3908  
Delta R.T. -0.01 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

Instrument :  
BNA\_M  
ClientSampleId :  
B-70(5-7)-092717

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 17.6  | 9.3   | 13.9# |
| 277     | 24.8  | 19.9  | 29.9  |

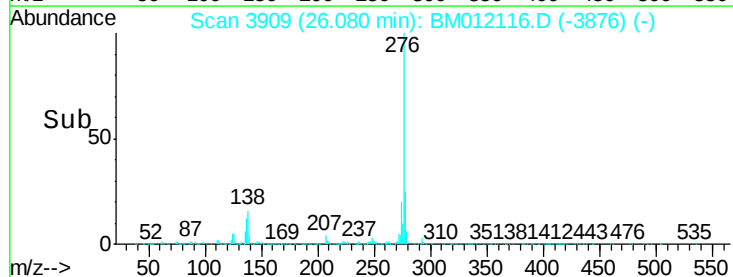
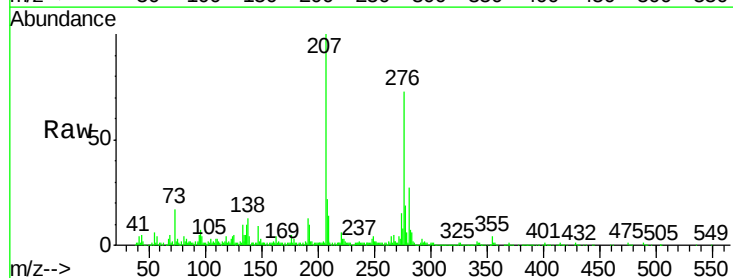
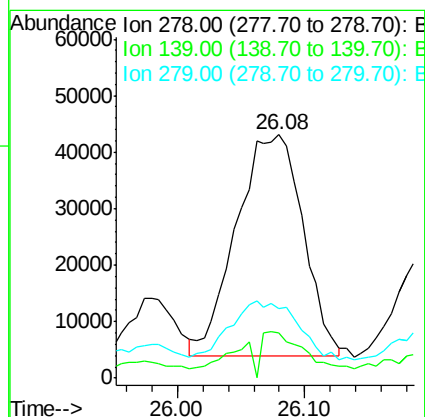
Manual Integrations  
APPROVED

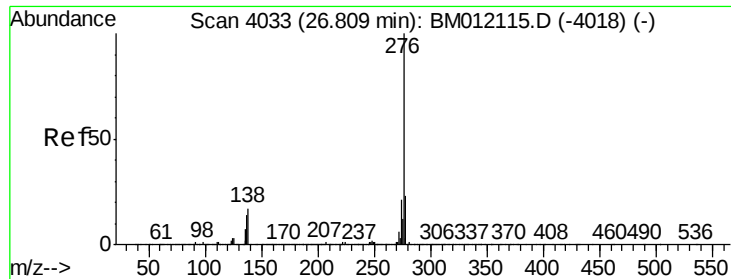
Sohil  
10/15/2017 12:36:24 PM



#90  
Dibenzo(a,h)anthracene  
Concen: 1.51 ng/ul m  
RT: 26.08 min Scan# 3909  
Delta R.T. -0.01 min  
Lab File: BM012116.D  
Acq: 13 Oct 2017 01:39

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 18.4  | 5.8   | 8.8#  |
| 279     | 28.7  | 18.6  | 27.8# |





#91

Benzo(g,h,i)perylene

Concen: 4.41 ng/ul

RT: 26.80 min Scan# 4032

Delta R.T. -0.01 min

Lab File: BM012116.D

Acq: 13 Oct 2017 01:39

Instrument :

BNA\_M

ClientSampleId :

B-70(5-7)-092717

| Tgt | Ion  | Ratio | Resp  | Lower | Upper |
|-----|------|-------|-------|-------|-------|
| 276 | 100  |       |       |       |       |
| 138 | 18.1 | 8.5   | 12.7# |       |       |
| 277 | 24.0 | 18.6  | 28.0  |       |       |

Manual Integrations  
APPROVED

Sohil  
10/15/2017 12:36:24 PM

