

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM080619\  
 Data File : BM021874.D  
 Acq On : 07 Aug 2019 00:46  
 Operator : HP/JU  
 Sample : K3893-08  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BEP12

Manual Integrations  
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 8/7/2019 12:12:34 PM

Quant Time: Aug 07 05:26:21 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Wed Aug 07 04:02:33 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.63  | 152  | 849      | 0.40  | ng/ul  | 0.00     |
| 2) Naphthalene-d8           | 10.40 | 136  | 3592     | 0.40  | ng/ul  | -0.02    |
| 6) Acenaphthene-d10         | 14.28 | 164  | 2007     | 0.40  | ng/ul  | 0.00     |
| 10) Phenanthrene-d10        | 17.04 | 188  | 4771m    | 0.40  | ng/ul  | -0.02    |
| 16) Chrysene-d12            | 21.23 | 240  | 4625m    | 0.40  | ng/ul  | -0.01    |
| 20) Perylene-d12            | 23.45 | 264  | 5037m    | 0.40  | ng/ul  | -0.01    |
| System Monitoring Compounds |       |      |          |       |        |          |
| 4) 2-Methylnaphthalene-d10  | 12.02 | 152  | 1302     | 0.22  | ng/ul  | -0.01    |
| 14) Fluoranthene-d10        | 19.07 | 212  | 3648m    | 0.23  | ng/ul  | -0.02    |
| Target Compounds            |       |      |          |       | Ovalue |          |
| 3) Naphthalene              | 10.45 | 128  | 992      | 0.098 | ng/ul# | 90       |
| 5) 2-Methylnaphthalene      | 12.09 | 142  | 401      | 0.059 | ng/ul  | 99       |
| 7) Acenaphthylene           | 14.00 | 152  | 3147     | 0.336 | ng/ul# | 83       |
| 8) Acenaphthene             | 14.34 | 153  | 1574     | 0.206 | ng/ul  | 99       |
| 9) Fluorene                 | 15.34 | 166  | 1916     | 0.225 | ng/ul  | 97       |
| 11) Pentachlorophenol       | 16.70 | 266  | 99m      | 0.112 | ng/ul  |          |
| 12) Phenanthrene            | 17.07 | 178  | 42157m   | 3.037 | ng/ul  |          |
| 13) Anthracene              | 17.17 | 178  | 7822m    | 0.661 | ng/ul  |          |
| 15) Fluoranthene            | 19.10 | 202  | 124193m  | 6.679 | ng/ul  |          |
| 17) Pyrene                  | 19.46 | 202  | 117614   | 6.188 | ng/ul  | 100      |
| 18) Benzo(a)anthracene      | 21.22 | 228  | 61404m   | 3.712 | ng/ul  |          |
| 19) Chrysene                | 21.27 | 228  | 69591    | 3.271 | ng/ul  | 99       |
| 21) Benzo(b)fluoranthene    | 22.78 | 252  | 92790m   | 5.463 | ng/ul  |          |
| 22) Benzo(k)fluoranthene    | 22.82 | 252  | 34449m   | 1.792 | ng/ul  |          |
| 23) Benzo(a)pyrene          | 23.35 | 252  | 59259m   | 3.431 | ng/ul  |          |
| 24) Indeno(1,2,3-cd)pyrene  | 25.66 | 276  | 44139m   | 2.140 | ng/ul  |          |
| 25) Dibenzo(a,h)anthracene  | 25.66 | 278  | 11488m   | 0.689 | ng/ul  |          |
| 26) Benzo(g,h,i)perylene    | 26.34 | 276  | 35744m   | 1.925 | ng/ul  |          |

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

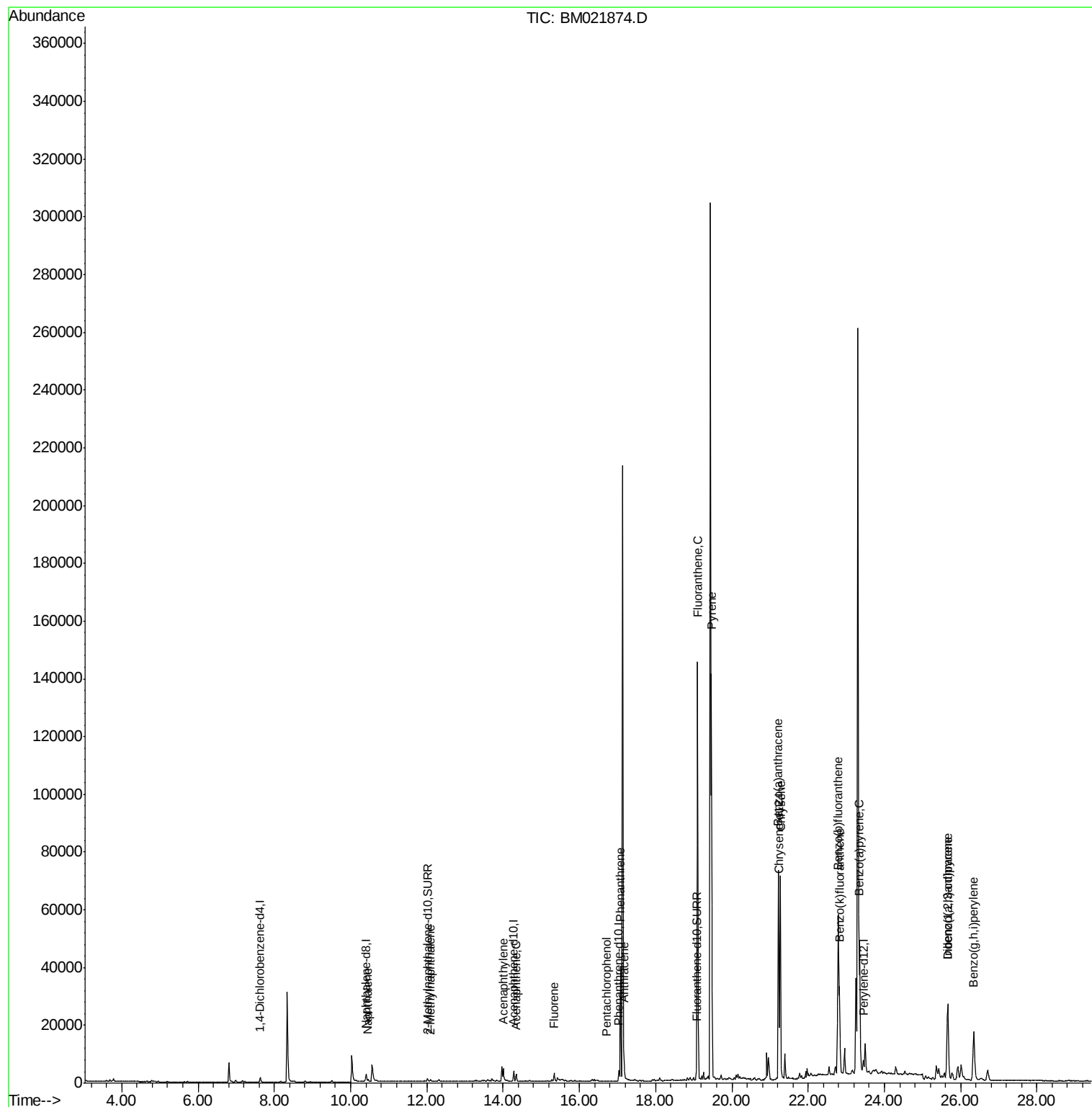
Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM080619\  
Data File : BM021874.D  
Acq On : 07 Aug 2019 00:46  
Operator : HP/JU  
Sample : K3893-08  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

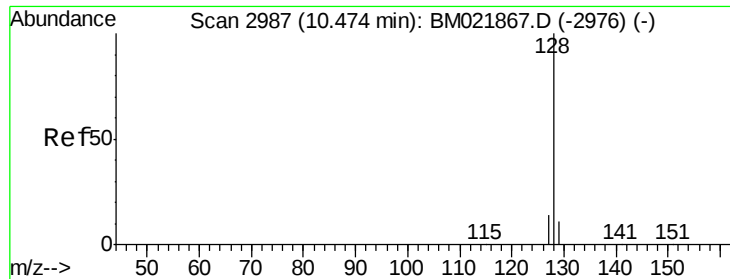
Instrument :  
BNA\_M  
ClientSampleId :  
BEP12

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8/7/2019 12:12:34 PM

Quant Time: Aug 07 05:26:21 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\SOM-EPA-SIM-BM080319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Aug 07 04:02:33 2019  
Response via : Initial Calibration





#3

Naphthalene

Concen: 0.098 ng/ul

RT: 10.45 min Scan# 2982

Delta R.T. -0.02 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

Instrument :

BNA\_M

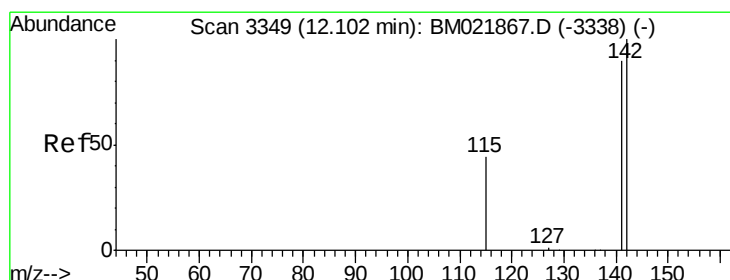
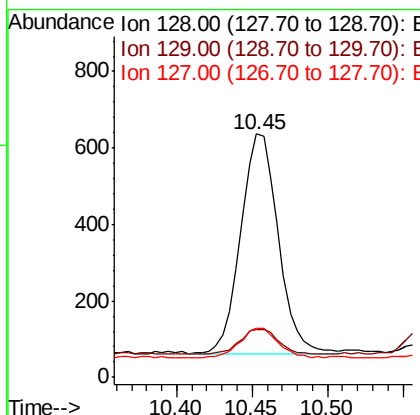
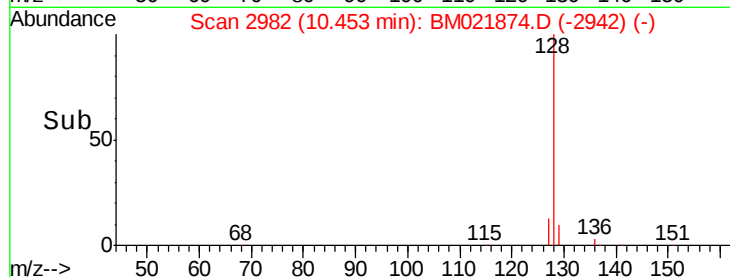
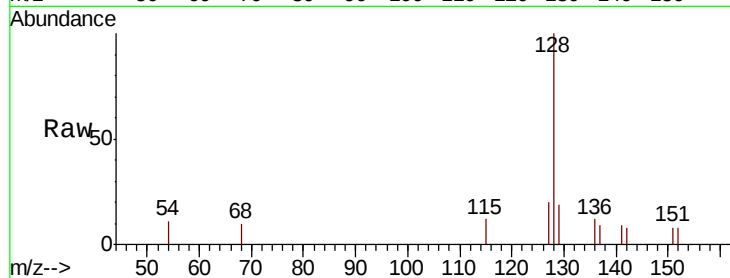
ClientSampleId :

BEP12

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 128   | Resp: | 992   |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 19.5  | 12.3  | 18.5# |
| 127      | 20.4  | 13.0  | 19.6# |

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#5

2-Methylnaphthalene

Concen: 0.059 ng/ul

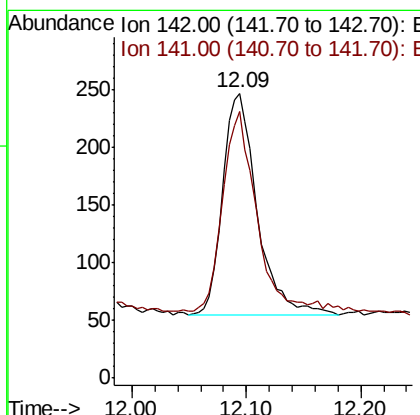
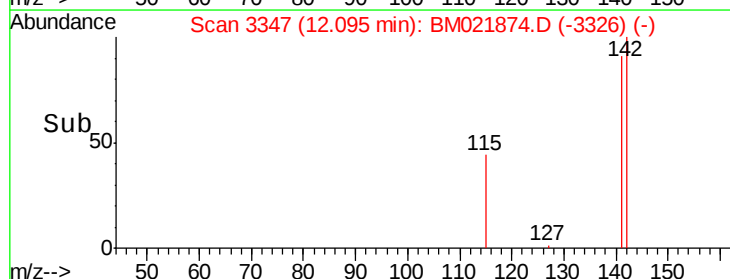
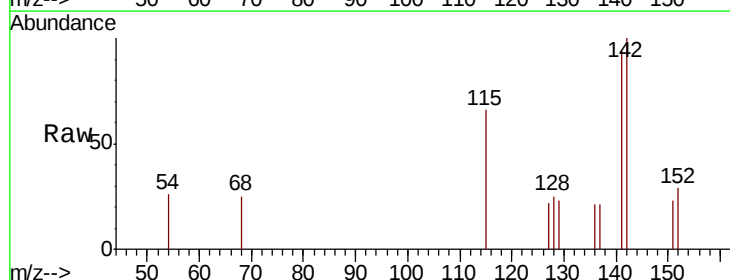
RT: 12.09 min Scan# 3347

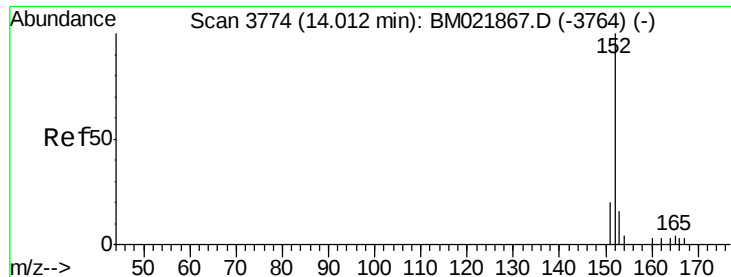
Delta R.T. -0.01 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 142   | Resp: | 401   |
| Ion      | Ratio | Lower | Upper |
| 142      | 100   |       |       |
| 141      | 92.0  | 74.3  | 111.5 |





#7

Acenaphthylene

Concen: 0.336 ng/ul

RT: 14.00 min Scan# 3771

Delta R.T. -0.01 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

Instrument :

BNA\_M

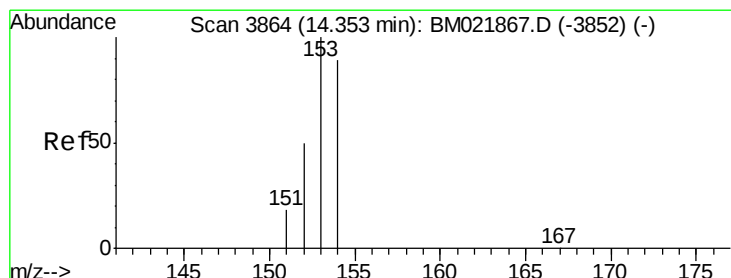
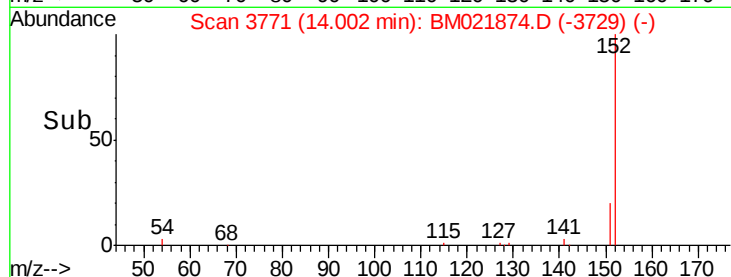
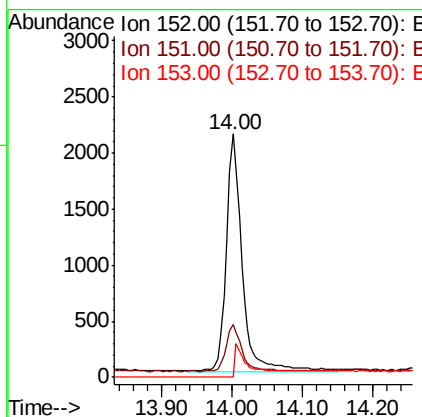
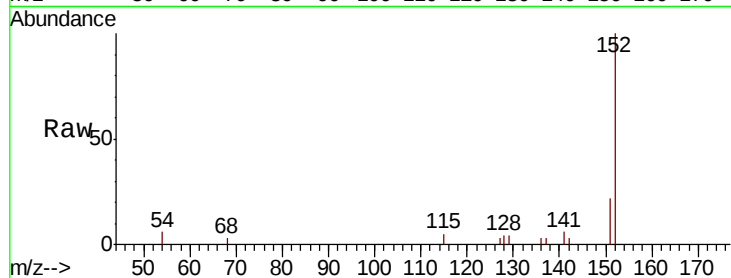
ClientSampleId :

BEP12

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 152   | Resp: | 3147  |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 21.7  | 18.3  | 27.5  |
| 153       | 0.0   | 12.8  | 19.2# |

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#8

Acenaphthene

Concen: 0.206 ng/ul

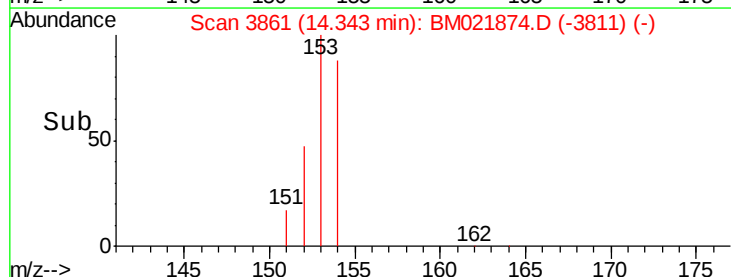
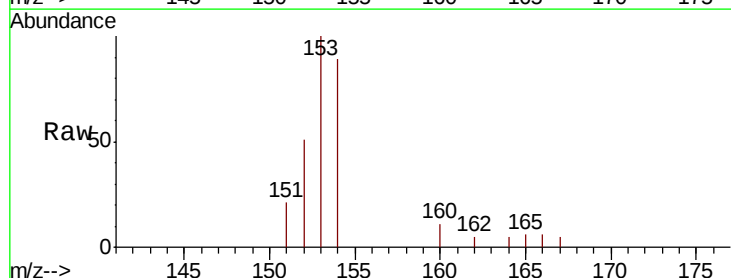
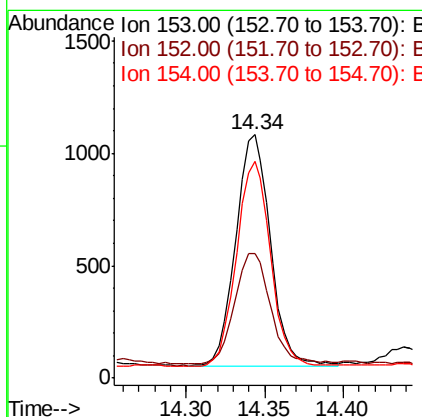
RT: 14.34 min Scan# 3861

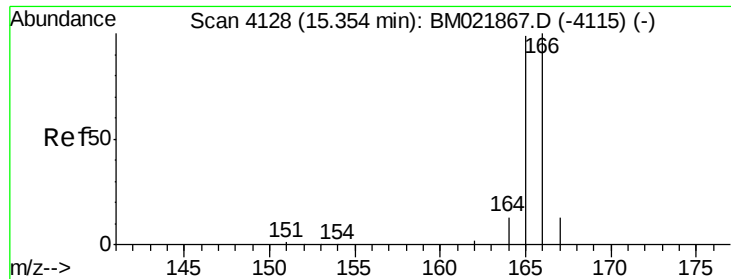
Delta R.T. -0.01 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 1574  |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 51.3  | 41.3  | 61.9  |
| 154       | 88.8  | 72.3  | 108.5 |





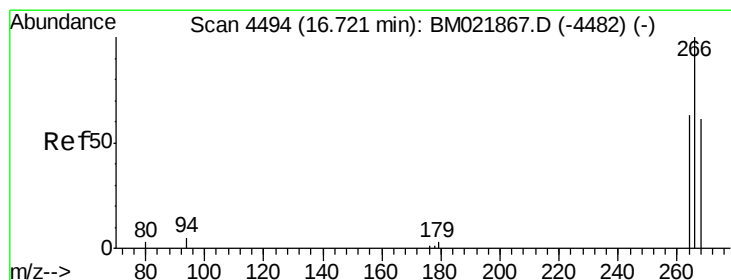
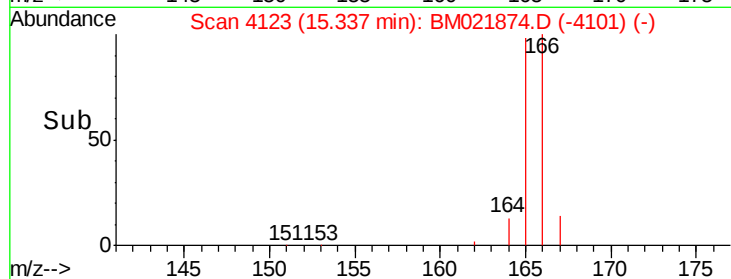
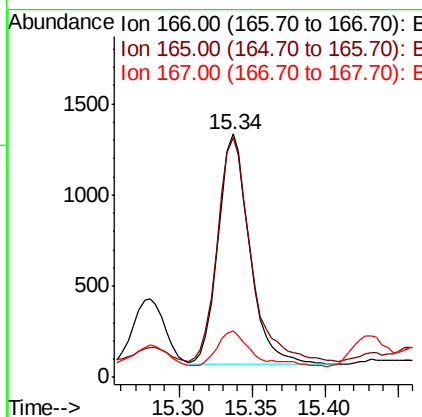
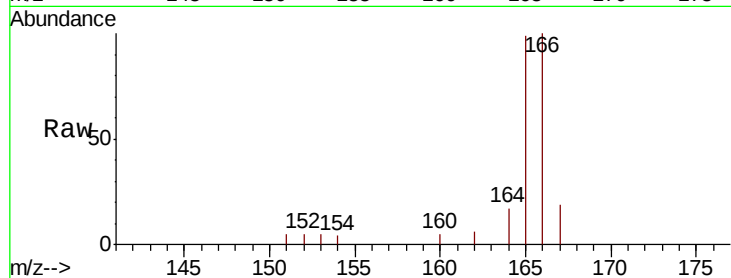
#9  
**Fluorene**  
 Concen: 0.225 ng/ul  
 RT: 15.34 min Scan# 4123  
 Delta R.T. -0.02 min  
 Lab File: BM021874.D  
 Acq: 07 Aug 2019 00:46

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BEP12

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 98.6  | 81.4  | 122.0 |
| 167     | 18.9  | 13.7  | 20.5  |

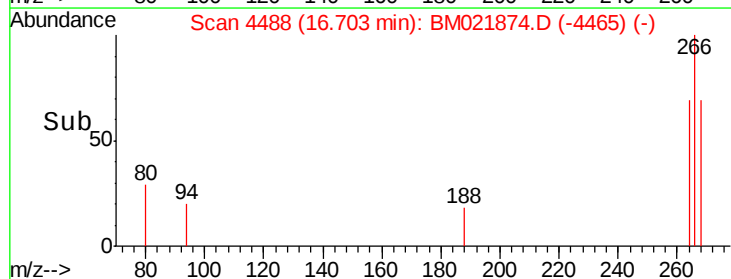
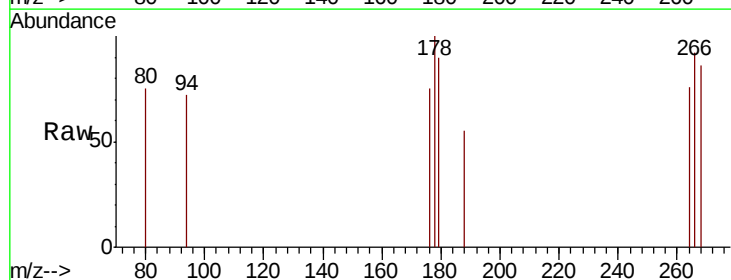
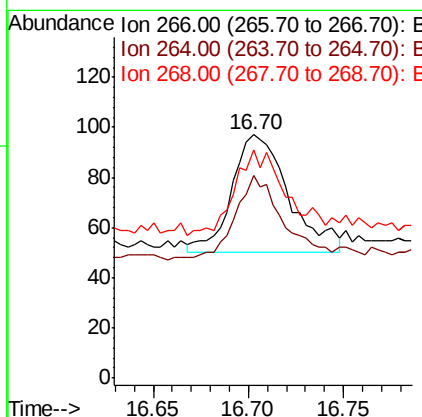
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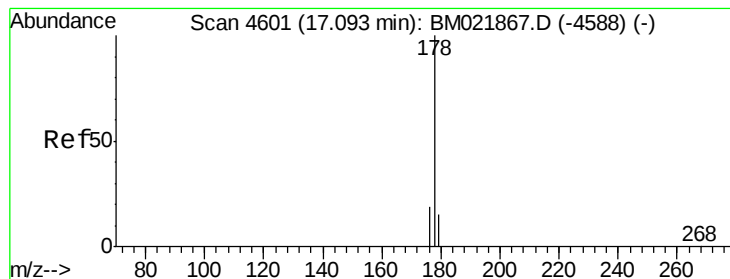
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#11  
**Pentachlorophenol**  
 Concen: 0.112 ng/ul m  
 RT: 16.70 min Scan# 4488  
 Delta R.T. -0.02 min  
 Lab File: BM021874.D  
 Acq: 07 Aug 2019 00:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 0.0   | 54.2  | 81.2# |
| 268     | 2.0   | 57.6  | 86.4# |





#12

Phenanthrene

Concen: 3.037 ng/ul m

RT: 17.07 min Scan# 4595

Delta R.T. -0.02 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

Instrument :

BNA\_M

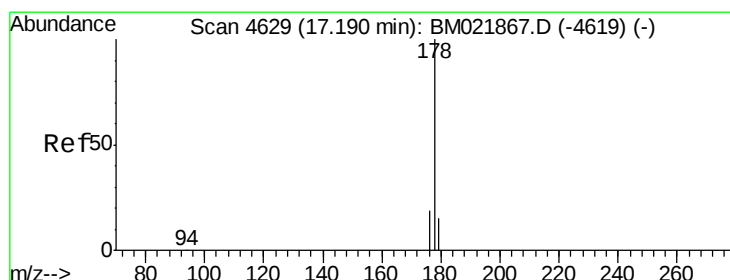
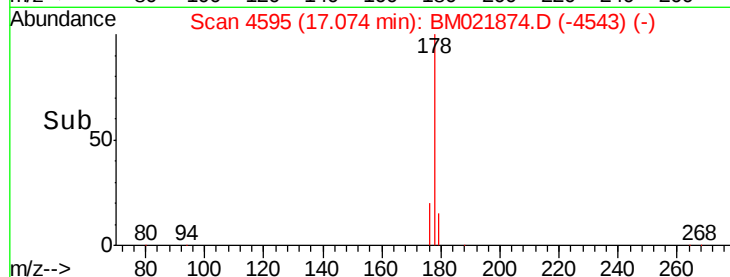
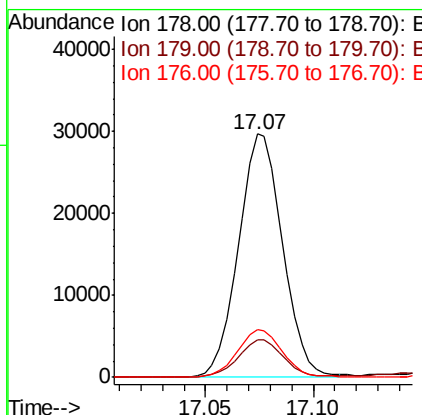
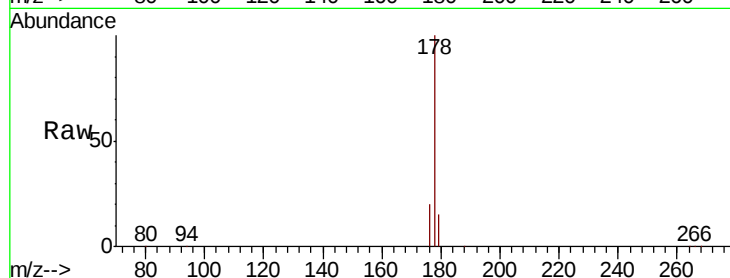
ClientSampleId :

BEP12

|             |       |           |
|-------------|-------|-----------|
| Tot Ion:178 | Resp: | 42157     |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 179         | 15.4  | 14.2 21.2 |
| 176         | 19.8  | 16.8 25.2 |

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#13

Anthracene

Concen: 0.661 ng/ul m

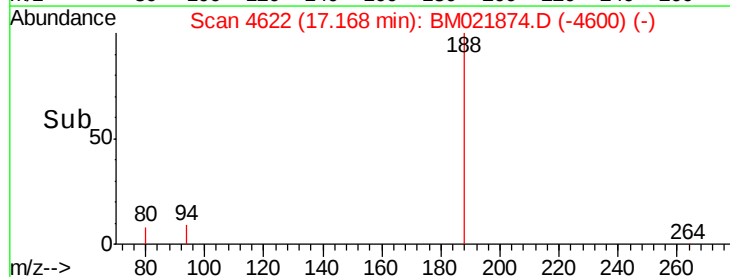
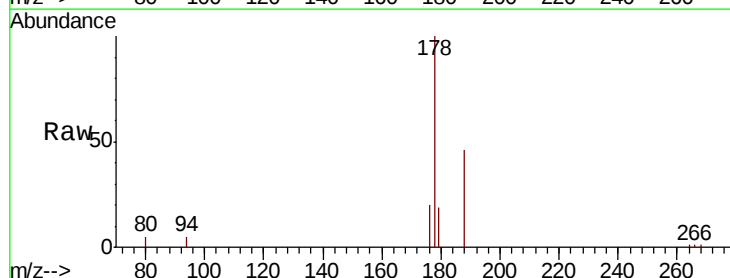
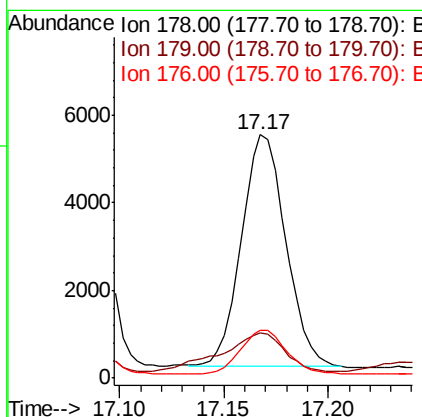
RT: 17.17 min Scan# 4622

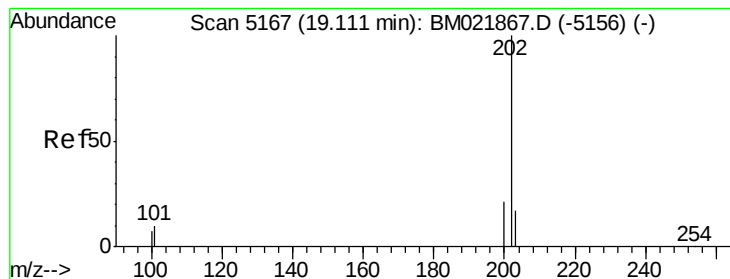
Delta R.T. -0.02 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:178 | Resp: | 7822      |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 179         | 18.8  | 15.5 23.3 |
| 176         | 19.9  | 16.6 25.0 |





#15

Fluoranthene

Concen: 6.679 ng/ul m

RT: 19.10 min Scan# 5163

Delta R.T. -0.01 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

Instrument :

BNA\_M

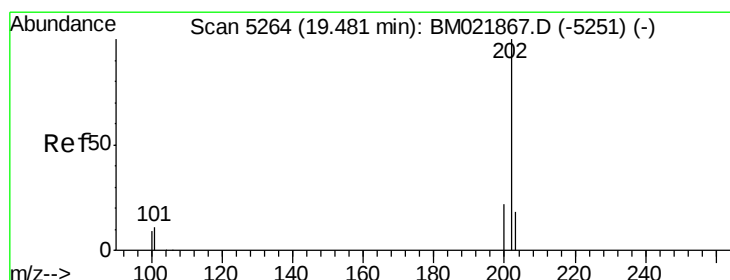
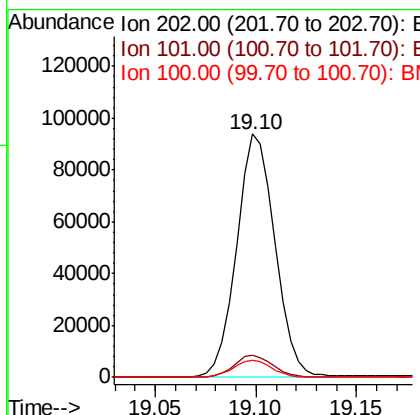
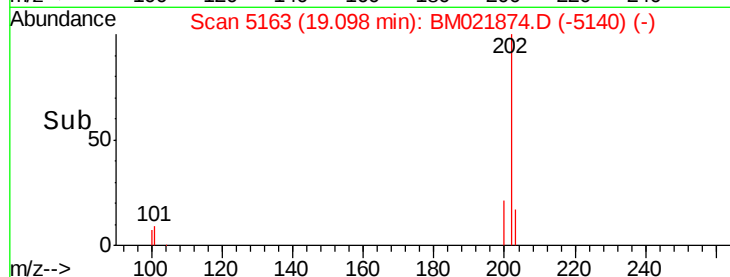
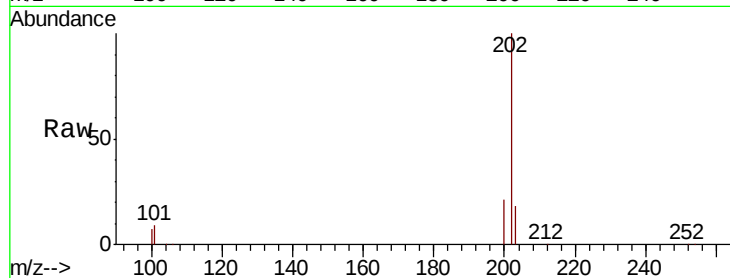
ClientSampleId :

BEP12

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 202   | Resp: | 124193 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 9.1   | 0.0   | 30.2   |
| 100       | 7.1   | 0.0   | 28.1   |

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#17

Pyrene

Concen: 6.188 ng/ul

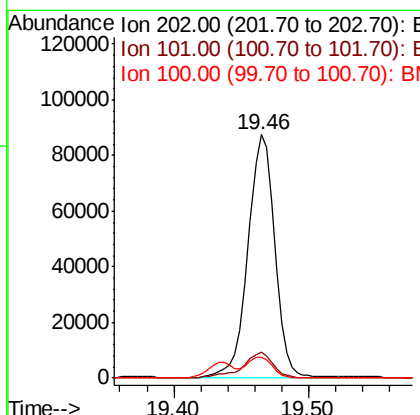
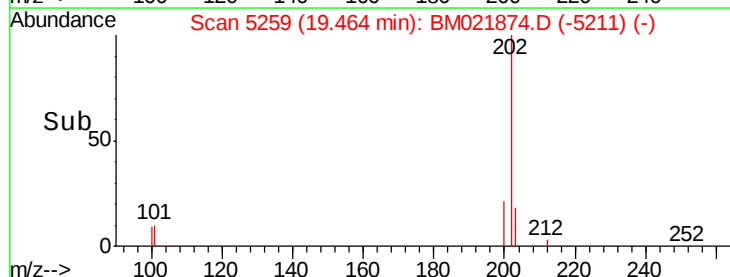
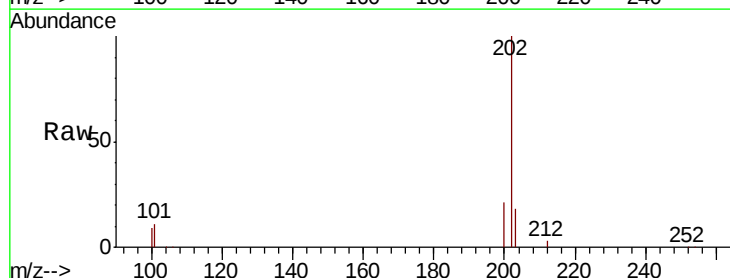
RT: 19.46 min Scan# 5259

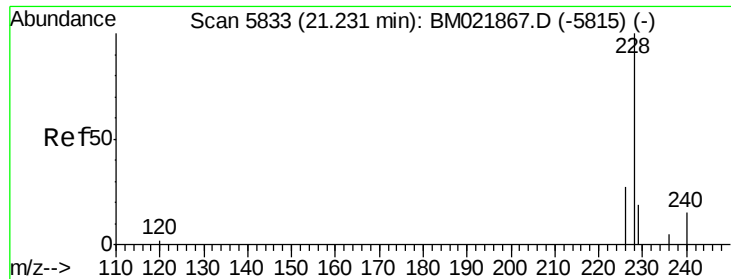
Delta R.T. -0.02 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 117614 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 101       | 10.5  | 8.3   | 12.5   |
| 100       | 8.8   | 7.2   | 10.8   |





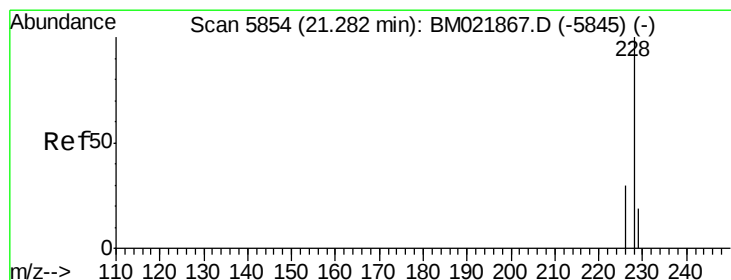
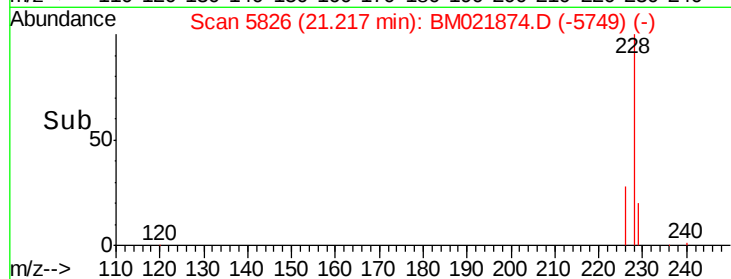
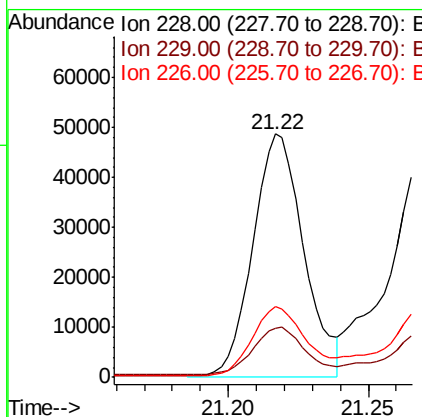
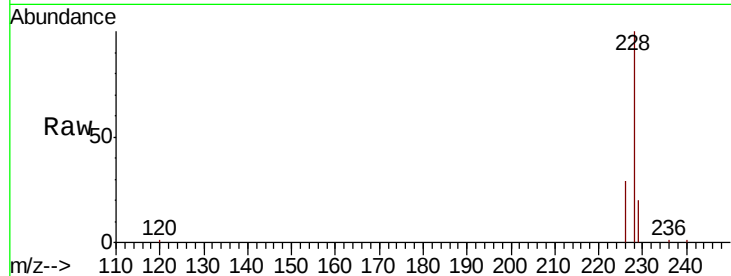
#18  
Benzo(a)anthracene  
Concen: 3.712 ng/ul m  
RT: 21.22 min Scan# 5826  
Delta R.T. -0.01 min  
Lab File: BM021874.D  
Acq: 07 Aug 2019 00:46

Instrument :  
BNA\_M  
ClientSampleId :  
BEP12

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.4  | 17.2  | 25.8  |
| 226     | 28.9  | 22.6  | 34.0  |

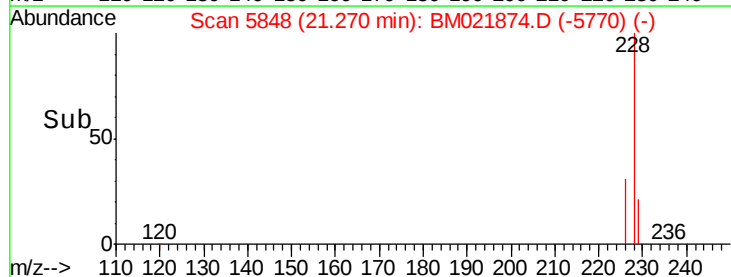
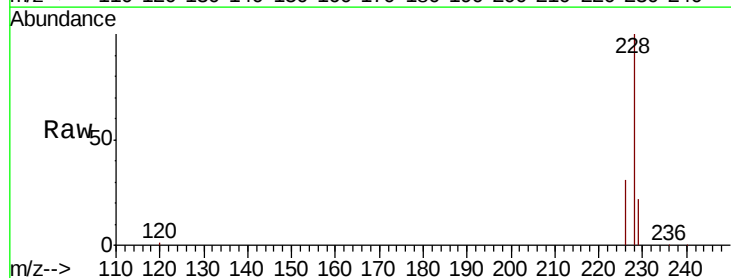
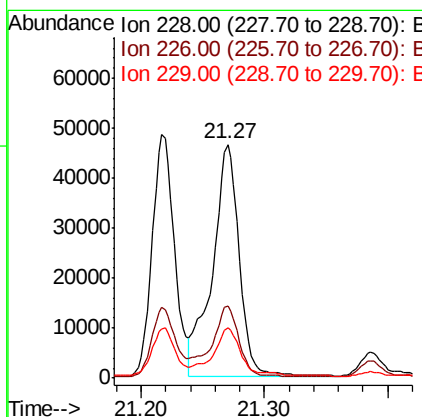
Manual Integrations  
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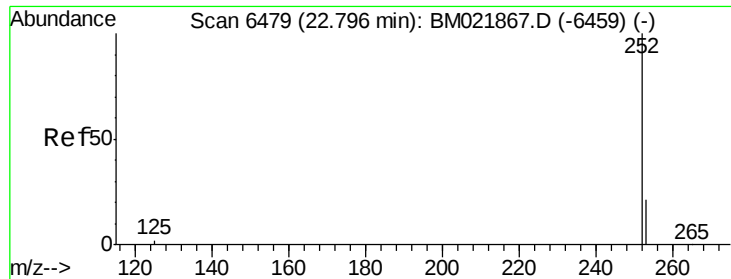
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#19  
Chrysene  
Concen: 3.271 ng/ul  
RT: 21.27 min Scan# 5848  
Delta R.T. -0.01 min  
Lab File: BM021874.D  
Acq: 07 Aug 2019 00:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 31.1  | 24.9  | 37.3  |
| 229     | 21.5  | 16.6  | 25.0  |





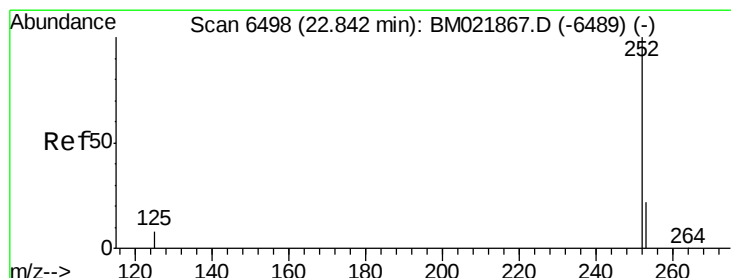
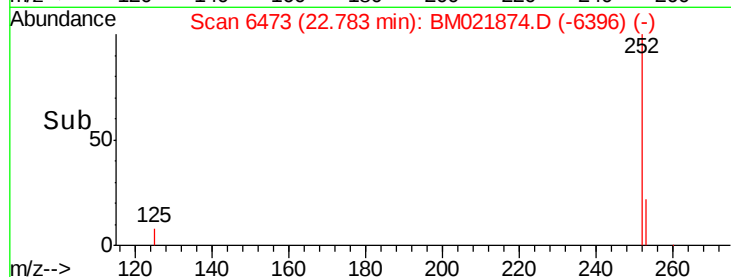
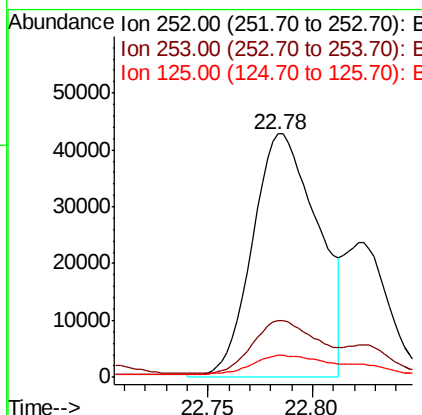
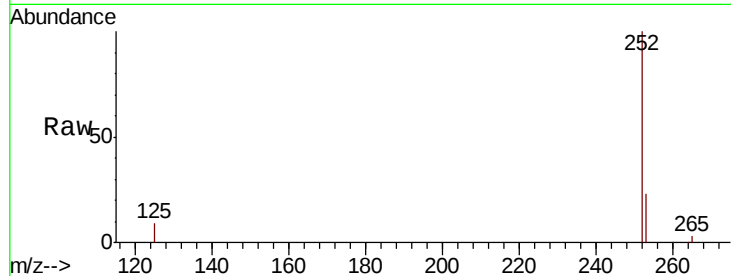
#21  
Benzo(b)fluoranthene  
Concen: 5.463 ng/ul m  
RT: 22.78 min Scan# 6473  
Delta R.T. -0.01 min  
Lab File: BM021874.D  
Acq: 07 Aug 2019 00:46

Instrument :  
BNA\_M  
ClientSampleId :  
BEP12

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.1  | 0.0   | 67.4  |
| 125     | 9.0   | 0.0   | 31.0  |

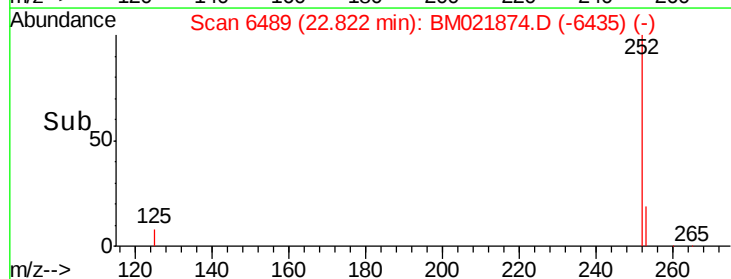
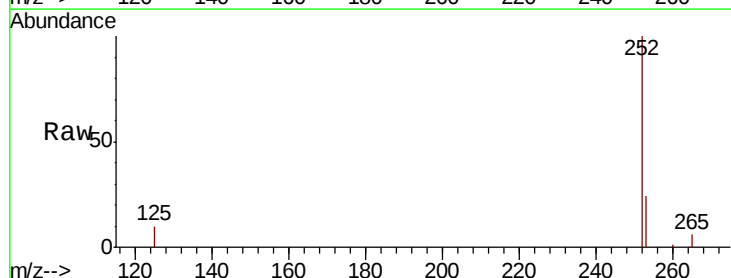
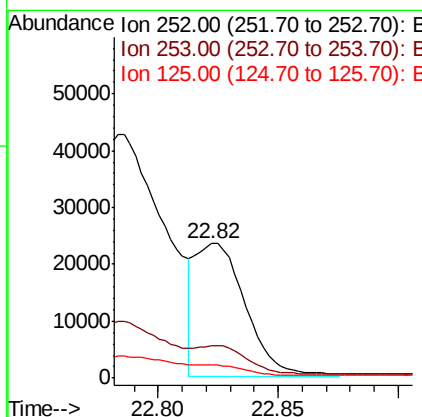
Manual Integrations  
APPROVED

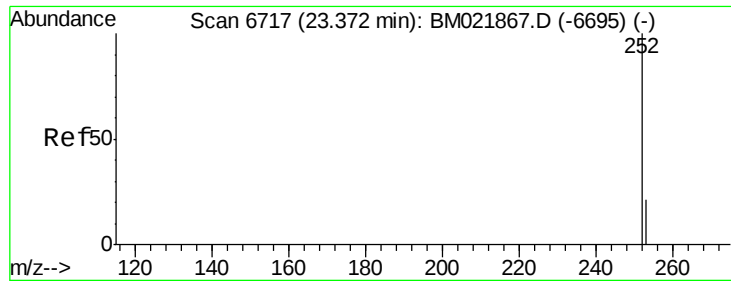
mohammad  
8/7/2019 12:12:34 PM



#22  
Benzo(k)fluoranthene  
Concen: 1.792 ng/ul m  
RT: 22.82 min Scan# 6489  
Delta R.T. -0.02 min  
Lab File: BM021874.D  
Acq: 07 Aug 2019 00:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.5  | 27.0  | 40.4# |
| 125     | 9.9   | 12.2  | 18.2# |





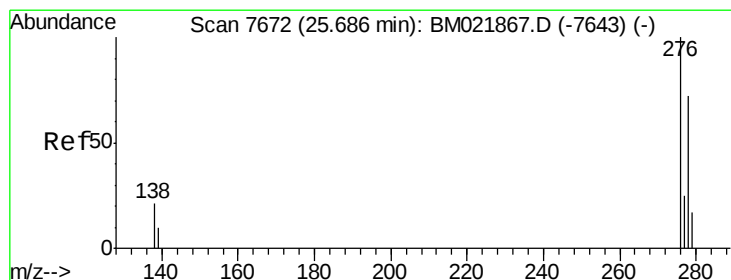
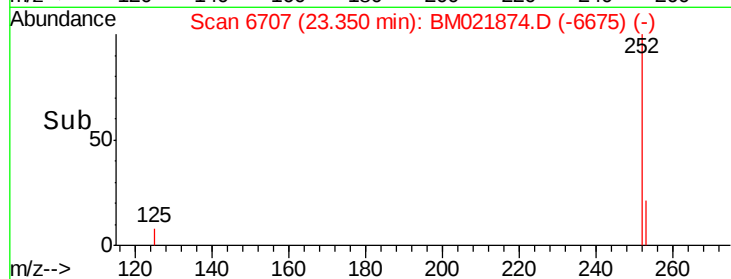
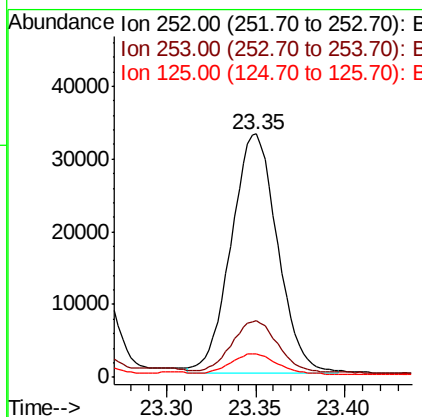
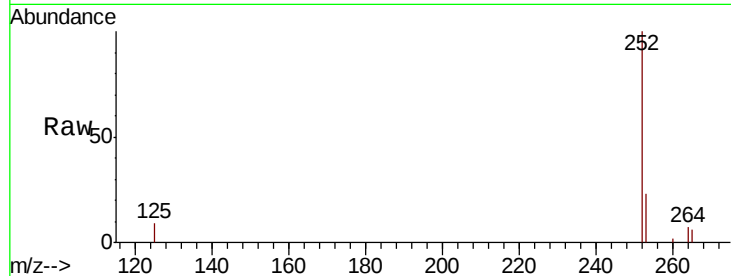
#23  
Benzo(a)pyrene  
Concen: 3.431 ng/ul m  
RT: 23.35 min Scan# 6707  
Delta R.T. -0.02 min  
Lab File: BM021874.D  
Acq: 07 Aug 2019 00:46

Instrument :  
BNA\_M  
ClientSampleId :  
BEP12

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.3  | 31.7  | 47.5# |
| 125     | 9.4   | 14.6  | 21.8# |

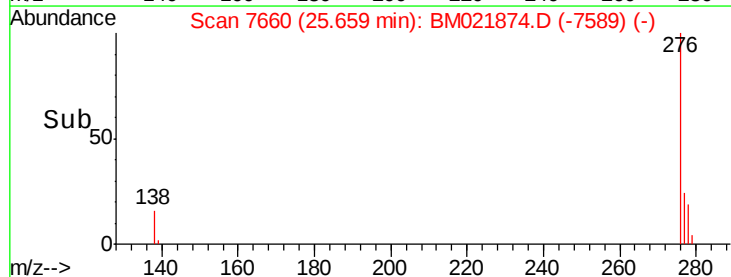
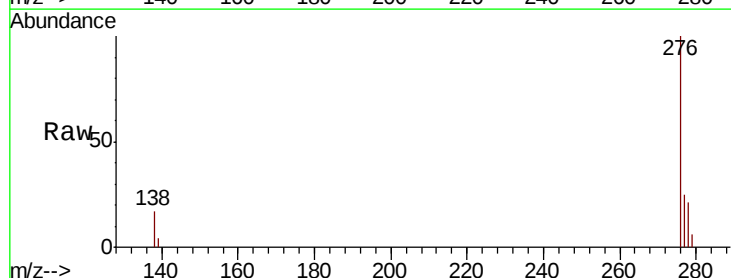
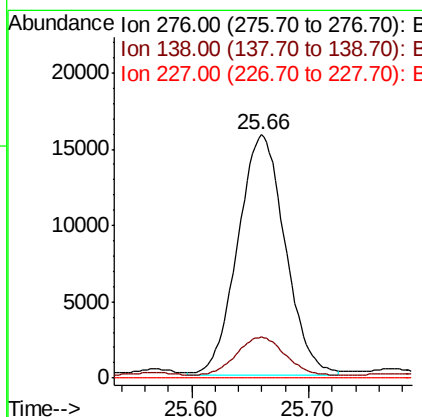
Manual Integrations  
APPROVED

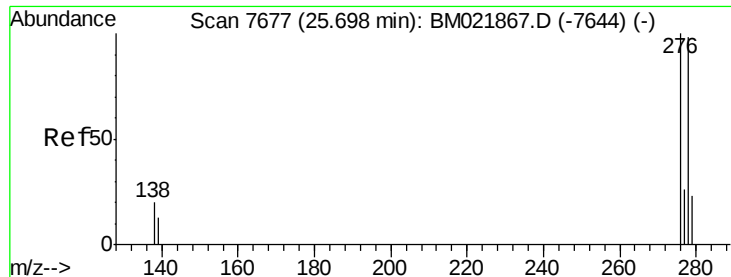
mohammad  
8/7/2019 12:12:34 PM



#24  
Indeno(1,2,3-cd)pyrene  
Concen: 2.140 ng/ul m  
RT: 25.66 min Scan# 7660  
Delta R.T. -0.03 min  
Lab File: BM021874.D  
Acq: 07 Aug 2019 00:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 1.9   | 15.1  | 22.7# |
| 227     | 0.0   | 0.0   | 0.0   |





#25

Dibenzo(a,h)anthracene

Concen: 0.689 ng/ul m

RT: 25.66 min Scan# 7662

Delta R.T. -0.03 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

Instrument :

BNA\_M

ClientSampleId :

BEP12

Tot Ion:278 Resp: 11488

Ion Ratio Lower Upper

278 100

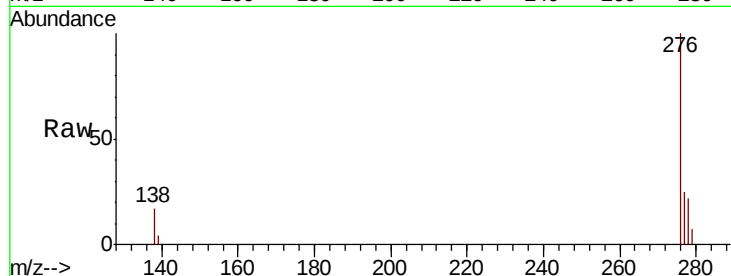
139 17.6 14.2 21.2

279 30.1 28.3 42.5

Manual Integrations  
APPROVED

mohammad

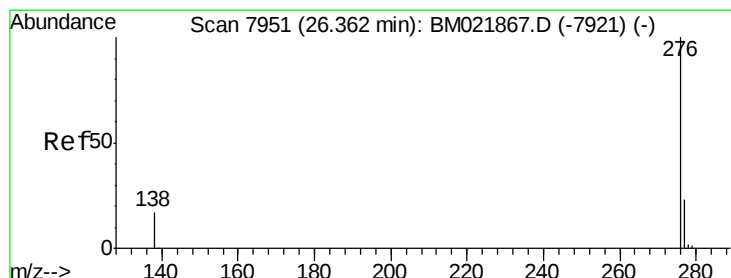
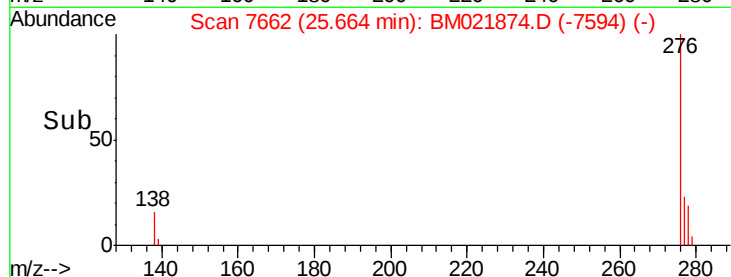
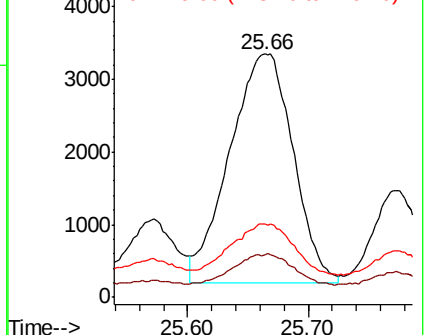
8/7/2019 12:12:34 PM



Abundance Ion 278.00 (277.70 to 278.70): E

Ion 139.00 (138.70 to 139.70): E

Ion 279.00 (278.70 to 279.70): E



#26

Benzo(g,h,i)perylene

Concen: 1.925 ng/ul m

RT: 26.34 min Scan# 7942

Delta R.T. -0.02 min

Lab File: BM021874.D

Acq: 07 Aug 2019 00:46

Tgt Ion:276 Resp: 35744

Ion Ratio Lower Upper

276 100

138 17.9 15.5 23.3

277 24.8 21.4 32.2

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

