

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM080319\  
 Data File : BM021812.D  
 Acq On : 04 Aug 2019 14:47  
 Operator : HP/JU  
 Sample : K3850-11  
 Misc :  
 ALS Vial : 55 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENR7

Manual Integrations  
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 8/5/2019 10:15:42 PM

Quant Time: Aug 05 06:51:51 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 : Mon Aug 05 05:26:43 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|--------|--------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.64  | 152  | 966      | 0.40   | ng/ul  | 0.00     |
| 2) Naphthalene-d8           | 10.42 | 136  | 3916     | 0.40   | ng/ul  | -0.02    |
| 6) Acenaphthene-d10         | 14.29 | 164  | 2306     | 0.40   | ng/ul  | 0.00     |
| 10) Phenanthrene-d10        | 17.04 | 188  | 5871m    | 0.40   | ng/ul  | -0.02    |
| 16) Chrysene-d12            | 21.24 | 240  | 5955m    | 0.40   | ng/ul  | 0.00     |
| 20) Perylene-d12            | 23.46 | 264  | 6375m    | 0.40   | ng/ul  | 0.00     |
| System Monitoring Compounds |       |      |          |        |        |          |
| 4) 2-Methylnaphthalene-d10  | 12.03 | 152  | 878      | 0.14   | ng/ul  | 0.00     |
| 14) Fluoranthene-d10        | 19.08 | 212  | 3395m    | 0.17   | ng/ul  | -0.01    |
| Target Compounds            |       |      |          | Qvalue |        |          |
| 3) Naphthalene              | 10.47 | 128  | 399      | 0.036  | ng/ul# | 71       |
| 5) 2-Methylnaphthalene      | 12.10 | 142  | 215      | 0.029  | ng/ul  | 89       |
| 7) Acenaphthylene           | 14.01 | 152  | 1166     | 0.108  | ng/ul# | 92       |
| 8) Acenaphthene             | 14.35 | 153  | 328      | 0.037  | ng/ul  | 93       |
| 9) Fluorene                 | 15.34 | 166  | 570      | 0.058  | ng/ul# | 95       |
| 12) Phenanthrene            | 17.08 | 178  | 11211    | 0.656  | ng/ul  | 98       |
| 13) Anthracene              | 17.17 | 178  | 2436m    | 0.167  | ng/ul  |          |
| 15) Fluoranthene            | 19.11 | 202  | 30711m   | 1.342  | ng/ul  |          |
| 17) Pyrene                  | 19.47 | 202  | 32740    | 1.338  | ng/ul  | 97       |
| 18) Benzo(a)anthracene      | 21.22 | 228  | 18114    | 0.850  | ng/ul  | 98       |
| 19) Chrysene                | 21.28 | 228  | 21130    | 0.771  | ng/ul  | 97       |
| 21) Benzo(b)fluoranthene    | 22.79 | 252  | 23813m   | 1.108  | ng/ul  |          |
| 22) Benzo(k)fluoranthene    | 22.83 | 252  | 9474m    | 0.389  | ng/ul  |          |
| 23) Benzo(a)pyrene          | 23.36 | 252  | 18223    | 0.834  | ng/ul# | 82       |
| 24) Indeno(1,2,3-cd)pyrene  | 25.68 | 276  | 12482    | 0.478  | ng/ul# | 88       |
| 25) Dibenzo(a,h)anthracene  | 25.68 | 278  | 3061     | 0.145  | ng/ul# | 78       |
| 26) Benzo(g,h,i)perylene    | 26.36 | 276  | 12531    | 0.533  | ng/ul  | 98       |

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

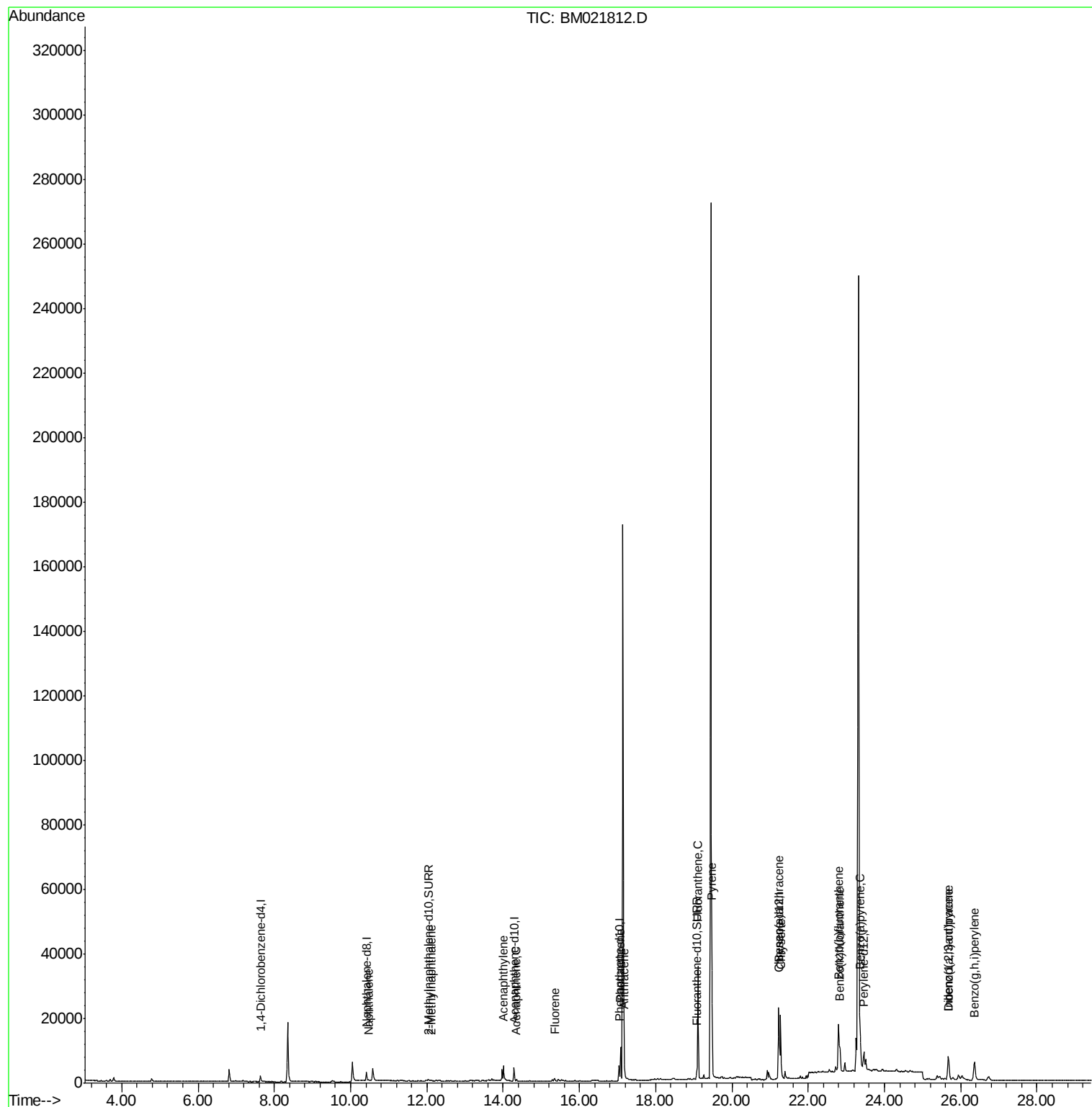
Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM080319\  
Data File : BM021812.D  
Acq On : 04 Aug 2019 14:47  
Operator : HP/JU  
Sample : K3850-11  
Misc :  
ALS Vial : 55 Sample Multiplier: 1

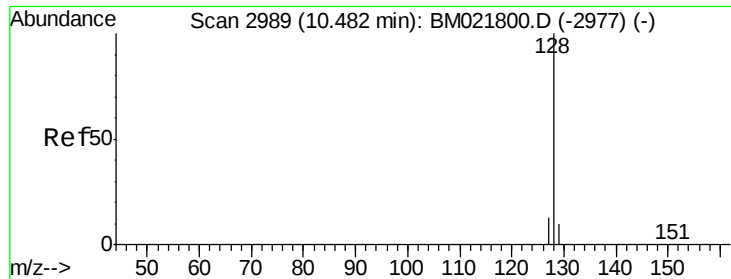
Instrument :  
BNA\_M  
ClientSampleId :  
BENR7

Quant Time: Aug 05 06:51:51 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 : Mon Aug 05 05:26:43 2019  
Response via : Initial Calibration

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#3

Naphthalene

Concen: 0.036 ng/u1

RT: 10.47 min Scan# 2985

Delta R.T. -0.02 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

Instrument :

BNA\_M

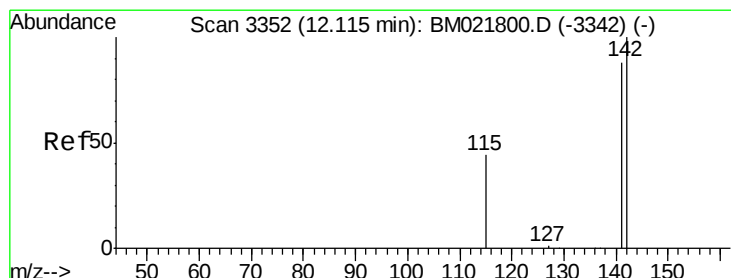
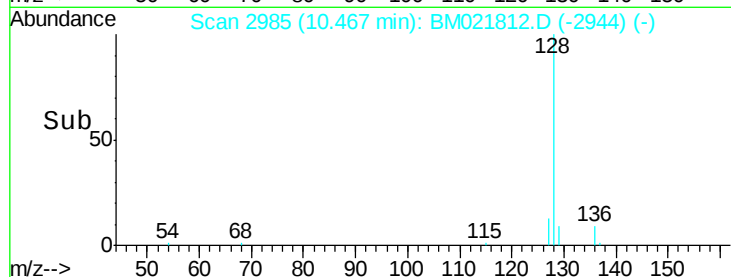
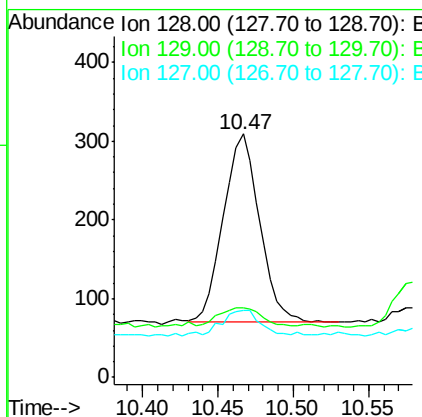
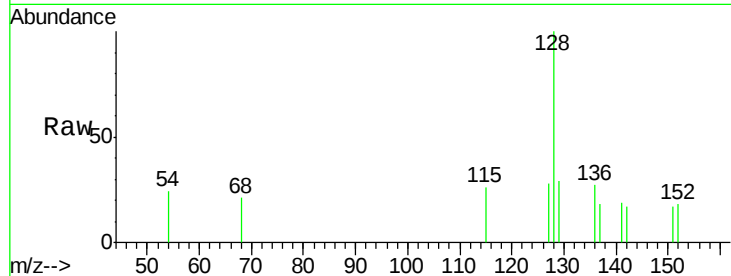
ClientSampleId :

BENR7

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 399   |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 129       | 28.8  | 12.3  | 18.5# |
| 127       | 27.5  | 13.0  | 19.6# |

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#5

2-Methylnaphthalene

Concen: 0.029 ng/u1

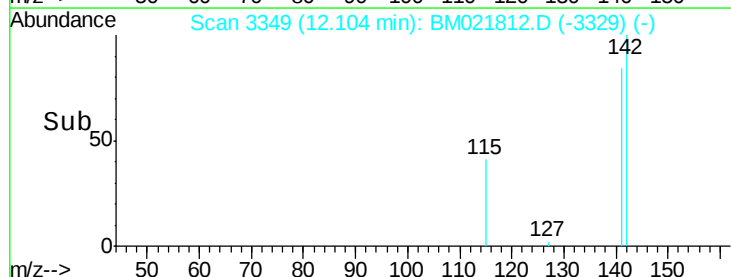
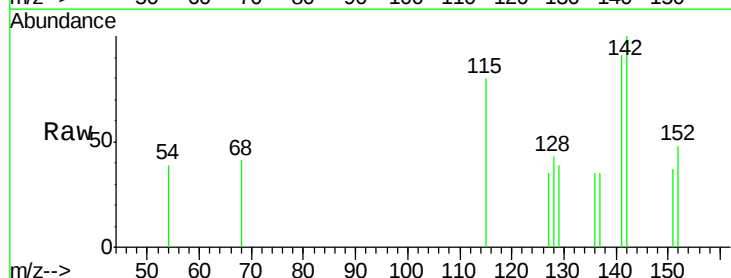
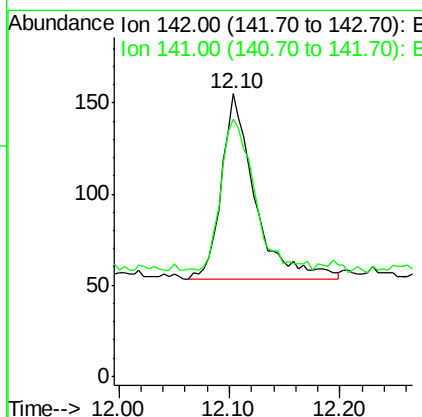
RT: 12.10 min Scan# 3349

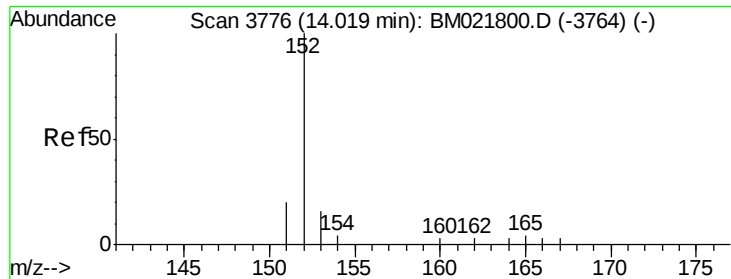
Delta R.T. -0.01 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 215   |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 82.8  | 74.3  | 111.5 |





#7

Acenaphthylene

Concen: 0.108 ng/ul

RT: 14.01 min Scan# 3773

Delta R.T. -0.01 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

Instrument :

BNA\_M

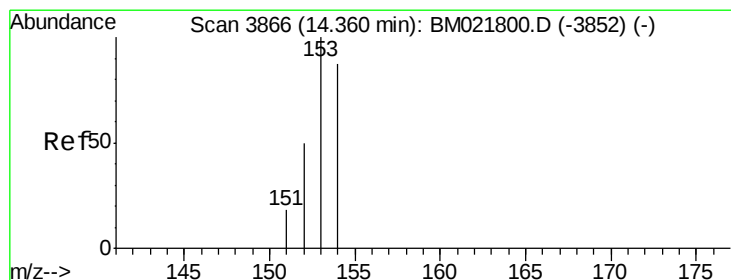
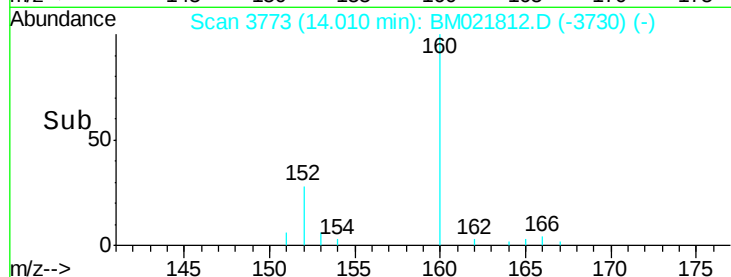
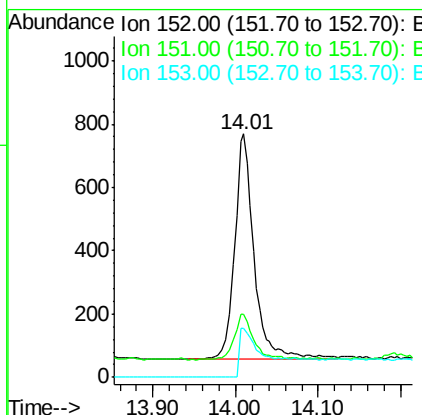
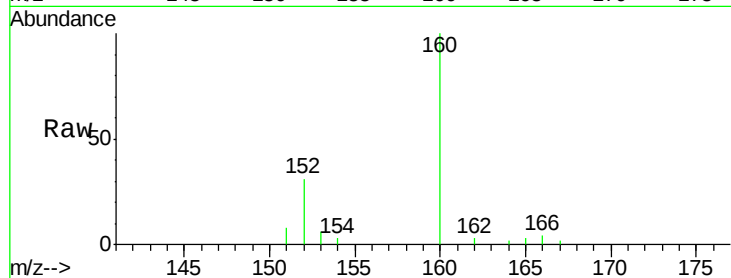
ClientSampleId :

BENR7

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 1166  |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 25.7  | 18.3  | 27.5  |
| 153       | 20.3  | 12.8  | 19.2# |

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#8

Acenaphthene

Concen: 0.037 ng/ul

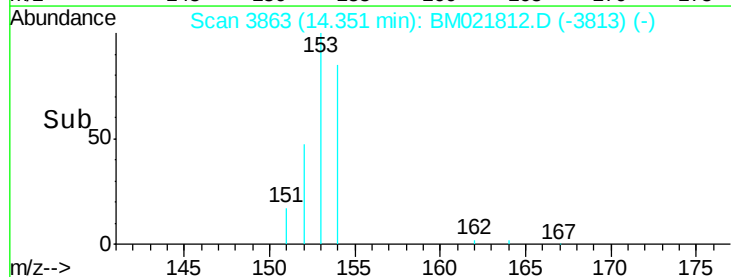
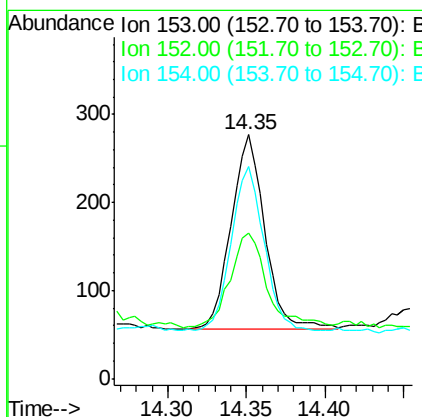
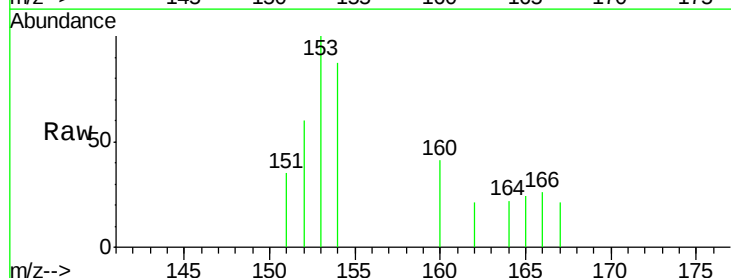
RT: 14.35 min Scan# 3863

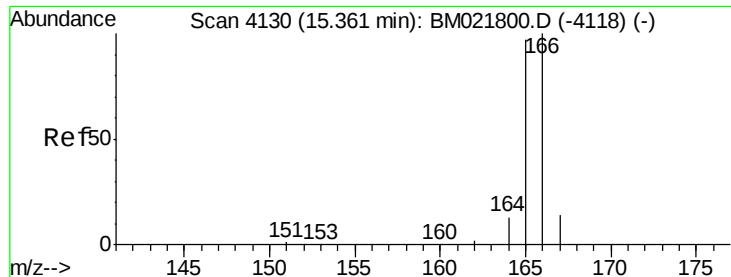
Delta R.T. -0.01 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 328   |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 59.9  | 41.3  | 61.9  |
| 154       | 87.0  | 72.3  | 108.5 |





#9

Fluorene

Concen: 0.058 ng/ul

RT: 15.34 min Scan# 4125

Delta R.T. -0.02 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

Instrument :

BNA\_M

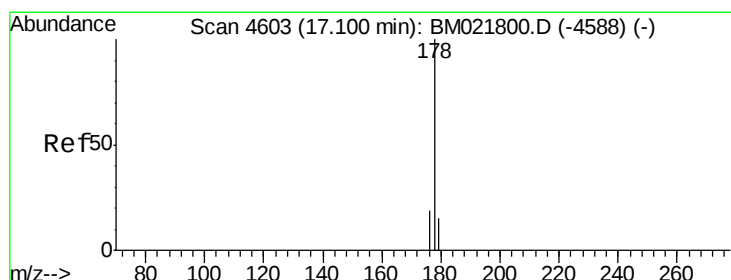
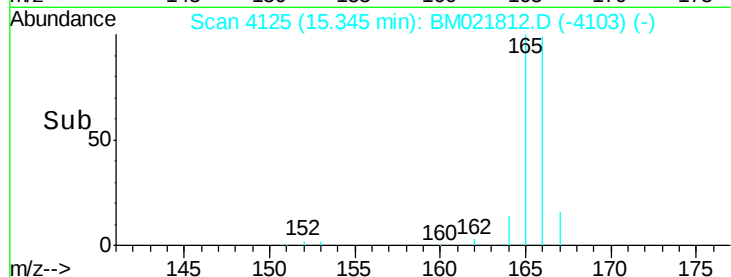
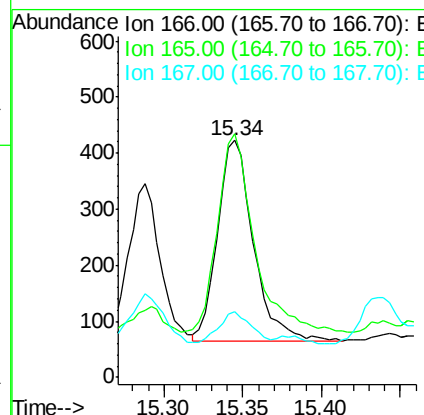
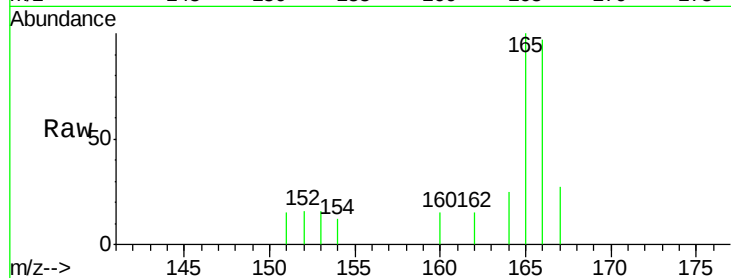
ClientSampled :

BENR7

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 166   | Resp: | 570   |
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 102.8 | 81.4  | 122.0 |
| 167       | 28.0  | 13.7  | 20.5# |

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#12

Phenanthrene

Concen: 0.656 ng/ul

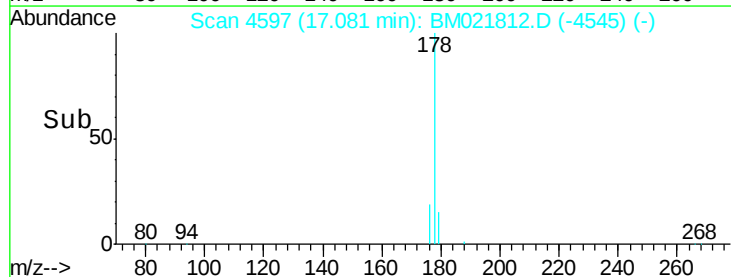
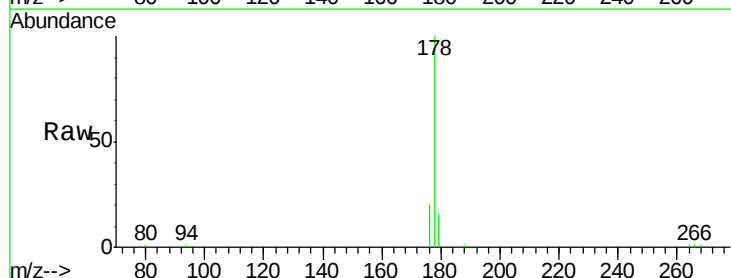
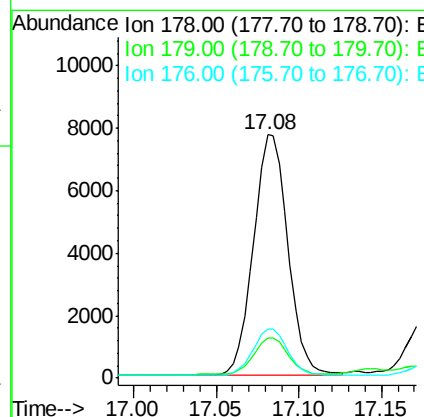
RT: 17.08 min Scan# 4597

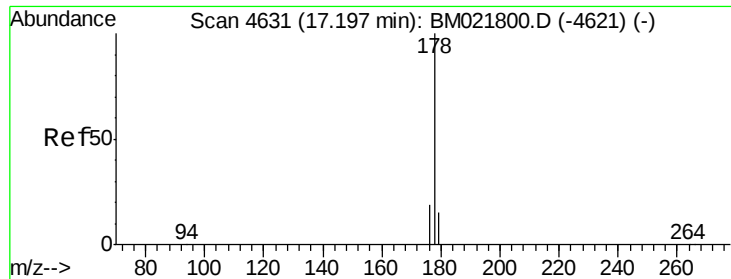
Delta R.T. -0.02 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 178   | Resp: | 11211 |
| Ion Ratio | Lower | Upper |       |
| 178       | 100   |       |       |
| 179       | 16.2  | 14.2  | 21.2  |
| 176       | 20.3  | 16.8  | 25.2  |





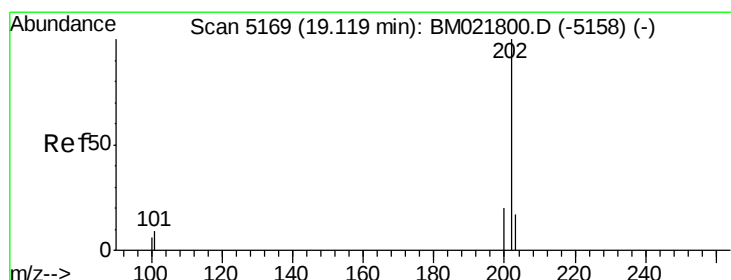
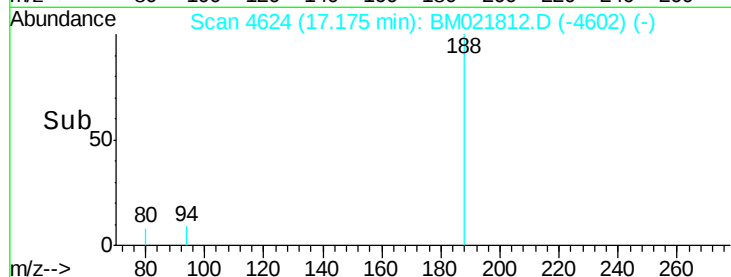
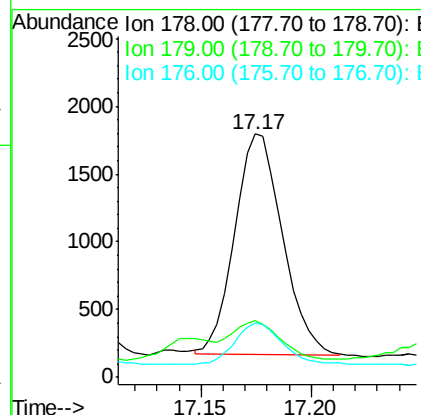
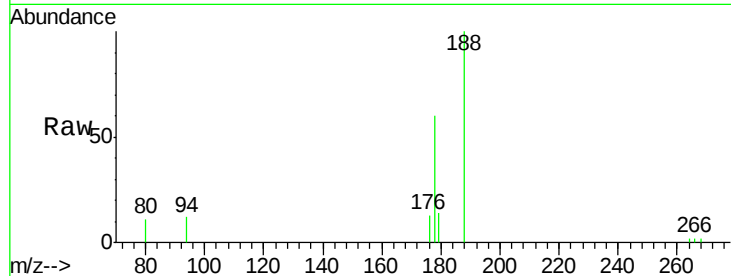
#13  
 Anthracene  
 Concen: 0.167 ng/ul m  
 RT: 17.17 min Scan# 4624  
 Delta R.T. -0.02 min  
 Lab File: BM021812.D  
 Acq: 04 Aug 2019 14:47

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENR7

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 178   | Resp: | 2436  |
| Ion      | Ratio | Lower | Upper |
| 178      | 100   |       |       |
| 179      | 23.1  | 15.5  | 23.3  |
| 176      | 22.4  | 16.6  | 25.0  |

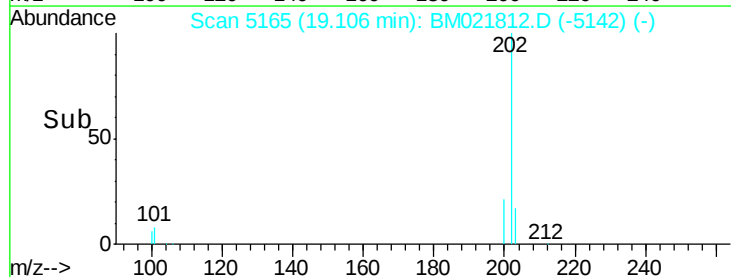
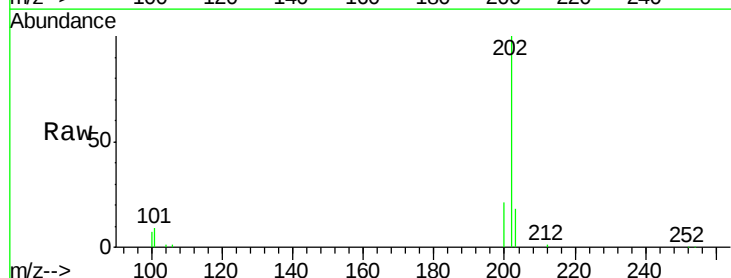
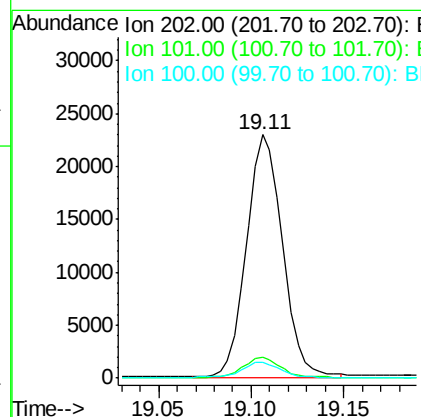
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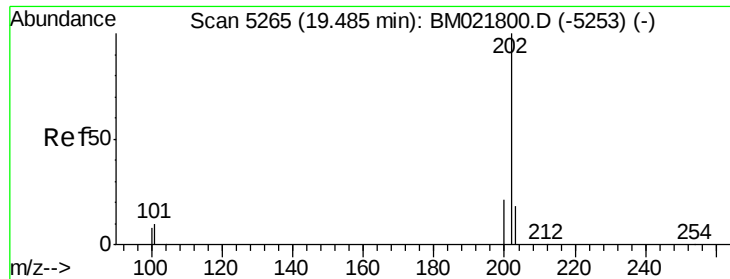
mohammad  
 8/5/2019 10:15:42 PM



#15  
 Fluoranthene  
 Concen: 1.342 ng/ul m  
 RT: 19.11 min Scan# 5165  
 Delta R.T. -0.01 min  
 Lab File: BM021812.D  
 Acq: 04 Aug 2019 14:47

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 202   | Resp: | 30711 |
| Ion      | Ratio | Lower | Upper |
| 202      | 100   |       |       |
| 101      | 8.5   | 0.0   | 30.2  |
| 100      | 6.6   | 0.0   | 28.1  |





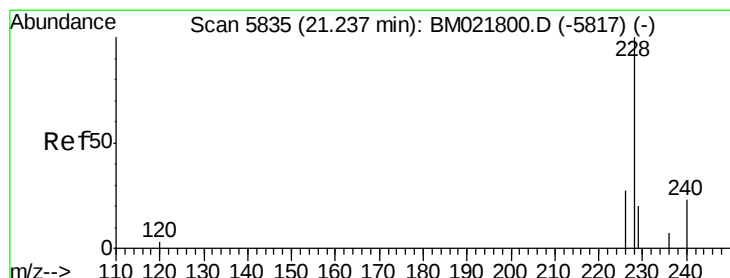
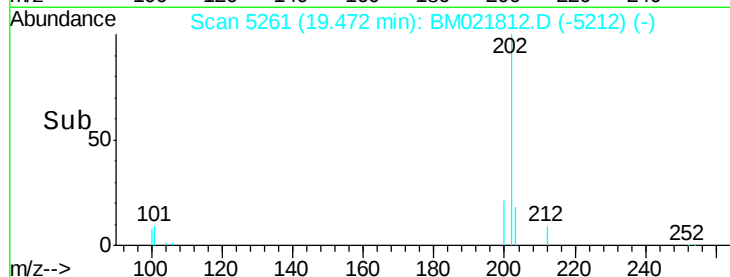
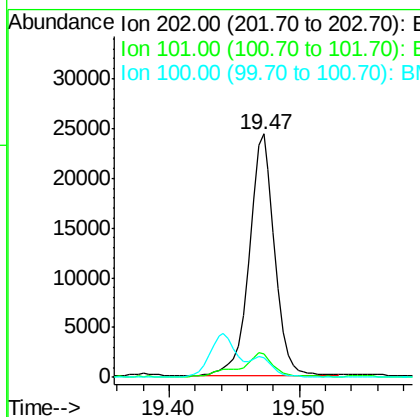
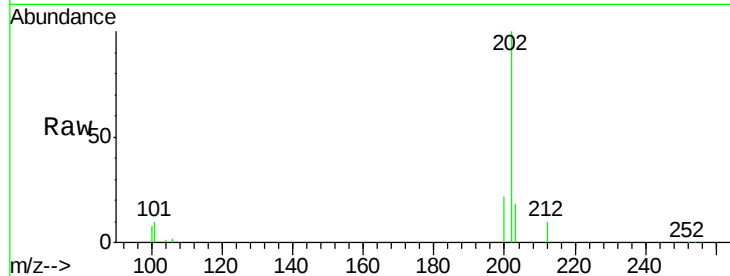
#17  
**Pyrene**  
 Concen: 1.338 ng/ul  
 RT: 19.47 min Scan# 5261  
 Delta R.T. -0.01 min  
 Lab File: BM021812.D  
 Acq: 04 Aug 2019 14:47

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENR7

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 202   | Resp: | 32740 |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 9.5   | 8.3   | 12.5  |
| 100       | 8.0   | 7.2   | 10.8  |

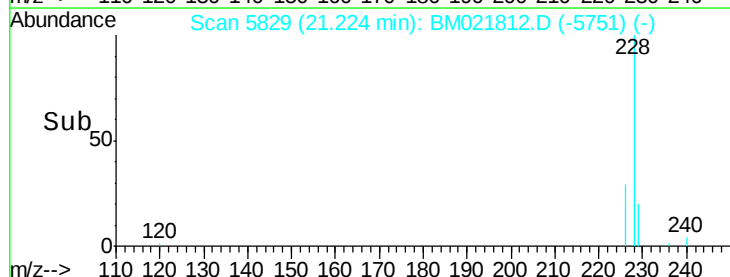
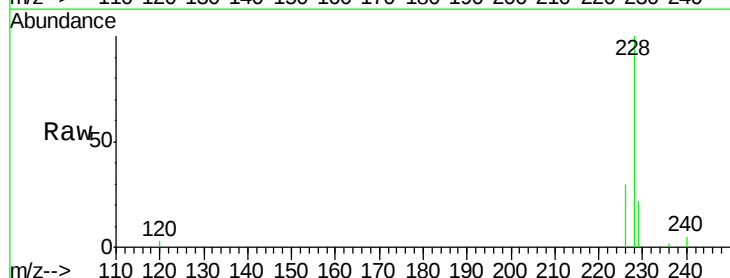
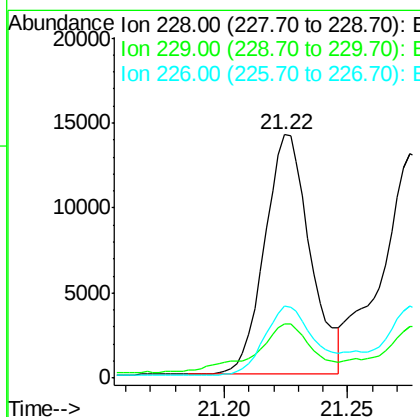
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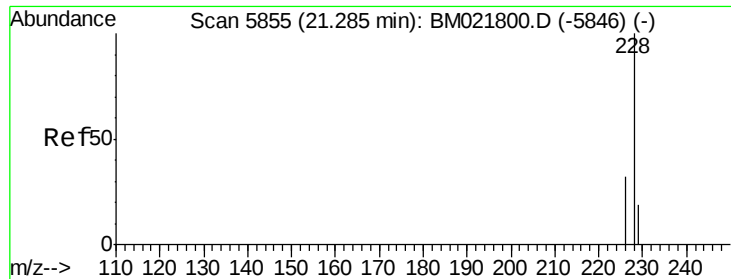
mohammad  
 8/5/2019 10:15:42 PM



#18  
**Benzo(a)anthracene**  
 Concen: 0.850 ng/ul  
 RT: 21.22 min Scan# 5829  
 Delta R.T. -0.01 min  
 Lab File: BM021812.D  
 Acq: 04 Aug 2019 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 18114 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 229       | 22.0  | 17.2  | 25.8  |
| 226       | 29.7  | 22.6  | 34.0  |





#19

Chrysene

Concen: 0.771 ng/ul

RT: 21.28 min Scan# 5850

Delta R.T. -0.01 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

Instrument :

BNA\_M

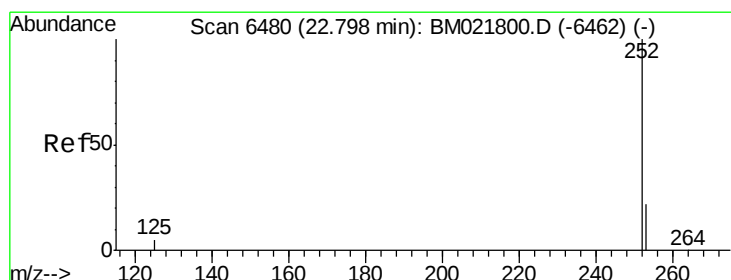
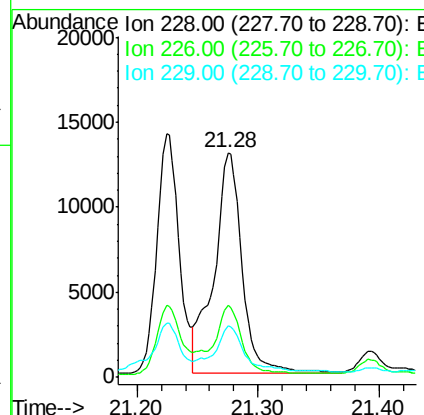
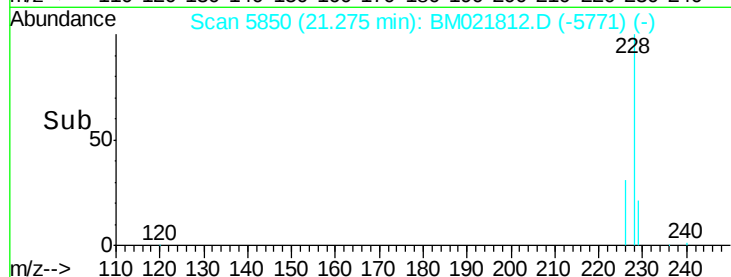
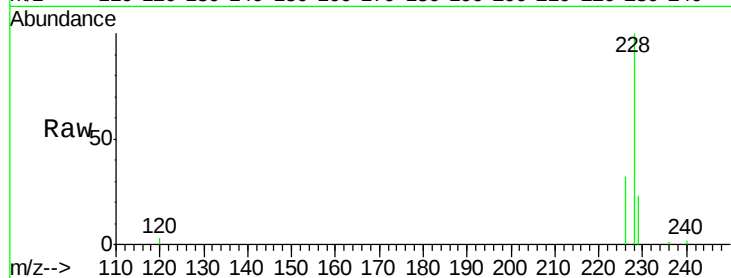
ClientSampleId :

BENR7

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 21130 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 31.9  | 24.9  | 37.3  |
| 229       | 22.9  | 16.6  | 25.0  |

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#21

Benzo(b)fluoranthene

Concen: 1.108 ng/ul m

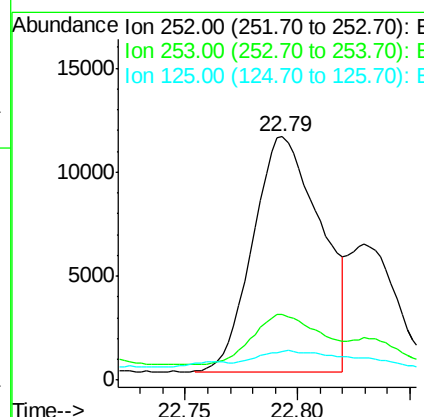
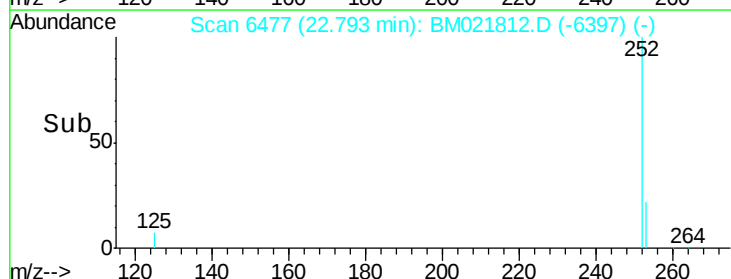
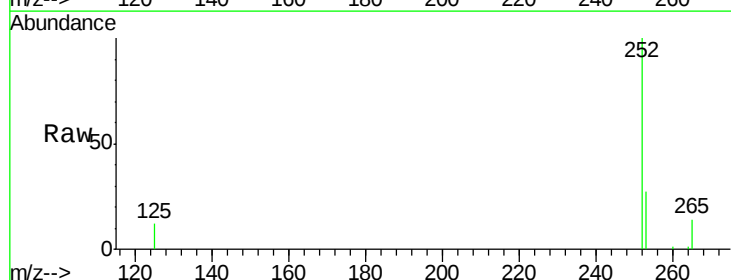
RT: 22.79 min Scan# 6477

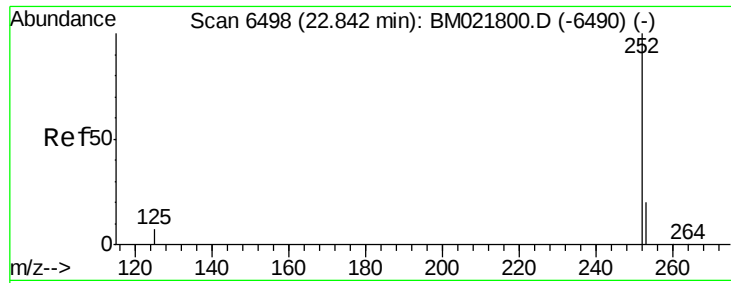
Delta R.T. -0.01 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 23813 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 27.2  | 0.0   | 67.4  |
| 125       | 12.0  | 0.0   | 31.0  |





#22

Benzo(k)fluoranthene

Concen: 0.389 ng/ul m

RT: 22.83 min Scan# 6492

Delta R.T. -0.01 min

Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

Instrument :

BNA\_M

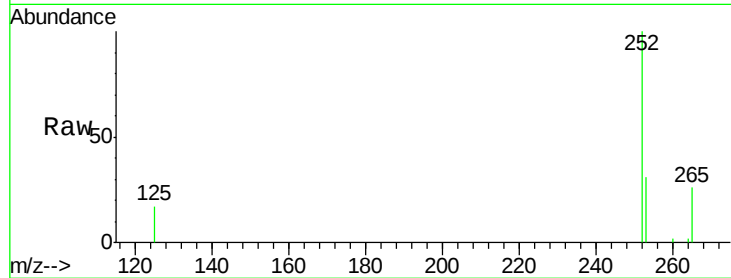
ClientSampleId :

BENR7

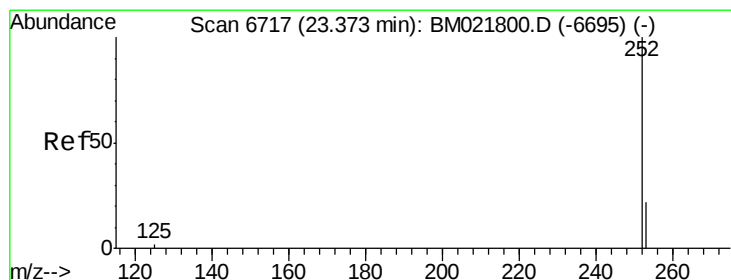
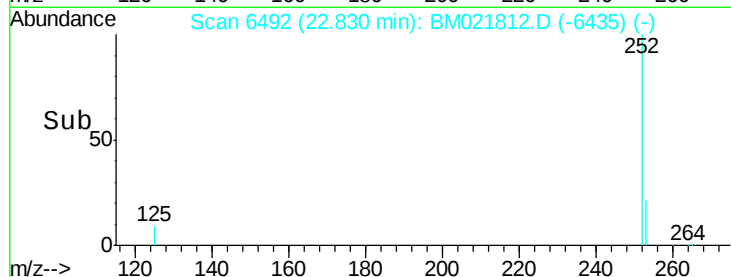
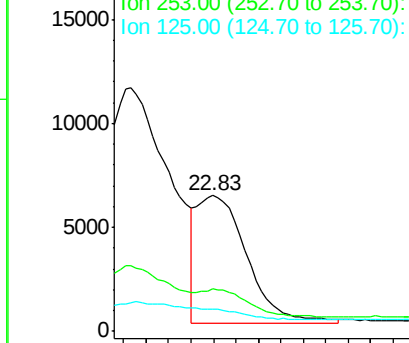
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 252   | Resp: | 9474 |
| Ion Ratio | Lower | Upper |      |
| 252       | 100   |       |      |
| 253       | 31.2  | 27.0  | 40.4 |
| 125       | 16.6  | 12.2  | 18.2 |

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Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E



#23

Benzo(a)pyrene

Concen: 0.834 ng/ul

RT: 23.36 min Scan# 6710

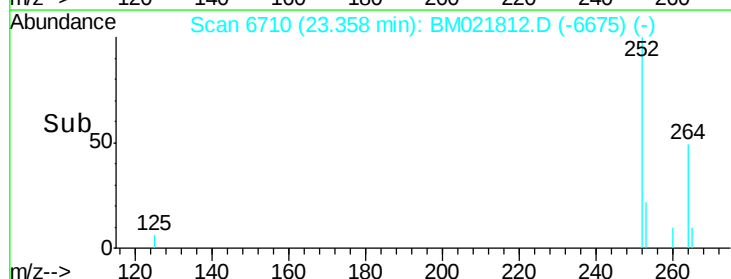
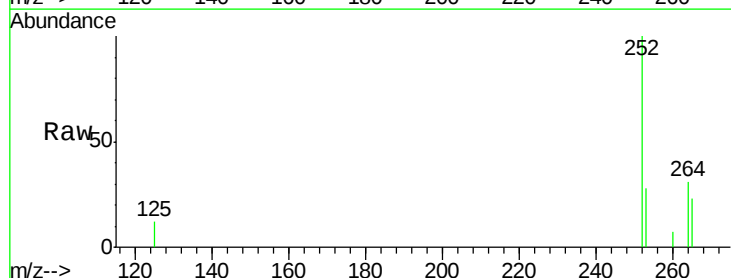
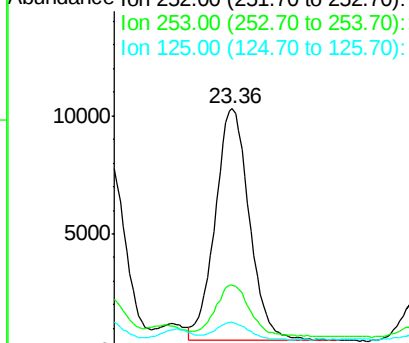
Delta R.T. -0.01 min

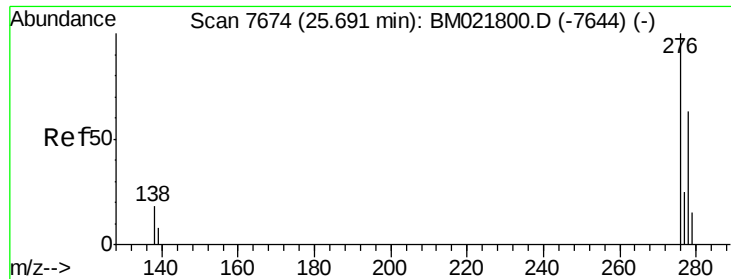
Lab File: BM021812.D

Acq: 04 Aug 2019 14:47

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 18223 |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 27.7  | 31.7  | 47.5# |
| 125       | 12.2  | 14.6  | 21.8# |

Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E





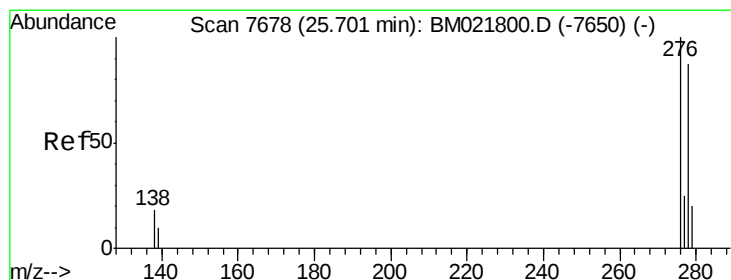
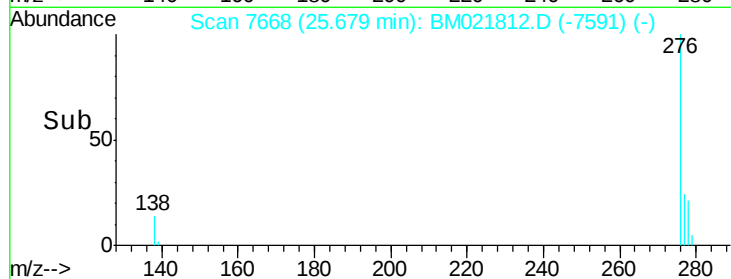
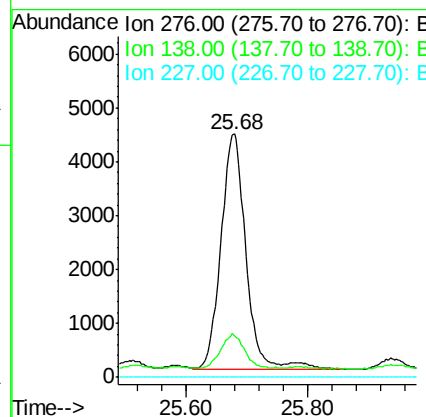
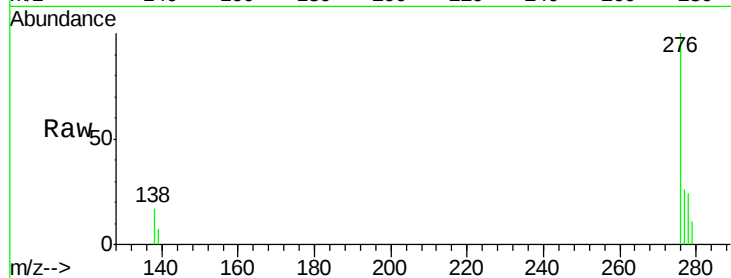
#24  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.478 ng/u1  
 RT: 25.68 min Scan# 7668  
 Delta R.T. -0.01 min  
 Lab File: BM021812.D  
 Acq: 04 Aug 2019 14:47

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENR7

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 13.7  | 15.1  | 22.7# |
| 227     | 0.0   | 0.0   | 0.0   |

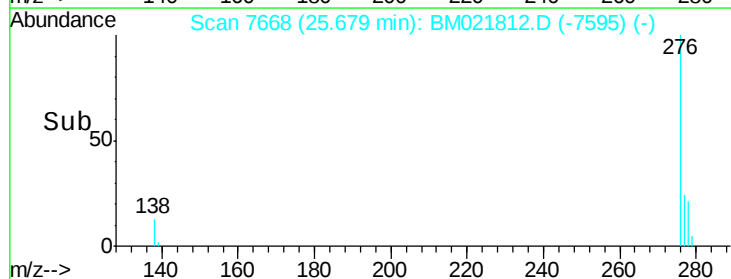
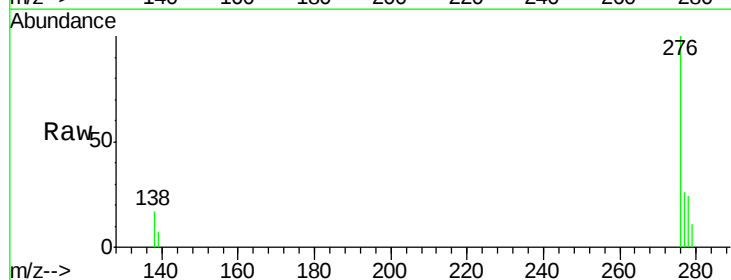
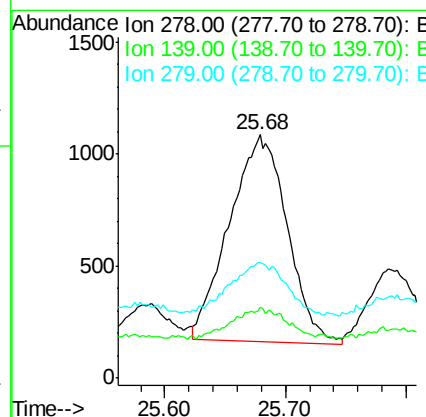
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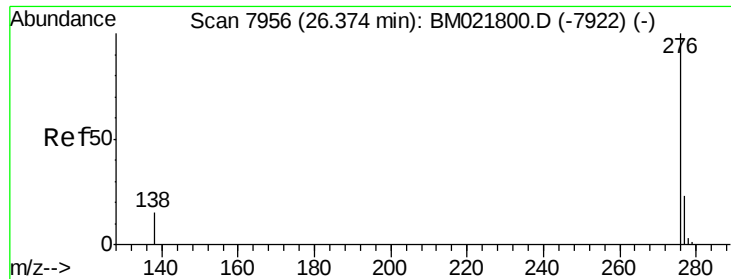
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#25  
 Dibenzo(a,h)anthracene  
 Concen: 0.145 ng/u1  
 RT: 25.68 min Scan# 7668  
 Delta R.T. -0.02 min  
 Lab File: BM021812.D  
 Acq: 04 Aug 2019 14:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 28.8  | 14.2  | 21.2# |
| 279     | 47.3  | 28.3  | 42.5# |





#26

Benzo(g,h,i)perylene

Concen: 0.533 ng/ul

RT: 26.36 min Scan# 7948

Delta R.T. -0.02 min

Lab File: BM021812.D

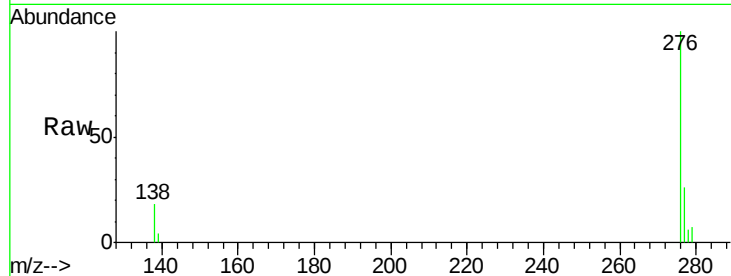
Acq: 04 Aug 2019 14:47

Instrument :

BNA\_M

ClientSampleId :

BENR7



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 17.7  | 15.5  | 23.3  |
| 277     | 26.3  | 21.4  | 32.2  |

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