

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM080919\  
 Data File : BM022002.D  
 Acq On : 10 Aug 2019 18:18  
 Operator : HP/JU  
 Sample : K4029-18DL 5X  
 Misc :  
 ALS Vial : 39 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENT7DL

Manual Integrations  
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 8/13/2019 8:34:36 AM

Quant Time: Aug 11 02:13:45 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 : Sun Aug 11 01:49:36 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|--------|--------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.62  | 152  | 797      | 0.40   | ng/ul  | -0.01    |
| 2) Naphthalene-d8           | 10.40 | 136  | 3409     | 0.40   | ng/ul  | -0.02    |
| 6) Acenaphthene-d10         | 14.27 | 164  | 1870     | 0.40   | ng/ul  | -0.01    |
| 10) Phenanthrene-d10        | 17.03 | 188  | 4037     | 0.40   | ng/ul  | -0.02    |
| 16) Chrysene-d12            | 21.23 | 240  | 3874     | 0.40   | ng/ul  | -0.01    |
| 20) Perylene-d12            | 23.44 | 264  | 4263     | 0.40   | ng/ul  | -0.01    |
| System Monitoring Compounds |       |      |          |        |        |          |
| 4) 2-Methylnaphthalene-d10  | 12.02 | 152  | 230      | 0.04   | ng/ul  | 0.00     |
| 14) Fluoranthene-d10        | 19.06 | 212  | 619      | 0.05   | ng/ul  | -0.02    |
| Target Compounds            |       |      |          | Qvalue |        |          |
| 3) Naphthalene              | 10.45 | 128  | 283      | 0.029  | ng/ul# | 49       |
| 5) 2-Methylnaphthalene      | 12.10 | 142  | 242      | 0.038  | ng/ul  | 94       |
| 7) Acenaphthylene           | 13.99 | 152  | 448      | 0.051  | ng/ul# | 71       |
| 8) Acenaphthene             | 14.33 | 153  | 589      | 0.083  | ng/ul  | 96       |
| 9) Fluorene                 | 15.33 | 166  | 485      | 0.061  | ng/ul# | 94       |
| 12) Phenanthrene            | 17.07 | 178  | 8689     | 0.740  | ng/ul  | 99       |
| 13) Anthracene              | 17.16 | 178  | 1755     | 0.175  | ng/ul  | 94       |
| 15) Fluoranthene            | 19.09 | 202  | 11310    | 0.719  | ng/ul  | 99       |
| 17) Pyrene                  | 19.46 | 202  | 14428    | 0.906  | ng/ul  | 99       |
| 18) Benzo(a)anthracene      | 21.21 | 228  | 7646     | 0.552  | ng/ul  | 98       |
| 19) Chrysene                | 21.27 | 228  | 7351     | 0.412  | ng/ul  | 97       |
| 21) Benzo(b)fluoranthene    | 22.78 | 252  | 7871m    | 0.548  | ng/ul  |          |
| 22) Benzo(k)fluoranthene    | 22.82 | 252  | 2981m    | 0.183  | ng/ul  |          |
| 23) Benzo(a)pyrene          | 23.34 | 252  | 5980     | 0.409  | ng/ul  | 90       |
| 24) Indeno(1,2,3-cd)pyrene  | 25.65 | 276  | 3626     | 0.208  | ng/ul# | 98       |
| 25) Dibenzo(a,h)anthracene  | 25.66 | 278  | 1014     | 0.072  | ng/ul# | 53       |
| 26) Benzo(g,h,i)perylene    | 26.34 | 276  | 3171     | 0.202  | ng/ul# | 91       |

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

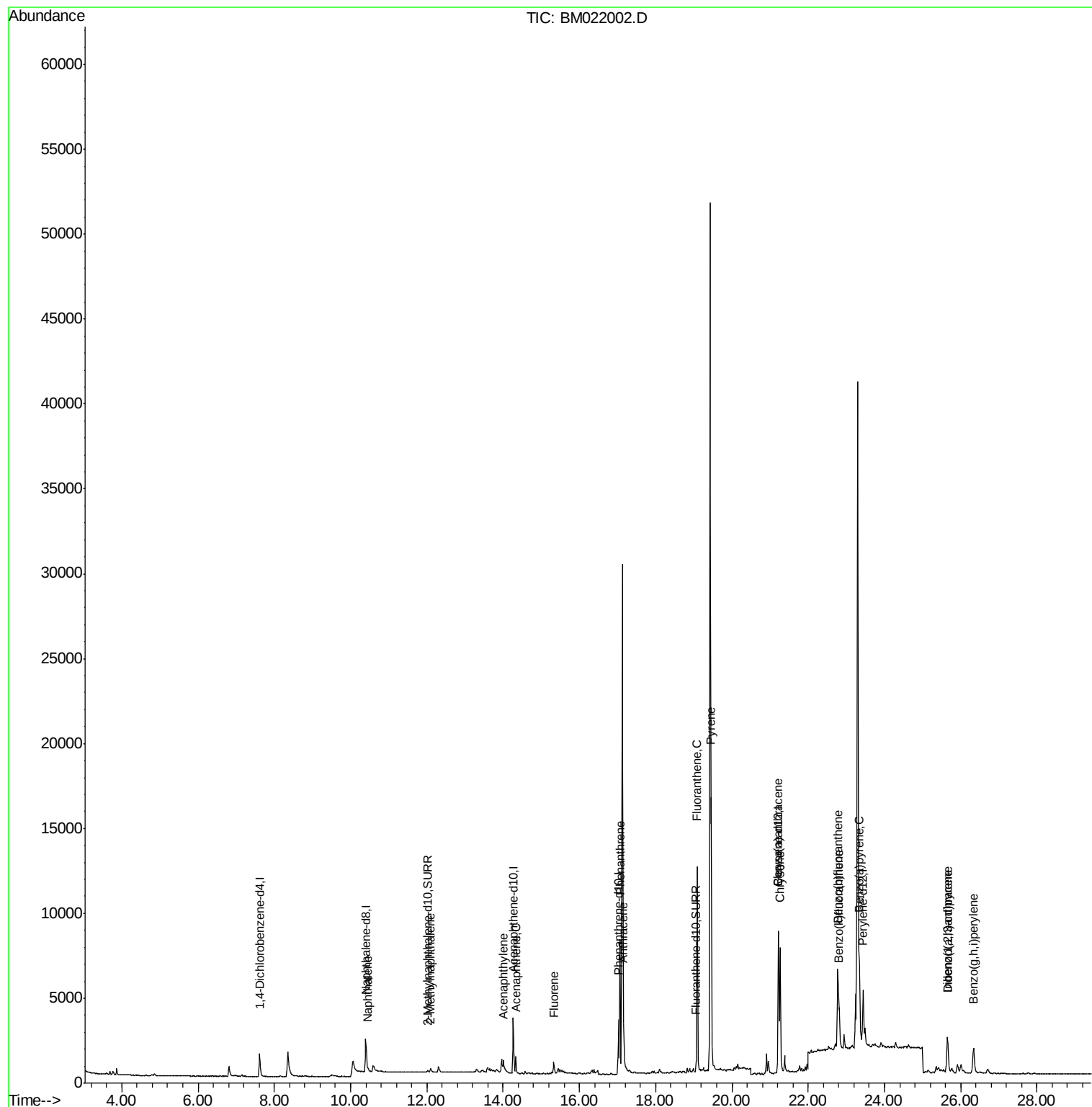
Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM080919\  
Data File : BM022002.D  
Acq On : 10 Aug 2019 18:18  
Operator : HP/JU  
Sample : K4029-18DL 5X  
Misc :  
ALS Vial : 39 Sample Multiplier: 1

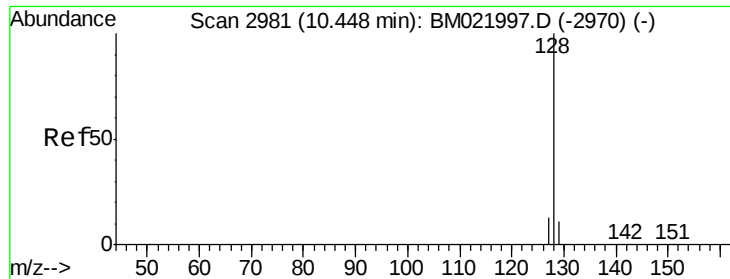
Instrument :  
BNA\_M  
ClientSampleId :  
BENT7DL

Quant Time: Aug 11 02:13:45 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 : Sun Aug 11 01:49:36 2019  
Response via : Initial Calibration

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#3

Naphthalene

Concen: 0.029 ng/ul

RT: 10.45 min Scan# 2982

Delta R.T. -0.01 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

Instrument :

BNA\_M

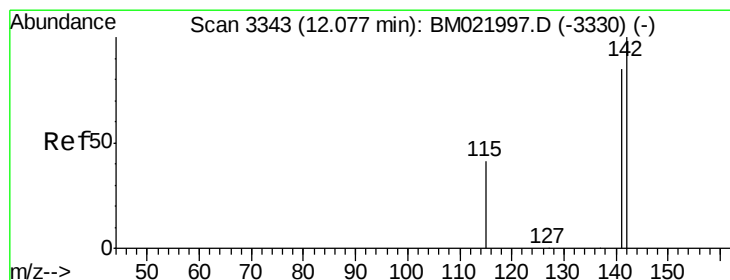
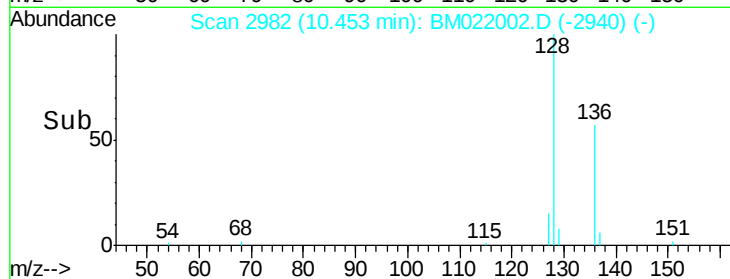
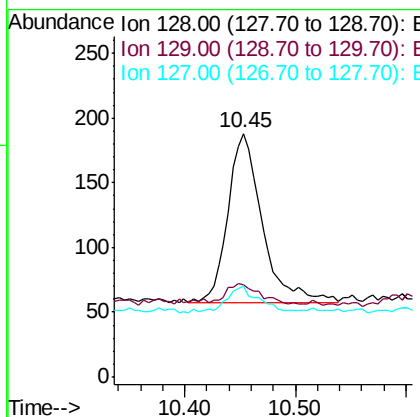
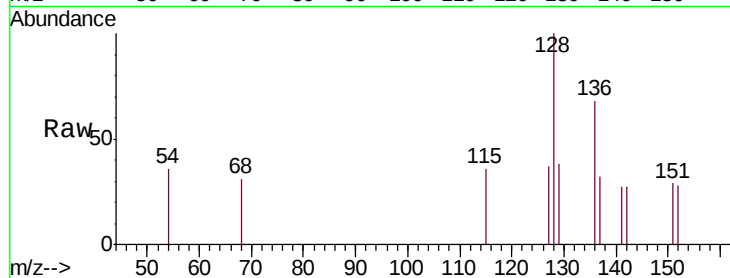
ClientSampleId :

BENT7DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 283   |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 129       | 37.8  | 12.3  | 18.5# |
| 127       | 37.2  | 13.0  | 19.6# |

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#5

2-Methylnaphthalene

Concen: 0.038 ng/ul

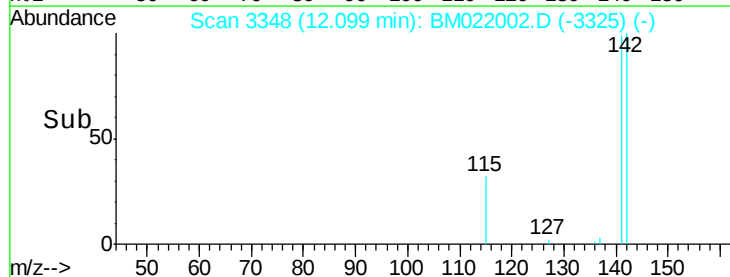
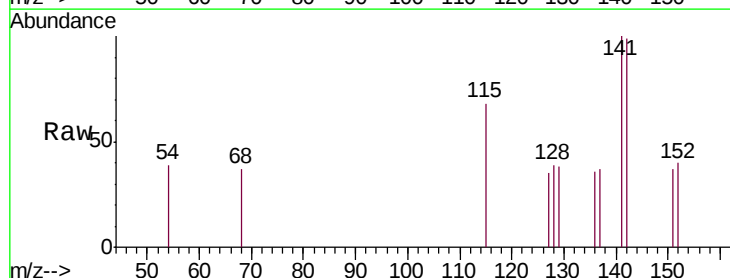
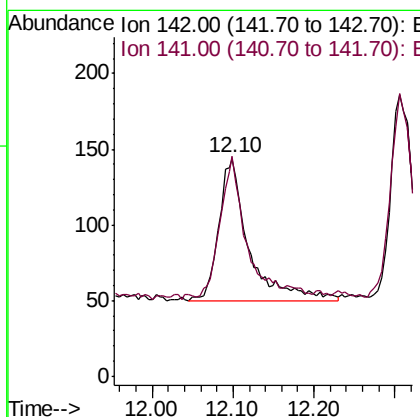
RT: 12.10 min Scan# 3348

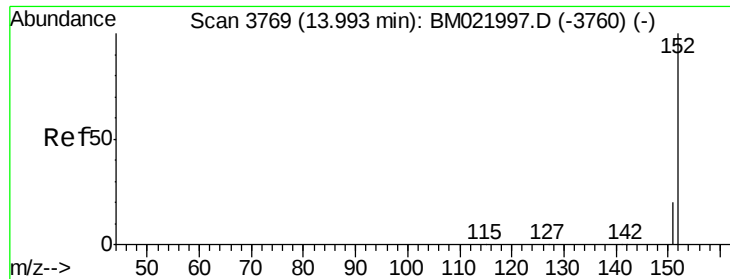
Delta R.T. 0.00 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 242   |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 141       | 87.6  | 74.3  | 111.5 |





#7

Acenaphthylene

Concen: 0.051 ng/ul

RT: 13.99 min Scan# 3769

Delta R.T. -0.02 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

Instrument :

BNA\_M

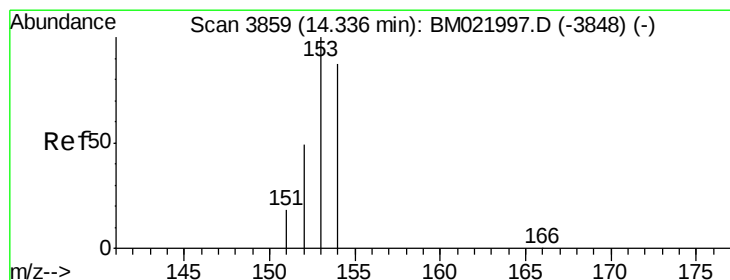
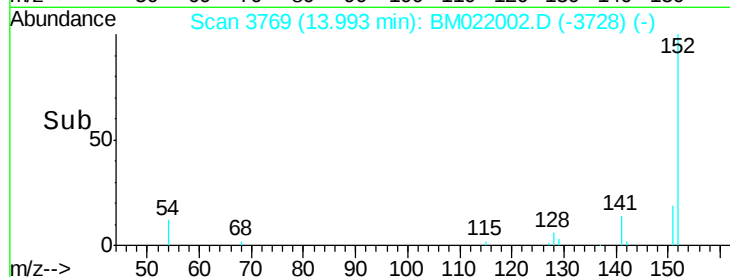
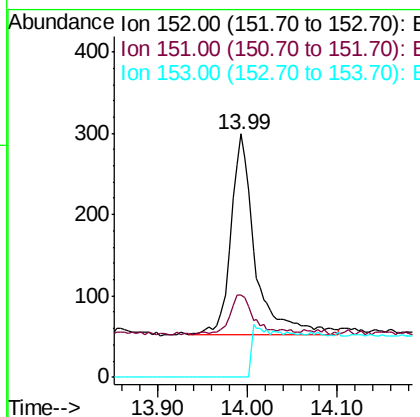
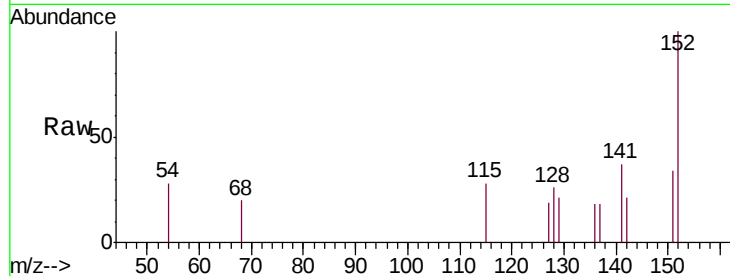
ClientSampleId :

BENT7DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 448   |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 33.8  | 18.3  | 27.5# |
| 153       | 0.0   | 12.8  | 19.2# |

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#8

Acenaphthene

Concen: 0.083 ng/ul

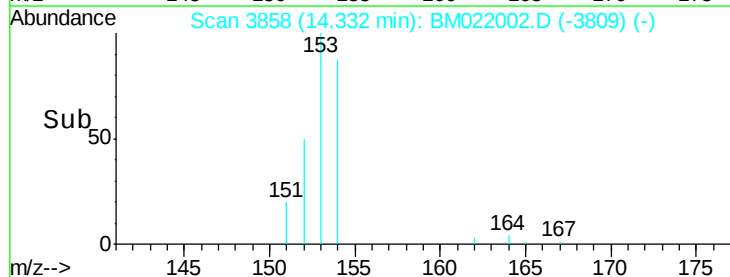
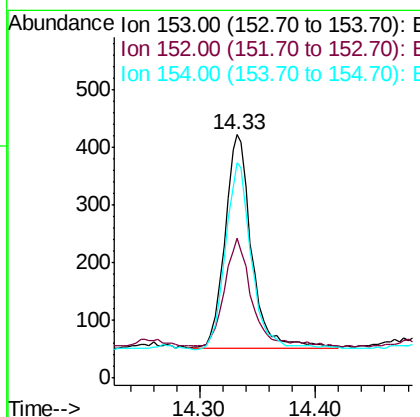
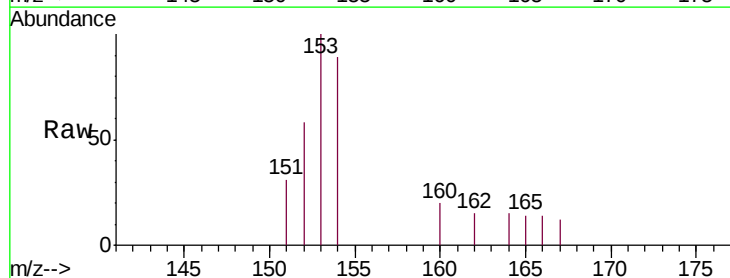
RT: 14.33 min Scan# 3858

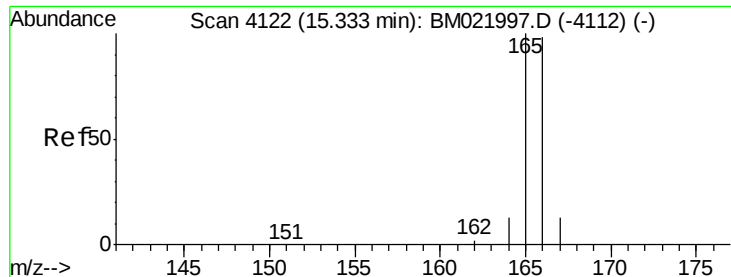
Delta R.T. -0.01 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 153   | Resp: | 589   |
| Ion Ratio | Lower | Upper |       |
| 153       | 100   |       |       |
| 152       | 57.6  | 41.3  | 61.9  |
| 154       | 88.6  | 72.3  | 108.5 |





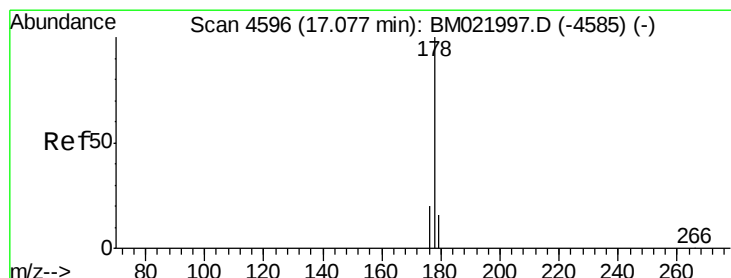
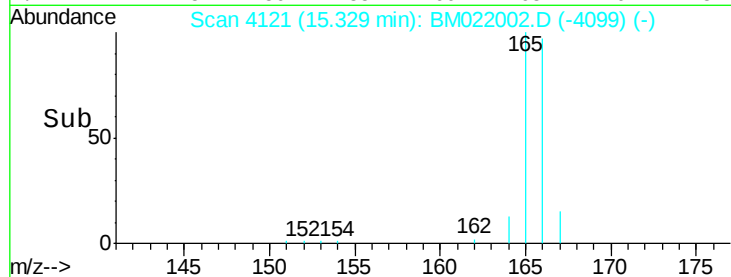
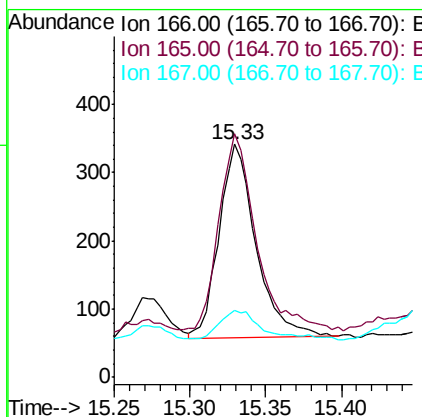
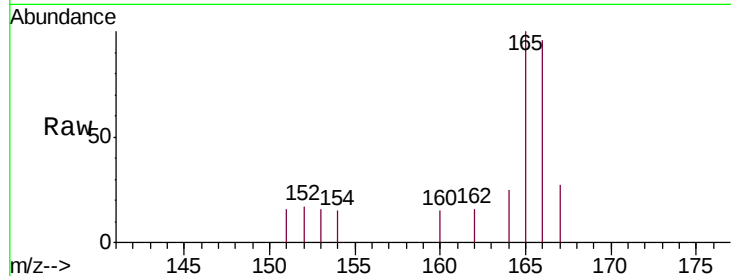
#9  
**Fluorene**  
 Concen: 0.061 ng/ul  
 RT: 15.33 min Scan# 4121  
 Delta R.T. -0.02 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENT7DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 166   | Resp: | 485   |
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 104.4 | 81.4  | 122.0 |
| 167       | 28.7  | 13.7  | 20.5# |

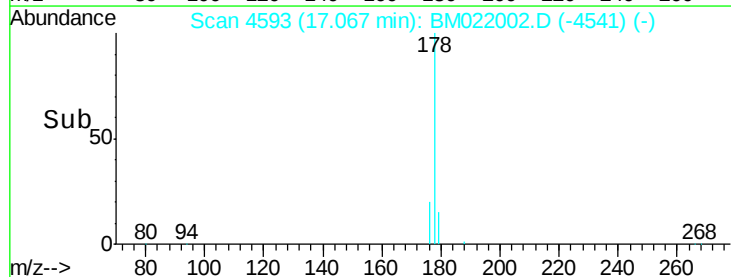
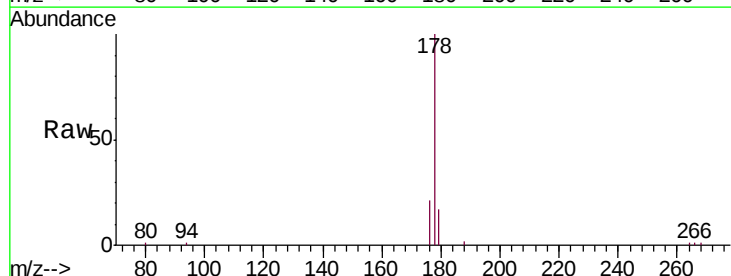
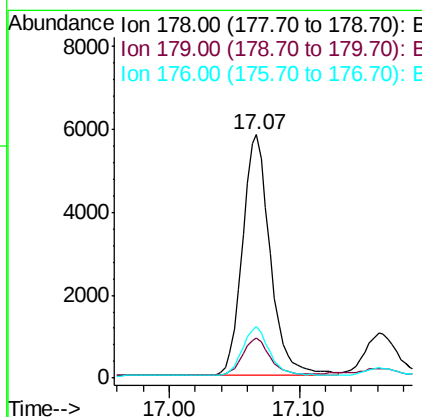
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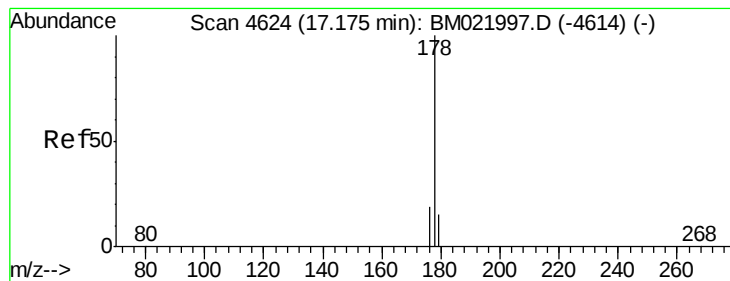
Sohil  
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#12  
**Phenanthrene**  
 Concen: 0.740 ng/ul  
 RT: 17.07 min Scan# 4593  
 Delta R.T. -0.02 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 178   | Resp: | 8689 |
| Ion Ratio | Lower | Upper |      |
| 178       | 100   |       |      |
| 179       | 16.5  | 14.2  | 21.2 |
| 176       | 20.9  | 16.8  | 25.2 |





#13

Anthracene

Concen: 0.175 ng/ul

RT: 17.16 min Scan# 4620

Delta R.T. -0.02 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

Instrument :

BNA\_M

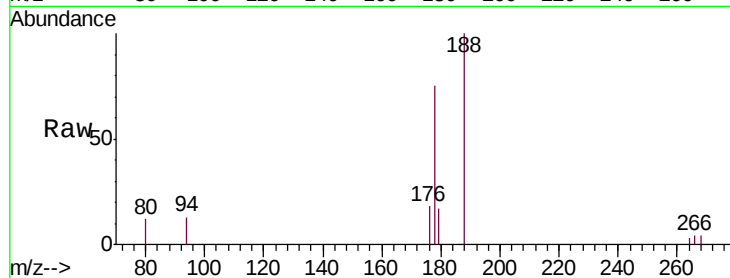
ClientSampleId :

BENT7DL

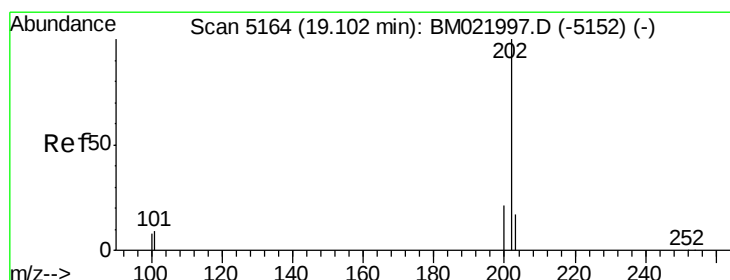
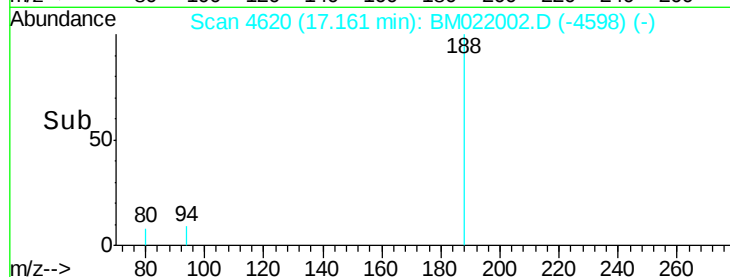
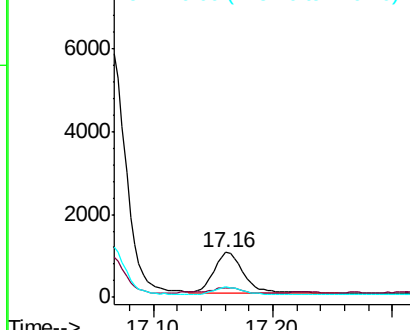
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 178   | Resp: | 1755 |
| Ion Ratio | Lower | Upper |      |
| 178       | 100   |       |      |
| 179       | 22.0  | 15.5  | 23.3 |
| 176       | 23.8  | 16.6  | 25.0 |

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Abundance Ion 178.00 (177.70 to 178.70): E  
Ion 179.00 (178.70 to 179.70): E  
Ion 176.00 (175.70 to 176.70): E



#15

Fluoranthene

Concen: 0.719 ng/ul

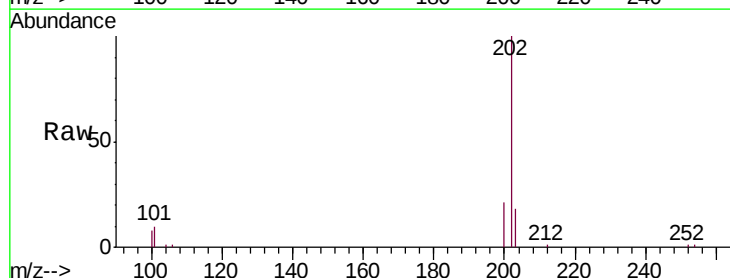
RT: 19.09 min Scan# 5161

Delta R.T. -0.02 min

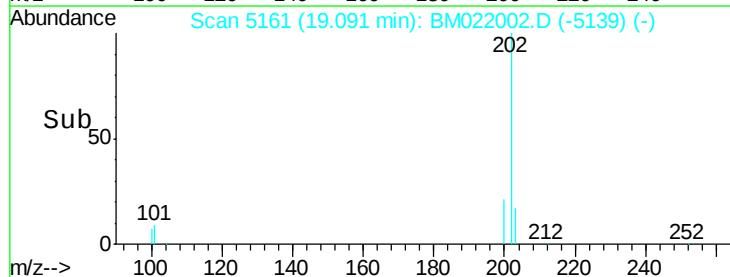
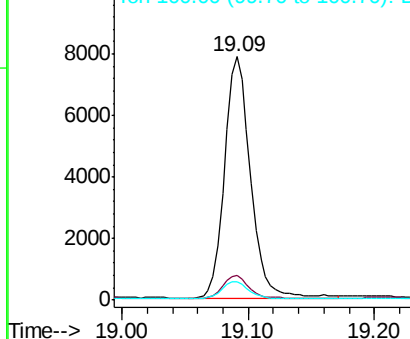
Lab File: BM022002.D

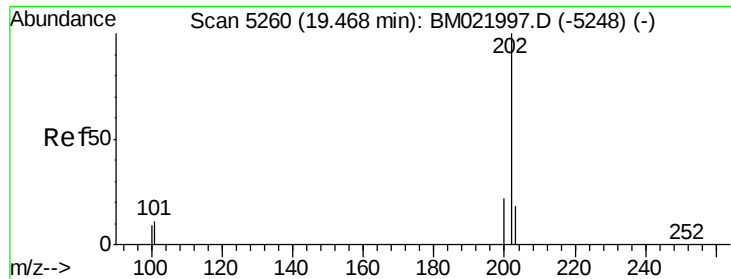
Acq: 10 Aug 2019 18:18

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 202   | Resp: | 11310 |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 9.9   | 0.0   | 30.2  |
| 100       | 7.6   | 0.0   | 28.1  |



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





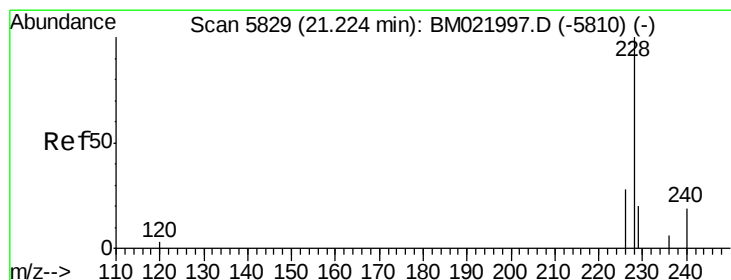
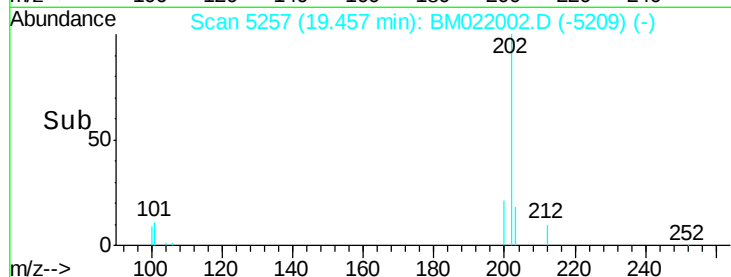
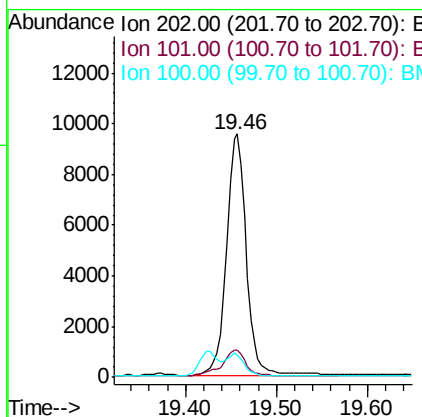
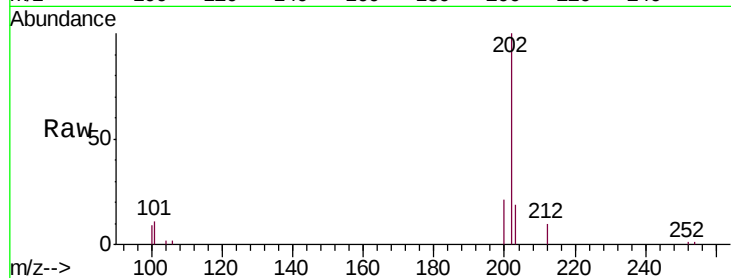
#17  
 Pyrene  
 Concen: 0.906 ng/ul  
 RT: 19.46 min Scan# 5257  
 Delta R.T. -0.02 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENT7DL

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 202     | 100   | 14428 |       |       |
| 101     | 11.2  | 8.3   | 12.5  |       |
| 100     | 9.0   | 7.2   | 10.8  |       |

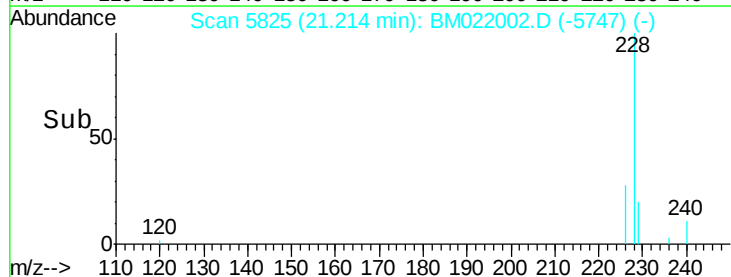
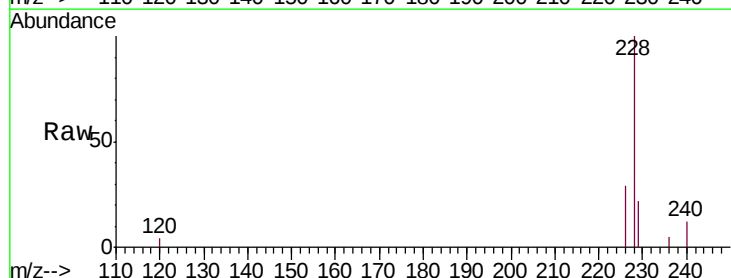
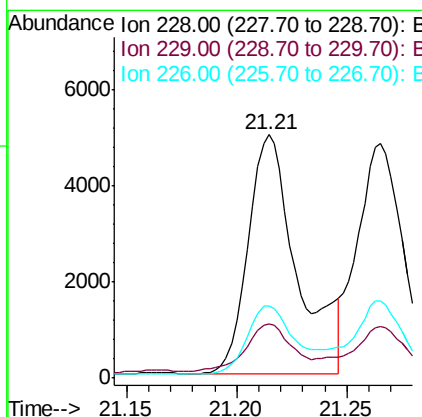
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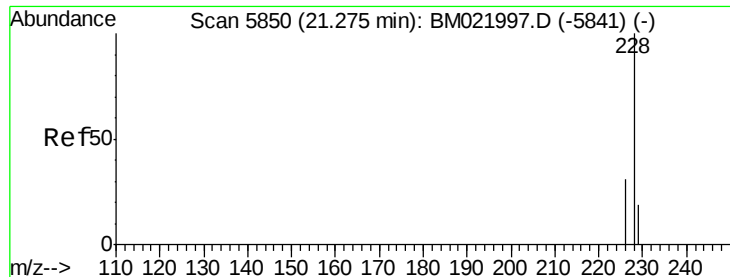
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#18  
 Benzo(a)anthracene  
 Concen: 0.552 ng/ul  
 RT: 21.21 min Scan# 5825  
 Delta R.T. -0.01 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 228     | 100   | 7646 |       |       |
| 229     | 22.5  | 17.2 | 25.8  |       |
| 226     | 29.4  | 22.6 | 34.0  |       |





#19

Chrysene

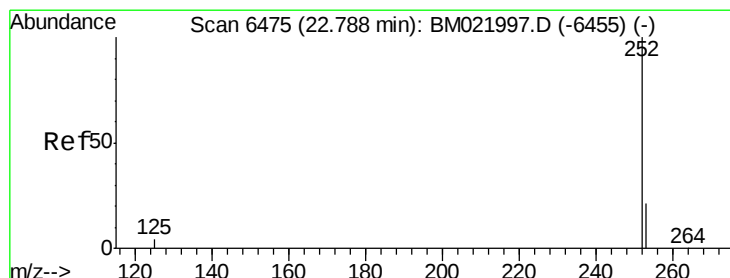
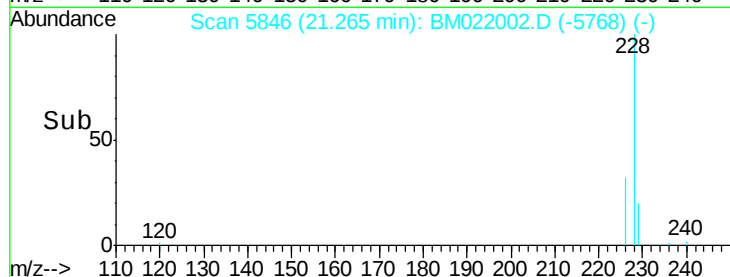
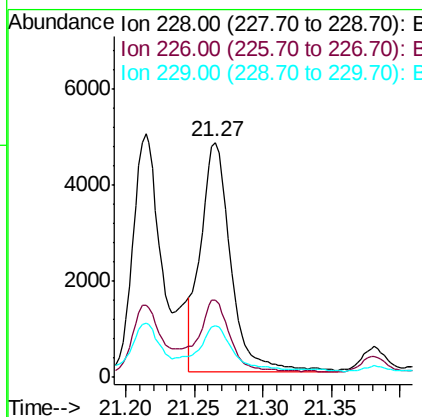
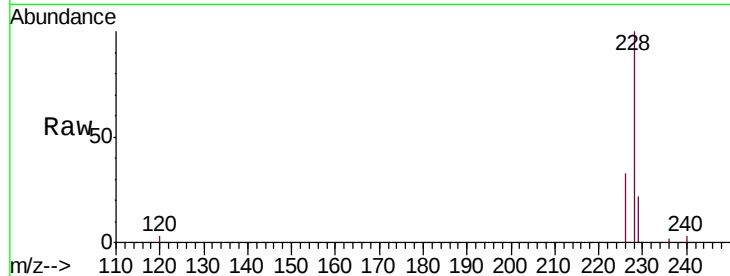
Concen: 0.412 ng/ul  
 RT: 21.27 min Scan# 5846  
 Delta R.T. -0.01 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENT7DL

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 228   | Resp: | 7351  |
| Ion      | Ratio | Lower | Upper |
| 228      | 100   |       |       |
| 226      | 33.0  | 24.9  | 37.3  |
| 229      | 22.2  | 16.6  | 25.0  |

Manual Integrations  
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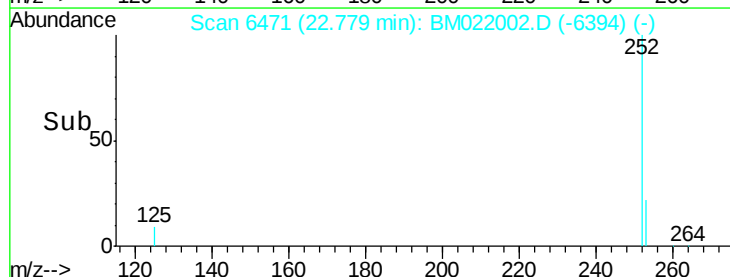
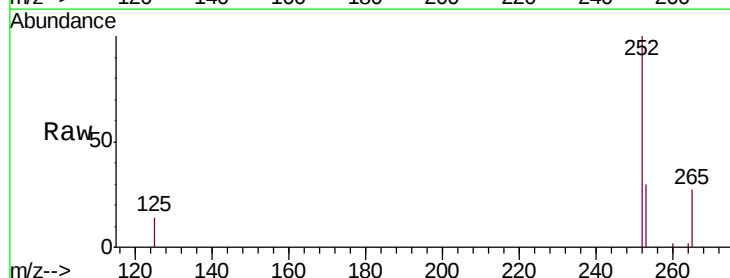
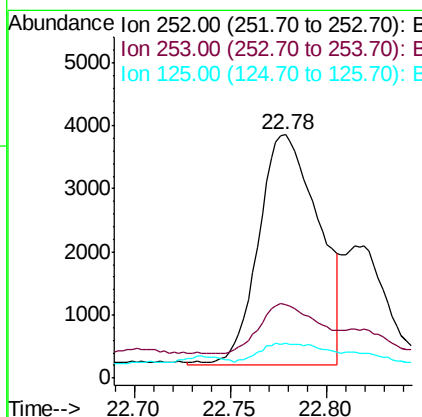


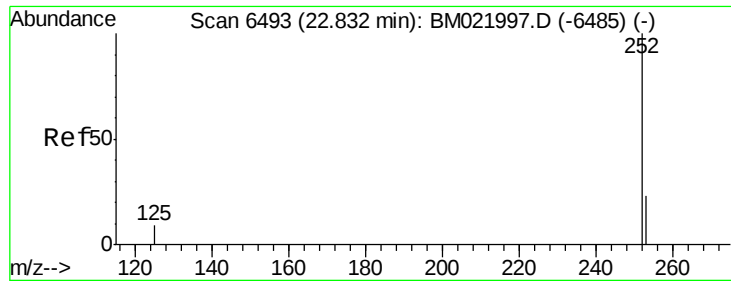
#21

Benzo(b)fluoranthene

Concen: 0.548 ng/ul m  
 RT: 22.78 min Scan# 6471  
 Delta R.T. -0.01 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 252   | Resp: | 7871  |
| Ion      | Ratio | Lower | Upper |
| 252      | 100   |       |       |
| 253      | 30.3  | 0.0   | 67.4  |
| 125      | 14.3  | 0.0   | 31.0  |





#22

Benzo(k)fluoranthene

Concen: 0.183 ng/ul

RT: 22.82 min Scan# 6488

Delta R.T. -0.01 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

Instrument :

BNA\_M

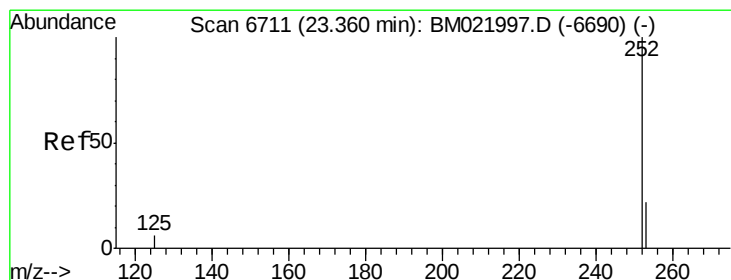
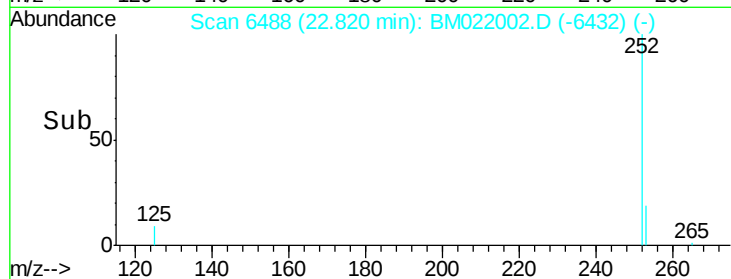
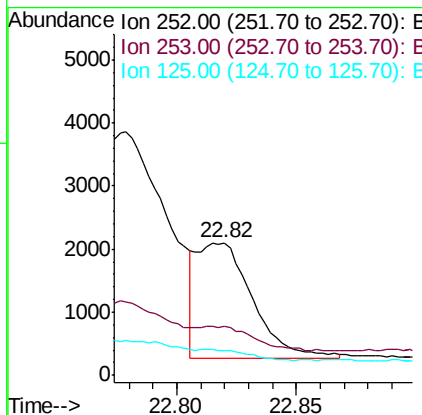
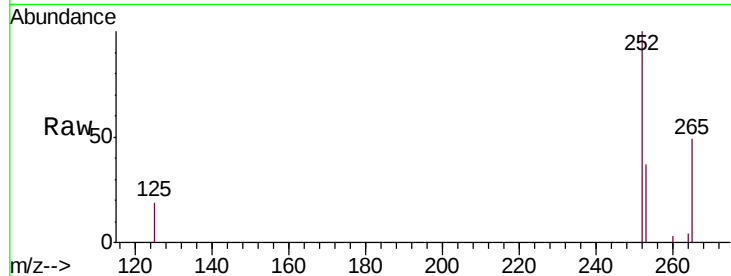
ClientSampled :

BENT7DL

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 252   | Resp: | 2981 |
| Ion Ratio | Lower | Upper |      |
| 252       | 100   |       |      |
| 253       | 36.6  | 27.0  | 40.4 |
| 125       | 18.9  | 12.2  | 18.2 |

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#23

Benzo(a)pyrene

Concen: 0.409 ng/ul

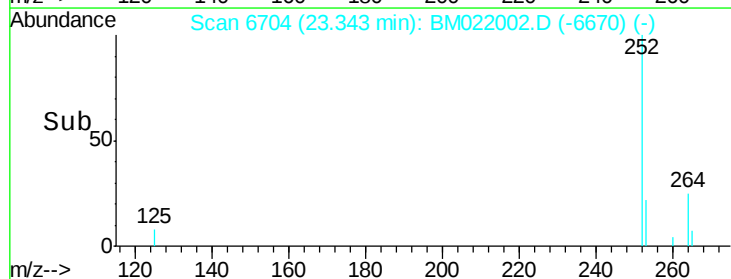
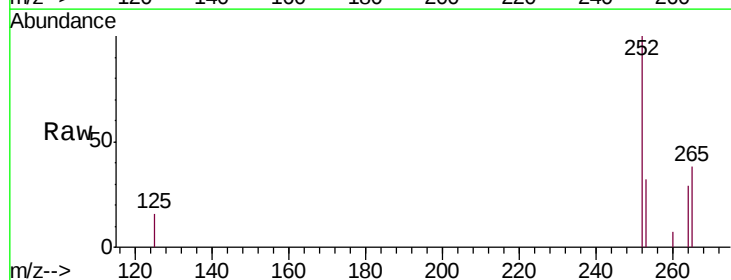
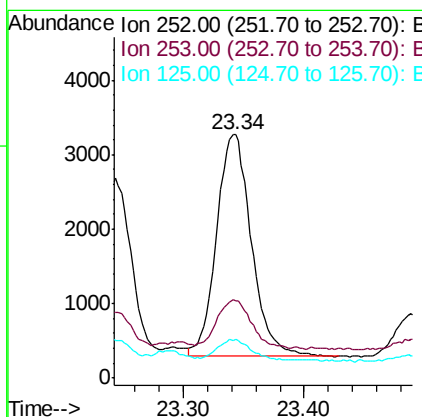
RT: 23.34 min Scan# 6704

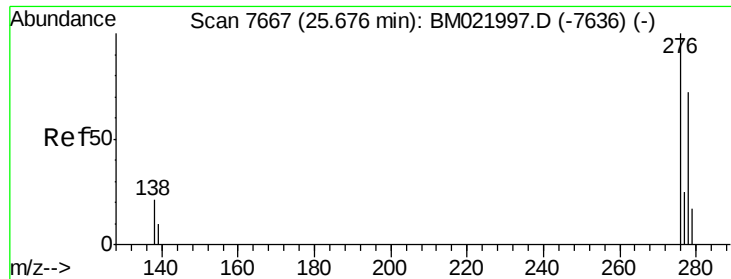
Delta R.T. -0.02 min

Lab File: BM022002.D

Acq: 10 Aug 2019 18:18

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 252   | Resp: | 5980 |
| Ion Ratio | Lower | Upper |      |
| 252       | 100   |       |      |
| 253       | 31.9  | 31.7  | 47.5 |
| 125       | 15.9  | 14.6  | 21.8 |





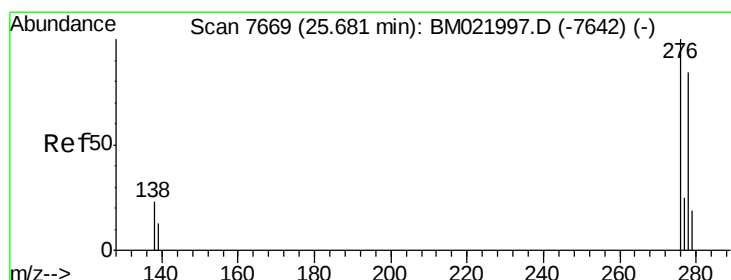
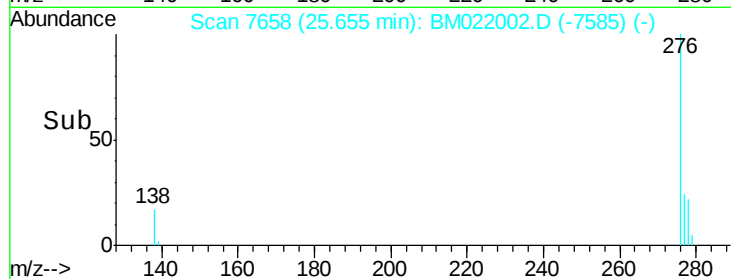
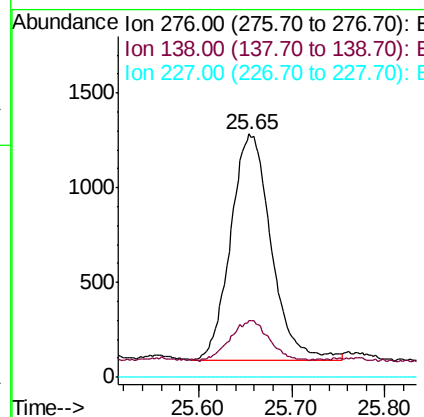
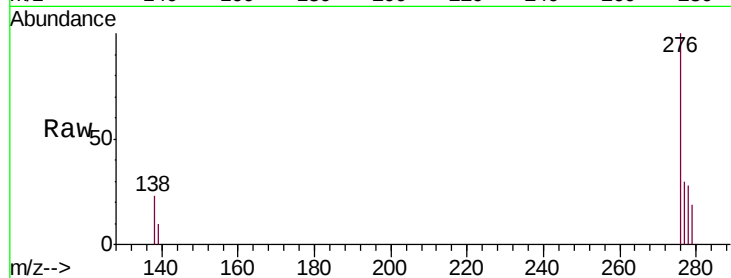
#24  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.208 ng/u1  
 RT: 25.65 min Scan# 7658  
 Delta R.T. -0.02 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENT7DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 18.0  | 15.1  | 22.7  |
| 227     | 0.0   | 0.0   | 0.0   |

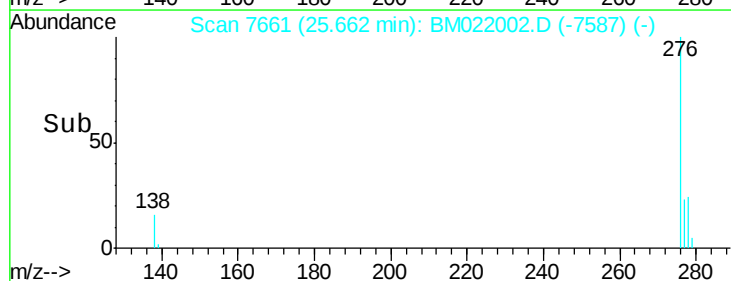
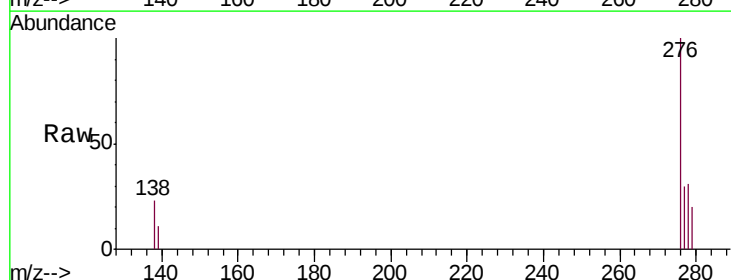
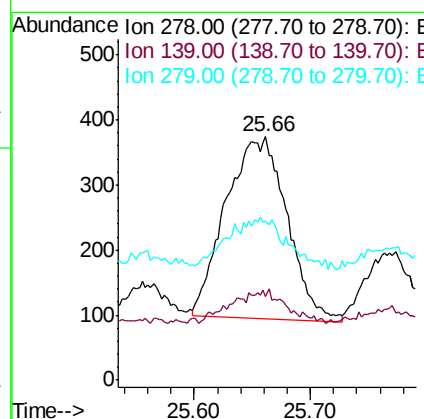
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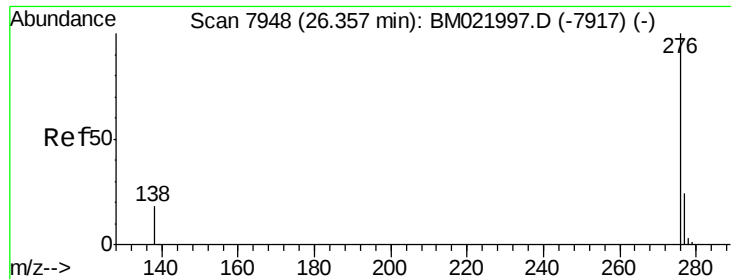
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#25  
 Dibenzo(a,h)anthracene  
 Concen: 0.072 ng/u1  
 RT: 25.66 min Scan# 7661  
 Delta R.T. -0.02 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

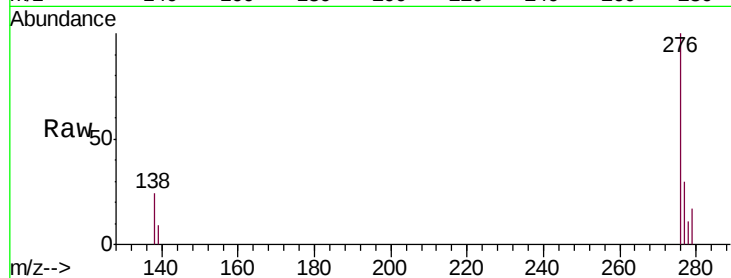
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 34.2  | 14.2  | 21.2# |
| 279     | 65.2  | 28.3  | 42.5# |





#26  
 Benzo(g,h,i)perylene  
 Concen: 0.202 ng/ul  
 RT: 26.34 min Scan# 7941  
 Delta R.T. -0.02 min  
 Lab File: BM022002.D  
 Acq: 10 Aug 2019 18:18

Instrument :  
 BNA\_M  
 ClientSampleId :  
 BENT7DL



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.4  | 15.5  | 23.3# |
| 277     | 30.4  | 21.4  | 32.2  |

Manual Integrations  
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 8/13/2019 8:34:36 AM

