

Data Path : \\74.0.250.170\SV0ASRV\HPCHEM1\BNA F\DATA\BF030518\  
 Data File : BF103417.D  
 Acq On : 5 Mar 2018 19:10  
 Operator : SJ/JU  
 Sample : J1756-01 2X  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OR-01-030118-A

Manual Integrations  
 APPROVED

Sohil  
 3/6/2018 4:23:10 PM

Quant Time: Mar 06 00:28:20 2018  
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF022218.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Mar 05 13:40:47 2018  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|-------|------|----------|--------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.87  | 152  | 139574   | 20.00  | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.16  | 136  | 574107   | 20.00  | ng    | 0.00     |
| 38) Acenaphthene-d10        | 9.92  | 164  | 245978   | 20.00  | ng    | 0.00     |
| 63) Phenanthrene-d10        | 11.41 | 188  | 386449   | 20.00  | ng    | 0.00     |
| 75) Chrysene-d12            | 14.07 | 240  | 241205   | 20.00  | ng    | 0.00     |
| 86) Perylene-d12            | 15.58 | 264  | 206787   | 20.00  | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.50  | 112  | 401238   | 43.48  | ng    | 0.00     |
| 7) Phenol-d6                | 6.51  | 99   | 523421   | 46.35  | ng    | -0.01    |
| 23) Nitrobenzene-d5         | 7.43  | 82   | 318853   | 31.72  | ng    | 0.00     |
| 41) 2,4,6-Tribromophenol    | 10.71 | 330  | 64476    | 30.97  | ng    | 0.00     |
| 44) 2-Fluorobiphenyl        | 9.23  | 172  | 487400   | 28.24  | ng    | 0.00     |
| 78) Terphenyl-d14           | 12.99 | 244  | 334976   | 33.38  | ng    | 0.00     |
| Target Compounds            |       |      |          |        |       | Qvalue   |
| 70) Phenanthrene            | 11.43 | 178  | 246112   | 11.572 | ng    | 98       |
| 71) Anthracene              | 11.49 | 178  | 77027    | 3.532  | ng    | 99       |
| 74) Fluoranthene            | 12.63 | 202  | 351749   | 16.459 | ng    | 98       |
| 77) Pyrene                  | 12.86 | 202  | 312887   | 16.638 | ng    | 99       |
| 80) Benzo(a)anthracene      | 14.06 | 228  | 123526   | 7.893  | ng    | 98       |
| 82) Chrysene                | 14.09 | 228  | 119539   | 7.866  | ng    | 98       |
| 85) Indeno(1,2,3-cd)pyrene  | 17.13 | 276  | 45621    | 3.792  | ng    | 98       |
| 87) Benzo(b)fluoranthene    | 15.13 | 252  | 127503m  | 9.378  | ng    |          |
| 88) Benzo(k)fluoranthene    | 15.16 | 252  | 37570m   | 2.934  | ng    |          |
| 89) Benzo(a)pyrene          | 15.52 | 252  | 89212    | 7.348  | ng    | # 89     |
| 91) Benzo(g,h,i)perylene    | 17.60 | 276  | 44831    | 4.889  | ng    | # 91     |

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

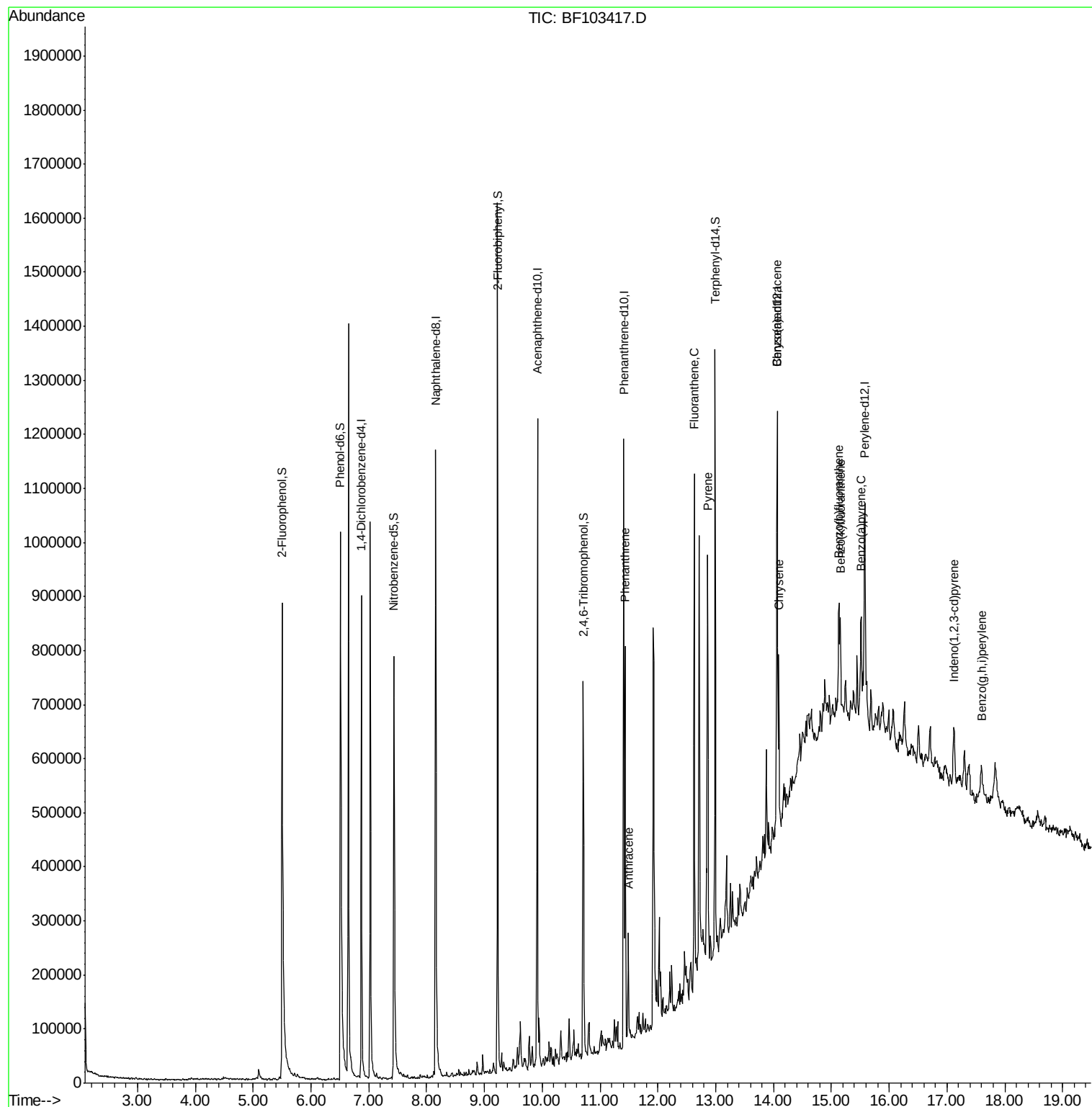
Data Path : \\74.0.250.170\SVOASRV\HPCHEM1\BNA F\DATA\BF030518\  
Data File : BF103417.D  
Acq On : 5 Mar 2018 19:10  
Operator : SJ/JU  
Sample : J1756-01 2X  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

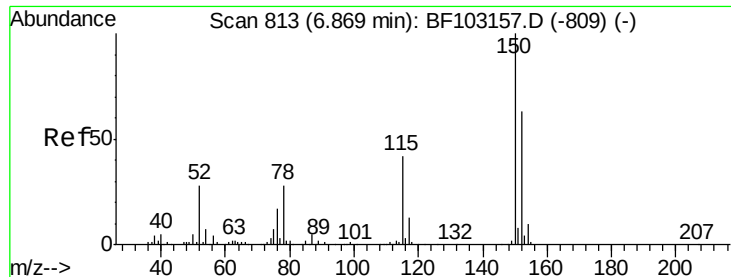
Instrument :  
BNA\_F  
ClientSampleId :  
OR-01-030118-A

Manual Integrations  
APPROVED

Sohil  
3/6/2018 4:23:10 PM

Quant Time: Mar 06 00:28:20 2018  
Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF022218.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Mon Mar 05 13:40:47 2018  
Response via : Initial Calibration





#1

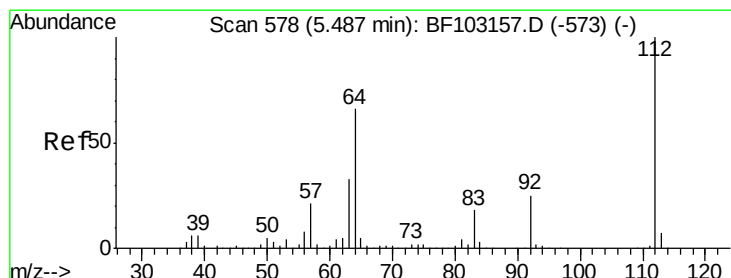
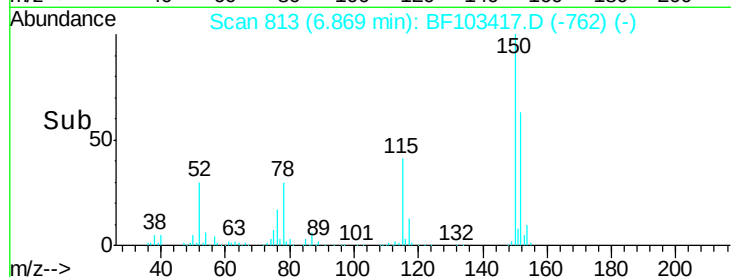
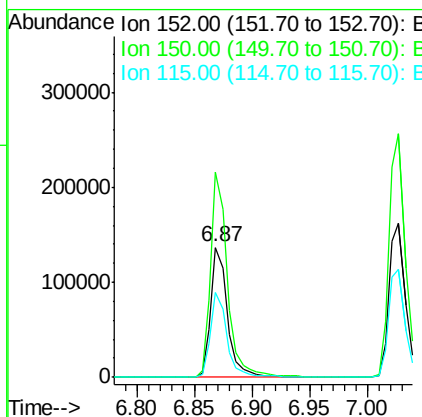
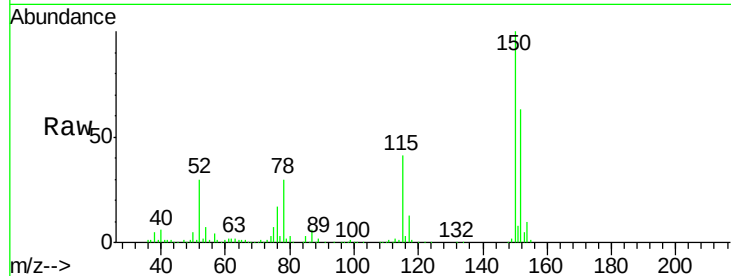
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.87 min Scan# 813  
Delta R.T. -0.00 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

Instrument :  
BNA\_F  
ClientSampleId :  
OR-01-030118-A

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 158.0 | 124.6 | 186.8 |
| 115     | 65.4  | 50.1  | 75.1  |

Manual Integrations  
APPROVED

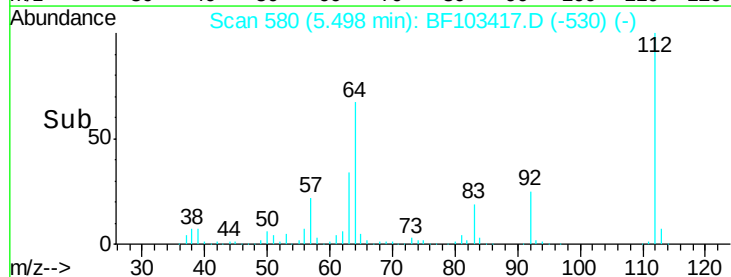
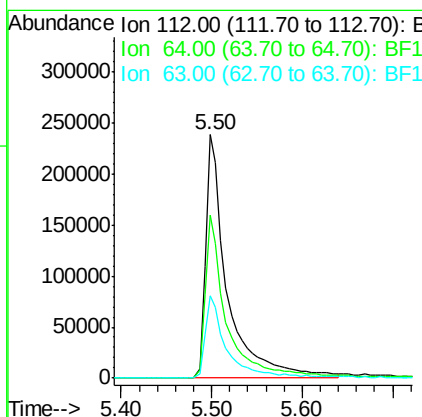
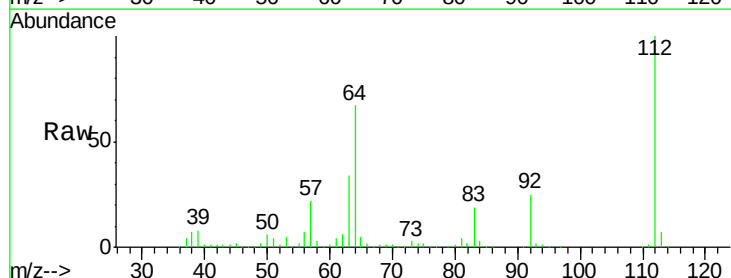
Sohil  
3/6/2018 4:23:10 PM

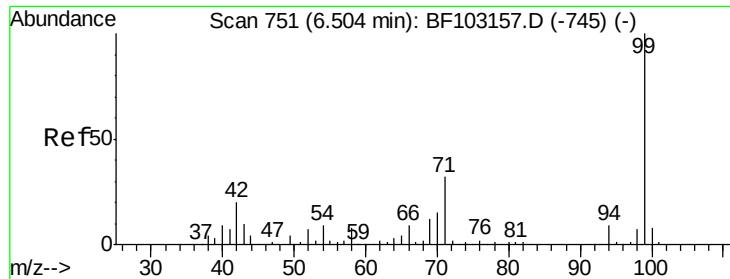


#5

2-Fluorophenol  
Concen: 43.478 ng  
RT: 5.50 min Scan# 580  
Delta R.T. -0.01 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 67.0  | 47.9  | 71.9  |
| 63      | 33.7  | 23.7  | 35.5  |





#7

Phenol-d6

Concen: 46.352 ng

RT: 6.51 min Scan# 752

Delta R.T. -0.01 min

Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

Instrument :

BNA\_F

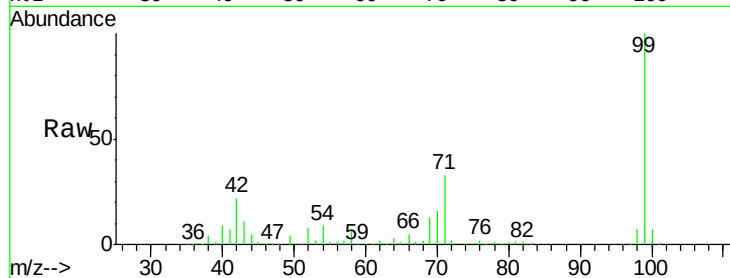
ClientSampleId :

OR-01-030118-A

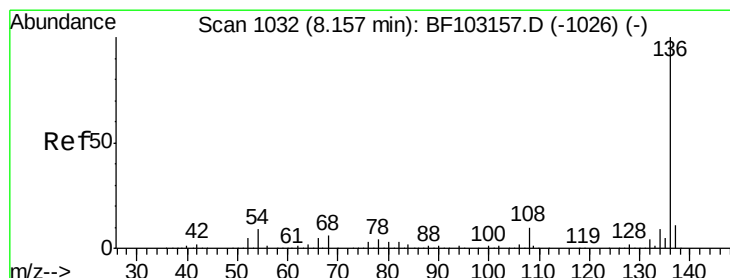
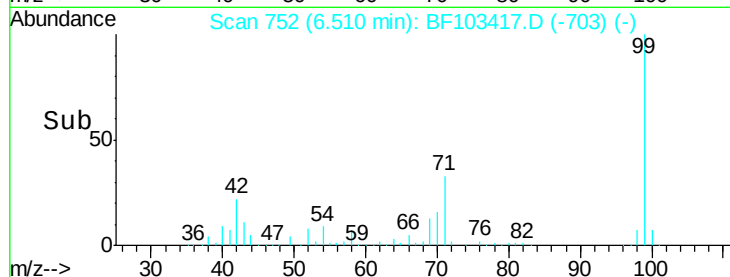
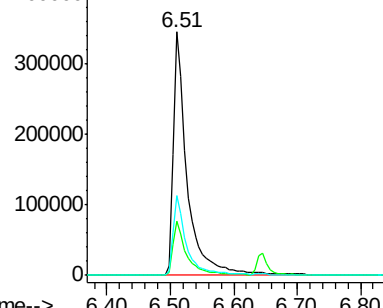
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 99    | Resp: | 523421 |
| Ion Ratio | Lower | Upper |        |
| 99        | 100   |       |        |
| 42        | 22.2  | 14.5  | 21.7#  |
| 71        | 33.0  | 25.4  | 38.0   |

Manual Integrations  
APPROVED

Sohil  
3/6/2018 4:23:10 PM



Abundance Ion 99.00 (98.70 to 99.70): BF1  
Ion 42.00 (41.70 to 42.70): BF1  
Ion 71.00 (70.70 to 71.70): BF1



#21

Naphthalene-d8

Concen: 20.000 ng

RT: 8.16 min Scan# 1032

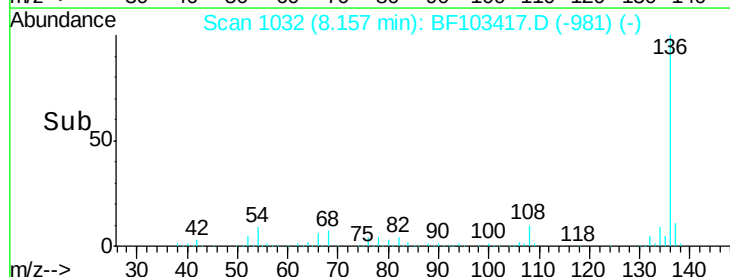
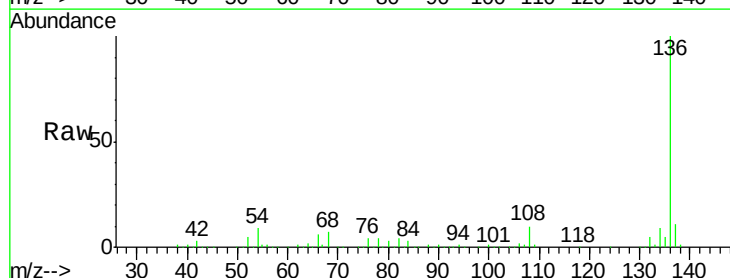
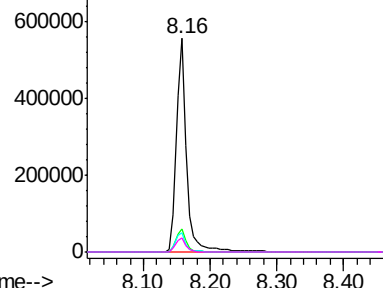
Delta R.T. -0.00 min

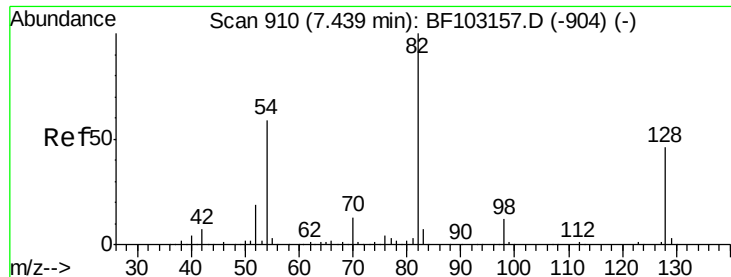
Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 136   | Resp: | 574107 |
| Ion Ratio | Lower | Upper |        |
| 136       | 100   |       |        |
| 137       | 10.8  | 8.9   | 13.3   |
| 54        | 9.3   | 6.6   | 9.8    |
| 68        | 6.5   | 5.0   | 7.4    |

Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BF1  
Ion 68.00 (67.70 to 68.70): BF1





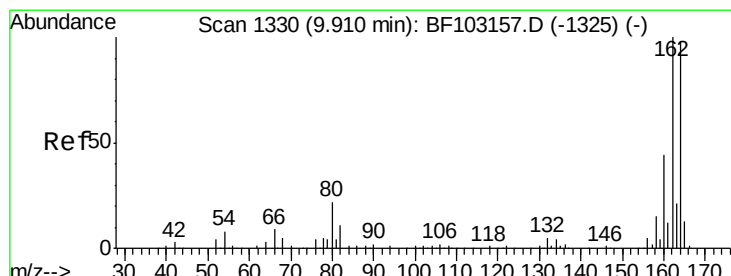
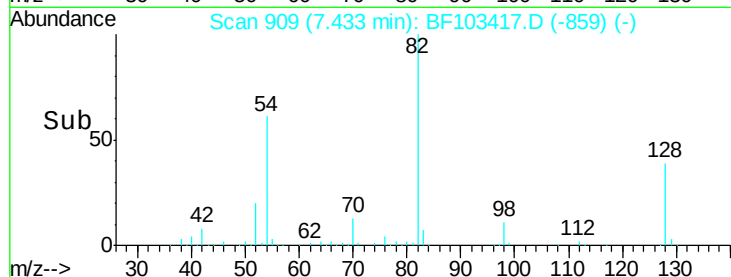
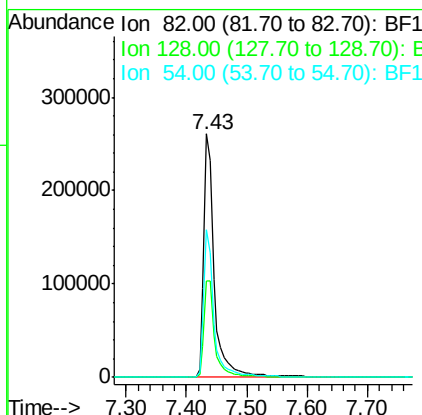
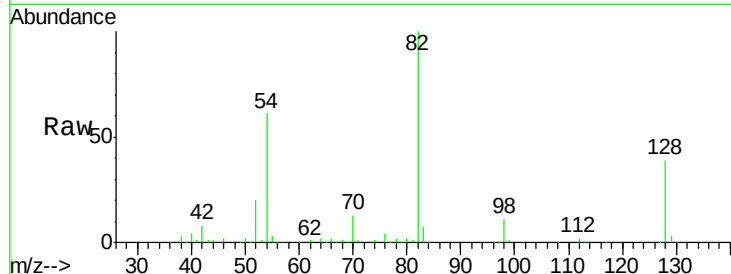
#23  
 Nitrobenzene-d5  
 Concen: 31.717 ng  
 RT: 7.43 min Scan# 909  
 Delta R.T. -0.01 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OR-01-030118-A

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 82      | 100   |      |       |       |
| 128     | 39.4  | 36.1 | 54.1  |       |
| 54      | 60.5  | 41.4 | 62.2  |       |

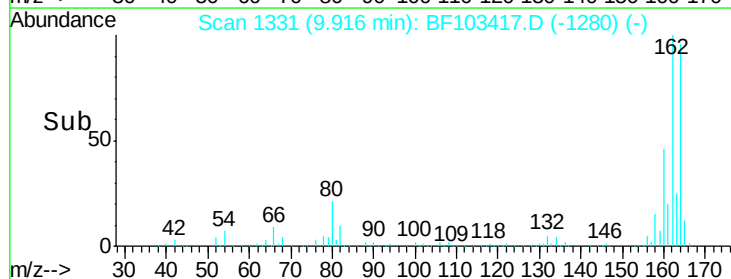
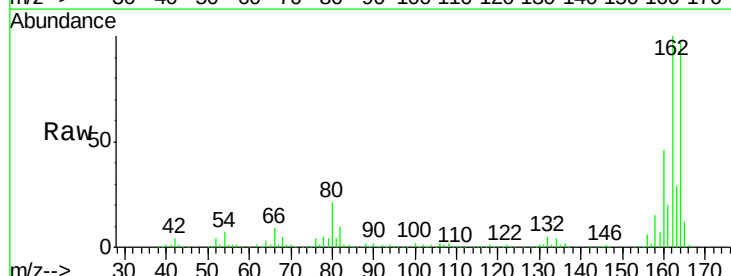
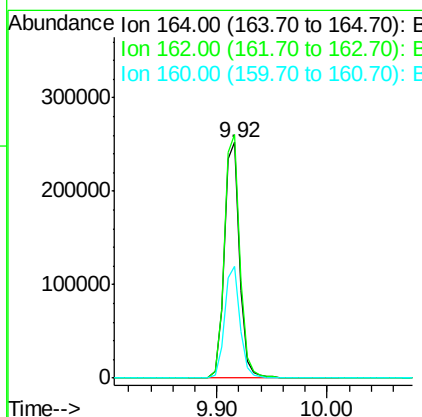
Manual Integrations  
 APPROVED

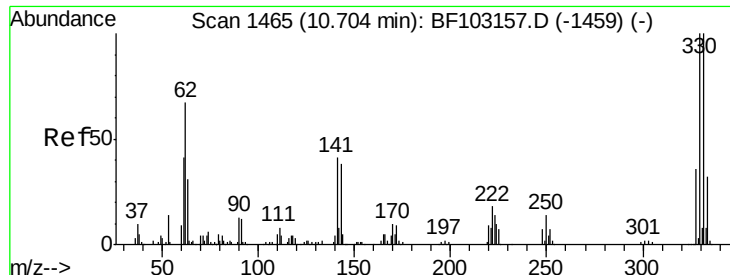
Sohil  
 3/6/2018 4:23:10 PM



#38  
 Acenaphthene-d10  
 Concen: 20.000 ng  
 RT: 9.92 min Scan# 1331  
 Delta R.T. -0.00 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 164     | 100   |      |       |       |
| 162     | 103.2 | 86.1 | 129.1 |       |
| 160     | 47.5  | 38.3 | 57.5  |       |





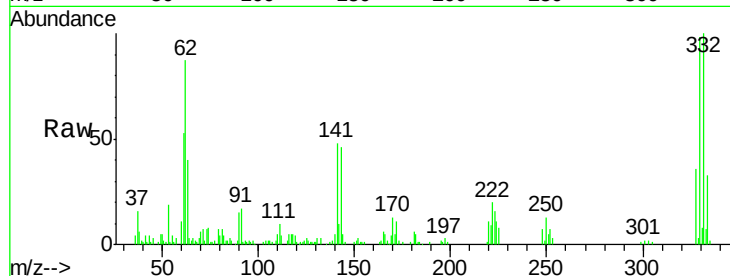
#41  
 2,4,6-Tribromophenol  
 Concen: 30.967 ng  
 RT: 10.71 min Scan# 1466  
 Delta R.T. -0.01 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OR-01-030118-A

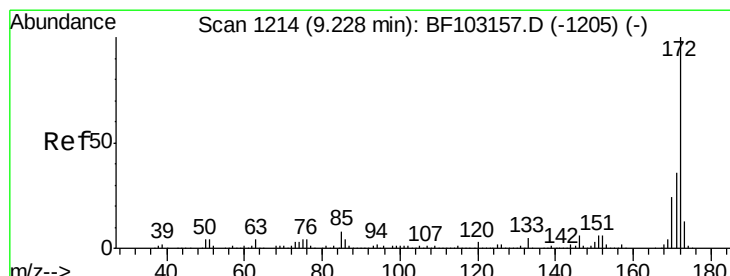
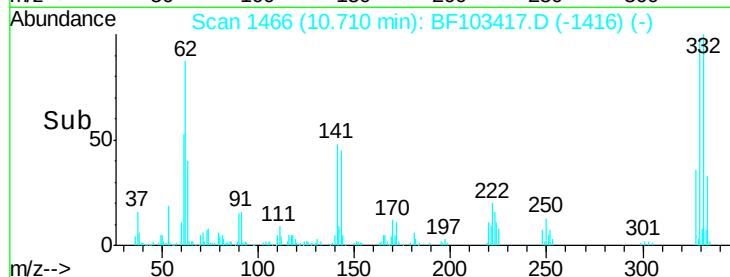
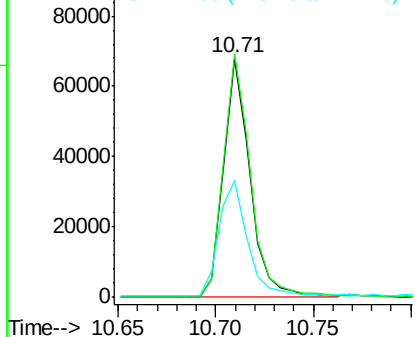
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 104.0 | 77.0  | 115.6 |
| 141     | 52.0  | 29.9  | 44.9  |

Manual Integrations  
 APPROVED

Sohil  
 3/6/2018 4:23:10 PM



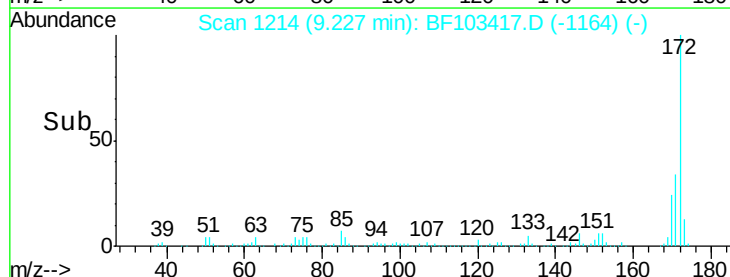
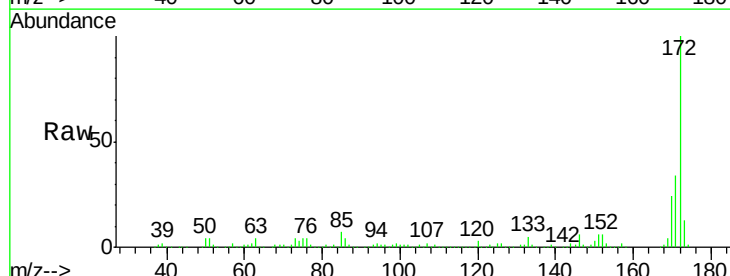
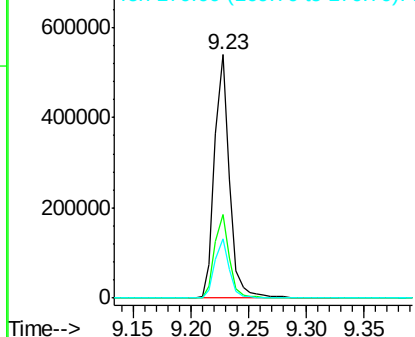
Abundance Ion 329.80 (329.50 to 330.50): E  
 Ion 331.80 (331.50 to 332.50): E  
 Ion 141.00 (140.70 to 141.70): E

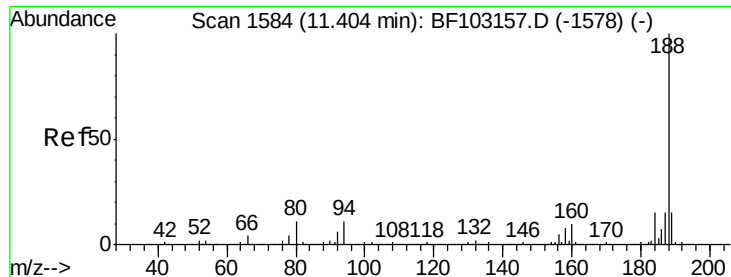


#44  
 2-Fluorobiphenyl  
 Concen: 28.239 ng  
 RT: 9.23 min Scan# 1214  
 Delta R.T. -0.01 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 34.4  | 29.7  | 44.5  |
| 170     | 24.4  | 19.6  | 29.4  |

Abundance Ion 172.00 (171.70 to 172.70): E  
 Ion 171.00 (170.70 to 171.70): E  
 Ion 170.00 (169.70 to 170.70): E





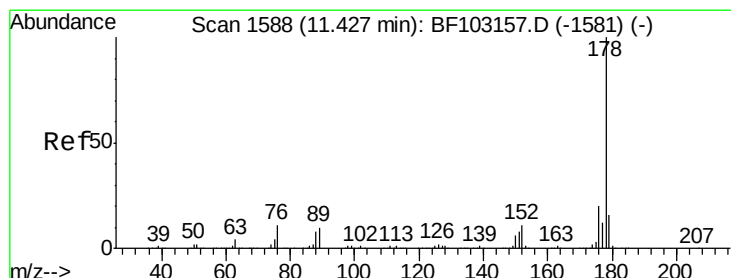
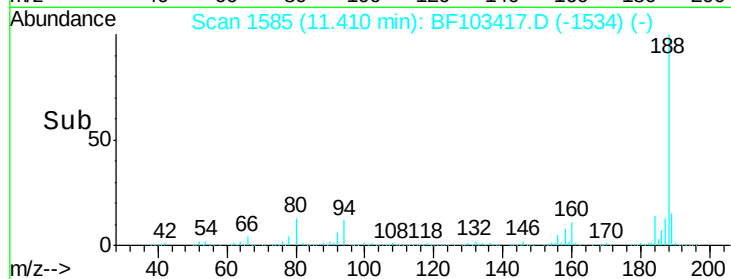
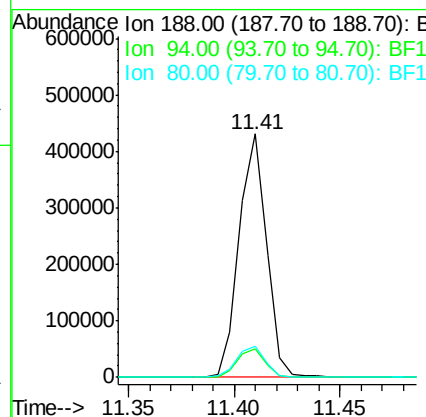
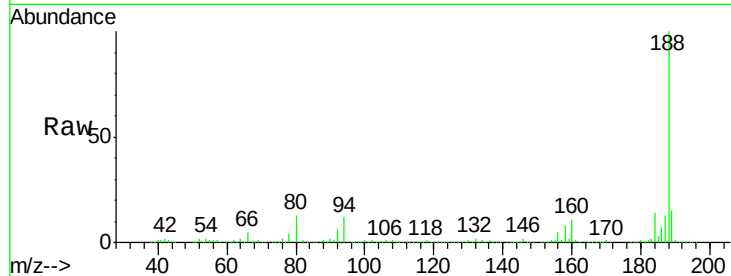
#63  
 Phenanthrene-d10  
 Concen: 20.000 ng  
 RT: 11.41 min Scan# 1585  
 Delta R.T. -0.00 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OR-01-030118-A

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 188     | 100   | 386449 |       |       |
| 94      | 11.6  |        | 8.5   | 12.7  |
| 80      | 12.7  |        | 9.2   | 13.8  |

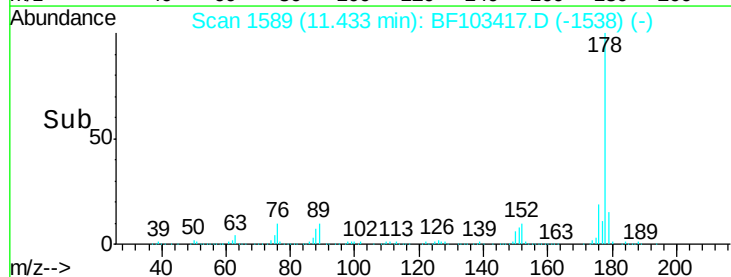
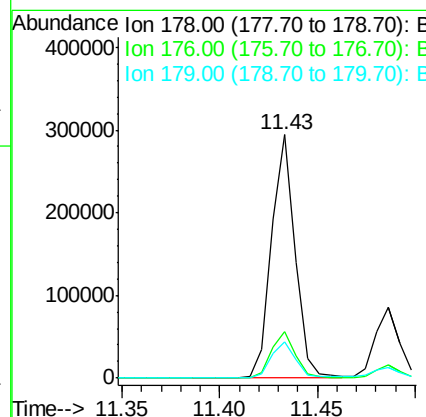
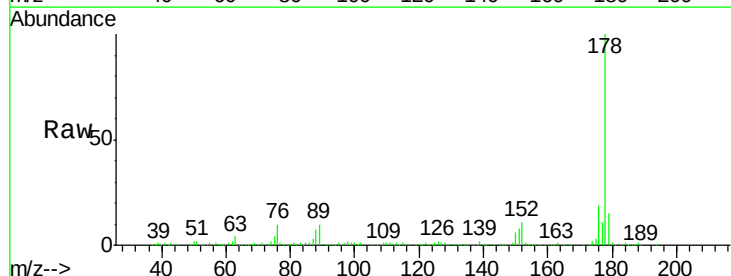
Manual Integrations  
 APPROVED

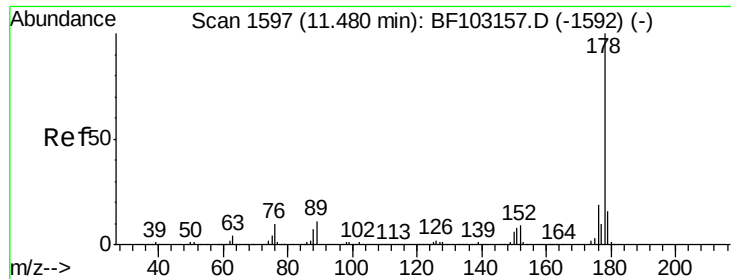
Sohil  
 3/6/2018 4:23:10 PM



#70  
 Phenanthrene  
 Concen: 11.572 ng  
 RT: 11.43 min Scan# 1589  
 Delta R.T. -0.00 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 178     | 100   | 246112 |       |       |
| 176     | 19.1  |        | 15.8  | 23.8  |
| 179     | 15.1  |        | 13.0  | 19.6  |





#71

Anthracene

Concen: 3.532 ng

RT: 11.49 min Scan# 1598

Delta R.T. -0.00 min

Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

Instrument :

BNA\_F

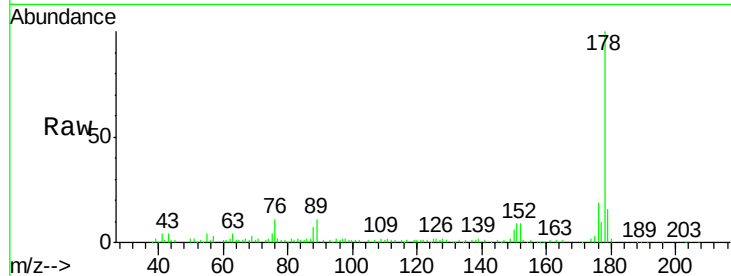
ClientSampleId :

OR-01-030118-A

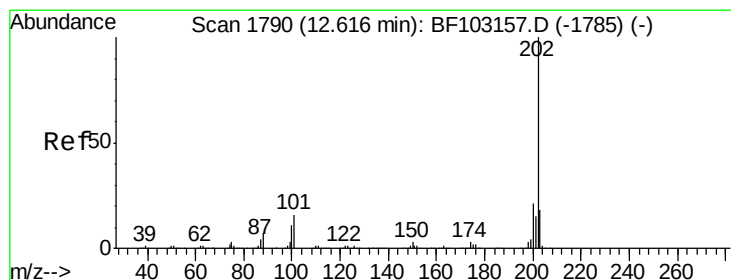
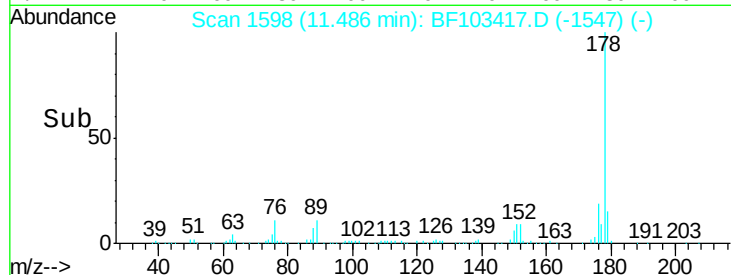
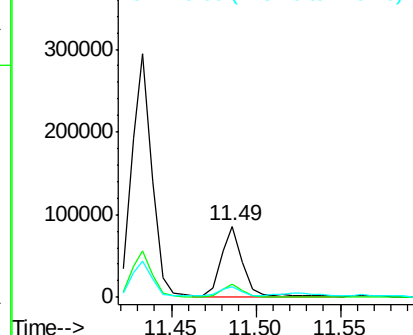
|             |       |           |
|-------------|-------|-----------|
| Tot Ion:178 | Resp: | 77027     |
| Ion Ratio   | Lower | Upper     |
| 178         | 100   |           |
| 176         | 18.8  | 15.4 23.2 |
| 179         | 15.7  | 12.6 19.0 |

Manual Integrations  
APPROVED

Sohil  
3/6/2018 4:23:10 PM



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



#74

Fluoranthene

Concen: 16.459 ng

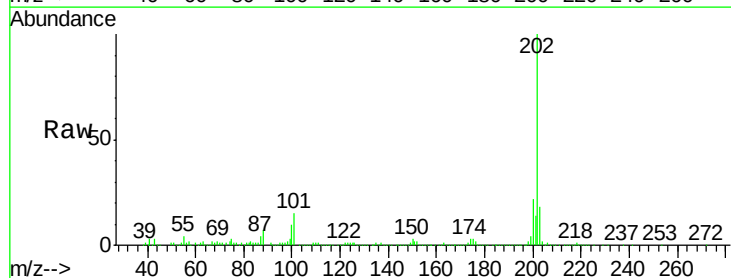
RT: 12.63 min Scan# 1792

Delta R.T. -0.01 min

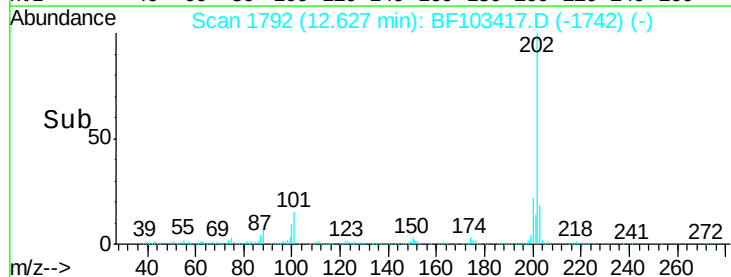
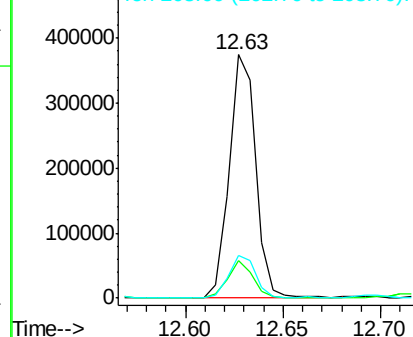
Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

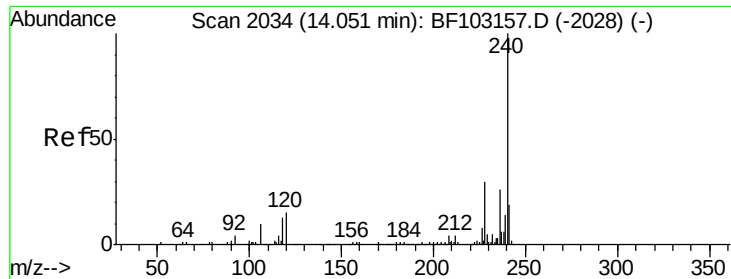
|             |       |          |
|-------------|-------|----------|
| Tgt Ion:202 | Resp: | 351749   |
| Ion Ratio   | Lower | Upper    |
| 202         | 100   |          |
| 101         | 15.3  | 0.0 34.1 |
| 203         | 17.7  | 0.0 38.1 |



Abundance Ion 202.00 (201.70 to 202.70): E  
Ion 101.00 (100.70 to 101.70): E  
Ion 203.00 (202.70 to 203.70): E







#75

Chrysene-d12

Concen: 20.000 ng

RT: 14.07 min Scan# 2037

Delta R.T. -0.00 min

Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

Instrument :

BNA\_F

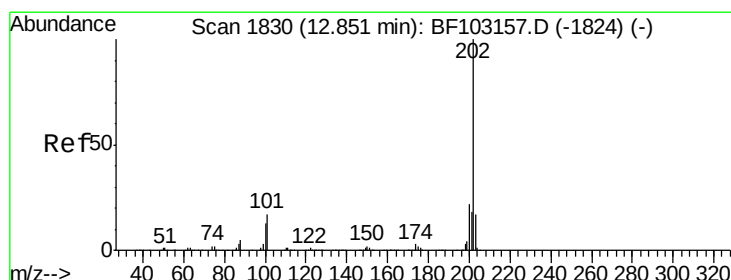
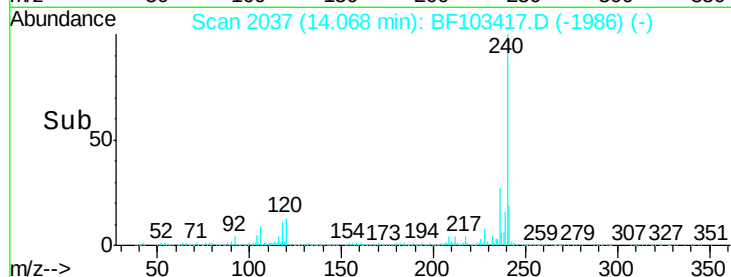
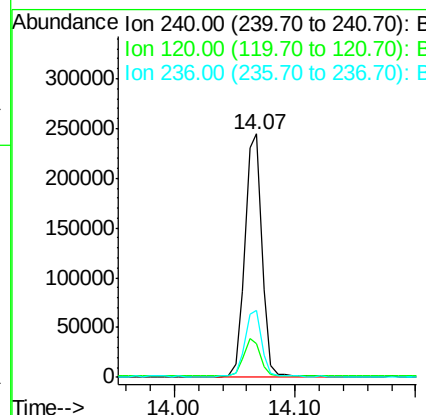
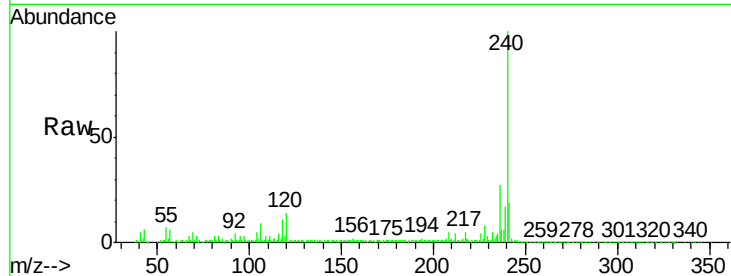
ClientSampleId :

OR-01-030118-A

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 240   | Resp: | 241205 |
| Ion Ratio | Lower | Upper |        |
| 240       | 100   |       |        |
| 120       | 13.8  | 9.5   | 14.3   |
| 236       | 27.4  | 20.7  | 31.1   |

Manual Integrations  
APPROVED

Sohil  
3/6/2018 4:23:10 PM



#77

Pyrene

Concen: 16.638 ng

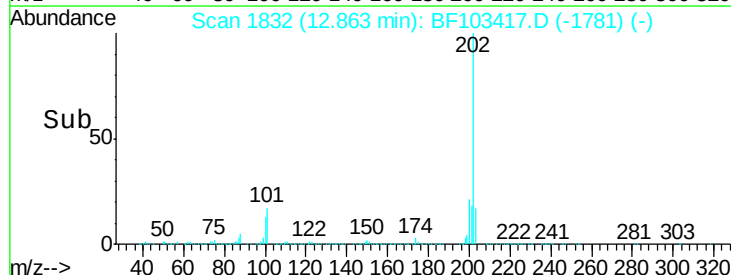
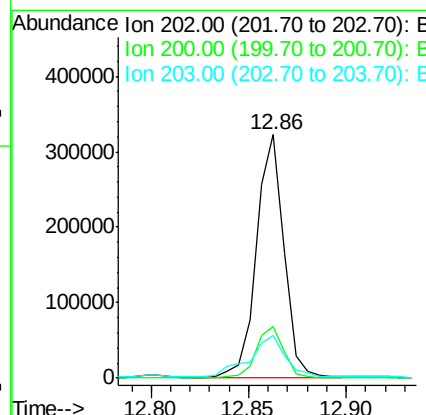
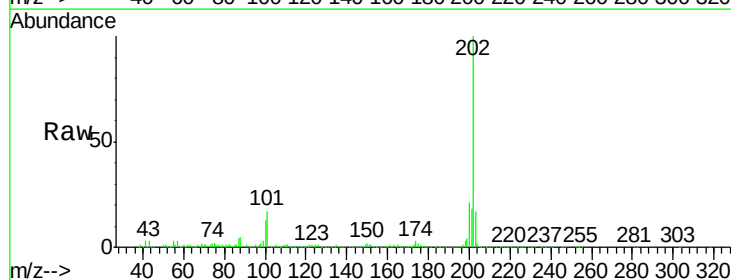
RT: 12.86 min Scan# 1832

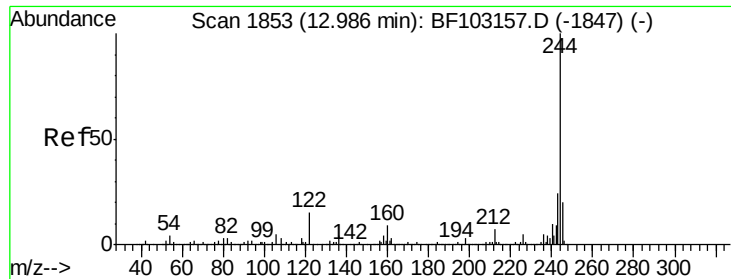
Delta R.T. -0.00 min

Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 202   | Resp: | 312887 |
| Ion Ratio | Lower | Upper |        |
| 202       | 100   |       |        |
| 200       | 21.3  | 17.4  | 26.2   |
| 203       | 17.4  | 14.3  | 21.5   |





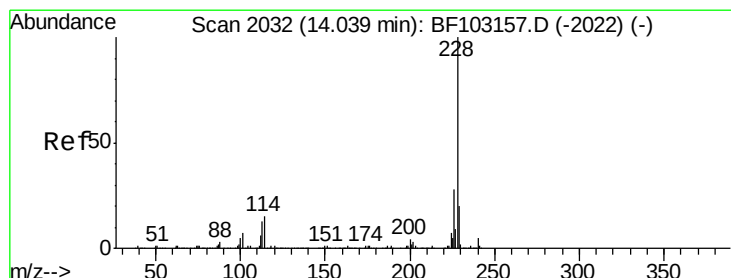
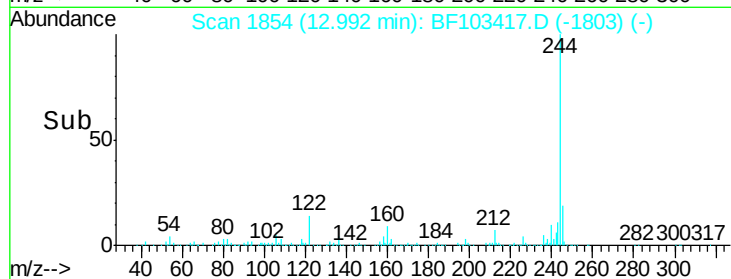
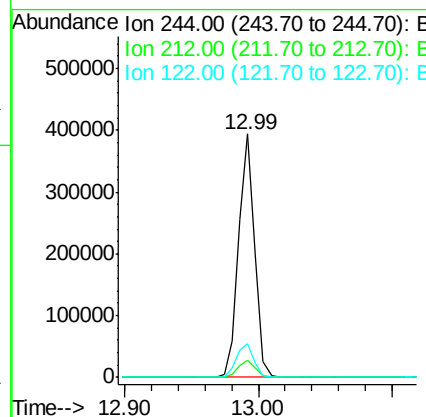
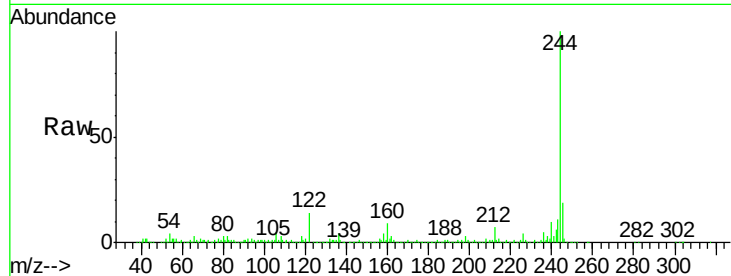
#78  
 Terphenyl-d14  
 Concen: 33.384 ng  
 RT: 12.99 min Scan# 1854  
 Delta R.T. -0.00 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OR-01-030118-A

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 7.1   | 5.4   | 8.0   |
| 122     | 14.1  | 11.0  | 16.4  |

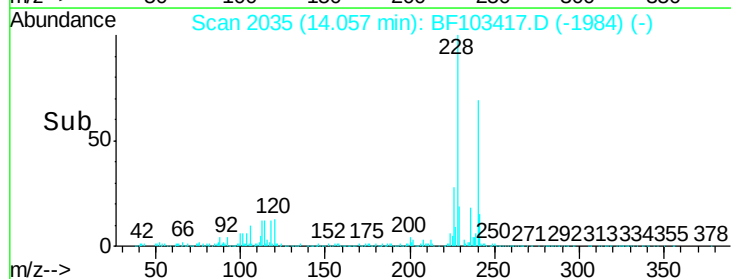
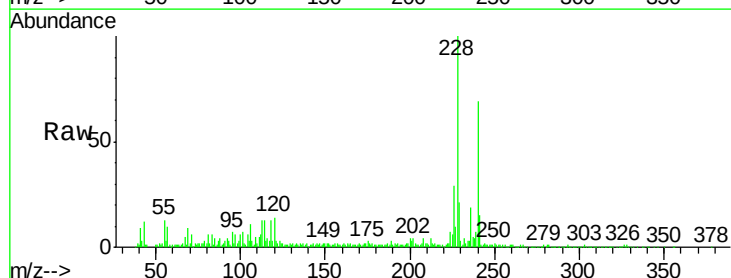
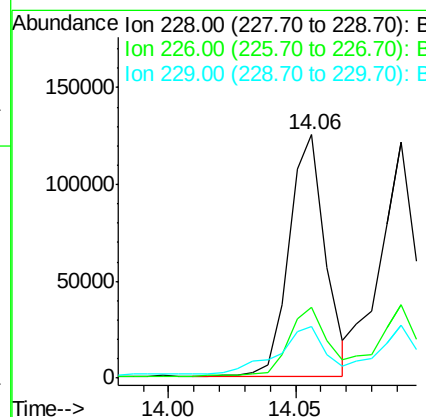
Manual Integrations  
 APPROVED

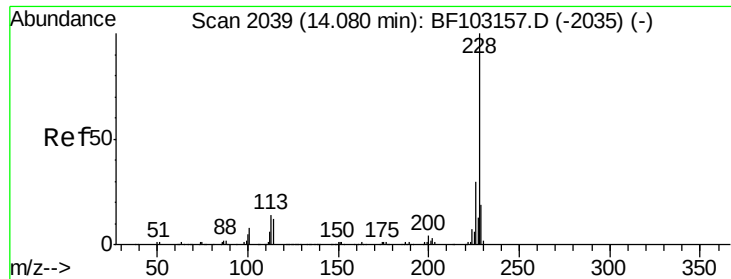
Sohil  
 3/6/2018 4:23:10 PM



#80  
 Benzo(a)anthracene  
 Concen: 7.893 ng  
 RT: 14.06 min Scan# 2035  
 Delta R.T. -0.00 min  
 Lab File: BF103417.D  
 Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.0  | 22.6  | 33.8  |
| 229     | 21.0  | 15.8  | 23.6  |





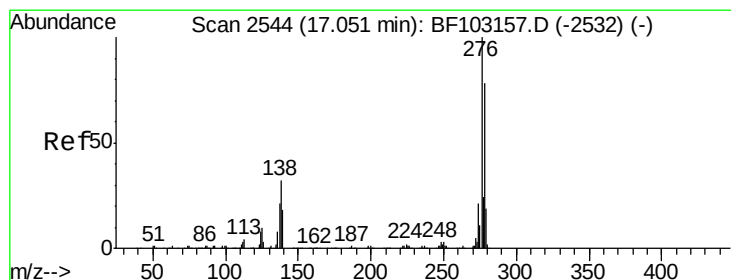
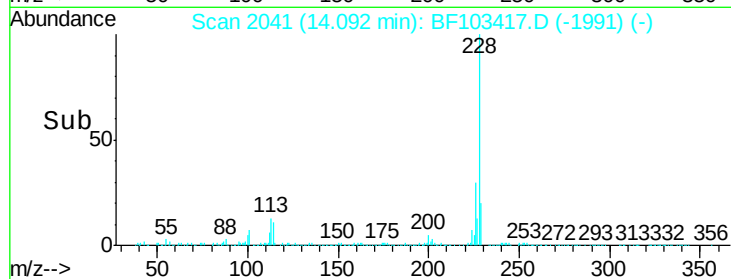
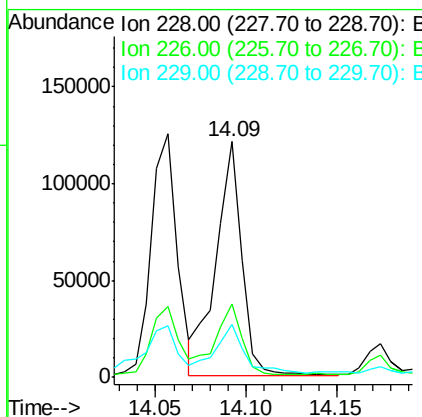
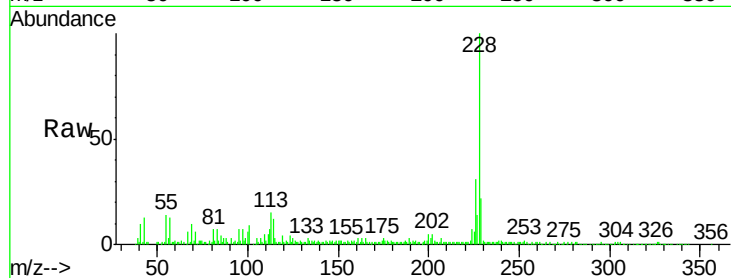
#82  
Chrysene  
Concen: 7.866 ng  
RT: 14.09 min Scan# 2041  
Delta R.T. -0.01 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

Instrument :  
BNA\_F  
ClientSampleId :  
OR-01-030118-A

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 119539 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 31.0  | 25.0  | 37.6   |
| 229       | 22.2  | 16.2  | 24.4   |

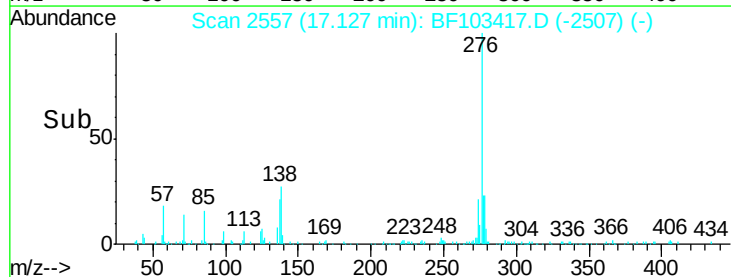
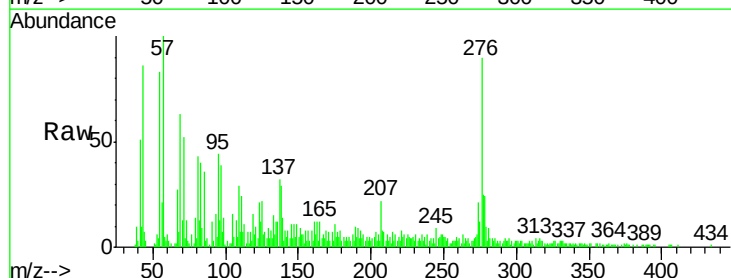
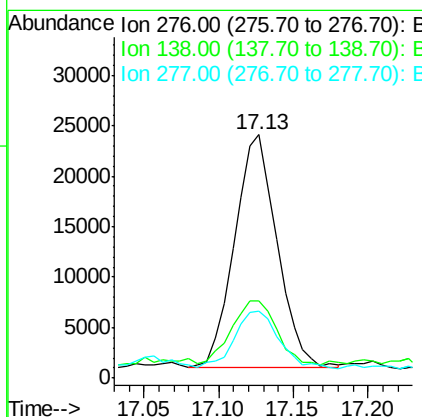
Manual Integrations  
APPROVED

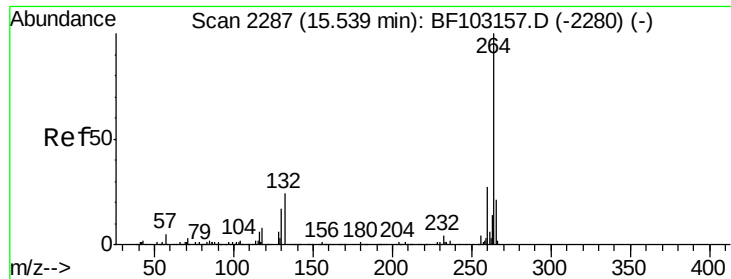
Sohil  
3/6/2018 4:23:10 PM



#85  
Indeno(1,2,3-cd)pyrene  
Concen: 3.792 ng  
RT: 17.13 min Scan# 2557  
Delta R.T. -0.01 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 45621 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 30.5  | 25.0  | 37.6  |
| 277       | 26.0  | 20.1  | 30.1  |





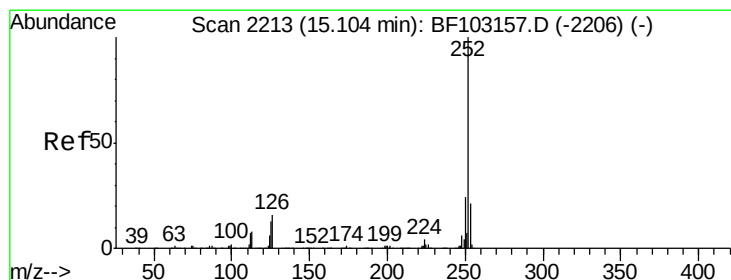
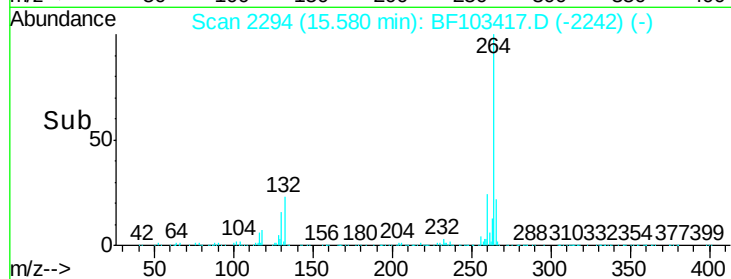
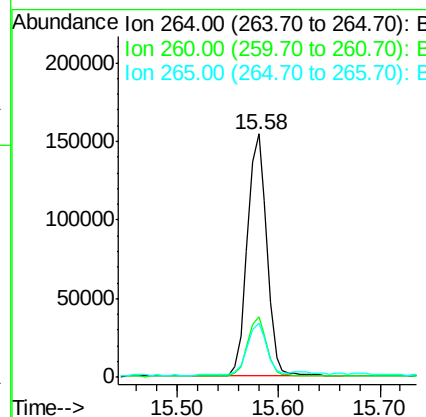
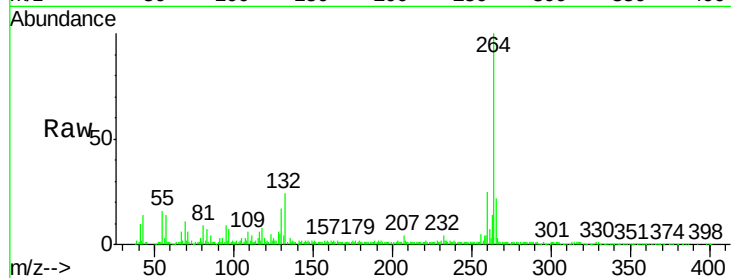
#86  
Pervlene-d12  
Concen: 20.000 ng  
RT: 15.58 min Scan# 2294  
Delta R.T. 0.01 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

Instrument :  
BNA\_F  
ClientSampleId :  
OR-01-030118-A

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.0  | 19.2  | 28.8  |
| 265     | 22.5  | 17.5  | 26.3  |

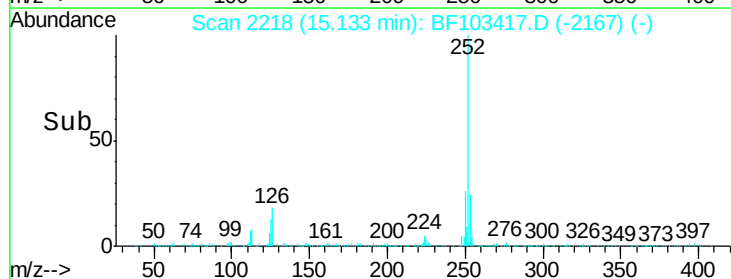
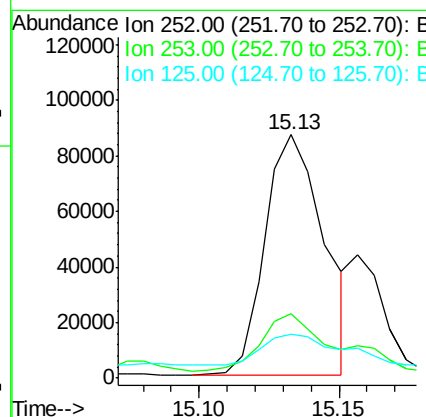
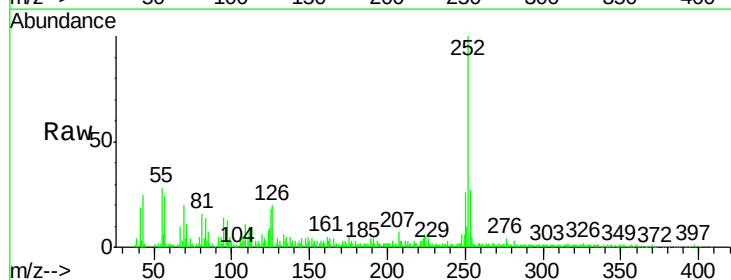
Manual Integrations  
APPROVED

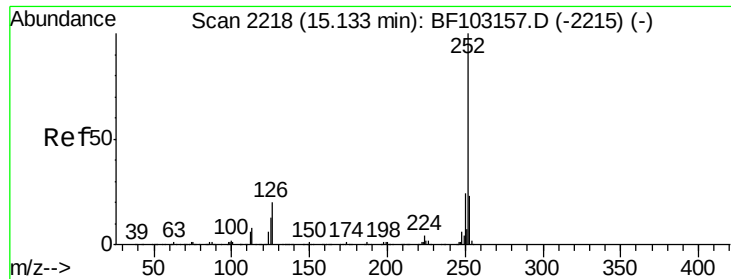
Sohil  
3/6/2018 4:23:10 PM



#87  
Benzo(b)fluoranthene  
Concen: 9.378 ng m  
RT: 15.13 min Scan# 2218  
Delta R.T. -0.00 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 26.6  | 17.0  | 25.6# |
| 125     | 18.1  | 9.0   | 13.6# |





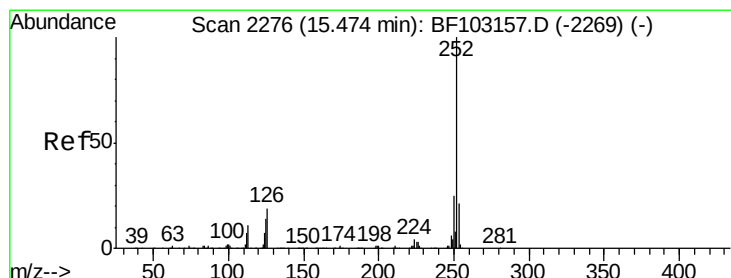
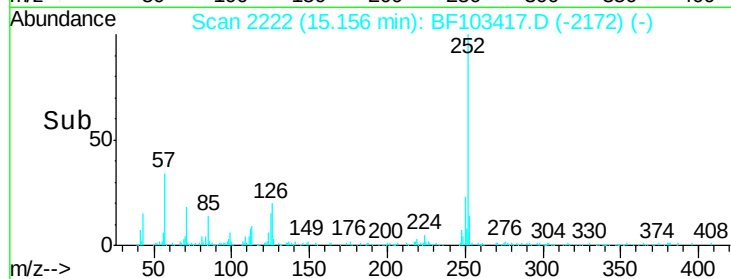
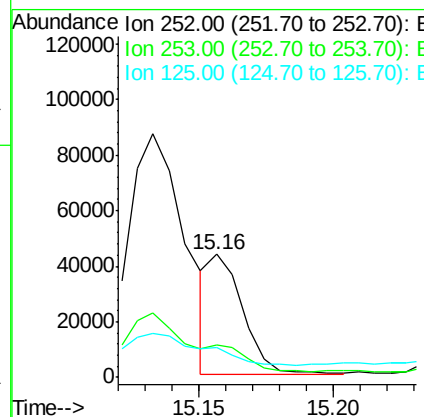
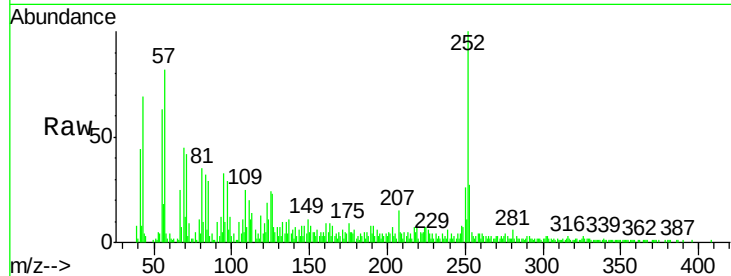
#88  
Benzo(k)fluoranthene  
Concen: 2.934 ng/mL  
RT: 15.16 min Scan# 2222  
Delta R.T. -0.01 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

Instrument :  
BNA\_F  
ClientSampleId :  
OR-01-030118-A

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 26.7  | 17.9  | 26.9  |
| 125     | 24.5  | 10.2  | 15.2  |

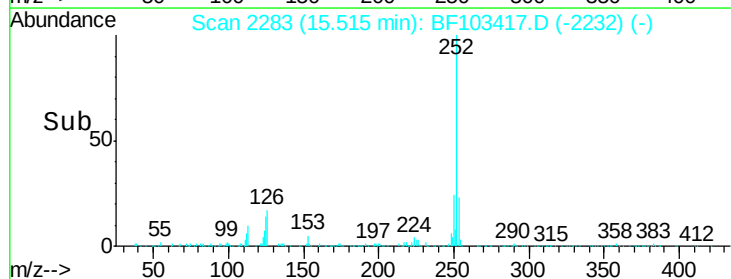
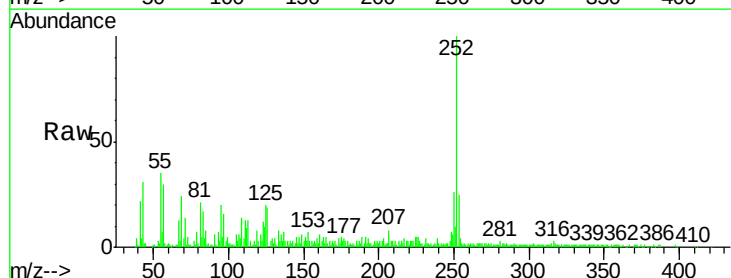
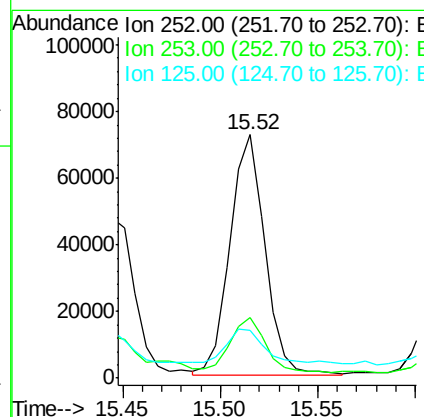
Manual Integrations  
APPROVED

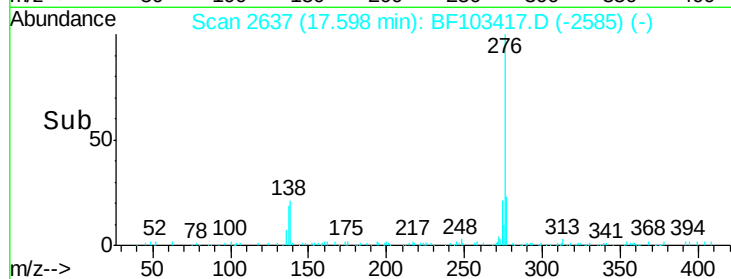
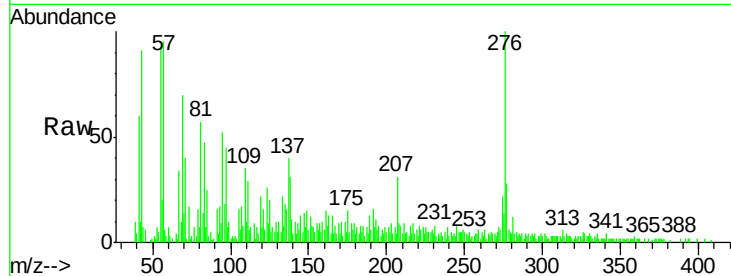
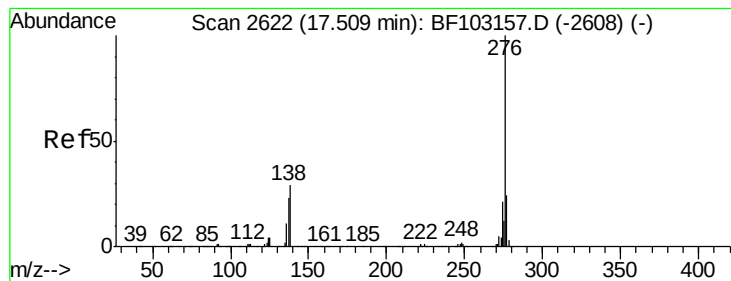
Sohil  
3/6/2018 4:23:10 PM



#89  
Benzo(a)pyrene  
Concen: 7.348 ng/mL  
RT: 15.52 min Scan# 2283  
Delta R.T. -0.00 min  
Lab File: BF103417.D  
Acq: 5 Mar 2018 19:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.8  | 17.1  | 25.7  |
| 125     | 19.7  | 9.8   | 14.6  |





#91

Benzo(a,h,i)perylene

Concen: 4.889 ng

RT: 17.60 min Scan# 2637

Delta R.T. 0.01 min

Lab File: BF103417.D

Acq: 5 Mar 2018 19:10

Instrument :

BNA\_F

ClientSampleId :

OR-01-030118-A

Tot Ion: 276 Resp: 44831

Ion Ratio Lower Upper

276 100

277 27.6 17.9 26.9#

138 30.9 21.8 32.8

Manual Integrations

APPROVED

Sohil

3/6/2018 4:23:10 PM

