

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_N\DATA\BN081019\  
 Data File : BN007067.D  
 Acq On : 11 Aug 2019 02:36  
 Operator : HP/JU  
 Sample : K4239-07  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PST-013-B210-080519

Manual Integrations  
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mohammad  
 8/14/2019 2:56:41 AM

Quant Time: Aug 12 05:14:55 2019

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\8270-SIM-BN081019.M

Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

QLast Update : Sat Aug 10 21:44:50 2019

Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.43  | 152  | 8732     | 0.40 | ng    | 0.00     |
| 6) Naphthalene-d8         | 10.19 | 136  | 33215    | 0.40 | ng    | 0.00     |
| 12) Acenaphthene-d10      | 14.08 | 164  | 19117    | 0.40 | ng    | 0.00     |
| 18) Phenanthrene-d10      | 16.82 | 188  | 47585    | 0.40 | ng    | 0.00     |
| 26) Chrysene-d12          | 21.05 | 240  | 48243    | 0.40 | ng    | -0.01    |
| 32) Perylene-d12          | 23.15 | 264  | 54058    | 0.40 | ng    | -0.02    |

#### System Monitoring Compounds

|                             |       |     |       |      |    |       |
|-----------------------------|-------|-----|-------|------|----|-------|
| 3) 2-Fluorophenol           | 5.06  | 112 | 7147  | 0.34 | ng | 0.00  |
| 4) Phenol-d6                | 6.61  | 99  | 9808  | 0.38 | ng | 0.00  |
| 7) Nitrobenzene-d5          | 8.56  | 82  | 7509  | 0.28 | ng | 0.00  |
| 10) 2-Methylnaphthalene-d10 | 11.79 | 152 | 16218 | 0.26 | ng | 0.00  |
| 13) 2,4,6-Tribromophenol    | 15.57 | 330 | 2381  | 0.23 | ng | 0.00  |
| 14) 2-Fluorobiphenyl        | 12.71 | 172 | 6883  | 0.25 | ng | 0.00  |
| 24) Fluoranthene-d10        | 18.87 | 212 | 36810 | 0.22 | ng | 0.00  |
| 28) Terphenyl-d14           | 19.49 | 244 | 28214 | 0.21 | ng | -0.01 |

#### Target Compounds

|                            |       |     |        |       |    | Qvalue |
|----------------------------|-------|-----|--------|-------|----|--------|
| 22) Phenanthrene           | 16.87 | 178 | 16517  | 0.116 | ng | 99     |
| 25) Fluoranthene           | 18.90 | 202 | 22648  | 0.124 | ng | 100    |
| 27) Pyrene                 | 19.26 | 202 | 20294  | 0.120 | ng | 96     |
| 29) Benzo(a)anthracene     | 21.02 | 228 | 9089   | 0.052 | ng | # 90   |
| 30) Chrysene               | 21.08 | 228 | 11676m | 0.068 | ng |        |
| 31) Indeno(1,2,3-cd)pyrene | 25.23 | 276 | 6257   | 0.033 | ng | # 81   |
| 33) Benzo(b)fluoranthene   | 22.54 | 252 | 14502  | 0.078 | ng | # 81   |
| 34) Benzo(k)fluoranthene   | 22.58 | 252 | 4801m  | 0.026 | ng |        |
| 35) Benzo(a)pyrene         | 23.06 | 252 | 9096   | 0.054 | ng | # 78   |
| 37) Benzo(g,h,i)perylene   | 25.86 | 276 | 6043   | 0.035 | ng | # 80   |

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

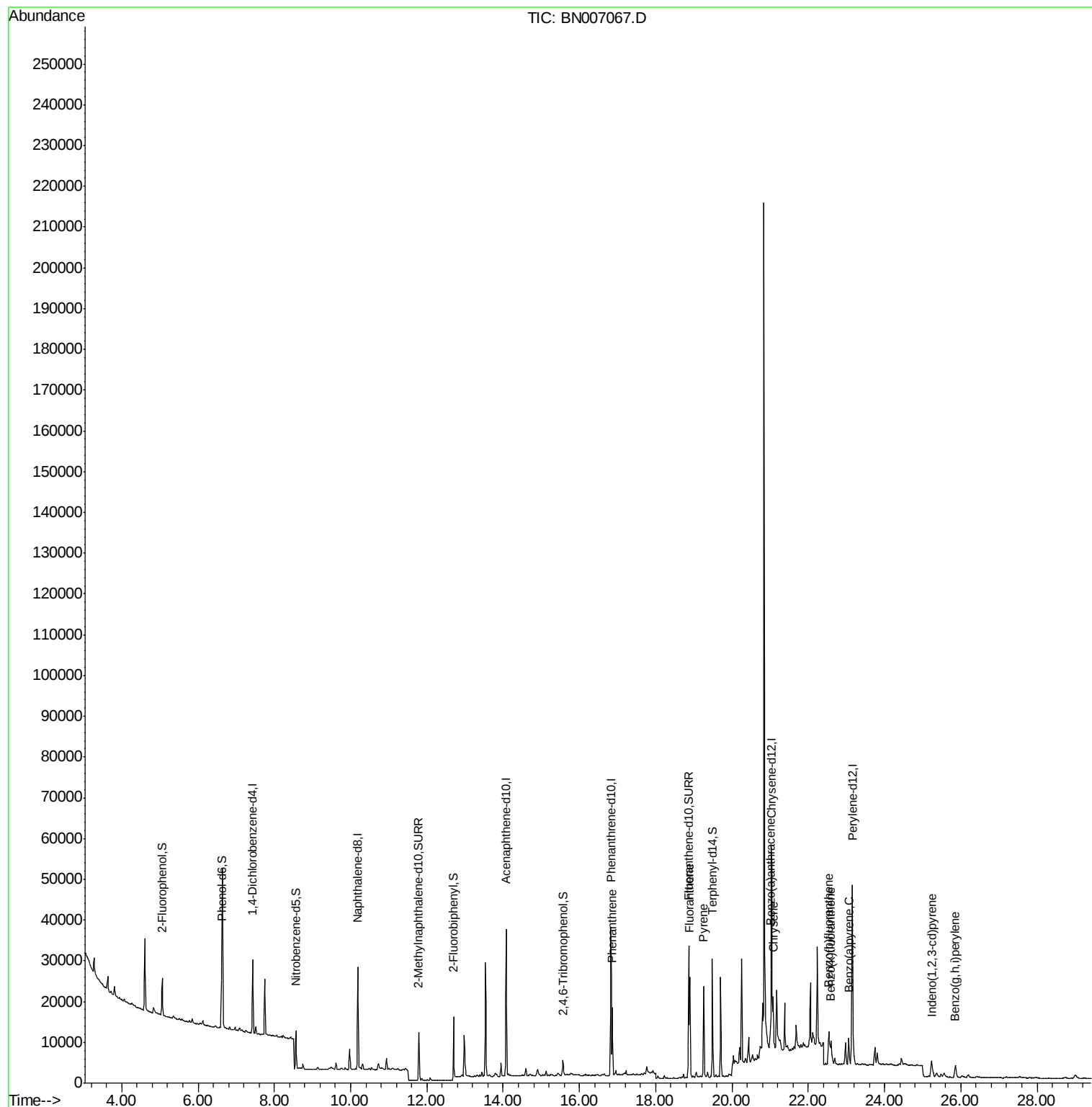
Data Path : Z:\SVOASRV\HPCHEM1\BNA\_N\DATA\BN081019\  
Data File : BN007067.D  
Acq On : 11 Aug 2019 02:36  
Operator : HP/JU  
Sample : K4239-07  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

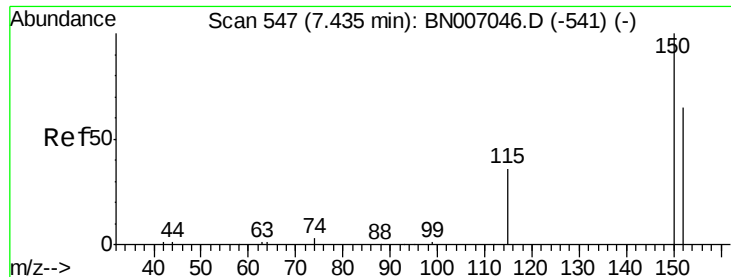
Instrument :  
BNA\_N  
ClientSampleId :  
PST-013-B210-080519

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Quant Time: Aug 12 05:14:55 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_N\METHODS\8270-SIM-BN081019.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sat Aug 10 21:44:50 2019  
Response via : Initial Calibration





#1

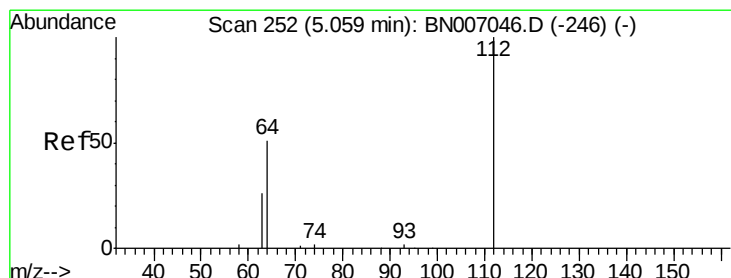
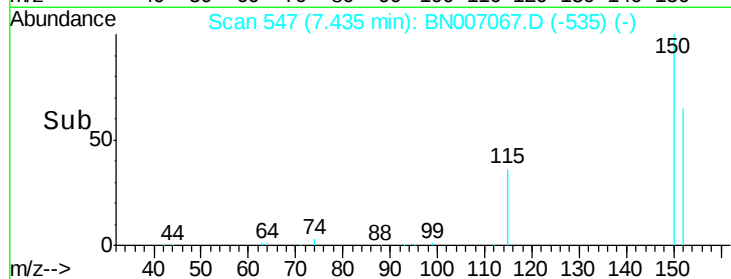
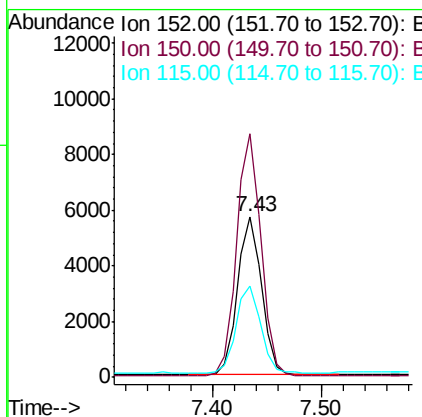
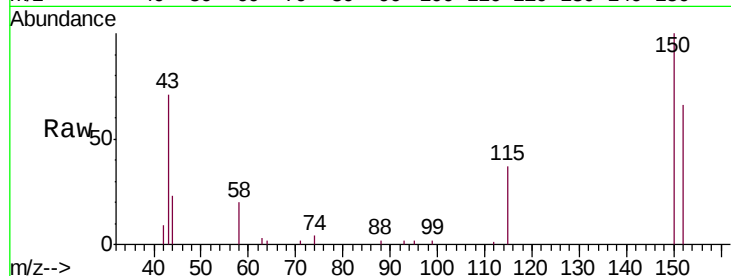
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.43 min Scan# 547  
Delta R.T. -0.00 min  
Lab File: BN007067.D  
Acq: 11 Aug 2019 02:36

Instrument :  
BNA\_N  
ClientSampleId :  
PST-013-B210-080519

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 150     | 151.6 | 121.7 | 182.5 |
| 115     | 56.8  | 46.2  | 69.4  |

Manual Integrations  
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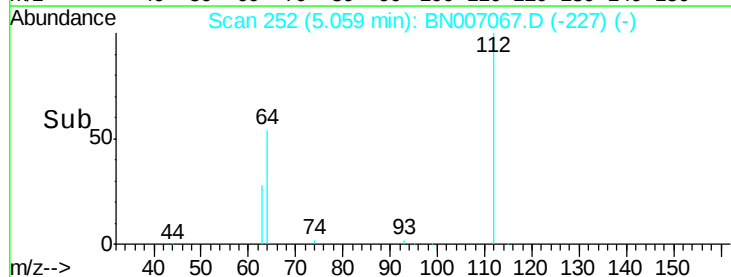
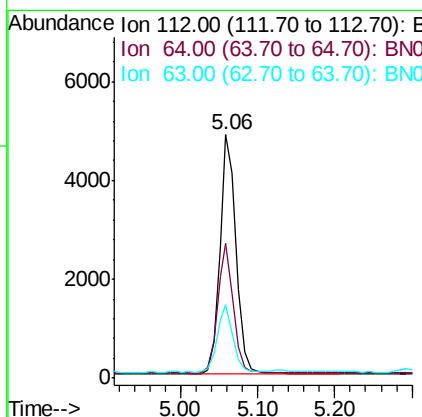
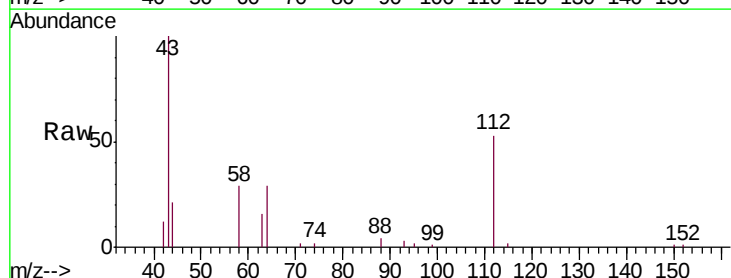
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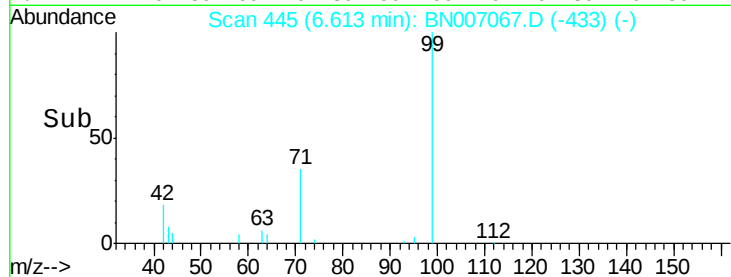
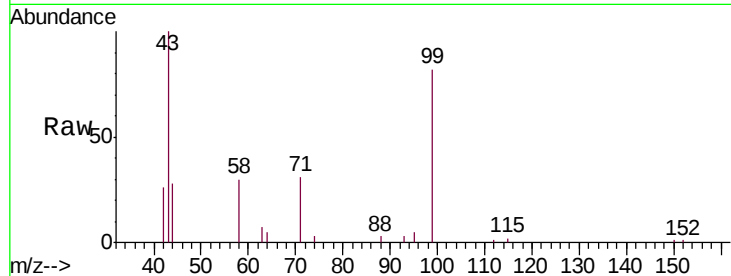
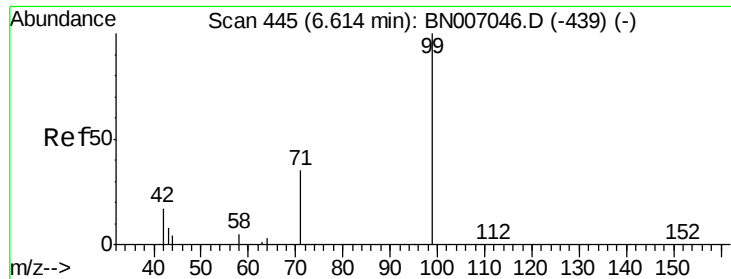


#3

2-Fluorophenol  
Concen: 0.341 ng  
RT: 5.06 min Scan# 252  
Delta R.T. -0.00 min  
Lab File: BN007067.D  
Acq: 11 Aug 2019 02:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 64      | 53.3  | 42.6  | 63.8  |
| 63      | 27.6  | 22.2  | 33.2  |





#4

Phenol-d6

Concen: 0.377 ng

RT: 6.61 min Scan# 445

Delta R.T. -0.00 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 99    | Resp: | 9808  |
| Ion Ratio | Lower | Upper |       |
| 99        | 100   |       |       |
| 42        | 0.0   | 15.8  | 23.6# |
| 71        | 34.4  | 27.0  | 40.4  |

Instrument :

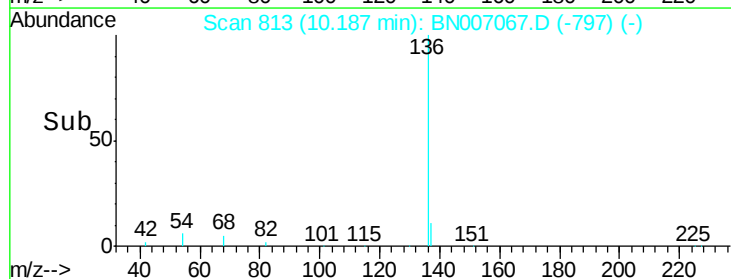
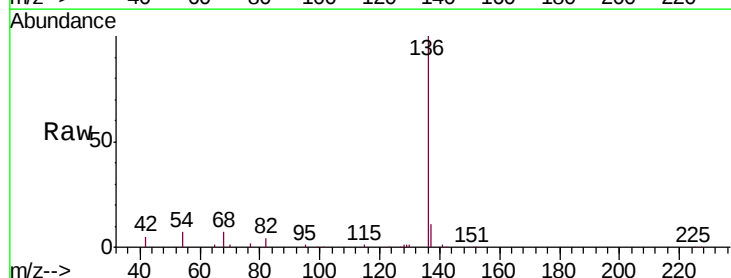
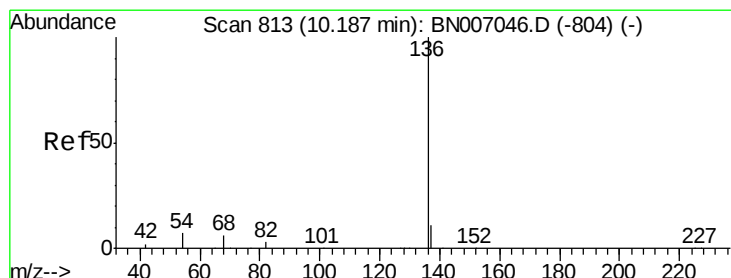
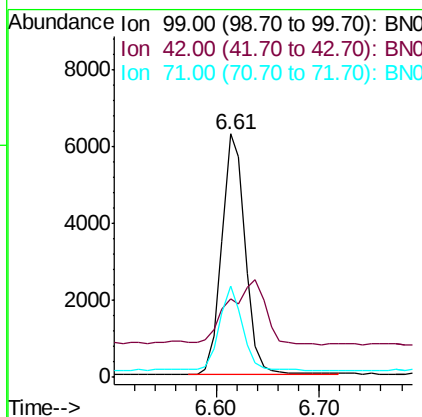
BNA\_N

ClientSampleId :

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#6

Naphthalene-d8

Concen: 0.400 ng

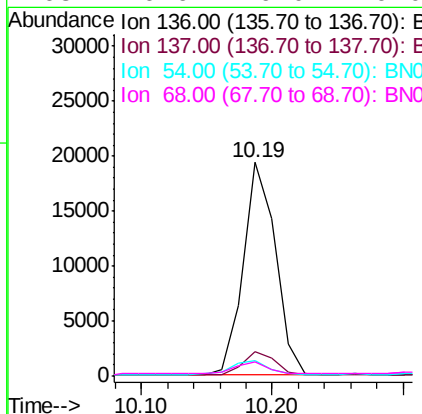
RT: 10.19 min Scan# 813

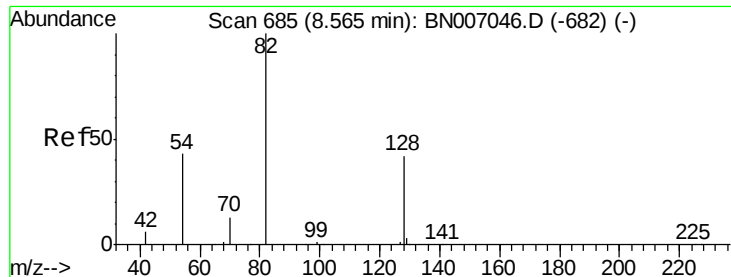
Delta R.T. -0.00 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 136   | Resp: | 33215 |
| Ion Ratio | Lower | Upper |       |
| 136       | 100   |       |       |
| 137       | 11.4  | 9.4   | 14.0  |
| 54        | 7.2   | 6.6   | 9.8   |
| 68        | 6.6   | 6.0   | 9.0   |





#7

Nitrobenzene-d5

Concen: 0.280 ng

RT: 8.56 min Scan# 685

Delta R.T. -0.00 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

Instrument :

BNA\_N

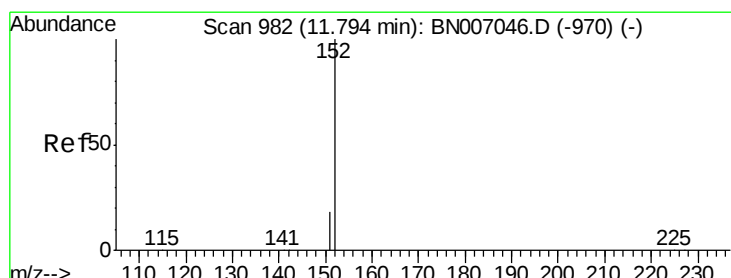
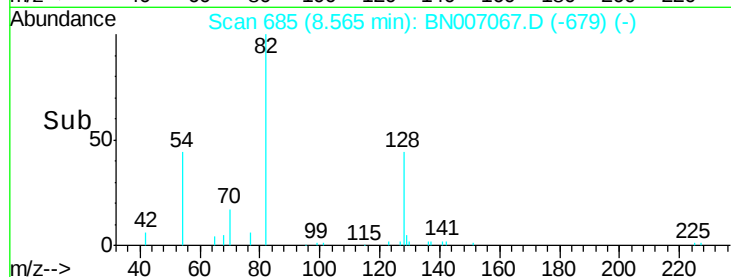
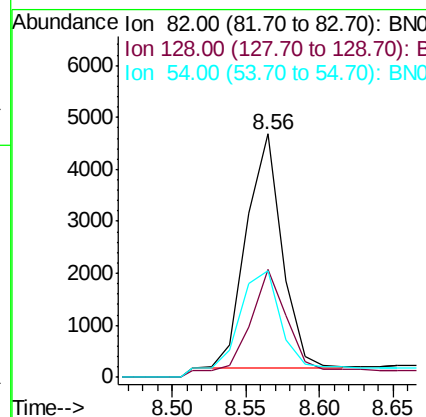
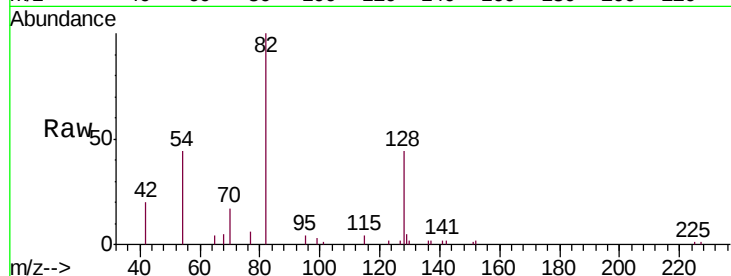
ClientSampleId :

PST-013-B210-080519

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 82    | Resp: | 7509 |
| Ion Ratio | Lower | Upper |      |
| 82        | 100   |       |      |
| 128       | 44.1  | 34.6  | 51.8 |
| 54        | 43.6  | 36.2  | 54.4 |

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#10

2-Methylnaphthalene-d10

Concen: 0.262 ng

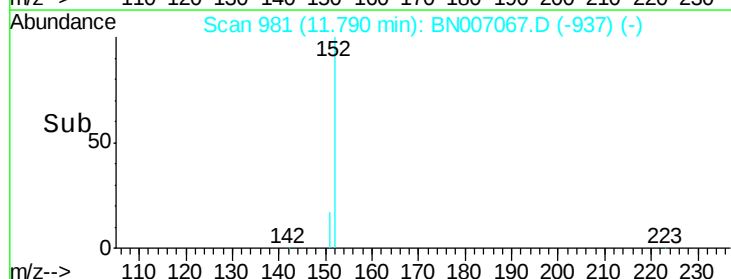
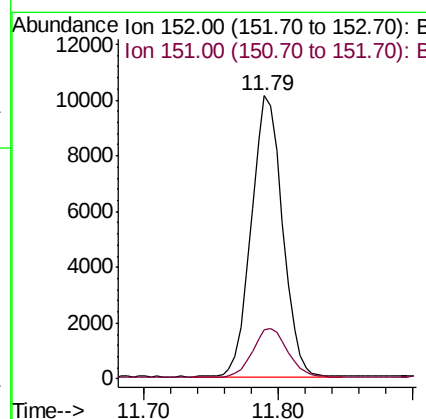
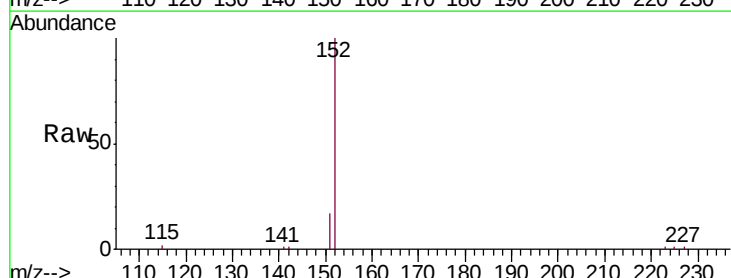
RT: 11.79 min Scan# 981

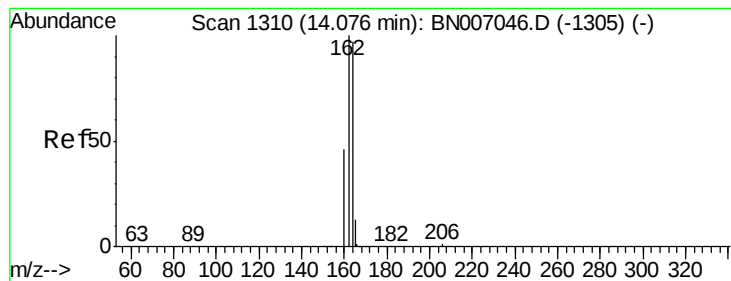
Delta R.T. -0.00 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 16218 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 19.3  | 15.5  | 23.3  |





#12

Acenaphthene-d10

Concen: 0.400 ng

RT: 14.08 min Scan# 1310

Delta R.T. -0.00 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

Instrument :

BNA\_N

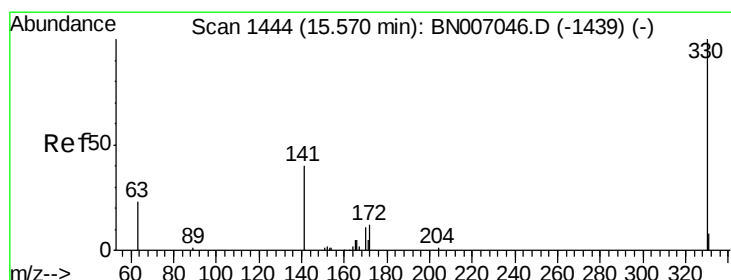
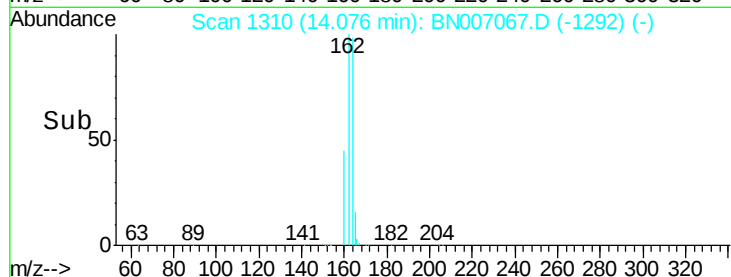
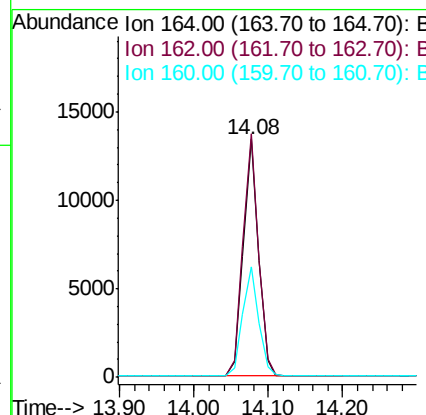
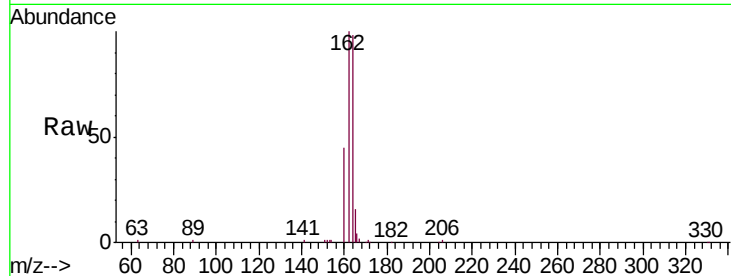
ClientSampled :

PST-013-B210-080519

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 164   | Resp: | 19117 |
| Ion Ratio | Lower | Upper |       |
| 164       | 100   |       |       |
| 162       | 102.3 | 82.2  | 123.4 |
| 160       | 46.5  | 38.3  | 57.5  |

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#13

2,4,6-Tribromophenol

Concen: 0.231 ng

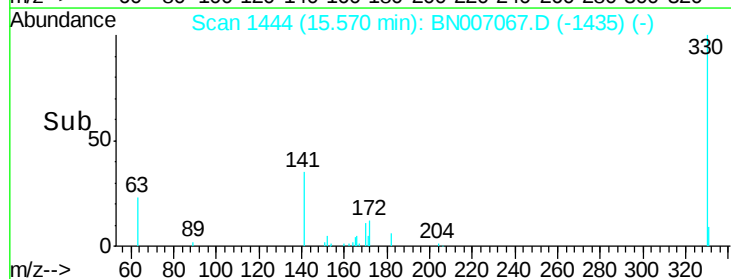
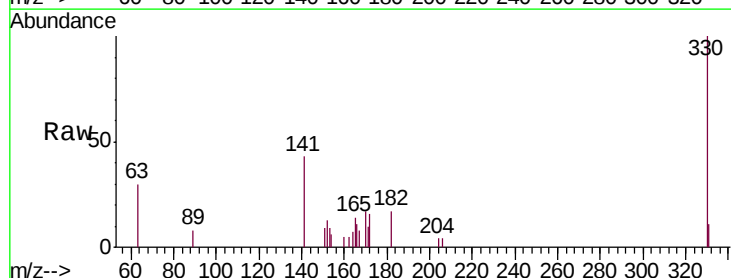
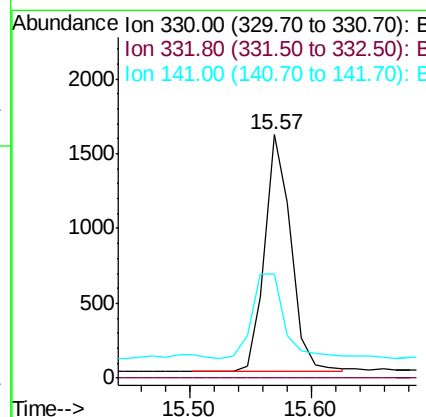
RT: 15.57 min Scan# 1444

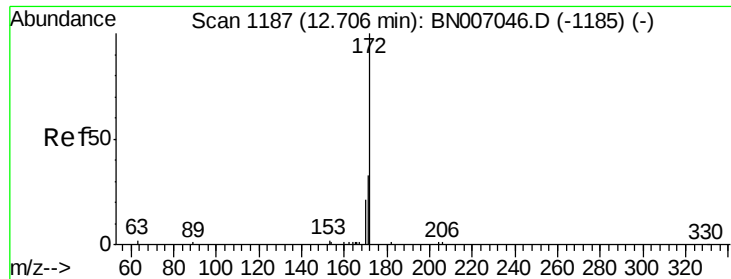
Delta R.T. -0.00 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 330   | Resp: | 2381 |
| Ion Ratio | Lower | Upper |      |
| 330       | 100   |       |      |
| 332       | 0.0   | 0.0   | 0.0  |
| 141       | 45.1  | 33.6  | 50.4 |





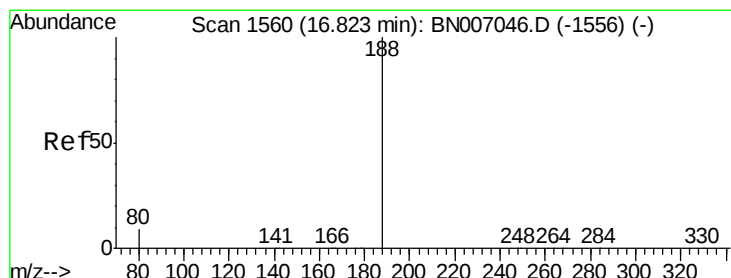
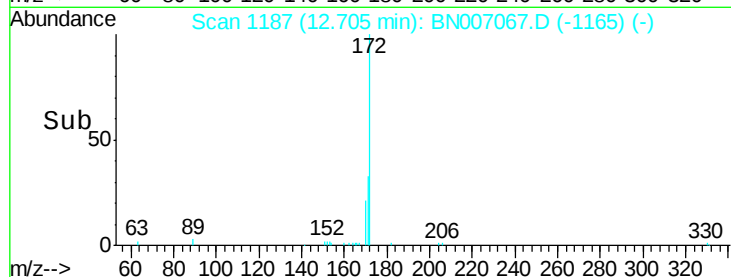
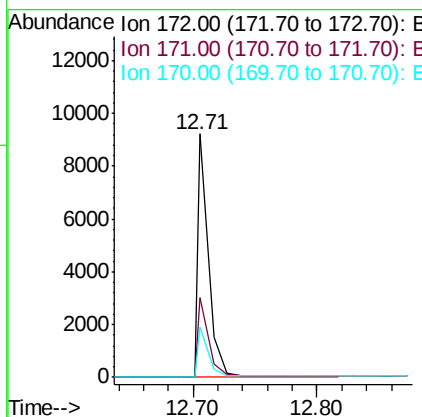
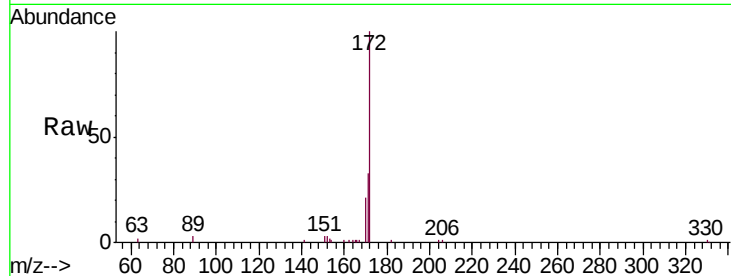
#14  
 2-Fluorobiphenyl  
 Concen: 0.248 ng  
 RT: 12.71 min Scan# 1187  
 Delta R.T. -0.00 min  
 Lab File: BN007067.D  
 Acq: 11 Aug 2019 02:36

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PST-013-B210-080519

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 32.5  | 26.3  | 39.5  |
| 170     | 20.6  | 17.0  | 25.4  |

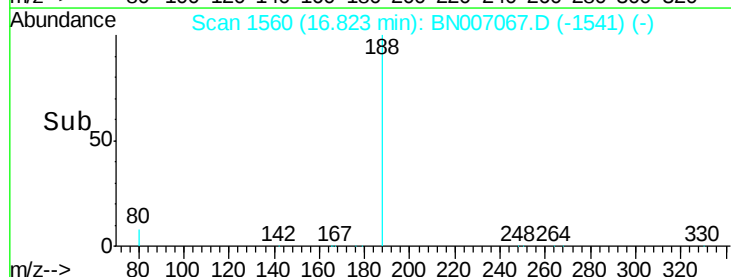
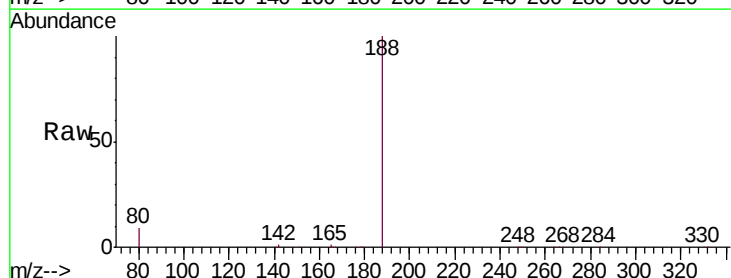
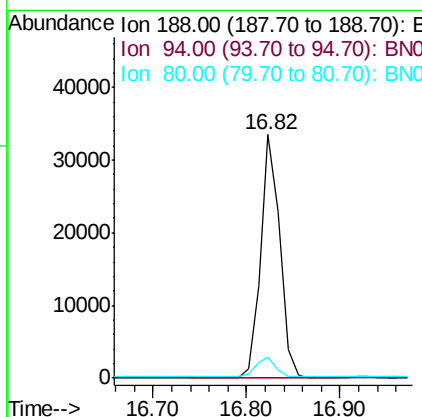
Manual Integrations  
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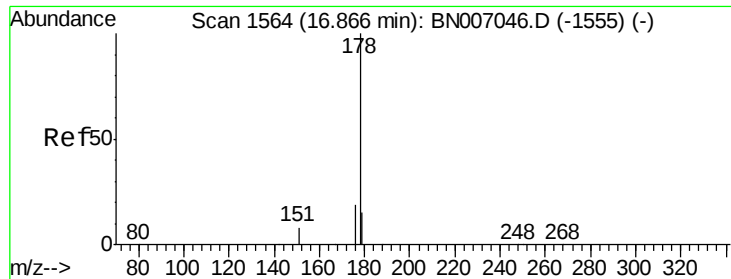
mohammad  
 8/14/2019 2:56:41 AM



#18  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 16.82 min Scan# 1560  
 Delta R.T. -0.00 min  
 Lab File: BN007067.D  
 Acq: 11 Aug 2019 02:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 0.0   | 0.0   | 0.0   |
| 80      | 8.8   | 7.8   | 11.6  |





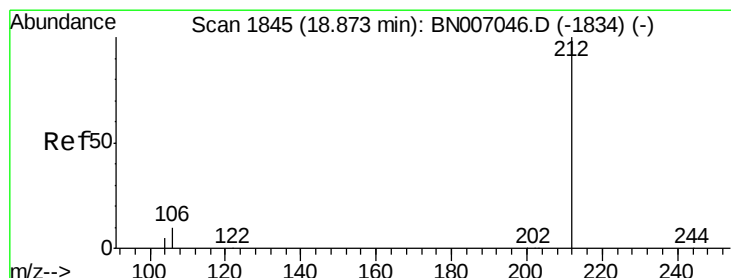
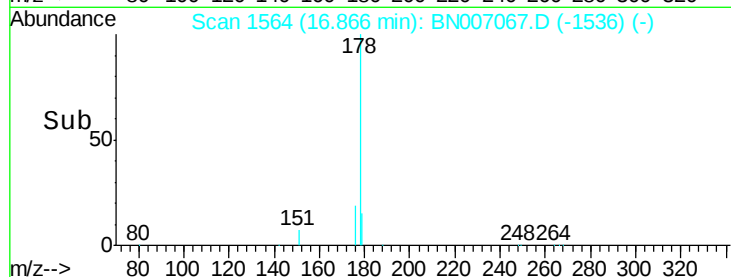
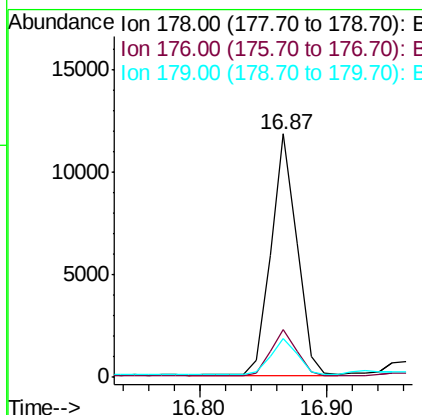
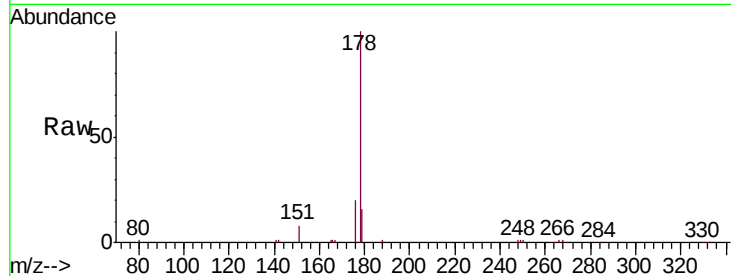
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Phenanthrene  
Concen: 0.116 ng  
RT: 16.87 min Scan# 1564  
Delta R.T. -0.00 min  
Lab File: BN007067.D  
Acq: 11 Aug 2019 02:36

Instrument :  
BNA\_N  
ClientSampleId :  
PST-013-B210-080519

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 19.6  | 15.2  | 22.8  |
| 179     | 15.9  | 12.3  | 18.5  |

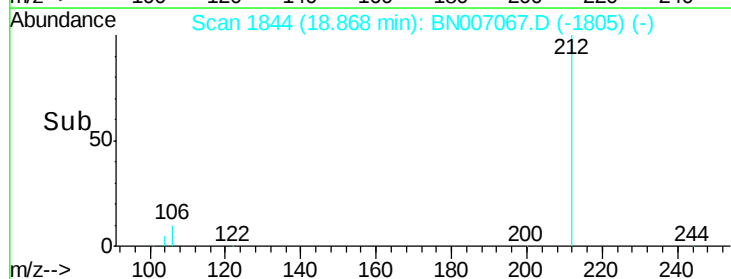
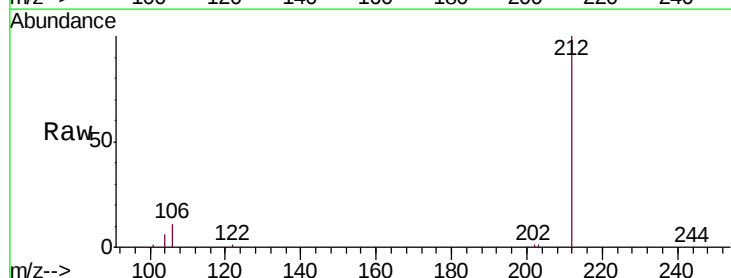
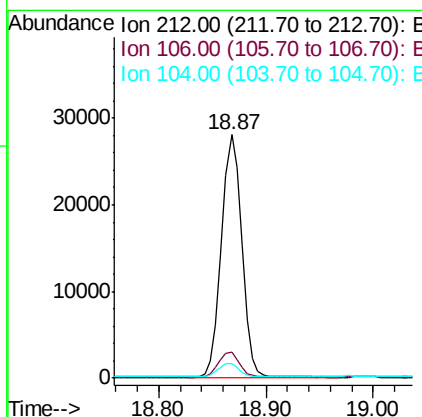
Manual Integrations  
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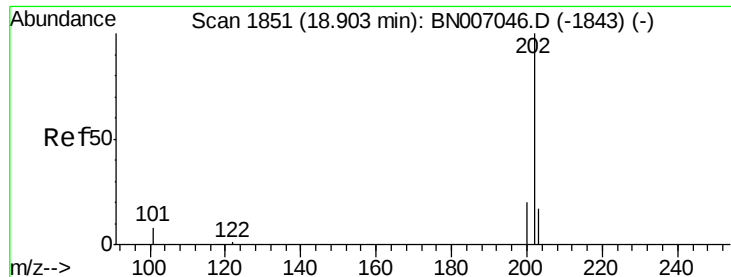
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8/14/2019 2:56:41 AM



#24  
Fluoranthene-d10  
Concen: 0.218 ng  
RT: 18.87 min Scan# 1844  
Delta R.T. -0.01 min  
Lab File: BN007067.D  
Acq: 11 Aug 2019 02:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 212     | 100   |       |       |
| 106     | 10.1  | 8.2   | 12.2  |
| 104     | 5.6   | 4.5   | 6.7   |





#25

Fluoranthene

Concen: 0.124 ng

RT: 18.90 min Scan# 1850

Delta R.T. -0.01 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

Instrument :

BNA\_N

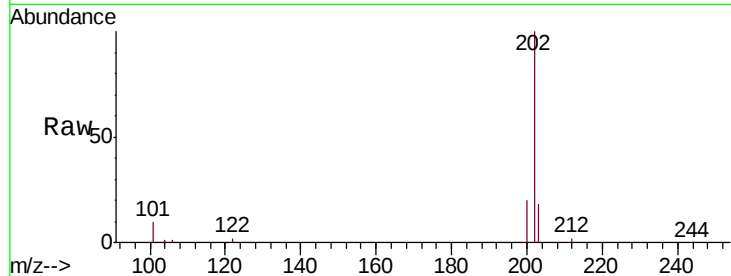
ClientSampleId :

PST-013-B210-080519

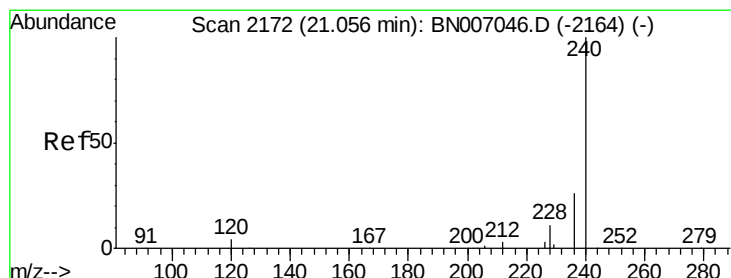
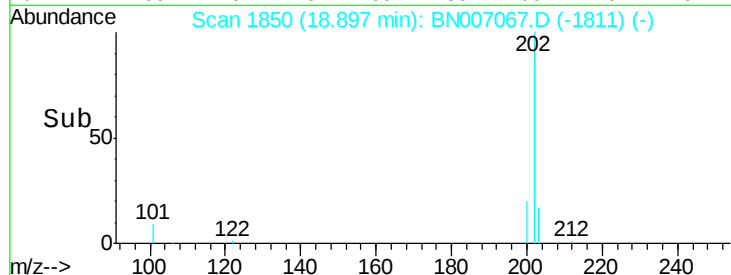
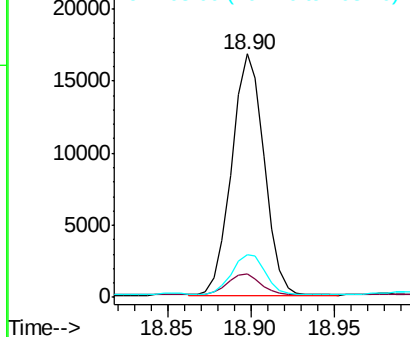
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 202   | Resp: | 22648 |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 101       | 8.6   | 7.0   | 10.4  |
| 203       | 17.3  | 13.8  | 20.8  |

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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



#26

Chrysene-d12

Concen: 0.400 ng

RT: 21.05 min Scan# 2171

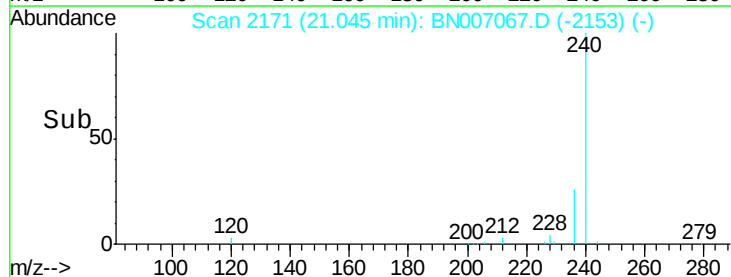
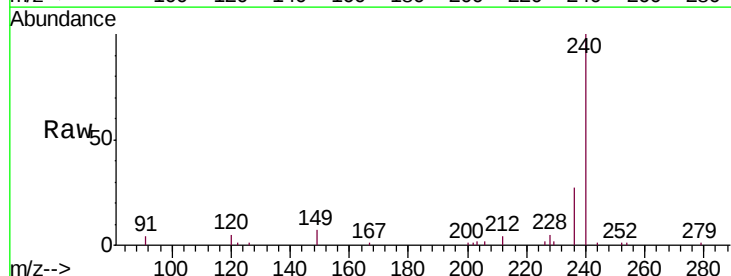
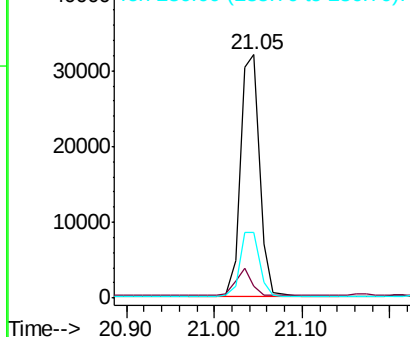
Delta R.T. -0.01 min

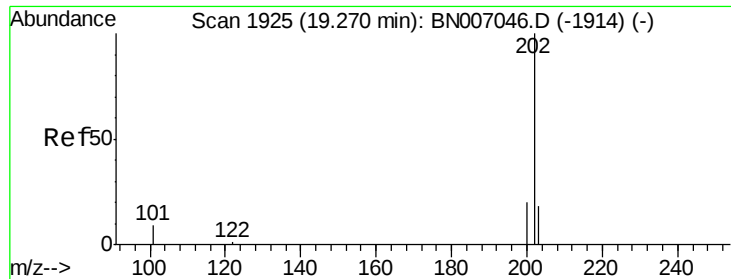
Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 240   | Resp: | 48243 |
| Ion Ratio | Lower | Upper |       |
| 240       | 100   |       |       |
| 120       | 5.1   | 4.0   | 6.0   |
| 236       | 27.2  | 21.3  | 31.9  |

Abundance Ion 240.00 (239.70 to 240.70): E  
Ion 120.00 (119.70 to 120.70): E  
Ion 236.00 (235.70 to 236.70): E





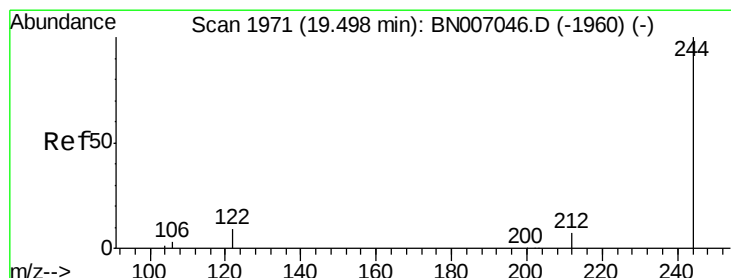
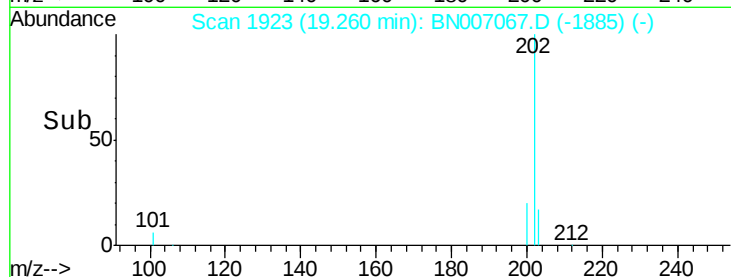
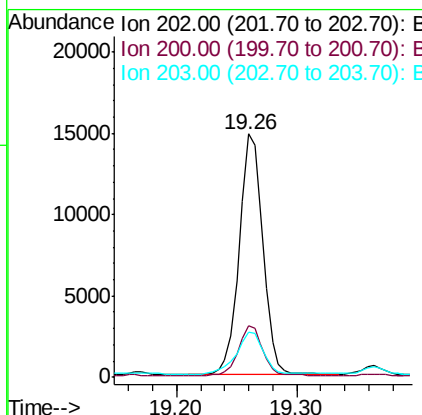
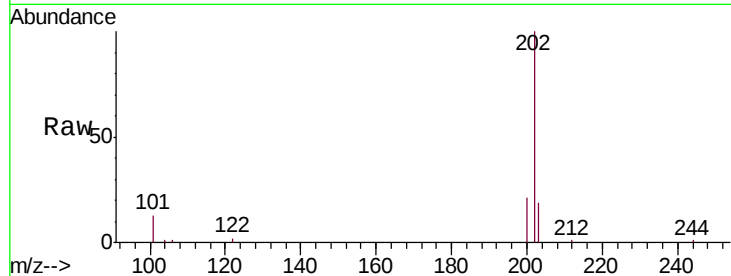
#27  
 Pyrene  
 Concen: 0.120 ng  
 RT: 19.26 min Scan# 1923  
 Delta R.T. -0.01 min  
 Lab File: BN007067.D  
 Acq: 11 Aug 2019 02:36

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PST-013-B210-080519

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 202   | Resp: | 20294 |
| Ion Ratio | Lower | Upper |       |
| 202       | 100   |       |       |
| 200       | 21.1  | 16.6  | 24.8  |
| 203       | 20.5  | 14.0  | 21.0  |

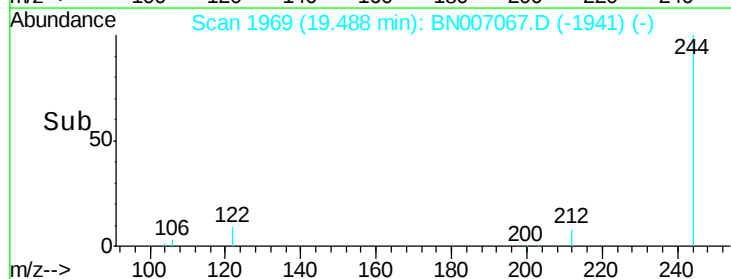
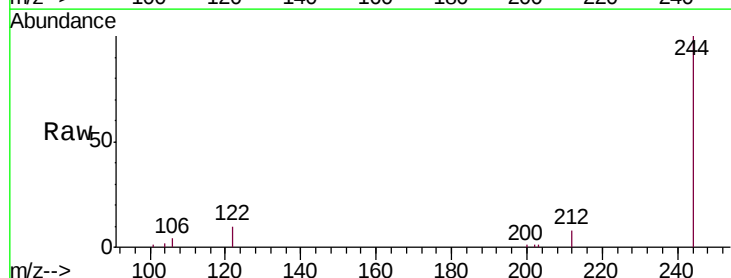
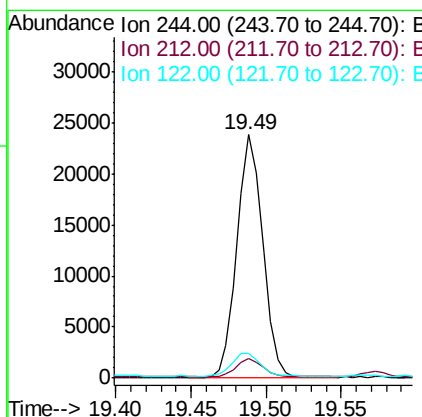
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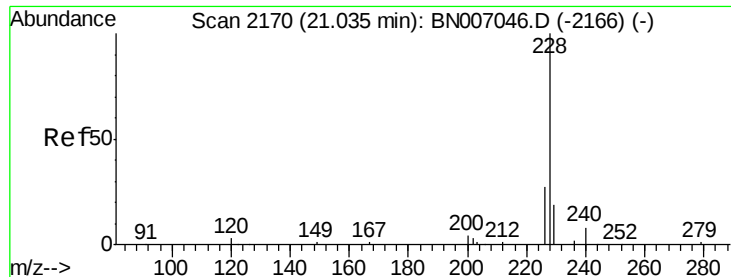
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#28  
 Terphenyl-d14  
 Concen: 0.215 ng  
 RT: 19.49 min Scan# 1969  
 Delta R.T. -0.01 min  
 Lab File: BN007067.D  
 Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 244   | Resp: | 28214 |
| Ion Ratio | Lower | Upper |       |
| 244       | 100   |       |       |
| 212       | 8.1   | 6.2   | 9.2   |
| 122       | 10.4  | 7.4   | 11.2  |





#29

Benzo(a)anthracene

Concen: 0.052 ng

RT: 21.02 min Scan# 2169

Delta R.T. -0.01 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

Instrument :

BNA\_N

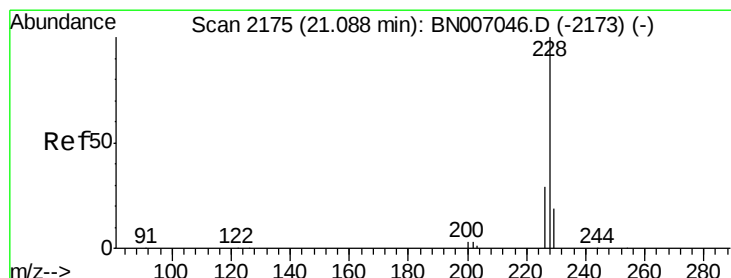
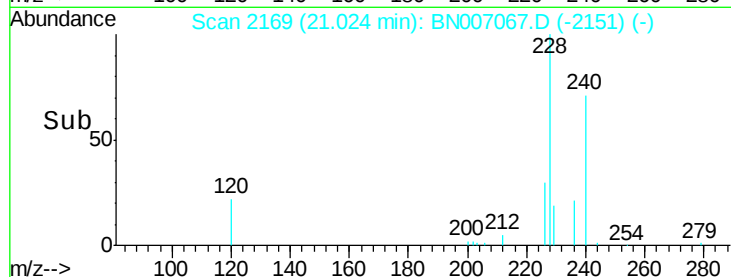
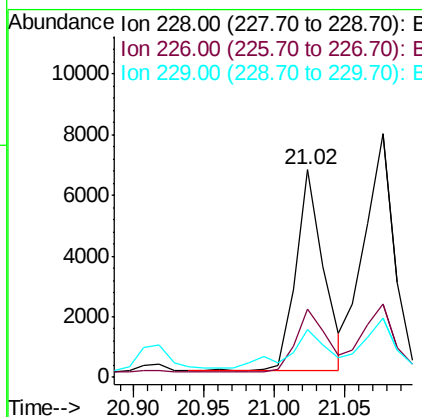
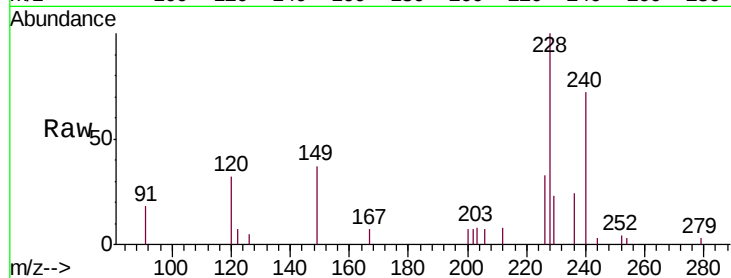
ClientSampleId :

PST-013-B210-080519

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 9089  |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 33.1  | 21.8  | 32.6# |
| 229       | 22.9  | 15.6  | 23.4  |

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#30

Chrysene

Concen: 0.068 ng m

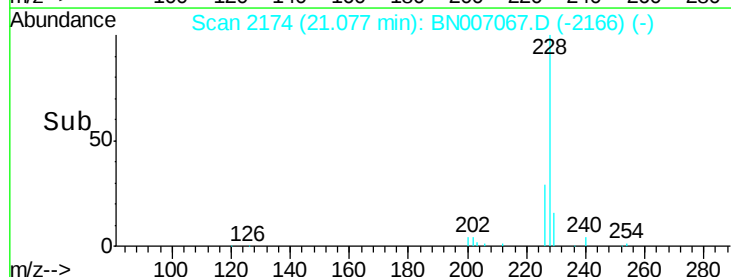
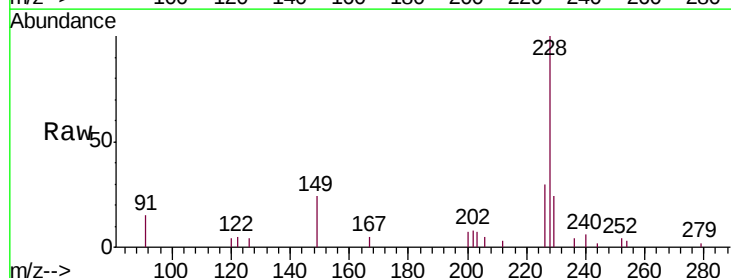
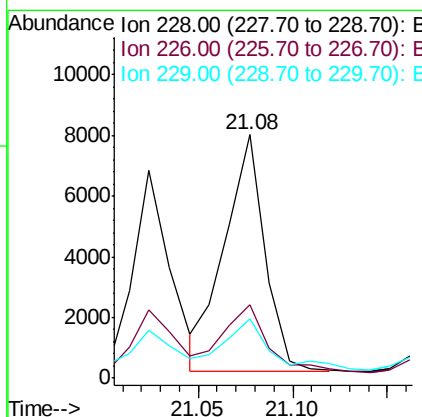
RT: 21.08 min Scan# 2174

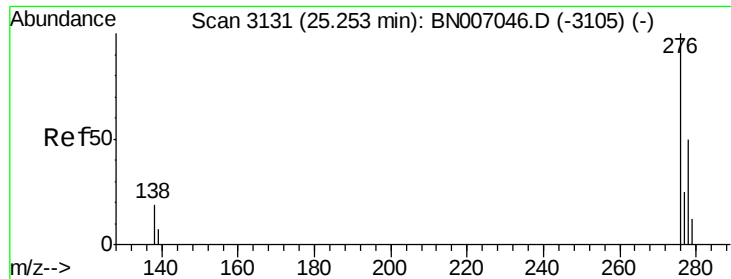
Delta R.T. -0.01 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 11676 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 30.3  | 23.8  | 35.6  |
| 229       | 24.3  | 15.7  | 23.5# |





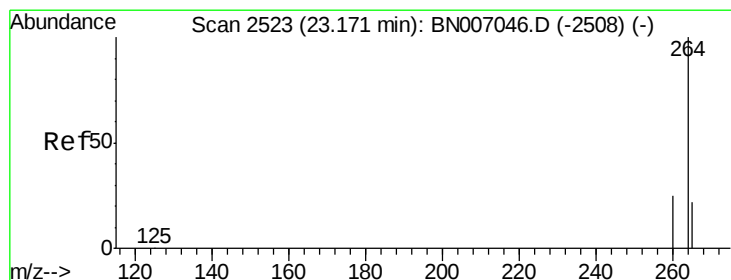
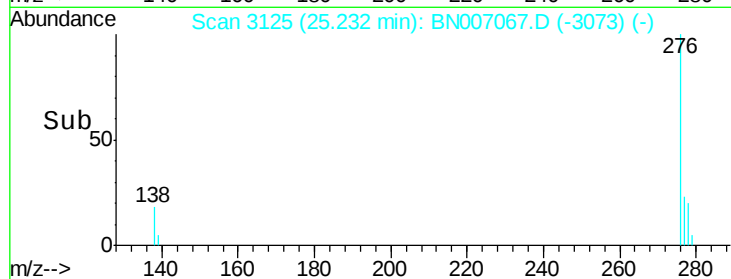
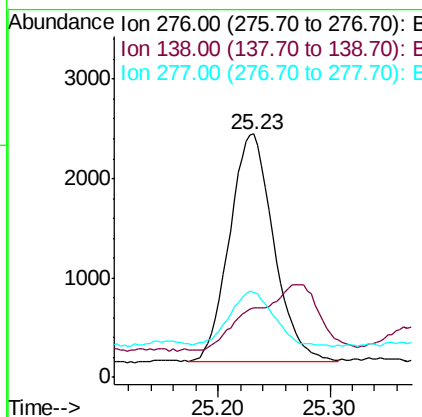
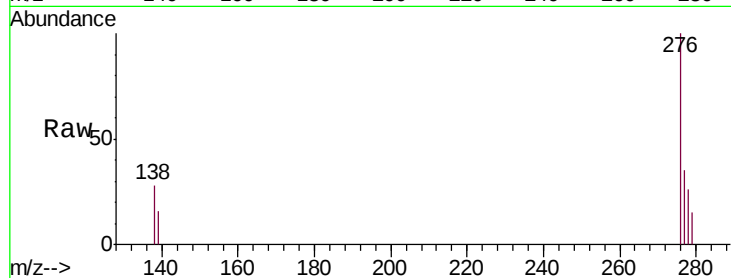
#31  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.033 ng  
 RT: 25.23 min Scan# 3125  
 Delta R.T. -0.02 min  
 Lab File: BN007067.D  
 Acq: 11 Aug 2019 02:36

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PST-013-B210-080519

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 0.0   | 16.0  | 24.0# |
| 277     | 24.8  | 19.9  | 29.9  |

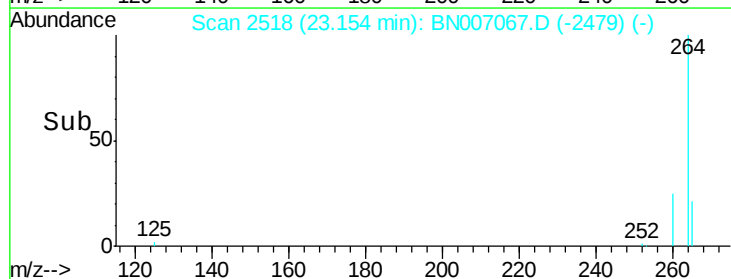
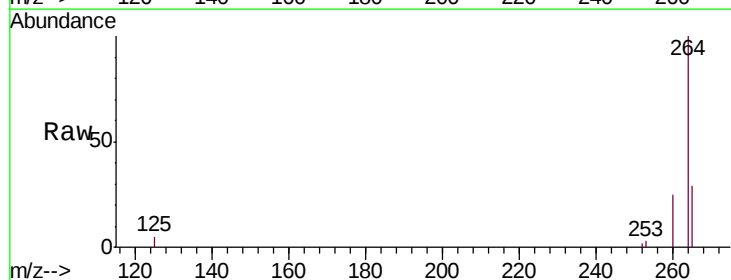
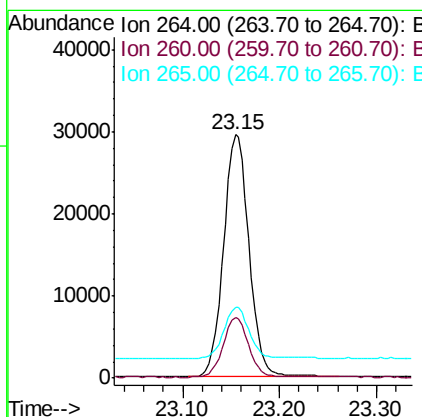
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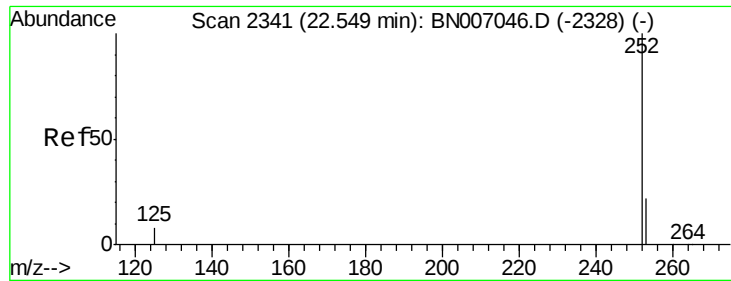
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#32  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 23.15 min Scan# 2518  
 Delta R.T. -0.02 min  
 Lab File: BN007067.D  
 Acq: 11 Aug 2019 02:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 25.0  | 19.8  | 29.8  |
| 265     | 29.3  | 26.2  | 39.4  |





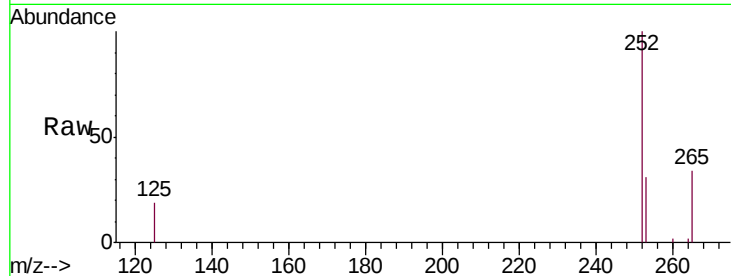
#33  
Benzo(b)fluoranthene  
Concen: 0.078 ng  
RT: 22.54 min Scan# 2338  
Delta R.T. -0.01 min  
Lab File: BN007067.D  
Acq: 11 Aug 2019 02:36

Instrument :  
BNA\_N  
ClientSampleId :  
PST-013-B210-080519

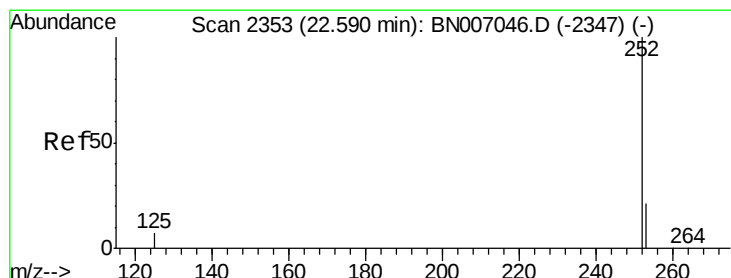
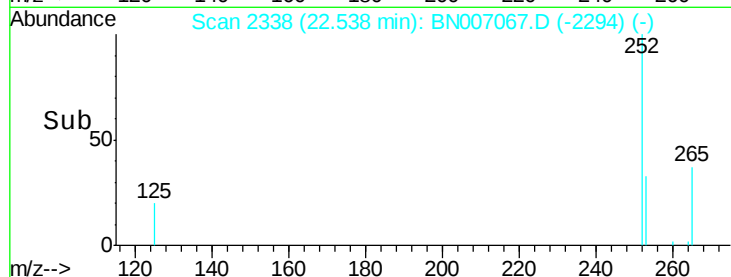
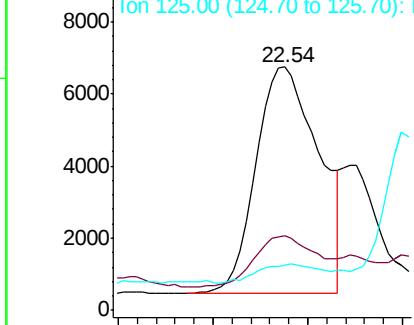
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 30.7  | 18.2  | 27.2# |
| 125     | 18.8  | 7.4   | 11.0# |

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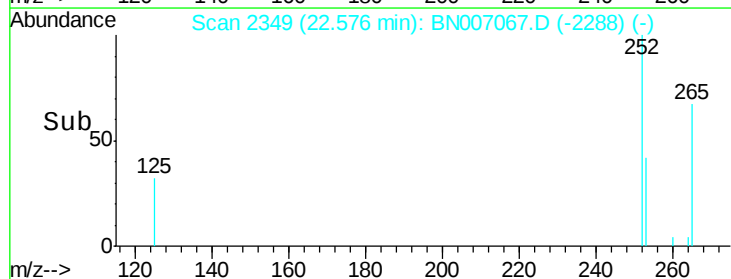
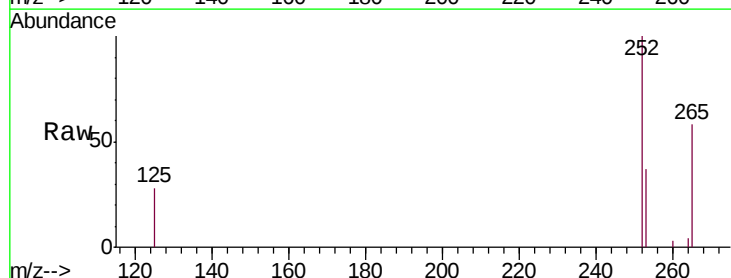
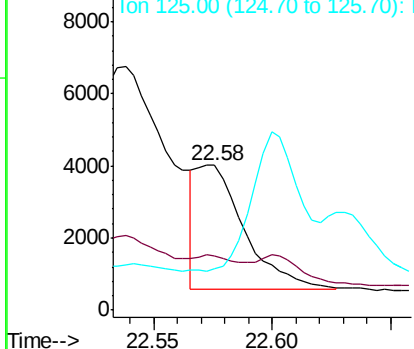
Abundance Ion 252.00 (251.70 to 252.70): E  
Ion 253.00 (252.70 to 253.70): E  
Ion 125.00 (124.70 to 125.70): E

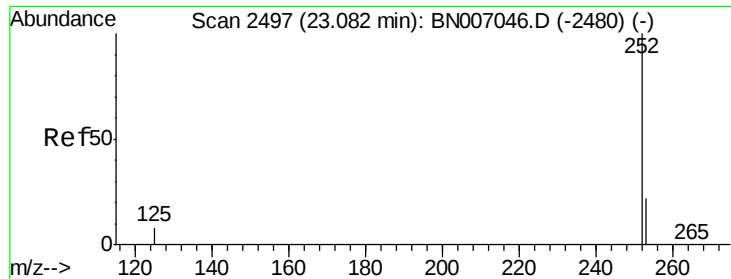


#34  
Benzo(k)fluoranthene  
Concen: 0.026 ng m  
RT: 22.58 min Scan# 2349  
Delta R.T. -0.01 min  
Lab File: BN007067.D  
Acq: 11 Aug 2019 02:36

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 37.3  | 18.1  | 27.1# |
| 125     | 28.3  | 7.4   | 11.0# |

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





#35

Benzo(a)pyrene

Concen: 0.054 ng

RT: 23.06 min Scan# 2491

Delta R.T. -0.02 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

Instrument :

BNA\_N

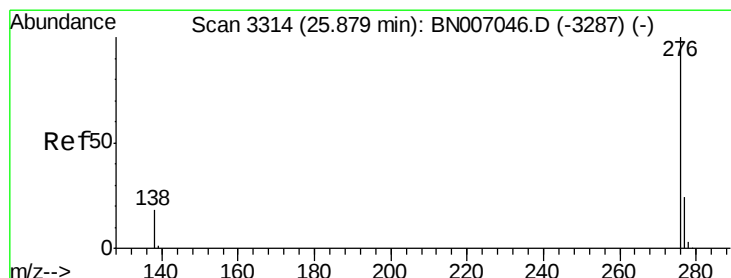
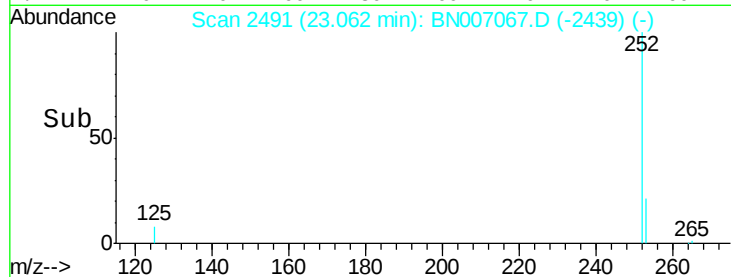
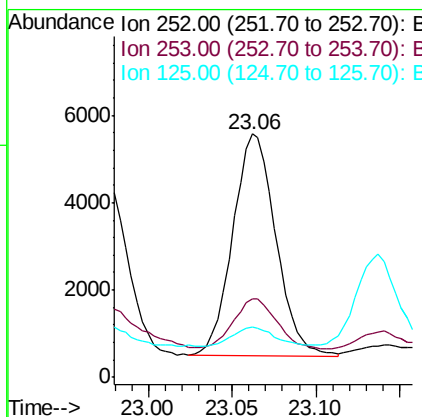
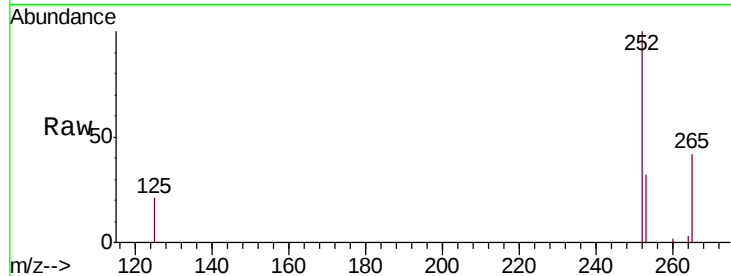
ClientSampleId :

PST-013-B210-080519

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 252   | Resp: | 9096  |
| Ion Ratio | Lower | Upper |       |
| 252       | 100   |       |       |
| 253       | 32.4  | 18.5  | 27.7# |
| 125       | 20.5  | 8.2   | 12.4# |

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#37

Benzo(g,h,i)perylene

Concen: 0.035 ng

RT: 25.86 min Scan# 3309

Delta R.T. -0.02 min

Lab File: BN007067.D

Acq: 11 Aug 2019 02:36

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 6043  |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 277       | 34.9  | 19.8  | 29.8# |
| 138       | 27.2  | 14.6  | 22.0# |

