

Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF100915\  
 Data File : BF082155.D  
 Acq On : 9 Oct 2015 20:13  
 Operator : UM/IZ  
 Sample : G3927-01DL 10X  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OS-SB-28(7-9)DL

Manual Integrations  
 APPROVED

MMDadoda  
 10/12/2015 2:44:12 PM

Quant Time: Oct 09 23:42:36 2015  
 Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092815.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Oct 09 22:47:26 2015  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 6.86  | 152  | 79911    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8          | 8.15  | 136  | 276287   | 20.00 | ng    | 0.01     |
| 38) Acenaphthene-d10        | 9.91  | 164  | 115943   | 20.00 | ng    | 0.01     |
| 63) Phenanthrene-d10        | 11.41 | 188  | 192702   | 20.00 | ng    | 0.02     |
| 75) Chrysene-d12            | 14.02 | 240  | 212733   | 20.00 | ng    | -0.01    |
| 86) Perylene-d12            | 15.46 | 264  | 191024   | 20.00 | ng    | -0.01    |
| System Monitoring Compounds |       |      |          |       |       |          |
| 5) 2-Fluorophenol           | 5.44  | 112  | 54074    | 12.28 | ng    | 0.00     |
| 7) Phenol-d6                | 6.48  | 99   | 71776    | 12.96 | ng    | -0.01    |
| 23) Nitrobenzene-d5         | 7.42  | 82   | 59079m   | 14.25 | ng    | -0.01    |
| 41) 2,4,6-Tribromophenol    | 10.71 | 330  | 12729    | 10.84 | ng    | 0.01     |
| 44) 2-Fluorobiphenyl        | 9.22  | 172  | 83475    | 9.46  | ng    | 0.00     |
| 78) Terphenyl-d14           | 12.97 | 244  | 73580    | 7.33  | ng    | 0.00     |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 51) Acenaphthene            | 9.94  | 154  | 59259    | 8.88  | ng    | # 79     |
| 57) Fluorene                | 10.46 | 166  | 97184    | 12.88 | ng    | # 65     |
| 70) Phenanthrene            | 11.43 | 178  | 311374   | 33.14 | ng    | # 91     |
| 71) Anthracene              | 11.47 | 178  | 103367m  | 10.55 | ng    |          |
| 74) Fluoranthene            | 12.61 | 202  | 127488   | 12.35 | ng    | 88       |
| 77) Pyrene                  | 12.84 | 202  | 296349   | 23.32 | ng    | 95       |
| 80) Benzo(a)anthracene      | 14.01 | 228  | 63506    | 5.54  | ng    | # 83     |
| 82) Chrysene                | 14.05 | 228  | 82888m   | 6.49  | ng    |          |
| 85) Indeno(1,2,3-cd)pyrene  | 16.87 | 276  | 28674    | 3.20  | ng    | # 87     |
| 87) Benzo(b)fluoranthene    | 15.05 | 252  | 72675m   | 6.66  | ng    |          |
| 89) Benzo(a)pyrene          | 15.40 | 252  | 66464    | 7.03  | ng    | # 89     |
| 91) Benzo(g,h,i)perylene    | 17.30 | 276  | 36729    | 4.52  | ng    | # 75     |

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

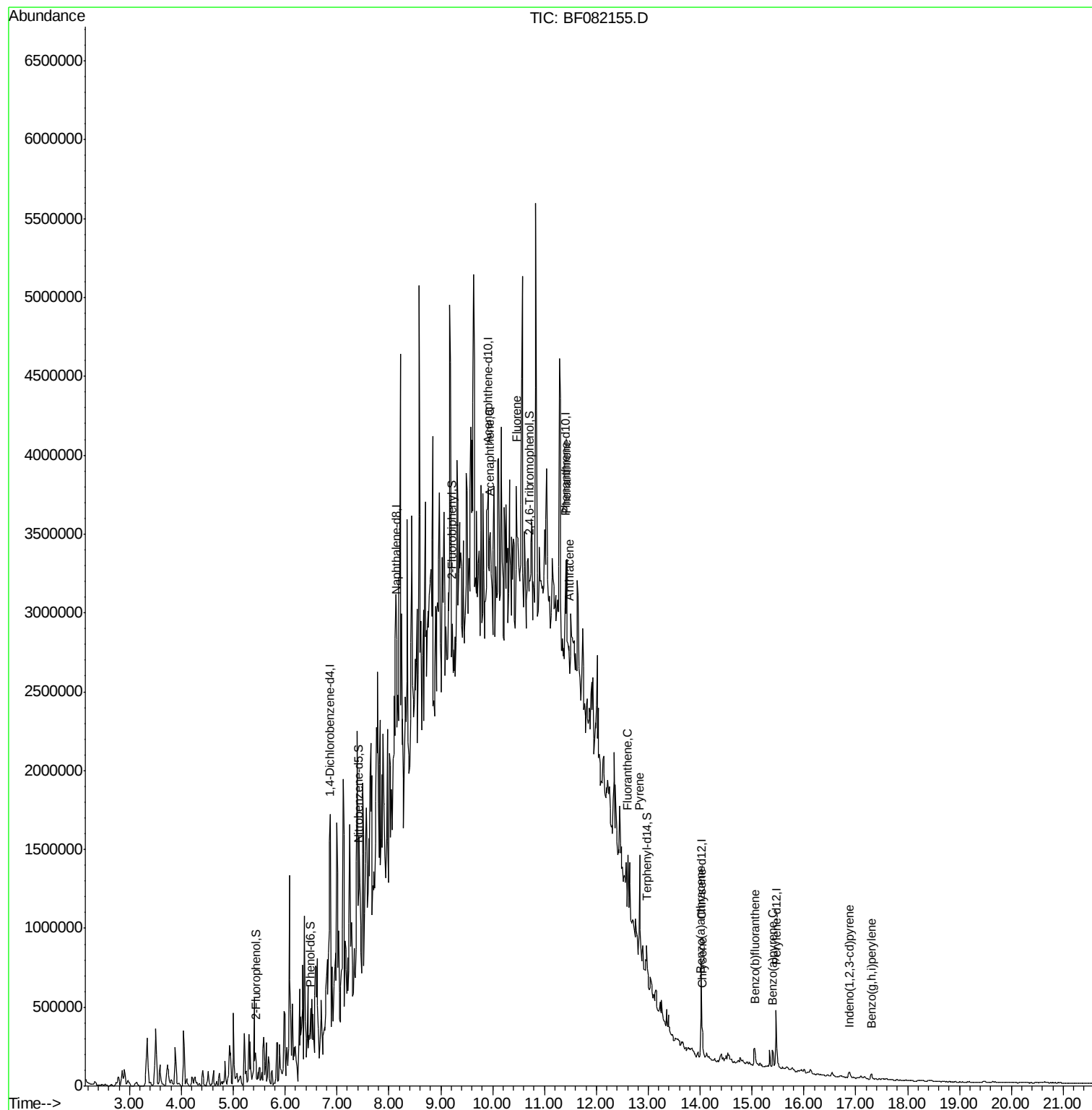
Data Path : Z:\HPCHEM1\BNA\_F\DATA\BF100915\  
Data File : BF082155.D  
Acq On : 9 Oct 2015 20:13  
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Misc :  
ALS Vial : 14 Sample Multiplier: 1

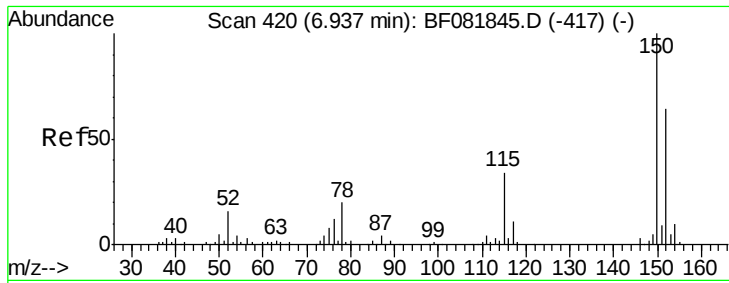
Instrument :  
BNA\_F  
ClientSampleId :  
OS-SB-28(7-9)DL

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Quant Time: Oct 09 23:42:36 2015  
Quant Method : Z:\HPCHEM1\BNA\_F\METHODS\8270-BF092815.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Fri Oct 09 22:47:26 2015  
Response via : Initial Calibration

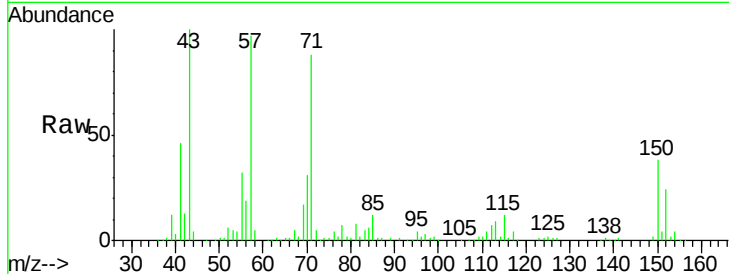




#1

1,4-Dichlorobenzene-d4  
Concen: 20.00 ng  
RT: 6.86 min Scan# 413  
Delta R.T. -0.00 min  
Lab File: BF082155.D  
Acq: 9 Oct 2015 20:13

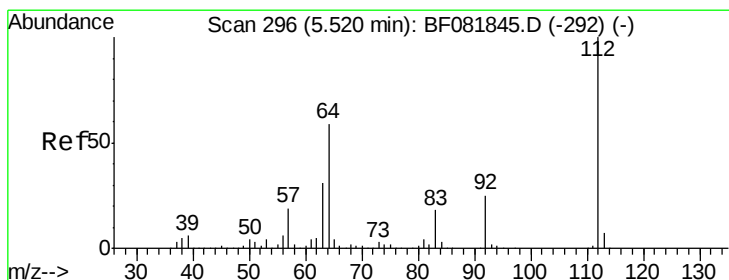
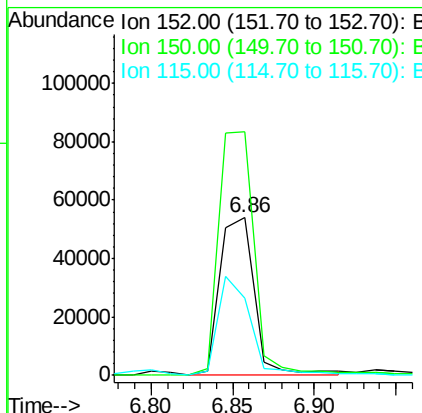
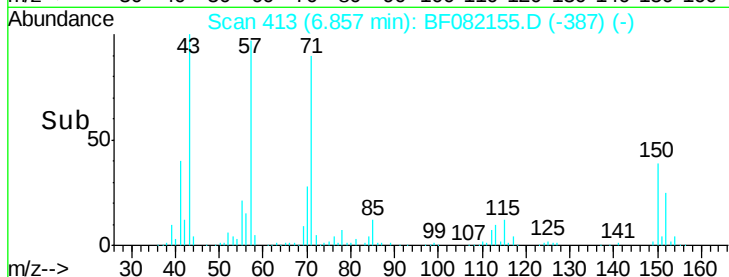
Instrument :  
BNA\_F  
ClientSampleId :  
OS-SB-28(7-9)DL



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 79911 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 150       | 154.4 | 124.7 | 187.1 |
| 115       | 48.7  | 39.0  | 58.4  |

Manual Integrations  
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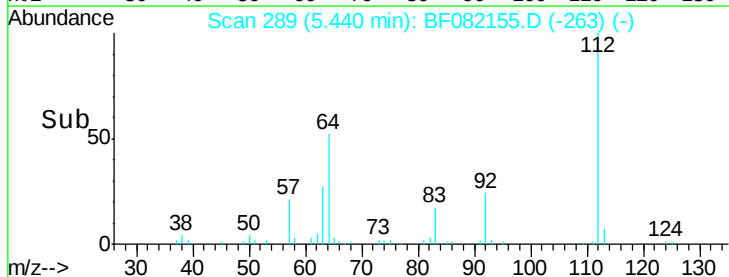
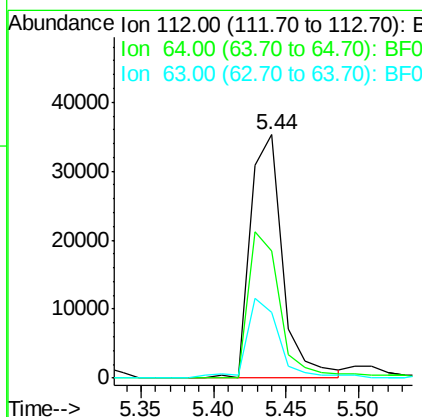
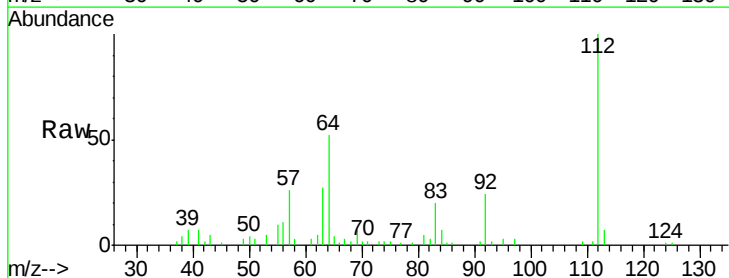
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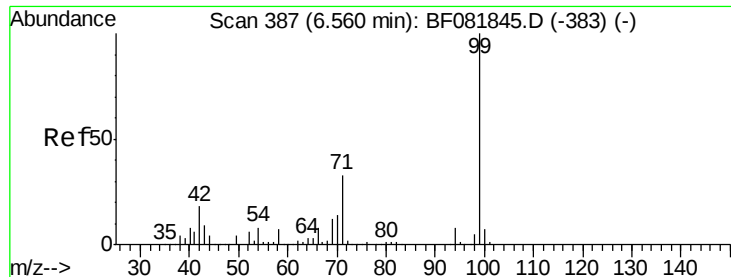


#5

2-Fluorophenol  
Concen: 12.28 ng  
RT: 5.44 min Scan# 289  
Delta R.T. -0.00 min  
Lab File: BF082155.D  
Acq: 9 Oct 2015 20:13

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 112   | Resp: | 54074 |
| Ion Ratio | Lower | Upper |       |
| 112       | 100   |       |       |
| 64        | 52.4  | 39.7  | 59.5  |
| 63        | 27.0  | 17.4  | 26.0  |





#7

Phenol-d6

Concen: 12.96 ng

RT: 6.48 min Scan# 380

Delta R.T. -0.01 min

Lab File: BF082155.D

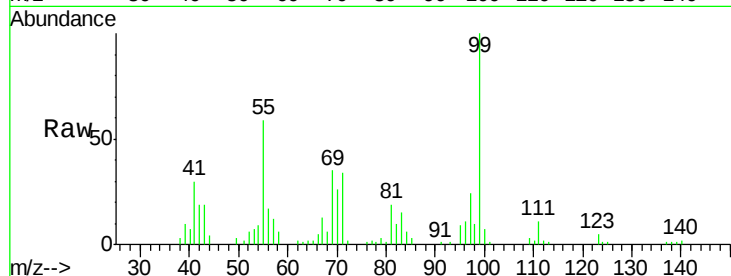
Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

ClientSampleId :

OS-SB-28(7-9)DL



Tgt Ion: 99 Resp: 71776

Ion Ratio Lower Upper

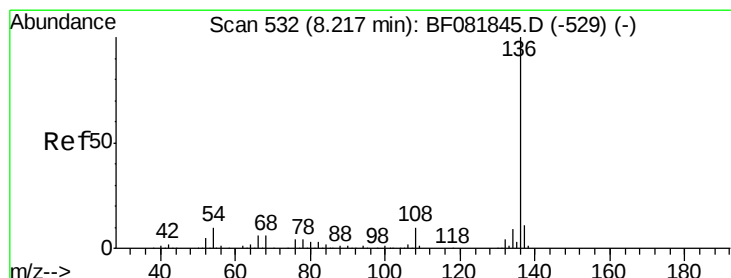
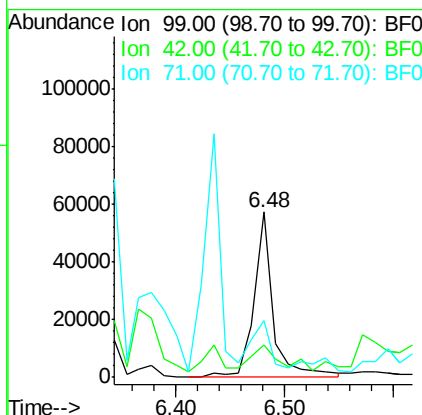
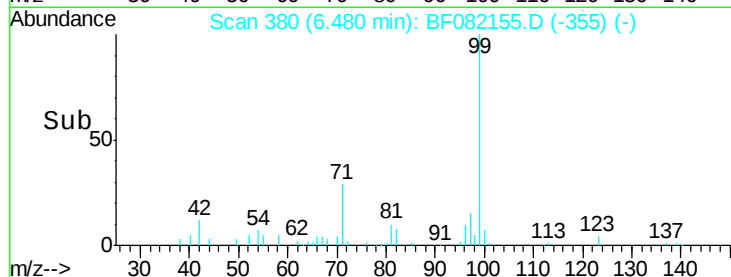
99 100

42 19.3 13.7 20.5

71 34.3 14.2 21.2#

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#21

Naphthalene-d8

Concen: 20.00 ng

RT: 8.15 min Scan# 526

Delta R.T. 0.01 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

Tgt Ion: 136 Resp: 276287

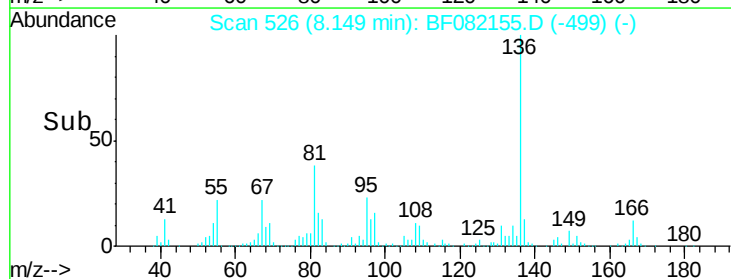
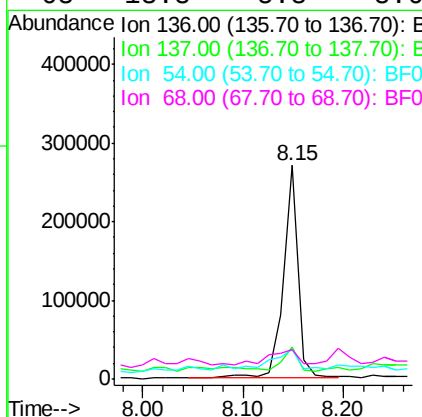
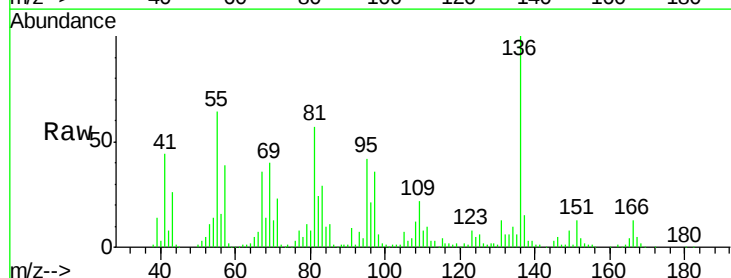
Ion Ratio Lower Upper

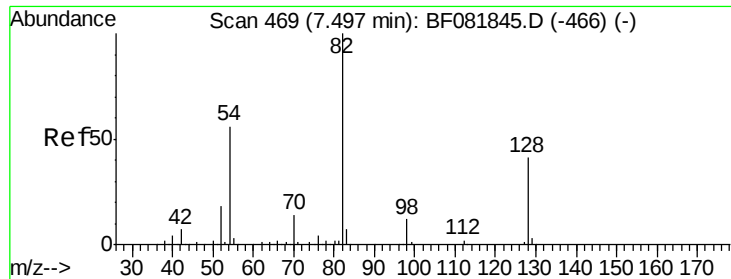
136 100

137 15.3 9.0 13.6#

54 13.5 8.2 12.2#

68 13.8 5.8 8.6#





#23

Nitrobenzene-d5

Concen: 14.25 ng m

RT: 7.42 min Scan# 462

Delta R.T. -0.01 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

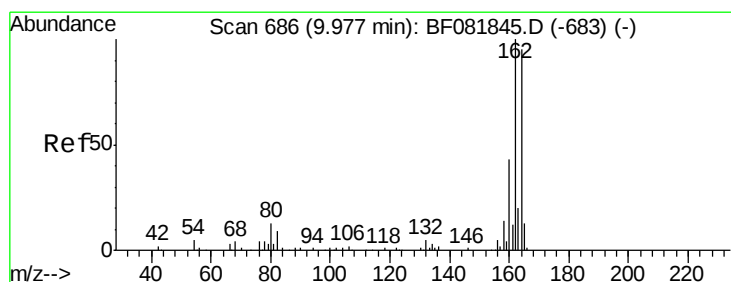
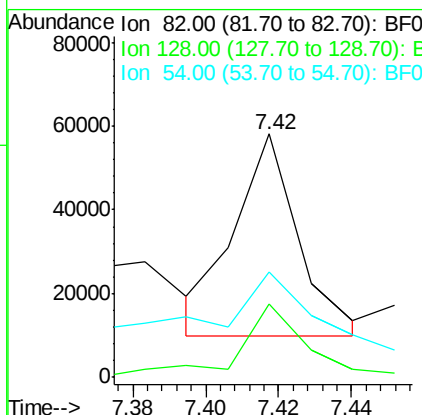
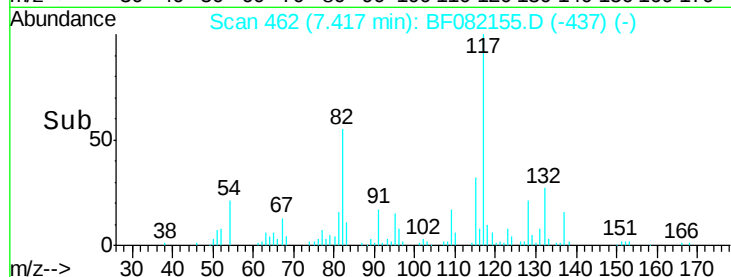
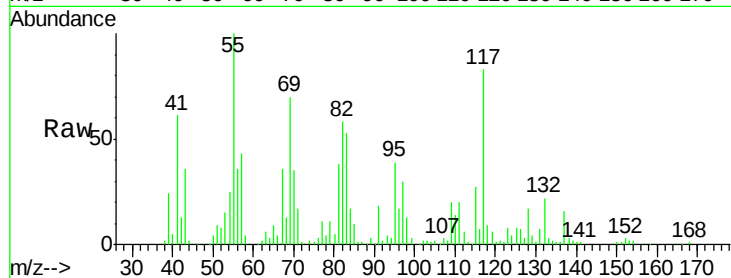
ClientSampleId :

OS-SB-28(7-9)DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 82    | Resp: | 59079 |
| Ion Ratio | Lower | Upper |       |
| 82        | 100   |       |       |
| 128       | 29.9  | 51.0  | 76.6# |
| 54        | 43.3  | 47.5  | 71.3# |

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#38

Acenaphthene-d10

Concen: 20.00 ng

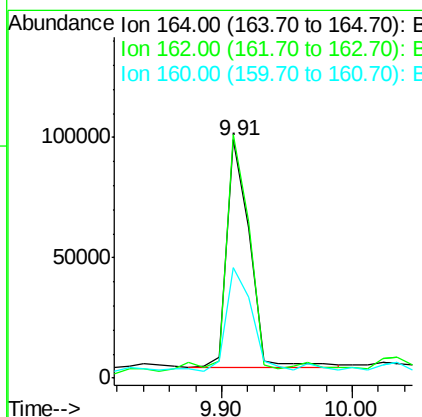
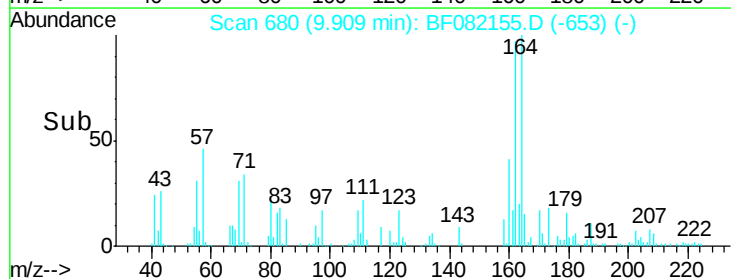
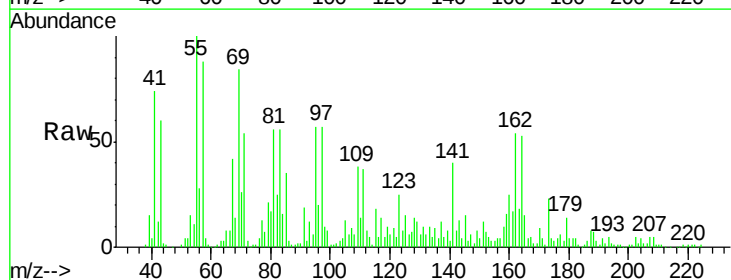
RT: 9.91 min Scan# 680

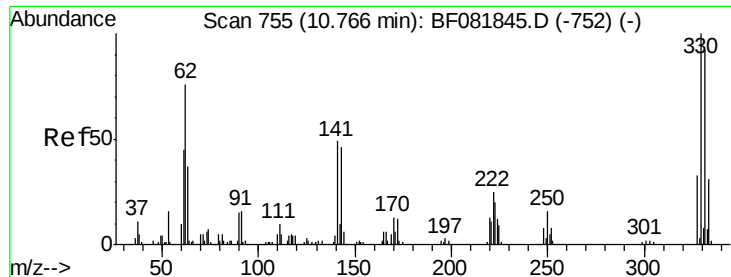
Delta R.T. 0.01 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 164   | Resp: | 115943 |
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 162       | 102.3 | 75.2  | 112.8  |
| 160       | 46.3  | 31.5  | 47.3   |





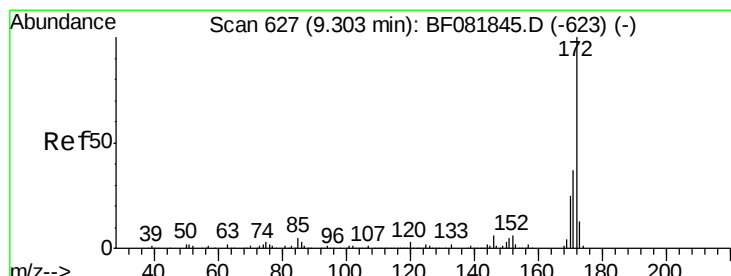
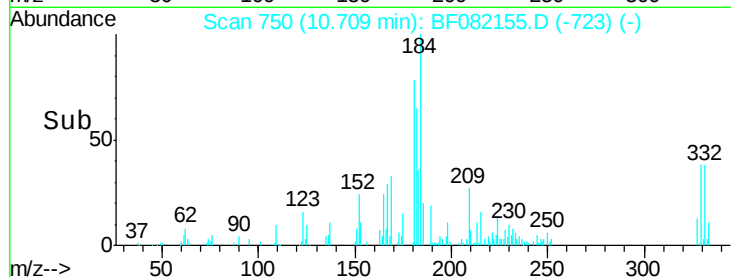
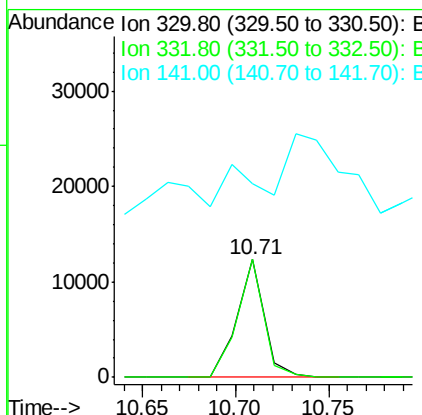
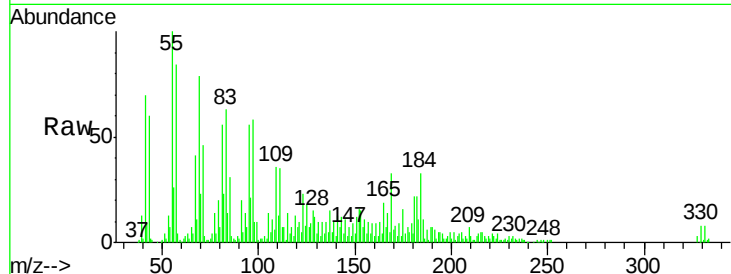
#41  
 2,4,6-Tribromophenol  
 Concen: 10.84 ng  
 RT: 10.71 min Scan# 750  
 Delta R.T. 0.01 min  
 Lab File: BF082155.D  
 Acq: 9 Oct 2015 20:13

Instrument :  
 BNA\_F  
 ClientSampleId :  
 OS-SB-28(7-9)DL

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 330     | 100   | 12729 |       |       |
| 332     | 98.4  | 76.6  | 114.8 |       |
| 141     | 0.0   | 29.7  | 44.5# |       |

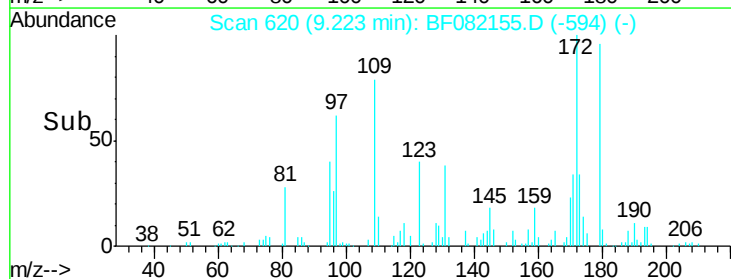
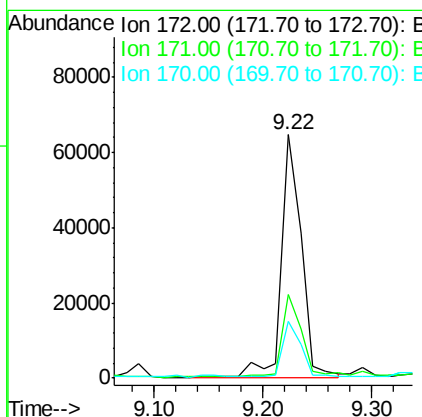
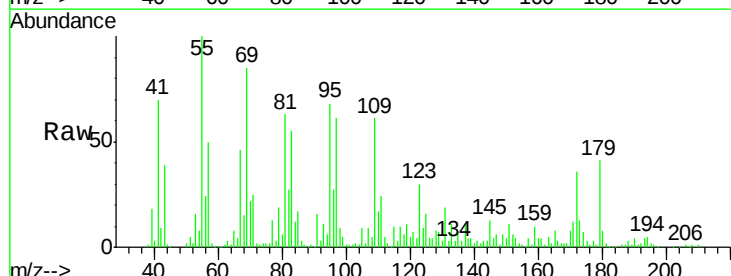
Manual Integrations  
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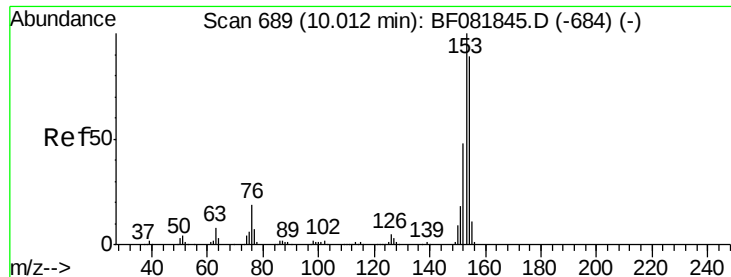
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 10/12/2015 2:44:12 PM



#44  
 2-Fluorobiphenyl  
 Concen: 9.46 ng  
 RT: 9.22 min Scan# 620  
 Delta R.T. -0.00 min  
 Lab File: BF082155.D  
 Acq: 9 Oct 2015 20:13

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 172     | 100   | 83475 |       |       |
| 171     | 34.2  | 26.1  | 39.1  |       |
| 170     | 23.2  | 17.4  | 26.2  |       |





#51

Acenaphthene

Concen: 8.88 ng

RT: 9.94 min Scan# 683

Delta R.T. 0.01 min

Lab File: BF082155.D

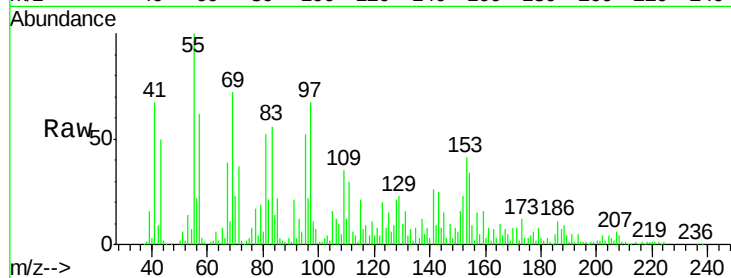
Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

ClientSampleId :

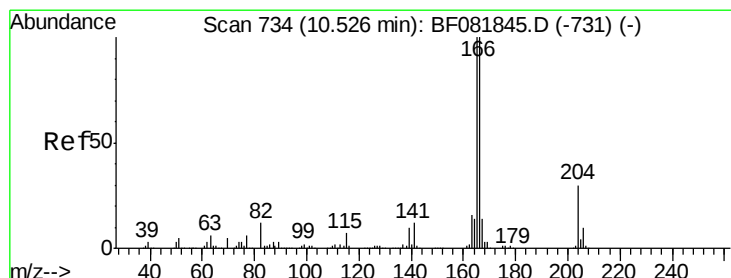
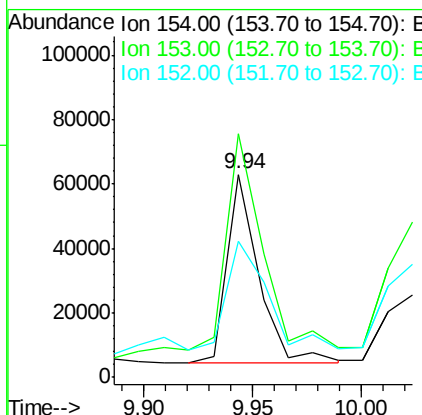
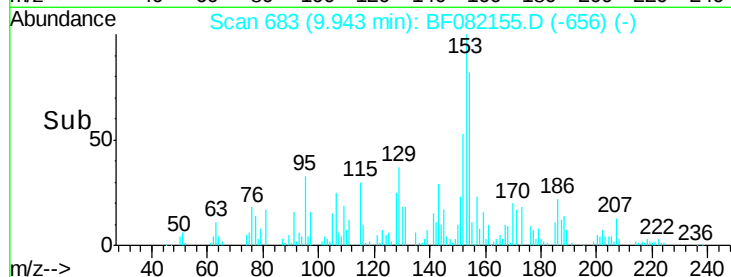
OS-SB-28(7-9)DL



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 154   | Resp: | 59259 |
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 119.9 | 82.1  | 123.1 |
| 152       | 67.3  | 37.9  | 56.9# |

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10/12/2015 2:44:12 PM



#57

Fluorene

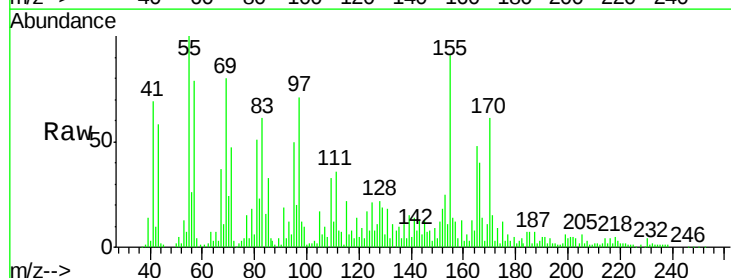
Concen: 12.88 ng

RT: 10.46 min Scan# 728

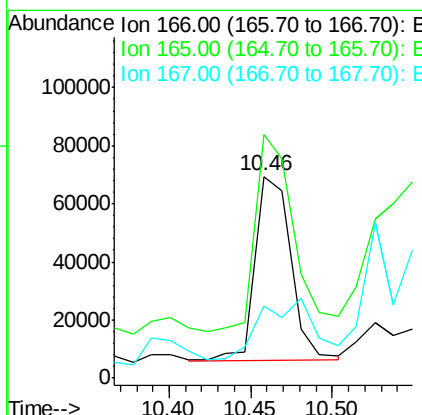
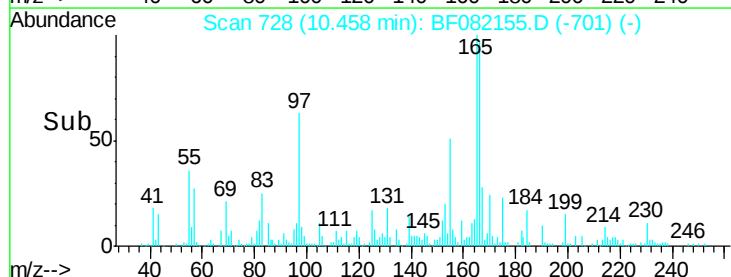
Delta R.T. 0.01 min

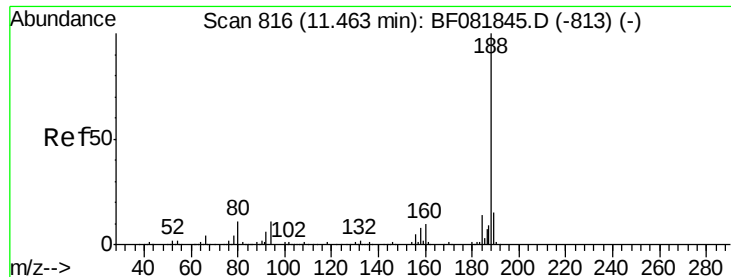
Lab File: BF082155.D

Acq: 9 Oct 2015 20:13



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 166   | Resp: | 97184  |
| Ion Ratio | Lower | Upper |        |
| 166       | 100   |       |        |
| 165       | 120.8 | 72.6  | 109.0# |
| 167       | 35.6  | 10.6  | 16.0#  |





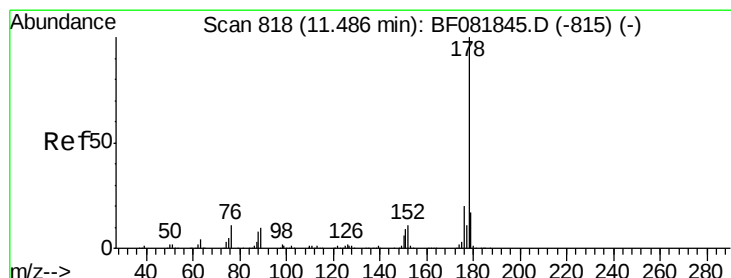
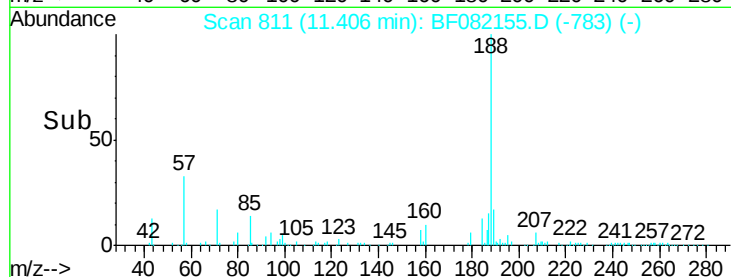
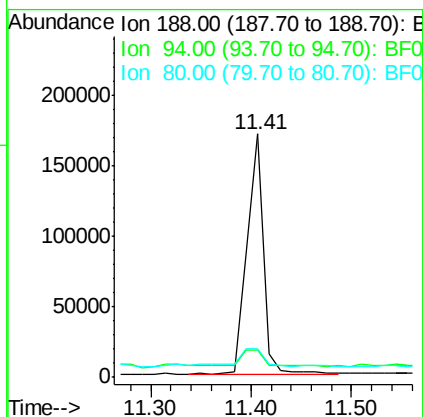
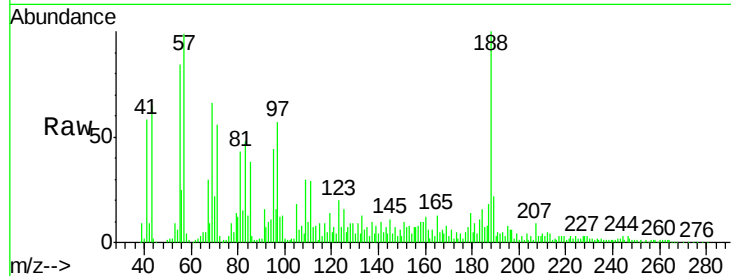
#63  
Phenanthrene-d10  
Concen: 20.00 ng  
RT: 11.41 min Scan# 811  
Delta R.T. 0.02 min  
Lab File: BF082155.D  
Acq: 9 Oct 2015 20:13

Instrument :  
BNA\_F  
ClientSampleId :  
OS-SB-28(7-9)DL

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 188     | 100   |            |            |
| 94      | 11.3  | 11.1       | 16.7       |
| 80      | 11.9  | 11.0       | 16.4       |

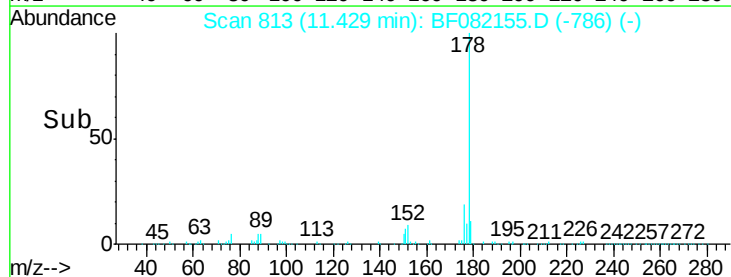
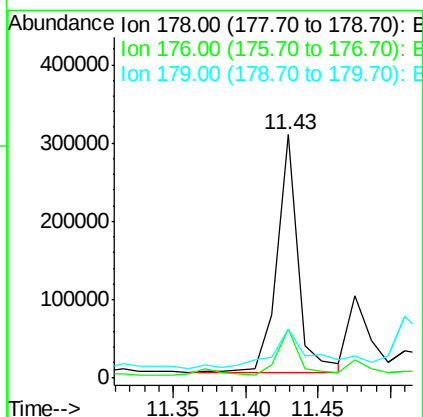
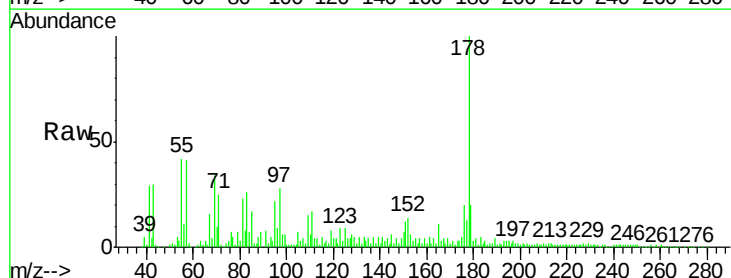
Manual Integrations  
APPROVED

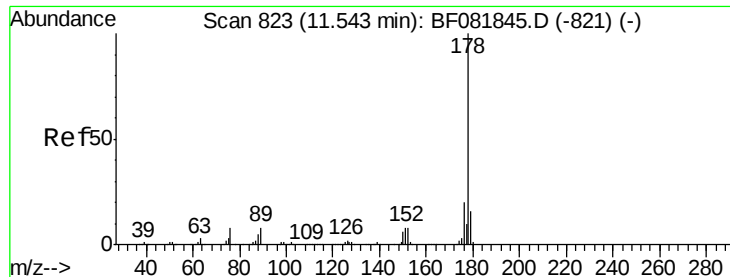
MMDadoda  
10/12/2015 2:44:12 PM



#70  
Phenanthrene  
Concen: 33.14 ng  
RT: 11.43 min Scan# 813  
Delta R.T. 0.01 min  
Lab File: BF082155.D  
Acq: 9 Oct 2015 20:13

| Tgt Ion | Ratio | Resp Lower | Resp Upper |
|---------|-------|------------|------------|
| 178     | 100   |            |            |
| 176     | 20.1  | 13.8       | 20.8       |
| 179     | 20.4  | 12.2       | 18.2#      |





#71

Anthracene

Concen: 10.55 ng m

RT: 11.47 min Scan# 817

Delta R.T. 0.01 min

Lab File: BF082155.D

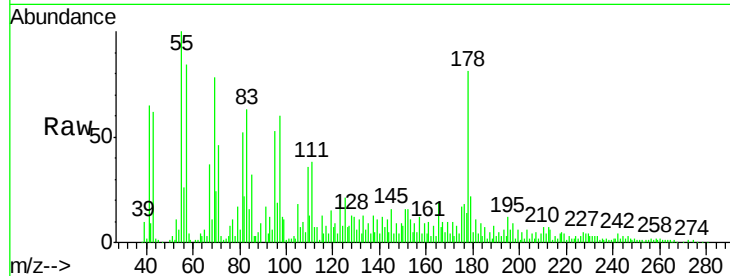
Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

ClientSampleId :

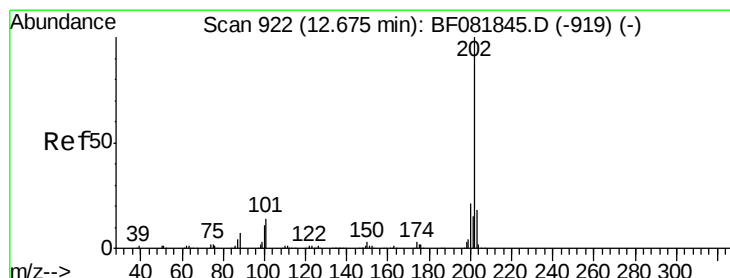
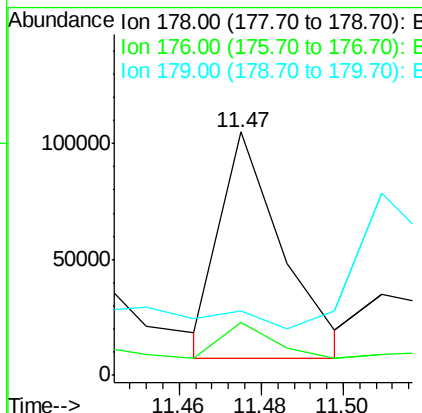
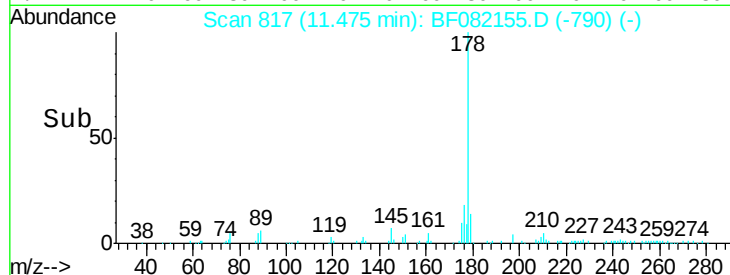
OS-SB-28(7-9)DL



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 21.8  | 14.1  | 21.1# |
| 179     | 26.5  | 12.2  | 18.2# |

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#74

Fluoranthene

Concen: 12.35 ng

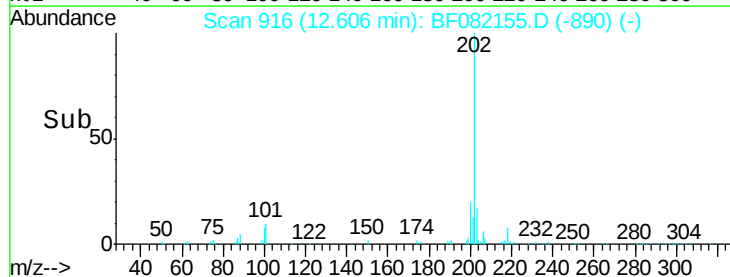
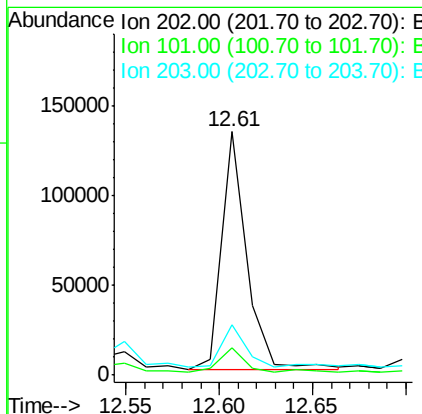
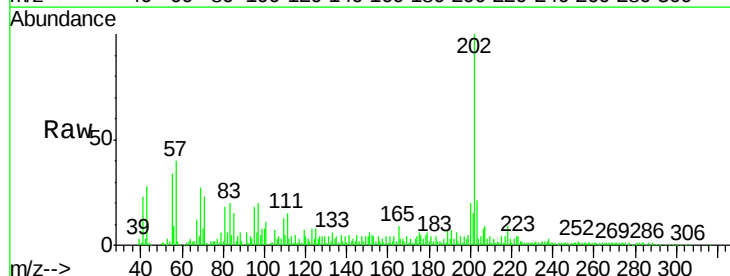
RT: 12.61 min Scan# 916

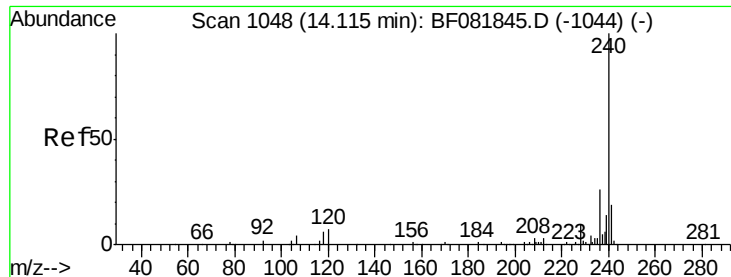
Delta R.T. -0.00 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 11.3  | 0.0   | 38.3  |
| 203     | 20.8  | 0.0   | 37.3  |





#75

Chrysene-d12

Concen: 20.00 ng

RT: 14.02 min Scan# 1040

Delta R.T. -0.01 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

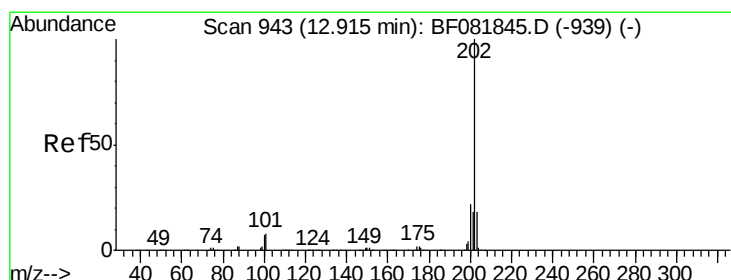
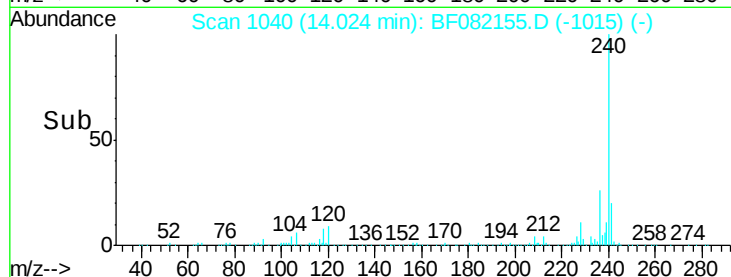
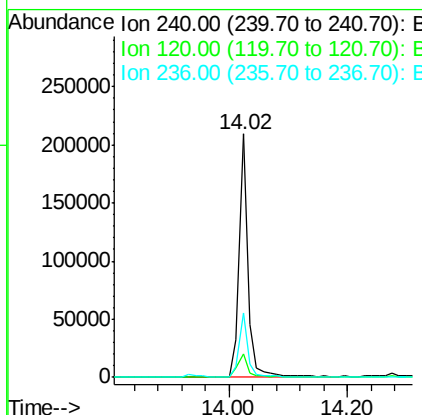
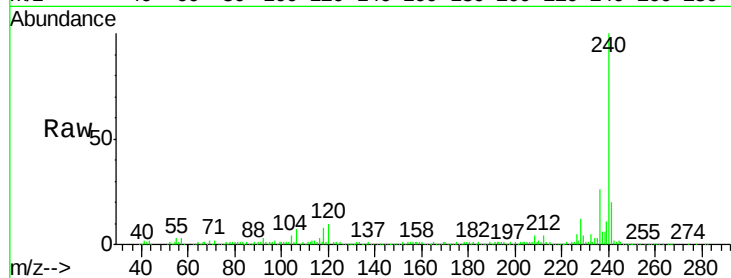
ClientSampleId :

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| Tgt | Ion  | Ratio | Resp   | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 240 | 100  |       | 212733 |       |       |
| 120 | 9.7  | 16.2  | 24.2#  |       |       |
| 236 | 26.2 | 18.4  | 27.6   |       |       |

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#77

Pyrene

Concen: 23.32 ng

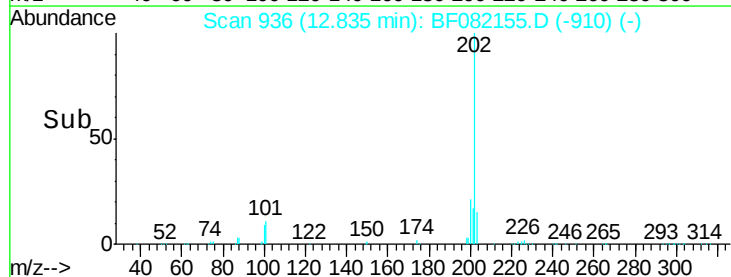
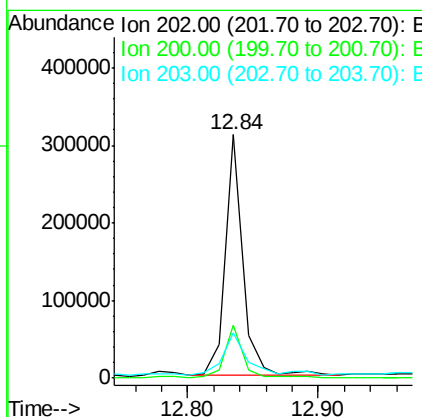
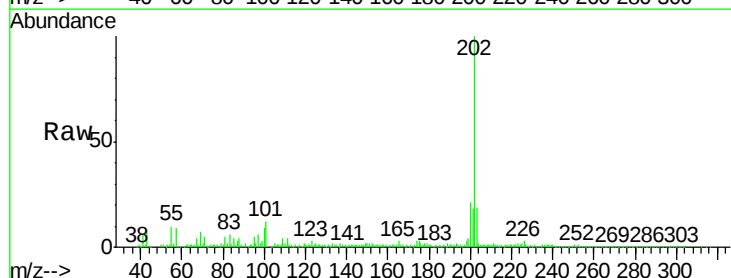
RT: 12.84 min Scan# 936

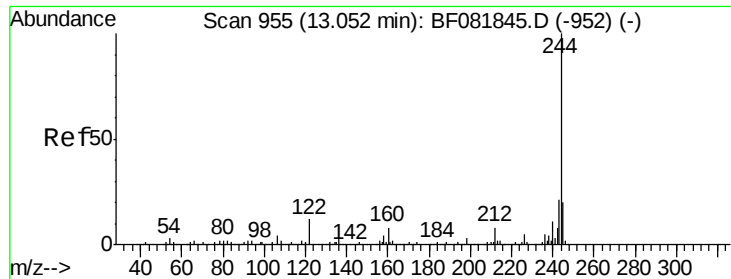
Delta R.T. -0.00 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

| Tgt | Ion  | Ratio | Resp   | Lower | Upper |
|-----|------|-------|--------|-------|-------|
| 202 | 100  |       | 296349 |       |       |
| 200 | 21.5 | 15.0  | 22.4   |       |       |
| 203 | 18.8 | 14.1  | 21.1   |       |       |





#78

Terphenyl-d14

Concen: 7.33 ng

RT: 12.97 min Scan# 948

Delta R.T. -0.00 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

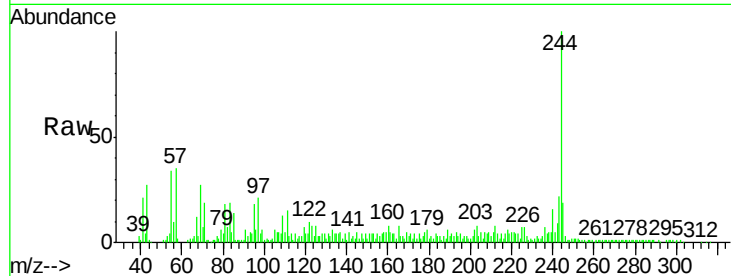
ClientSampleId :

OS-SB-28(7-9)DL

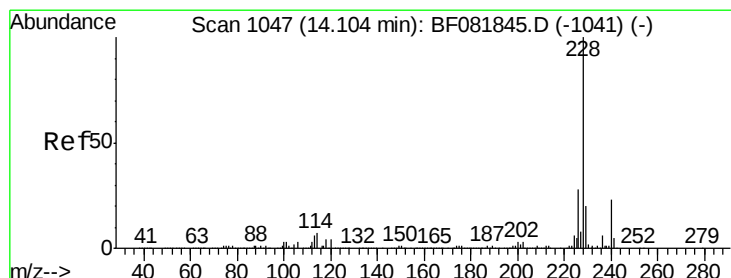
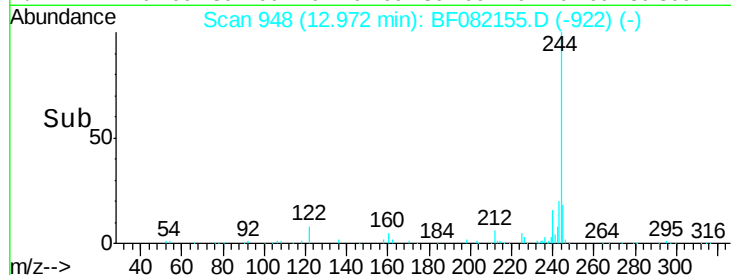
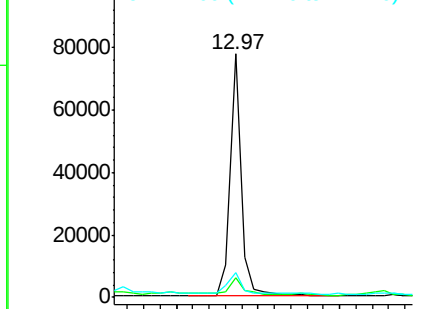
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 244   | Resp: | 73580 |
| Ion Ratio | Lower | Upper |       |
| 244       | 100   |       |       |
| 212       | 8.0   | 4.3   | 6.5#  |
| 122       | 10.2  | 17.4  | 26.2# |

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Abundance Ion 244.00 (243.70 to 244.70): E  
Ion 212.00 (211.70 to 212.70): E  
Ion 122.00 (121.70 to 122.70): E



#80

Benzo(a)anthracene

Concen: 5.54 ng

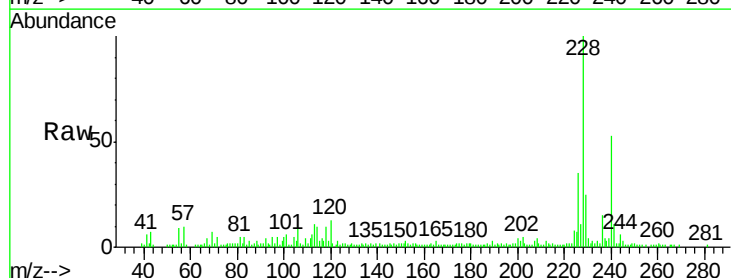
RT: 14.01 min Scan# 1039

Delta R.T. -0.01 min

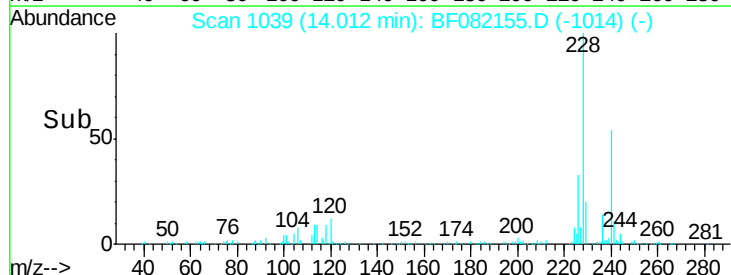
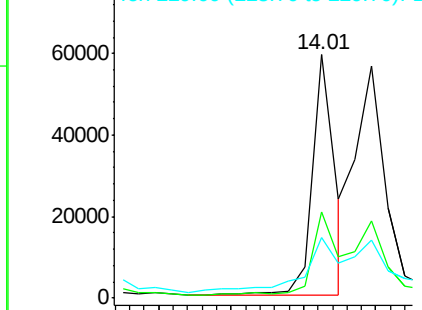
Lab File: BF082155.D

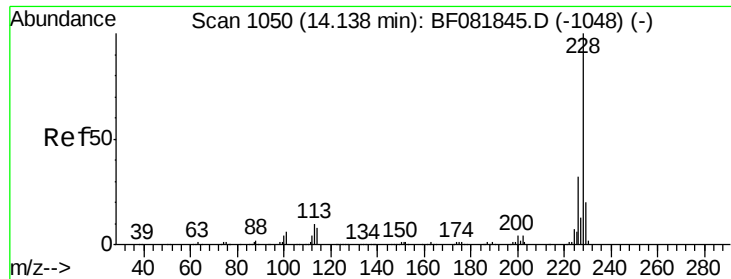
Acq: 9 Oct 2015 20:13

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 63506 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 35.2  | 20.0  | 30.0# |
| 229       | 25.0  | 15.4  | 23.2# |



Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E





#82

Chrysene

Concen: 6.49 ng m

RT: 14.05 min Scan# 1042

Delta R.T. -0.01 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

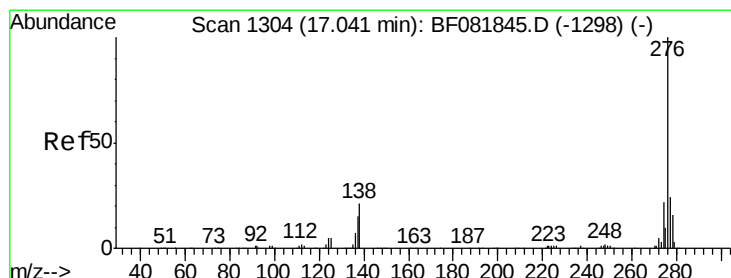
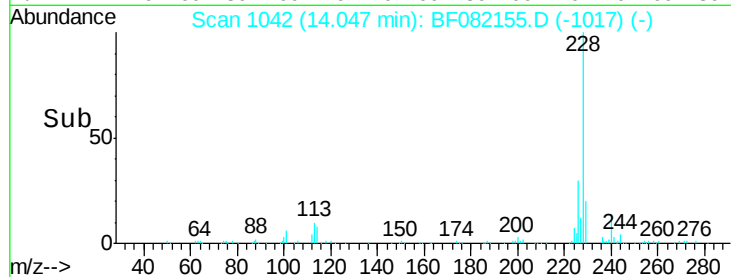
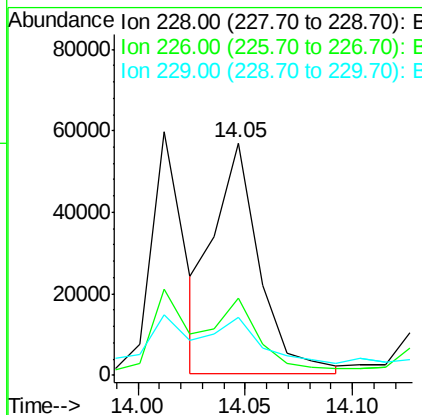
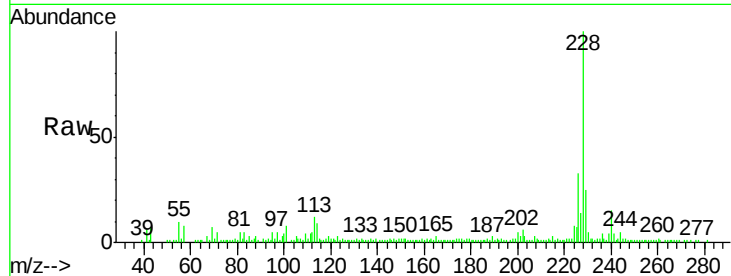
ClientSampleId :

OS-SB-28(7-9)DL

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 82888 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 33.1  | 21.0  | 31.4# |
| 229       | 25.1  | 15.6  | 23.4# |

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#85

Indeno(1,2,3-cd)pyrene

Concen: 3.20 ng

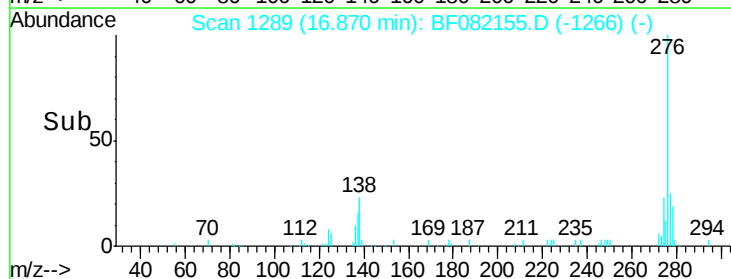
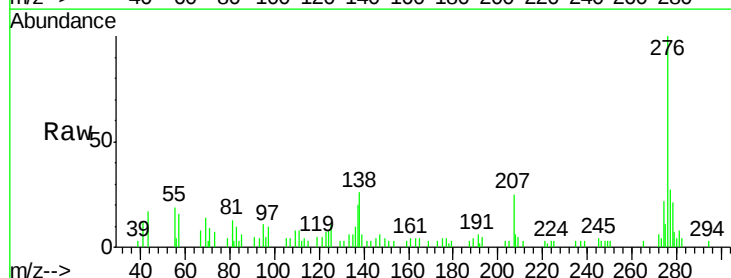
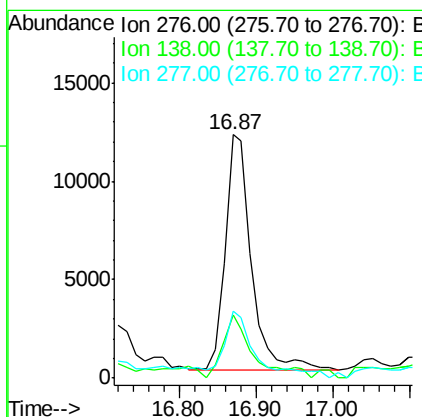
RT: 16.87 min Scan# 1289

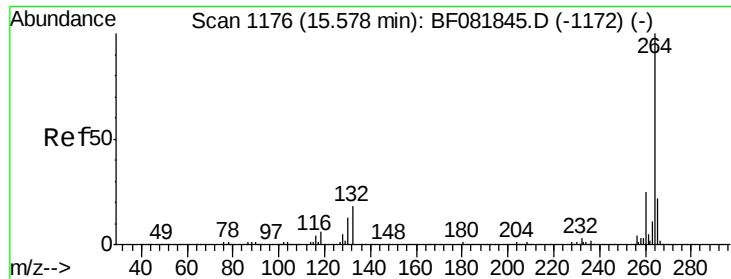
Delta R.T. -0.03 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 28674 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 31.1  | 25.7  | 38.5  |
| 277       | 33.8  | 15.6  | 23.4# |





#86

Perylene-d12

Concen: 20.00 ng

RT: 15.46 min Scan# 1166

Delta R.T. -0.01 min

Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

Instrument :

BNA\_F

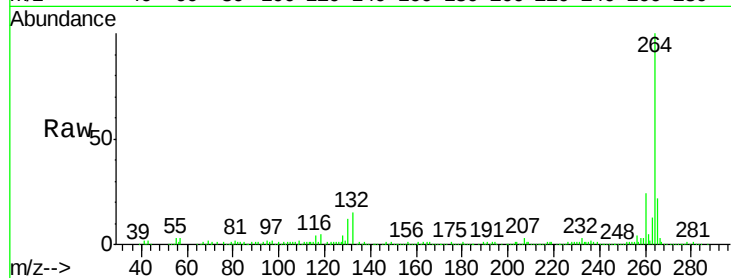
ClientSampleId :

OS-SB-28(7-9)DL

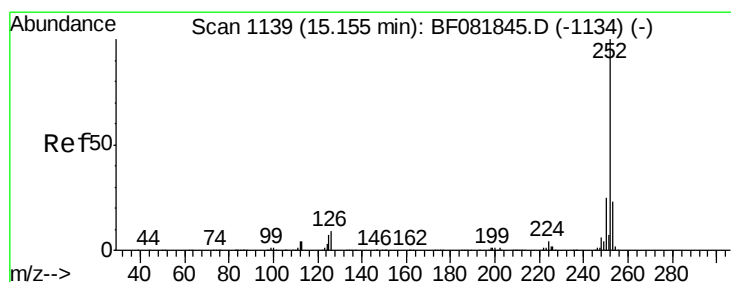
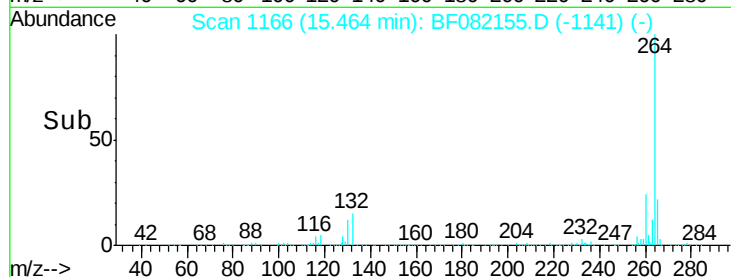
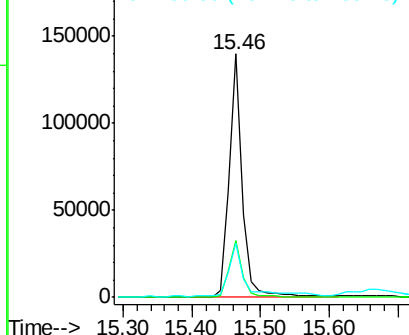
|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 264  | Resp: | 191024 |
| Ion Ratio |      | Lower | Upper  |
| 264       | 100  |       |        |
| 260       | 23.5 | 16.7  | 25.1   |
| 265       | 22.1 | 17.2  | 25.8   |

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Abundance Ion 264.00 (263.70 to 264.70): E  
Ion 260.00 (259.70 to 260.70): E  
Ion 265.00 (264.70 to 265.70): E



#87

Benzo(b)fluoranthene

Concen: 6.66 ng m

RT: 15.05 min Scan# 1130

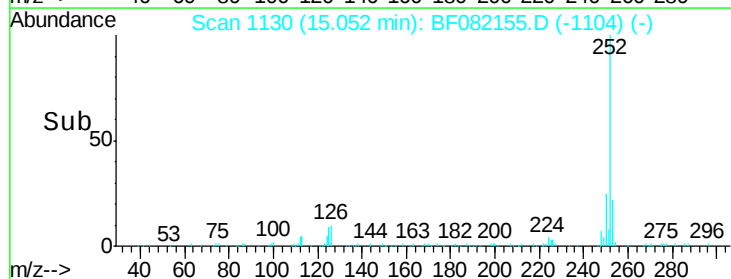
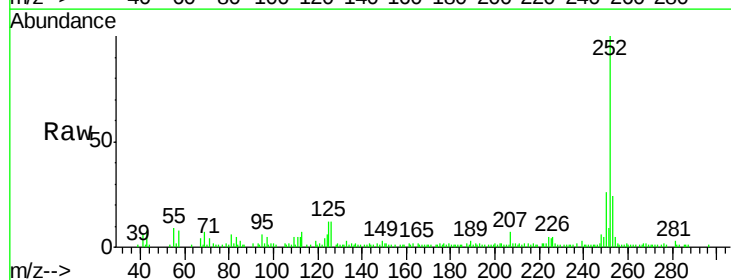
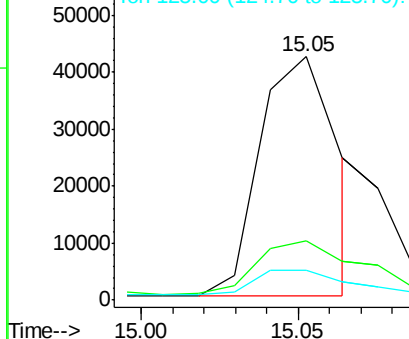
Delta R.T. -0.00 min

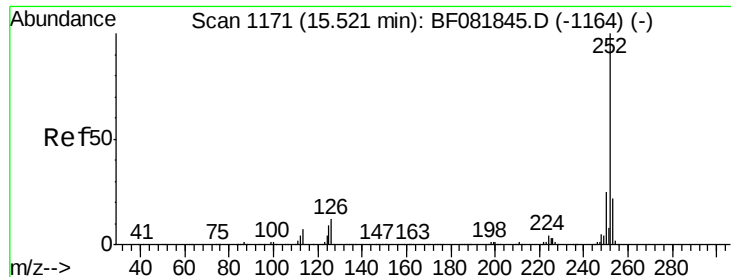
Lab File: BF082155.D

Acq: 9 Oct 2015 20:13

|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 252  | Resp: | 72675 |
| Ion Ratio |      | Lower | Upper |
| 252       | 100  |       |       |
| 253       | 24.2 | 17.5  | 26.3  |
| 125       | 12.0 | 17.1  | 25.7# |

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





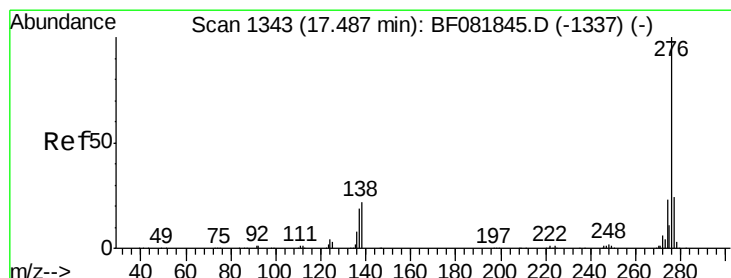
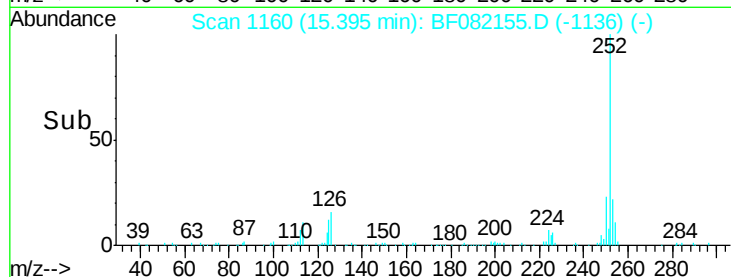
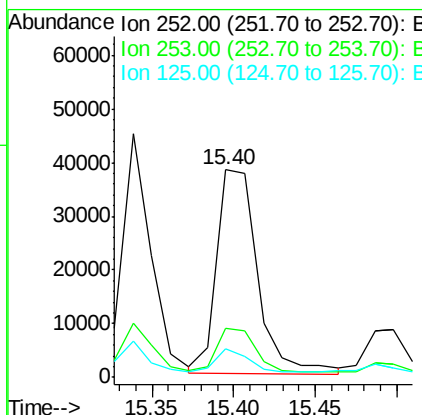
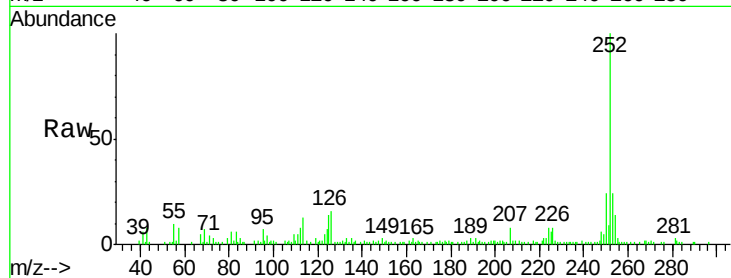
#89  
Benzo(a)pyrene  
Concen: 7.03 ng  
RT: 15.40 min Scan# 1160  
Delta R.T. -0.02 min  
Lab File: BF082155.D  
Acq: 9 Oct 2015 20:13

Instrument :  
BNA\_F  
ClientSampleId :  
OS-SB-28(7-9)DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.6  | 17.2  | 25.8  |
| 125     | 14.0  | 18.0  | 27.0# |

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#91  
Benzo(g,h,i)perylene  
Concen: 4.52 ng  
RT: 17.30 min Scan# 1327  
Delta R.T. -0.02 min  
Lab File: BF082155.D  
Acq: 9 Oct 2015 20:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 23.7  | 17.8  | 26.6  |
| 138     | 19.8  | 34.6  | 51.8# |

