

Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE102214\  
 Data File : BE088190.D  
 Acq On : 22 Oct 2014 19:56  
 Operator : TP/JJ  
 Sample : F4325-02  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB19-1014

Manual Integrations  
 APPROVED

mohammad  
 10/28/2014 12:07:21 PM

Quant Time: Oct 27 04:35:41 2014  
 Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE102014.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Oct 21 02:11:14 2014  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.14  | 152  | 25848    | 5.00  | ng    | 0.00     |
| 3) Naphthalene-d8           | 8.70  | 136  | 100931   | 5.00  | ng    | 0.00     |
| 7) Acenaphthene-d10         | 10.85 | 164  | 52048    | 5.00  | ng    | 0.00     |
| 12) Phenanthrene-d10        | 12.97 | 188  | 93164    | 5.00  | ng    | 0.00     |
| 16) Chrysene-d12            | 18.38 | 240  | 49404    | 5.00  | ng    | 0.00     |
| 22) Perylene-d12            | 21.45 | 264  | 46573    | 5.00  | ng    | 0.00     |
| System Monitoring Compounds |       |      |          |       |       |          |
| 4) Nitrobenzene-d5          | 7.84  | 82   | 419499   | 57.66 | ng    | 0.01     |
| 8) 2-Fluorobiphenyl         | 10.04 | 172  | 529174   | 36.81 | ng    | 0.00     |
| 18) Terphenyl-d14           | 16.16 | 244  | 417352   | 52.50 | ng    | 0.02     |
| Target Compounds            |       |      |          |       |       | Qvalue   |
| 5) Naphthalene              | 8.72  | 128  | 6019     | 0.29  | ng    | 99       |
| 6) 2-Methylnaphthalene      | 9.58  | 142  | 5902     | 0.47  | ng    | 96       |
| 9) Acenaphthylene           | 10.67 | 152  | 27933    | 0.35  | ng    | 99       |
| 10) Acenaphthene            | 10.88 | 154  | 4621     | 0.38  | ng    | 93       |
| 11) Fluorene                | 11.55 | 166  | 5317     | 0.41  | ng    | 98       |
| 13) Phenanthrene            | 13.01 | 178  | 43311m   | 0.42  | ng    |          |
| 14) Anthracene              | 13.09 | 178  | 32300    | 0.44  | ng    | 98       |
| 15) Fluoranthene            | 15.25 | 202  | 12191    | 0.69  | ng    | 99       |
| 17) Pyrene                  | 15.70 | 202  | 11841    | 0.88  | ng    | 99       |
| 19) Benzo(a)anthracene      | 18.36 | 228  | 28837    | 0.66  | ng    | 98       |
| 20) Chrysene                | 18.44 | 228  | 29950    | 0.69  | ng    | 99       |
| 21) Indeno(1,2,3-cd)pyrene  | 23.64 | 276  | 24179m   | 0.50  | ng    |          |
| 23) Benzo(b)fluoranthene    | 20.69 | 252  | 7185     | 0.65  | ng    | # 95     |
| 24) Benzo(k)fluoranthene    | 20.75 | 252  | 6255     | 0.53  | ng    | # 94     |
| 25) Benzo(a)pyrene          | 21.33 | 252  | 6232     | 0.61  | ng    | 95       |
| 26) Dibenzo(a,h)anthracene  | 23.73 | 278  | 4048     | 0.40  | ng    | # 91     |
| 27) Benzo(g,h,i)perylene    | 24.27 | 276  | 22769    | 0.51  | ng    | 97       |

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

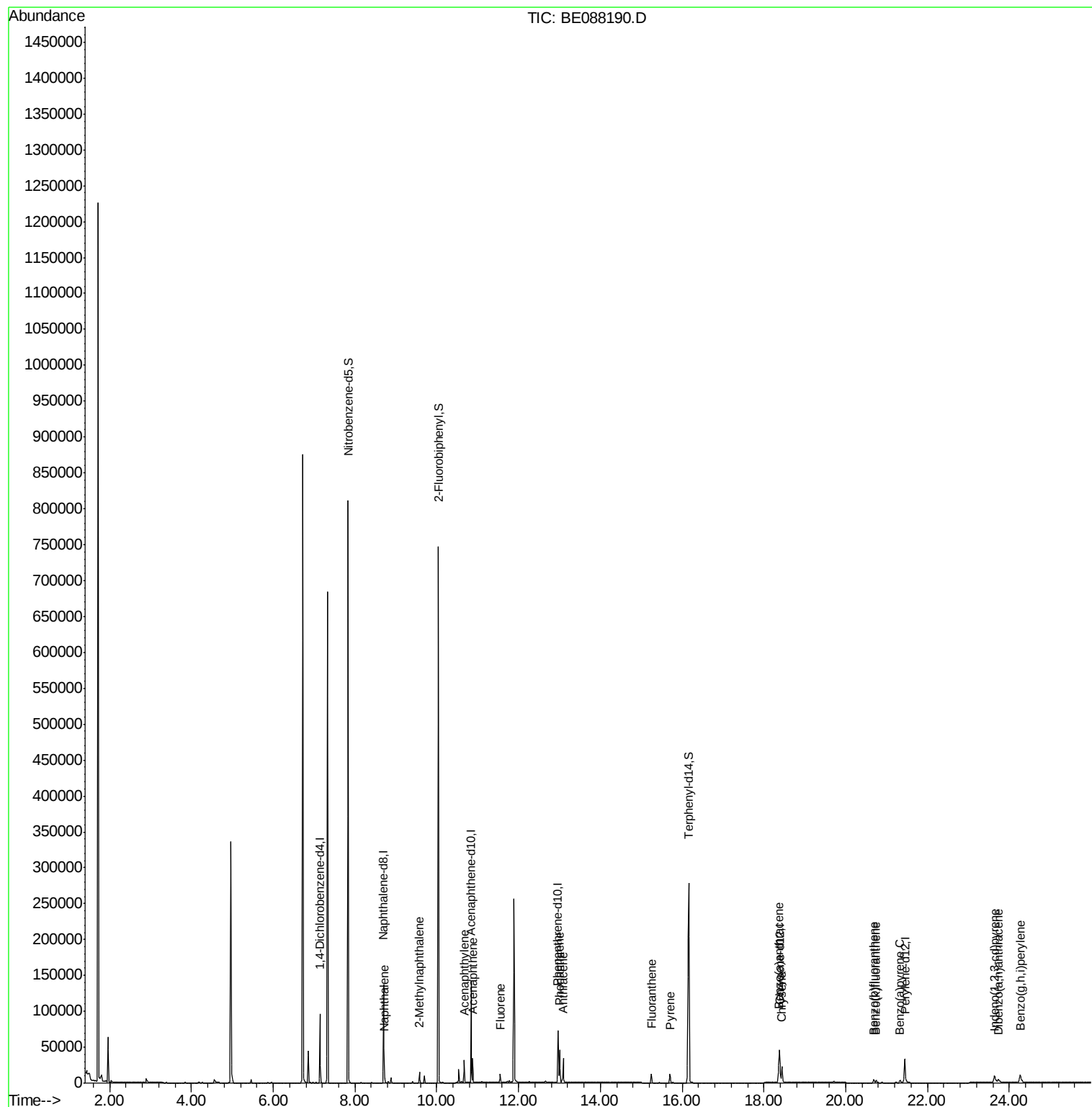
Data Path : Z:\HPCHEM1\BNA\_E\DATA\BE102214\  
Data File : BE088190.D  
Acq On : 22 Oct 2014 19:56  
Operator : TP/JJ  
Sample : F4325-02  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

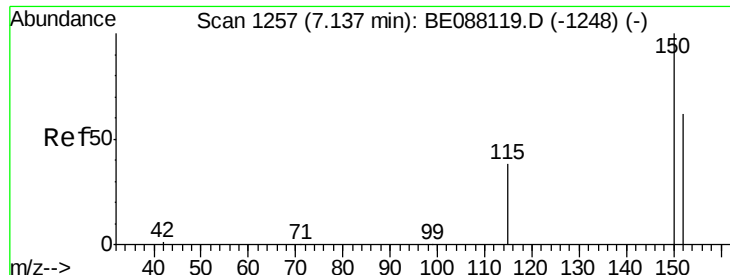
Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB19-1014

Manual Integrations  
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Quant Time: Oct 27 04:35:41 2014  
Quant Method : Z:\HPCHEM1\BNA\_E\METHODS\SIM-PAH-BE102014.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Tue Oct 21 02:11:14 2014  
Response via : Initial Calibration





#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 7.14 min Scan# 1258

Delta R.T. 0.00 min

Lab File: BE088190.D

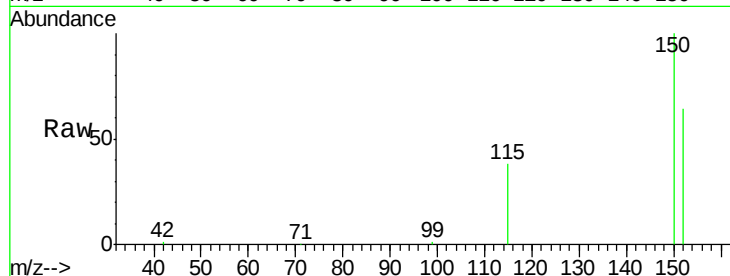
Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

ClientSampleId :

YS19-SB19-1014



Tgt Ion:152 Resp: 25848

Ion Ratio Lower Upper

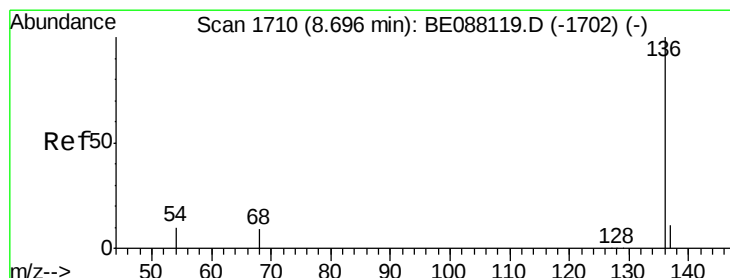
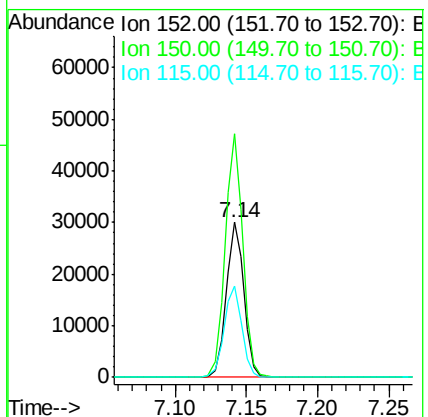
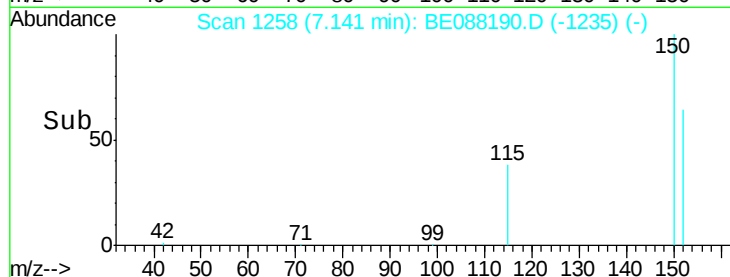
152 100

150 156.9 129.2 193.8

115 59.2 49.3 73.9

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#3

Naphthalene-d8

Concen: 5.00 ng

RT: 8.70 min Scan# 1711

Delta R.T. 0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

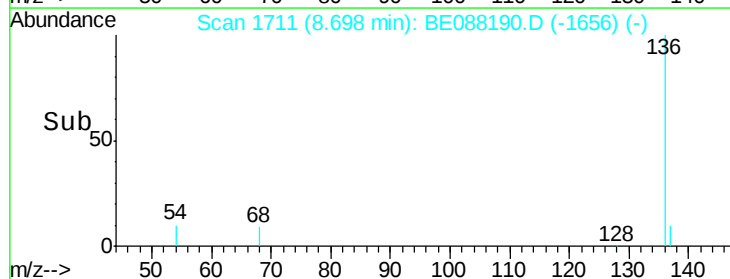
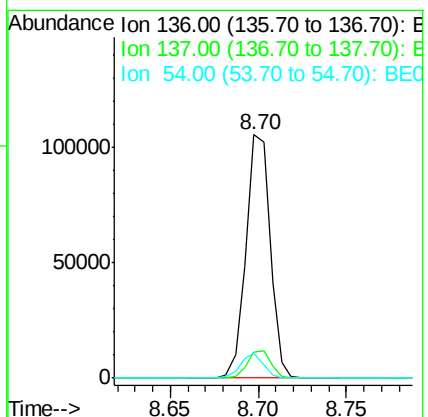
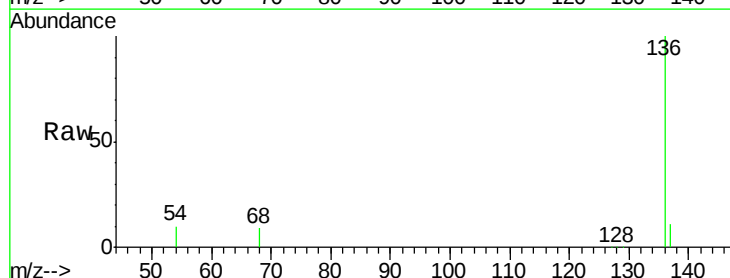
Tgt Ion:136 Resp: 100931

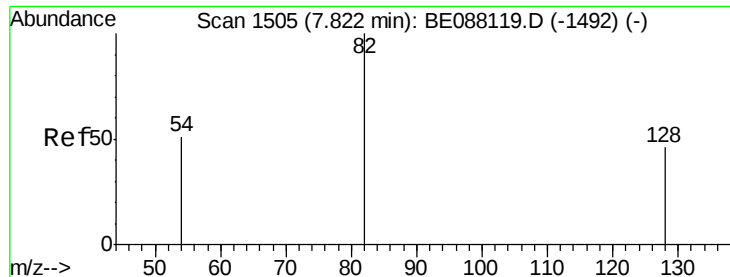
Ion Ratio Lower Upper

136 100

137 10.5 8.6 12.8

54 10.1 7.7 11.5





#4

Nitrobenzene-d5

Concen: 57.66 ng

RT: 7.84 min Scan# 1511

Delta R.T. 0.01 min

Lab File: BE088190.D

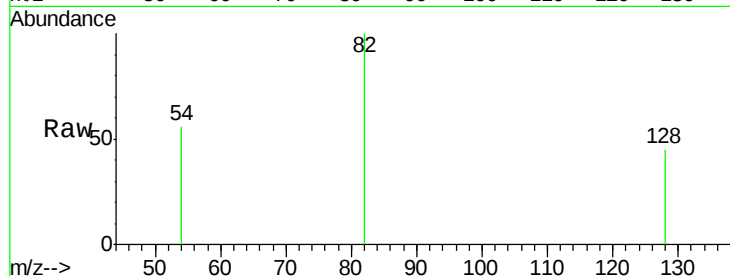
Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

ClientSampleId :

YS19-SB19-1014



Tgt Ion: 82 Resp: 419499

Ion Ratio Lower Upper

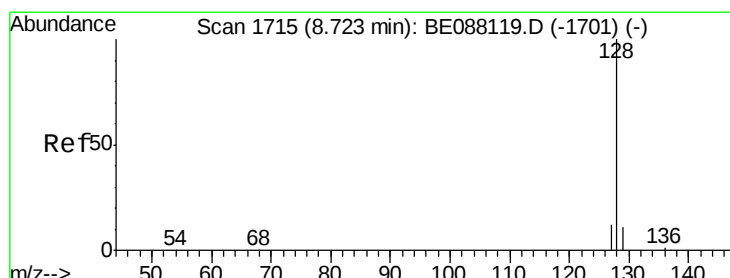
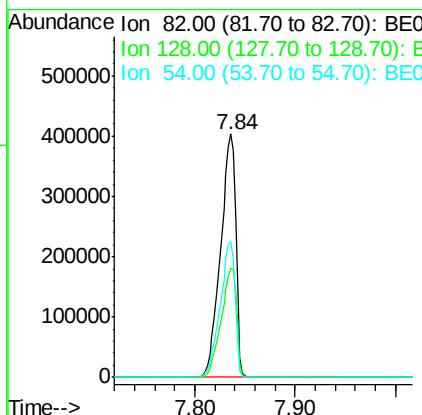
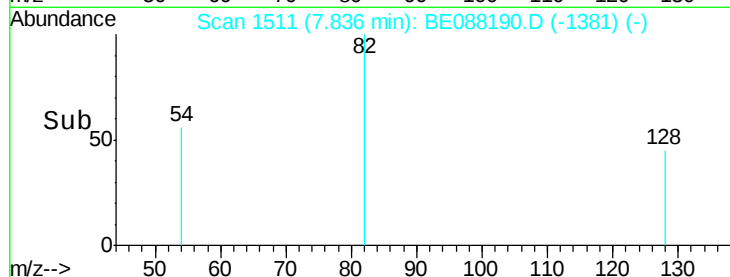
82 100

128 45.0 37.1 55.7

54 55.9 41.1 61.7

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#5

Naphthalene

Concen: 0.29 ng

RT: 8.72 min Scan# 1716

Delta R.T. 0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

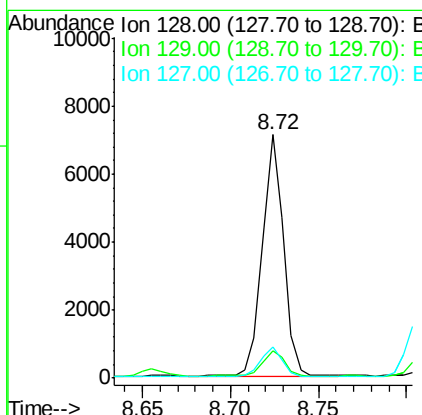
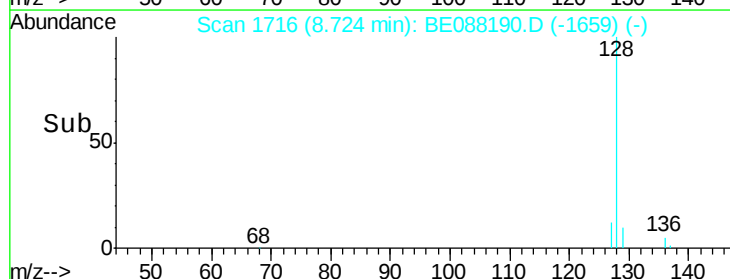
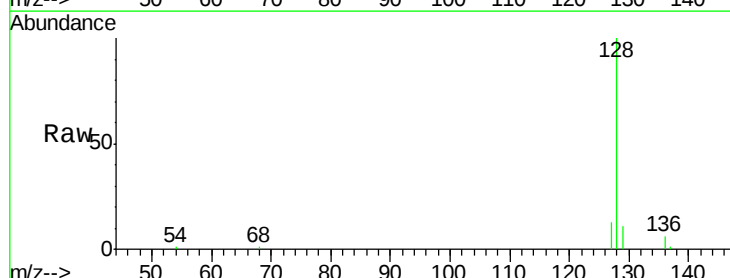
Tgt Ion: 128 Resp: 6019

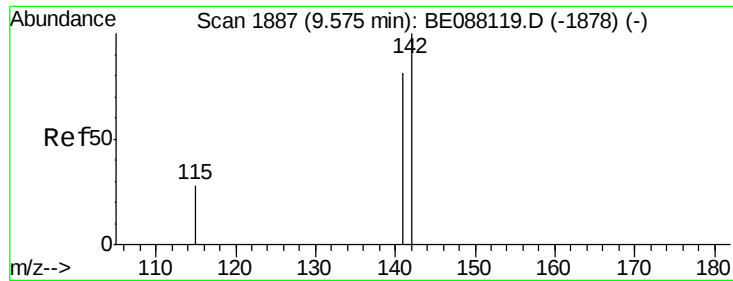
Ion Ratio Lower Upper

128 100

129 11.4 8.9 13.3

127 12.6 9.7 14.5





#6

2-Methylnaphthalene

Concen: 0.47 ng

RT: 9.58 min Scan# 1888

Delta R.T. 0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

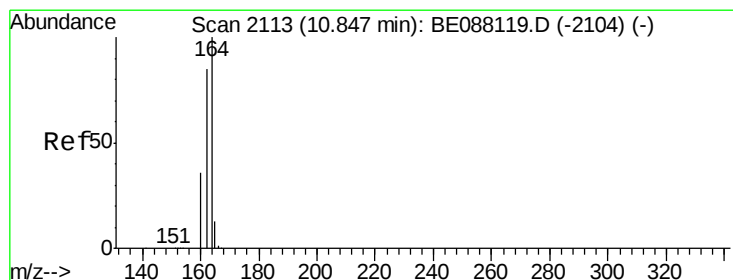
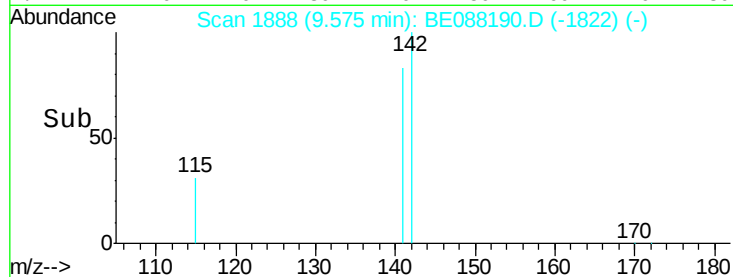
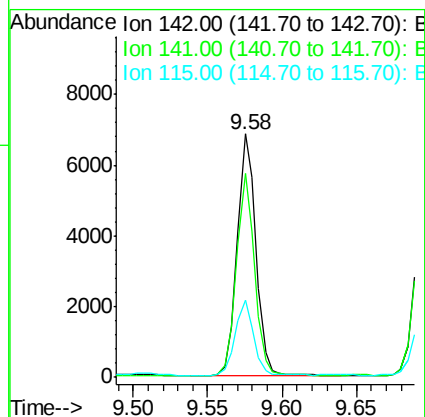
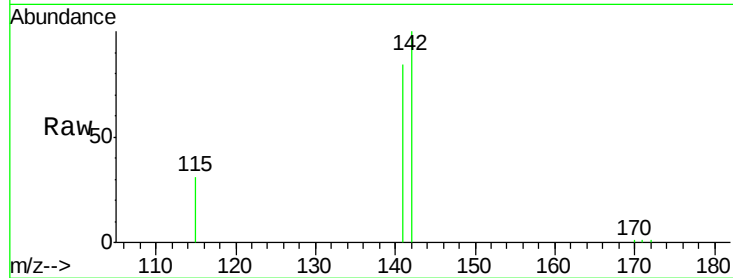
ClientSampleId :

YS19-SB19-1014

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 142   | Resp: | 5902 |
| Ion Ratio | Lower | Upper |      |
| 142       | 100   |       |      |
| 141       | 83.6  | 64.6  | 97.0 |
| 115       | 31.5  | 22.6  | 34.0 |

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#7

Acenaphthene-d10

Concen: 5.00 ng

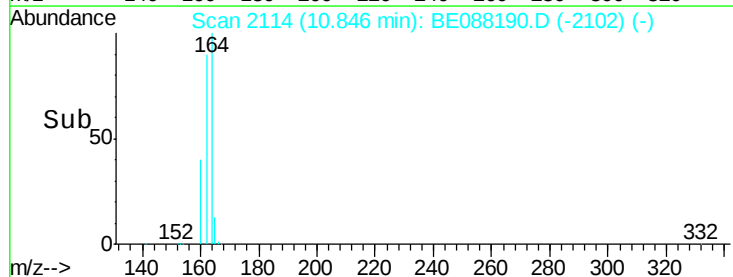
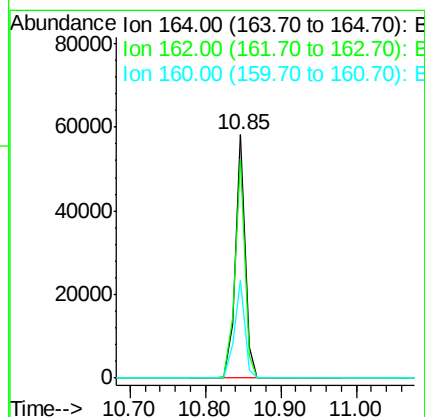
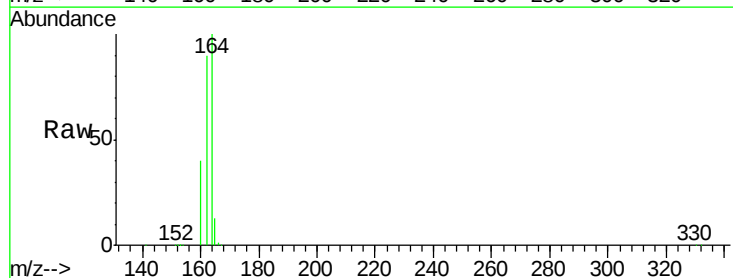
RT: 10.85 min Scan# 2114

Delta R.T. -0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 164   | Resp: | 52048 |
| Ion Ratio | Lower | Upper |       |
| 164       | 100   |       |       |
| 162       | 89.8  | 68.3  | 102.5 |
| 160       | 40.3  | 28.7  | 43.1  |





#8

2-Fluorobiphenyl

Concen: 36.81 ng

RT: 10.04 min Scan# 1991

Delta R.T. 0.01 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

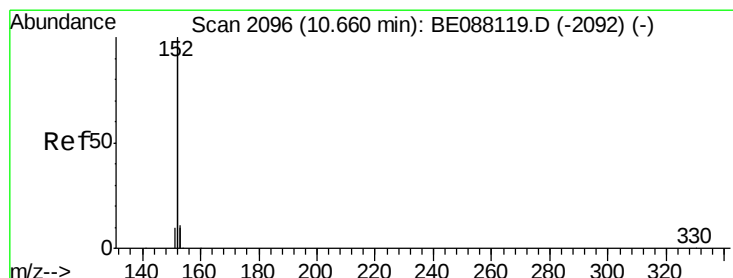
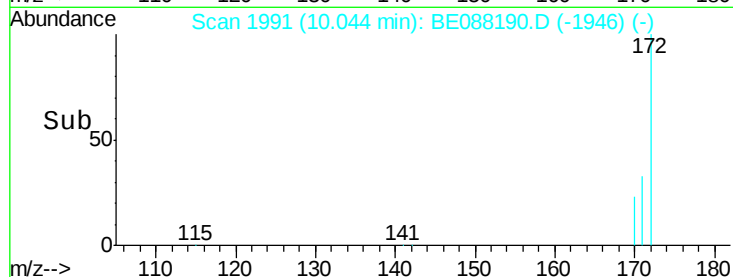
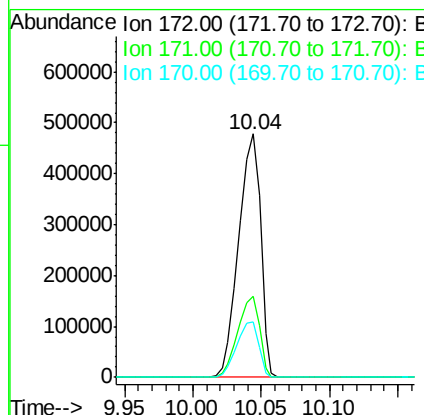
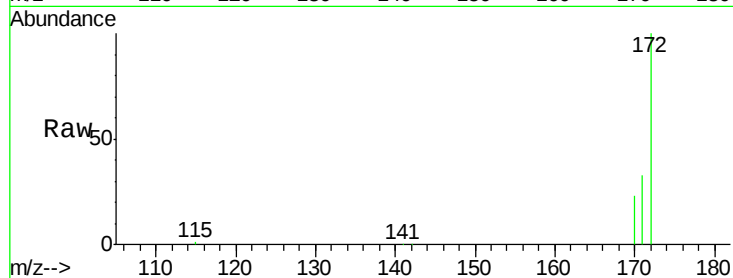
ClientSampleId :

YS19-SB19-1014

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 172   | Resp: | 529174 |
| Ion Ratio | Lower | Upper |        |
| 172       | 100   |       |        |
| 171       | 33.0  | 25.4  | 38.2   |
| 170       | 22.6  | 17.4  | 26.2   |

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#9

Acenaphthylene

Concen: 0.35 ng

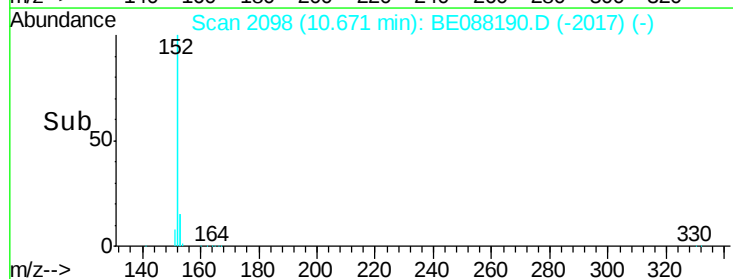
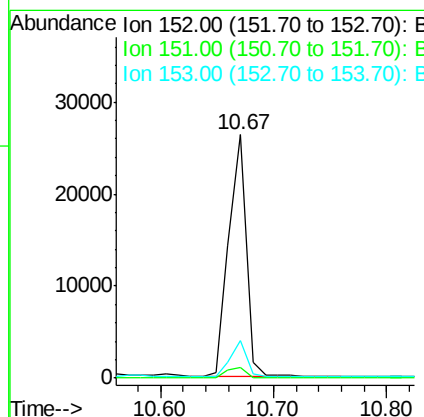
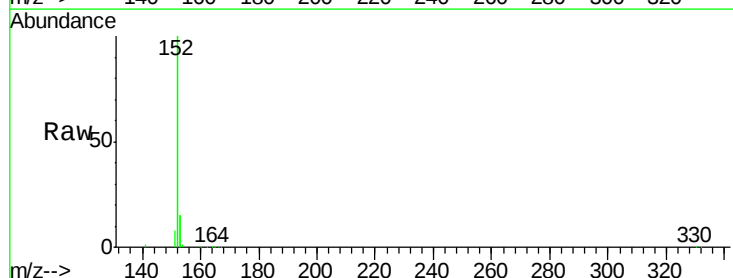
RT: 10.67 min Scan# 2098

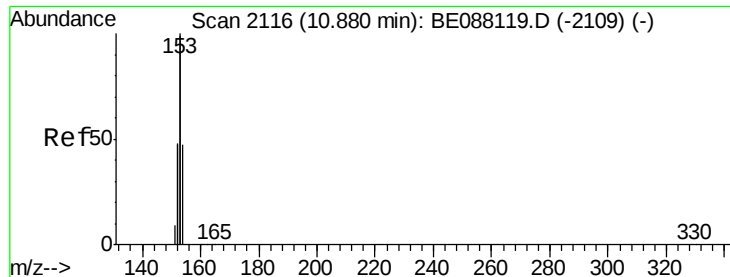
Delta R.T. 0.01 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 27933 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 4.7   | 3.7   | 5.5   |
| 153       | 13.3  | 10.4  | 15.6  |





#10

Acenaphthene

Concen: 0.38 ng

RT: 10.88 min Scan# 2117

Delta R.T. -0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

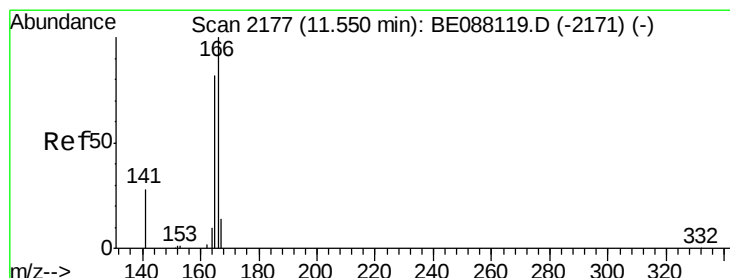
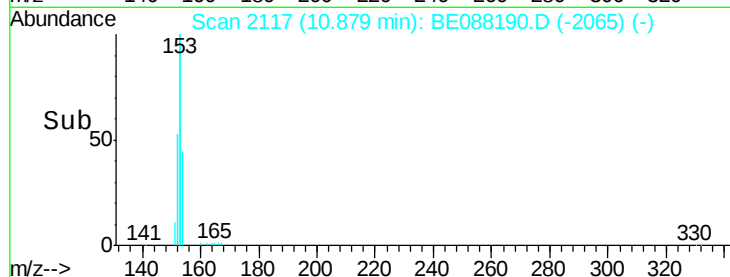
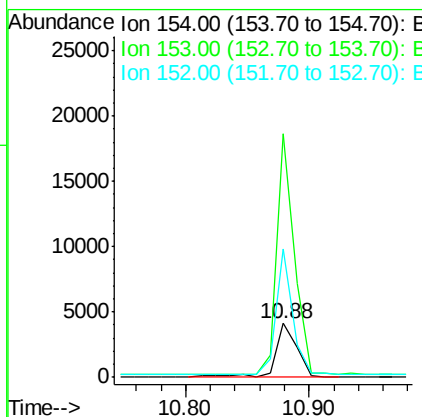
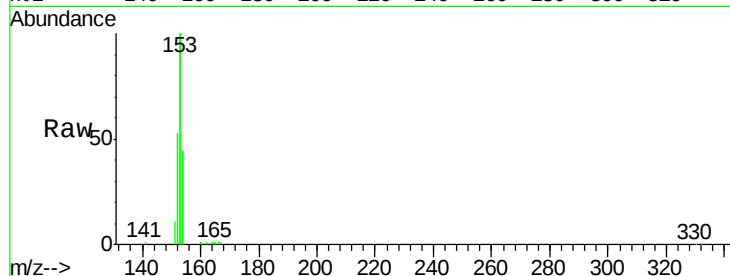
ClientSampleId :

YS19-SB19-1014

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 154   | Resp: | 4621  |
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 390.7 | 327.8 | 491.6 |
| 152       | 189.7 | 157.6 | 236.4 |

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#11

Fluorene

Concen: 0.41 ng

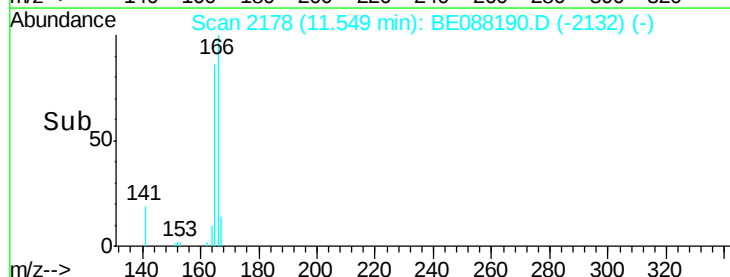
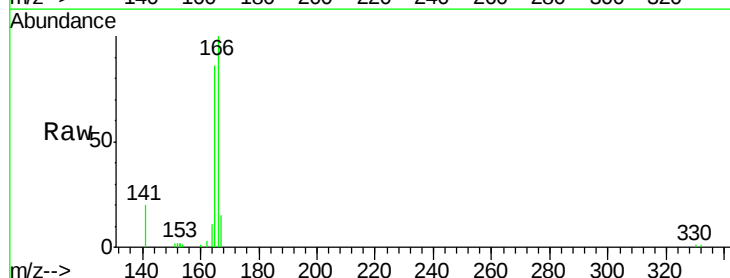
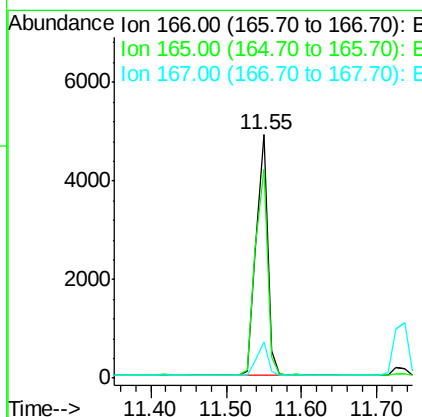
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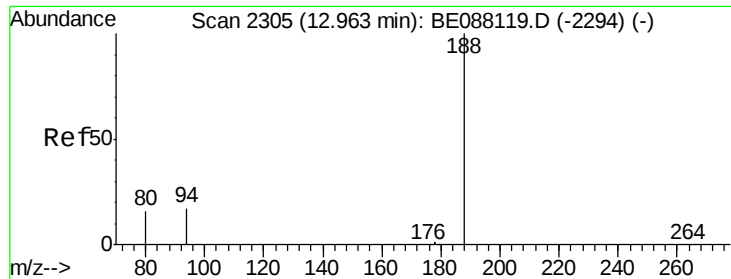
Delta R.T. -0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 166   | Resp: | 5317  |
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 91.4  | 71.4  | 107.2 |
| 167       | 13.7  | 10.6  | 16.0  |





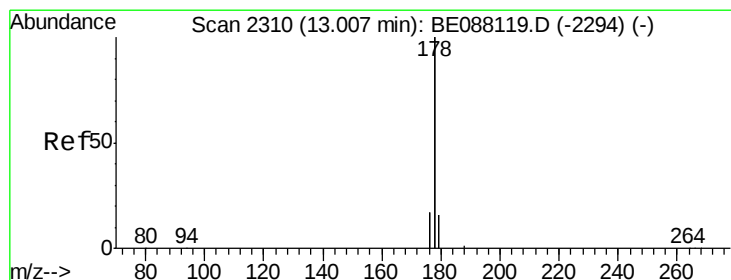
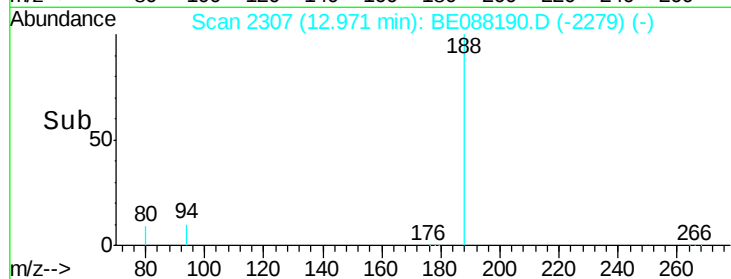
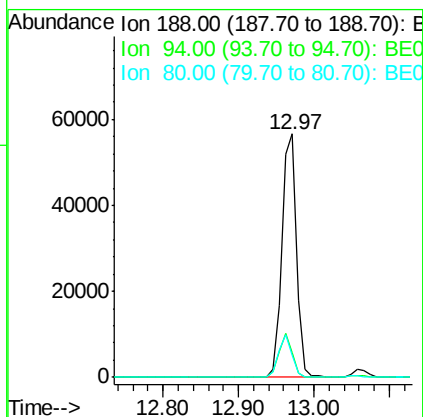
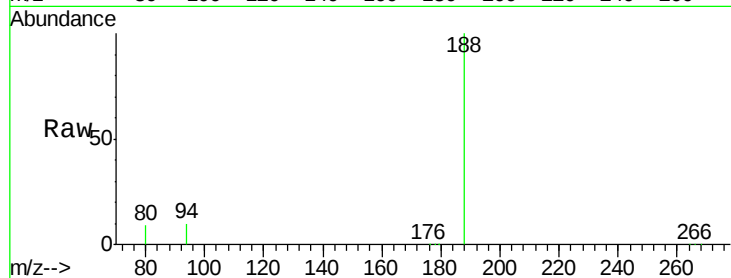
#12  
Phenanthrene-d10  
Concen: 5.00 ng  
RT: 12.97 min Scan# 2307  
Delta R.T. 0.01 min  
Lab File: BE088190.D  
Acq: 22 Oct 2014 19:56

Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB19-1014

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 10.3  | 13.9  | 20.9# |
| 80      | 9.0   | 12.9  | 19.3# |

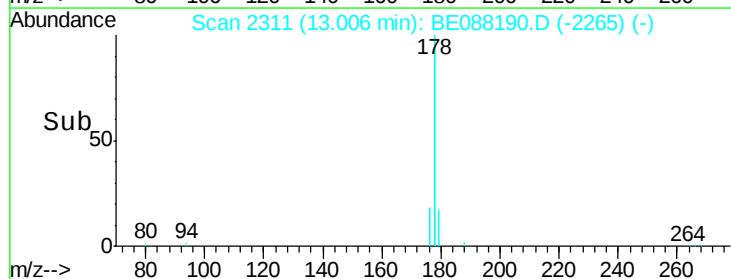
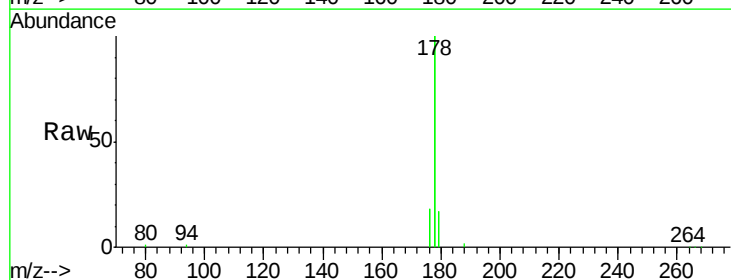
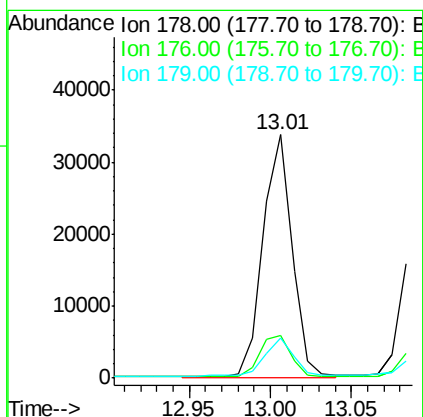
Manual Integrations  
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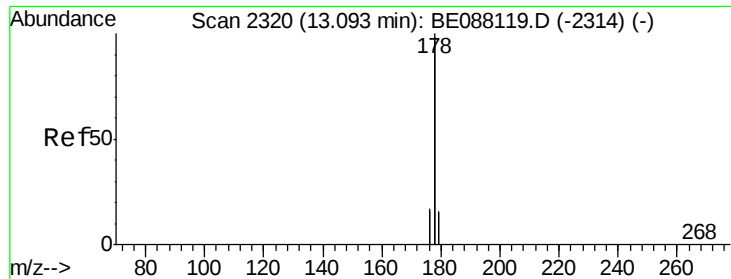
mohammad  
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#13  
Phenanthrene  
Concen: 0.42 ng m  
RT: 13.01 min Scan# 2311  
Delta R.T. -0.00 min  
Lab File: BE088190.D  
Acq: 22 Oct 2014 19:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 13.5  | 12.5  | 18.7  |
| 179     | 12.8  | 13.5  | 20.3# |





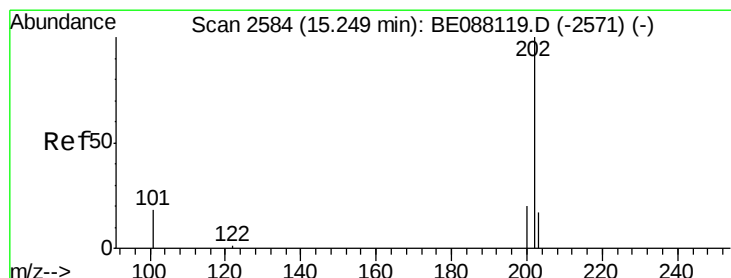
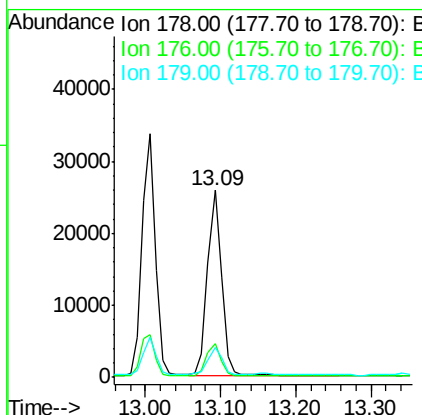
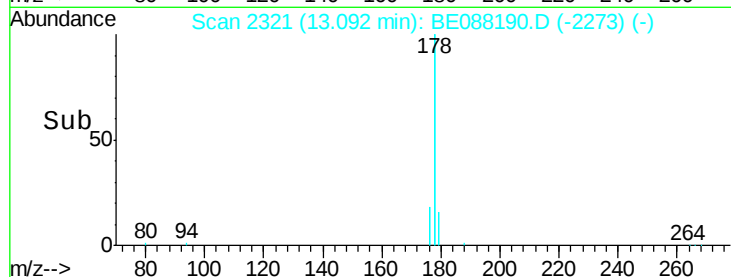
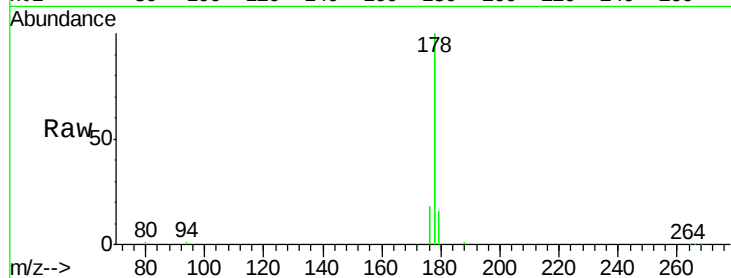
#14  
 Anthracene  
 Concen: 0.44 ng  
 RT: 13.09 min Scan# 2321  
 Delta R.T. -0.00 min  
 Lab File: BE088190.D  
 Acq: 22 Oct 2014 19:56

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB19-1014

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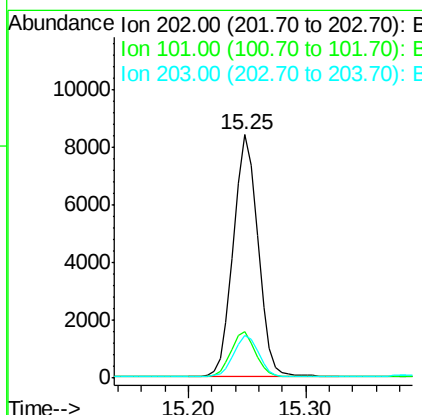
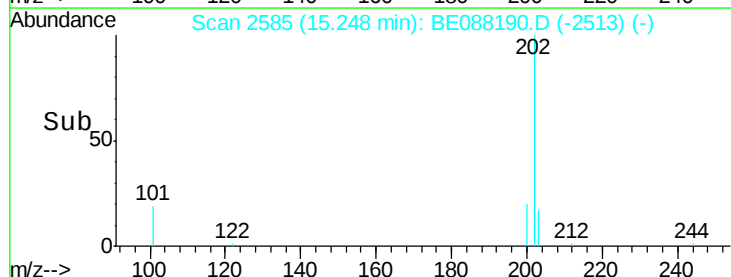
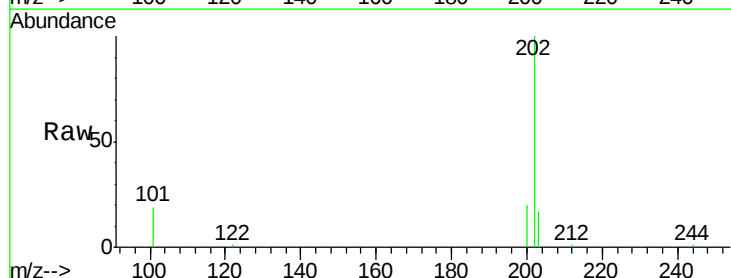
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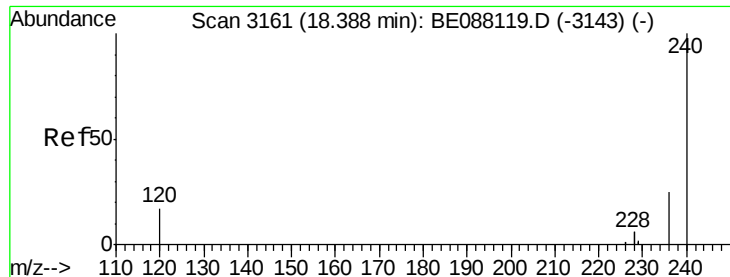
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 18.2  | 14.6  | 21.8  |
| 179     | 17.1  | 12.5  | 18.7  |



#15  
 Fluoranthene  
 Concen: 0.69 ng  
 RT: 15.25 min Scan# 2585  
 Delta R.T. -0.00 min  
 Lab File: BE088190.D  
 Acq: 22 Oct 2014 19:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 18.2  | 14.8  | 22.2  |
| 203     | 17.2  | 13.5  | 20.3  |





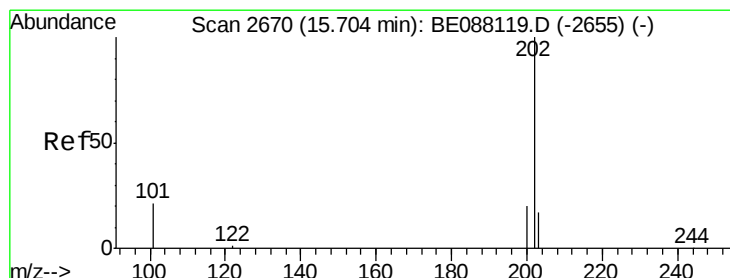
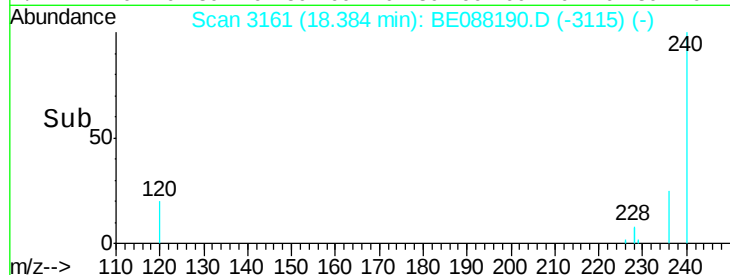
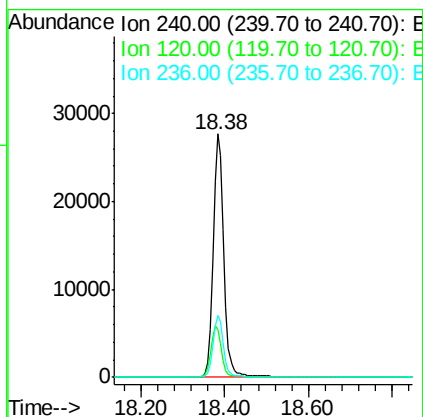
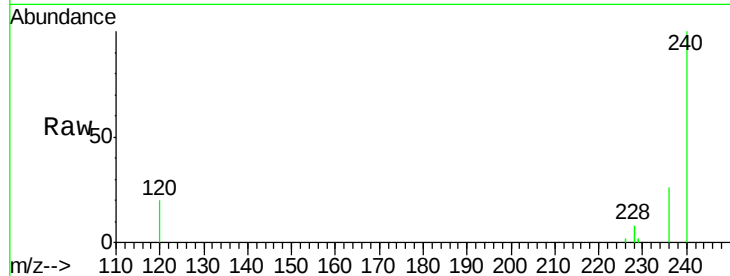
#16  
Chrysene-d12  
Concen: 5.00 ng  
RT: 18.38 min Scan# 3161  
Delta R.T. -0.00 min  
Lab File: BE088190.D  
Acq: 22 Oct 2014 19:56

Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB19-1014

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 240     | 100   | 49404 |       |       |
| 120     | 19.8  | 13.9  | 20.9  |       |
| 236     | 25.6  | 19.9  | 29.9  |       |

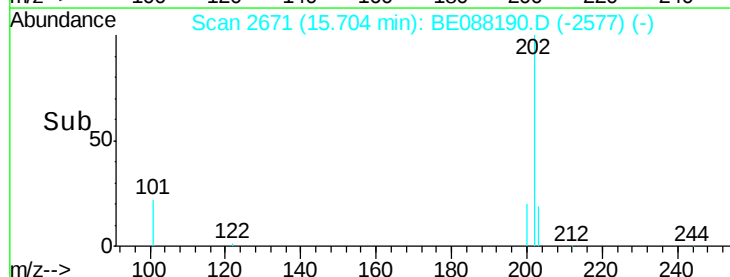
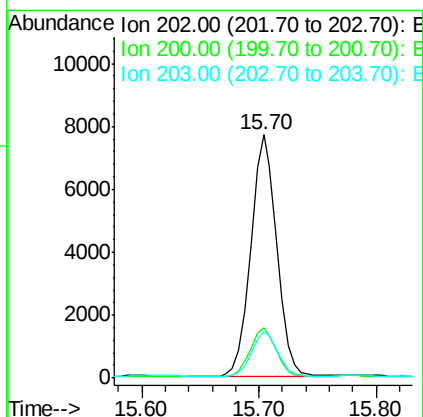
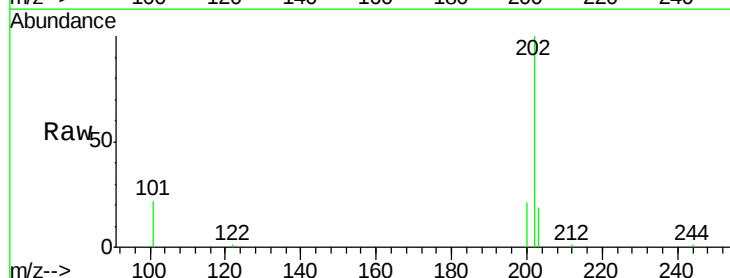
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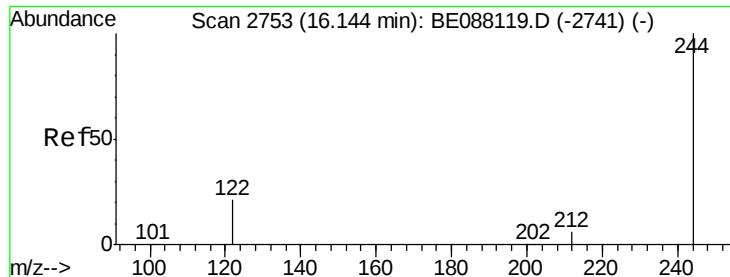
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#17  
Pyrene  
Concen: 0.88 ng  
RT: 15.70 min Scan# 2671  
Delta R.T. -0.00 min  
Lab File: BE088190.D  
Acq: 22 Oct 2014 19:56

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 202     | 100   | 11841 |       |       |
| 200     | 20.2  | 16.1  | 24.1  |       |
| 203     | 18.5  | 13.9  | 20.9  |       |





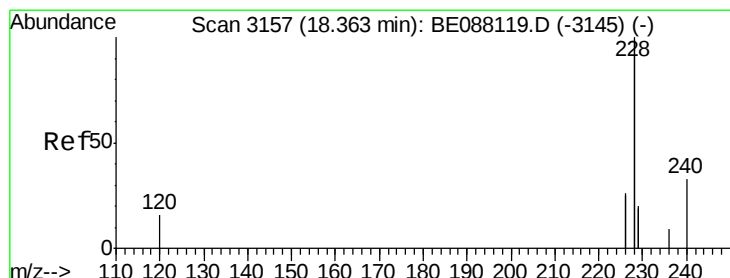
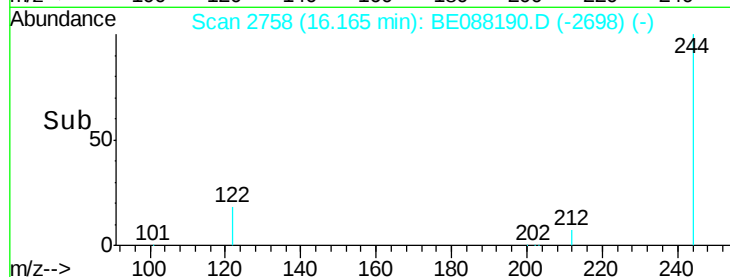
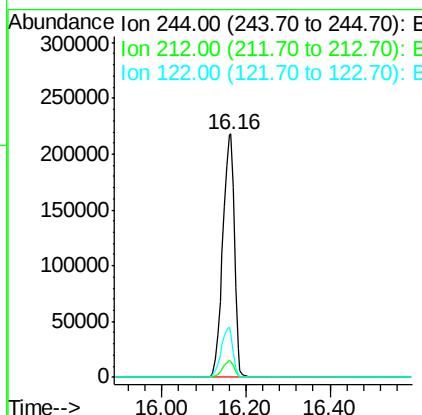
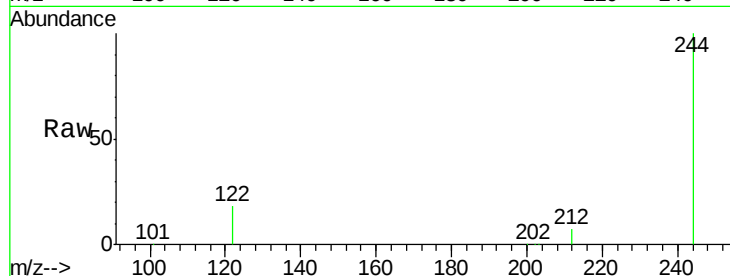
#18  
 Terphenyl-d14  
 Concen: 52.50 ng  
 RT: 16.16 min Scan# 2758  
 Delta R.T. 0.02 min  
 Lab File: BE088190.D  
 Acq: 22 Oct 2014 19:56

Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB19-1014

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 244     | 100   | 417352 |       |       |
| 212     | 6.7   | 5.4    | 8.0   |       |
| 122     | 18.0  | 17.5   | 26.3  |       |

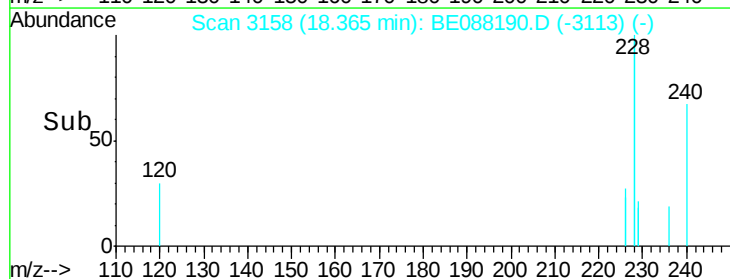
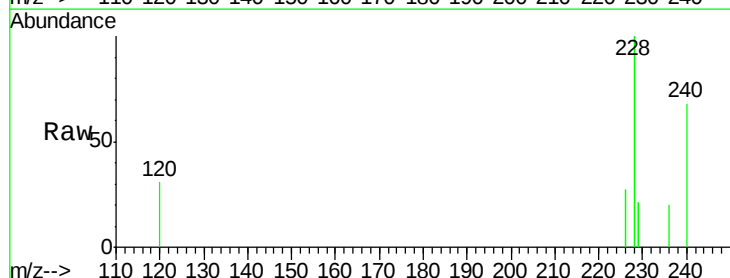
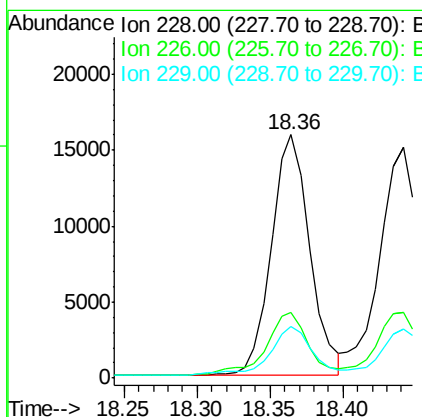
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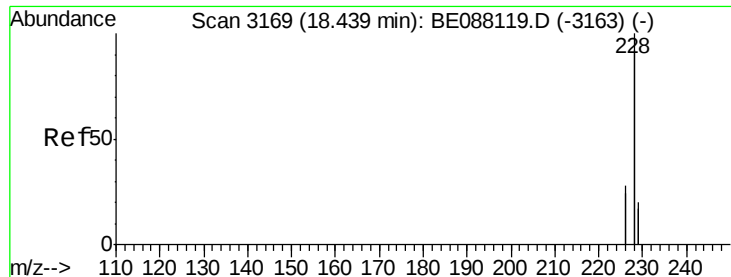
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#19  
 Benzo(a)anthracene  
 Concen: 0.66 ng  
 RT: 18.36 min Scan# 3158  
 Delta R.T. 0.00 min  
 Lab File: BE088190.D  
 Acq: 22 Oct 2014 19:56

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 228     | 100   | 28837 |       |       |
| 226     | 26.8  | 20.8  | 31.2  |       |
| 229     | 21.1  | 15.6  | 23.4  |       |





#20

Chrysene

Concen: 0.69 ng

RT: 18.44 min Scan# 3170

Delta R.T. 0.00 min

Lab File: BE088190.D

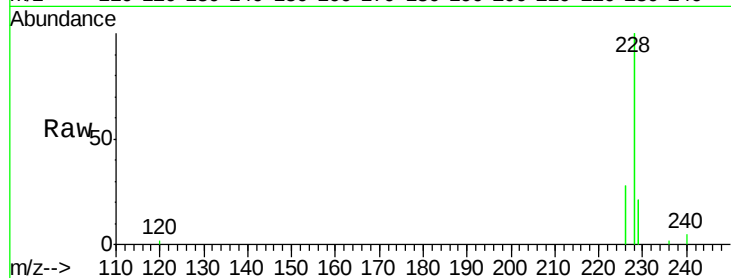
Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

ClientSampleId :

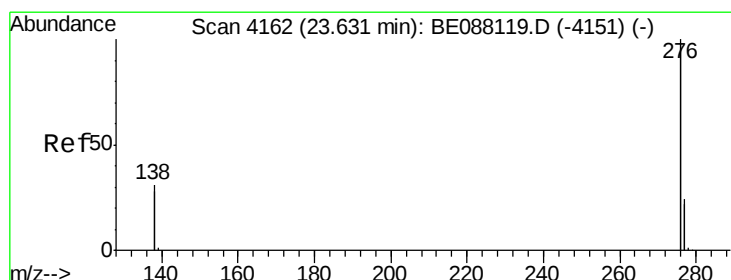
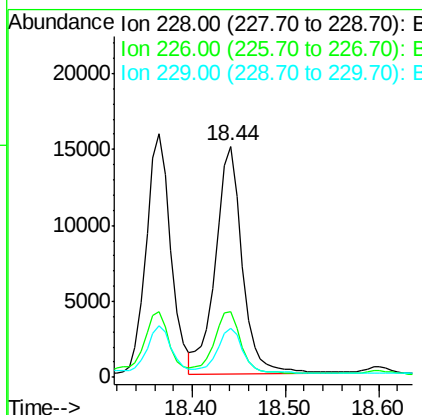
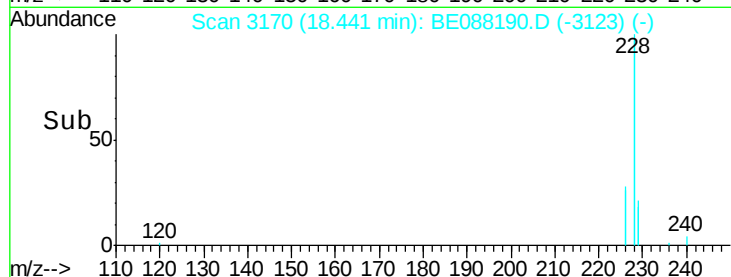
YS19-SB19-1014



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 228   | Resp: | 29950 |
| Ion Ratio | Lower | Upper |       |
| 228       | 100   |       |       |
| 226       | 28.5  | 22.7  | 34.1  |
| 229       | 21.2  | 15.8  | 23.6  |

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#21

Indeno(1,2,3-cd)pyrene

Concen: 0.50 ng m

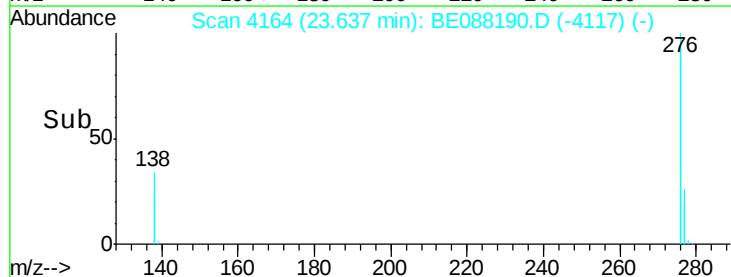
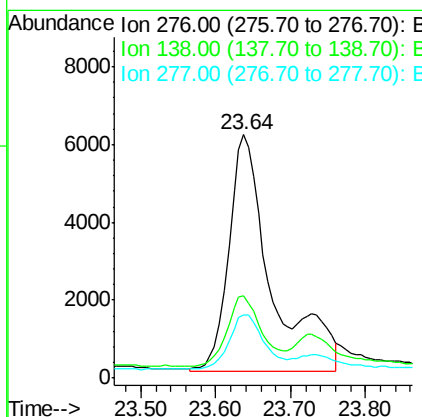
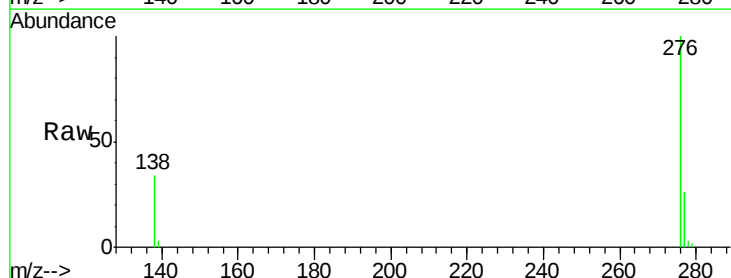
RT: 23.64 min Scan# 4164

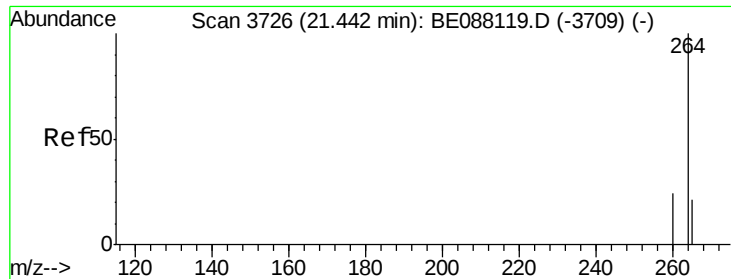
Delta R.T. 0.01 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

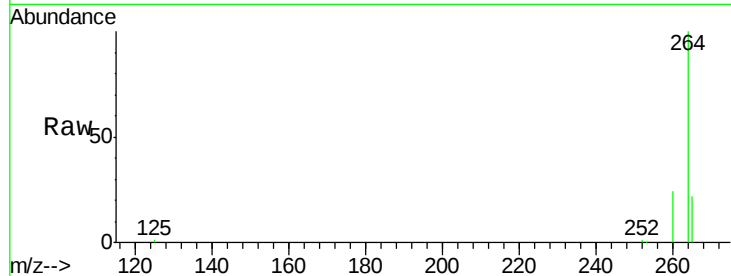
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 276   | Resp: | 24179 |
| Ion Ratio | Lower | Upper |       |
| 276       | 100   |       |       |
| 138       | 23.7  | 18.5  | 27.7  |
| 277       | 18.7  | 14.6  | 21.8  |





#22  
 Perylene-d12  
 Concen: 5.00 ng  
 RT: 21.45 min Scan# 3728  
 Delta R.T. 0.00 min  
 Lab File: BE088190.D  
 Acq: 22 Oct 2014 19:56

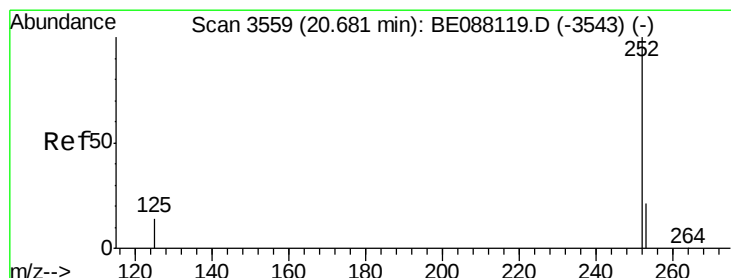
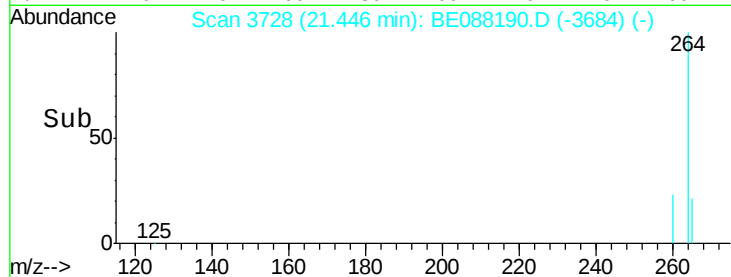
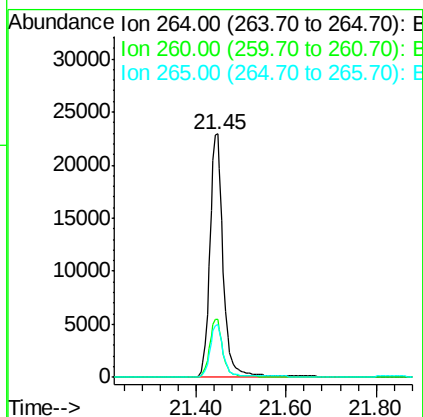
Instrument :  
 BNA\_E  
 ClientSampleId :  
 YS19-SB19-1014



Tgt Ion: 264 Resp: 46573  
 Ion Ratio Lower Upper  
 264 100  
 260 23.6 19.0 28.4  
 265 21.7 17.2 25.8

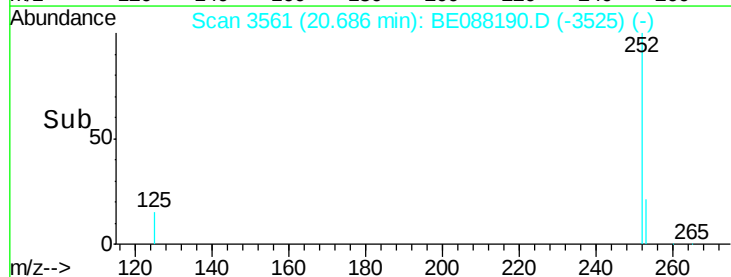
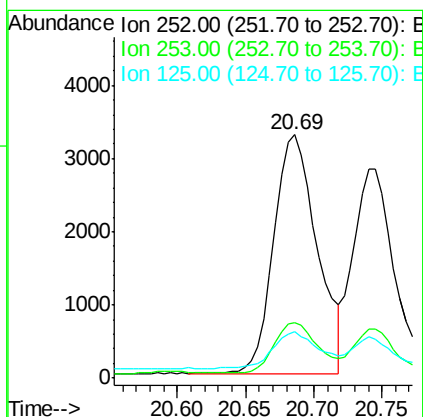
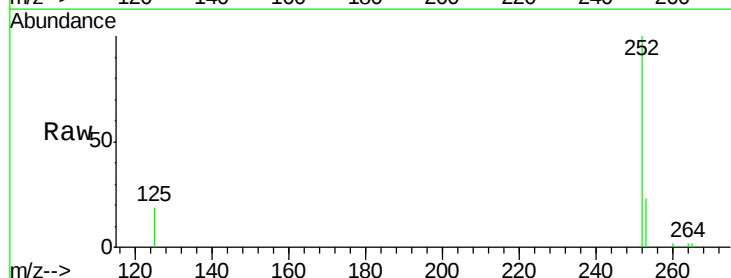
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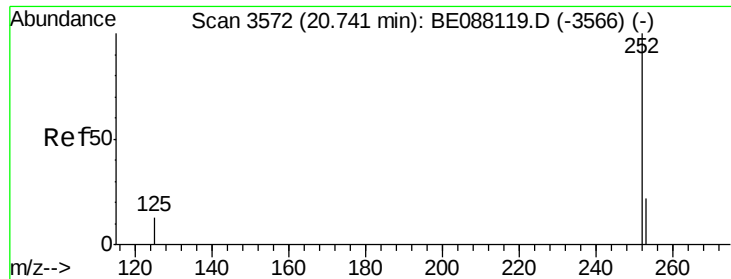
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#23  
 Benzo(b)fluoranthene  
 Concen: 0.65 ng  
 RT: 20.69 min Scan# 3561  
 Delta R.T. 0.00 min  
 Lab File: BE088190.D  
 Acq: 22 Oct 2014 19:56

Tgt Ion: 252 Resp: 7185  
 Ion Ratio Lower Upper  
 252 100  
 253 22.7 17.4 26.0  
 125 18.9 11.8 17.8#





#24

Benzo(k)fluoranthene

Concen: 0.53 ng

RT: 20.75 min Scan# 3574

Delta R.T. 0.00 min

Lab File: BE088190.D

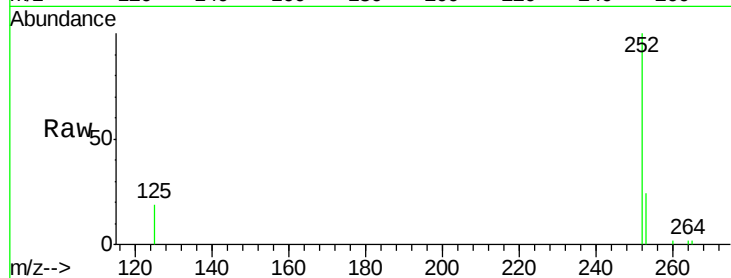
Acq: 22 Oct 2014 19:56

Instrument :

BNA\_E

ClientSampleId :

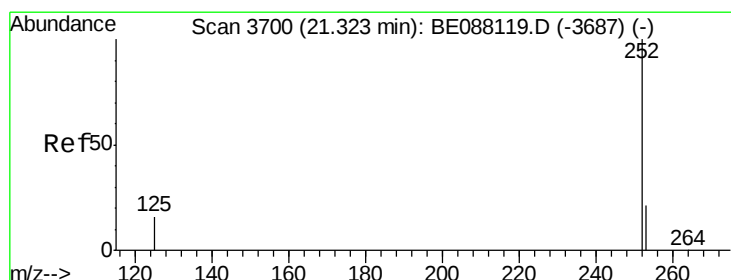
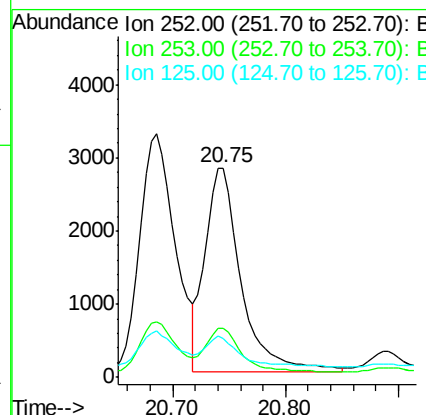
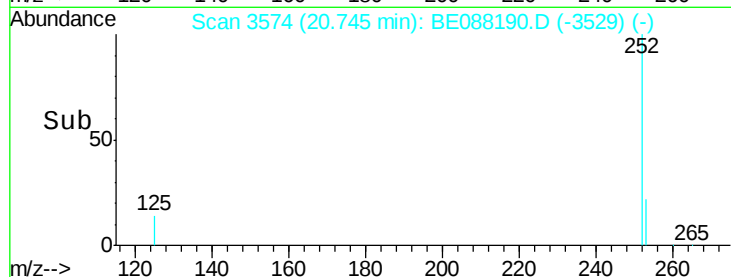
YS19-SB19-1014



|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 252   | Resp: | 6255 |
| Ion Ratio | Lower | Upper |      |
| 252       | 100   |       |      |
| 253       | 23.7  | 17.6  | 26.4 |
| 125       | 18.5  | 11.5  | 17.3 |

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#25

Benzo(a)pyrene

Concen: 0.61 ng

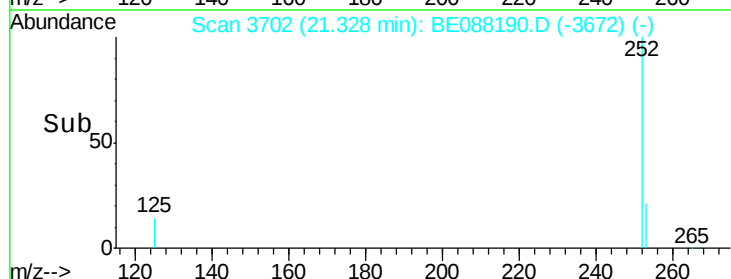
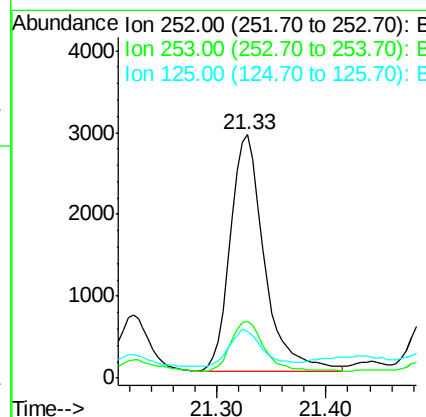
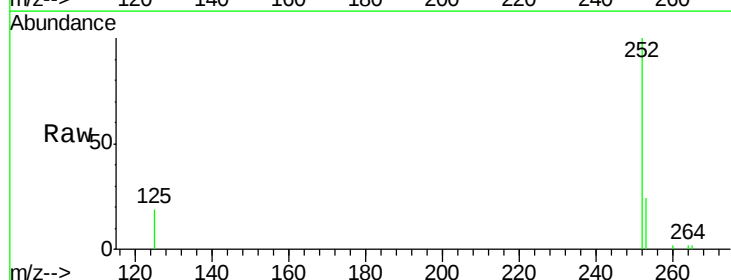
RT: 21.33 min Scan# 3702

Delta R.T. 0.00 min

Lab File: BE088190.D

Acq: 22 Oct 2014 19:56

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 252   | Resp: | 6232 |
| Ion Ratio | Lower | Upper |      |
| 252       | 100   |       |      |
| 253       | 23.5  | 17.5  | 26.3 |
| 125       | 19.3  | 13.0  | 19.6 |





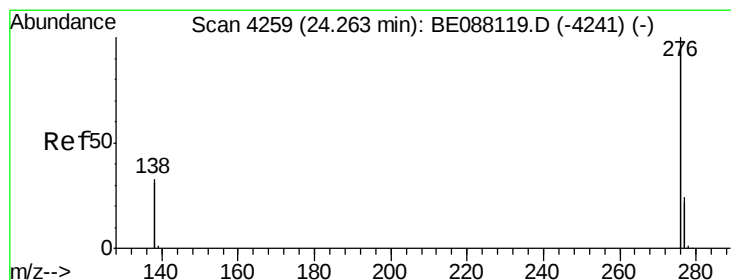
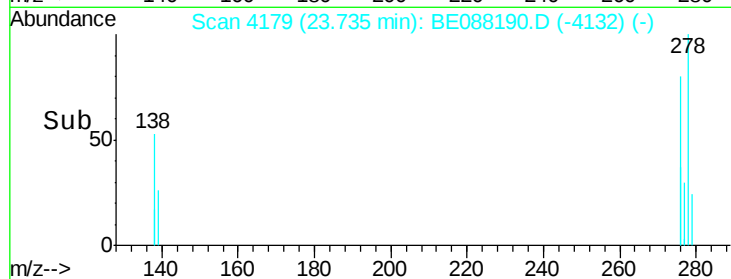
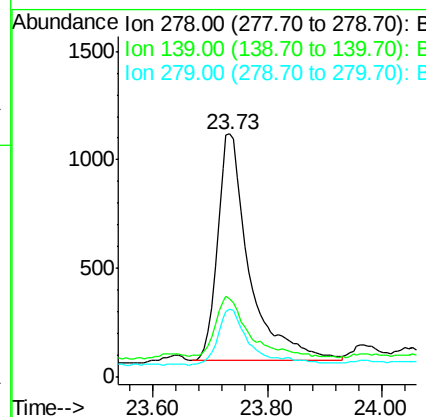
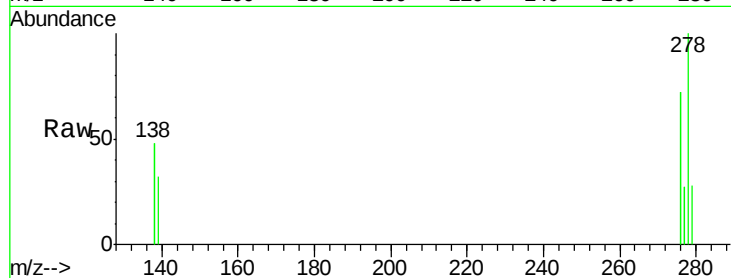
#26  
Dibenzo(a,h)anthracene  
Concen: 0.40 ng  
RT: 23.73 min Scan# 4179  
Delta R.T. 0.01 min  
Lab File: BE088190.D  
Acq: 22 Oct 2014 19:56

Instrument :  
BNA\_E  
ClientSampleId :  
YS19-SB19-1014

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 32.3  | 20.9  | 31.3# |
| 279     | 27.9  | 19.8  | 29.8  |

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#27  
Benzo(g,h,i)perylene  
Concen: 0.51 ng  
RT: 24.27 min Scan# 4261  
Delta R.T. 0.01 min  
Lab File: BE088190.D  
Acq: 22 Oct 2014 19:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 277     | 25.8  | 19.2  | 28.8  |
| 138     | 35.1  | 26.6  | 40.0  |

