

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_M\DATA\BM120518\  
 Data File : BM017915.D  
 Acq On : 04 Dec 2018 22:47  
 Operator : JU/SJ  
 Sample : J5771-11 2X  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

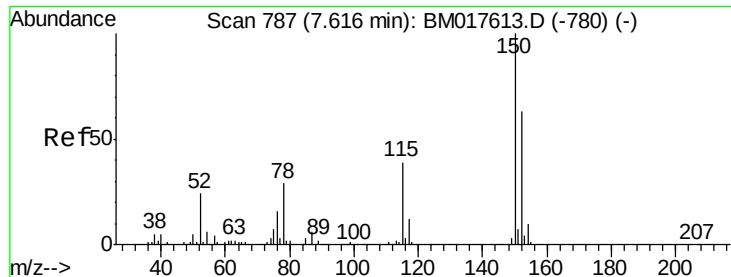
Instrument :  
 BNA\_M  
 ClientSampleId :  
 EO-02-112918-C

Quant Time: Dec 05 00:27:29 2018  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\8270-BM111218.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Nov 12 18:37:25 2018  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|--------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.58  | 152  | 276279   | 20.00  | ng    | -0.04     |
| 21) Naphthalene-d8          | 10.35 | 136  | 1078739  | 20.00  | ng    | -0.04     |
| 39) Acenaphthene-d10        | 14.23 | 164  | 532652   | 20.00  | ng    | -0.04     |
| 64) Phenanthrene-d10        | 16.99 | 188  | 961259   | 20.00  | ng    | -0.03     |
| 76) Chrysene-d12            | 21.20 | 240  | 919418   | 20.00  | ng    | -0.02     |
| 87) Perylene-d12            | 23.38 | 264  | 1005778  | 20.00  | ng    | -0.03     |
| System Monitoring Compounds |       |      |          |        |       |           |
| 5) 2-Fluorophenol           | 5.21  | 112  | 694482   | 42.42  | ng    | -0.03     |
| 7) Phenol-d6                | 6.78  | 99   | 932224   | 40.77  | ng    | -0.03     |
| 23) Nitrobenzene-d5         | 8.74  | 82   | 535262   | 25.62  | ng    | -0.04     |
| 42) 2,4,6-Tribromophenol    | 15.73 | 330  | 272244   | 35.57  | ng    | -0.03     |
| 45) 2-Fluorobiphenyl        | 12.84 | 172  | 1010485  | 24.61  | ng    | -0.04     |
| 79) Terphenyl-d14           | 19.63 | 244  | 1014952  | 25.02  | ng    | -0.02     |
| Target Compounds            |       |      |          |        |       |           |
| 10) Phenol                  | 6.80  | 94   | 61323    | 2.555  | ng    | Qvalue 96 |
| 49) Acenaphthylene          | 13.95 | 152  | 141289   | 2.650  | ng    | 98        |
| 56) 4-Nitrophenol           | 14.44 | 139  | 2530     | 5.225  | ng    | # 64      |
| 58) Fluorene                | 15.29 | 166  | 105402   | 2.575  | ng    | 93        |
| 71) Phenanthrene            | 17.03 | 178  | 927430   | 17.780 | ng    | 100       |
| 72) Anthracene              | 17.12 | 178  | 356994   | 7.033  | ng    | 99        |
| 75) Fluoranthene            | 19.06 | 202  | 1550430  | 26.271 | ng    | 98        |
| 78) Pyrene                  | 19.43 | 202  | 1495857  | 26.368 | ng    | 99        |
| 81) Benzo(a)anthracene      | 21.18 | 228  | 796069   | 15.029 | ng    | 99        |
| 83) Chrysene                | 21.23 | 228  | 696907   | 13.546 | ng    | 97        |
| 86) Indeno(1,2,3-cd)pyrene  | 25.56 | 276  | 495547   | 12.054 | ng    | 96        |
| 88) Benzo(b)fluoranthene    | 22.73 | 252  | 1289331  | 21.890 | ng    | # 92      |
| 89) Benzo(k)fluoranthene    | 22.73 | 252  | 1292596  | 21.712 | ng    | # 93      |
| 90) Benzo(a)pyrene          | 23.29 | 252  | 772256   | 14.379 | ng    | # 95      |
| 91) Dibenzo(a,h)anthracene  | 25.57 | 278  | 128547   | 2.847  | ng    | # 75      |
| 92) Benzo(g,h,i)perylene    | 26.23 | 276  | 461350   | 10.866 | ng    | 98        |

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



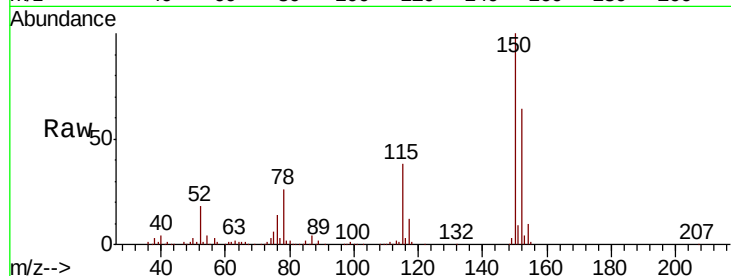


#1

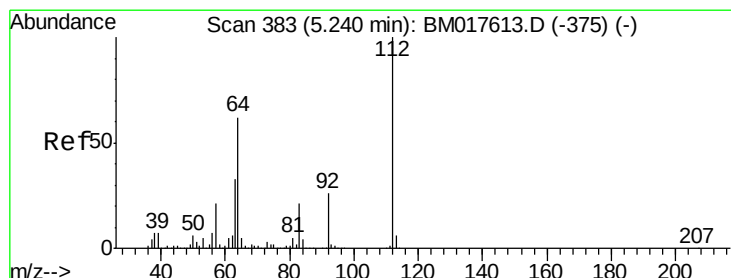
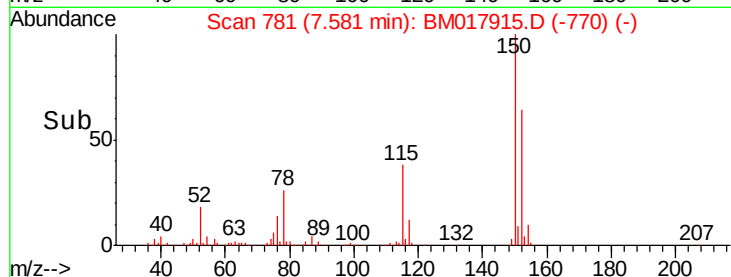
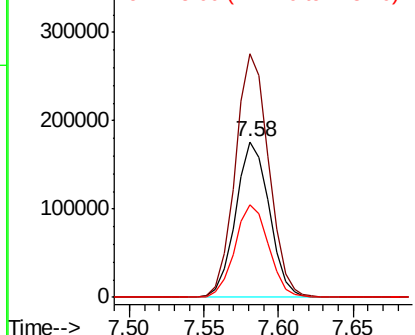
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 7.58 min Scan# 781  
Delta R.T. -0.04 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

Instrument :  
BNA\_M  
ClientSampleId :  
EO-02-112918-C

Tgt Ion:152 Resp: 276279  
Ion Ratio Lower Upper  
152 100  
150 156.4 126.4 189.6  
115 59.2 49.4 74.0



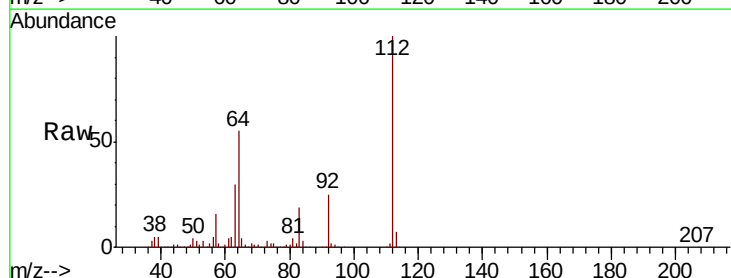
Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 150.00 (149.70 to 150.70): E  
Ion 115.00 (114.70 to 115.70): E



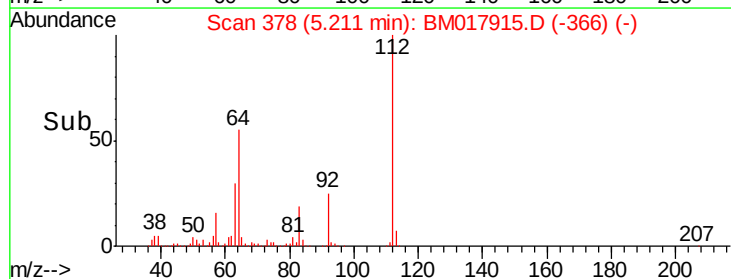
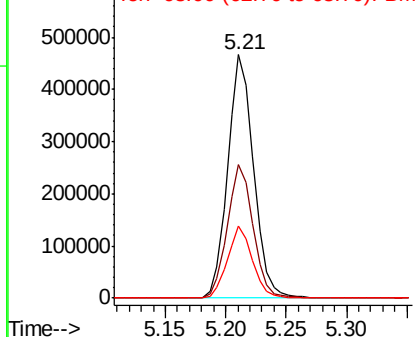
#5

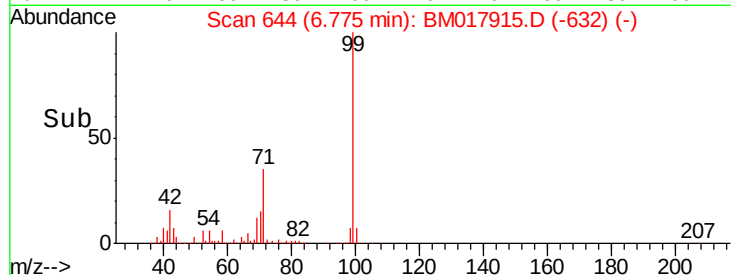
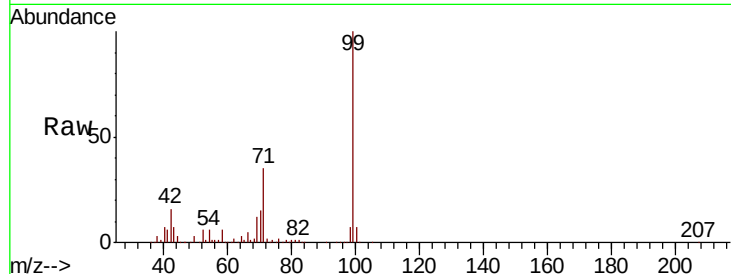
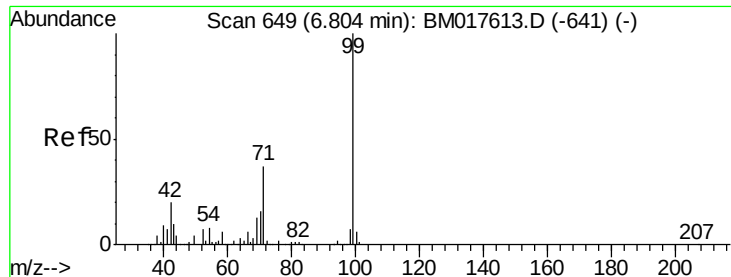
2-Fluorophenol  
Concen: 42.422 ng  
RT: 5.21 min Scan# 378  
Delta R.T. -0.03 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

Tgt Ion:112 Resp: 694482  
Ion Ratio Lower Upper  
112 100  
64 55.0 49.3 73.9  
63 29.6 26.2 39.4



Abundance Ion 112.00 (111.70 to 112.70): E  
Ion 64.00 (63.70 to 64.70): BM0  
Ion 63.00 (62.70 to 63.70): BM0





#7

Phenol-d6

Concen: 40.773 ng

RT: 6.78 min Scan# 644

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

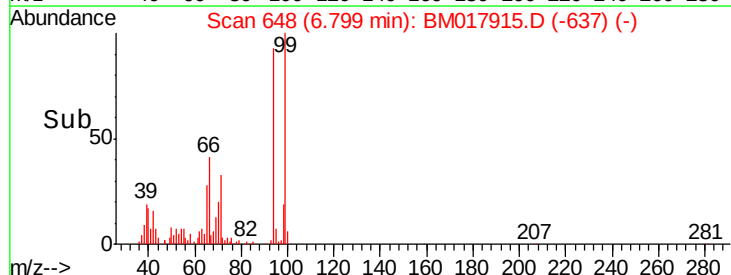
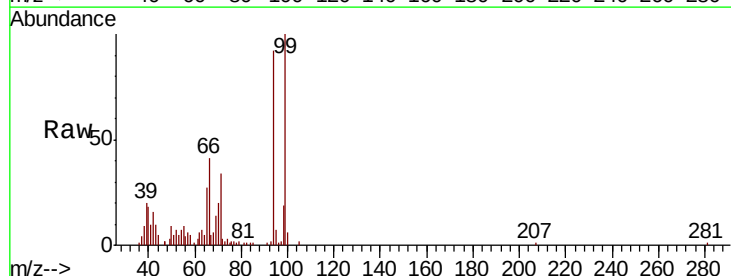
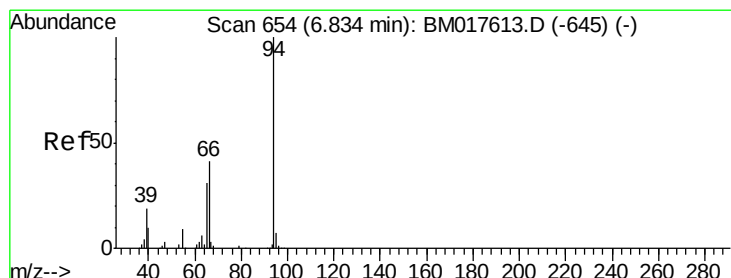
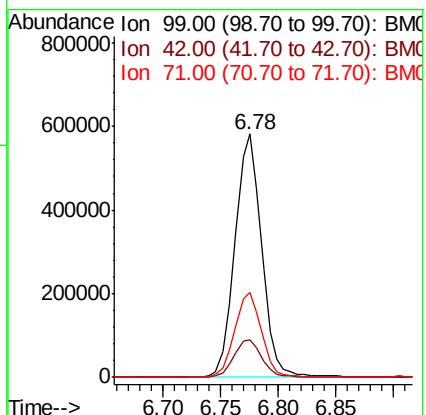
Tgt Ion: 99 Resp: 932224

Ion Ratio Lower Upper

99 100

42 15.6 16.3 24.5#

71 34.6 29.8 44.8



#10

Phenol

Concen: 2.555 ng

RT: 6.80 min Scan# 648

Delta R.T. -0.04 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

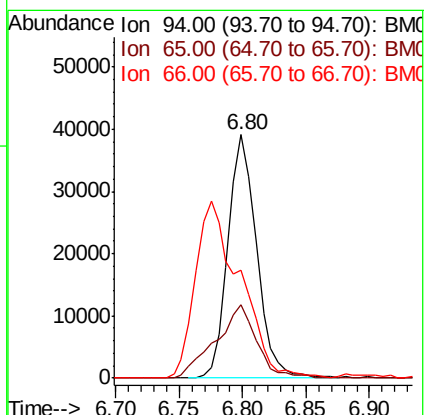
Tgt Ion: 94 Resp: 61323

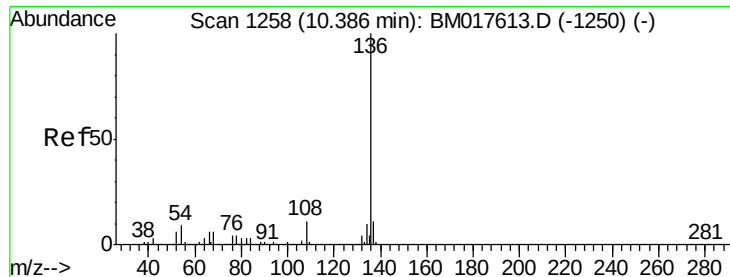
Ion Ratio Lower Upper

94 100

65 30.0 11.4 51.4

66 44.3 21.4 61.4

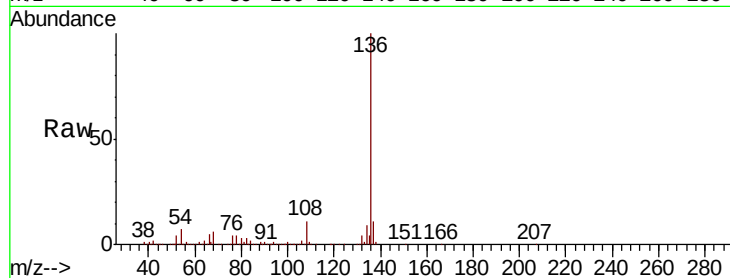




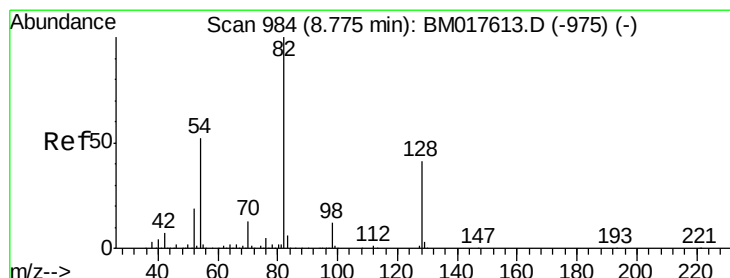
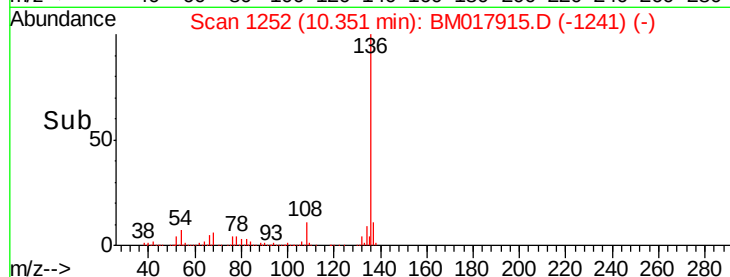
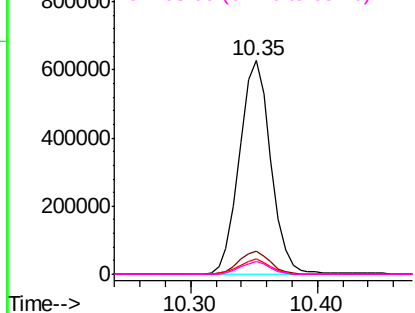
#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 10.35 min Scan# 1252  
Delta R.T. -0.04 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

Instrument :  
BNA\_M  
ClientSampleId :  
EO-02-112918-C

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 136   | Resp: | 1078739 |
| Ion      | Ratio | Lower | Upper   |
| 136      | 100   |       |         |
| 137      | 10.9  | 8.6   | 12.8    |
| 54       | 7.0   | 7.0   | 10.6#   |
| 68       | 6.0   | 4.9   | 7.3     |

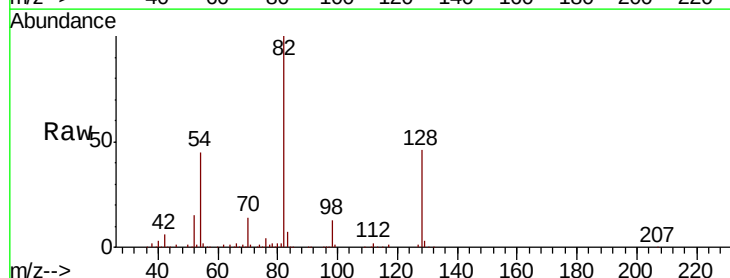


Abundance Ion 136.00 (135.70 to 136.70): E  
Ion 137.00 (136.70 to 137.70): E  
Ion 54.00 (53.70 to 54.70): BM  
Ion 68.00 (67.70 to 68.70): BM

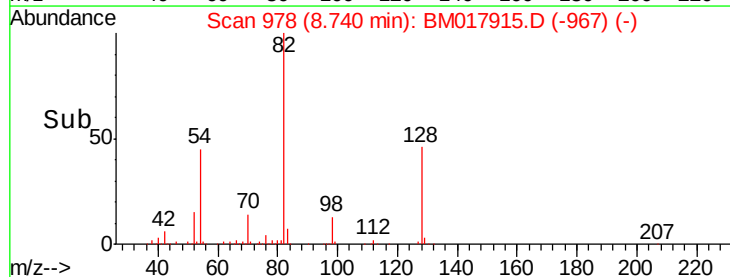
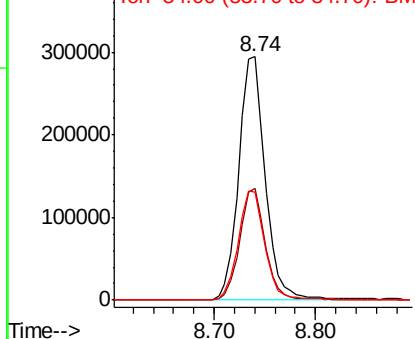


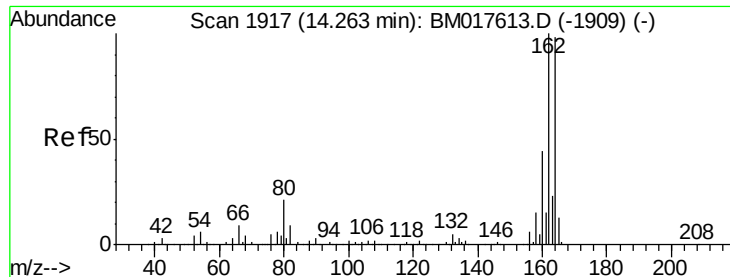
#23  
Nitrobenzene-d5  
Concen: 25.616 ng  
RT: 8.74 min Scan# 978  
Delta R.T. -0.04 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 82    | Resp: | 535262 |
| Ion      | Ratio | Lower | Upper  |
| 82       | 100   |       |        |
| 128      | 45.7  | 33.0  | 49.4   |
| 54       | 44.6  | 41.4  | 62.2   |



Abundance Ion 82.00 (81.70 to 82.70): BM  
Ion 128.00 (127.70 to 128.70): E  
Ion 54.00 (53.70 to 54.70): BM





#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 14.23 min Scan# 1911

Delta R.T. -0.04 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

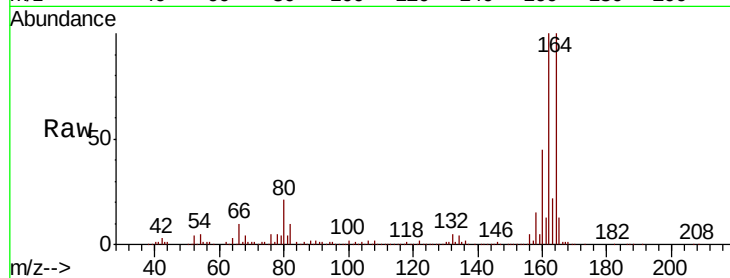
Tgt Ion:164 Resp: 532652

Ion Ratio Lower Upper

164 100

162 100.2 81.4 122.0

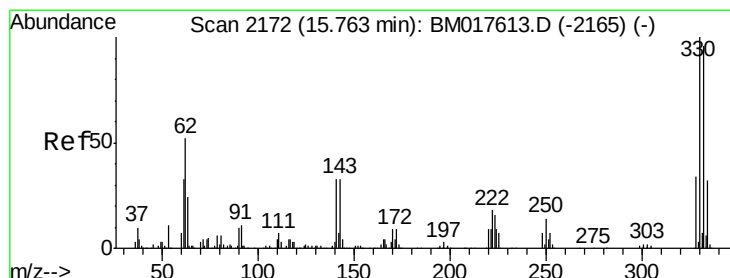
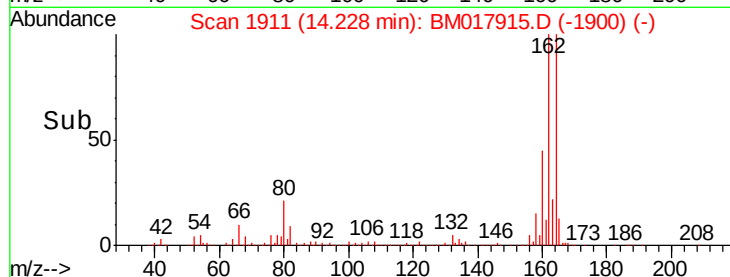
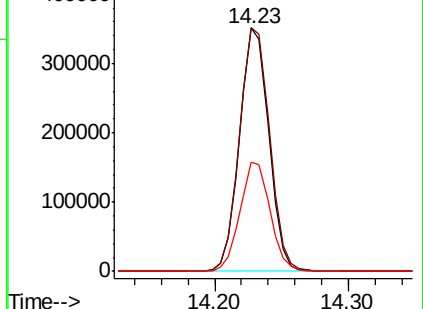
160 45.2 35.6 53.4



Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E



#42

2,4,6-Tribromophenol

Concen: 35.571 ng

RT: 15.73 min Scan# 2167

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

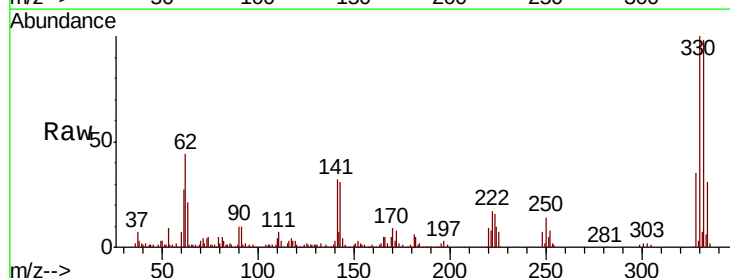
Tgt Ion:330 Resp: 272244

Ion Ratio Lower Upper

330 100

332 98.1 77.9 116.9

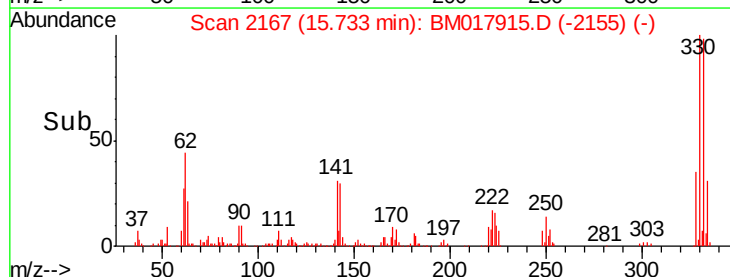
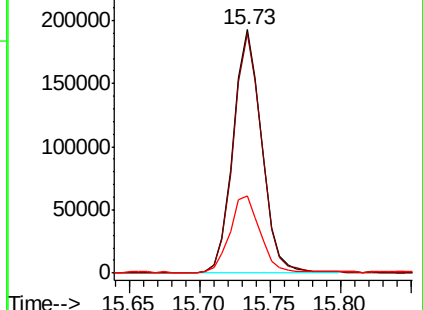
141 32.6 27.5 41.3

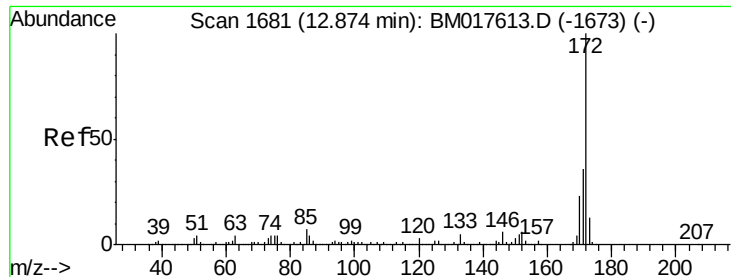


Abundance Ion 329.80 (329.50 to 330.50): E

Ion 331.80 (331.50 to 332.50): E

Ion 141.00 (140.70 to 141.70): E

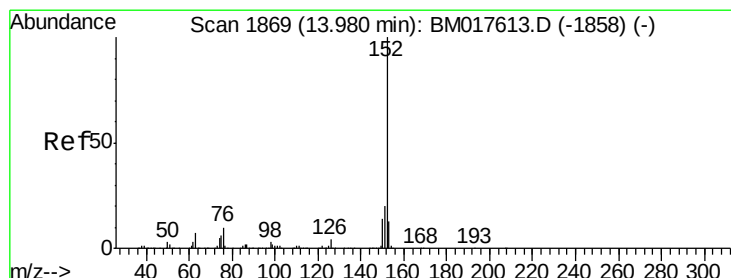
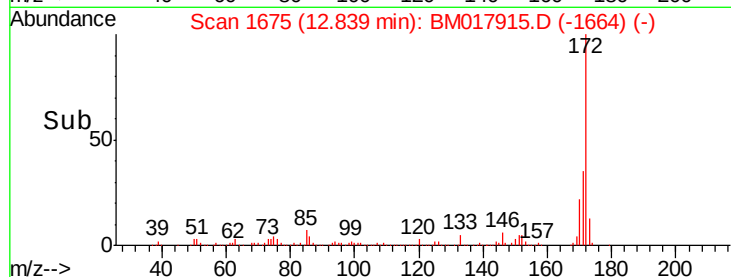
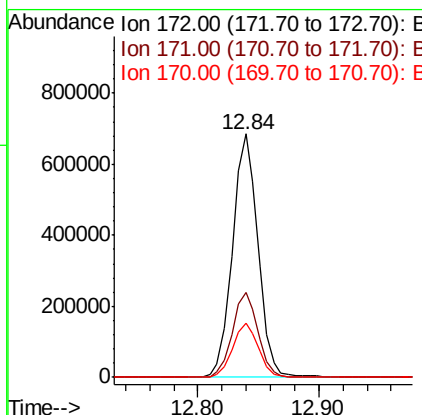
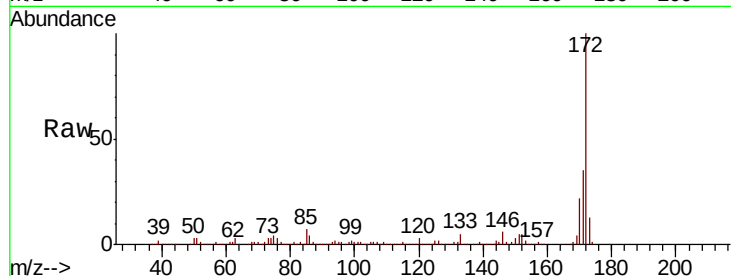




#45  
2-Fluorobiphenyl  
Concen: 24.612 ng  
RT: 12.84 min Scan# 1675  
Delta R.T. -0.04 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

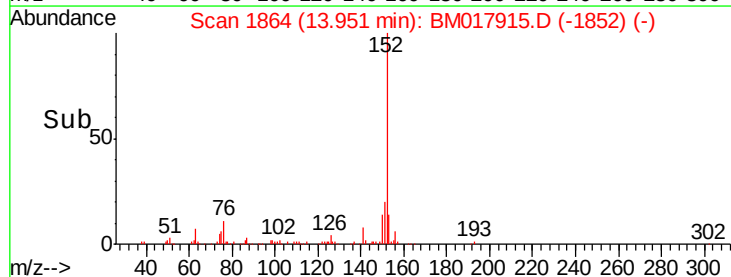
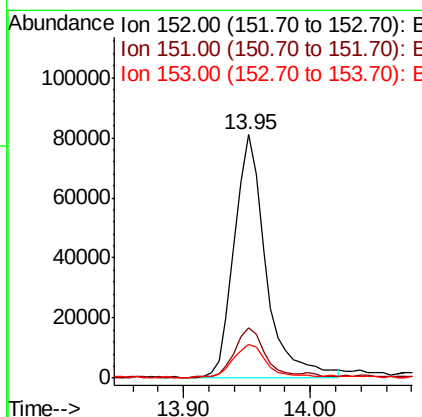
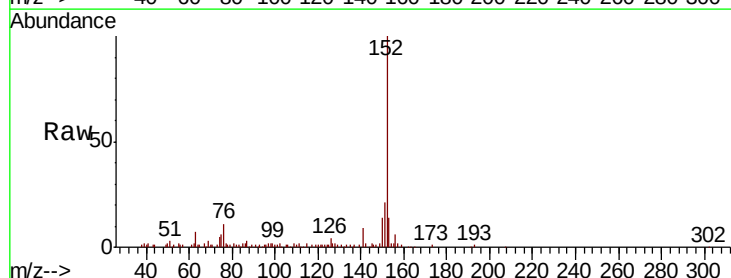
Instrument :  
BNA\_M  
ClientSampleId :  
EO-02-112918-C

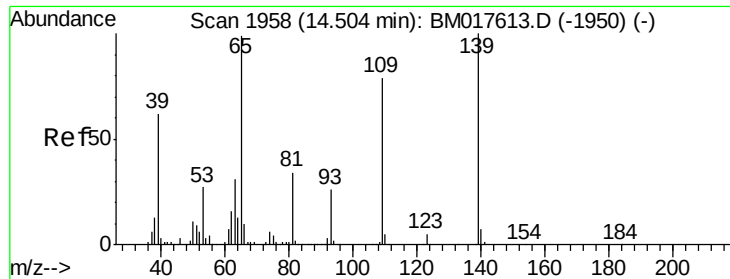
Tgt Ion:172 Resp: 1010485  
Ion Ratio Lower Upper  
172 100  
171 35.1 28.7 43.1  
170 22.2 18.3 27.5



#49  
Acenaphthylene  
Concen: 2.650 ng  
RT: 13.95 min Scan# 1864  
Delta R.T. -0.03 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

Tgt Ion:152 Resp: 141289  
Ion Ratio Lower Upper  
152 100  
151 20.8 15.9 23.9  
153 13.9 10.5 15.7

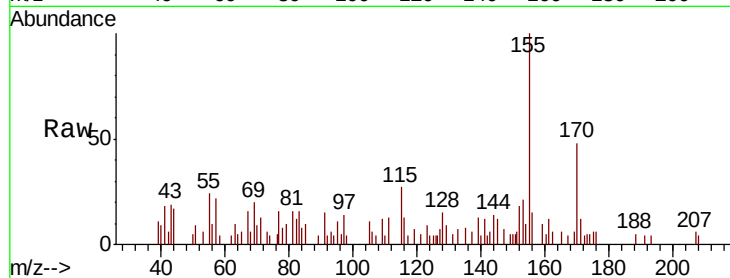




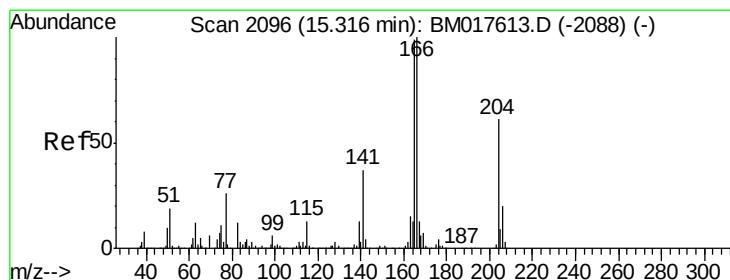
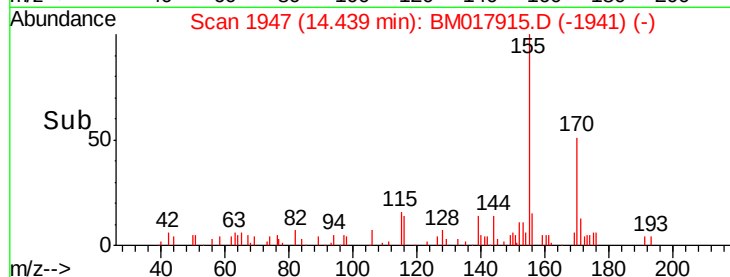
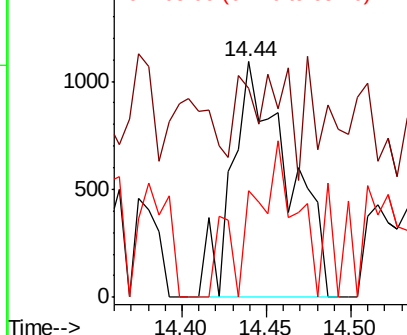
#56  
4-Nitrophenol  
Concen: 5.225 ng  
RT: 14.44 min Scan# 1947  
Delta R.T. -0.06 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

Instrument :  
BNA\_M  
ClientSampleId :  
EO-02-112918-C

Tgt Ion:139 Resp: 2530  
Ion Ratio Lower Upper  
139 100  
109 88.7 58.6 98.6  
65 45.0 79.5 119.5#

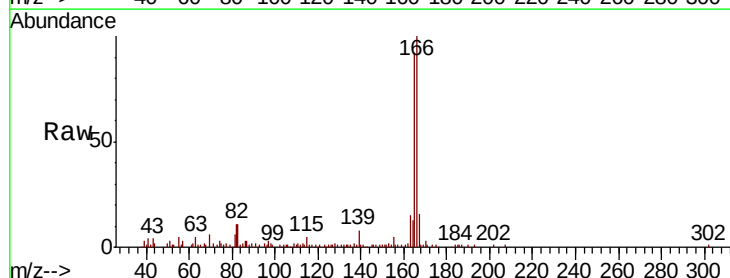


Abundance Ion 139.00 (138.70 to 139.70): E  
Ion 109.00 (108.70 to 109.70): E  
Ion 65.00 (64.70 to 65.70): BM

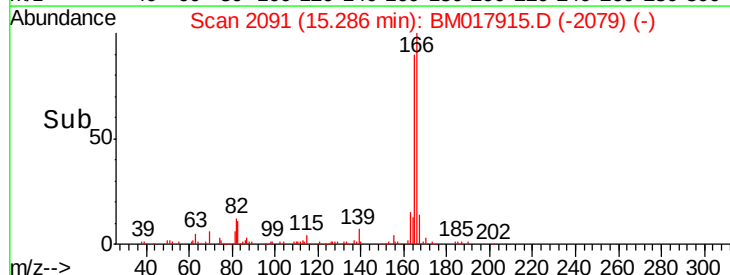
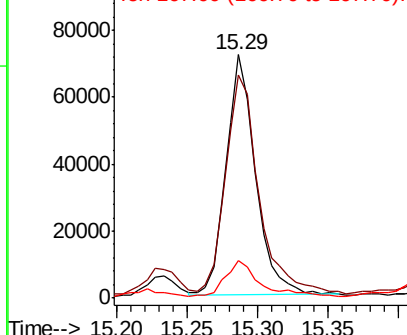


#58  
Fluorene  
Concen: 2.575 ng  
RT: 15.29 min Scan# 2091  
Delta R.T. -0.03 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

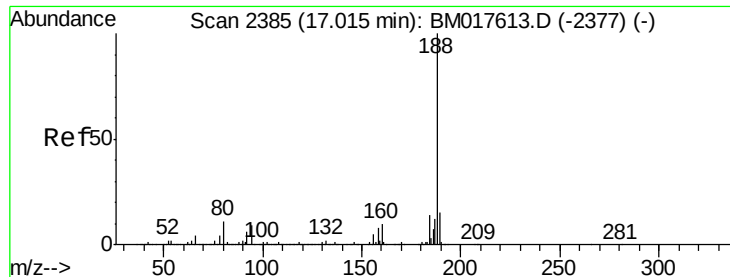
Tgt Ion:166 Resp: 105402  
Ion Ratio Lower Upper  
166 100  
165 91.8 79.0 118.6  
167 15.6 10.8 16.2



Abundance Ion 166.00 (165.70 to 166.70): E  
Ion 165.00 (164.70 to 165.70): E  
Ion 167.00 (166.70 to 167.70): E







#64

Phenanthrene-d10

Concen: 20.000 ng

RT: 16.99 min Scan# 2380

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

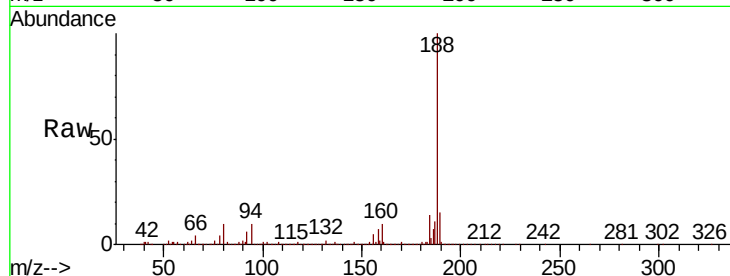
Tgt Ion:188 Resp: 961259

Ion Ratio Lower Upper

188 100

94 9.8 7.5 11.3

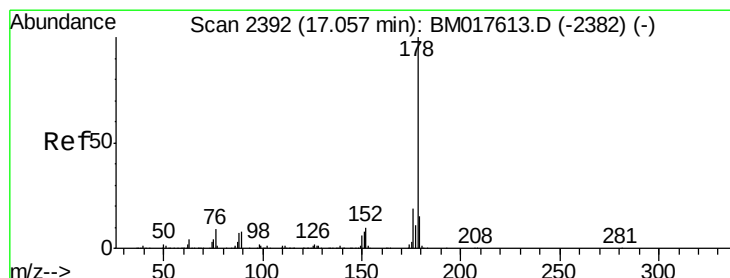
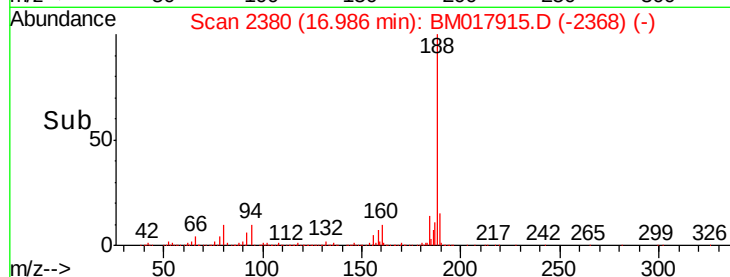
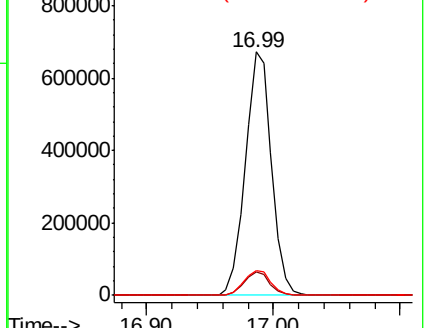
80 10.3 8.6 13.0



Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BM

Ion 80.00 (79.70 to 80.70): BM



#71

Phenanthrene

Concen: 17.780 ng

RT: 17.03 min Scan# 2387

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

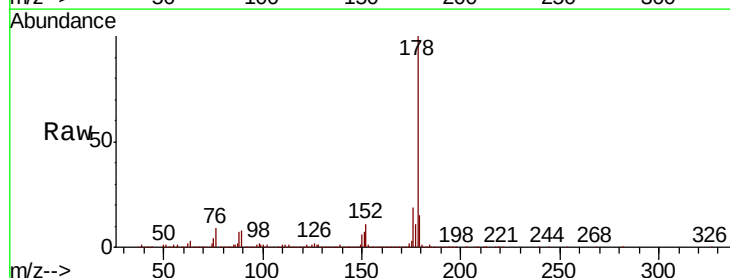
Tgt Ion:178 Resp: 927430

Ion Ratio Lower Upper

178 100

176 18.7 15.0 22.4

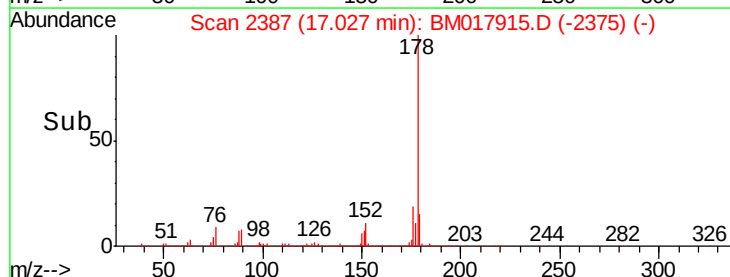
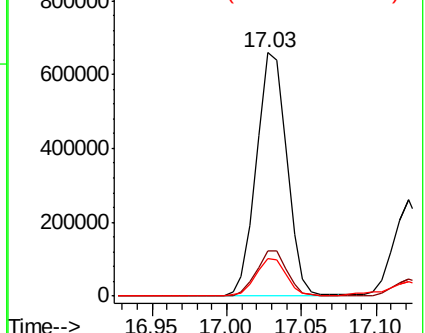
179 15.3 12.4 18.6

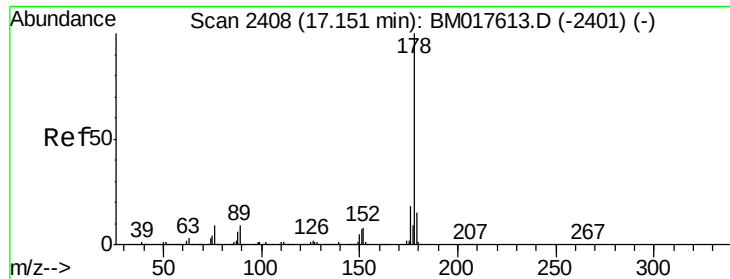


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E





#72

Anthracene

Concen: 7.033 ng

RT: 17.12 min Scan# 2403

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

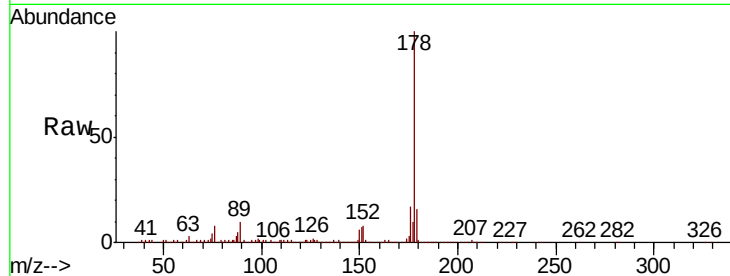
Tgt Ion:178 Resp: 356994

Ion Ratio Lower Upper

178 100

176 17.3 14.5 21.7

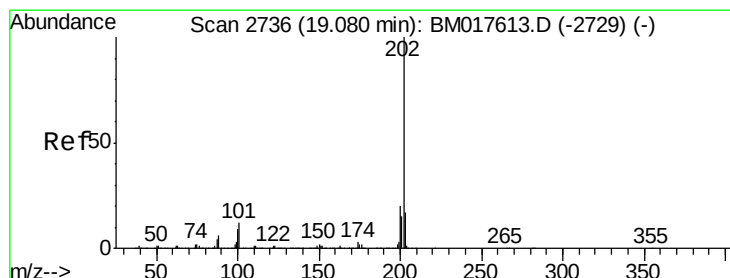
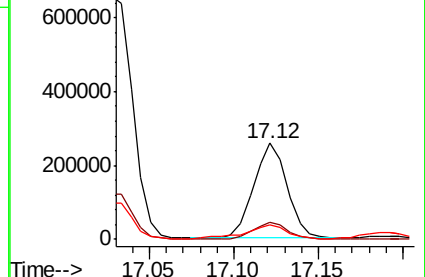
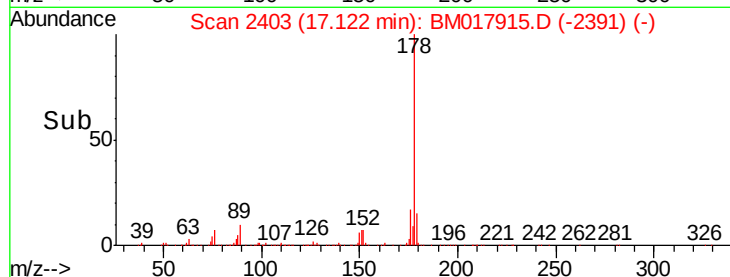
179 15.7 12.3 18.5



Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E



#75

Fluoranthene

Concen: 26.271 ng

RT: 19.06 min Scan# 2732

Delta R.T. -0.02 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

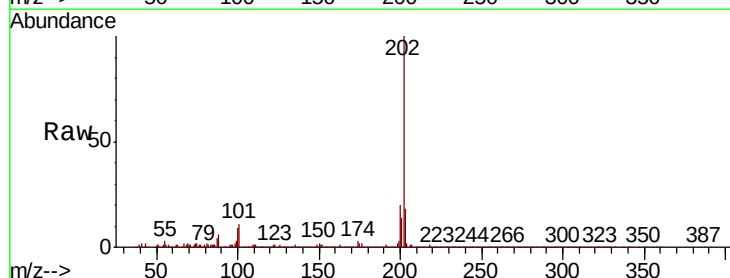
Tgt Ion:202 Resp: 1550430

Ion Ratio Lower Upper

202 100

101 10.9 0.0 31.5

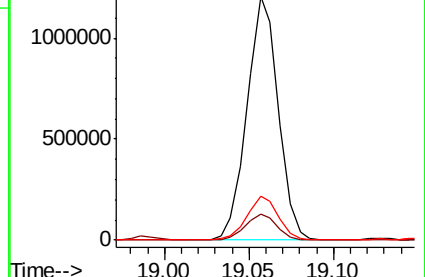
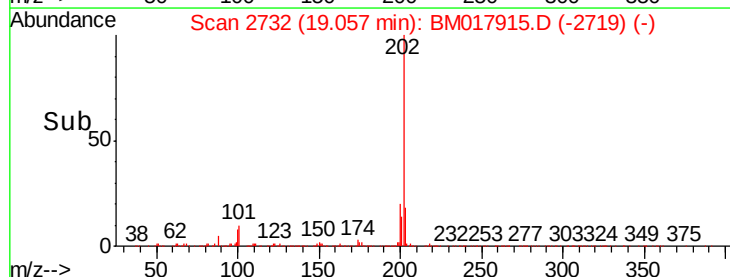
203 17.9 0.0 37.2

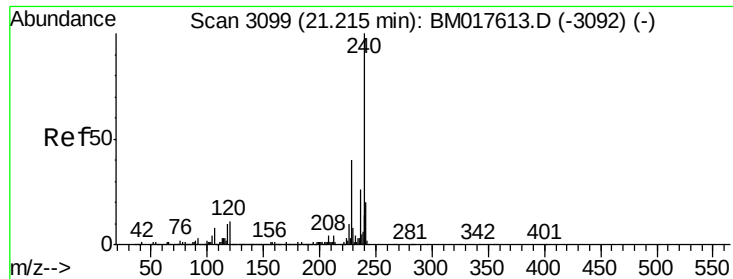


Abundance Ion 202.00 (201.70 to 202.70): E

Ion 101.00 (100.70 to 101.70): E

Ion 203.00 (202.70 to 203.70): E

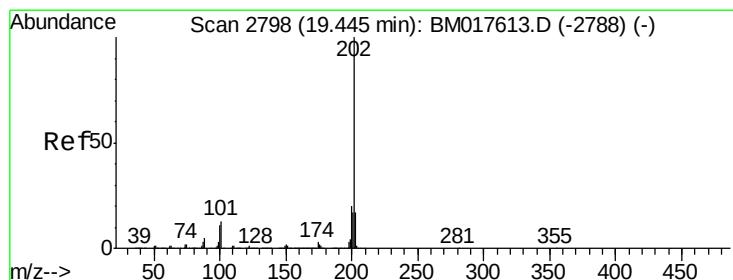
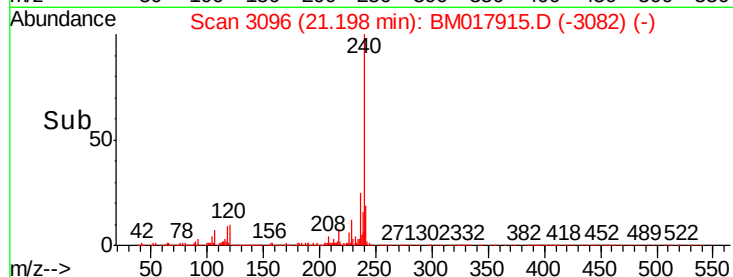
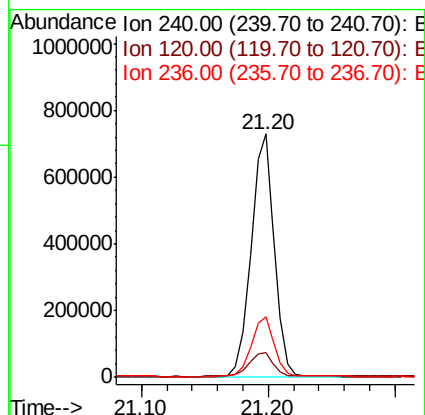
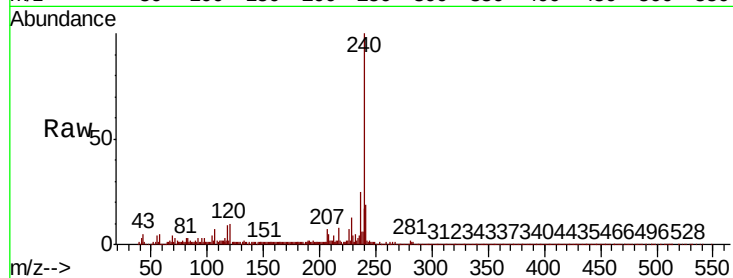




#76  
Chrysene-d12  
Concen: 20.000 ng  
RT: 21.20 min Scan# 3096  
Delta R.T. -0.02 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

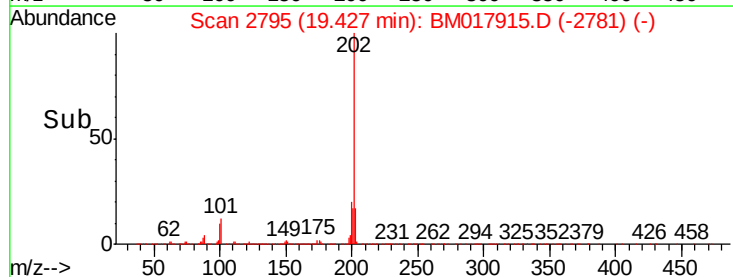
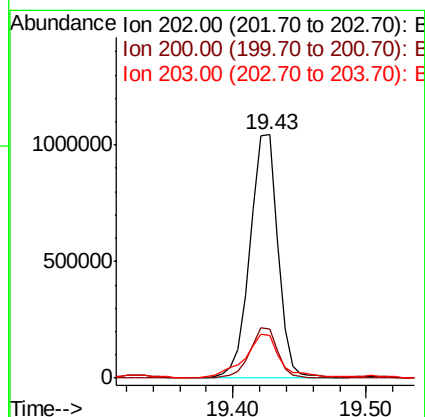
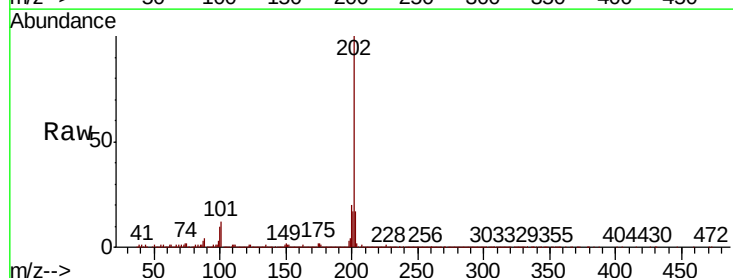
Instrument :  
BNA\_M  
ClientSampleId :  
EO-02-112918-C

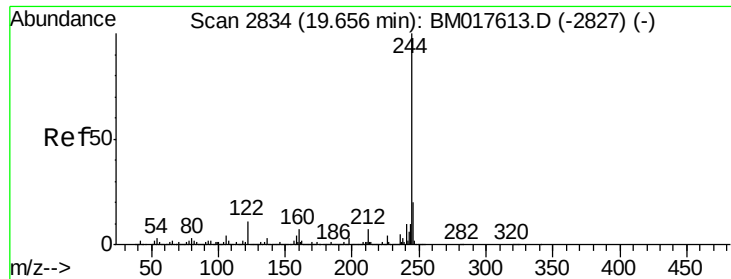
Tgt Ion:240 Resp: 919418  
Ion Ratio Lower Upper  
240 100  
120 10.3 8.5 12.7  
236 24.9 20.4 30.6



#78  
Pyrene  
Concen: 26.368 ng  
RT: 19.43 min Scan# 2795  
Delta R.T. -0.02 min  
Lab File: BM017915.D  
Acq: 04 Dec 2018 22:47

Tgt Ion:202 Resp: 1495857  
Ion Ratio Lower Upper  
202 100  
200 20.1 16.4 24.6  
203 17.4 13.8 20.8





#79

Terphenyl-d14

Concen: 25.019 ng

RT: 19.63 min Scan# 2830

Delta R.T. -0.02 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

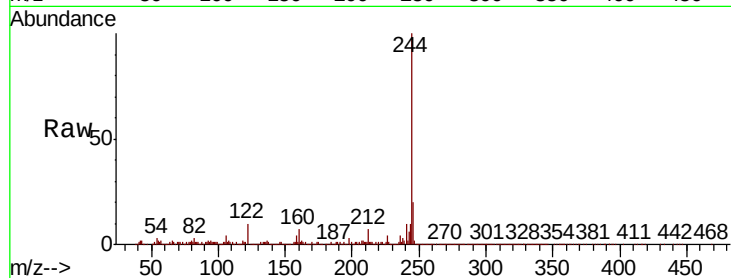
Tgt Ion:244 Resp: 1014952

Ion Ratio Lower Upper

244 100

212 6.7 5.8 8.6

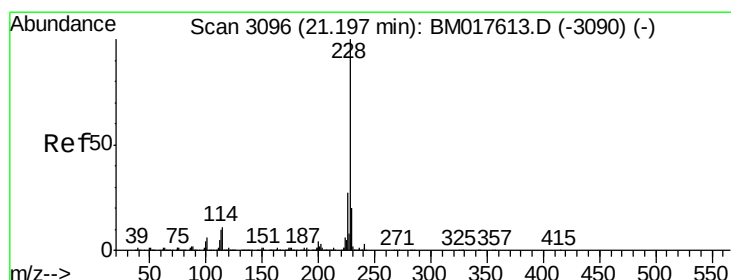
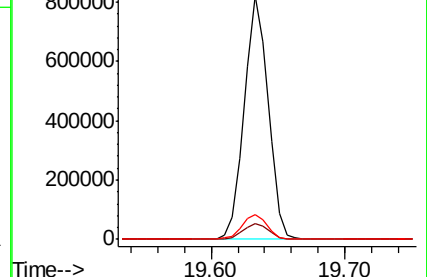
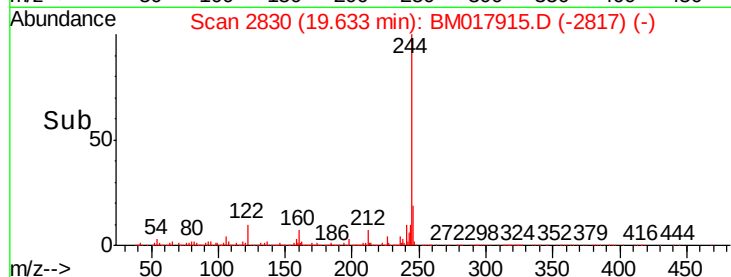
122 10.2 9.0 13.6



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



#81

Benzo(a)anthracene

Concen: 15.029 ng

RT: 21.18 min Scan# 3093

Delta R.T. -0.02 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

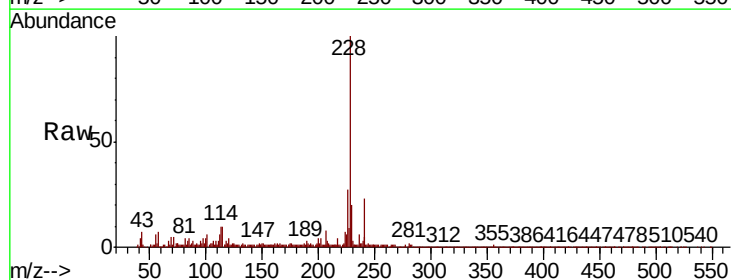
Tgt Ion:228 Resp: 796069

Ion Ratio Lower Upper

228 100

226 27.2 21.3 31.9

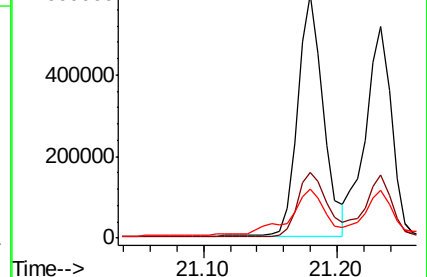
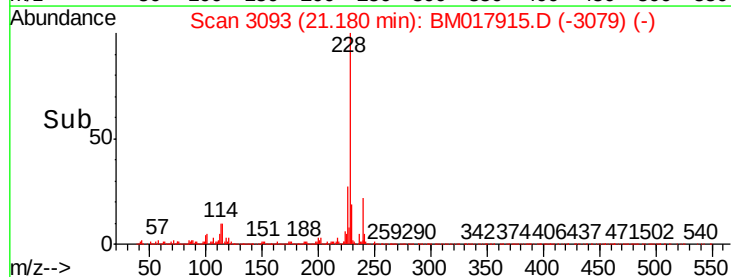
229 20.4 16.0 24.0

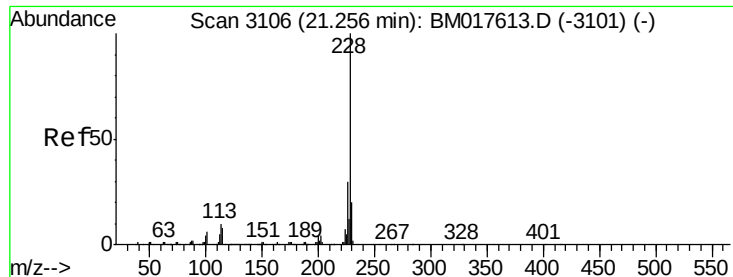


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#83

Chrysene

Concen: 13.546 ng

RT: 21.23 min Scan# 3102

Delta R.T. -0.02 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

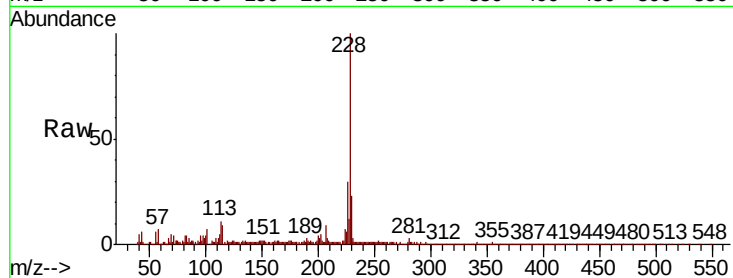
Tgt Ion:228 Resp: 696907

Ion Ratio Lower Upper

228 100

226 29.7 23.6 35.4

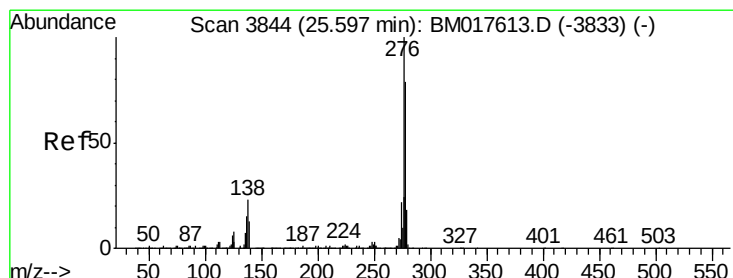
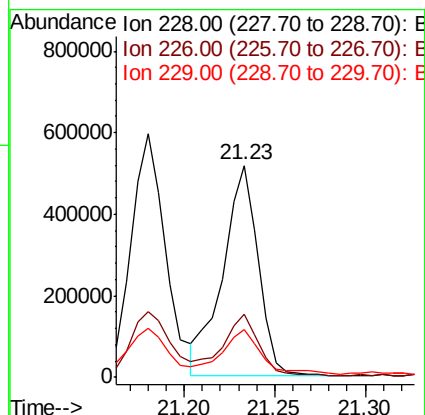
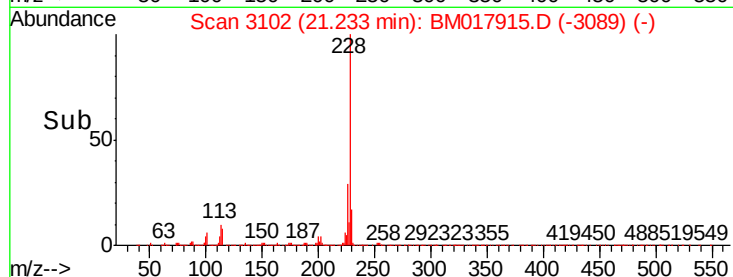
229 22.7 15.8 23.6



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



#86

Indeno(1,2,3-cd)pyrene

Concen: 12.054 ng

RT: 25.56 min Scan# 3837

Delta R.T. -0.04 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

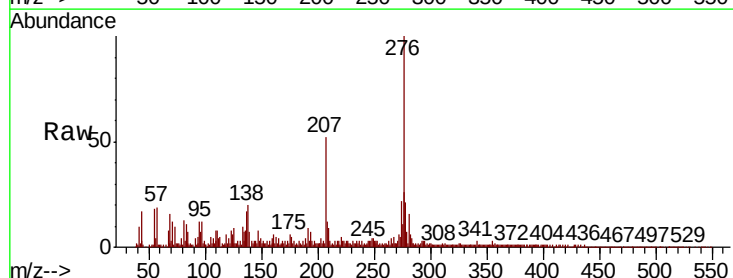
Tgt Ion:276 Resp: 495547

Ion Ratio Lower Upper

276 100

138 20.2 19.1 28.7

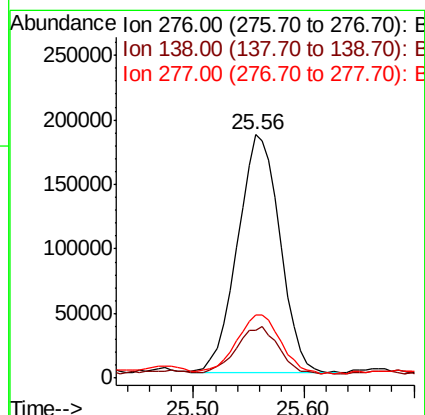
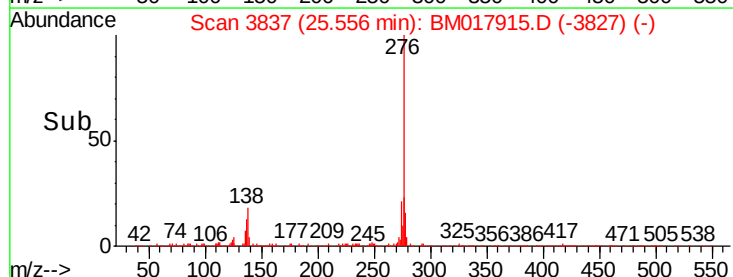
277 25.4 20.0 30.0

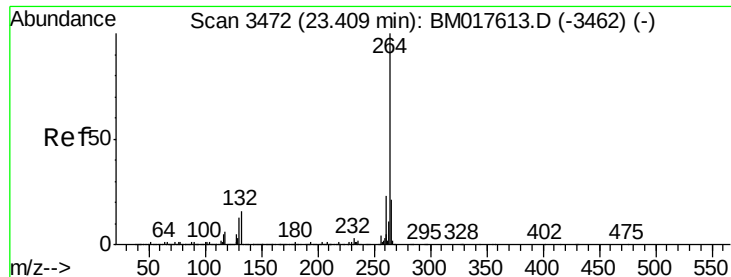


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#87

Perylene-d12

Concen: 20.000 ng

RT: 23.38 min Scan# 3467

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

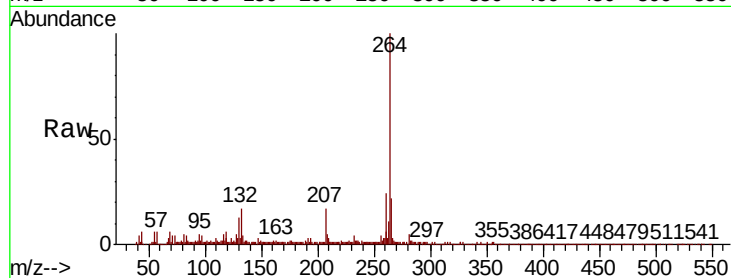
Tgt Ion:264 Resp: 1005778

Ion Ratio Lower Upper

264 100

260 23.7 18.2 27.2

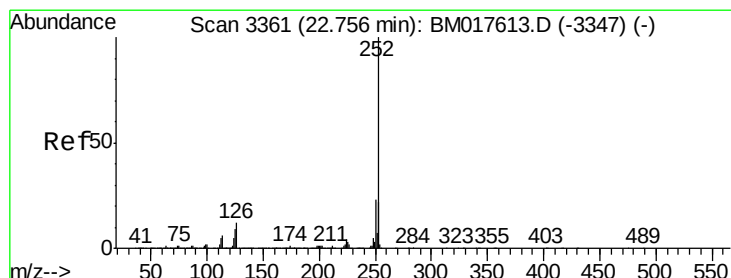
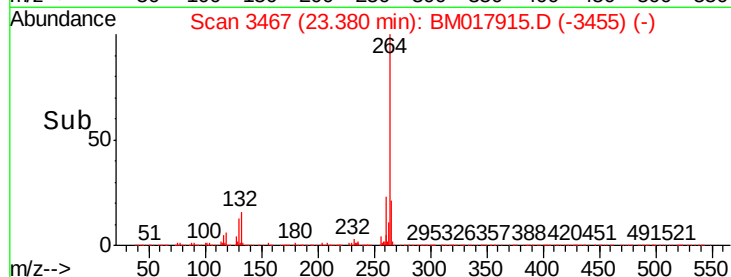
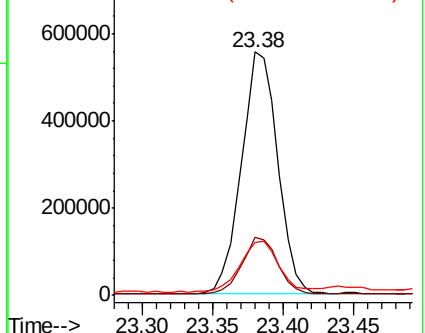
265 21.9 17.5 26.3



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



#88

Benzo(b)fluoranthene

Concen: 21.890 ng

RT: 22.73 min Scan# 3357

Delta R.T. -0.02 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

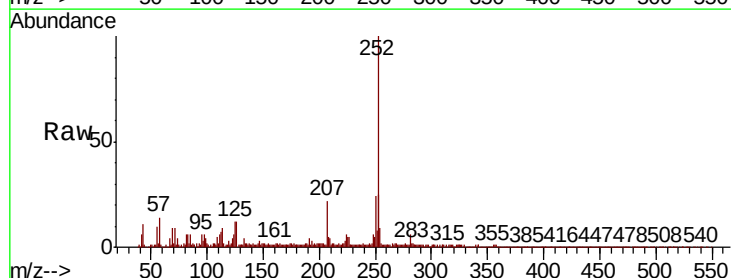
Tgt Ion:252 Resp: 1289331

Ion Ratio Lower Upper

252 100

253 25.2 17.3 25.9

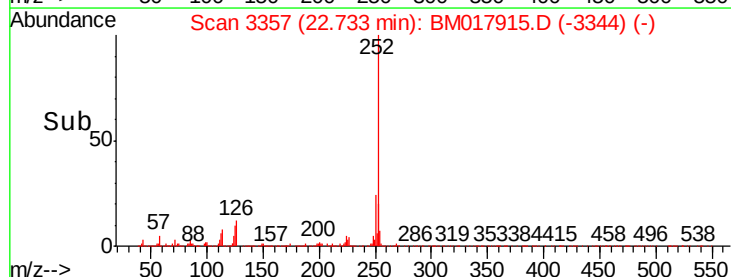
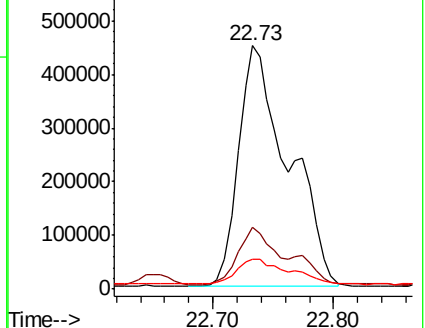
125 12.4 7.6 11.4#

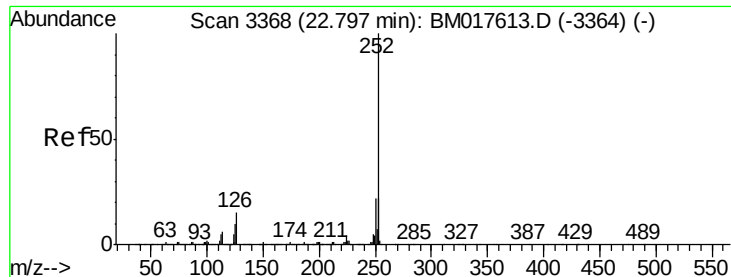


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#89

Benzo(k)fluoranthene

Concen: 21.712 ng

RT: 22.73 min Scan# 3357

Delta R.T. -0.06 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

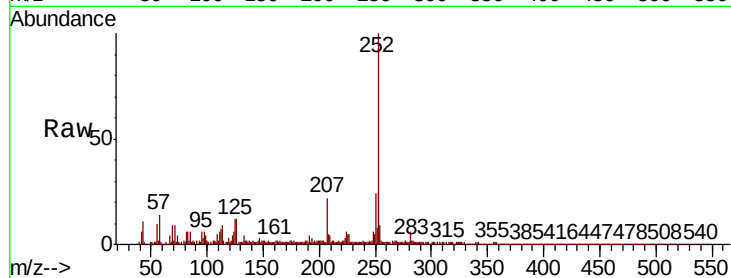
Tgt Ion:252 Resp: 1292596

Ion Ratio Lower Upper

252 100

253 25.2 17.7 26.5

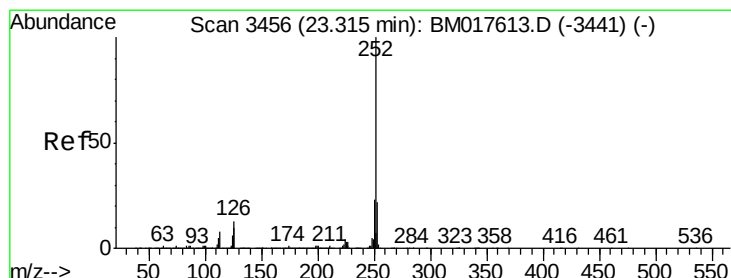
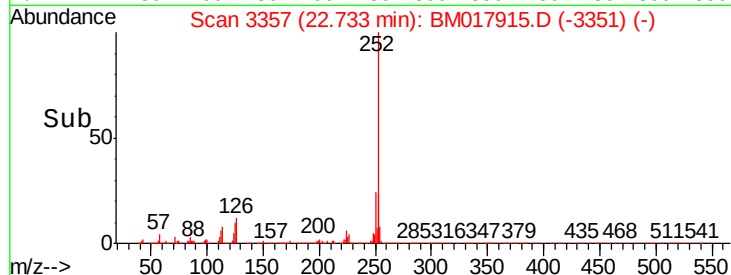
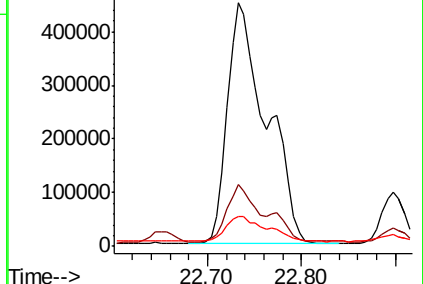
125 12.4 7.9 11.9#



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



#90

Benzo(a)pyrene

Concen: 14.379 ng

RT: 23.29 min Scan# 3451

Delta R.T. -0.03 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

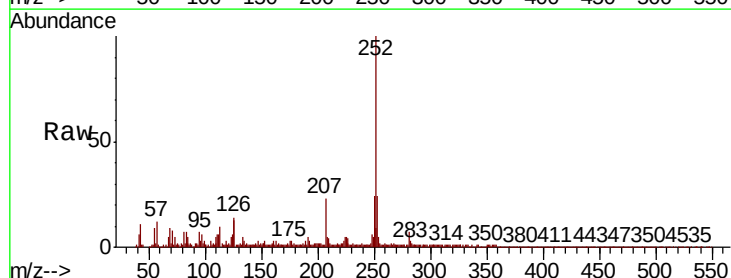
Tgt Ion:252 Resp: 772256

Ion Ratio Lower Upper

252 100

253 23.9 17.4 26.2

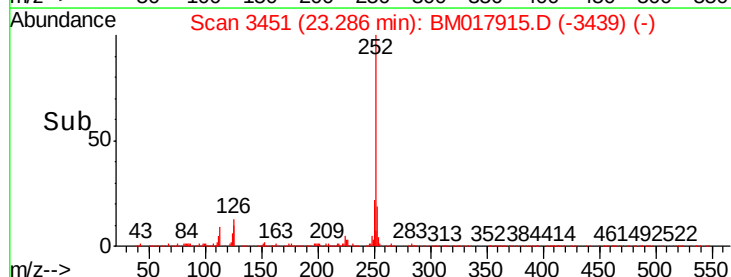
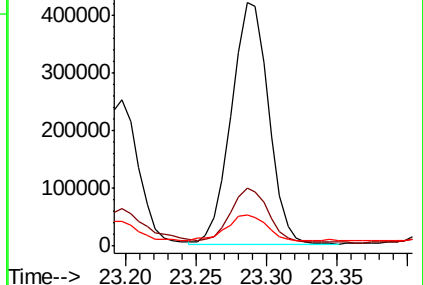
125 12.6 8.2 12.2#

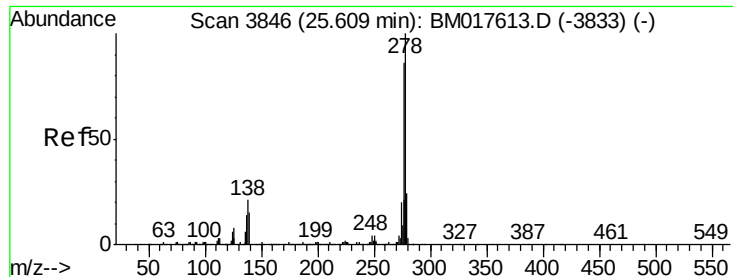


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#91

Dibenzo(a,h)anthracene

Concen: 2.847 ng

RT: 25.57 min Scan# 3839

Delta R.T. -0.04 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Instrument :

BNA\_M

ClientSampleId :

EO-02-112918-C

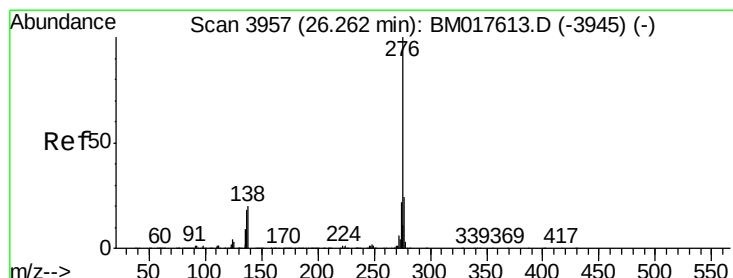
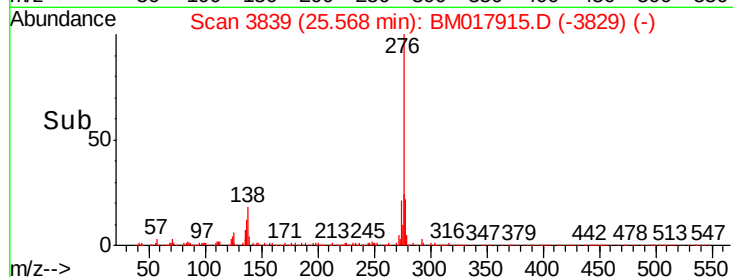
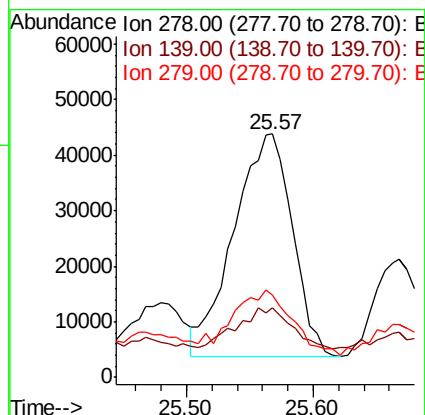
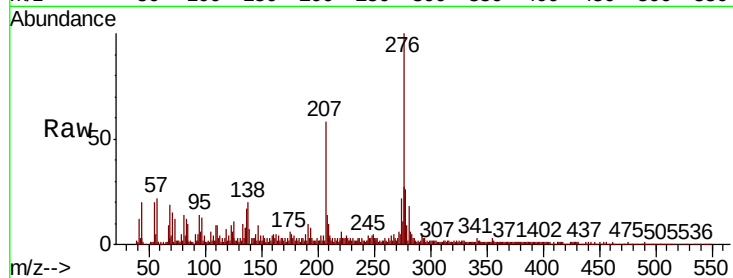
Tgt Ion:278 Resp: 128547

Ion Ratio Lower Upper

278 100

139 28.6 11.8 17.6#

279 33.8 19.0 28.6#



#92

Benzo(g,h,i)perylene

Concen: 10.866 ng

RT: 26.23 min Scan# 3951

Delta R.T. -0.04 min

Lab File: BM017915.D

Acq: 04 Dec 2018 22:47

Tgt Ion:276 Resp: 461350

Ion Ratio Lower Upper

276 100

277 24.7 19.0 28.4

138 20.4 15.9 23.9

