

Data Path : Z:\svoasrv\HPCHEM1\BNA\_F\Data\BF101923\  
 Data File : BF135896.D  
 Acq On : 19 Oct 2023 20:20  
 Operator : CG\JU  
 Sample : 04704-03DL 20X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 R-2(5-10)DL

Quant Time: Oct 20 02:04:29 2023  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\8270-BF101323.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Oct 17 01:22:00 2023  
 Response via : Initial Calibration

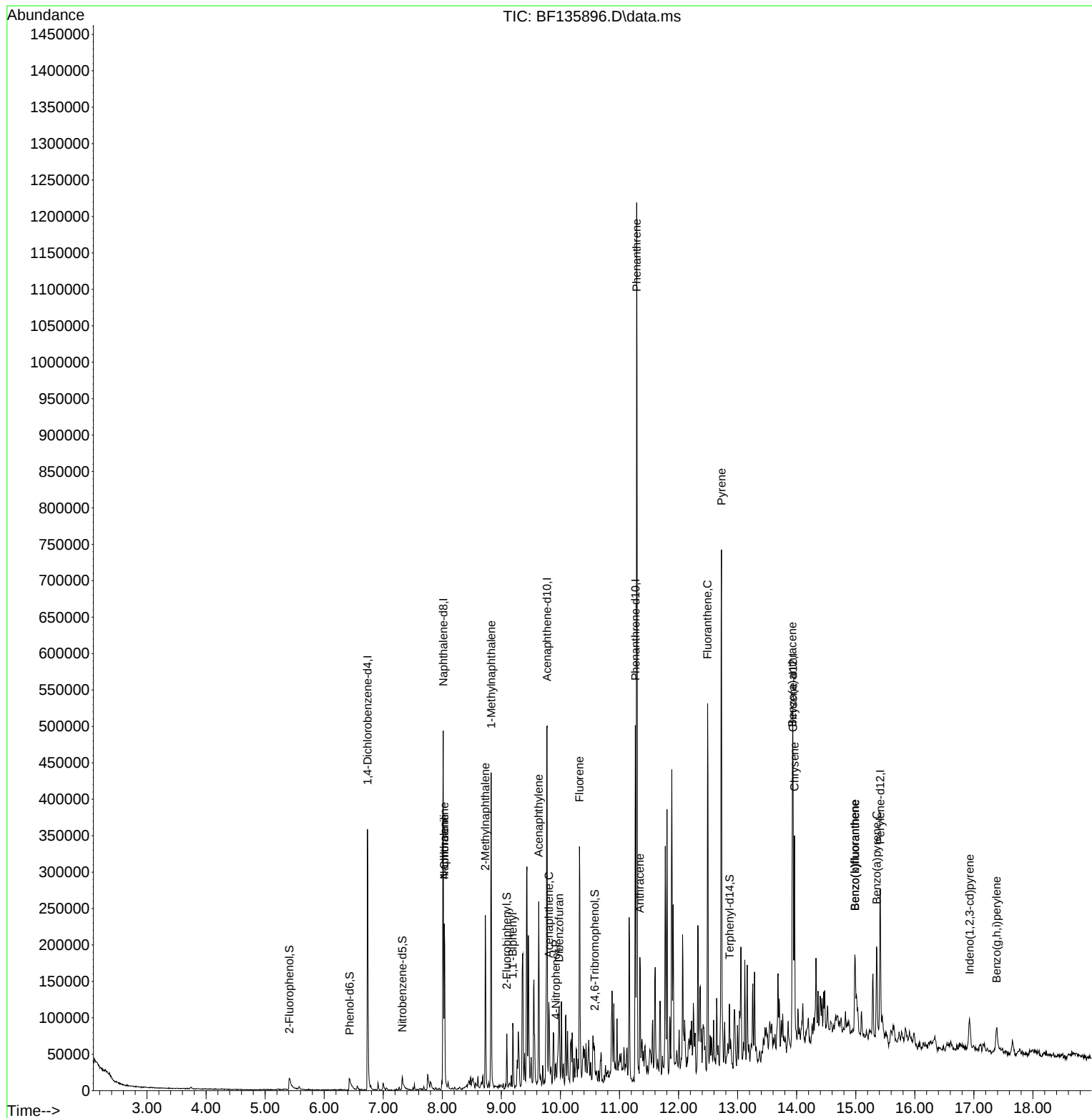
| Compound                    | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-----------------------------|--------|------|----------|--------|-------|----------|
| -----                       |        |      |          |        |       |          |
| Internal Standards          |        |      |          |        |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 6.734  | 152  | 58313    | 20.000 | ng    | -0.01    |
| 21) Naphthalene-d8          | 8.016  | 136  | 203138   | 20.000 | ng    | 0.00     |
| 39) Acenaphthene-d10        | 9.774  | 164  | 103037   | 20.000 | ng    | -0.01    |
| 64) Phenanthrene-d10        | 11.268 | 188  | 163650   | 20.000 | ng    | -0.01    |
| 76) Chrysene-d12            | 13.939 | 240  | 108296   | 20.000 | ng    | -0.01    |
| 86) Perylene-d12            | 15.415 | 264  | 93169    | 20.000 | ng    | 0.00     |
| System Monitoring Compounds |        |      |          |        |       |          |
| 5) 2-Fluorophenol           | 5.410  | 112  | 13028    | 3.592  | ng    | 0.04     |
| 7) Phenol-d6                | 6.434  | 99   | 14331    | 3.167  | ng    | 0.04     |
| 23) Nitrobenzene-d5         | 7.322  | 82   | 10425    | 2.823  | ng    | 0.00     |
| 42) 2,4,6-Tribromophenol    | 10.580 | 330  | 3486     | 3.526  | ng    | 0.00     |
| 45) 2-Fluorobiphenyl        | 9.092  | 172  | 19118    | 2.901  | ng    | -0.01    |
| 79) Terphenyl-d14           | 12.863 | 244  | 20016    | 3.423  | ng    | -0.02    |
| Target Compounds            |        |      |          |        |       |          |
|                             |        |      |          |        |       | Qvalue   |
| 31) Naphthalene             | 8.033  | 128  | 99782    | 10.071 | ng    | 99       |
| 33) 4-Chloroaniline         | 8.033  | 127  | 12231    | 2.826  | ng    | # 28     |
| 37) 2-Methylnaphthalene     | 8.727  | 142  | 59389    | 9.098  | ng    | 96       |
| 38) 1-Methylnaphthalene     | 8.827  | 142  | 104211   | 17.308 | ng    | 99       |
| 46) 1,1'-Biphenyl           | 9.192  | 154  | 28704    | 3.637  | ng    | 97       |
| 49) Acenaphthylene          | 9.633  | 152  | 63306    | 6.725  | ng    | # 95     |
| 52) Acenaphthene            | 9.804  | 154  | 21311    | 3.777  | ng    | 98       |
| 55) Dibenzofuran            | 9.980  | 168  | 18594    | 2.184  | ng    | # 86     |
| 56) 4-Nitrophenol           | 9.922  | 139  | 389      | 5.924  | ng    | # 5      |
| 58) Fluorene                | 10.322 | 166  | 95567    | 14.339 | ng    | 98       |
| 71) Phenanthrene            | 11.292 | 178  | 425571   | 54.285 | ng    | 99       |
| 72) Anthracene              | 11.345 | 178  | 67438    | 8.301  | ng    | 98       |
| 75) Fluoranthene            | 12.492 | 202  | 188341   | 21.646 | ng    | 98       |
| 78) Pyrene                  | 12.727 | 202  | 290207   | 33.722 | ng    | 99       |
| 81) Benzo(a)anthracene      | 13.927 | 228  | 110437   | 15.525 | ng    | 96       |
| 83) Chrysene                | 13.962 | 228  | 97684    | 14.178 | ng    | 97       |
| 87) Indeno(1,2,3-cd)pyrene  | 16.927 | 276  | 24562    | 4.838  | ng    | 95       |
| 88) Benzo(b)fluoranthene    | 14.986 | 252  | 83314    | 15.978 | ng    | 98       |
| 89) Benzo(k)fluoranthene    | 14.986 | 252  | 83314    | 16.458 | ng    | 98       |
| 90) Benzo(a)pyrene          | 15.356 | 252  | 65183    | 13.294 | ng    | 99       |
| 92) Benzo(g,h,i)perylene    | 17.386 | 276  | 24903    | 5.825  | ng    | 97       |
| -----                       |        |      |          |        |       |          |

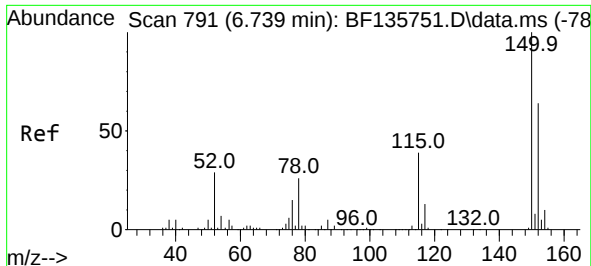
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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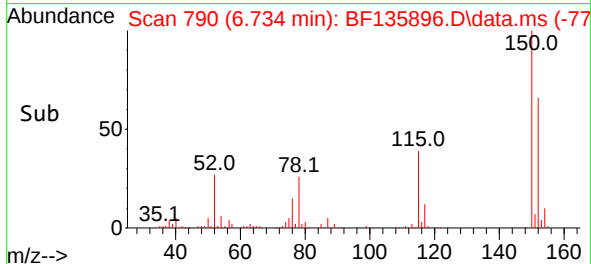
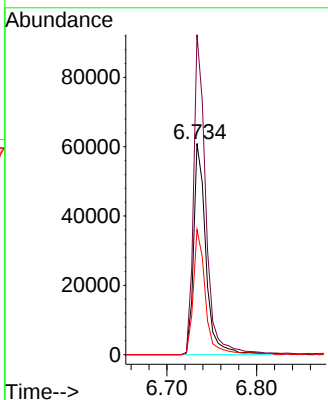
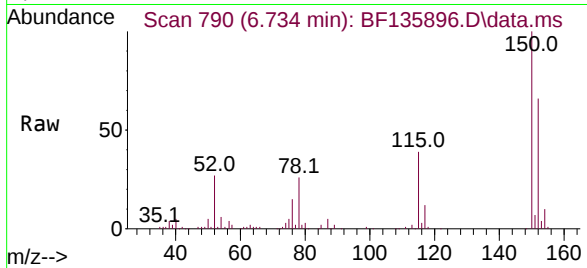




#1  
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 6.734 min Scan# 791  
Delta R.T. -0.013 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

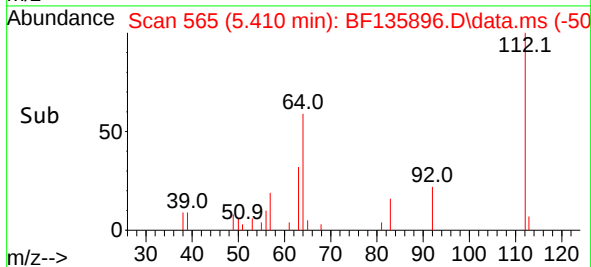
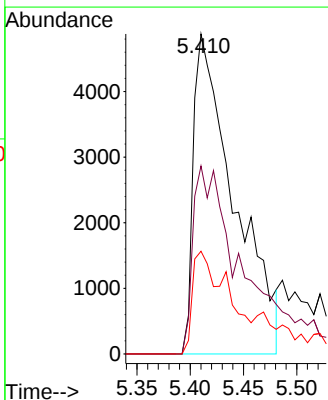
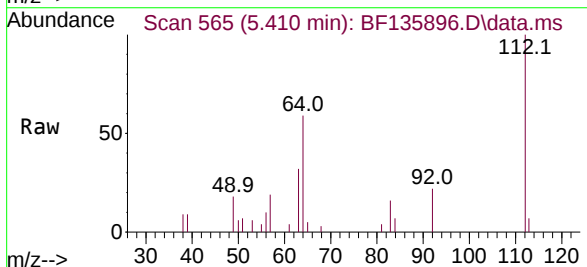
Instrument :  
BNA\_F  
ClientSampleId :  
R-2(5-10)DL

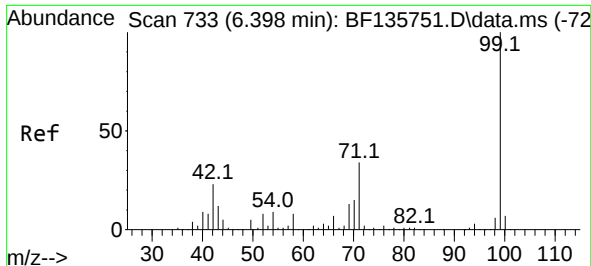
Tgt Ion:152 Resp: 58313  
Ion Ratio Lower Upper  
152 100  
150 151.6 124.5 186.7  
115 59.2 49.0 73.4



#5  
2-Fluorophenol  
Concen: 3.592 ng  
RT: 5.410 min Scan# 565  
Delta R.T. 0.035 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

Tgt Ion:112 Resp: 13028  
Ion Ratio Lower Upper  
112 100  
64 58.8 51.2 76.8  
63 32.1 26.1 39.1

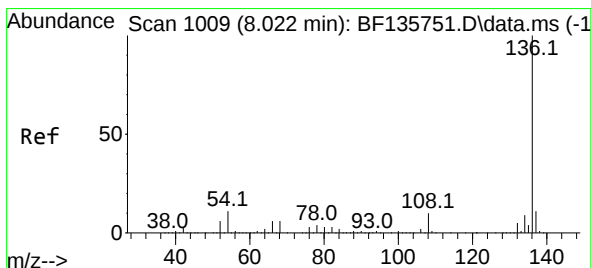
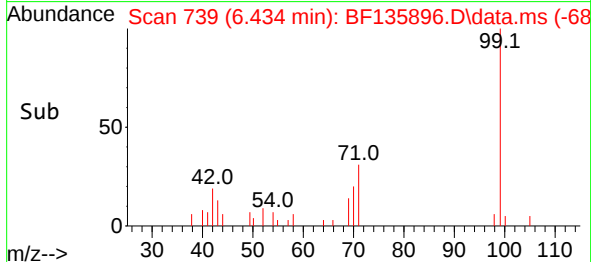
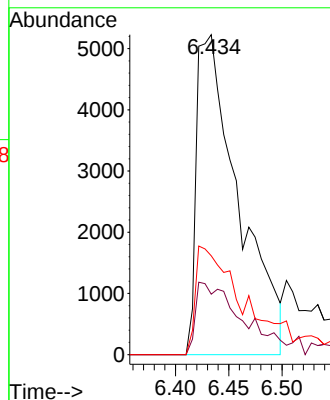
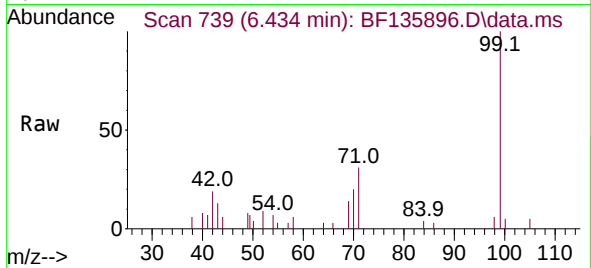




#7  
Phenol-d6  
Concen: 3.167 ng  
RT: 6.434 min Scan# 71  
Delta R.T. 0.035 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

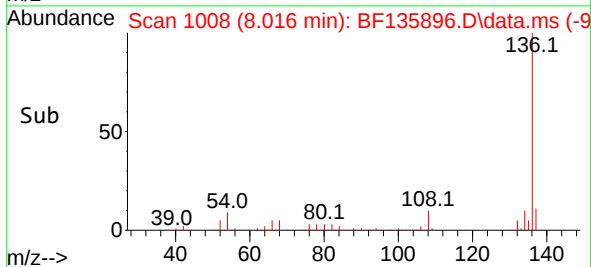
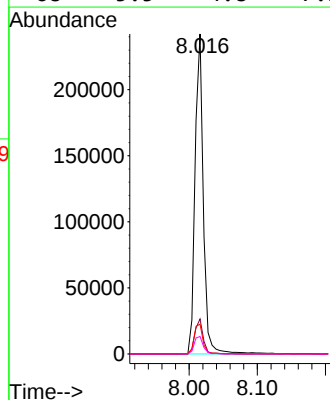
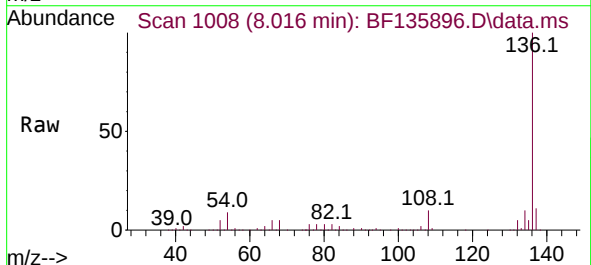
Instrument :  
BNA\_F  
ClientSampleId :  
R-2(5-10)DL

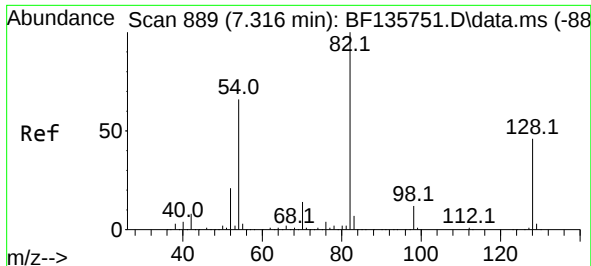
Tgt Ion: 99 Resp: 14331  
Ion Ratio Lower Upper  
99 100  
42 18.9 18.4 27.6  
71 30.9 27.2 40.8



#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 8.016 min Scan# 1008  
Delta R.T. -0.006 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

Tgt Ion: 136 Resp: 203138  
Ion Ratio Lower Upper  
136 100  
137 11.0 8.6 12.8  
54 9.3 8.5 12.7  
68 5.5 4.8 7.2





#23

Nitrobenzene-d5

Concen: 2.823 ng

RT: 7.322 min Scan# 89

Delta R.T. 0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

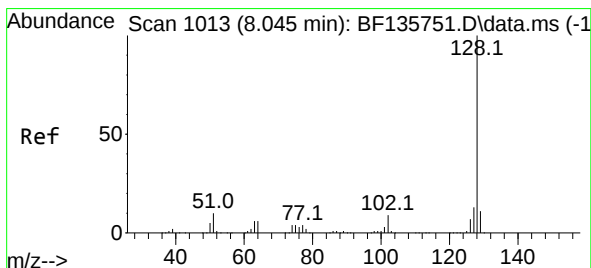
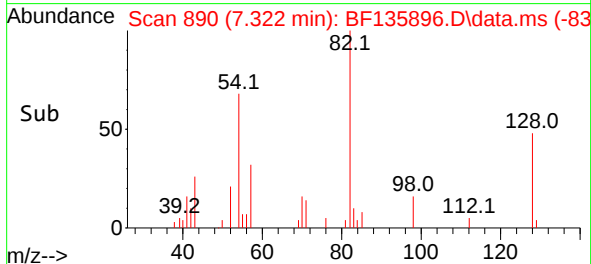
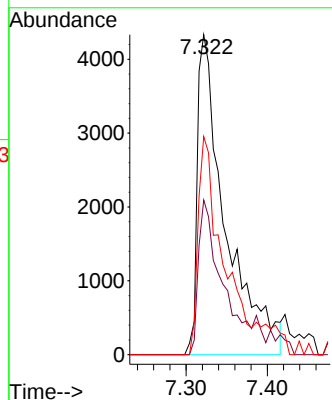
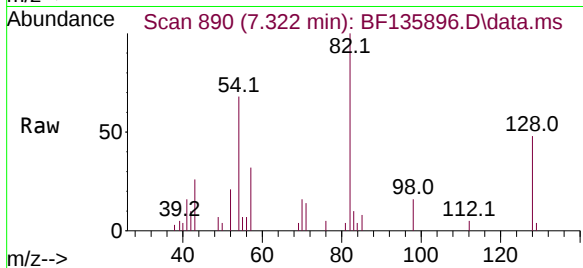
Tgt Ion: 82 Resp: 10425

Ion Ratio Lower Upper

82 100

128 48.3 37.0 55.6

54 68.2 52.8 79.2



#31

Naphthalene

Concen: 10.071 ng

RT: 8.033 min Scan# 1011

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

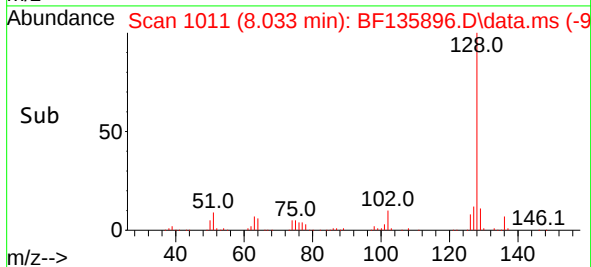
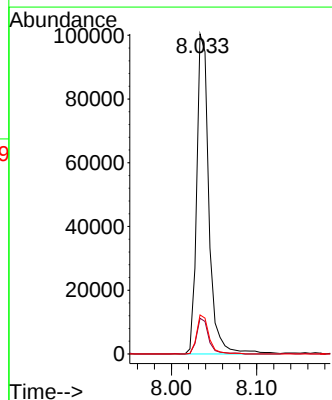
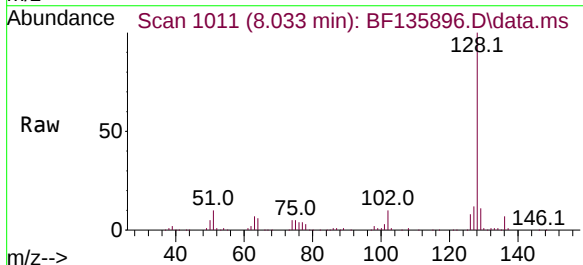
Tgt Ion:128 Resp: 99782

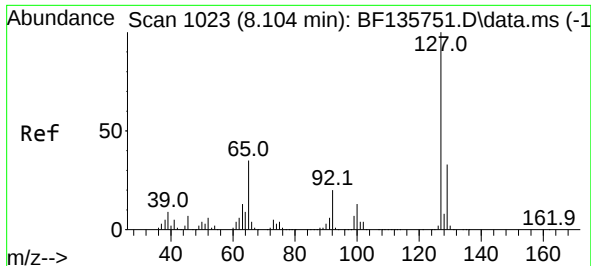
Ion Ratio Lower Upper

128 100

129 11.1 8.7 13.1

127 12.2 10.2 15.4

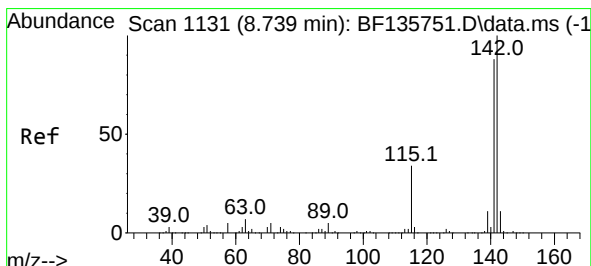
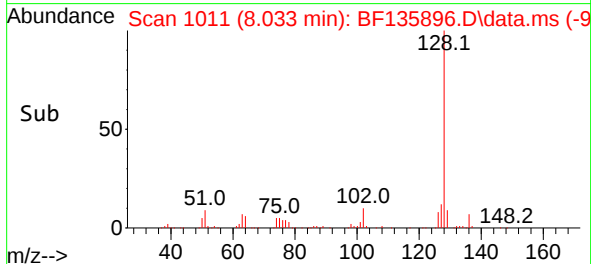
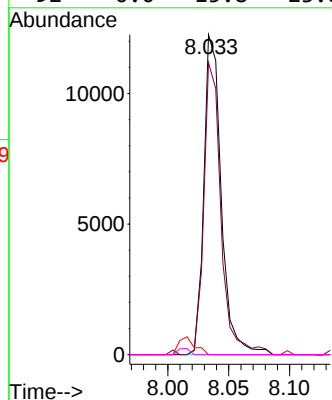
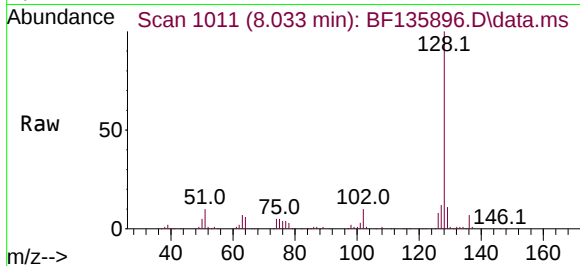




#33  
4-Chloroaniline  
Concen: 2.826 ng  
RT: 8.033 min Scan# 1129  
Delta R.T. -0.071 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

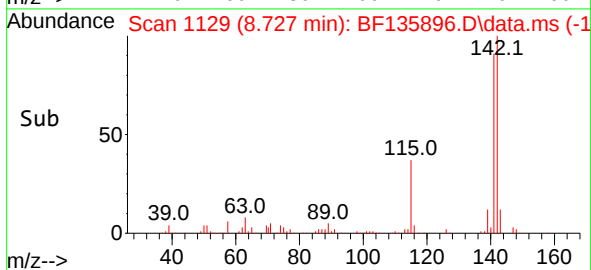
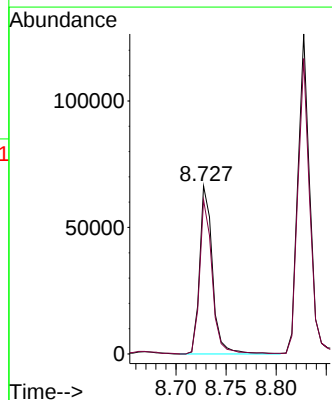
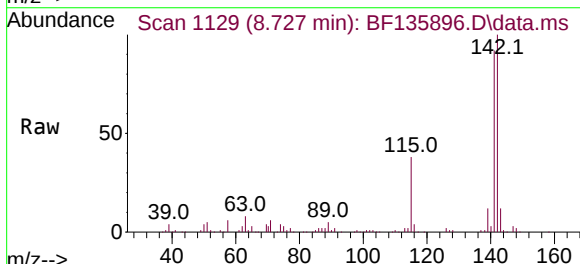
Instrument :  
BNA\_F  
ClientSampleId :  
R-2(5-10)DL

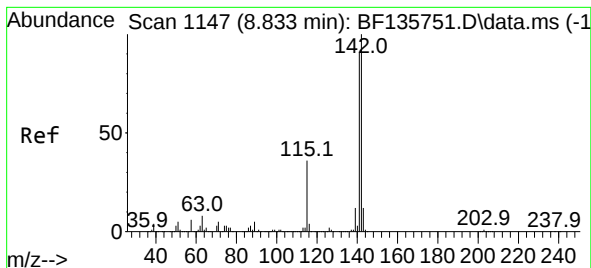
|             |       |            |
|-------------|-------|------------|
| Tgt Ion:127 | Resp: | 12231      |
| Ion Ratio   | Lower | Upper      |
| 127         | 100   |            |
| 129         | 91.3  | 26.5 39.7# |
| 65          | 0.0   | 27.9 41.9# |
| 92          | 0.0   | 15.8 23.8# |



#37  
2-Methylnaphthalene  
Concen: 9.098 ng  
RT: 8.727 min Scan# 1129  
Delta R.T. -0.012 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:142 | Resp: | 59389      |
| Ion Ratio   | Lower | Upper      |
| 142         | 100   |            |
| 141         | 91.7  | 70.6 105.8 |





#38

1-Methylnaphthalene

Concen: 17.308 ng

RT: 8.827 min Scan# 1146

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

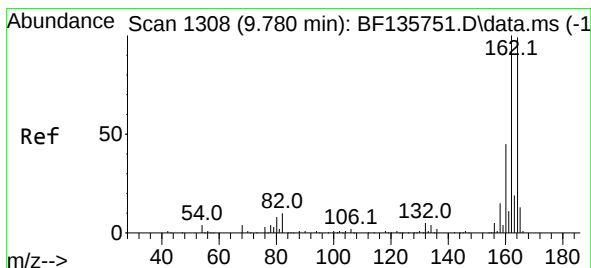
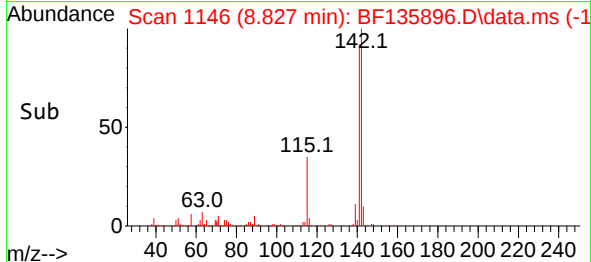
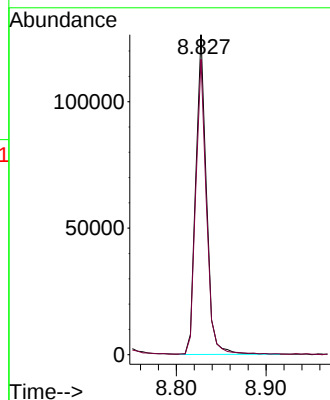
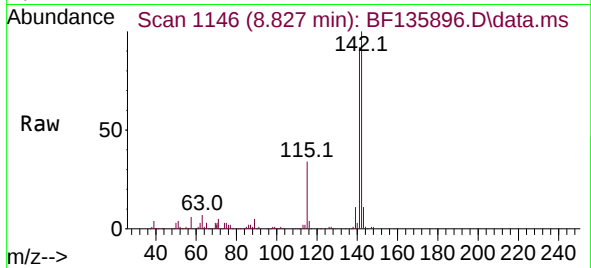
R-2(5-10)DL

Tgt Ion:142 Resp: 104211

Ion Ratio Lower Upper

142 100

141 92.3 72.7 109.1



#39

Acenaphthene-d10

Concen: 20.000 ng

RT: 9.774 min Scan# 1307

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

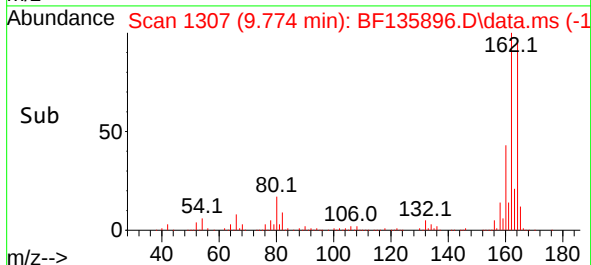
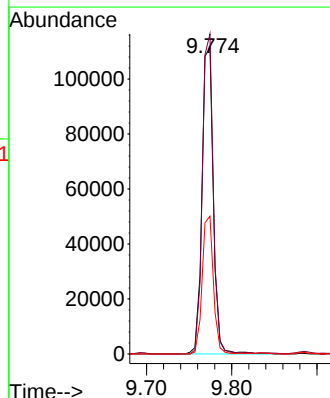
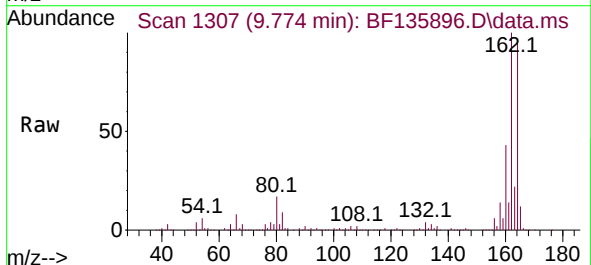
Tgt Ion:164 Resp: 103037

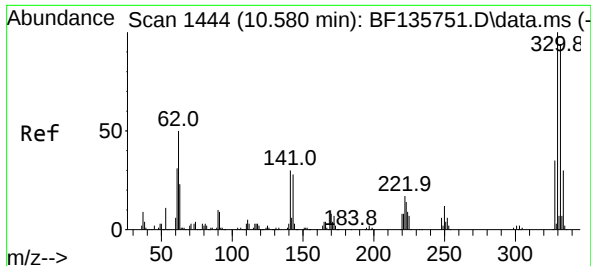
Ion Ratio Lower Upper

164 100

162 104.4 80.8 121.2

160 45.0 36.6 54.8





#42

2,4,6-Tribromophenol

Concen: 3.526 ng

RT: 10.580 min Scan# 1444

Delta R.T. -0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

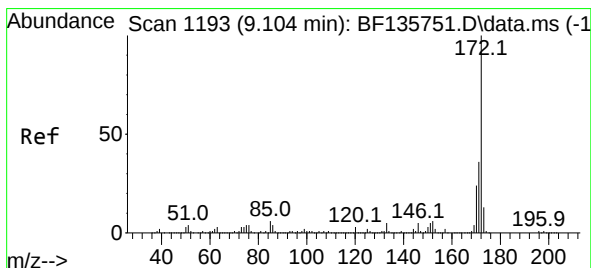
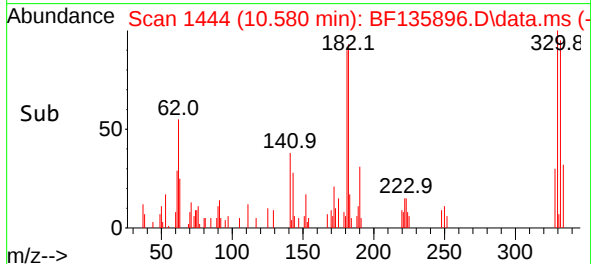
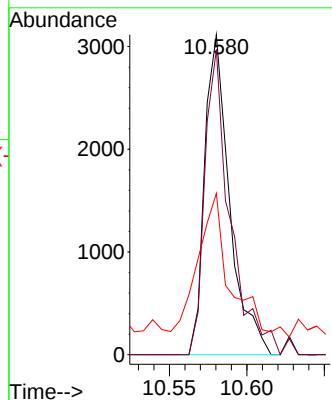
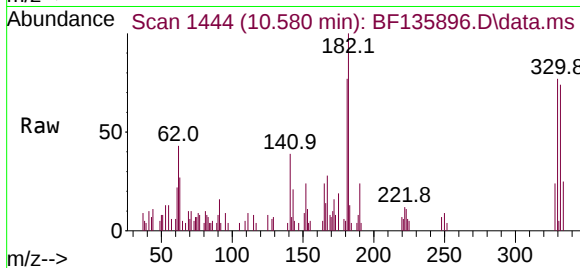
Tgt Ion:330 Resp: 3486

Ion Ratio Lower Upper

330 100

332 98.5 75.0 112.4

141 51.1 25.8 38.6#



#45

2-Fluorobiphenyl

Concen: 2.901 ng

RT: 9.092 min Scan# 1191

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

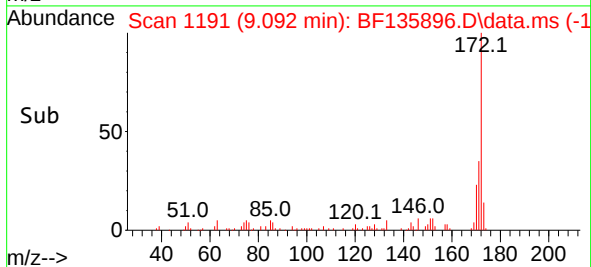
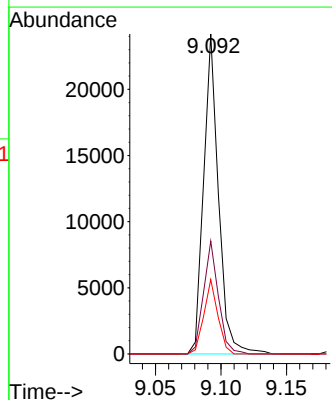
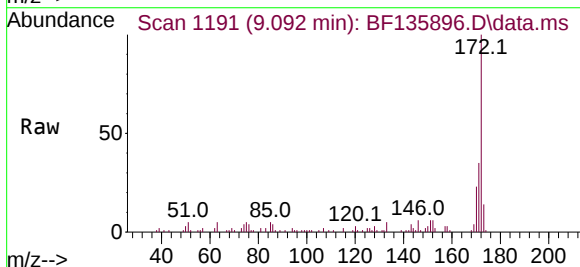
Tgt Ion:172 Resp: 19118

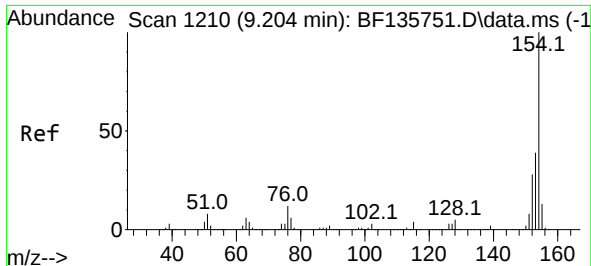
Ion Ratio Lower Upper

172 100

171 35.3 28.4 42.6

170 23.3 18.8 28.2





#46

1,1'-Biphenyl

Concen: 3.637 ng

RT: 9.192 min Scan# 1

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

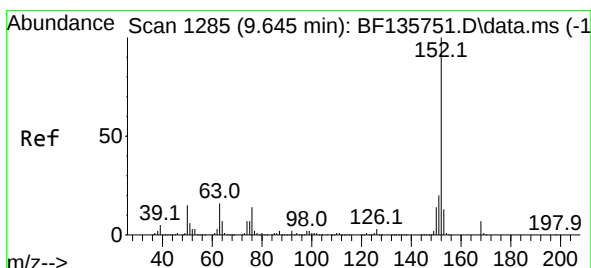
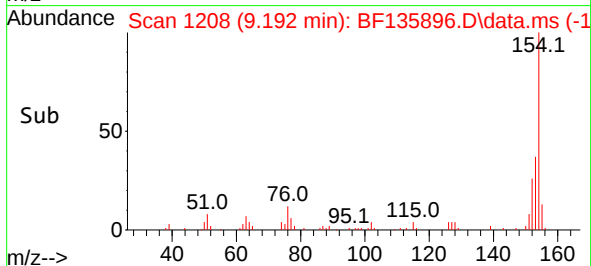
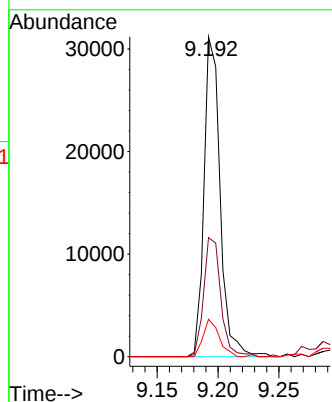
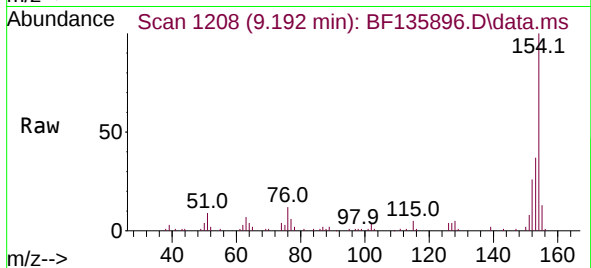
Tgt Ion:154 Resp: 28704

Ion Ratio Lower Upper

154 100

153 37.2 19.4 59.4

76 11.7 0.0 31.7



#49

Acenaphthylene

Concen: 6.725 ng

RT: 9.633 min Scan# 1283

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

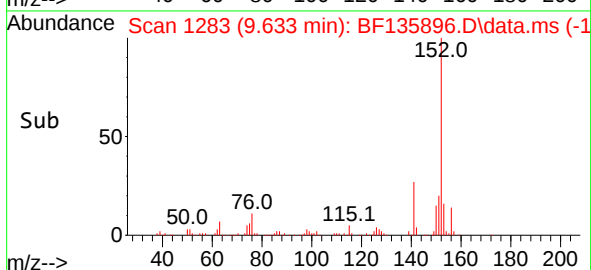
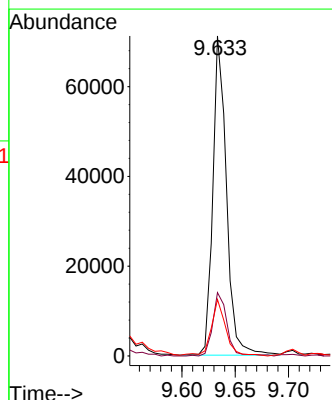
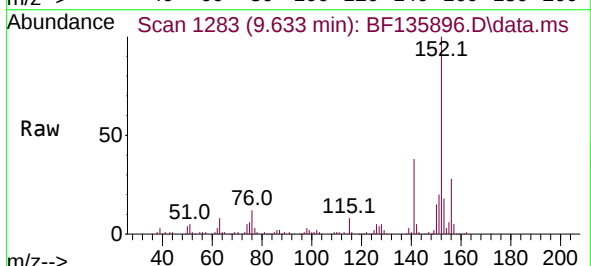
Tgt Ion:152 Resp: 63306

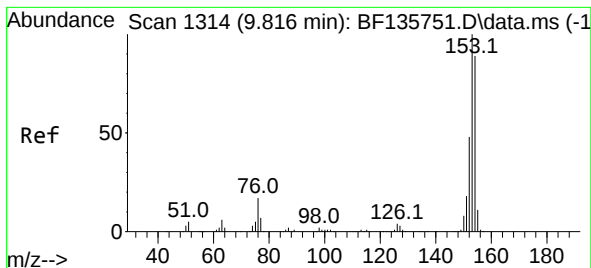
Ion Ratio Lower Upper

152 100

151 19.8 16.2 24.2

153 17.7 10.2 15.4#





#52

Acenaphthene

Concen: 3.777 ng

RT: 9.804 min Scan# 11

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

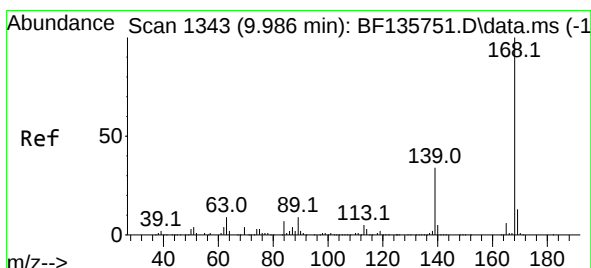
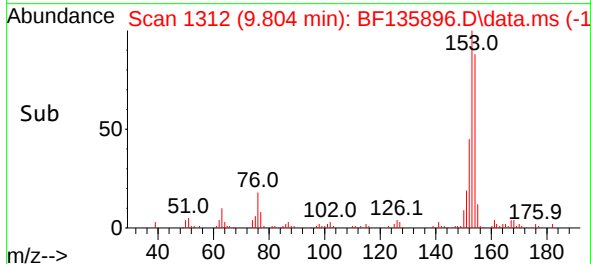
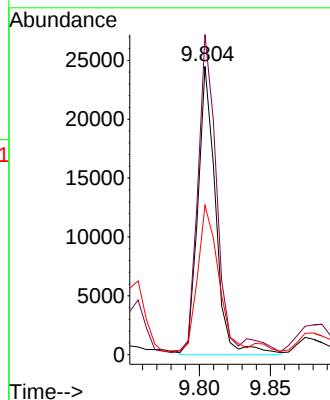
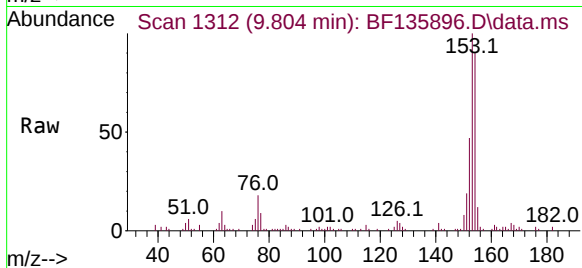
Tgt Ion:154 Resp: 21311

Ion Ratio Lower Upper

154 100

153 111.0 90.1 135.1

152 51.8 43.1 64.7



#55

Dibenzofuran

Concen: 2.184 ng

RT: 9.980 min Scan# 1342

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

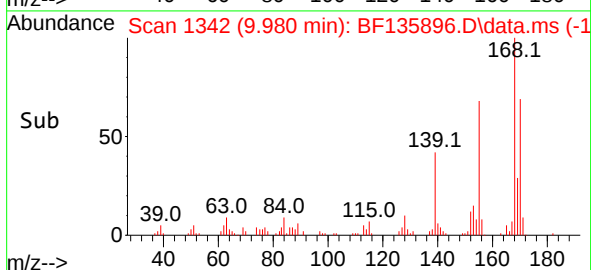
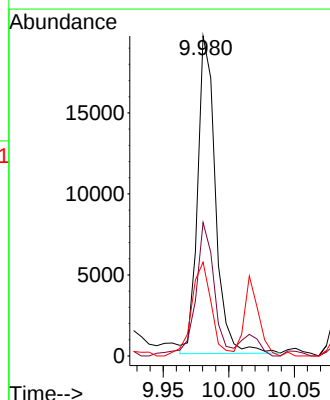
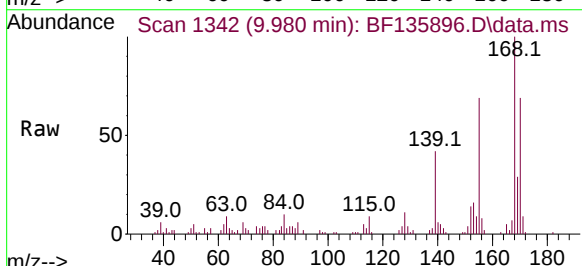
Tgt Ion:168 Resp: 18594

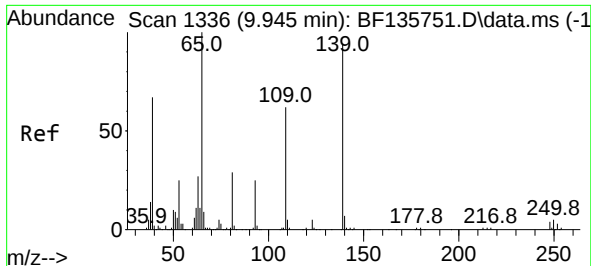
Ion Ratio Lower Upper

168 100

139 41.7 31.0 46.4

169 29.3 10.7 16.1#

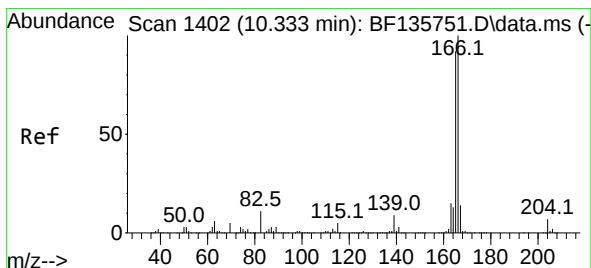
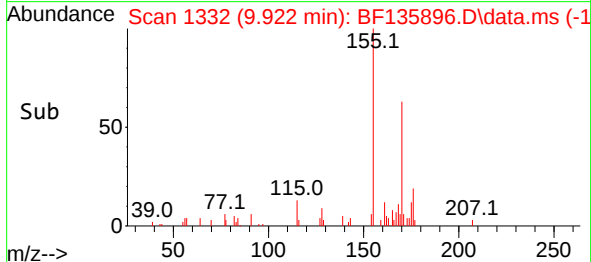
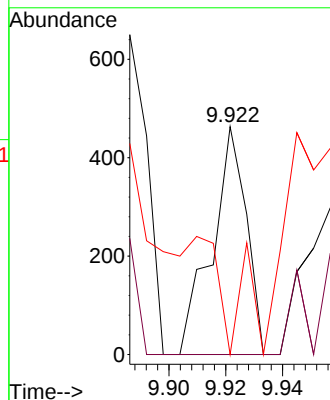
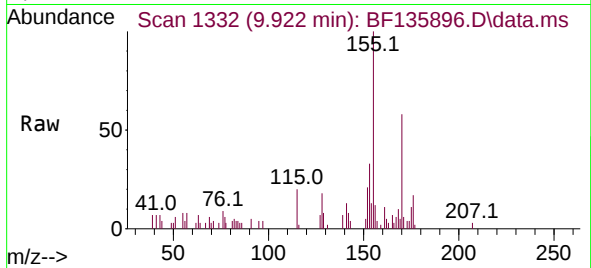




#56  
4-Nitrophenol  
Concen: 5.924 ng  
RT: 9.922 min Scan# 11  
Delta R.T. -0.024 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

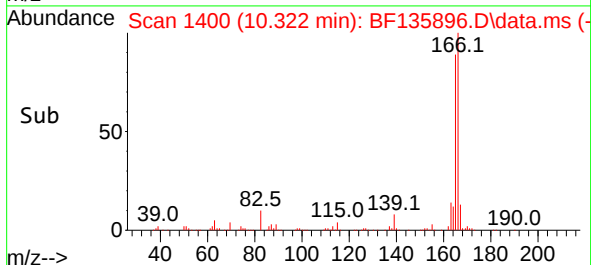
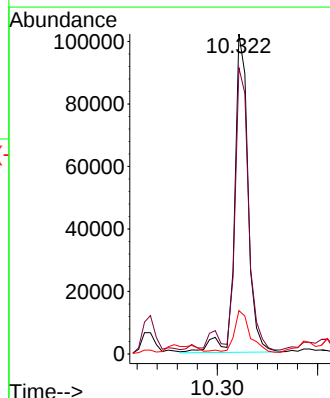
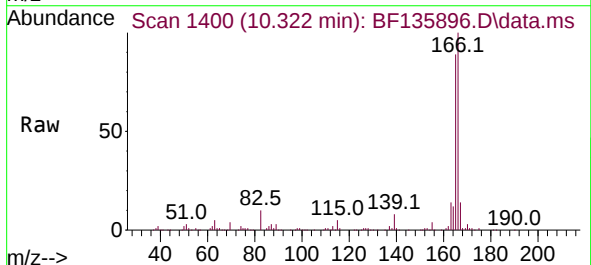
Instrument :  
BNA\_F  
ClientSampleId :  
R-2(5-10)DL

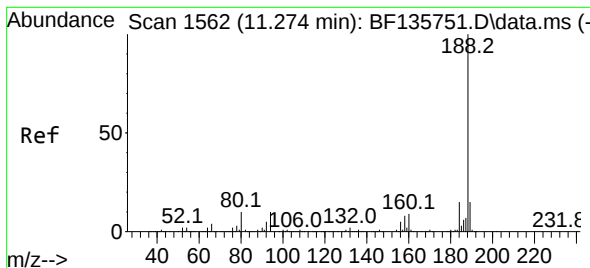
Tgt Ion:139 Resp: 389  
Ion Ratio Lower Upper  
139 100  
109 0.0 45.6 85.6#  
65 0.0 87.5 127.5#



#58  
Fluorene  
Concen: 14.339 ng  
RT: 10.322 min Scan# 1400  
Delta R.T. -0.018 min  
Lab File: BF135896.D  
Acq: 19 Oct 2023 20:20

Tgt Ion:166 Resp: 95567  
Ion Ratio Lower Upper  
166 100  
165 89.4 73.4 110.0  
167 13.6 11.0 16.6





#64

Phenanthrene-d10

Concen: 20.000 ng

RT: 11.268 min Scan# 11

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

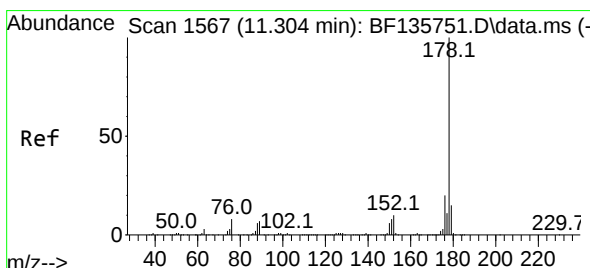
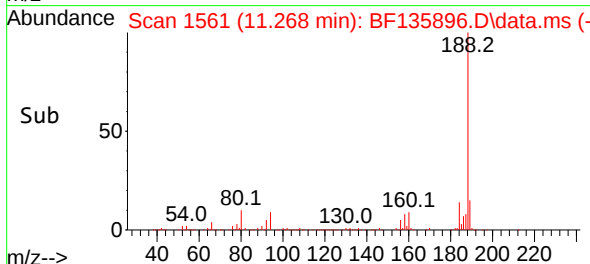
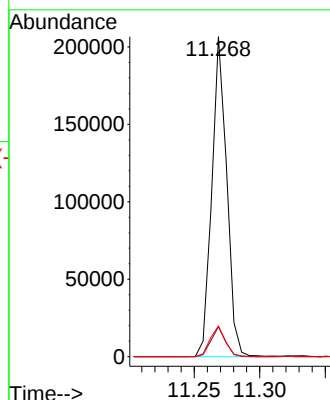
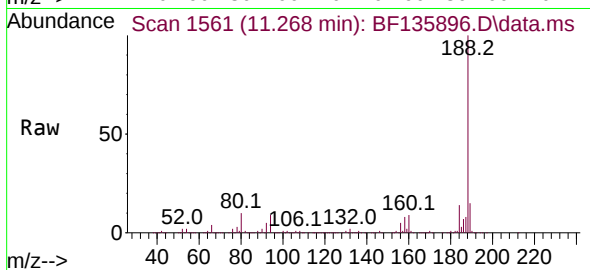
Tgt Ion:188 Resp: 163650

Ion Ratio Lower Upper

188 100

94 9.3 8.0 12.0

80 9.6 8.3 12.5



#71

Phenanthrene

Concen: 54.285 ng

RT: 11.292 min Scan# 1565

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

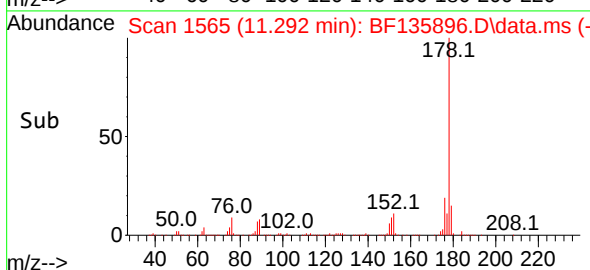
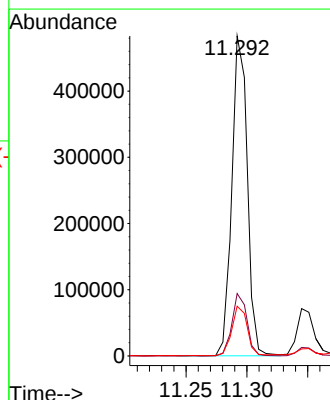
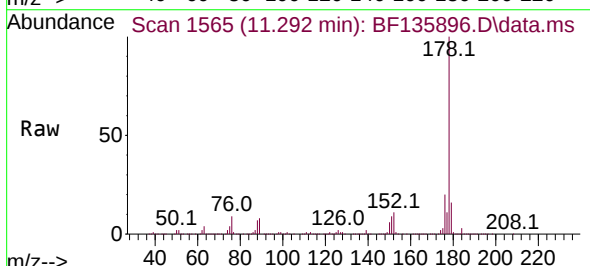
Tgt Ion:178 Resp: 425571

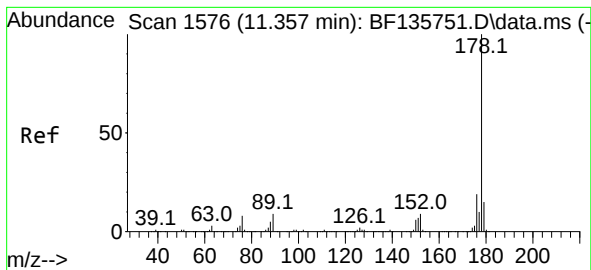
Ion Ratio Lower Upper

178 100

176 19.5 16.0 24.0

179 15.6 12.2 18.4





#72

Anthracene

Concen: 8.301 ng

RT: 11.345 min Scan# 1

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

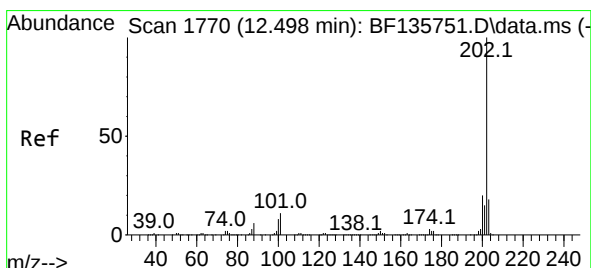
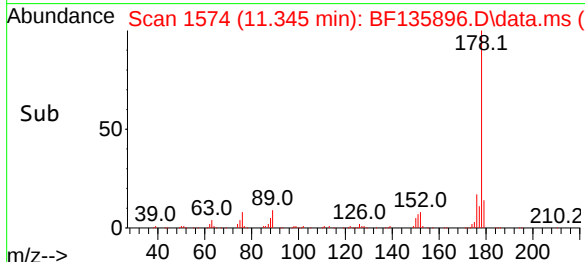
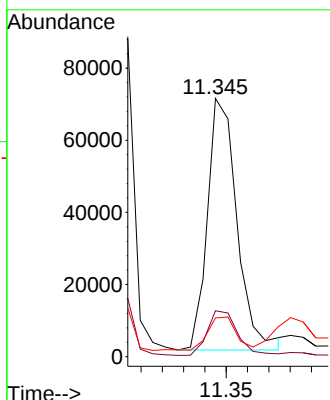
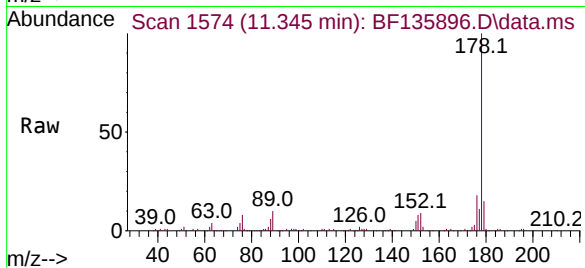
Tgt Ion:178 Resp: 67438

Ion Ratio Lower Upper

178 100

176 17.8 15.1 22.7

179 15.0 12.3 18.5



#75

Fluoranthene

Concen: 21.646 ng

RT: 12.492 min Scan# 1769

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

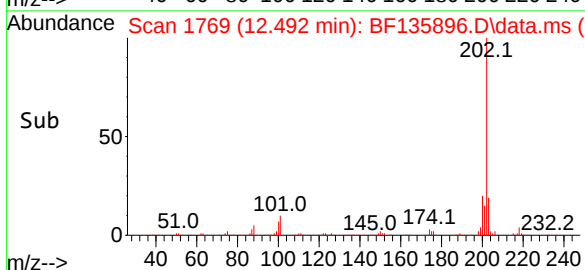
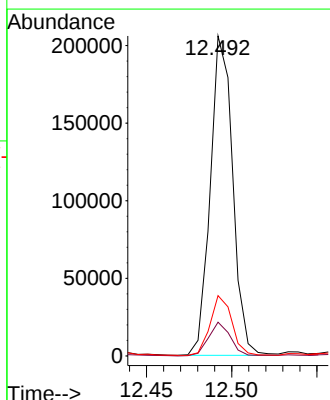
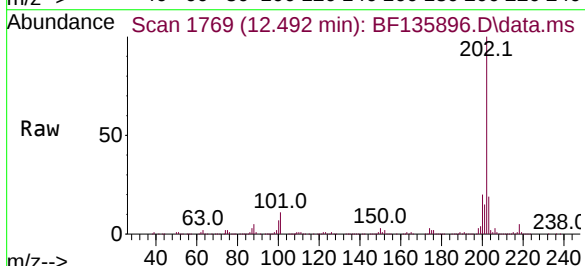
Tgt Ion:202 Resp: 188341

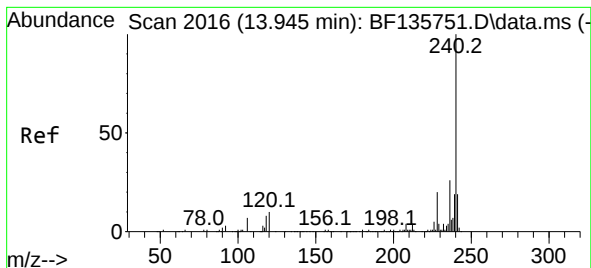
Ion Ratio Lower Upper

202 100

101 10.6 0.0 31.5

203 18.8 0.0 38.3





#76

Chrysene-d12

Concen: 20.000 ng

RT: 13.939 min Scan# 20

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

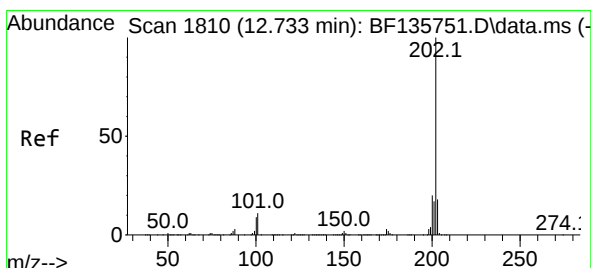
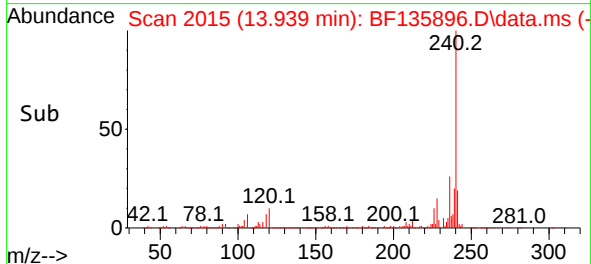
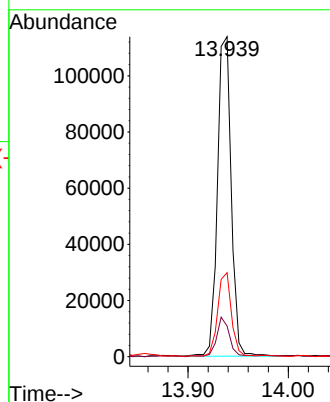
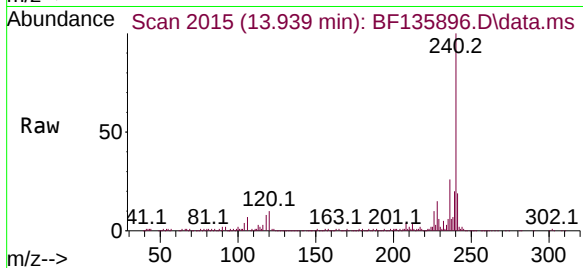
Tgt Ion:240 Resp: 108296

Ion Ratio Lower Upper

240 100

120 9.6 8.2 12.2

236 26.2 21.2 31.8



#78

Pyrene

Concen: 33.722 ng

RT: 12.727 min Scan# 1809

Delta R.T. -0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

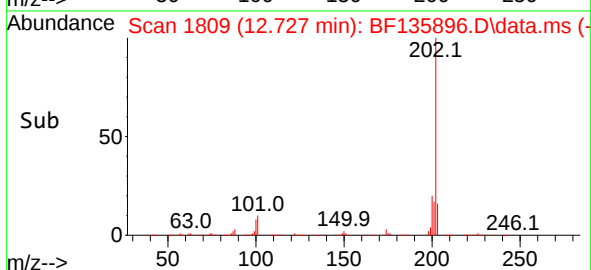
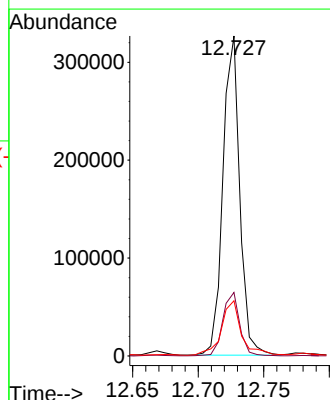
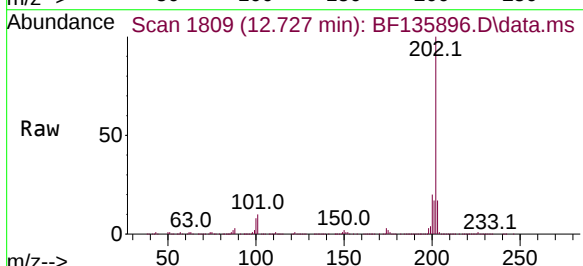
Tgt Ion:202 Resp: 290207

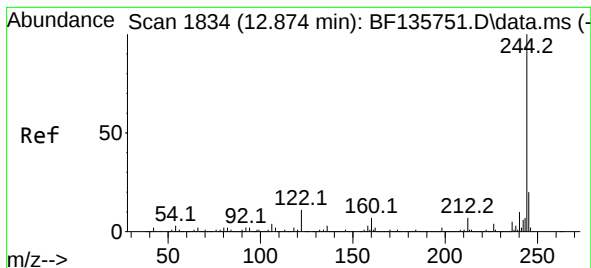
Ion Ratio Lower Upper

202 100

200 19.9 16.1 24.1

203 17.3 14.2 21.2





#79

Terphenyl-d14

Concen: 3.423 ng

RT: 12.863 min Scan# 1

Delta R.T. -0.018 min

Lab File: BF135896.D

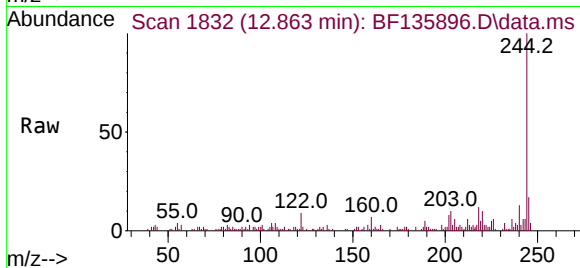
Acq: 19 Oct 2023 20:20

Instrument :

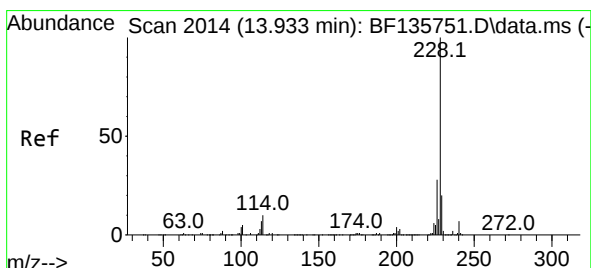
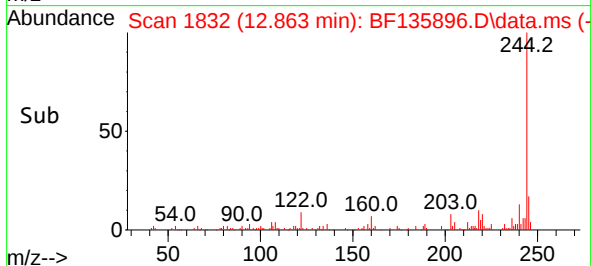
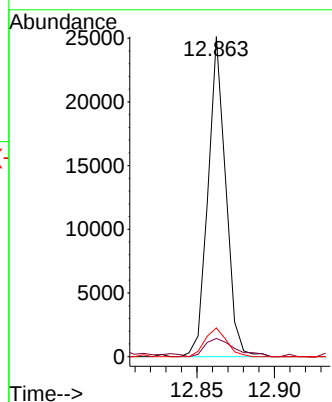
BNA\_F

ClientSampleId :

R-2(5-10)DL



|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:244 | Resp: | 20016     |
| Ion Ratio   | Lower | Upper     |
| 244         | 100   |           |
| 212         | 5.7   | 5.6 8.4   |
| 122         | 9.0   | 9.0 13.6# |



#81

Benzo(a)anthracene

Concen: 15.525 ng

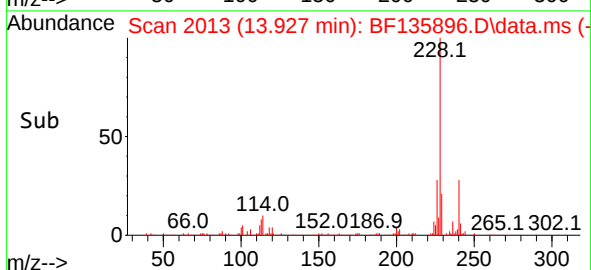
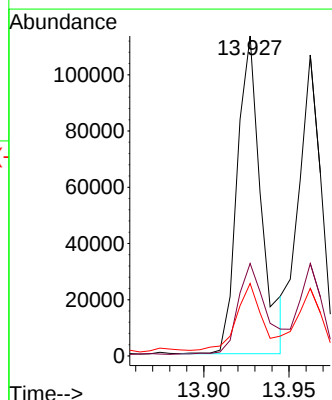
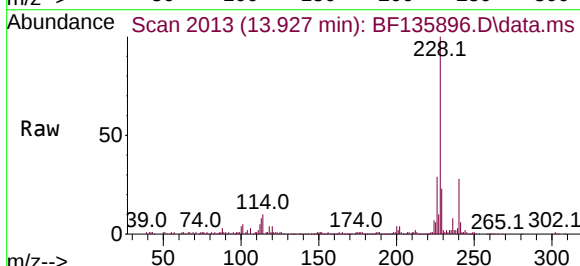
RT: 13.927 min Scan# 2013

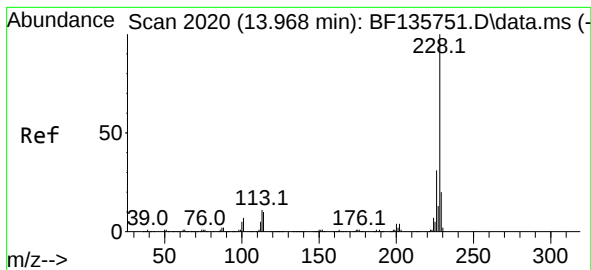
Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:228 | Resp: | 110437    |
| Ion Ratio   | Lower | Upper     |
| 228         | 100   |           |
| 226         | 28.9  | 22.2 33.2 |
| 229         | 22.6  | 16.1 24.1 |





#83

Chrysene

Concen: 14.178 ng

RT: 13.962 min Scan# 20

Delta R.T. -0.012 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

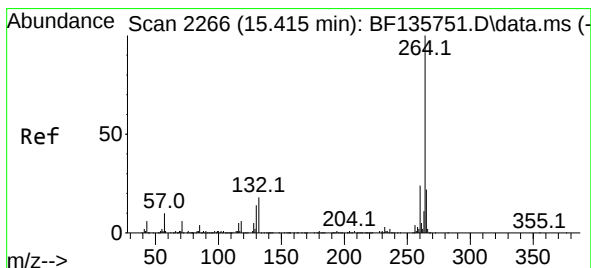
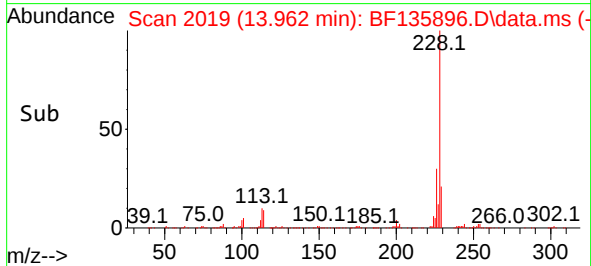
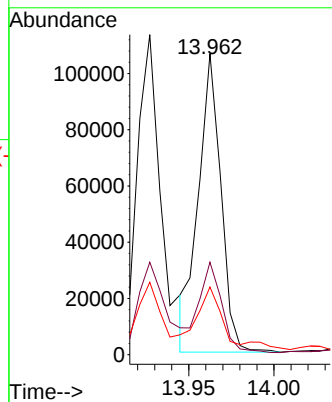
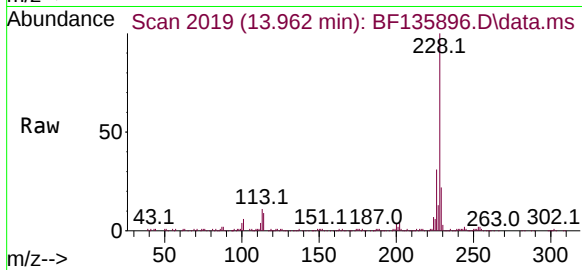
Tgt Ion:228 Resp: 97684

Ion Ratio Lower Upper

228 100

226 30.7 24.4 36.6

229 22.5 15.7 23.5



#86

Perylene-d12

Concen: 20.000 ng

RT: 15.415 min Scan# 2266

Delta R.T. -0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

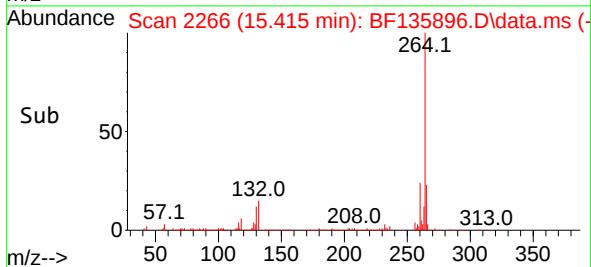
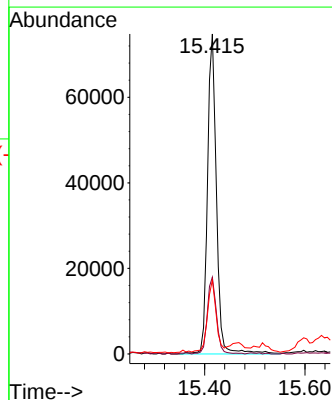
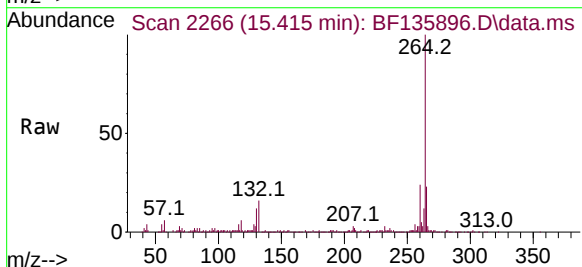
Tgt Ion:264 Resp: 93169

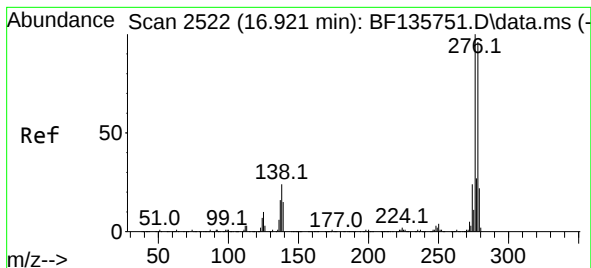
Ion Ratio Lower Upper

264 100

260 24.0 19.2 28.8

265 23.2 17.4 26.2





#87

Indeno(1,2,3-cd)pyrene

Concen: 4.838 ng

RT: 16.927 min Scan# 2193

Delta R.T. -0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

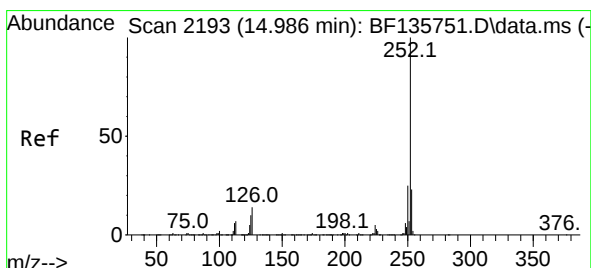
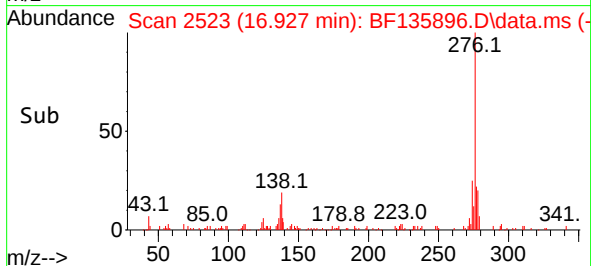
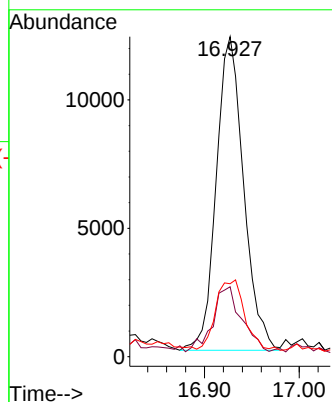
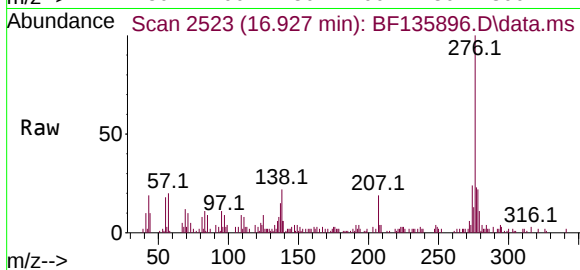
Tgt Ion:276 Resp: 24562

Ion Ratio Lower Upper

276 100

138 21.7 19.8 29.6

277 23.4 20.2 30.4



#88

Benzo(b)fluoranthene

Concen: 15.978 ng

RT: 14.986 min Scan# 2193

Delta R.T. -0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

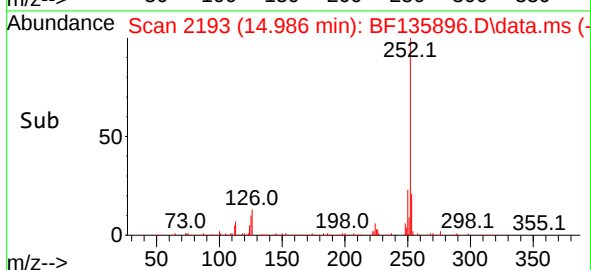
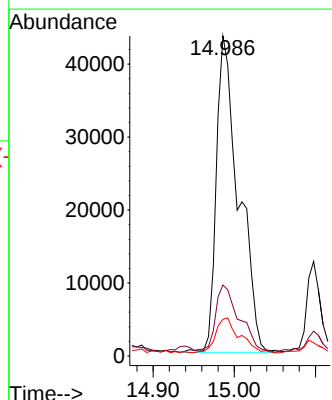
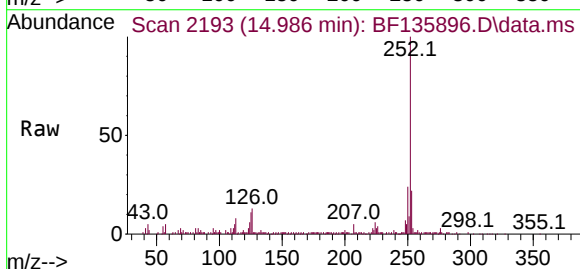
Tgt Ion:252 Resp: 83314

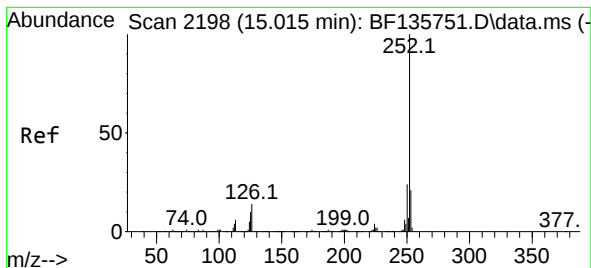
Ion Ratio Lower Upper

252 100

253 22.2 18.2 27.2

125 11.5 8.2 12.2





#89

Benzo(k)fluoranthene

Concen: 16.458 ng

RT: 14.986 min Scan# 2198

Delta R.T. -0.036 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL

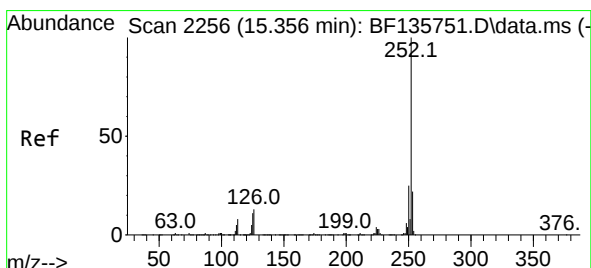
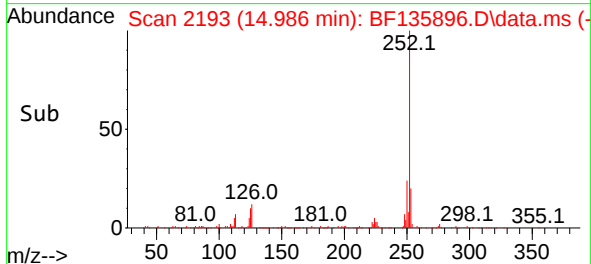
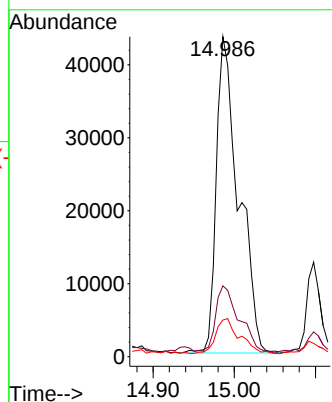
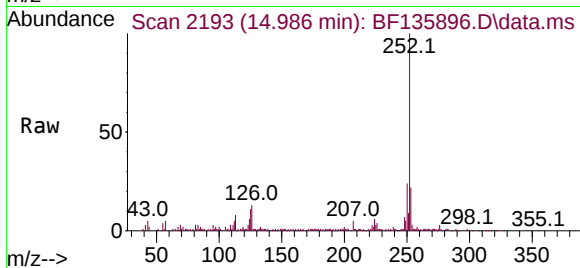
Tgt Ion:252 Resp: 83314

Ion Ratio Lower Upper

252 100

253 22.2 17.4 26.0

125 11.5 8.3 12.5



#90

Benzo(a)pyrene

Concen: 13.294 ng

RT: 15.356 min Scan# 2256

Delta R.T. -0.006 min

Lab File: BF135896.D

Acq: 19 Oct 2023 20:20

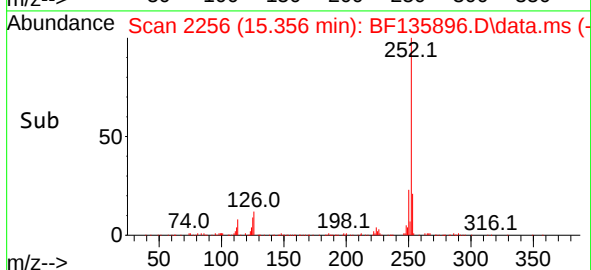
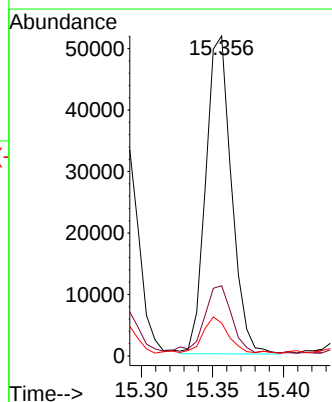
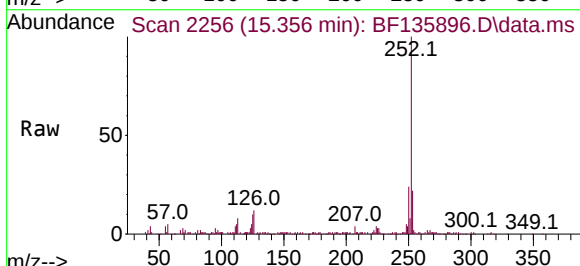
Tgt Ion:252 Resp: 65183

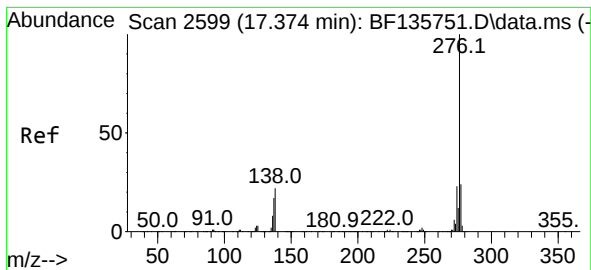
Ion Ratio Lower Upper

252 100

253 22.0 17.4 26.2

125 10.3 8.8 13.2





#92

Benzo(g,h,i)perylene

Concen: 5.825 ng

RT: 17.386 min Scan# 20

Delta R.T. -0.000 min

Lab File: BF135896.D

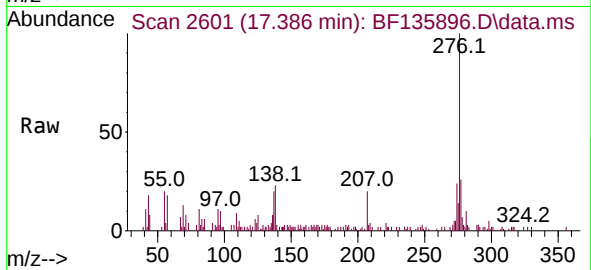
Acq: 19 Oct 2023 20:20

Instrument :

BNA\_F

ClientSampleId :

R-2(5-10)DL



Tgt Ion:276 Resp: 24903

Ion Ratio Lower Upper

276 100

277 26.3 19.4 29.2

138 22.6 17.3 25.9

