

Data Path : Z:\HPCHEM1\BNA_E\DATA\BE021716\
 Data File : BE091410.D
 Acq On : 17 Feb 2016 18:45
 Operator : UM/IZ
 Sample : H1445-01DL 10X
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 LIBERTY-SF-005DL

Quant Time: Feb 18 00:00:26 2016
 Quant Method : Z:\HPCHEM1\BNA_E\METHODS\8270-SIM-BE020216.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Wed Feb 03 00:27:53 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.86	152	35894	5.00	ng	-0.01
4) Naphthalene-d8	9.53	136	181214	5.00	ng	-0.01
8) Acenaphthene-d10	13.35	164	120556	5.00	ng	0.00
14) Phenanthrene-d10	16.08	188	287471	5.00	ng	-0.01
18) Chrysene-d12	20.21	240	346771	5.00	ng	0.00
24) Perylene-d12	22.09	264	353819	5.00	ng	0.00

System Monitoring Compounds						
2) 2-Fluorophenol	4.92	112	4912	0.78	ng	-0.03
3) Phenol-d6	6.58	99	7173	0.79	ng	0.00
5) Nitrobenzene-d5	8.19	82	3903	0.59	ng	0.02
9) 2,4,6-Tribromophenol	14.89	330	2113	0.68	ng	-0.01
10) 2-Fluorobiphenyl	12.00	172	12983	0.41	ng	0.00
20) Terphenyl-d14	18.61	244	23133	0.45	ng	0.00

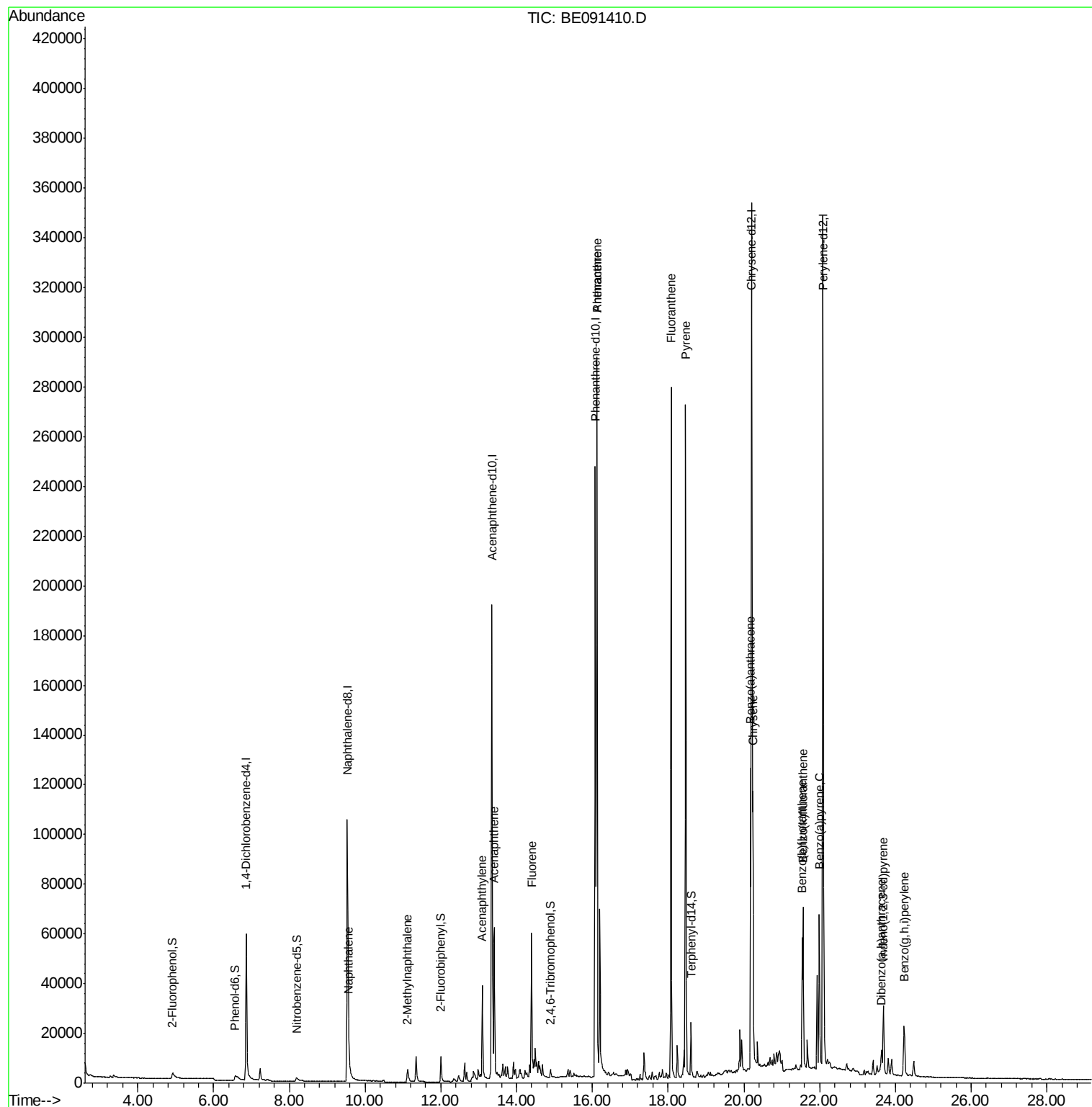
Target Compounds						Qvalue
6) Naphthalene	9.58	128	3617	0.09	ng	# 88
7) 2-Methylnaphthalene	11.12	142	6770	0.39	ng	96
11) Acenaphthylene	13.09	152	57535	0.44	ng	99
12) Acenaphthene	13.41	154	12280	0.37	ng	96
13) Fluorene	14.40	166	41385	0.97	ng	98
15) Phenanthrene	16.12	178	325536	4.31	ng	99
16) Anthracene	16.12	178	324911	5.14	ng	99
17) Fluoranthene	18.08	202	271363	3.46	ng	99
19) Pyrene	18.47	202	243095	3.24	ng	99
21) Benzo(a)anthracene	20.18	228	96584	1.38	ng	96
22) Chrysene	20.24	228	98246	1.09	ng	96
23) Indeno(1,2,3-cd)pyrene	23.68	276	34795	0.59	ng	99
25) Benzo(b)fluoranthene	21.54	252	53922	0.74	ng	# 93
26) Benzo(k)fluoranthene	21.56	252	62768	0.73	ng	# 92
27) Benzo(a)pyrene	21.99	252	69064	0.99	ng	# 94
28) Dibenzo(a,h)anthracene	23.63	278	12740	0.40	ng	# 77
29) Benzo(g,h,i)perylene	24.23	276	34430	0.52	ng	93

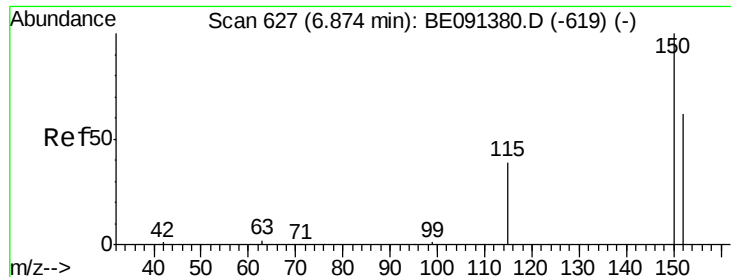
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.86 min Scan# 625

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

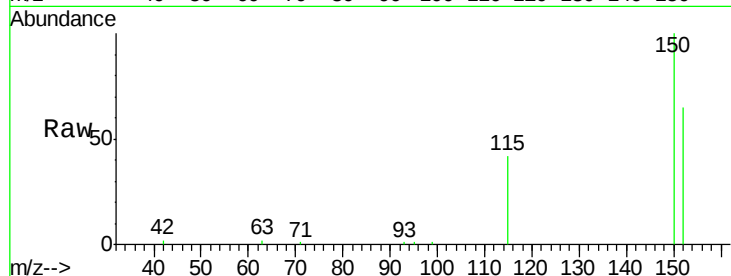
Tgt Ion:152 Resp: 35894

Ion Ratio Lower Upper

152 100

150 155.0 128.9 193.3

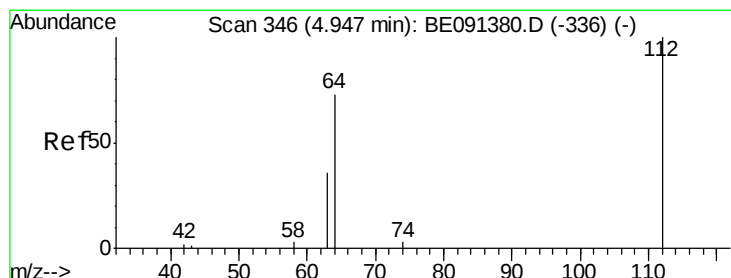
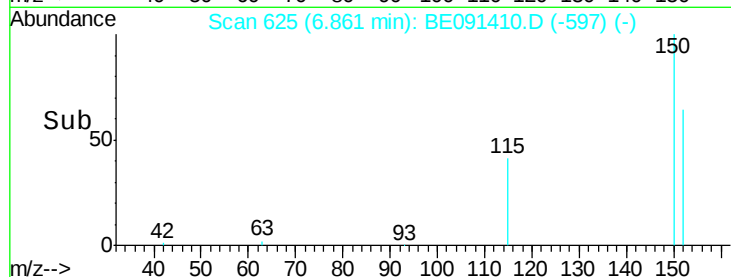
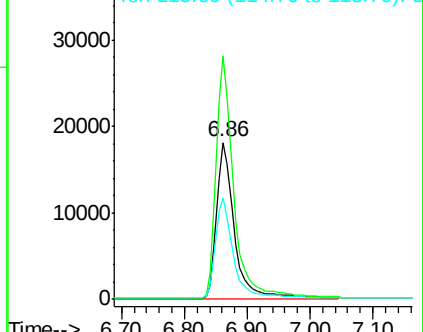
115 64.4 50.9 76.3



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



#2

2-Fluorophenol

Concen: 0.78 ng

RT: 4.92 min Scan# 342

Delta R.T. -0.03 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

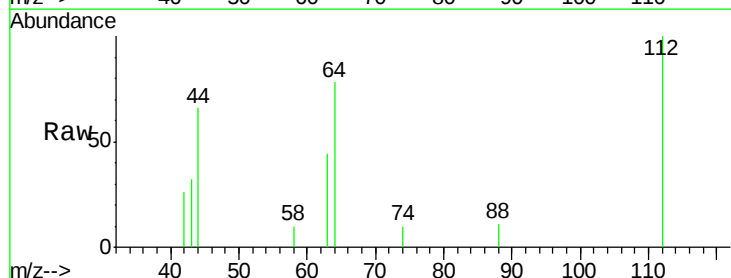
Tgt Ion:112 Resp: 4912

Ion Ratio Lower Upper

112 100

64 75.2 60.5 90.7

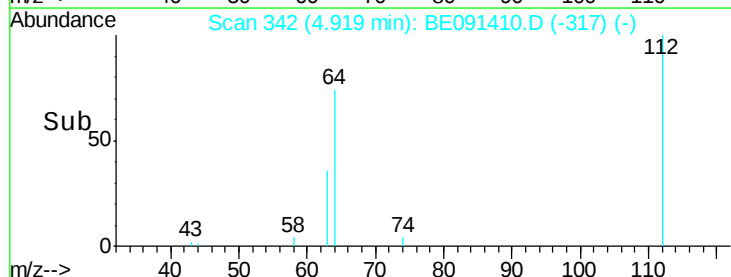
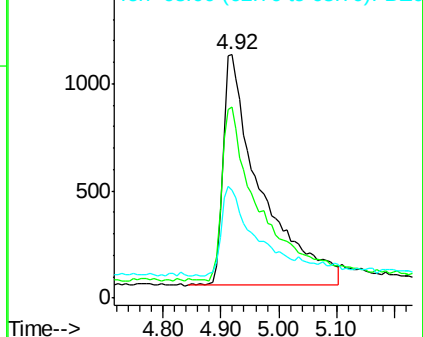
63 34.2 29.8 44.8

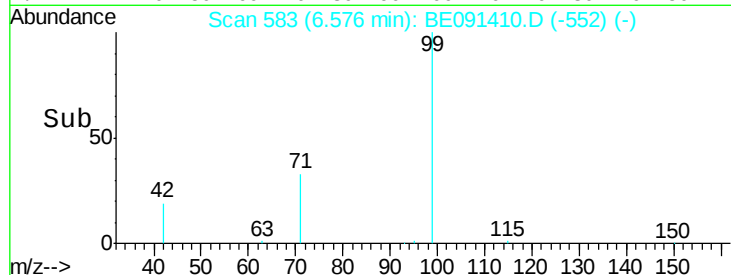
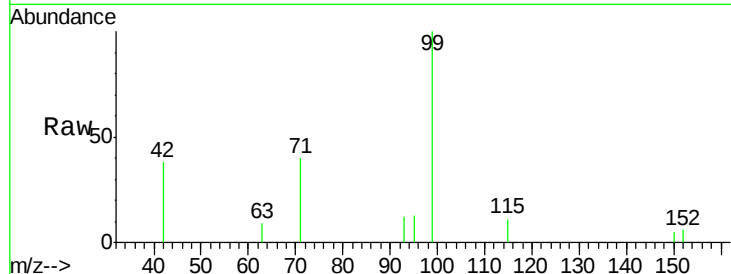
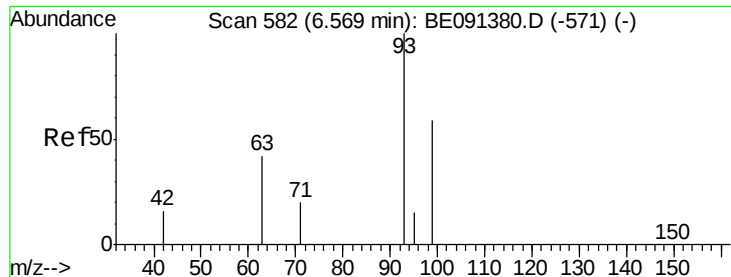


Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BE0

Ion 63.00 (62.70 to 63.70): BE0





#3

Phenol-d6

Concen: 0.79 ng

RT: 6.58 min Scan# 583

Delta R.T. 0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

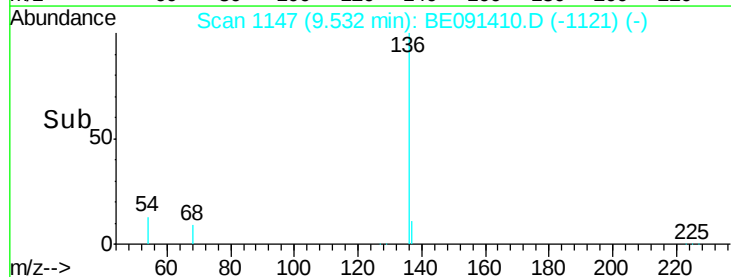
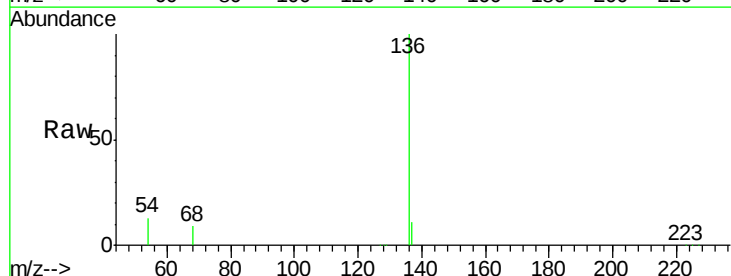
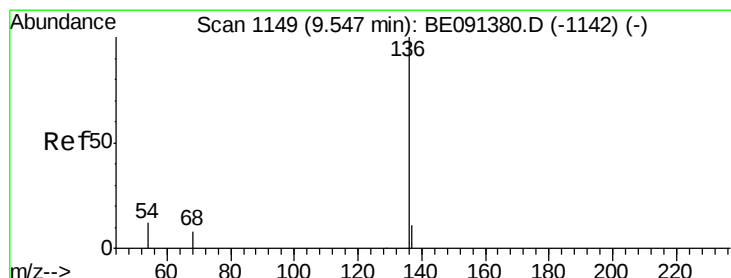
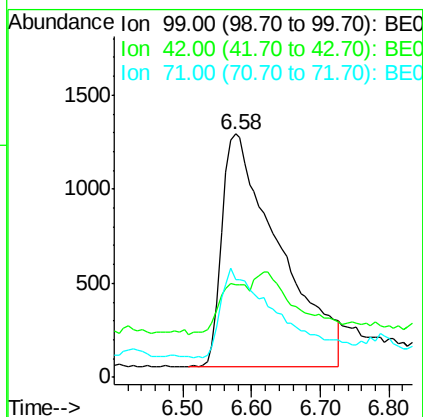
Tgt Ion: 99 Resp: 7173

Ion Ratio Lower Upper

99 100

42 10.6 13.3 19.9#

71 37.6 25.6 38.4



#4

Naphthalene-d8

Concen: 5.00 ng

RT: 9.53 min Scan# 1147

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Tgt Ion: 136 Resp: 181214

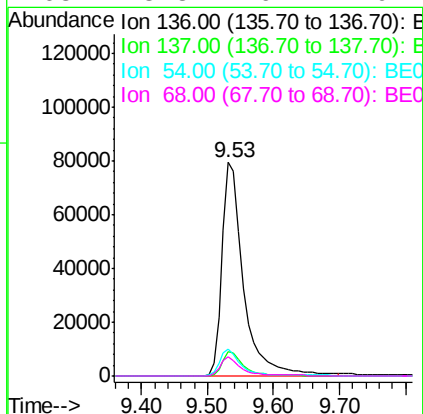
Ion Ratio Lower Upper

136 100

137 11.2 8.7 13.1

54 12.9 9.3 13.9

68 8.8 6.7 10.1





#5

Nitrobenzene-d5

Concen: 0.59 ng

RT: 8.19 min Scan# 866

Delta R.T. 0.02 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

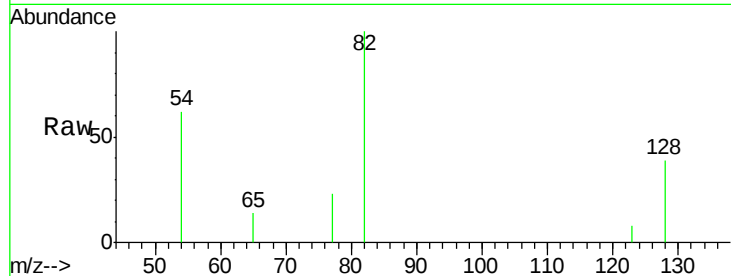
Tgt Ion: 82 Resp: 3903

Ion Ratio Lower Upper

82 100

128 39.3 25.0 37.4#

54 61.7 48.1 72.1

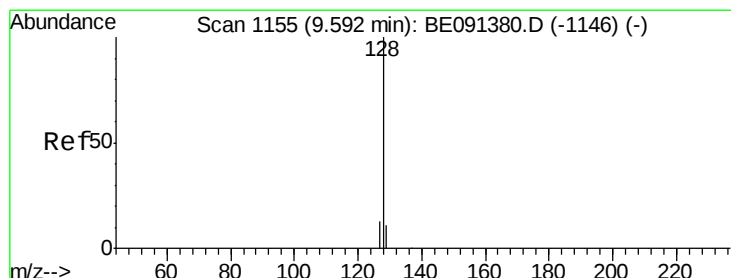
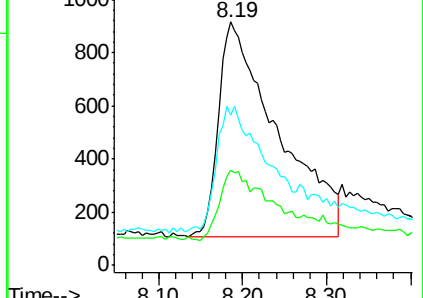
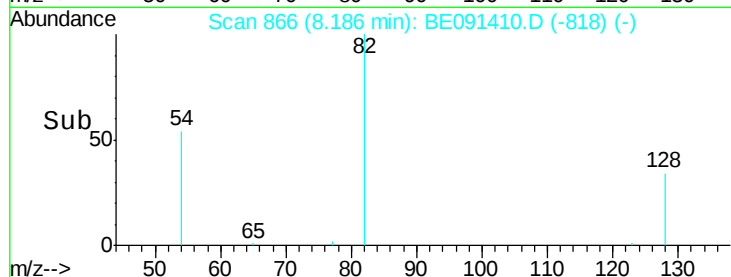


Abundance Ion 82.00 (81.70 to 82.70): BE091410.D (-818) (-)

Ion 128.00 (127.70 to 128.70): BE091410.D (-818) (-)

Ion 54.00 (53.70 to 54.70): BE091410.D (-818) (-)

Time-->



#6

Naphthalene

Concen: 0.09 ng

RT: 9.58 min Scan# 1153

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

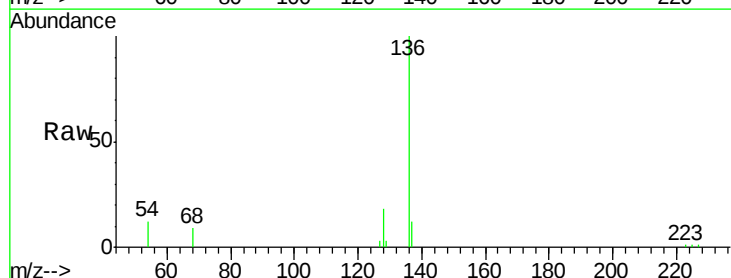
Tgt Ion: 128 Resp: 3617

Ion Ratio Lower Upper

128 100

129 17.2 9.1 13.7#

127 16.5 10.5 15.7#

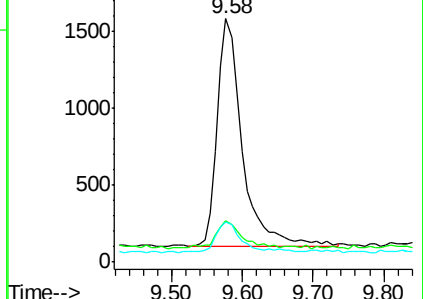
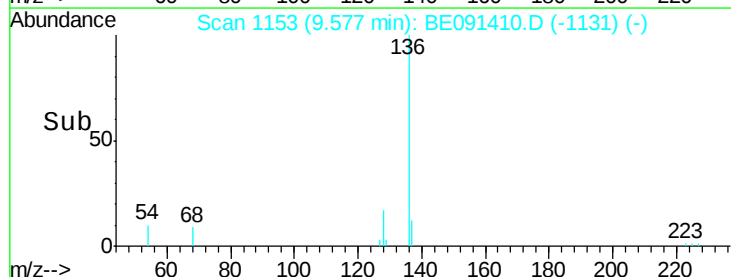


Abundance Ion 128.00 (127.70 to 128.70): BE091410.D (-1131) (-)

Ion 129.00 (128.70 to 129.70): BE091410.D (-1131) (-)

Ion 127.00 (126.70 to 127.70): BE091410.D (-1131) (-)

Time-->





#7

2-Methylnaphthalene

Concen: 0.39 ng

RT: 11.12 min Scan# 1407

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

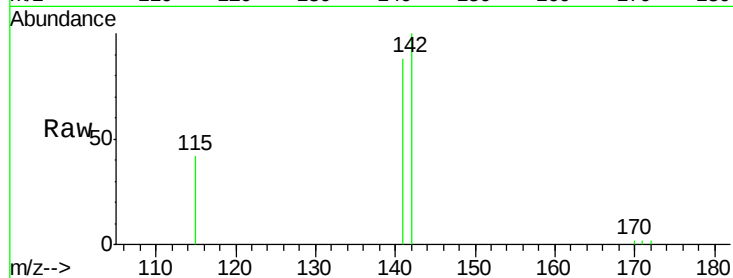
Tgt Ion:142 Resp: 6770

Ion Ratio Lower Upper

142 100

141 88.2 72.3 108.5

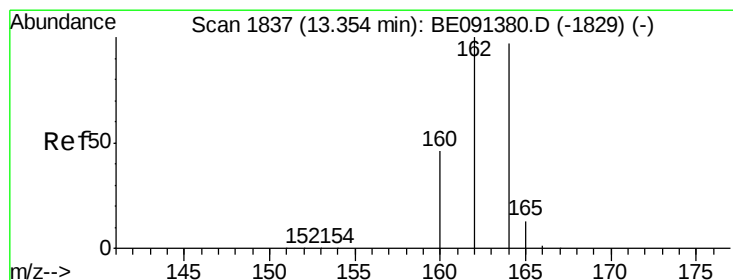
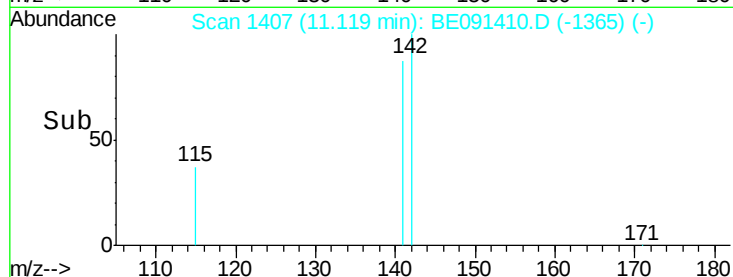
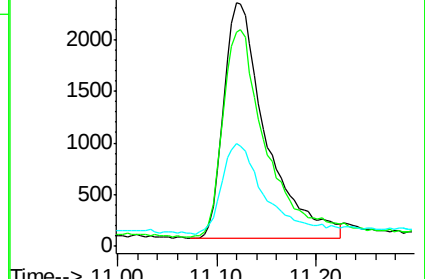
115 42.5 30.5 45.7



Abundance Ion 142.00 (141.70 to 142.70): E

Ion 141.00 (140.70 to 141.70): E

Ion 115.00 (114.70 to 115.70): E



#8

Acenaphthene-d10

Concen: 5.00 ng

RT: 13.35 min Scan# 1836

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

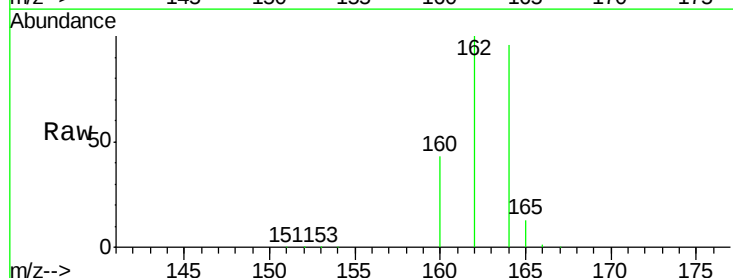
Tgt Ion:164 Resp: 120556

Ion Ratio Lower Upper

164 100

162 103.7 82.2 123.2

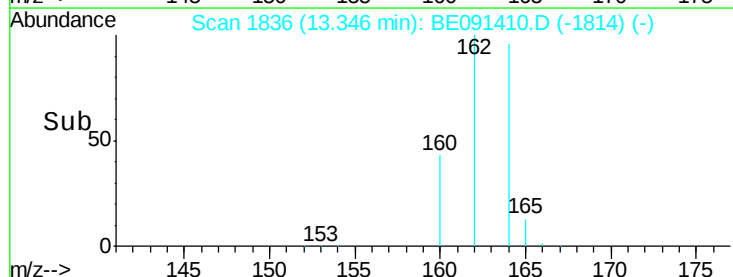
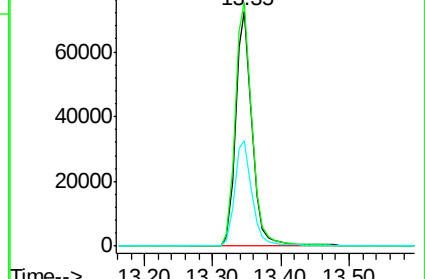
160 44.7 37.8 56.8



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





#9

2,4,6-Tribromophenol

Concen: 0.68 ng

RT: 14.89 min Scan# 2002

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

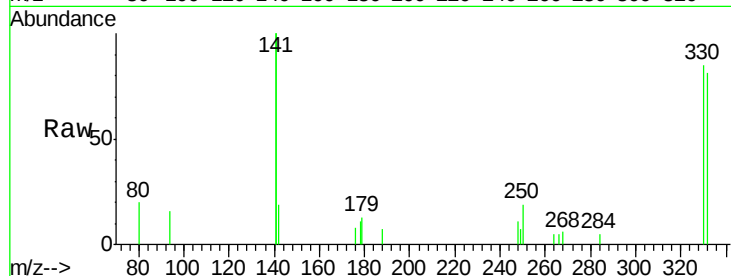
Tgt Ion:330 Resp: 2113

Ion Ratio Lower Upper

330 100

332 96.2 78.8 118.2

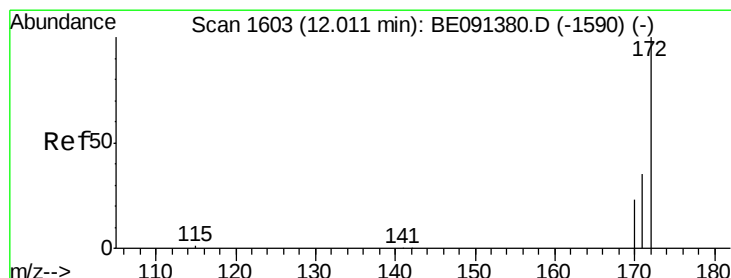
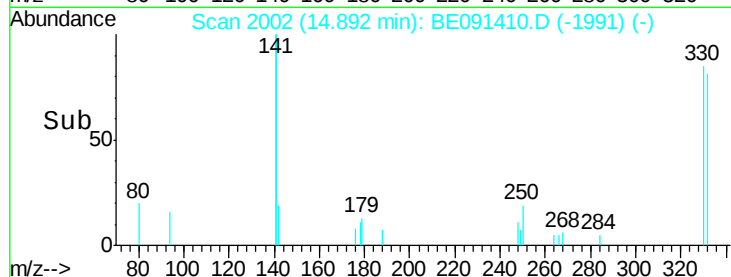
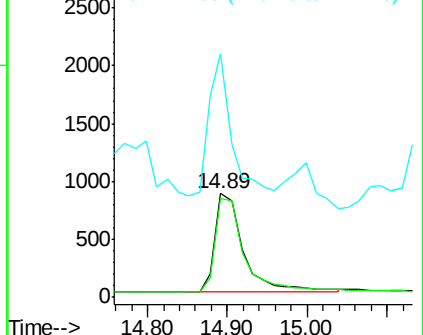
141 114.4 105.1 157.7



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



#10

2-Fluorobiphenyl

Concen: 0.41 ng

RT: 12.00 min Scan# 1601

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

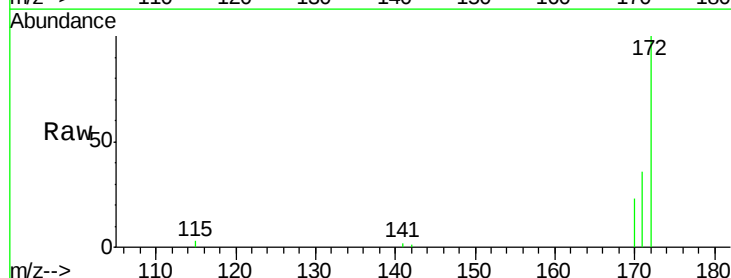
Tgt Ion:172 Resp: 12983

Ion Ratio Lower Upper

172 100

171 35.8 27.8 41.8

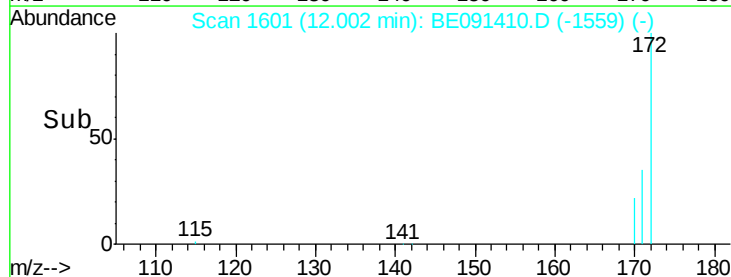
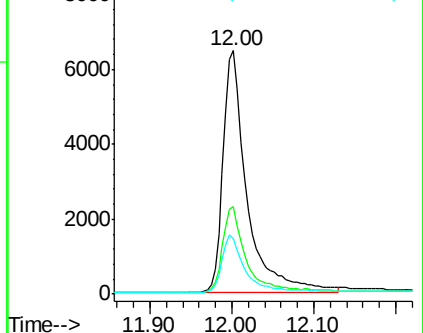
170 23.0 18.6 28.0

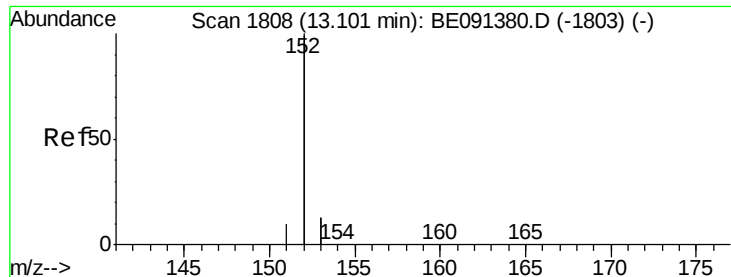


Abundance Ion 172.00 (171.70 to 172.70): E

Ion 171.00 (170.70 to 171.70): E

Ion 170.00 (169.70 to 170.70): E





#11

Acenaphthylene

Concen: 0.44 ng

RT: 13.09 min Scan# 1807

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

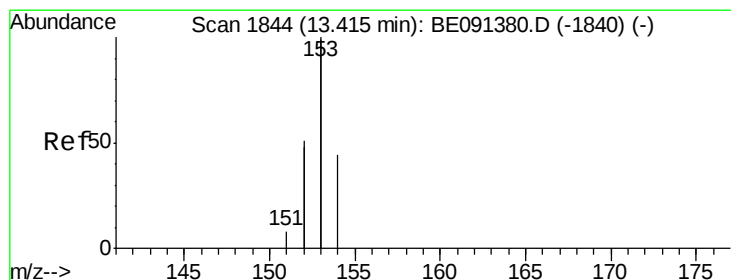
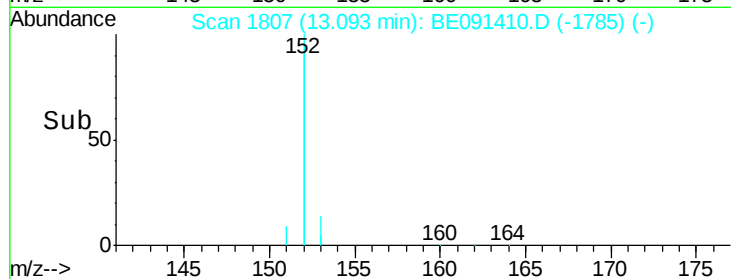
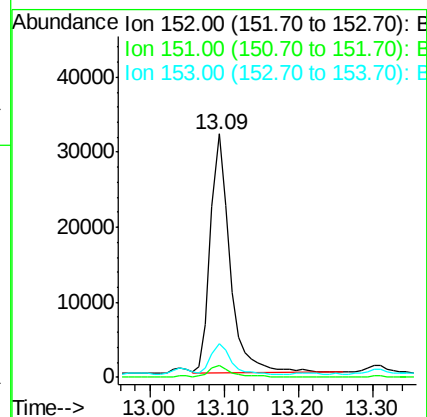
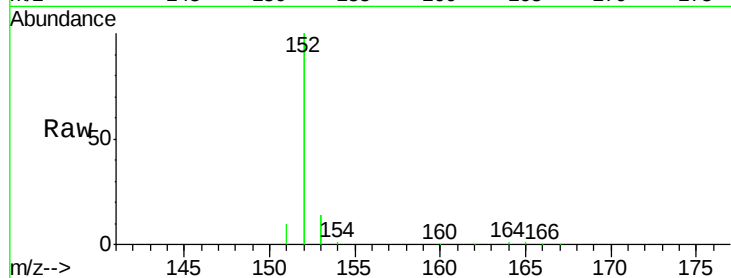
Tgt Ion:152 Resp: 57535

Ion Ratio Lower Upper

152 100

151 4.9 3.8 5.8

153 12.5 10.2 15.4



#12

Acenaphthene

Concen: 0.37 ng

RT: 13.41 min Scan# 1843

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

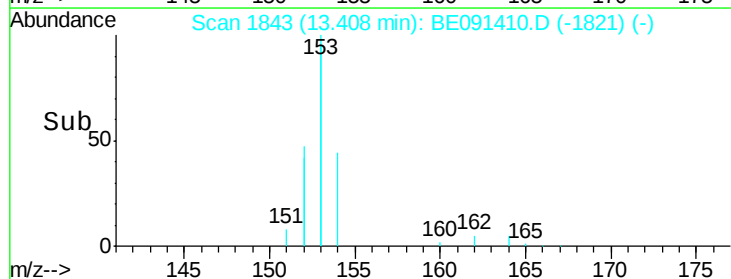
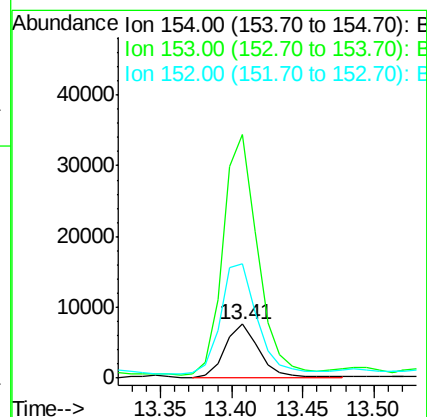
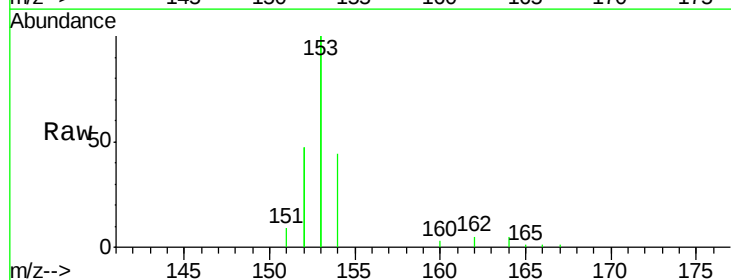
Tgt Ion:154 Resp: 12280

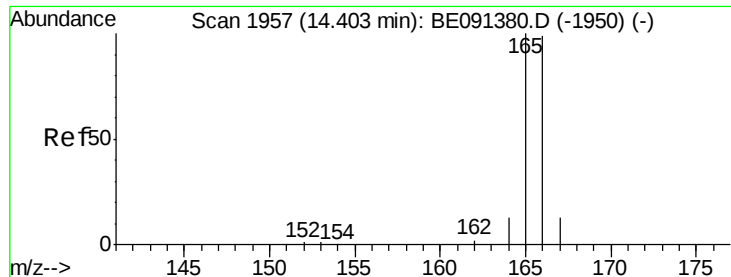
Ion Ratio Lower Upper

154 100

153 464.3 369.8 554.8

152 226.9 194.4 291.6





#13

Fluorene

Concen: 0.97 ng

RT: 14.40 min Scan# 1956

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

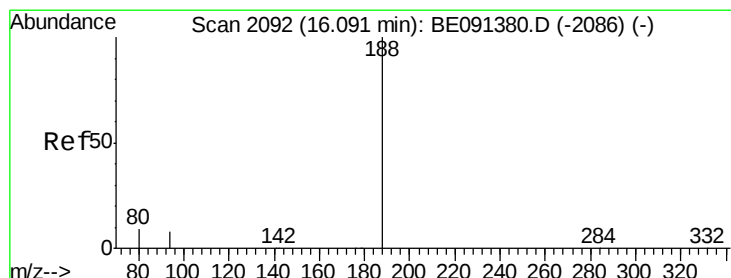
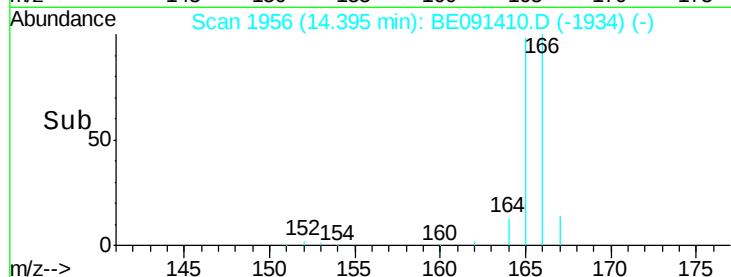
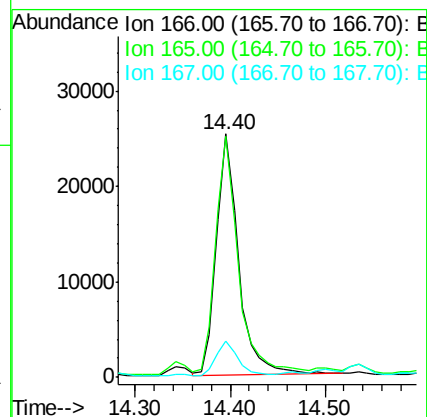
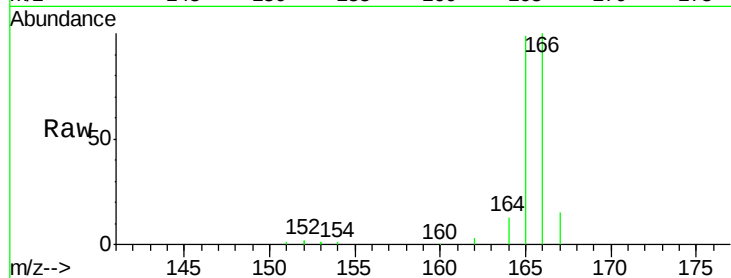
Tgt Ion:166 Resp: 41385

Ion Ratio Lower Upper

166 100

165 101.2 79.3 118.9

167 13.3 10.6 16.0



#14

Phenanthrene-d10

Concen: 5.00 ng

RT: 16.08 min Scan# 2091

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

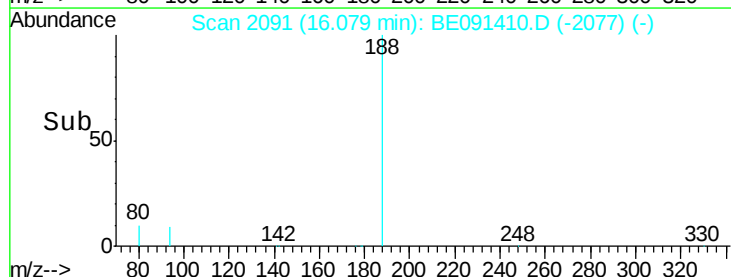
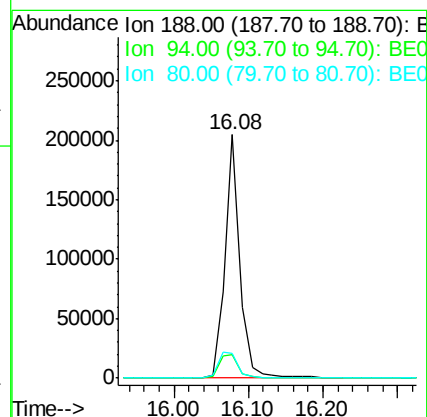
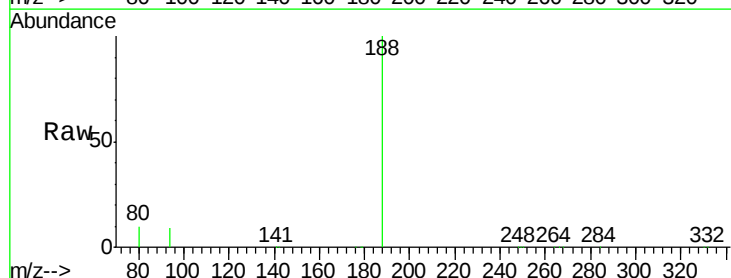
Tgt Ion:188 Resp: 287471

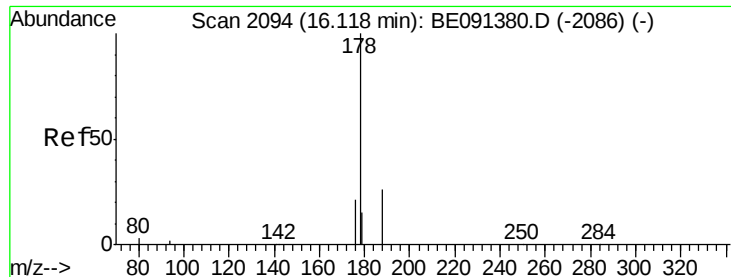
Ion Ratio Lower Upper

188 100

94 9.5 6.6 10.0

80 10.3 7.0 10.6





#15

Phenanthrene

Concen: 4.31 ng

RT: 16.12 min Scan# 2094

Delta R.T. 0.00 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

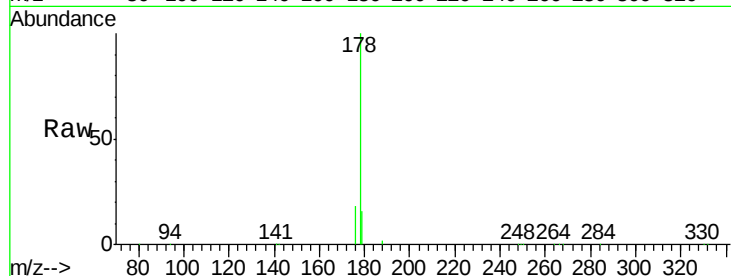
Tgt Ion:178 Resp: 325536

Ion Ratio Lower Upper

178 100

176 18.9 15.4 23.2

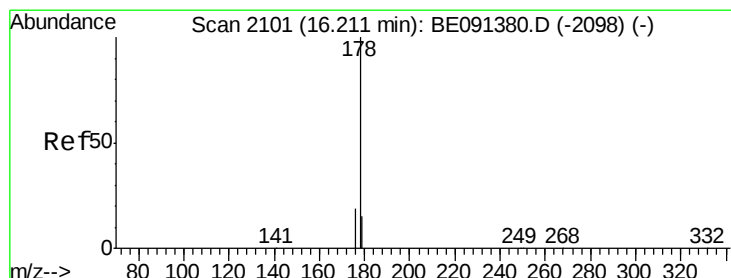
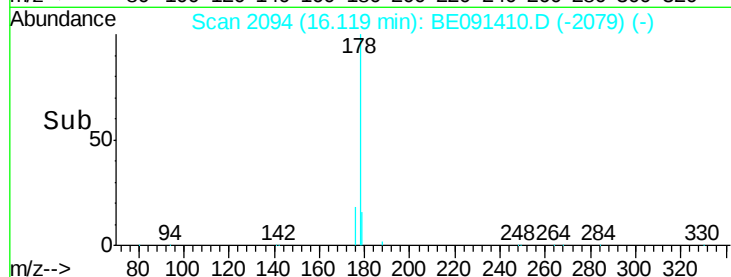
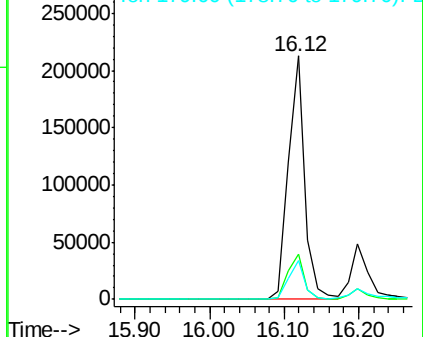
179 15.6 12.7 19.1



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



#16

Anthracene

Concen: 5.14 ng

RT: 16.12 min Scan# 2094

Delta R.T. -0.09 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

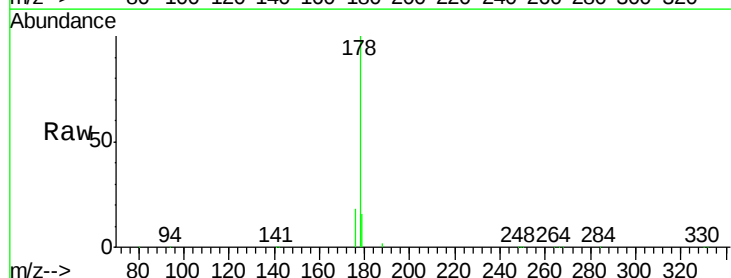
Tgt Ion:178 Resp: 324911

Ion Ratio Lower Upper

178 100

176 18.9 14.8 22.2

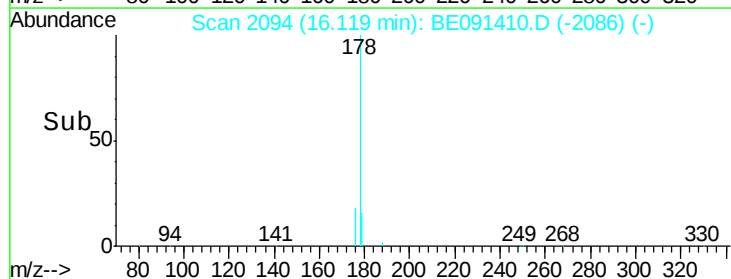
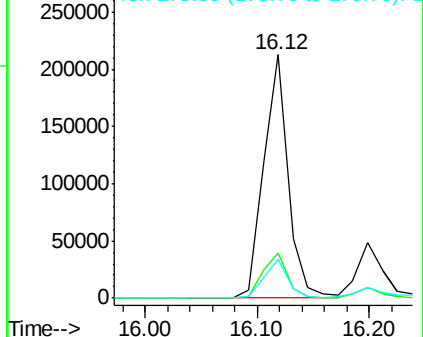
179 15.6 12.1 18.1

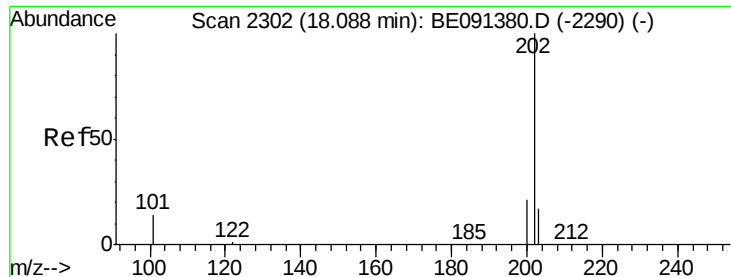


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E

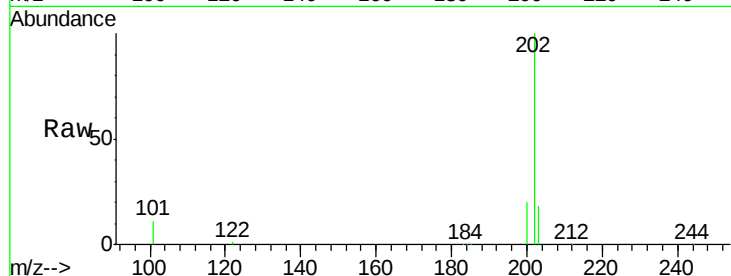




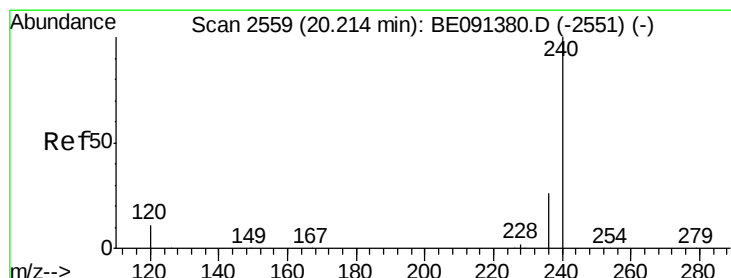
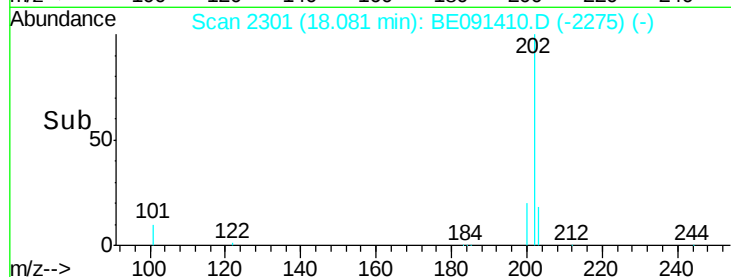
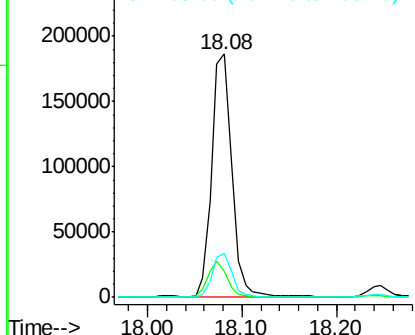
#17
 Fluoranthene
 Concen: 3.46 ng
 RT: 18.08 min Scan# 2301
 Delta R.T. -0.01 min
 Lab File: BE091410.D
 Acq: 17 Feb 2016 18:45

Instrument :
 BNA_E
 ClientSampleId :
 LIBERTY-SF-005DL

Tgt Ion: 202 Resp: 271363
 Ion Ratio Lower Upper
 202 100
 101 13.9 10.5 15.7
 203 17.6 13.9 20.9

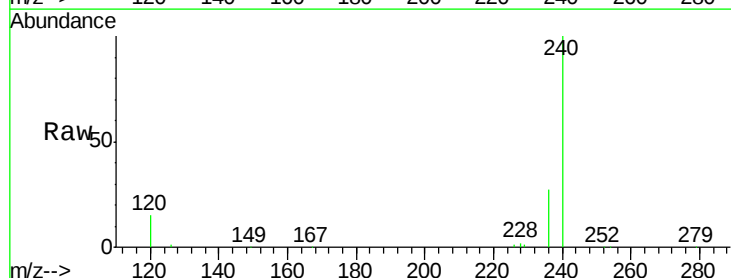


Abundance Ion 202.00 (201.70 to 202.70): E
 Ion 101.00 (100.70 to 101.70): E
 Ion 203.00 (202.70 to 203.70): E

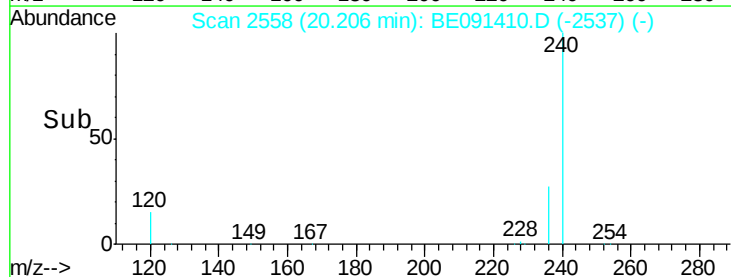
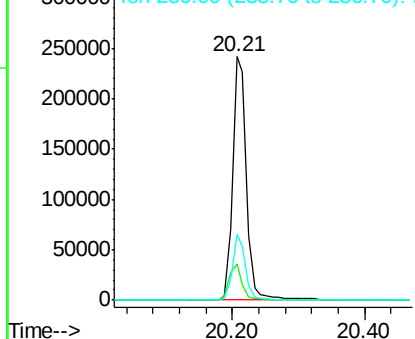


#18
 Chrysene-d12
 Concen: 5.00 ng
 RT: 20.21 min Scan# 2558
 Delta R.T. -0.01 min
 Lab File: BE091410.D
 Acq: 17 Feb 2016 18:45

Tgt Ion: 240 Resp: 346771
 Ion Ratio Lower Upper
 240 100
 120 14.7 8.9 13.3#
 236 26.8 21.0 31.4



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





#19

Pyrene

Concen: 3.24 ng

RT: 18.47 min Scan# 2352

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

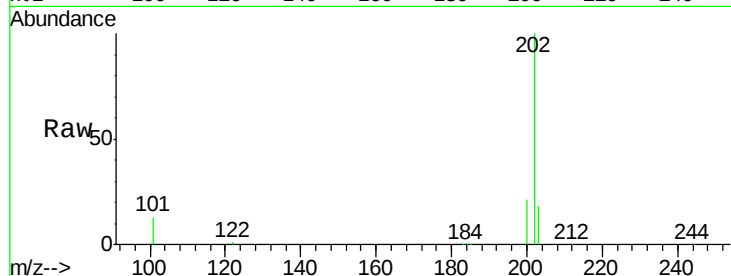
Tgt Ion:202 Resp: 243095

Ion Ratio Lower Upper

202 100

200 21.4 16.8 25.2

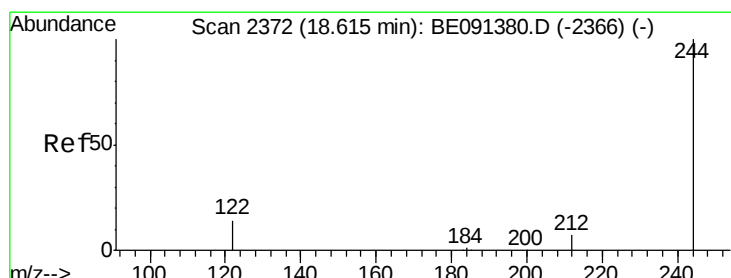
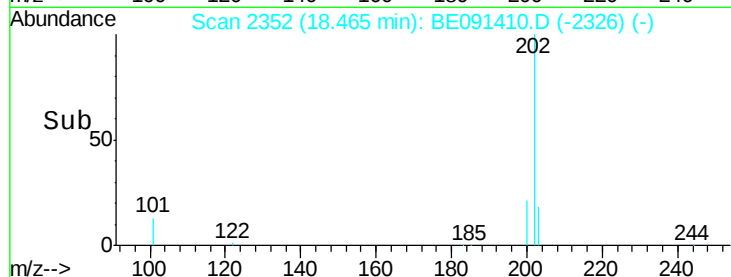
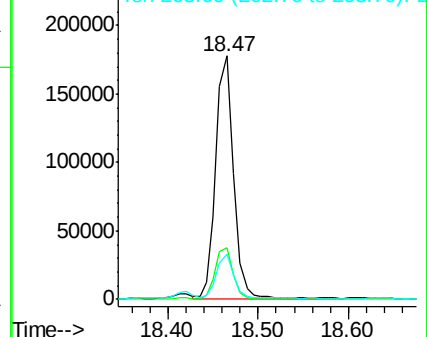
203 17.4 14.0 21.0



Abundance Ion 202.00 (201.70 to 202.70): E

Ion 200.00 (199.70 to 200.70): E

Ion 203.00 (202.70 to 203.70): E



#20

Terphenyl-d14

Concen: 0.45 ng

RT: 18.61 min Scan# 2371

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

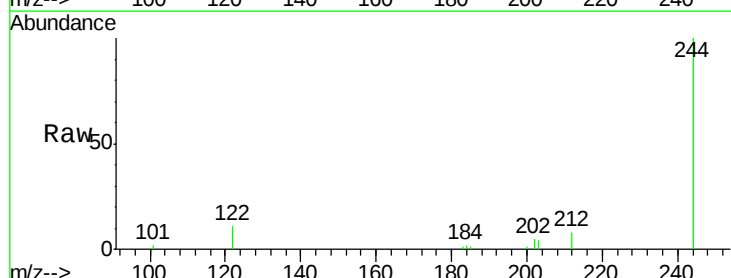
Tgt Ion:244 Resp: 23133

Ion Ratio Lower Upper

244 100

212 8.5 6.1 9.1

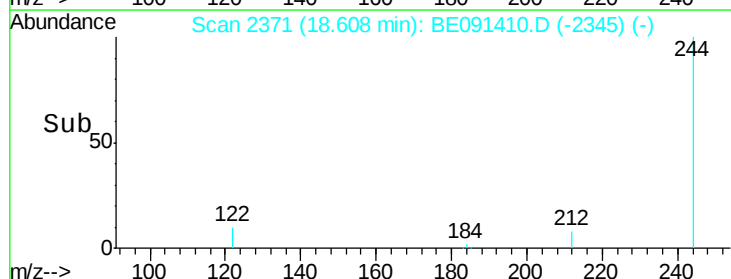
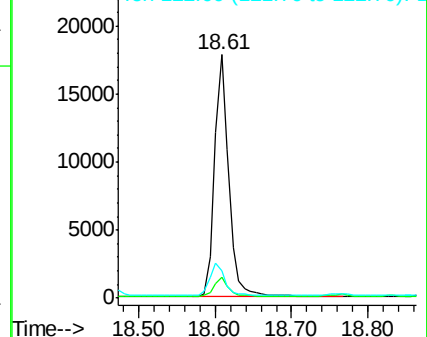
122 11.2 11.0 16.6

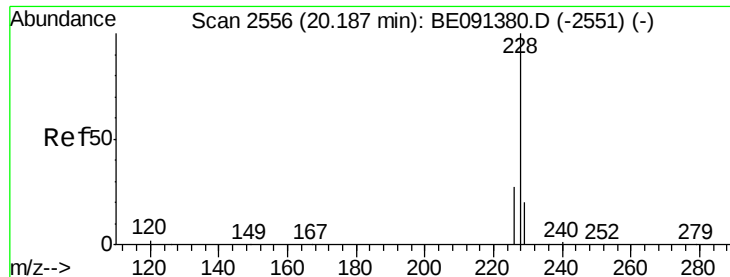


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E





#21

Benzo(a)anthracene

Concen: 1.38 ng

RT: 20.18 min Scan# 2555

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

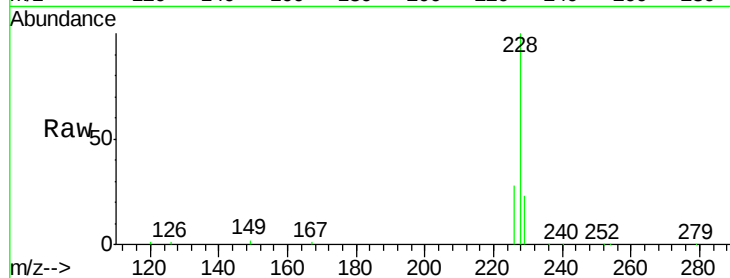
Tgt Ion:228 Resp: 96584

Ion Ratio Lower Upper

228 100

226 27.7 21.7 32.5

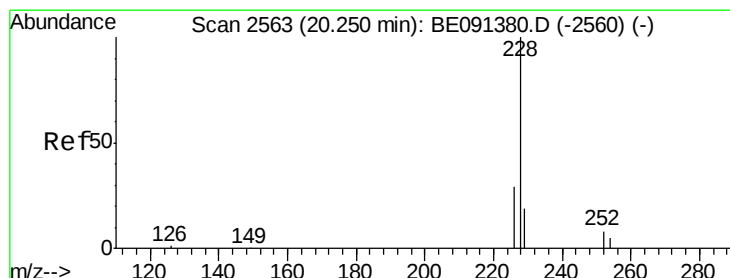
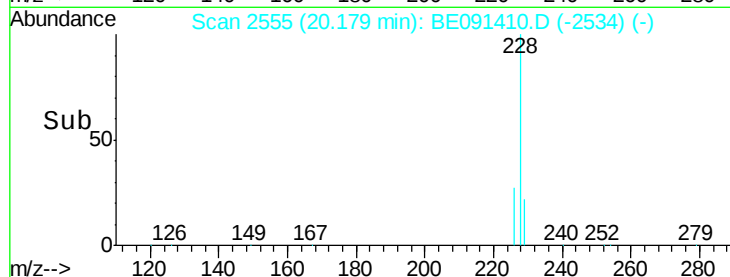
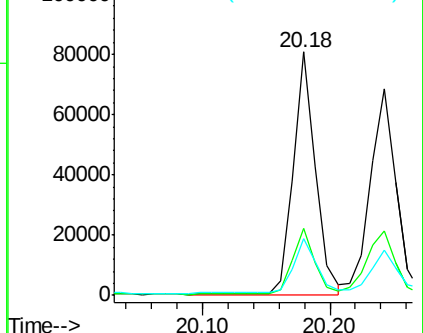
229 23.3 16.1 24.1



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



#22

Chrysene

Concen: 1.09 ng

RT: 20.24 min Scan# 2562

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

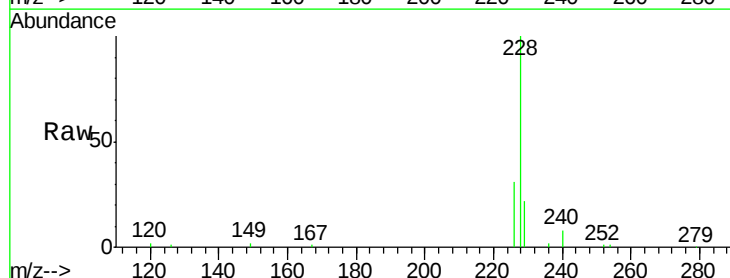
Tgt Ion:228 Resp: 98246

Ion Ratio Lower Upper

228 100

226 31.2 23.4 35.0

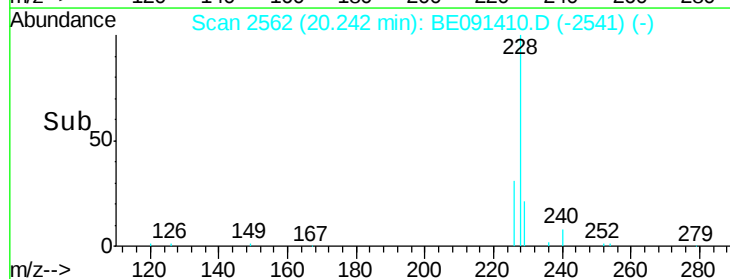
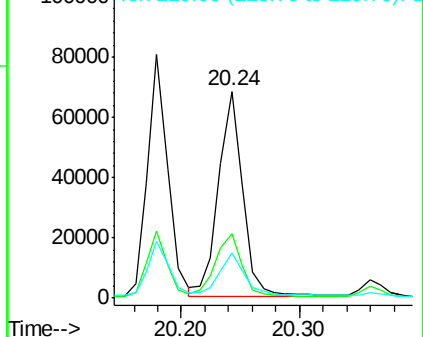
229 21.6 15.7 23.5

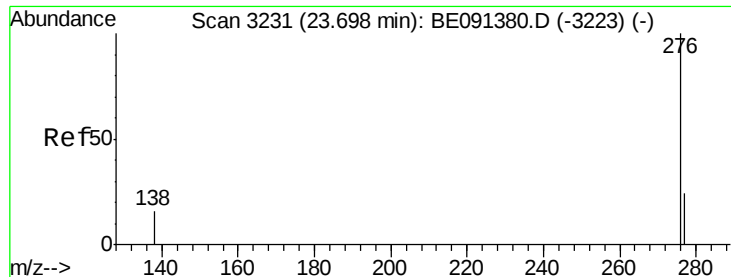


Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E





#23

Indeno(1,2,3-cd)pyrene

Concen: 0.59 ng

RT: 23.68 min Scan# 3228

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

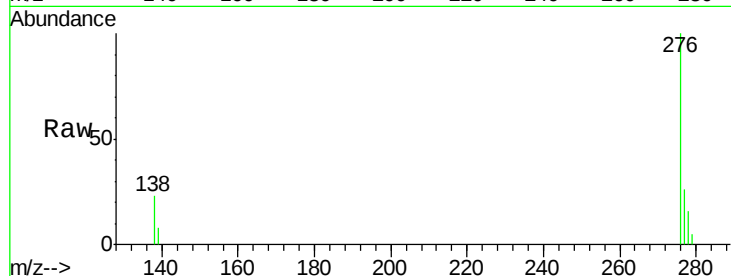
Tgt Ion:276 Resp: 34795

Ion Ratio Lower Upper

276 100

138 20.7 16.6 25.0

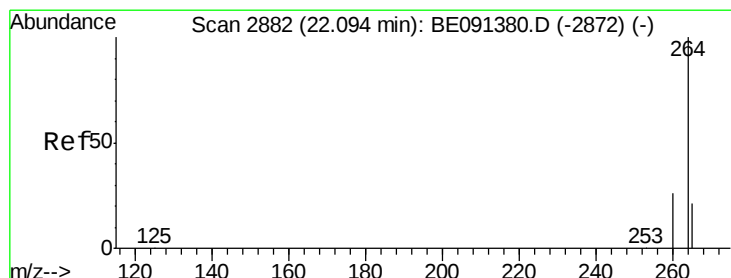
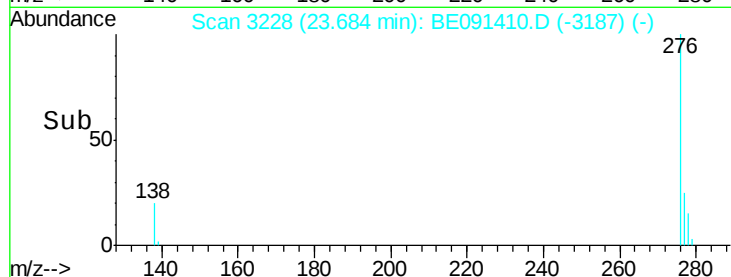
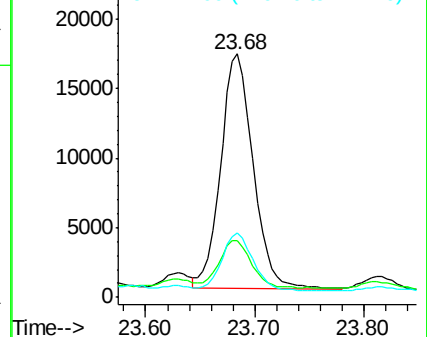
277 23.3 19.0 28.6



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



#24

Perylene-d12

Concen: 5.00 ng

RT: 22.09 min Scan# 2881

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

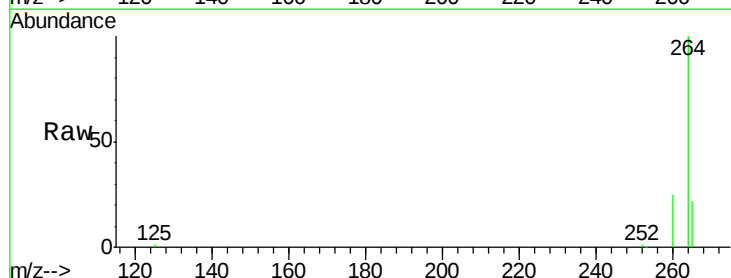
Tgt Ion:264 Resp: 353819

Ion Ratio Lower Upper

264 100

260 25.4 20.7 31.1

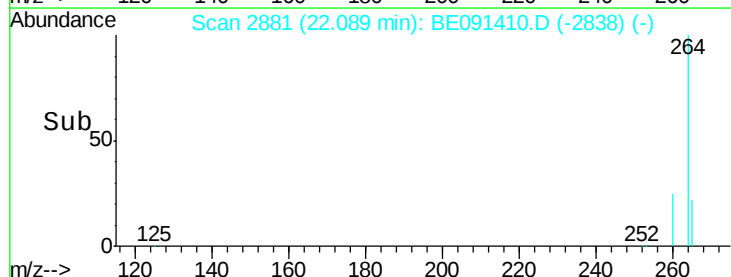
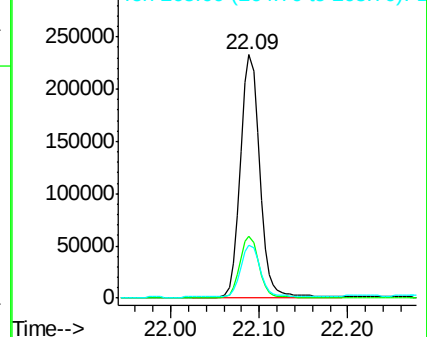
265 21.9 17.2 25.8

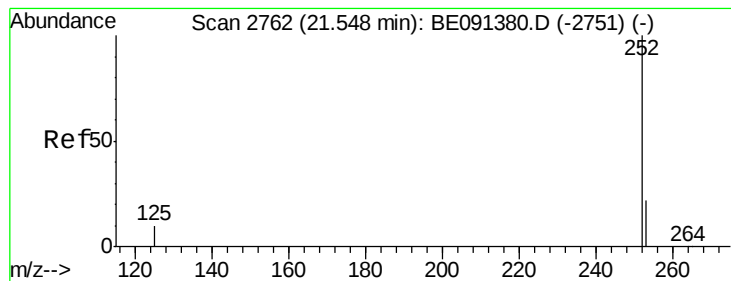


Abundance Ion 264.00 (263.70 to 264.70): E

Ion 260.00 (259.70 to 260.70): E

Ion 265.00 (264.70 to 265.70): E





#25

Benzo(b)fluoranthene

Concen: 0.74 ng

RT: 21.54 min Scan# 2760

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

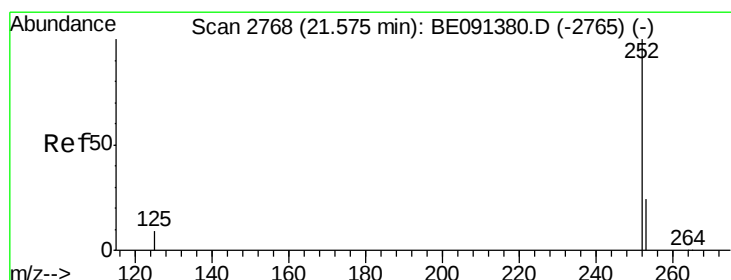
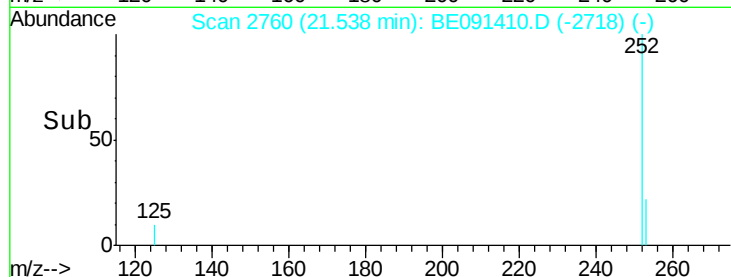
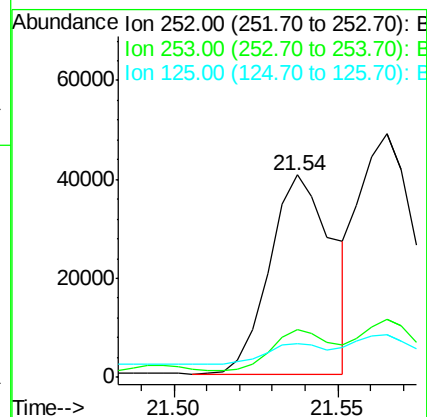
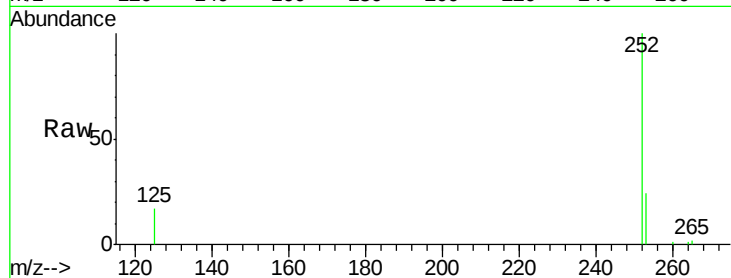
Tgt Ion:252 Resp: 53922

Ion Ratio Lower Upper

252 100

253 23.8 18.2 27.2

125 16.6 8.3 12.5#



#26

Benzo(k)fluoranthene

Concen: 0.73 ng

RT: 21.56 min Scan# 2766

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

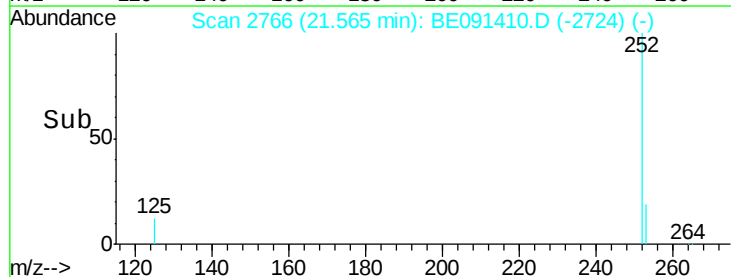
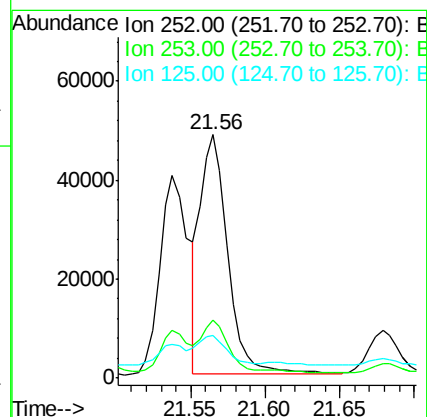
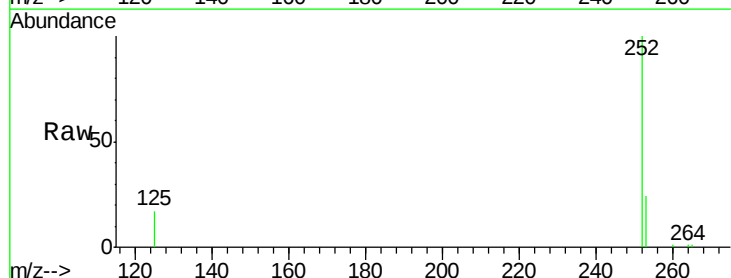
Tgt Ion:252 Resp: 62768

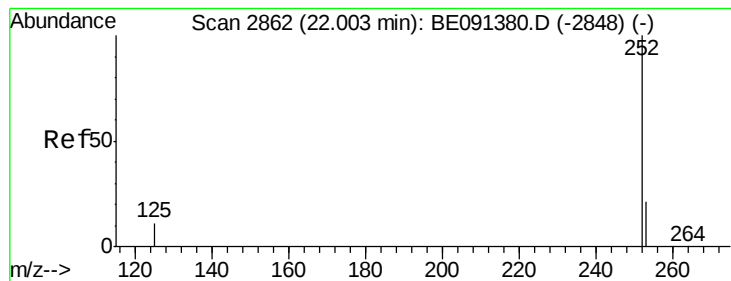
Ion Ratio Lower Upper

252 100

253 23.8 18.1 27.1

125 17.4 8.2 12.4#





#27

Benzo(a)pyrene

Concen: 0.99 ng

RT: 21.99 min Scan# 2860

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL

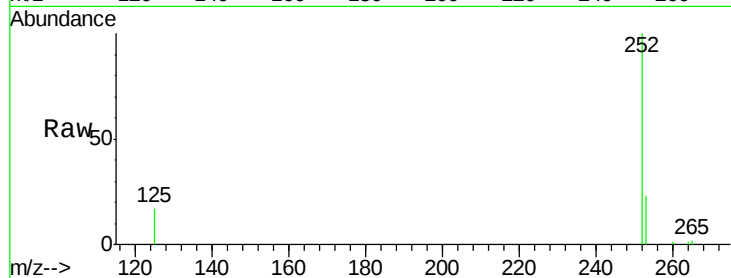
Tgt Ion:252 Resp: 69064

Ion Ratio Lower Upper

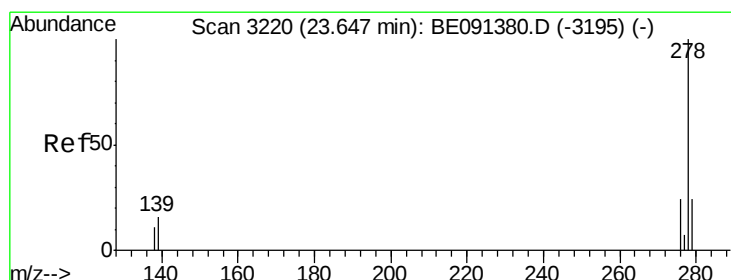
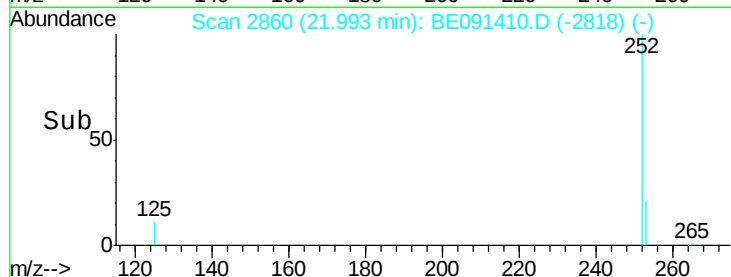
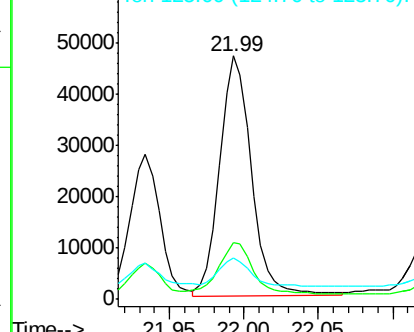
252 100

253 23.1 17.5 26.3

125 16.7 9.4 14.0#



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



#28

Dibenzo(a,h)anthracene

Concen: 0.40 ng

RT: 23.63 min Scan# 3217

Delta R.T. -0.01 min

Lab File: BE091410.D

Acq: 17 Feb 2016 18:45

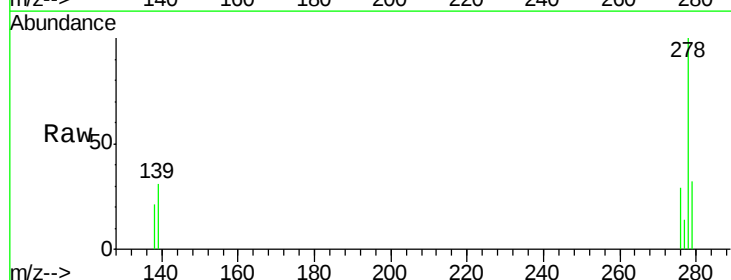
Tgt Ion:278 Resp: 12740

Ion Ratio Lower Upper

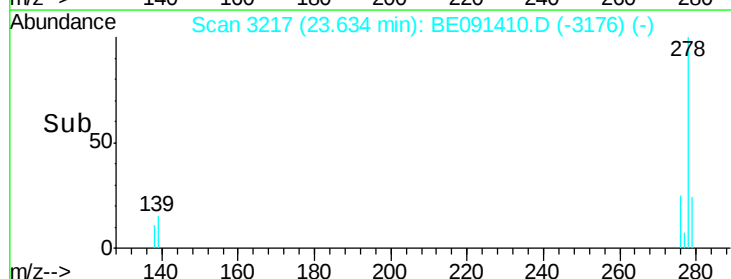
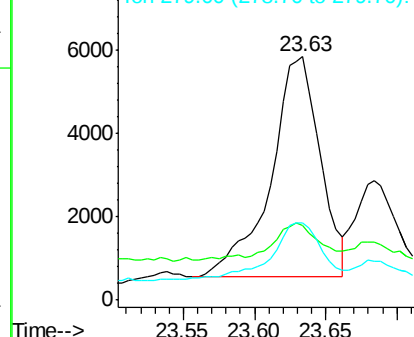
278 100

139 30.7 13.0 19.4#

279 32.0 19.2 28.8#



Abundance Ion 278.00 (277.70 to 278.70): E
Ion 139.00 (138.70 to 139.70): E
Ion 279.00 (278.70 to 279.70): E





#29

Benzo(g,h,i)perylene

Concen: 0.52 ng

RT: 24.23 min Scan# 3348

Delta R.T. -0.01 min

Lab File: BE091410.D

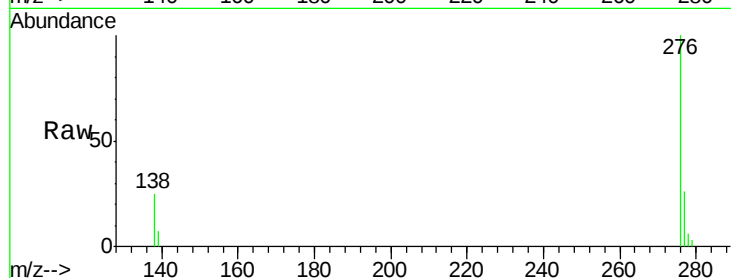
Acq: 17 Feb 2016 18:45

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005DL



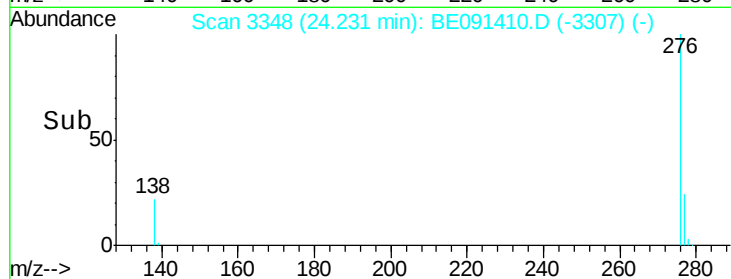
Tgt Ion: 276 Resp: 34430

Ion Ratio Lower Upper

276 100

277 26.1 18.9 28.3

138 25.5 17.0 25.6



Abundance Ion 276.00 (275.70 to 276.70): E

Ion 277.00 (276.70 to 277.70): E

Ion 138.00 (137.70 to 138.70): E

