

Data Path : Z:\HPCHEM1\BNA_E\DATA\BE021716\
 Data File : BE091409.D
 Acq On : 17 Feb 2016 18:06
 Operator : UM/IZ
 Sample : H1445-01MSD
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 LIBERTY-SF-005MSD

Quant Time: Feb 18 00:00:10 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	6.85	152	40123	5.00	ng	-0.02
4) Naphthalene-d8	9.52	136	200145	5.00	ng	-0.02
8) Acenaphthene-d10	13.34	164	128081	5.00	ng	-0.02
14) Phenanthrene-d10	16.08	188	285980	5.00	ng	-0.01
18) Chrysene-d12	20.21	240	333064	5.00	ng	0.00
24) Perylene-d12	22.09	264	343875	5.00	ng	0.00

System Monitoring Compounds

2) 2-Fluorophenol	4.89	112	81064	8.49	ng	-0.06
3) Phenol-d6	6.51	99	115893	8.57	ng	-0.06
5) Nitrobenzene-d5	8.12	82	74585	5.59	ng	-0.05
9) 2,4,6-Tribromophenol	14.88	330	55885	8.88	ng	-0.03
10) 2-Fluorobiphenyl	11.97	172	172600	5.18	ng	-0.04
20) Terphenyl-d14	18.60	244	271589	5.51	ng	-0.02

Target Compounds

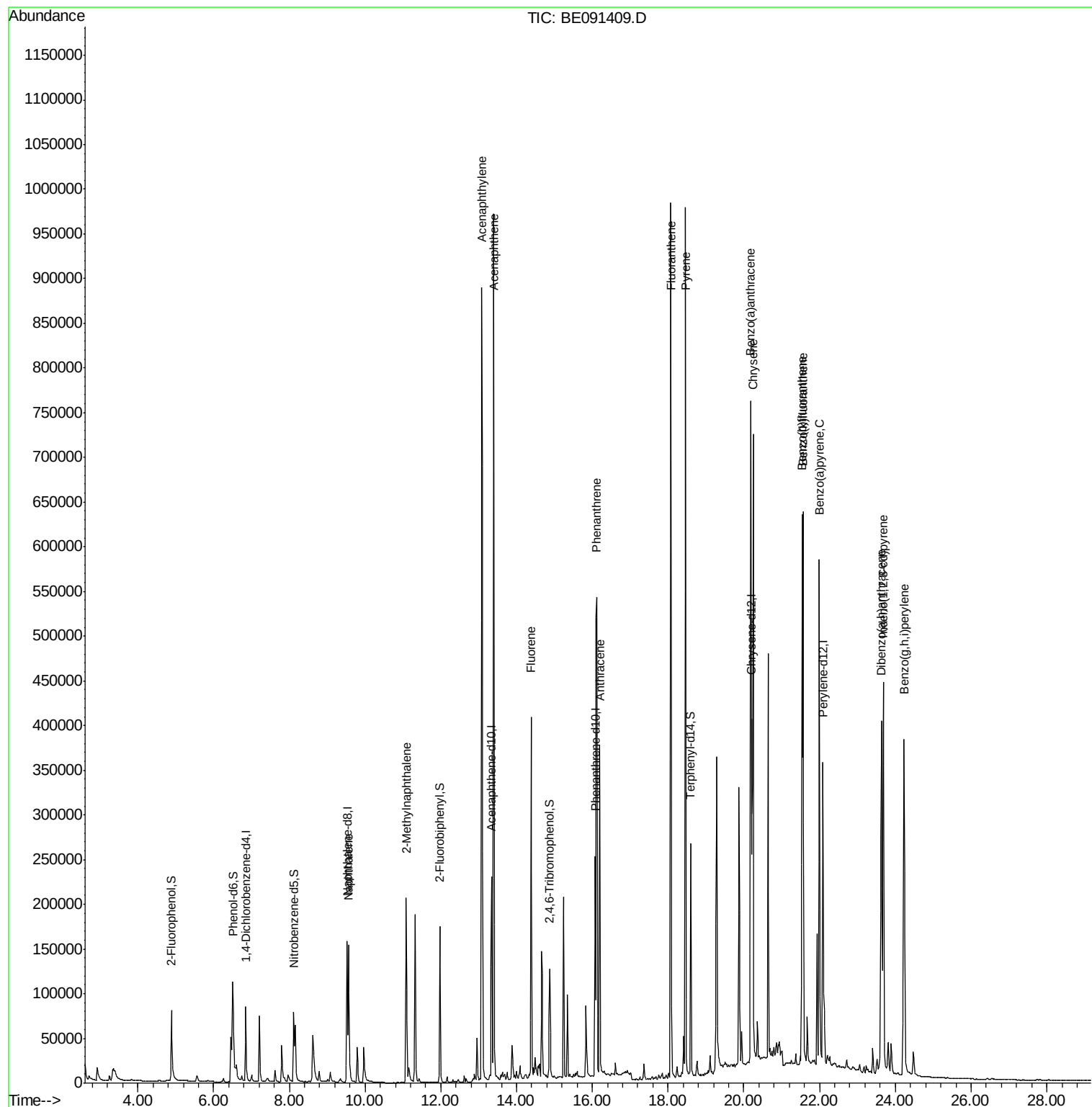
						Qvalue
6) Naphthalene	9.56	128	223340	4.95	ng	99
7) 2-Methylnaphthalene	11.09	142	155010	5.50	ng	98
11) Acenaphthylene	13.08	152	1134418	5.07	ng	99
12) Acenaphthene	13.40	154	172837	4.91	ng	95
13) Fluorene	14.39	166	241876	5.33	ng	100
15) Phenanthrene	16.12	178	687905	9.16	ng	100
16) Anthracene	16.20	178	454532	7.22	ng	97
17) Fluoranthene	18.07	202	902293	11.30	ng	98
19) Pyrene	18.46	202	870705	12.06	ng	99
21) Benzo(a)anthracene	20.18	228	639089	8.48	ng	97
22) Chrysene	20.24	228	612354	7.45	ng	99
23) Indeno(1,2,3-cd)pyrene	23.68	276	553153	7.22	ng	99
25) Benzo(b)fluoranthene	21.54	252	566754	6.57	ng	# 97
26) Benzo(k)fluoranthene	21.56	252	631804	7.35	ng	# 96
27) Benzo(a)pyrene	22.00	252	614416	7.67	ng	# 96
28) Dibenzo(a,h)anthracene	23.63	278	443678	5.63	ng	98
29) Benzo(g,h,i)perylene	24.23	276	590180	6.85	ng	99

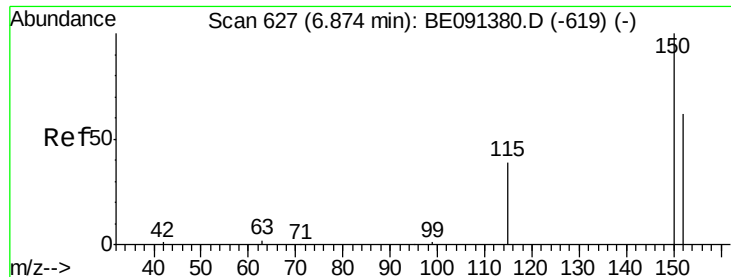
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.85 min Scan# 624

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

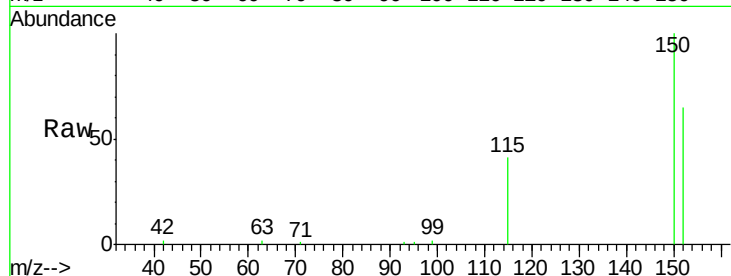
Tgt Ion:152 Resp: 40123

Ion Ratio Lower Upper

152 100

150 152.9 128.9 193.3

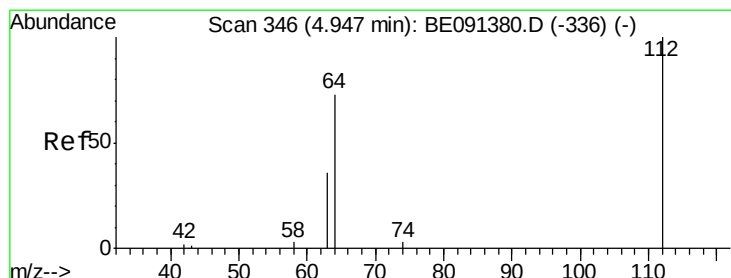
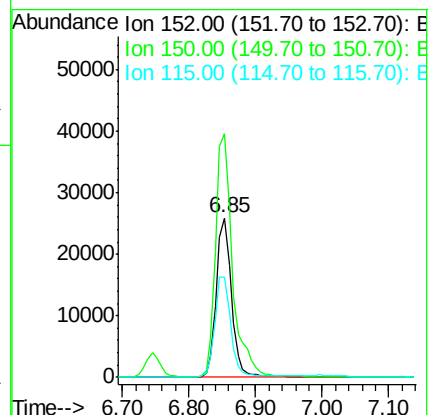
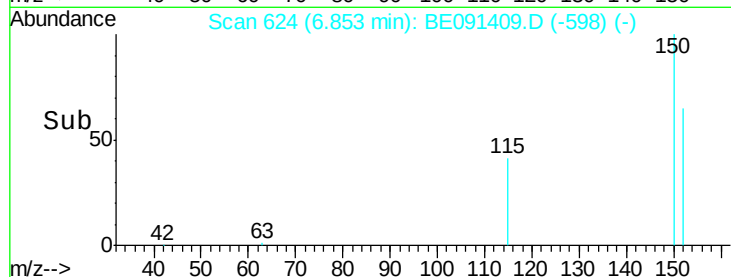
115 63.2 50.9 76.3



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: 8.49 ng

RT: 4.89 min Scan# 337

Delta R.T. -0.06 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

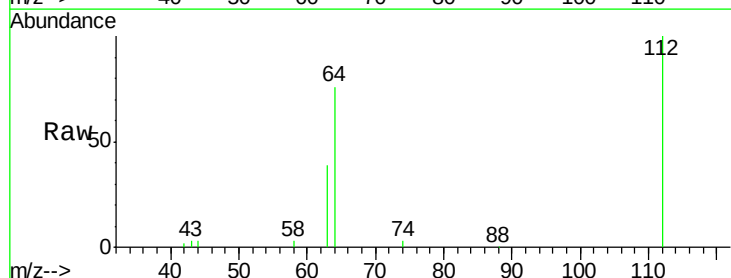
Tgt Ion:112 Resp: 81064

Ion Ratio Lower Upper

112 100

64 75.5 60.5 90.7

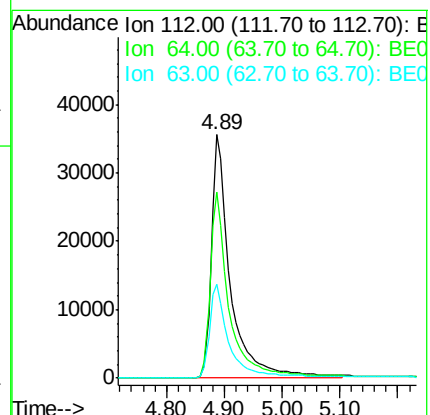
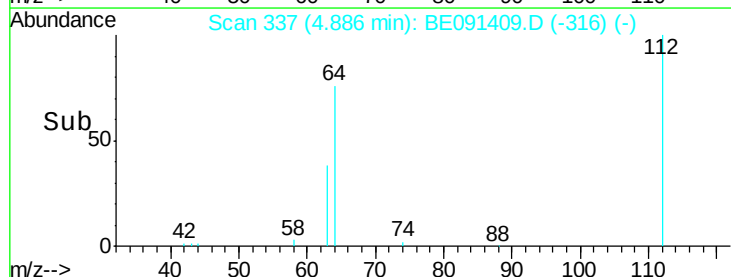
63 39.0 29.8 44.8

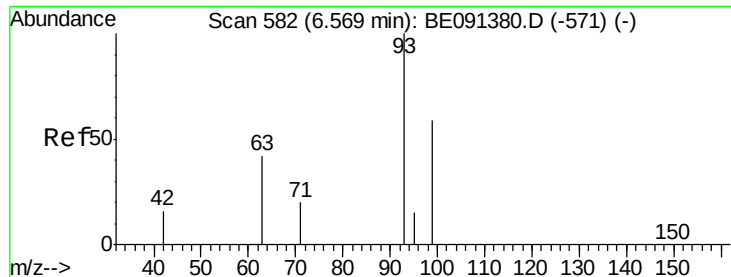


Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BE0

Ion 63.00 (62.70 to 63.70): BE0





#3

Phenol-d6

Concen: 8.57 ng

RT: 6.51 min Scan# 573

Delta R.T. -0.06 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

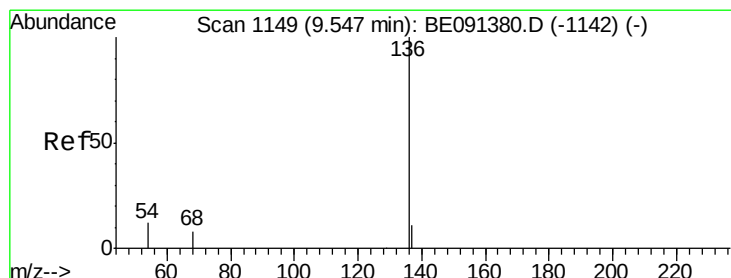
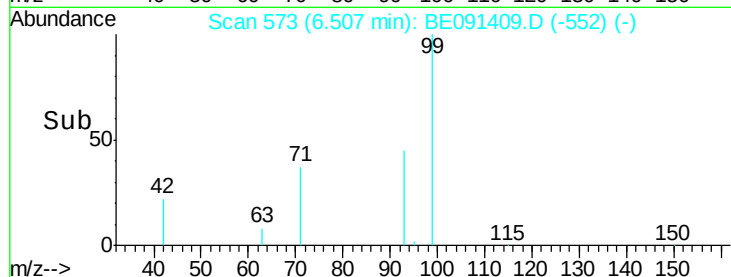
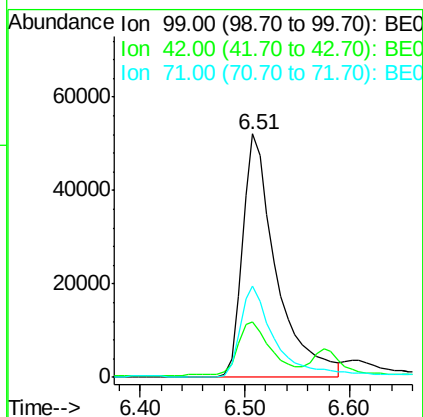
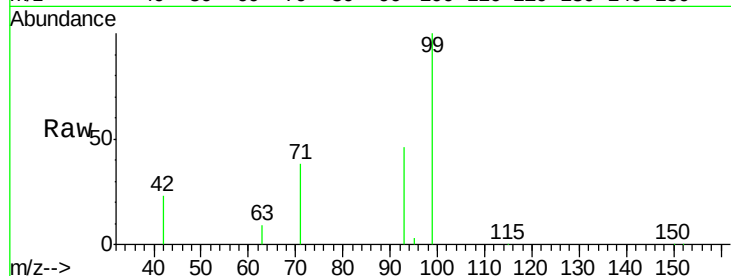
Tgt Ion: 99 Resp: 115893

Ion Ratio Lower Upper

99 100

42 23.2 13.3 19.9#

71 39.8 25.6 38.4#



#4

Naphthalene-d8

Concen: 5.00 ng

RT: 9.52 min Scan# 1146

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Tgt Ion: 136 Resp: 200145

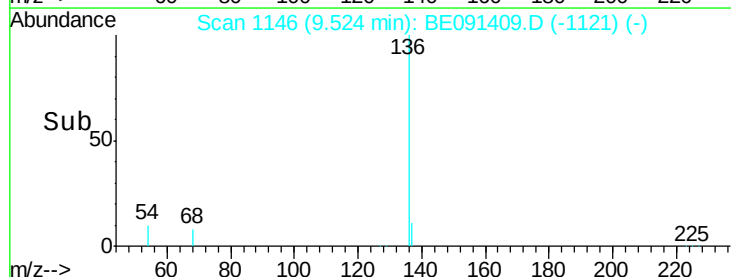
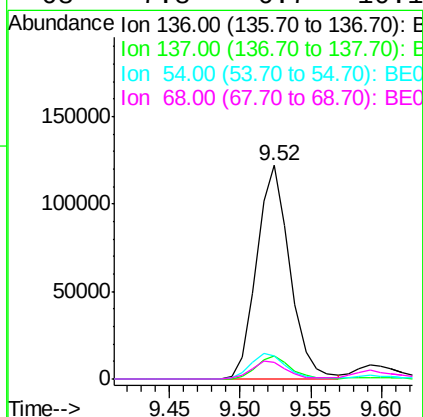
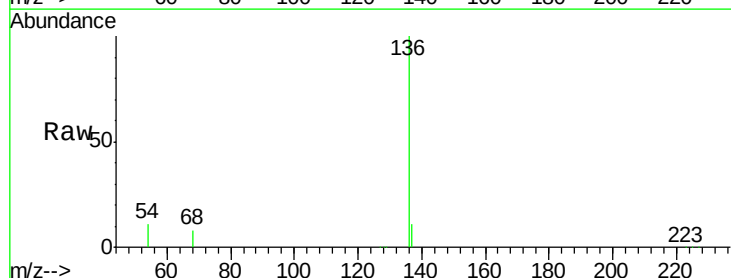
Ion Ratio Lower Upper

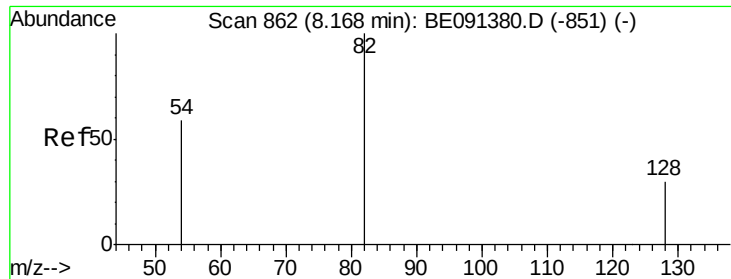
136 100

137 11.1 8.7 13.1

54 11.1 9.3 13.9

68 7.8 6.7 10.1





#5

Nitrobenzene-d5

Concen: 5.59 ng

RT: 8.12 min Scan# 851

Delta R.T. -0.05 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

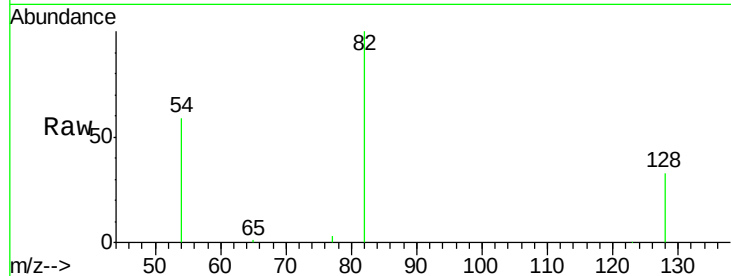
Tgt Ion: 82 Resp: 74585

Ion Ratio Lower Upper

82 100

128 32.6 25.0 37.4

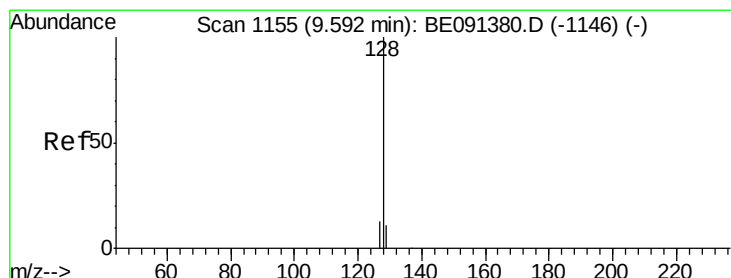
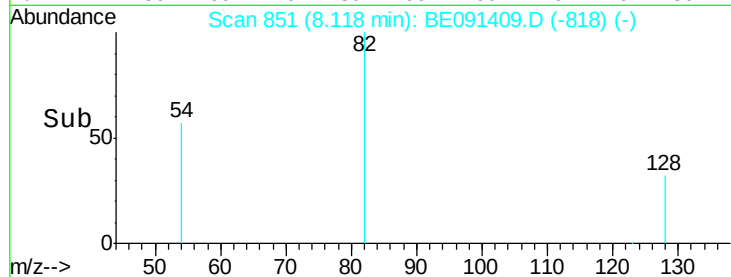
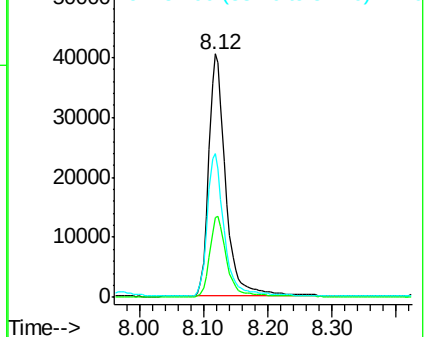
54 59.2 48.1 72.1



Abundance Ion 82.00 (81.70 to 82.70): BE0

Ion 128.00 (127.70 to 128.70): BE0

Ion 54.00 (53.70 to 54.70): BE0



#6

Naphthalene

Concen: 4.95 ng

RT: 9.56 min Scan# 1151

Delta R.T. -0.03 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

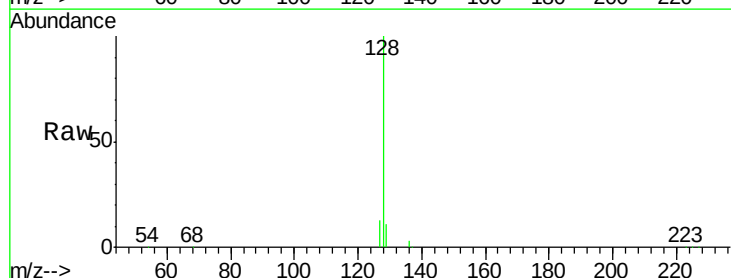
Tgt Ion: 128 Resp: 223340

Ion Ratio Lower Upper

128 100

129 11.0 9.1 13.7

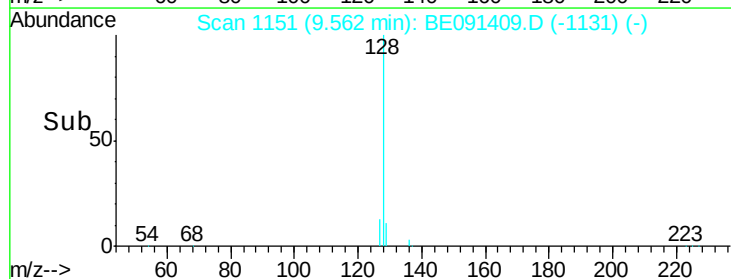
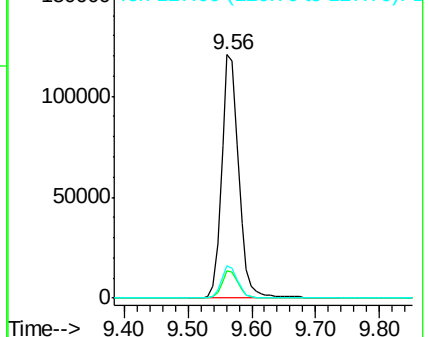
127 13.3 10.5 15.7

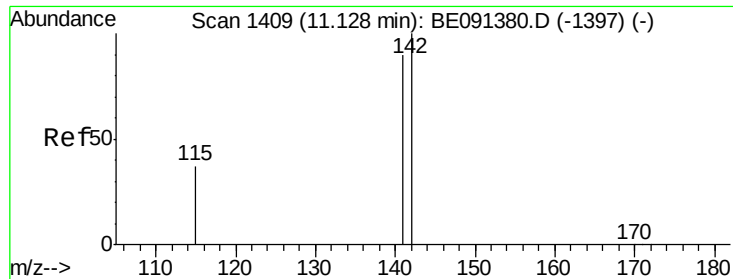


Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E





#7

2-Methylnaphthalene

Concen: 5.50 ng

RT: 11.09 min Scan# 1400

Delta R.T. -0.04 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

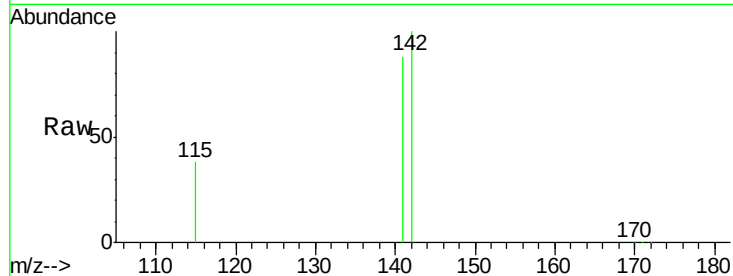
Tgt Ion:142 Resp: 155010

Ion Ratio Lower Upper

142 100

141 88.0 72.3 108.5

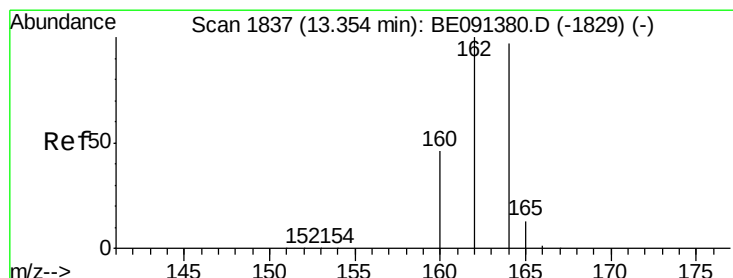
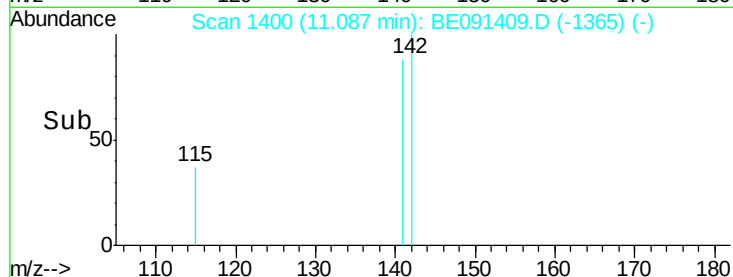
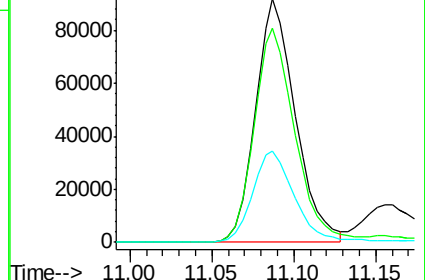
115 37.6 30.5 45.7



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: 13.34 min Scan# 1835

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

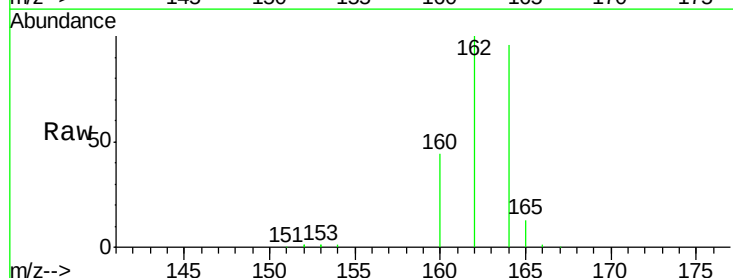
Tgt Ion:164 Resp: 128081

Ion Ratio Lower Upper

164 100

162 104.4 82.2 123.2

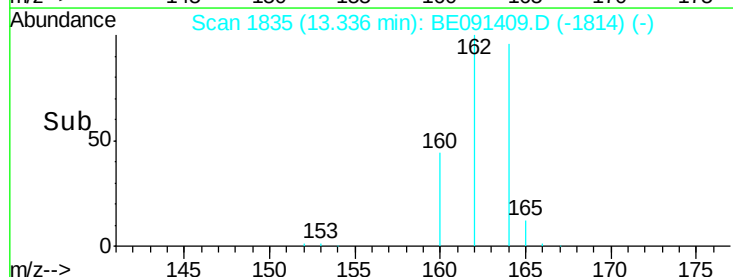
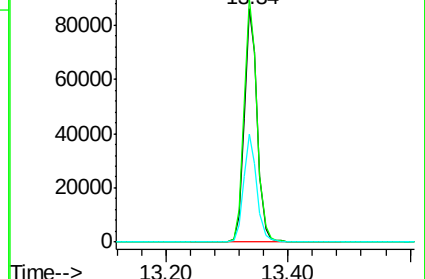
160 46.5 37.8 56.8

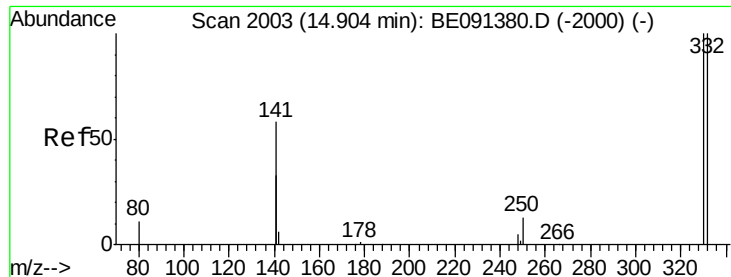


Abundance Ion 164.00 (163.70 to 164.70): E

Ion 162.00 (161.70 to 162.70): E

Ion 160.00 (159.70 to 160.70): E





#9

2,4,6-Tribromophenol

Concen: 8.88 ng

RT: 14.88 min Scan# 2001

Delta R.T. -0.03 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

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LIBERTY-SF-005MSD

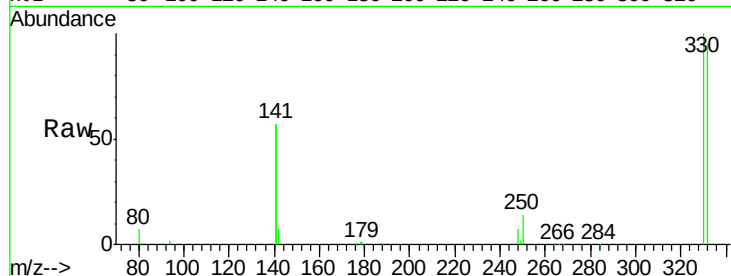
Tgt Ion:330 Resp: 55885

Ion Ratio Lower Upper

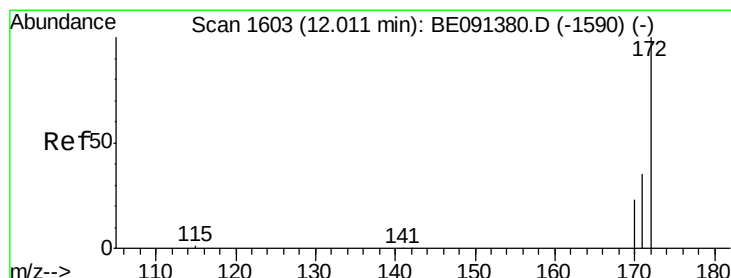
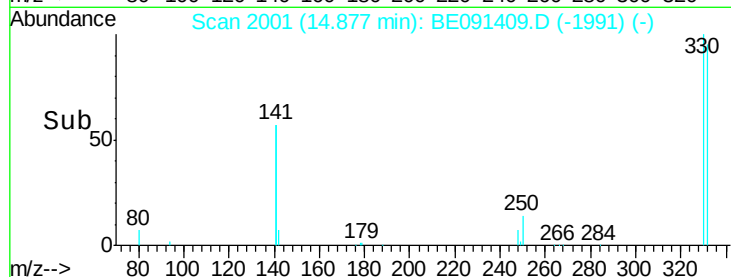
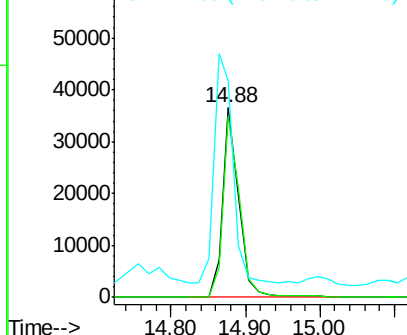
330 100

332 97.5 78.8 118.2

141 155.2 105.1 157.7



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: 5.18 ng

RT: 11.97 min Scan# 1595

Delta R.T. -0.04 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

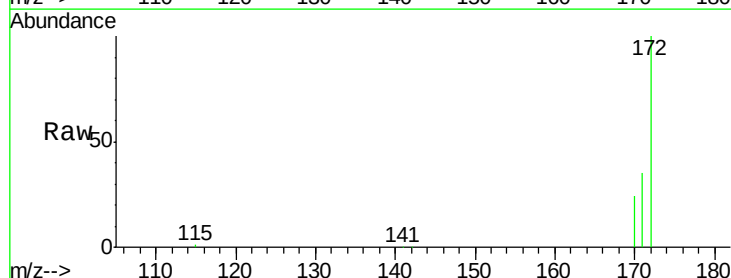
Tgt Ion:172 Resp: 172600

Ion Ratio Lower Upper

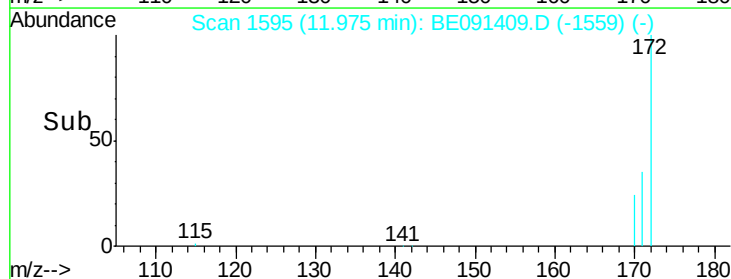
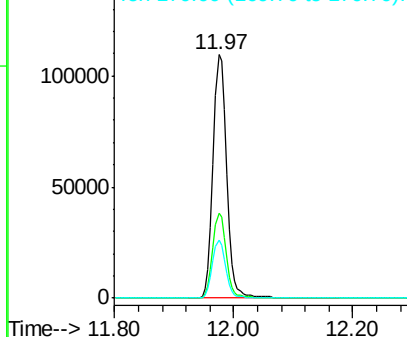
172 100

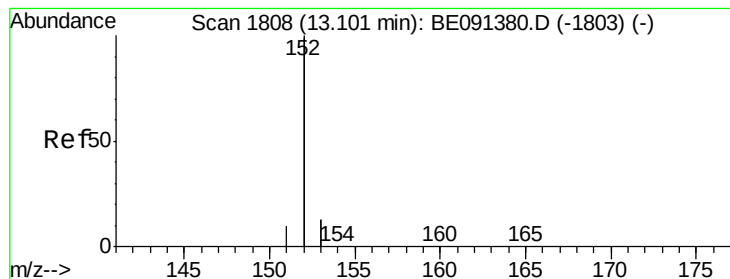
171 35.1 27.8 41.8

170 23.6 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: 5.07 ng

RT: 13.08 min Scan# 1806

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

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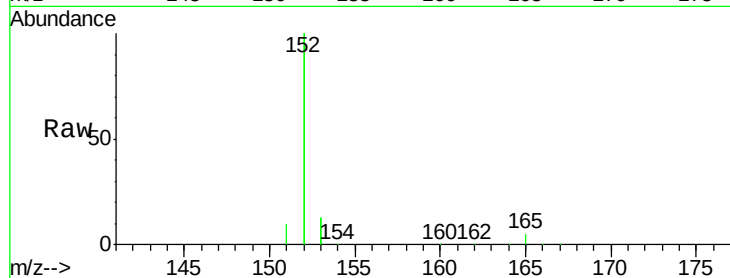
Tgt Ion:152 Resp: 1134418

Ion Ratio Lower Upper

152 100

151 4.9 3.8 5.8

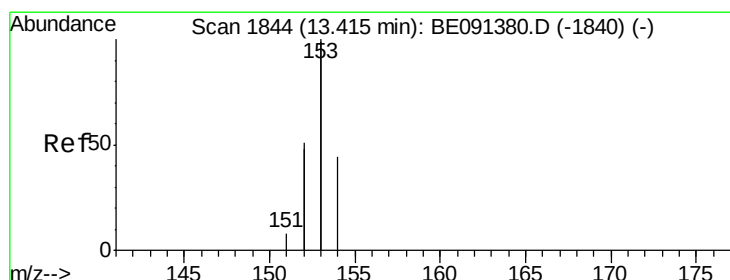
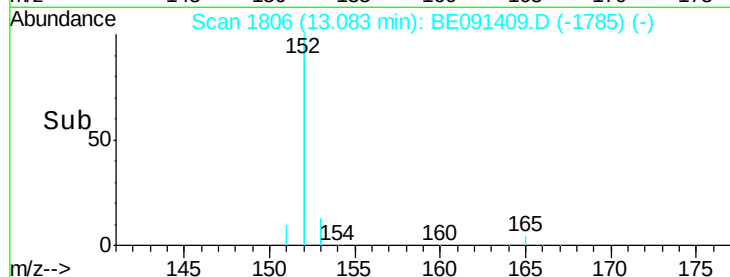
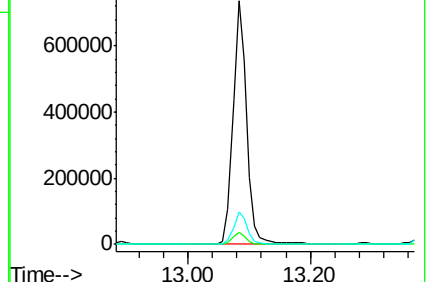
153 13.1 10.2 15.4



Abundance Ion 152.00 (151.70 to 152.70): E

Ion 151.00 (150.70 to 151.70): E

Ion 153.00 (152.70 to 153.70): E



#12

Acenaphthene

Concen: 4.91 ng

RT: 13.40 min Scan# 1842

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

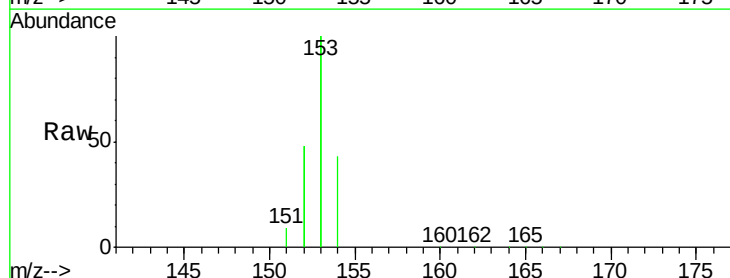
Tgt Ion:154 Resp: 172837

Ion Ratio Lower Upper

154 100

153 457.6 369.8 554.8

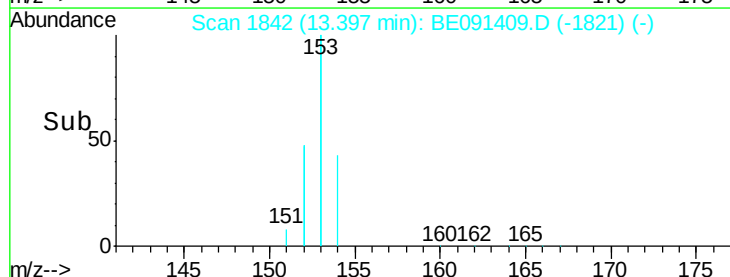
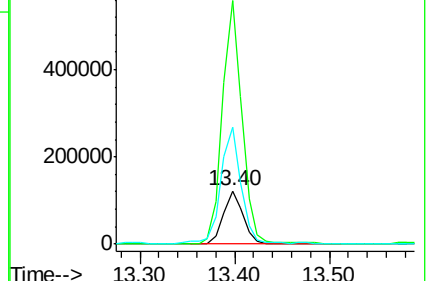
152 224.2 194.4 291.6

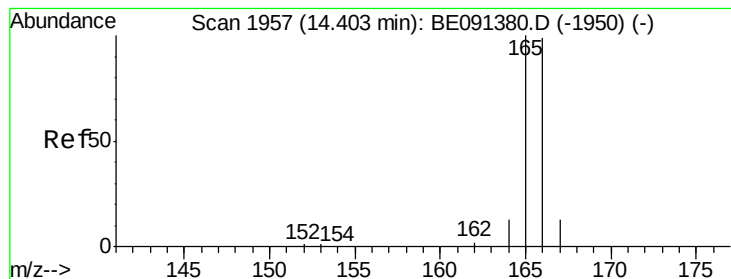


Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E





#13

Fluorene

Concen: 5.33 ng

RT: 14.39 min Scan# 1955

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

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ClientSampleId :

LIBERTY-SF-005MSD

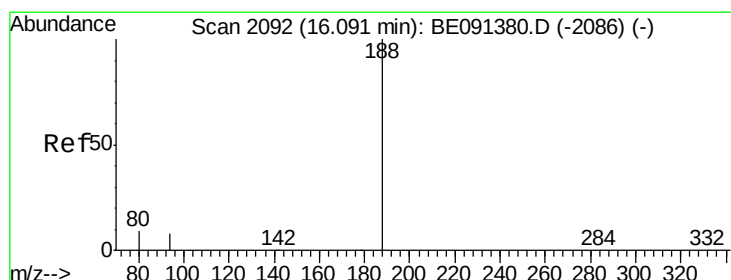
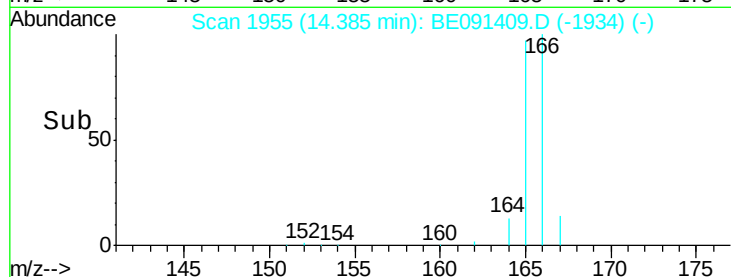
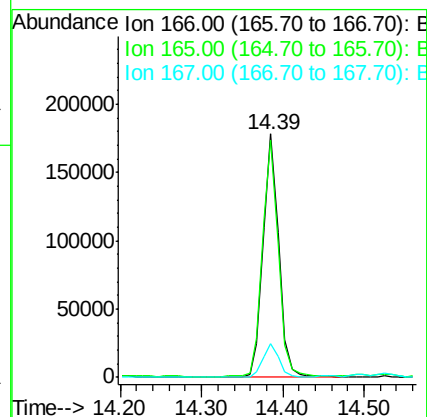
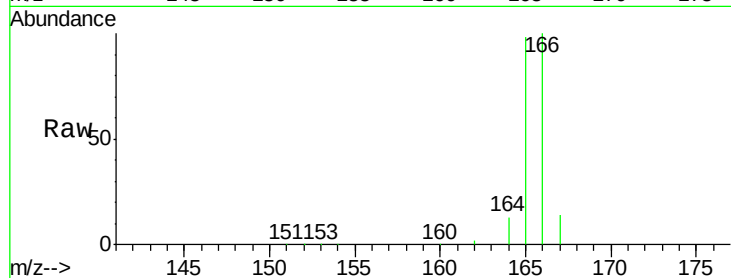
Tgt Ion:166 Resp: 241876

Ion Ratio Lower Upper

166 100

165 98.9 79.3 118.9

167 14.0 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: BE091409.D

Acq: 17 Feb 2016 18:06

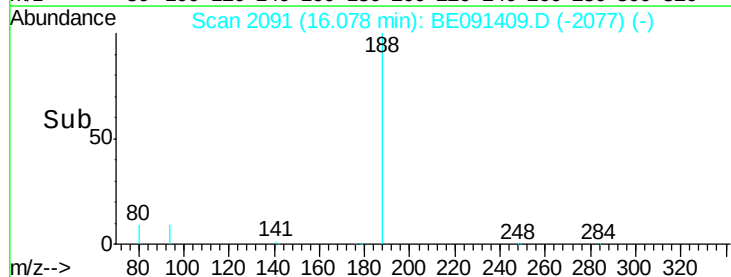
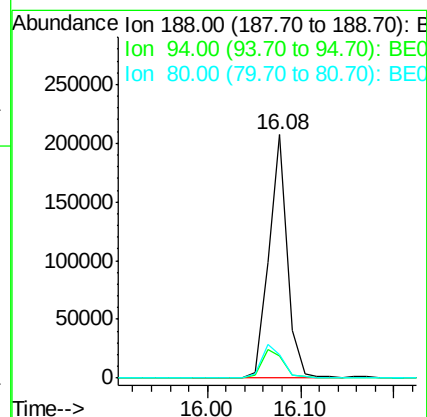
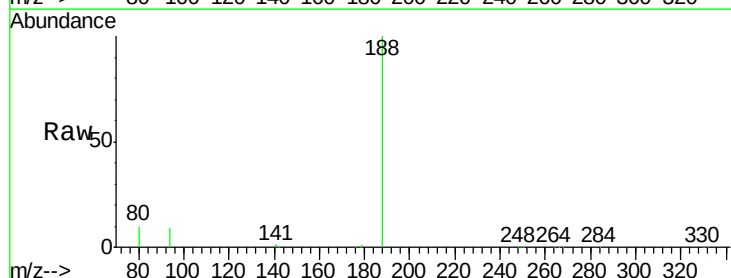
Tgt Ion:188 Resp: 285980

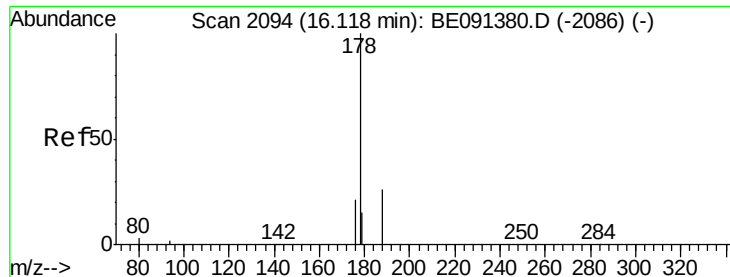
Ion Ratio Lower Upper

188 100

94 9.3 6.6 10.0

80 9.5 7.0 10.6





#15

Phenanthrene

Concen: 9.16 ng

RT: 16.12 min Scan# 2094

Delta R.T. -0.00 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

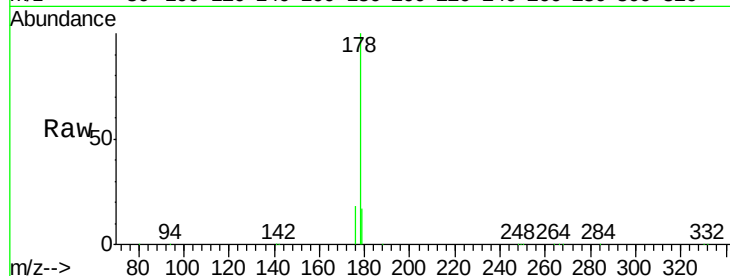
Tgt Ion:178 Resp: 687905

Ion Ratio Lower Upper

178 100

176 19.5 15.4 23.2

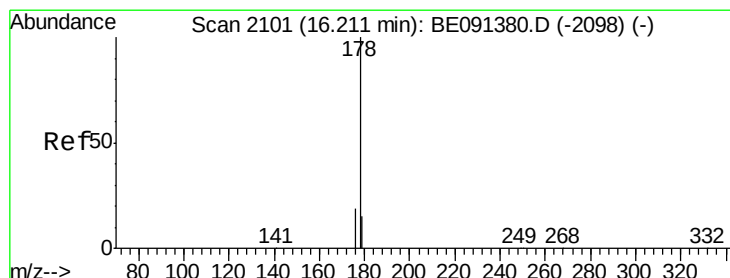
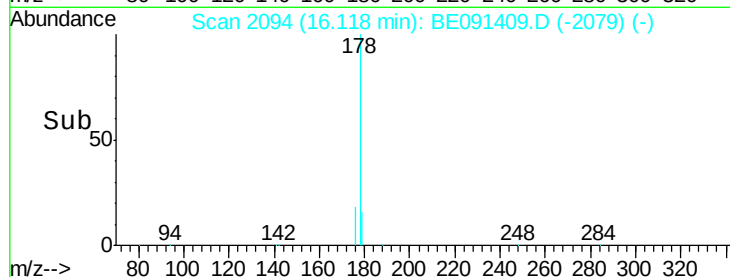
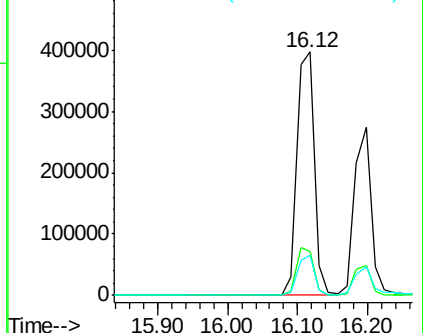
179 16.0 12.7 19.1



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: 7.22 ng

RT: 16.20 min Scan# 2100

Delta R.T. -0.01 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

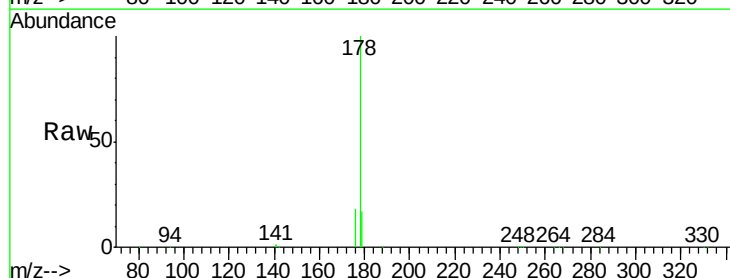
Tgt Ion:178 Resp: 454532

Ion Ratio Lower Upper

178 100

176 18.5 14.8 22.2

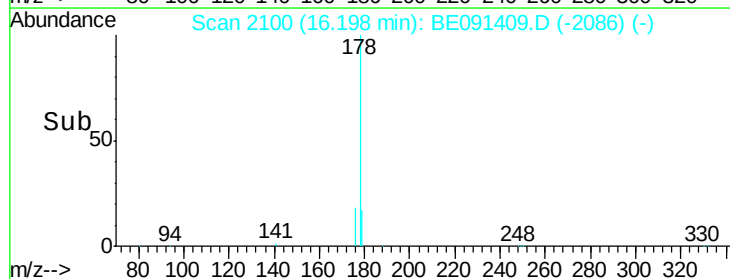
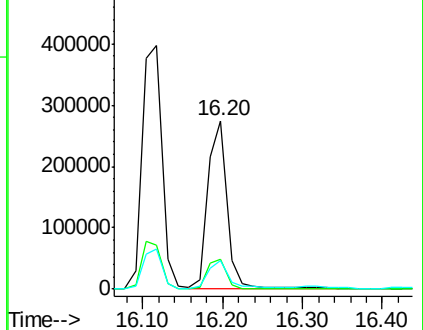
179 17.8 12.1 18.1

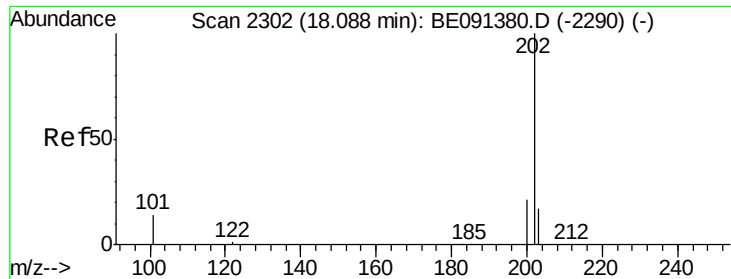


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E

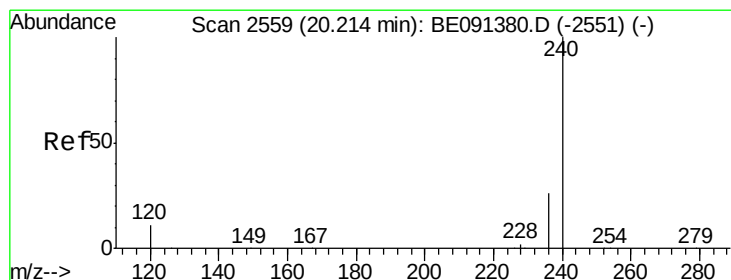
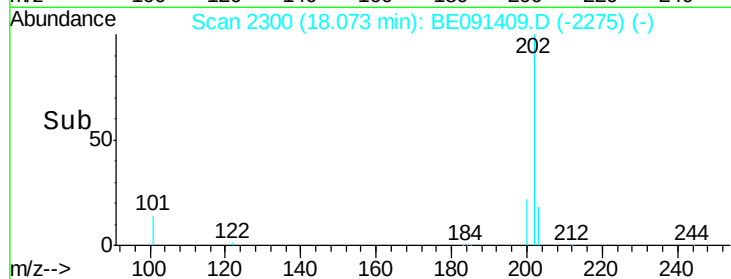
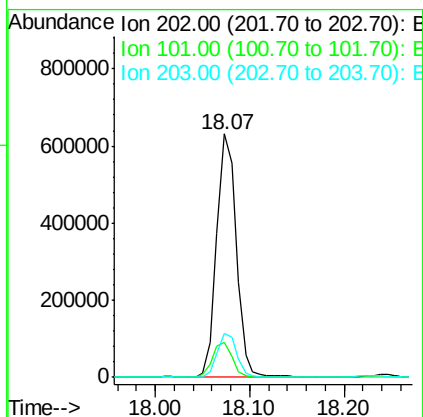
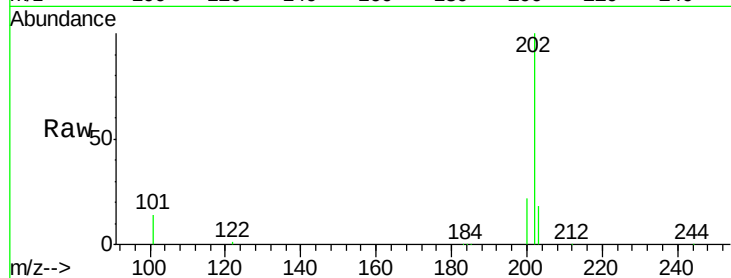




#17
 Fluoranthene
 Concen: 11.30 ng
 RT: 18.07 min Scan# 2300
 Delta R.T. -0.01 min
 Lab File: BE091409.D
 Acq: 17 Feb 2016 18:06

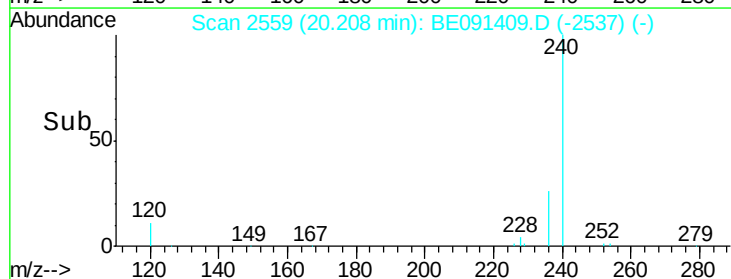
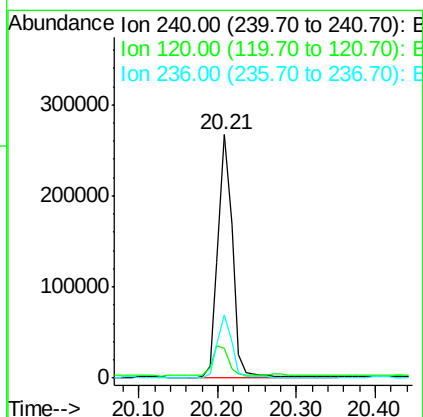
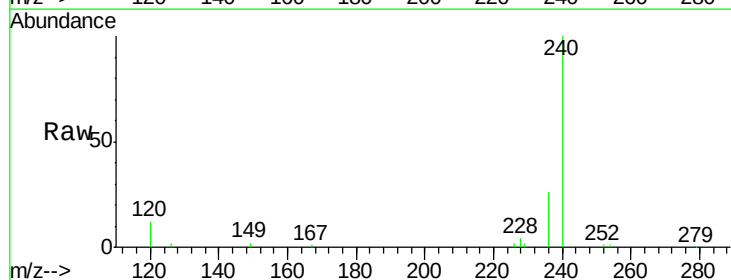
Instrument :
 BNA_E
 ClientSampleId :
 LIBERTY-SF-005MSD

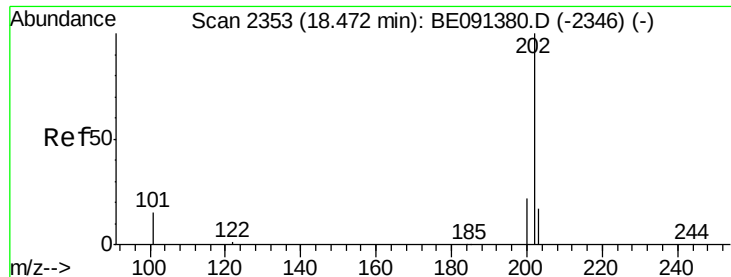
Tgt Ion:202 Resp: 902293
 Ion Ratio Lower Upper
 202 100
 101 14.2 10.5 15.7
 203 18.0 13.9 20.9



#18
 Chrysene-d12
 Concen: 5.00 ng
 RT: 20.21 min Scan# 2559
 Delta R.T. -0.01 min
 Lab File: BE091409.D
 Acq: 17 Feb 2016 18:06

Tgt Ion:240 Resp: 333064
 Ion Ratio Lower Upper
 240 100
 120 12.2 8.9 13.3
 236 25.9 21.0 31.4





#19

Pyrene

Concen: 12.06 ng

RT: 18.46 min Scan# 2351

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

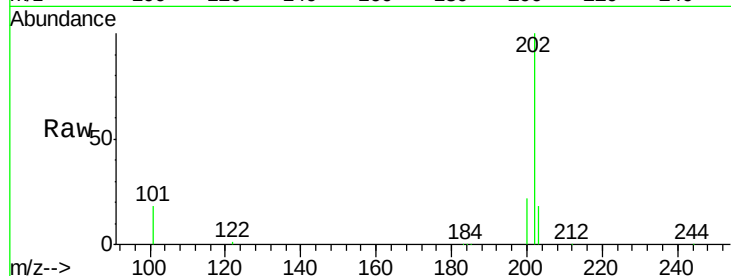
Tgt Ion:202 Resp: 870705

Ion Ratio Lower Upper

202 100

200 21.7 16.8 25.2

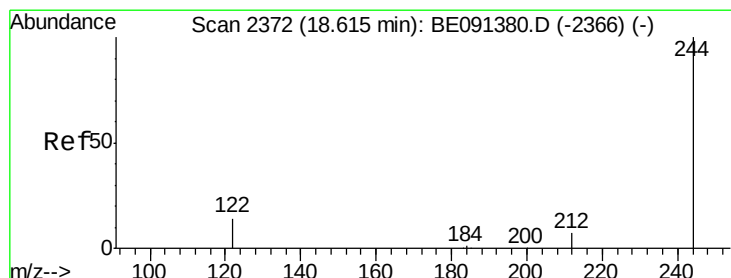
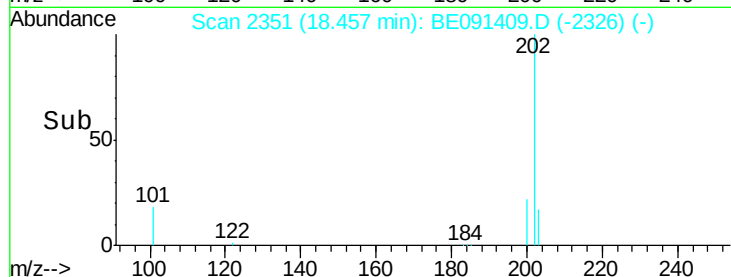
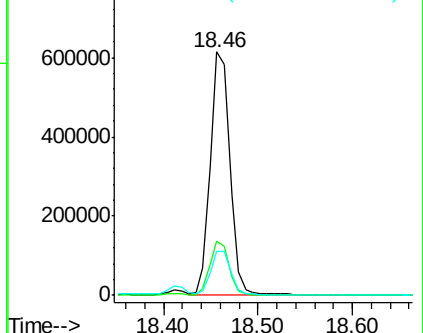
203 18.0 14.0 21.0



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: 5.51 ng

RT: 18.60 min Scan# 2370

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

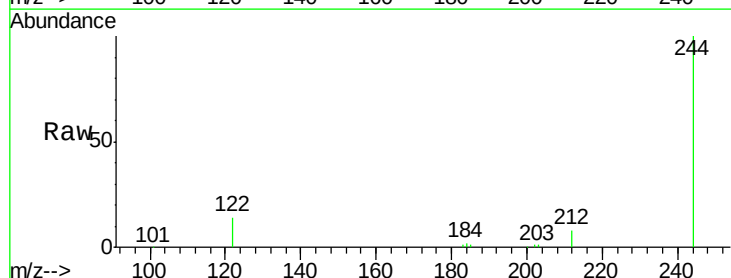
Tgt Ion:244 Resp: 271589

Ion Ratio Lower Upper

244 100

212 8.2 6.1 9.1

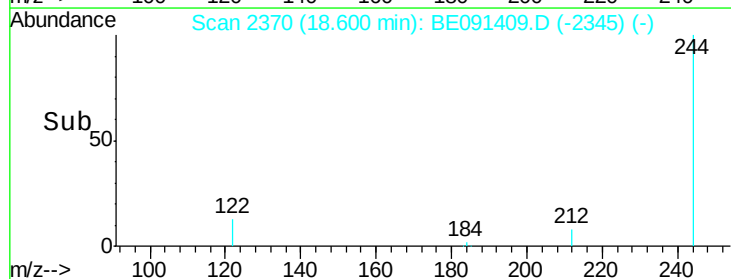
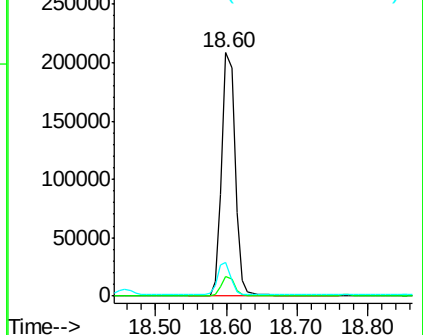
122 13.9 11.0 16.6

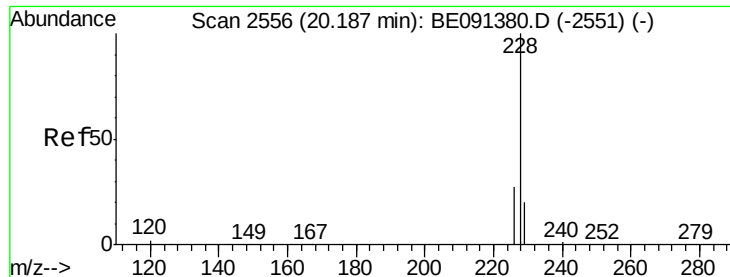


Abundance Ion 244.00 (243.70 to 244.70): E

Ion 212.00 (211.70 to 212.70): E

Ion 122.00 (121.70 to 122.70): E

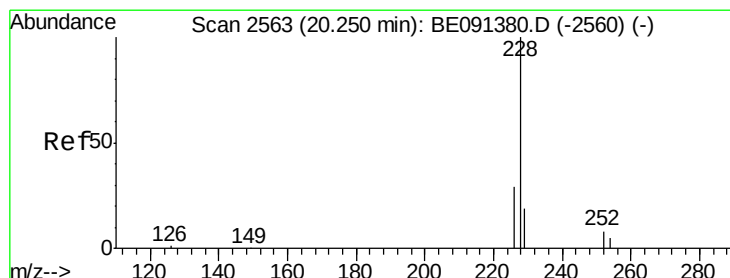
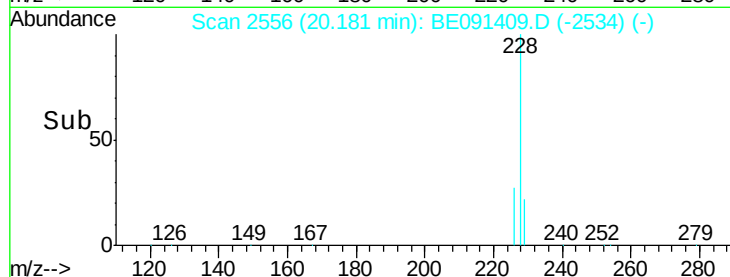
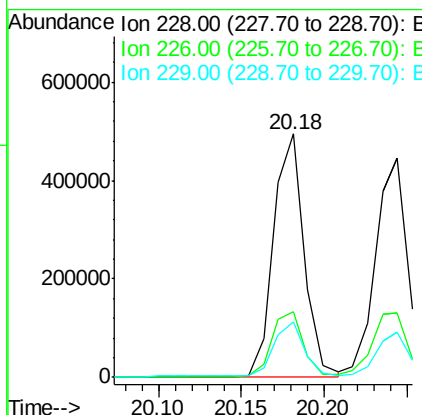
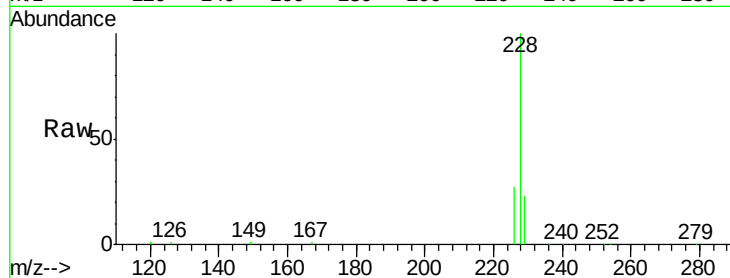




#21
Benzo(a)anthracene
Concen: 8.48 ng
RT: 20.18 min Scan# 2556
Delta R.T. -0.01 min
Lab File: BE091409.D
Acq: 17 Feb 2016 18:06

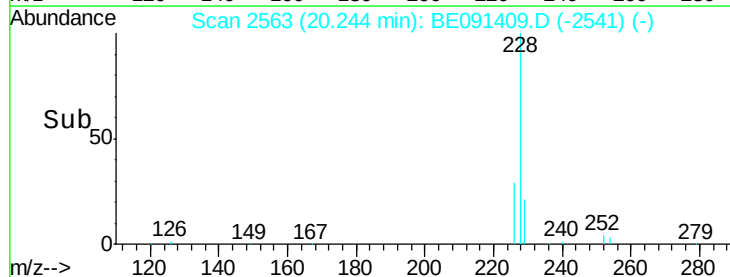
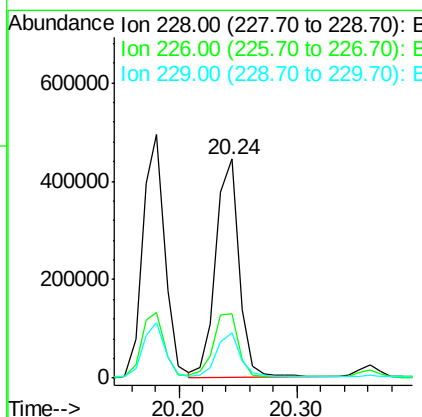
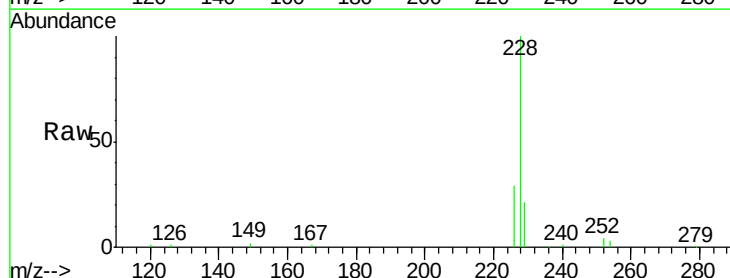
Instrument :
BNA_E
ClientSampleId :
LIBERTY-SF-005MSD

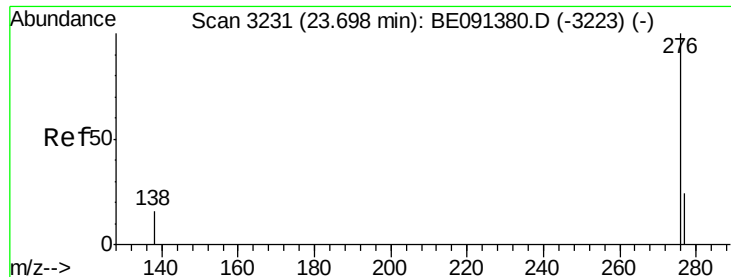
Tgt Ion: 228 Resp: 639089
Ion Ratio Lower Upper
228 100
226 26.9 21.7 32.5
229 22.9 16.1 24.1



#22
Chrysene
Concen: 7.45 ng
RT: 20.24 min Scan# 2563
Delta R.T. -0.01 min
Lab File: BE091409.D
Acq: 17 Feb 2016 18:06

Tgt Ion: 228 Resp: 612354
Ion Ratio Lower Upper
228 100
226 29.2 23.4 35.0
229 20.9 15.7 23.5





#23

Indeno(1,2,3-cd)pyrene

Concen: 7.22 ng

RT: 23.68 min Scan# 3228

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

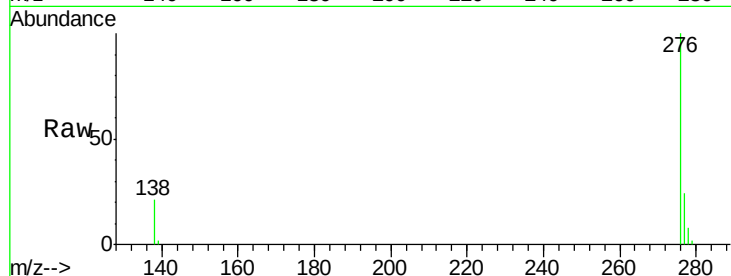
Tgt Ion:276 Resp: 553153

Ion Ratio Lower Upper

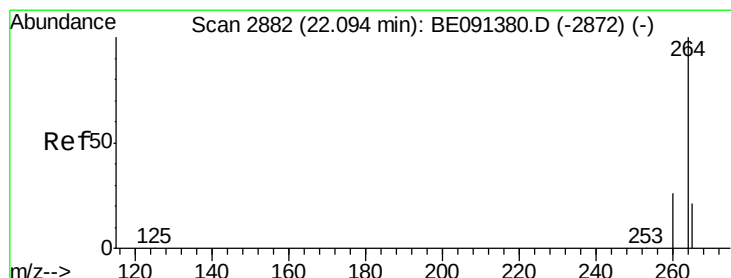
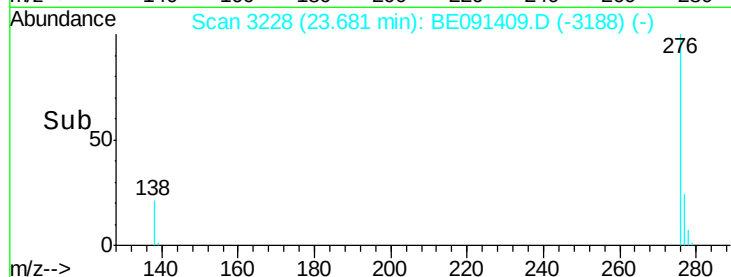
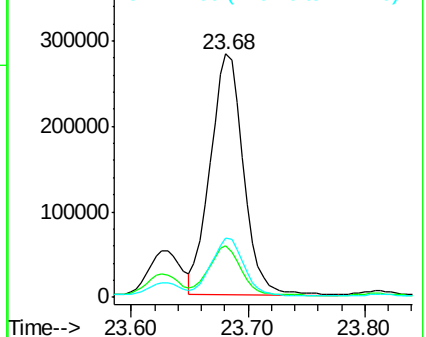
276 100

138 20.0 16.6 25.0

277 23.8 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# 2882

Delta R.T. -0.00 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

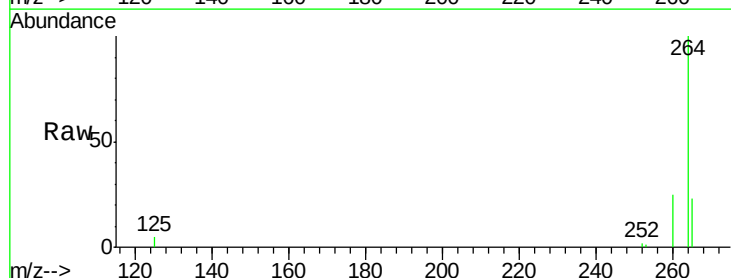
Tgt Ion:264 Resp: 343875

Ion Ratio Lower Upper

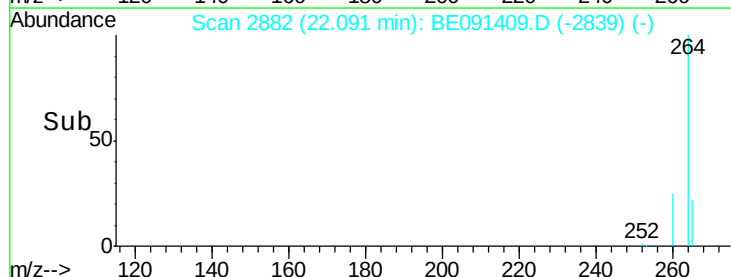
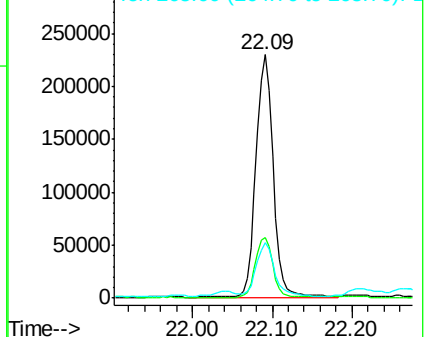
264 100

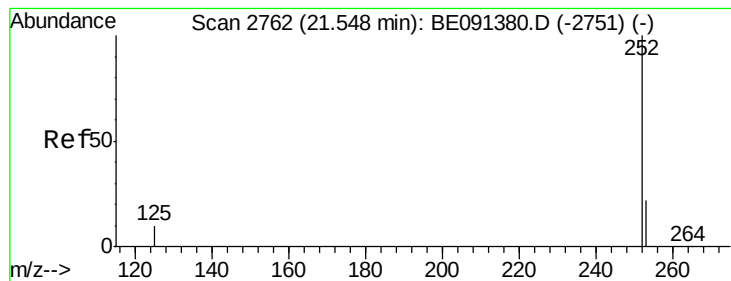
260 25.0 20.7 31.1

265 22.6 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: 6.57 ng

RT: 21.54 min Scan# 2761

Delta R.T. -0.01 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

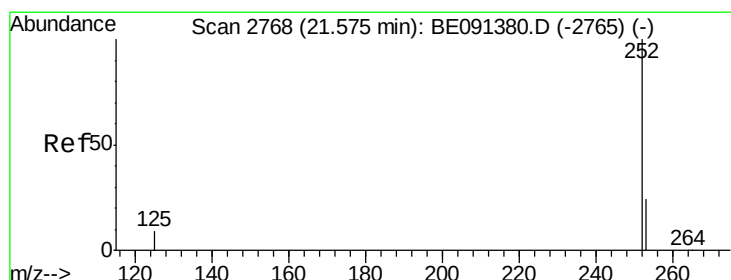
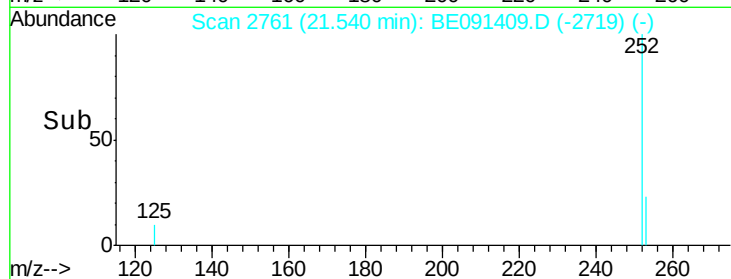
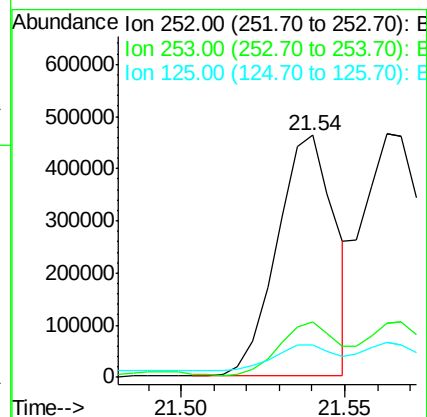
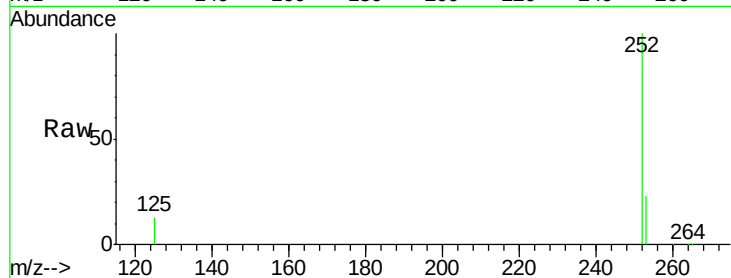
Tgt Ion:252 Resp: 566754

Ion Ratio Lower Upper

252 100

253 23.1 18.2 27.2

125 13.2 8.3 12.5#



#26

Benzo(k)fluoranthene

Concen: 7.35 ng

RT: 21.56 min Scan# 2766

Delta R.T. -0.01 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

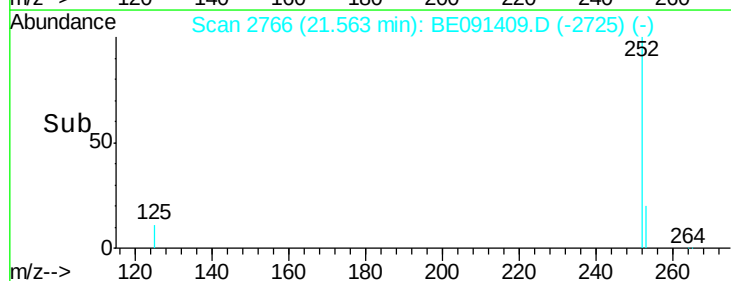
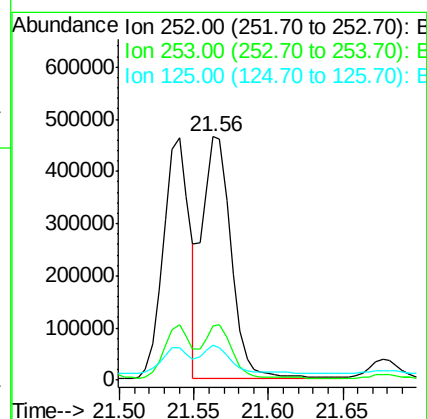
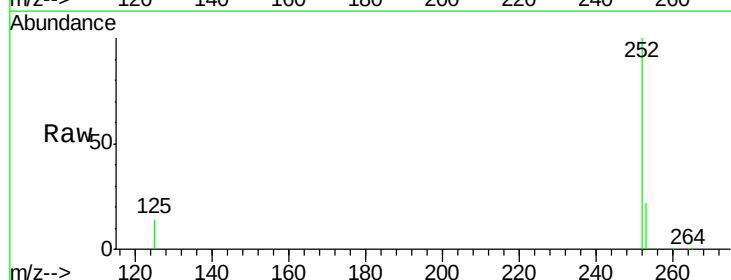
Tgt Ion:252 Resp: 631804

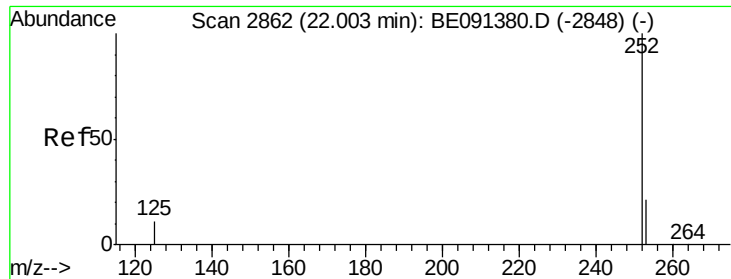
Ion Ratio Lower Upper

252 100

253 22.2 18.1 27.1

125 14.2 8.2 12.4#





#27

Benzo(a)pyrene

Concen: 7.67 ng

RT: 22.00 min Scan# 2861

Delta R.T. -0.01 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD

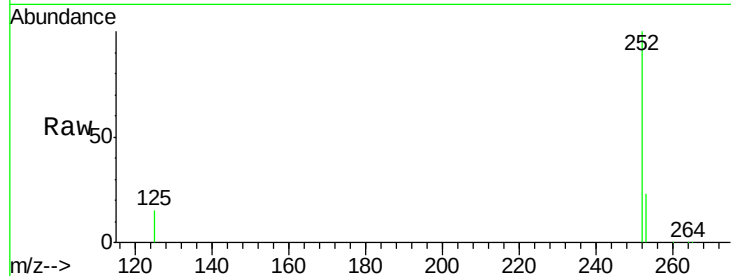
Tgt Ion:252 Resp: 614416

Ion Ratio Lower Upper

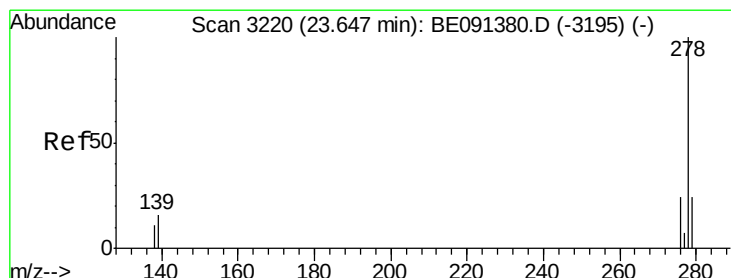
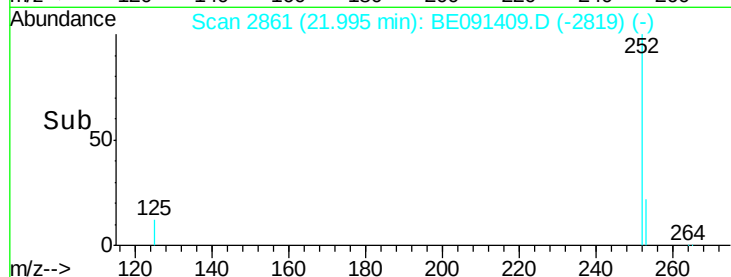
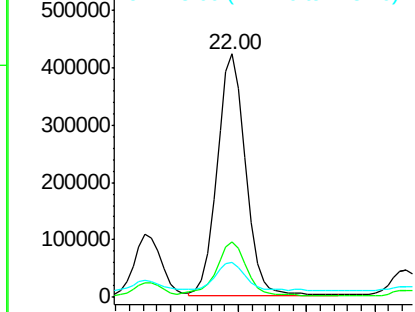
252 100

253 22.8 17.5 26.3

125 14.6 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: 5.63 ng

RT: 23.63 min Scan# 3217

Delta R.T. -0.02 min

Lab File: BE091409.D

Acq: 17 Feb 2016 18:06

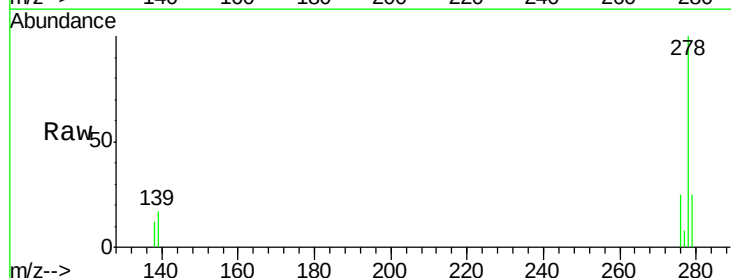
Tgt Ion:278 Resp: 443678

Ion Ratio Lower Upper

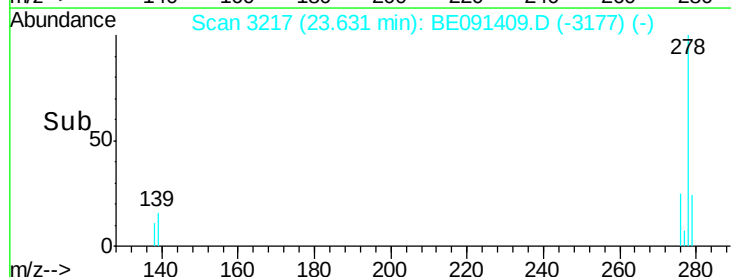
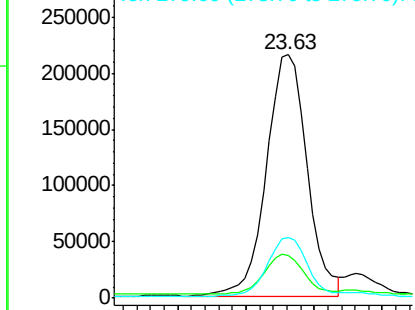
278 100

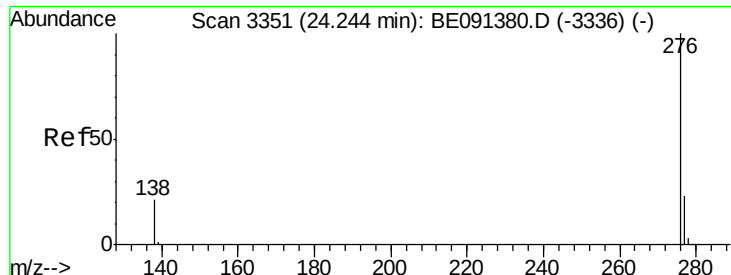
139 17.5 13.0 19.4

279 25.1 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: 6.85 ng

RT: 24.23 min Scan# 3348

Delta R.T. -0.02 min

Lab File: BE091409.D

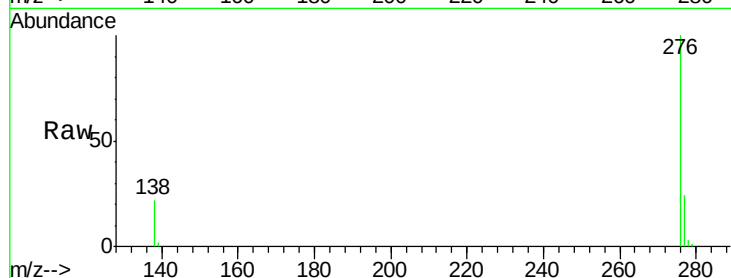
Acq: 17 Feb 2016 18:06

Instrument :

BNA_E

ClientSampleId :

LIBERTY-SF-005MSD



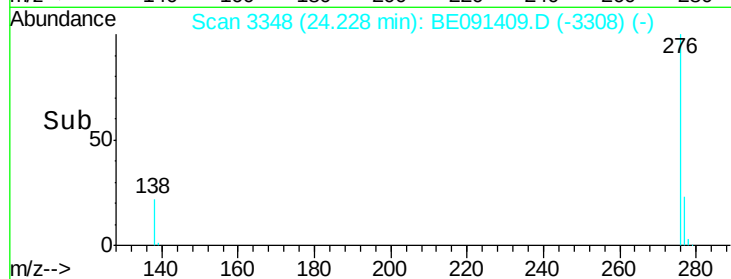
Tgt Ion: 276 Resp: 590180

Ion Ratio Lower Upper

276 100

277 23.9 18.9 28.3

138 22.4 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

