

Data Path : Z:\HPCHEM1\BNA_E\DATA\BE020416\
 Data File : BE091389.D
 Acq On : 4 Feb 2016 10:59
 Operator : UM/IZ
 Sample : G4825-03
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 BNA_E
 ClientSampleId :
 LOD-SOIL2016-01

Quant Time: Feb 05 06:32:44 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

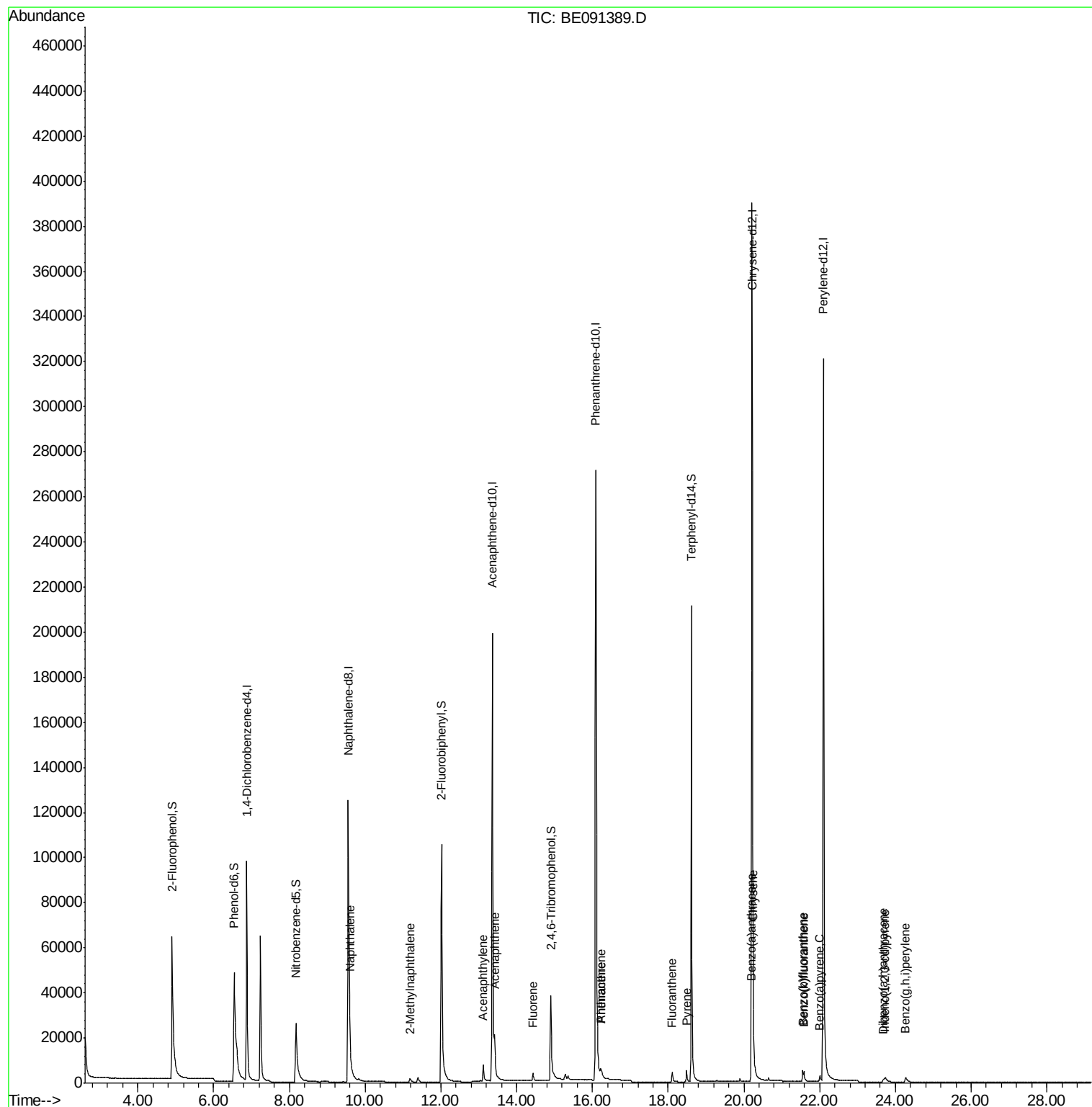
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.87	152	52729	5.00	ng	0.00
4) Naphthalene-d8	9.55	136	241924	5.00	ng	0.00
8) Acenaphthene-d10	13.36	164	151851	5.00	ng	0.00
14) Phenanthrene-d10	16.09	188	402243	5.00	ng	0.00
18) Chrysene-d12	20.22	240	427442	5.00	ng	0.00
24) Perylene-d12	22.10	264	386976	5.00	ng	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	4.91	112	84879	6.81	ng	-0.04
3) Phenol-d6	6.54	99	113624	6.45	ng	-0.03
5) Nitrobenzene-d5	8.17	82	46317	3.01	ng	0.00
9) 2,4,6-Tribromophenol	14.91	330	28248	3.98	ng	0.00
10) 2-Fluorobiphenyl	12.01	172	157979	4.00	ng	0.00
20) Terphenyl-d14	18.62	244	267875	4.24	ng	0.00
Target Compounds						Qvalue
6) Naphthalene	9.60	128	4034	0.07	ng	# 91
7) 2-Methylnaphthalene	11.18	142	2403	0.20	ng	98
11) Acenaphthylene	13.12	152	13672	0.23	ng	100
12) Acenaphthene	13.42	154	3025	0.07	ng	97
13) Fluorene	14.43	166	3620	0.07	ng	100
15) Phenanthrene	16.23	178	4083	0.04	ng	98
16) Anthracene	16.23	178	5318	0.06	ng	98
17) Fluoranthene	18.11	202	6336	0.17	ng	99
19) Pyrene	18.49	202	6513	0.07	ng	99
21) Benzo(a)anthracene	20.19	228	5629	0.23	ng	98
22) Chrysene	20.25	228	9342	0.02	ng	99
23) Indeno(1,2,3-cd)pyrene	23.73	276	4982	0.21	ng	# 81
25) Benzo(b)fluoranthene	21.56	252	5206	0.20	ng	# 93
26) Benzo(k)fluoranthene	21.58	252	6352	0.08	ng	# 91
27) Benzo(a)pyrene	22.01	252	3988	0.21	ng	# 82
28) Dibenzo(a,h)anthracene	23.68	278	3589	0.29	ng	# 82
29) Benzo(g,h,i)perylene	24.28	276	5260	0.20	ng	# 91

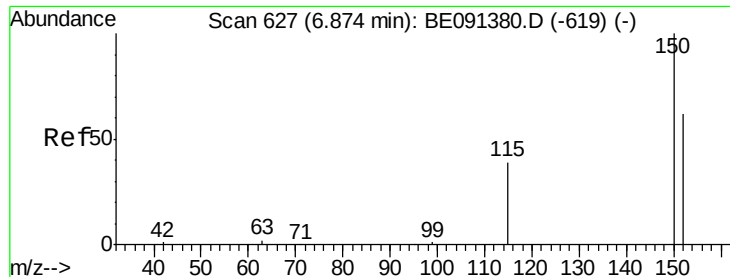
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

1,4-Dichlorobenzene-d4

Concen: 5.00 ng

RT: 6.87 min Scan# 627

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

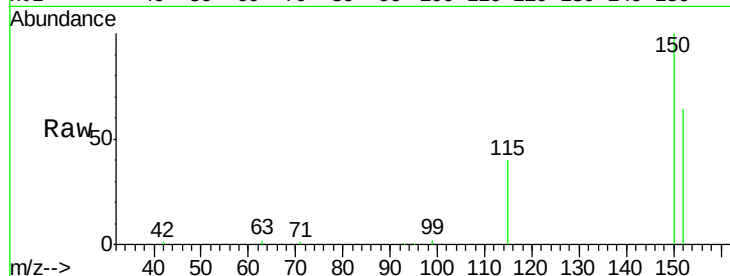
Tgt Ion:152 Resp: 52729

Ion Ratio Lower Upper

152 100

150 157.2 128.9 193.3

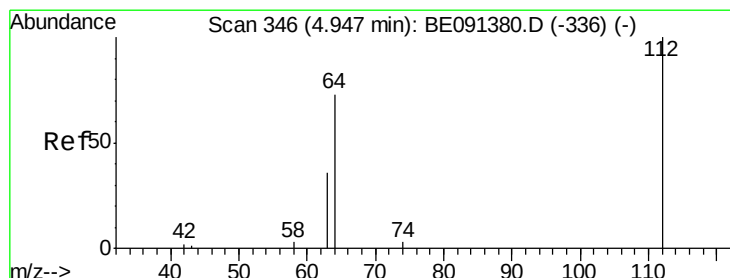
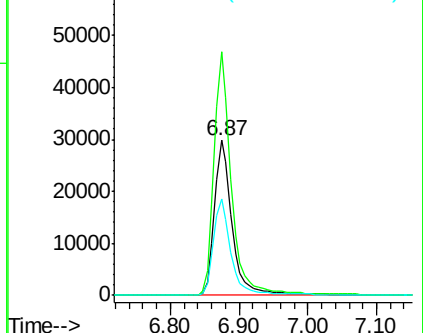
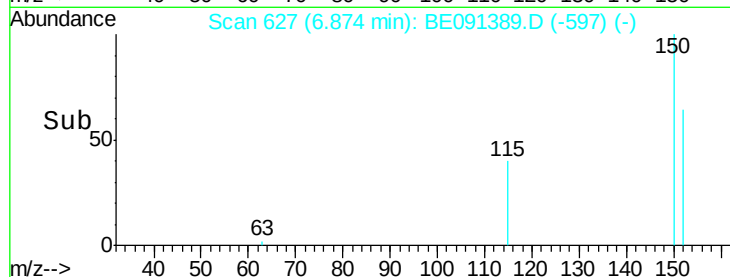
115 62.6 50.9 76.3



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: 6.81 ng

RT: 4.91 min Scan# 341

Delta R.T. -0.04 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

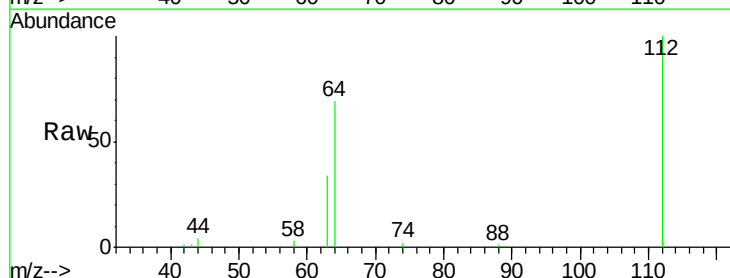
Tgt Ion:112 Resp: 84879

Ion Ratio Lower Upper

112 100

64 72.4 60.5 90.7

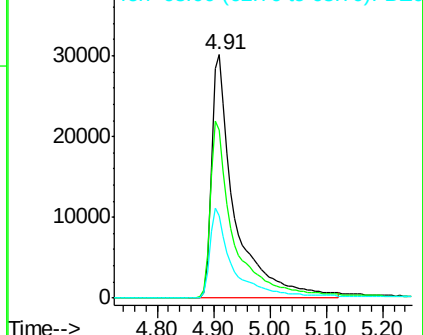
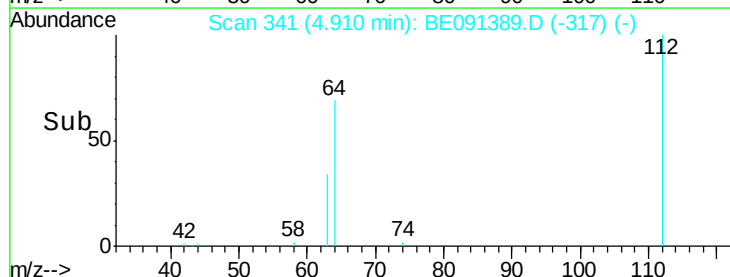
63 36.3 29.8 44.8

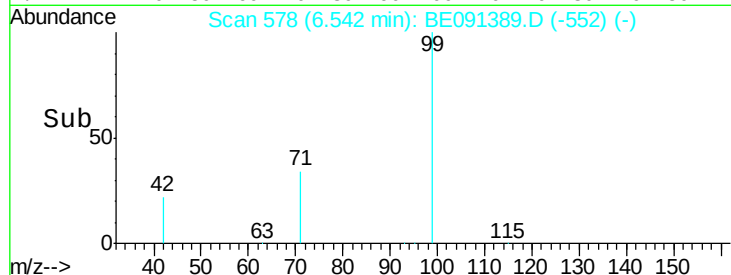
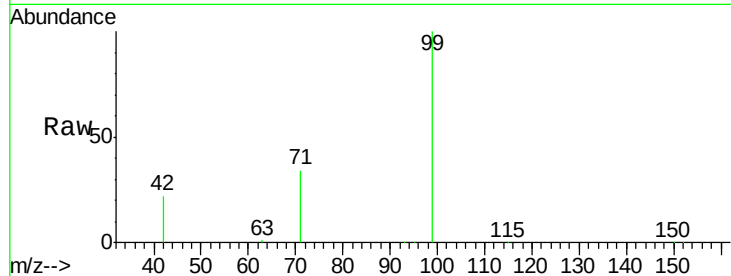
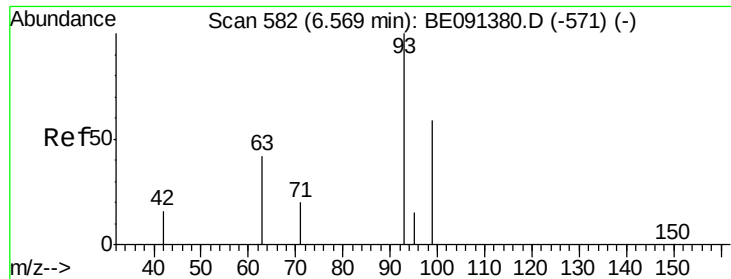


Abundance Ion 112.00 (111.70 to 112.70): E

Ion 64.00 (63.70 to 64.70): BE0

Ion 63.00 (62.70 to 63.70): BE0





#3

Phenol-d6

Concen: 6.45 ng

RT: 6.54 min Scan# 578

Delta R.T. -0.03 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

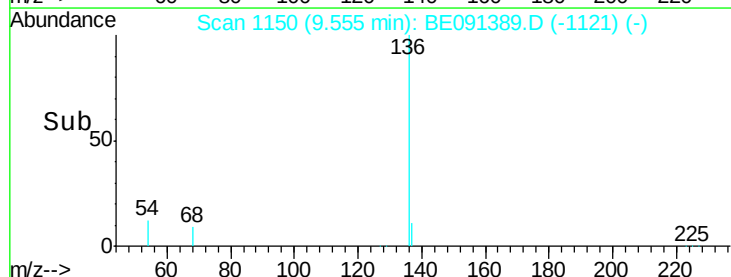
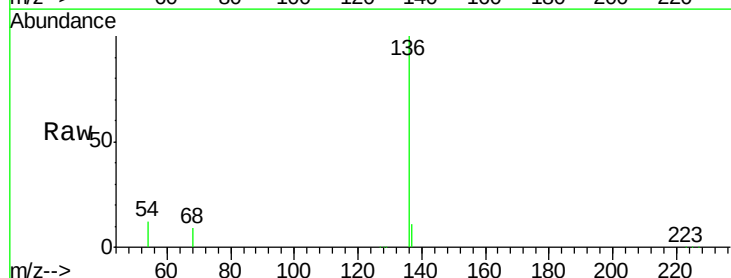
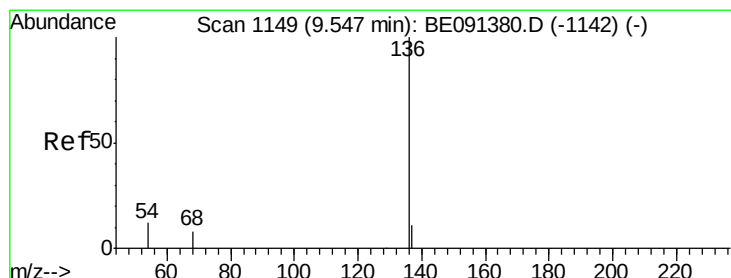
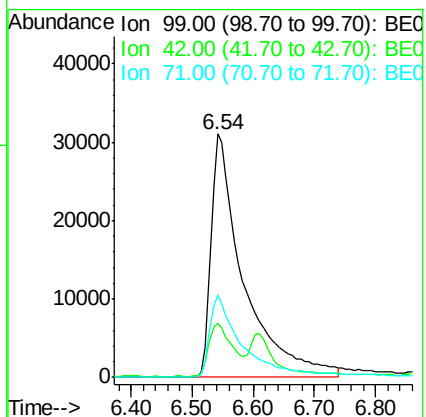
Tgt Ion: 99 Resp: 113624

Ion Ratio Lower Upper

99 100

42 15.7 13.3 19.9

71 33.5 25.6 38.4



#4

Naphthalene-d8

Concen: 5.00 ng

RT: 9.55 min Scan# 1150

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Tgt Ion: 136 Resp: 241924

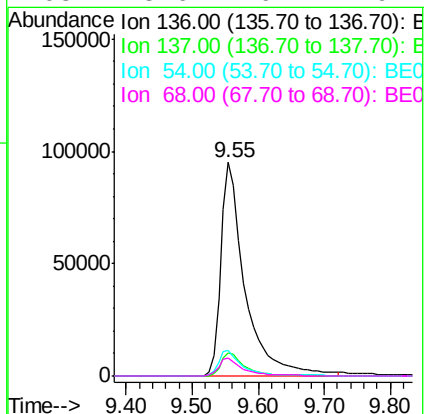
Ion Ratio Lower Upper

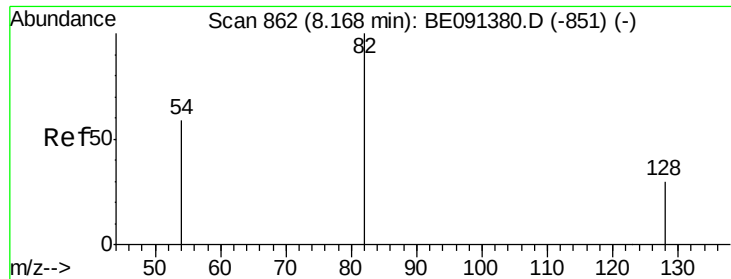
136 100

137 11.1 8.7 13.1

54 12.0 9.3 13.9

68 8.6 6.7 10.1





#5

Nitrobenzene-d5

Concen: 3.01 ng

RT: 8.17 min Scan# 863

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

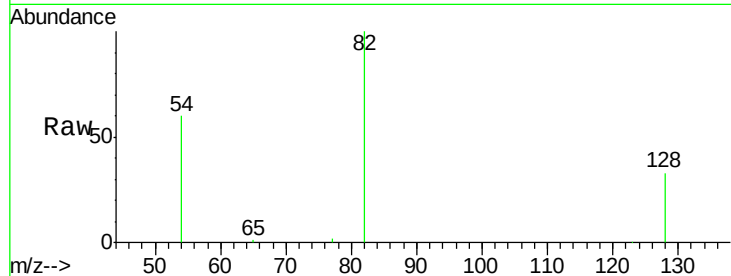
Tgt Ion: 82 Resp: 46317

Ion Ratio Lower Upper

82 100

128 33.2 25.0 37.4

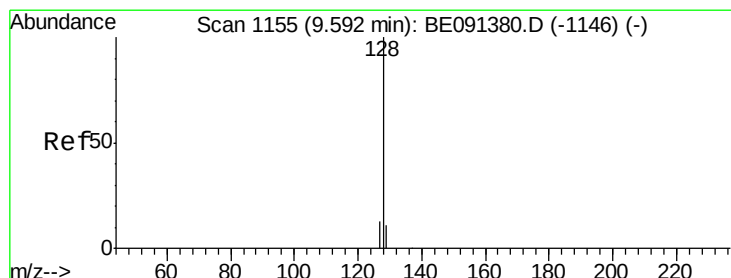
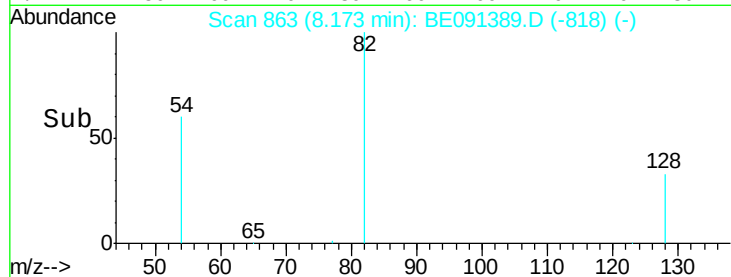
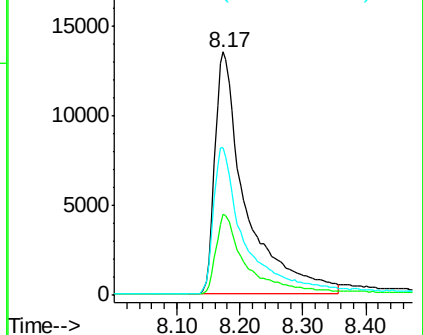
54 60.5 48.1 72.1



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: 0.07 ng

RT: 9.60 min Scan# 1156

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

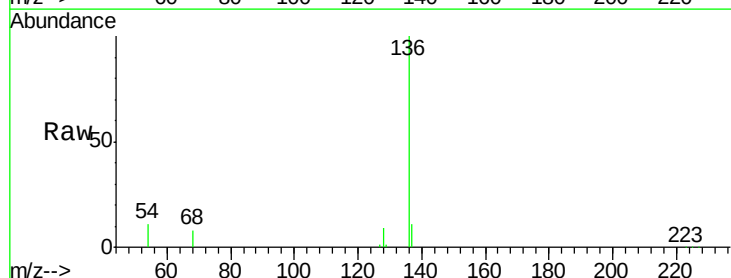
Tgt Ion: 128 Resp: 4034

Ion Ratio Lower Upper

128 100

129 15.5 9.1 13.7#

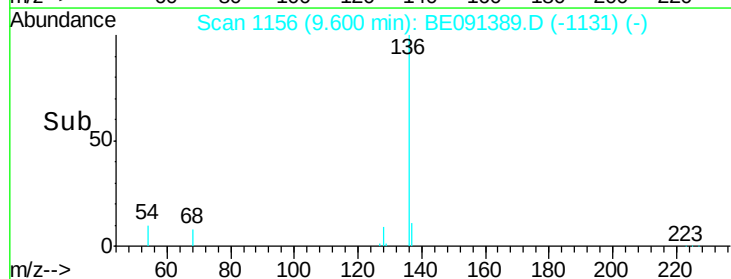
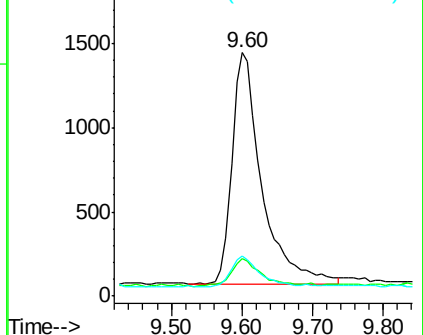
127 16.3 10.5 15.7#

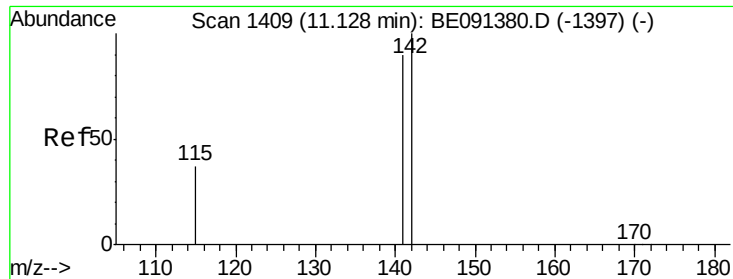


Abundance Ion 128.00 (127.70 to 128.70): E

Ion 129.00 (128.70 to 129.70): E

Ion 127.00 (126.70 to 127.70): E





#7

2-Methylnaphthalene

Concen: 0.20 ng

RT: 11.18 min Scan# 1421

Delta R.T. 0.05 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

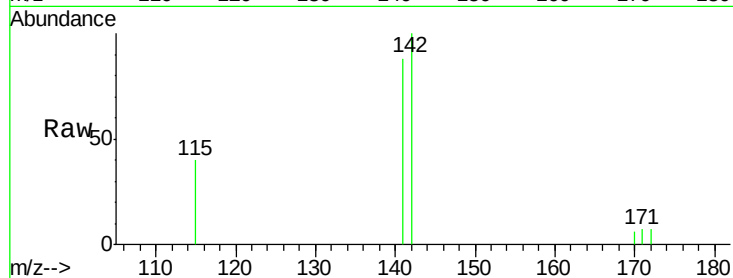
Tgt Ion:142 Resp: 2403

Ion Ratio Lower Upper

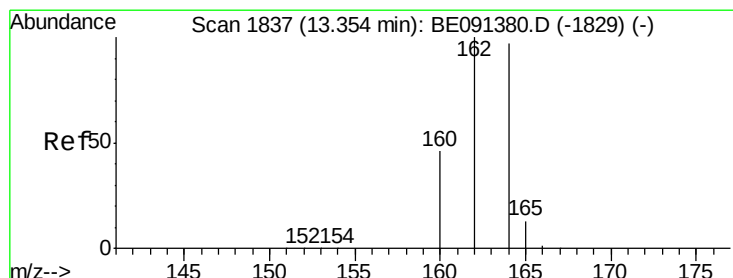
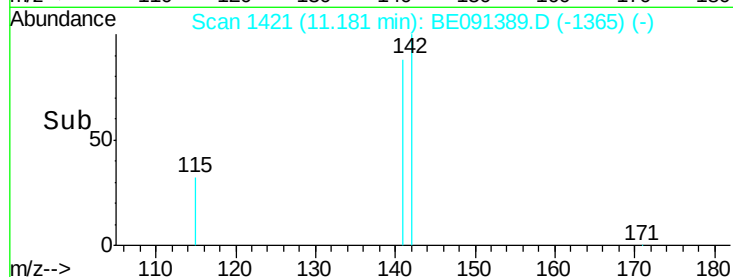
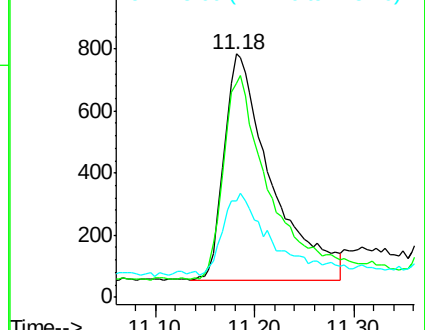
142 100

141 88.1 72.3 108.5

115 39.7 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: 13.36 min Scan# 1839

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

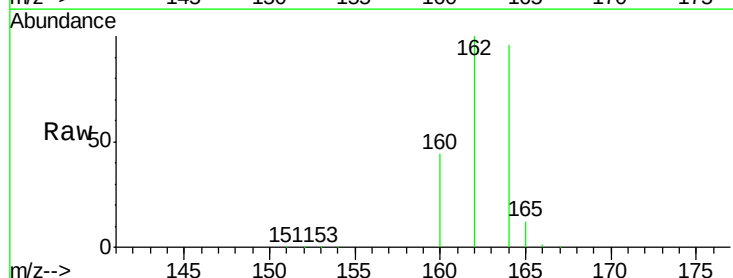
Tgt Ion:164 Resp: 151851

Ion Ratio Lower Upper

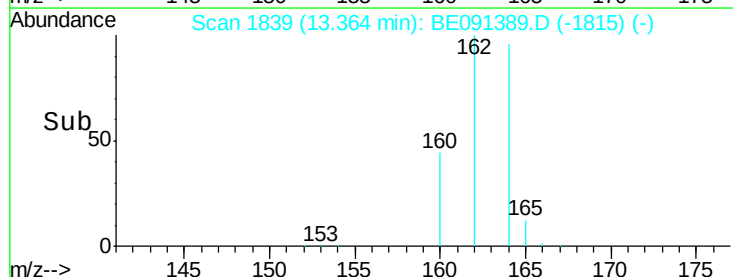
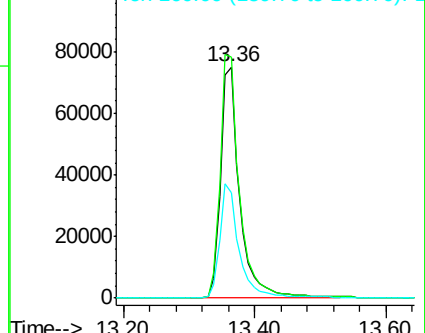
164 100

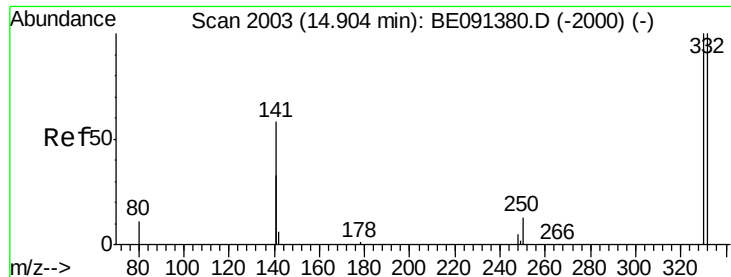
162 104.1 82.2 123.2

160 45.8 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: 3.98 ng

RT: 14.91 min Scan# 2004

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

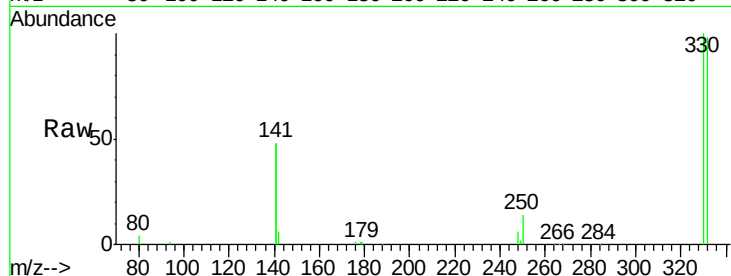
Tgt Ion:330 Resp: 28248

Ion Ratio Lower Upper

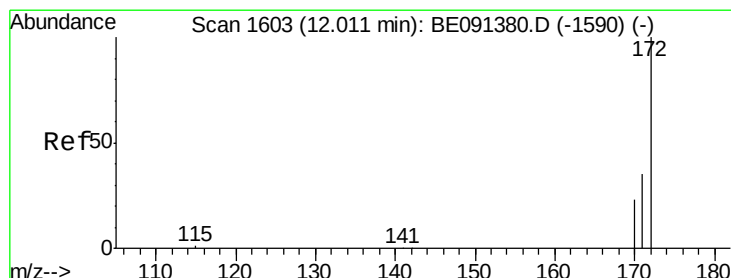
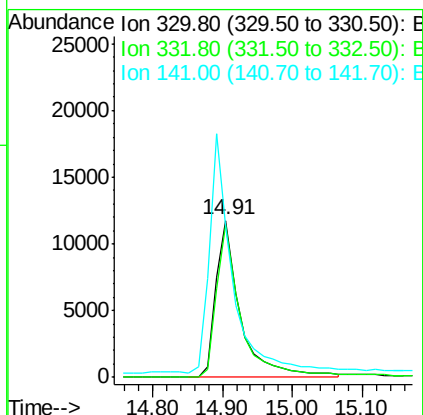
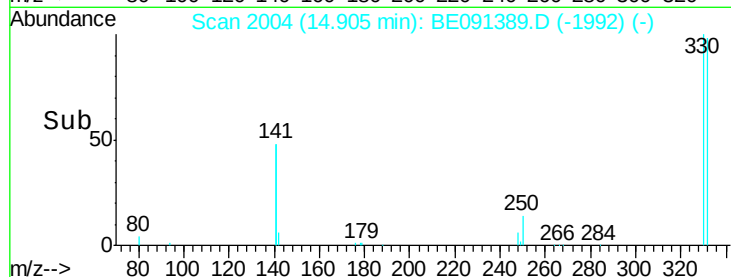
330 100

332 96.1 78.8 118.2

141 145.8 105.1 157.7



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: 4.00 ng

RT: 12.01 min Scan# 1604

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

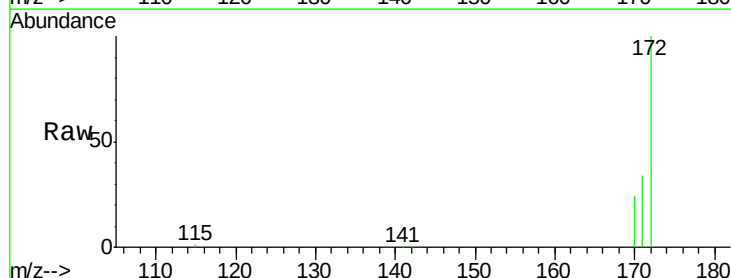
Tgt Ion:172 Resp: 157979

Ion Ratio Lower Upper

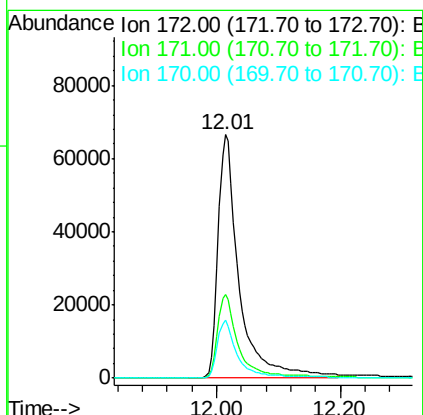
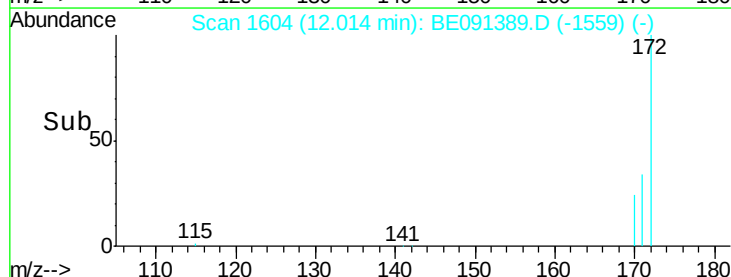
172 100

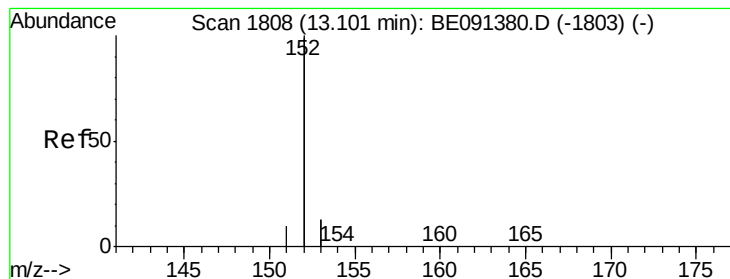
171 34.3 27.8 41.8

170 23.7 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: 0.23 ng

RT: 13.12 min Scan# 1811

Delta R.T. 0.02 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

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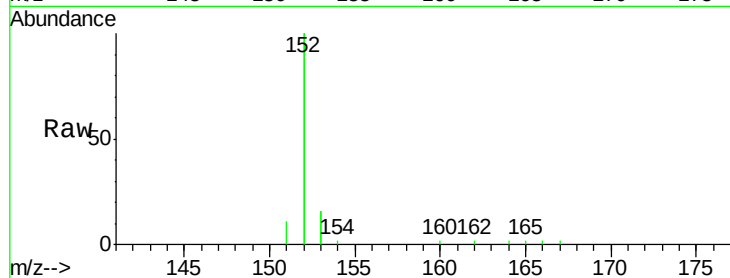
Tgt Ion:152 Resp: 13672

Ion Ratio Lower Upper

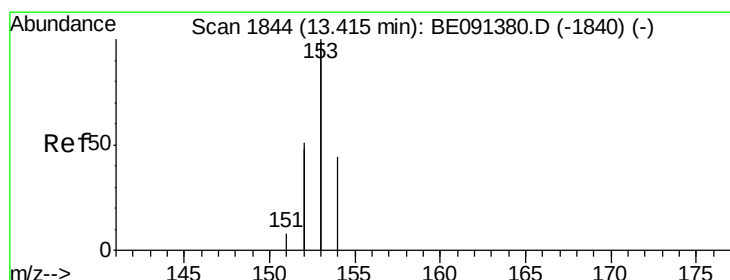
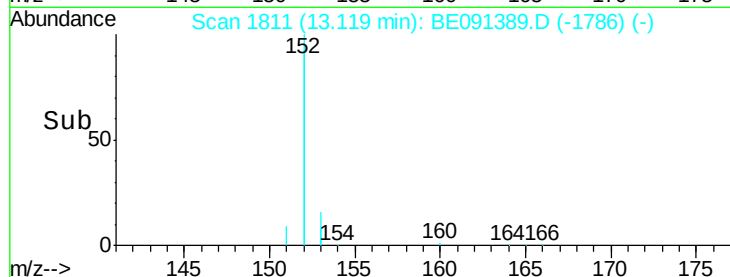
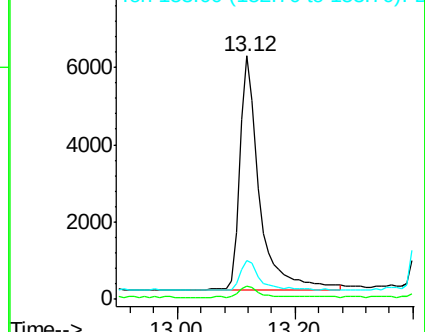
152 100

151 4.5 3.8 5.8

153 12.7 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: 0.07 ng

RT: 13.42 min Scan# 1846

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

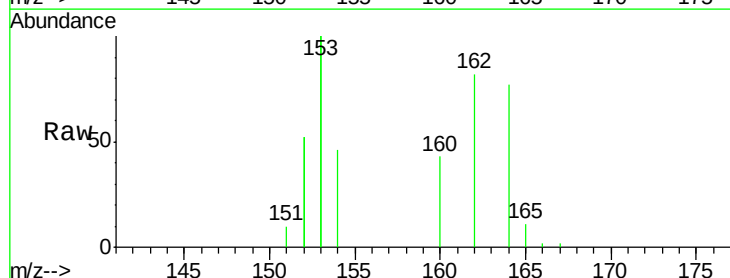
Tgt Ion:154 Resp: 3025

Ion Ratio Lower Upper

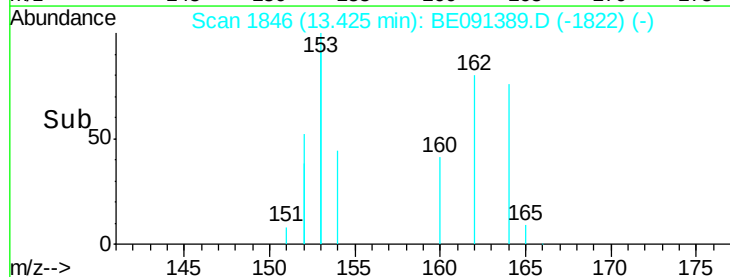
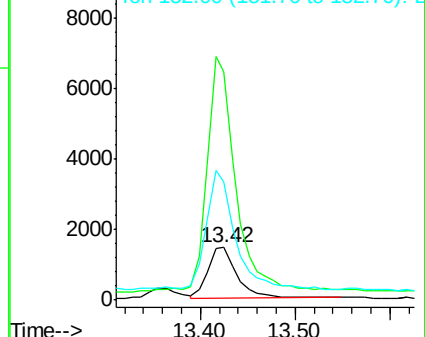
154 100

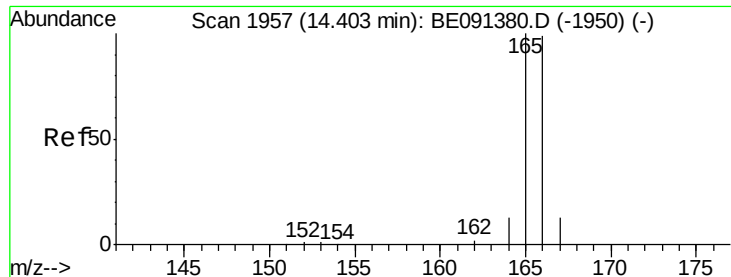
153 469.2 369.8 554.8

152 238.7 194.4 291.6



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: 0.07 ng

RT: 14.43 min Scan# 1961

Delta R.T. 0.03 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

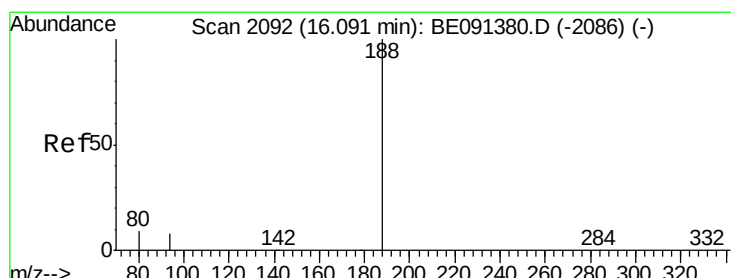
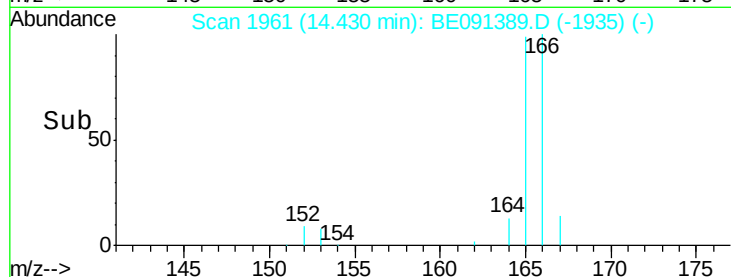
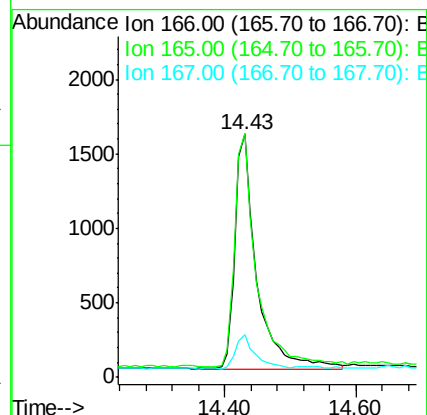
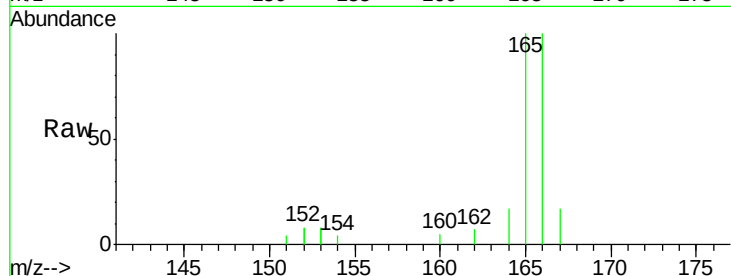
Tgt Ion:166 Resp: 3620

Ion Ratio Lower Upper

166 100

165 99.6 79.3 118.9

167 13.2 10.6 16.0



#14

Phenanthrene-d10

Concen: 5.00 ng

RT: 16.09 min Scan# 2093

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

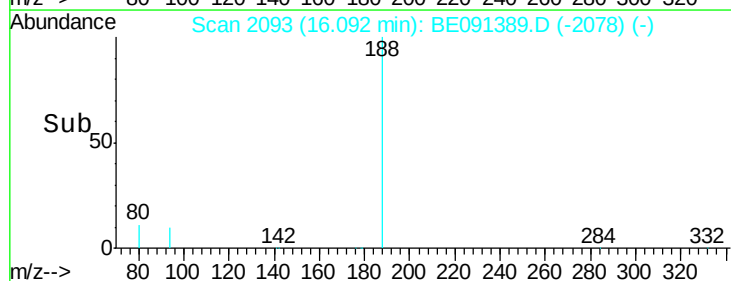
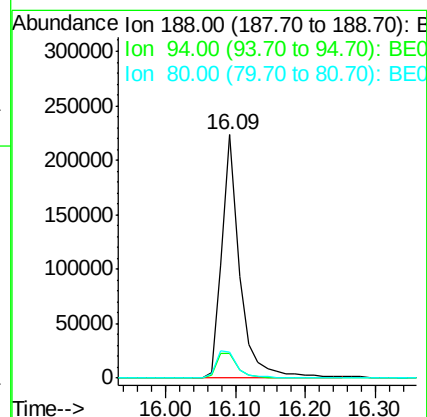
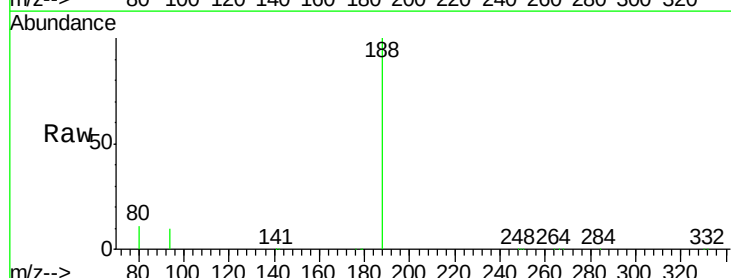
Tgt Ion:188 Resp: 402243

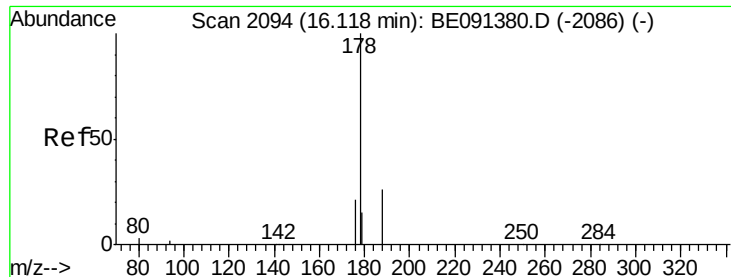
Ion Ratio Lower Upper

188 100

94 10.1 6.6 10.0#

80 10.6 7.0 10.6#





#15

Phenanthrene

Concen: 0.04 ng

RT: 16.23 min Scan# 2103

Delta R.T. 0.11 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

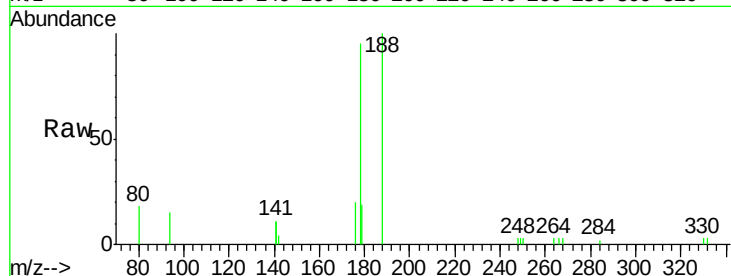
Tgt Ion:178 Resp: 4083

Ion Ratio Lower Upper

178 100

176 18.4 15.4 23.2

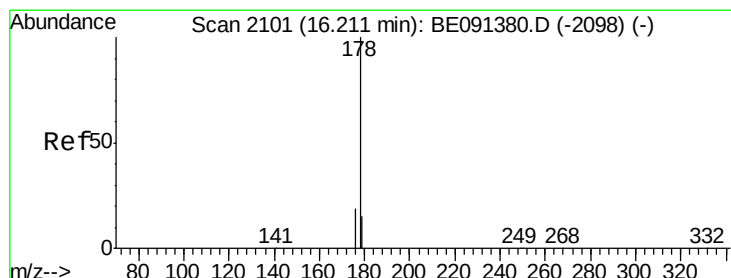
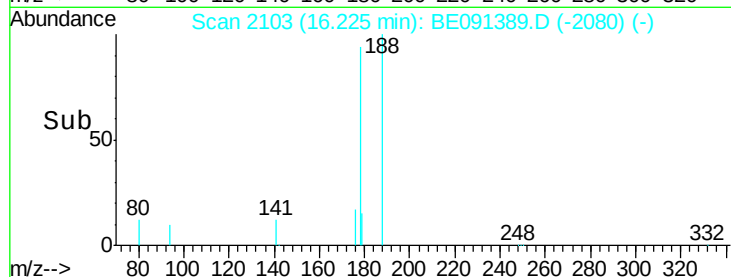
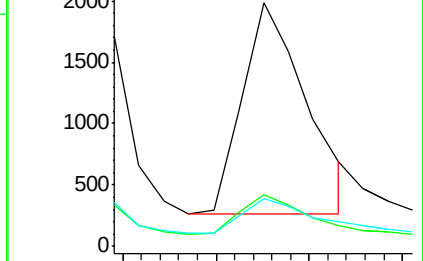
179 16.8 12.7 19.1



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: 0.06 ng

RT: 16.23 min Scan# 2103

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

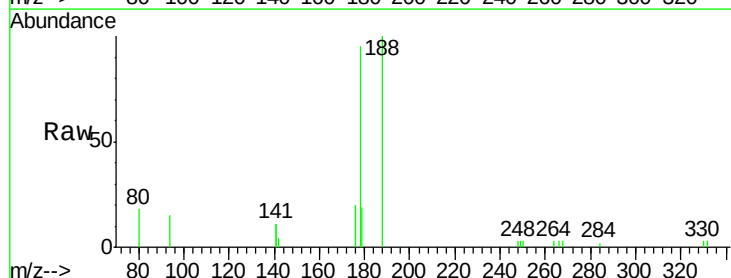
Tgt Ion:178 Resp: 5318

Ion Ratio Lower Upper

178 100

176 18.6 14.8 22.2

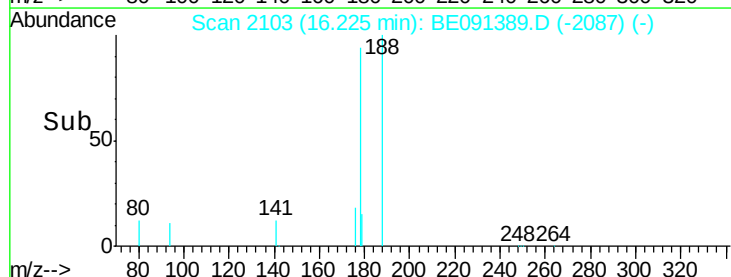
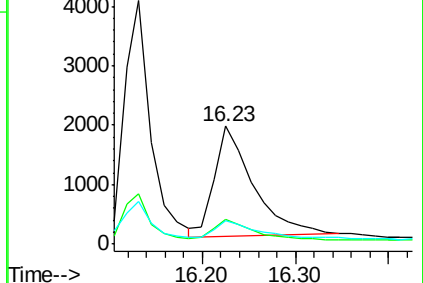
179 16.8 12.1 18.1

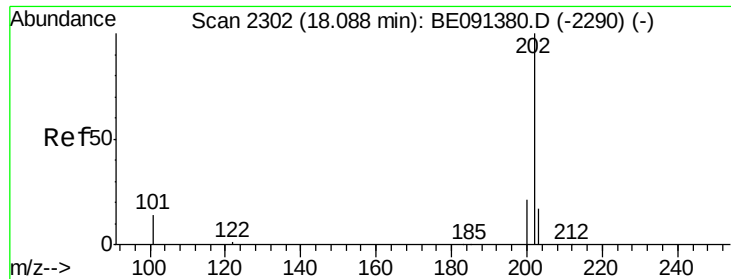


Abundance Ion 178.00 (177.70 to 178.70): E

Ion 176.00 (175.70 to 176.70): E

Ion 179.00 (178.70 to 179.70): E

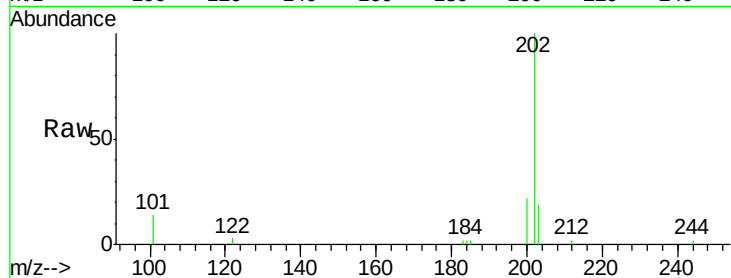




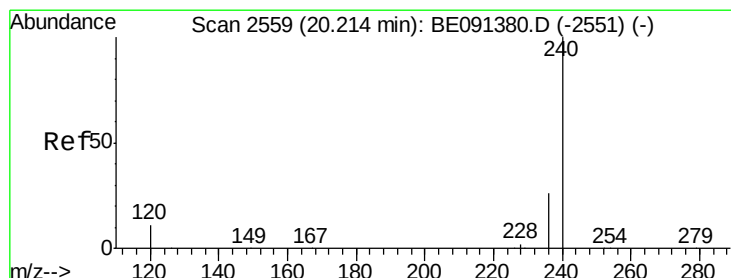
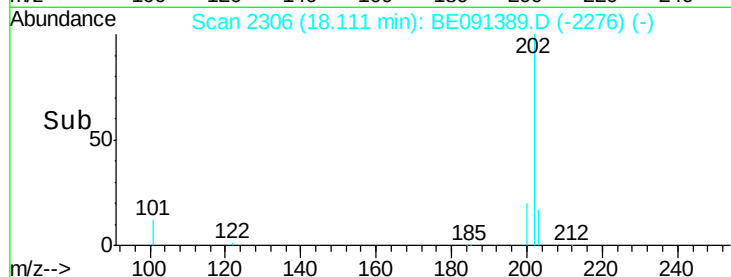
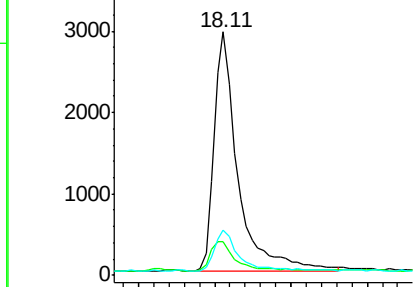
#17
 Fluoranthene
 Concen: 0.17 ng
 RT: 18.11 min Scan# 2306
 Delta R.T. 0.02 min
 Lab File: BE091389.D
 Acq: 4 Feb 2016 10:59

Instrument :
 BNA_E
 ClientSampleId :
 LOD-SOIL2016-01

Tgt Ion:202 Resp: 6336
 Ion Ratio Lower Upper
 202 100
 101 13.2 10.5 15.7
 203 17.8 13.9 20.9

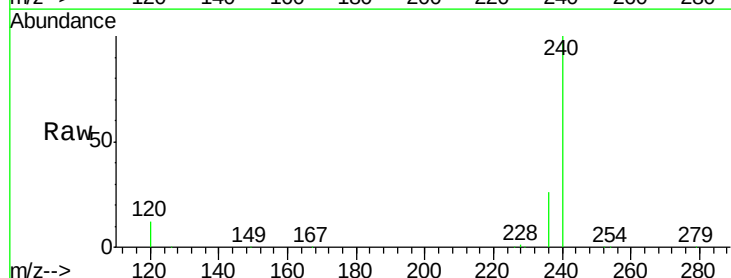


Abundance Ion 202.00 (201.70 to 202.70): E
 Ion 101.00 (100.70 to 101.70): E
 Ion 203.00 (202.70 to 203.70): E

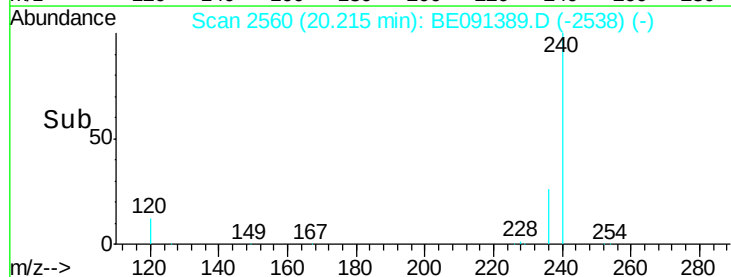
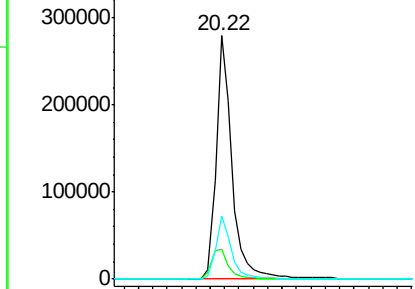


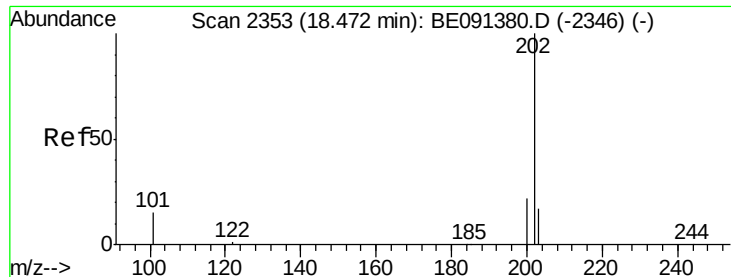
#18
 Chrysene-d12
 Concen: 5.00 ng
 RT: 20.22 min Scan# 2560
 Delta R.T. 0.00 min
 Lab File: BE091389.D
 Acq: 4 Feb 2016 10:59

Tgt Ion:240 Resp: 427442
 Ion Ratio Lower Upper
 240 100
 120 12.4 8.9 13.3
 236 26.1 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: 0.07 ng

RT: 18.49 min Scan# 2356

Delta R.T. 0.02 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

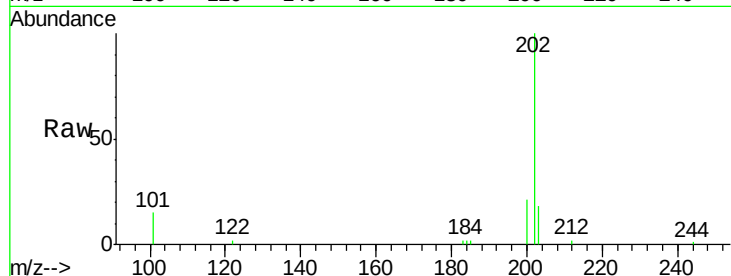
Instrument :

BNA_E

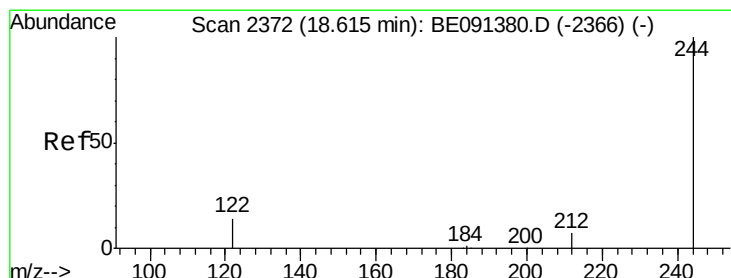
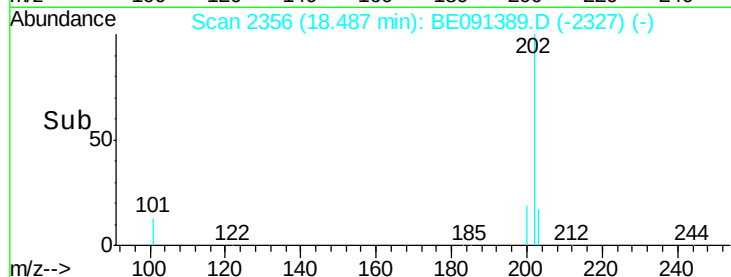
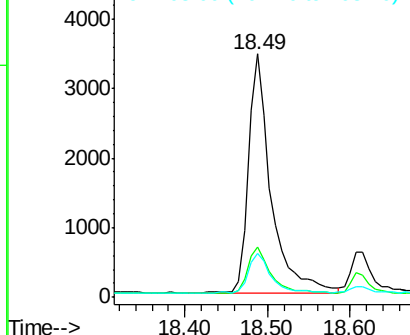
ClientSampleId :

LOD-SOIL2016-01

Tgt Ion:	202	Resp:	6513
Ion	Ratio	Lower	Upper
202	100		
200	20.3	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: 4.24 ng

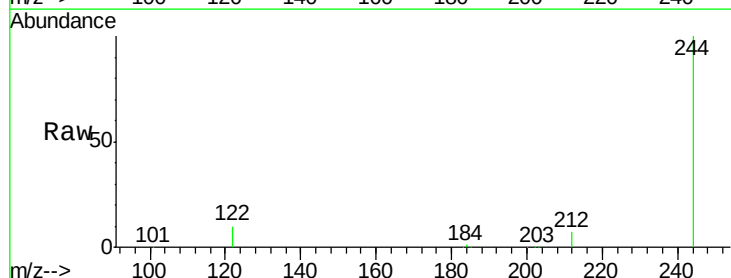
RT: 18.62 min Scan# 2373

Delta R.T. 0.00 min

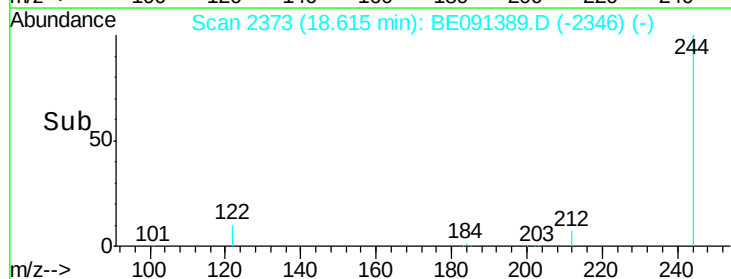
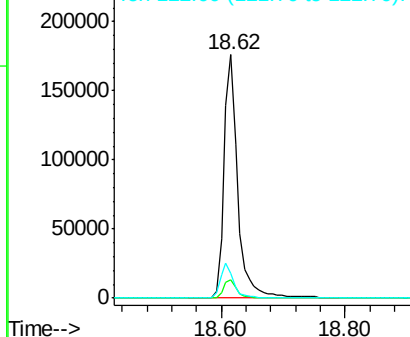
Lab File: BE091389.D

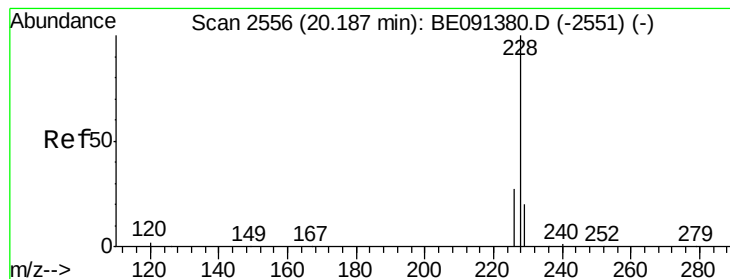
Acq: 4 Feb 2016 10:59

Tgt Ion:	244	Resp:	267875
Ion	Ratio	Lower	Upper
244	100		
212	7.5	6.1	9.1
122	10.2	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: 0.23 ng

RT: 20.19 min Scan# 2557

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

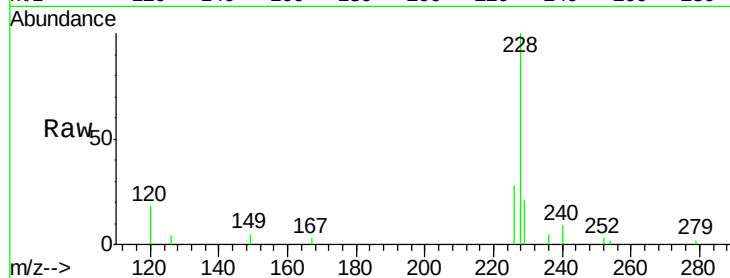
Tgt Ion:228 Resp: 5629

Ion Ratio Lower Upper

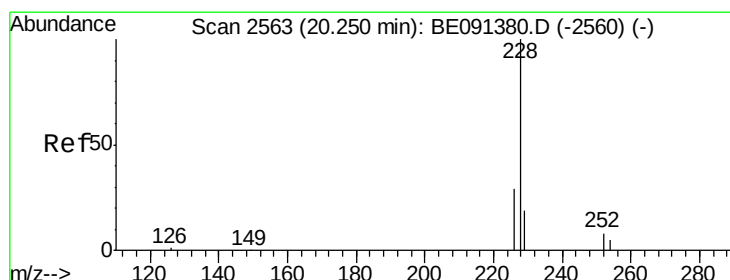
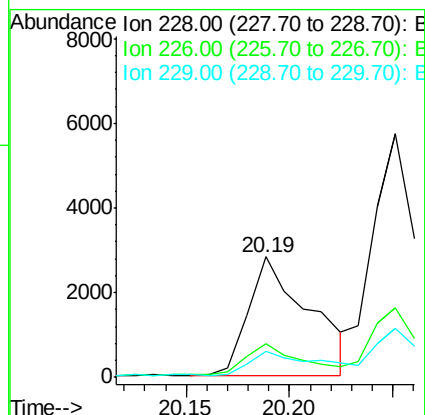
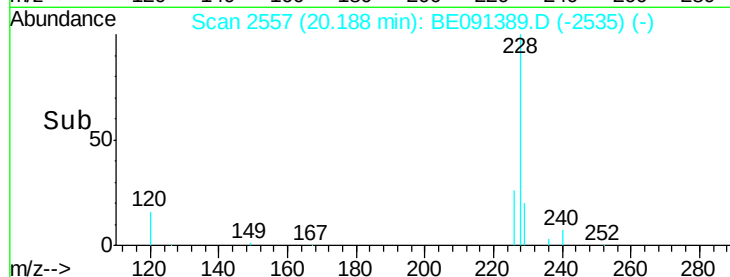
228 100

226 27.8 21.7 32.5

229 21.1 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: 0.02 ng

RT: 20.25 min Scan# 2564

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

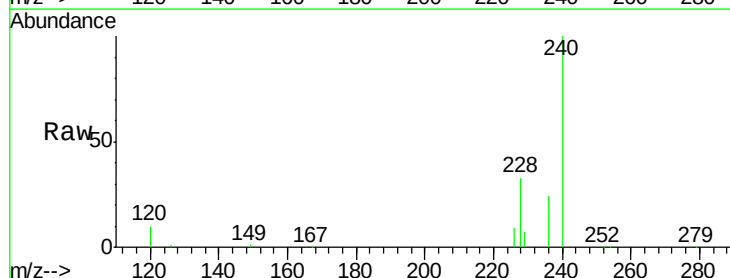
Tgt Ion:228 Resp: 9342

Ion Ratio Lower Upper

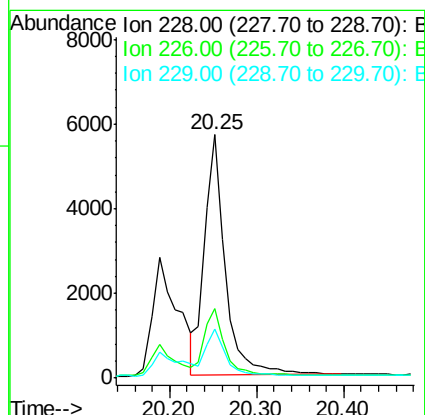
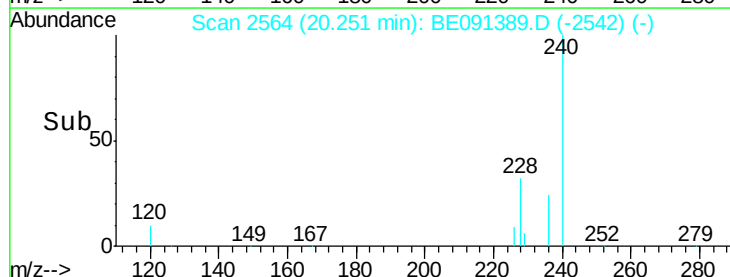
228 100

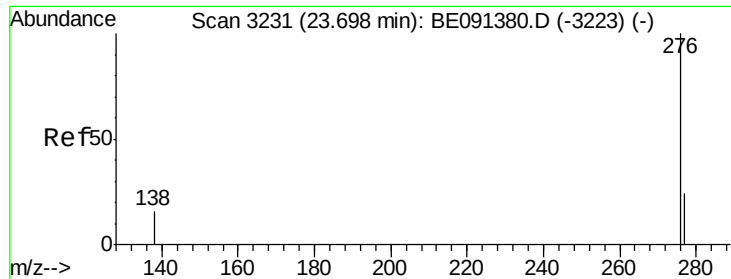
226 28.7 23.4 35.0

229 20.0 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

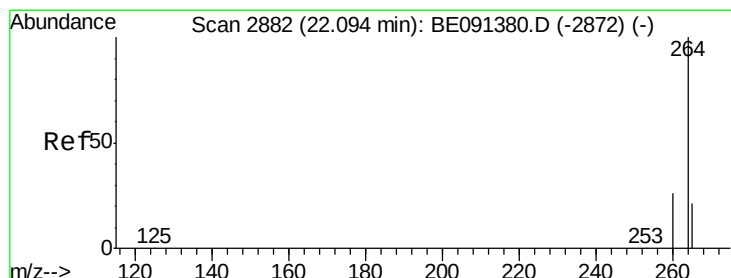
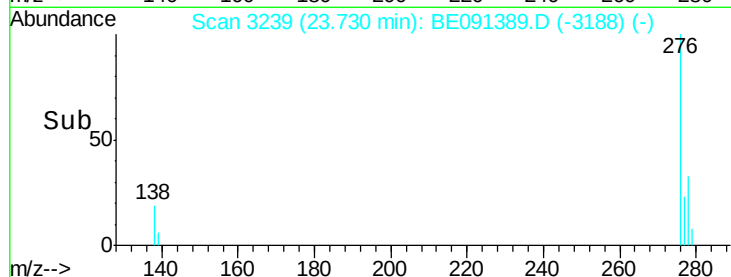
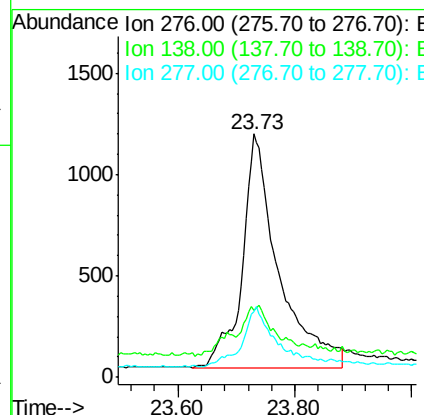
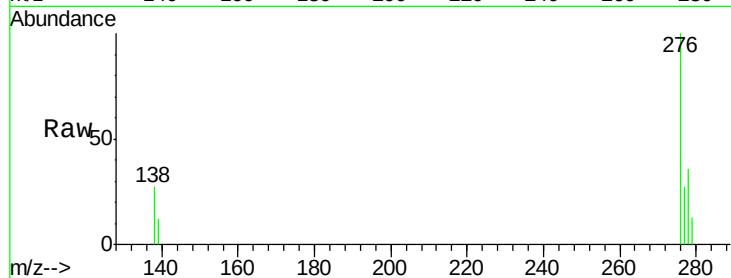




#23
Indeno(1,2,3-cd)pyrene
Concen: 0.21 ng
RT: 23.73 min Scan# 3239
Delta R.T. 0.03 min
Lab File: BE091389.D
Acq: 4 Feb 2016 10:59

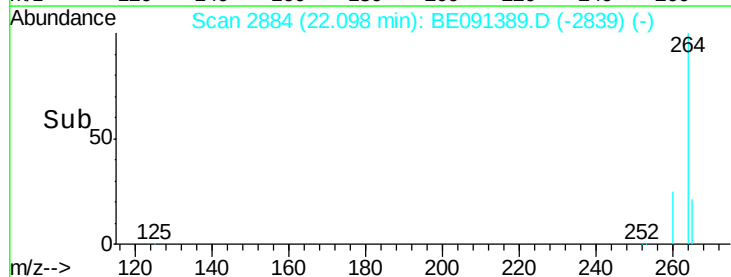
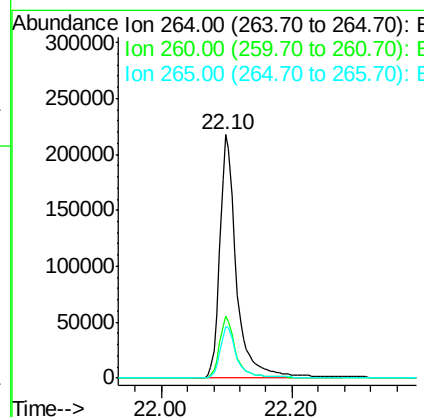
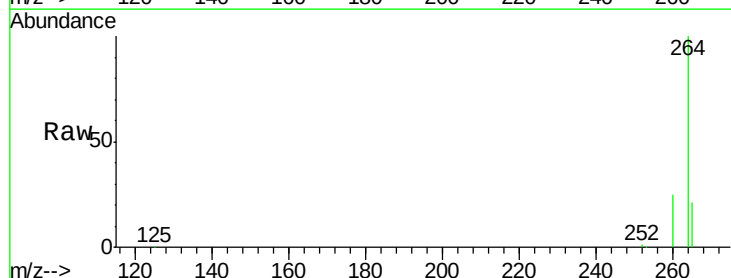
Instrument :
BNA_E
ClientSampleId :
LOD-SOIL2016-01

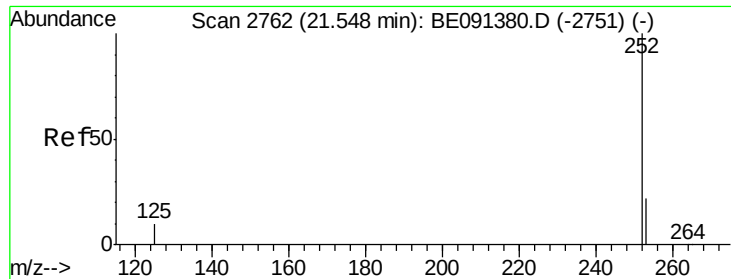
Tgt Ion:276 Resp: 4982
Ion Ratio Lower Upper
276 100
138 3.4 16.6 25.0#
277 22.1 19.0 28.6



#24
Perylene-d12
Concen: 5.00 ng
RT: 22.10 min Scan# 2884
Delta R.T. 0.00 min
Lab File: BE091389.D
Acq: 4 Feb 2016 10:59

Tgt Ion:264 Resp: 386976
Ion Ratio Lower Upper
264 100
260 25.5 20.7 31.1
265 21.3 17.2 25.8





#25

Benzo(b)fluoranthene

Concen: 0.20 ng

RT: 21.56 min Scan# 2765

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

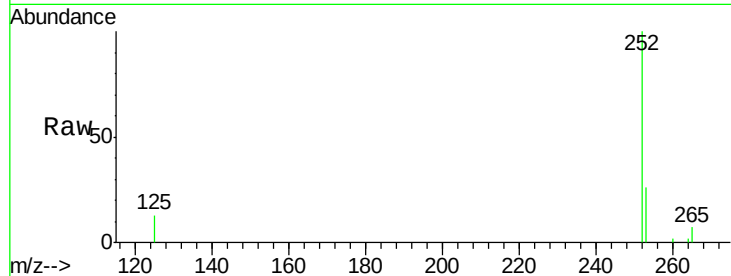
Tgt Ion:252 Resp: 5206

Ion Ratio Lower Upper

252 100

253 26.3 18.2 27.2

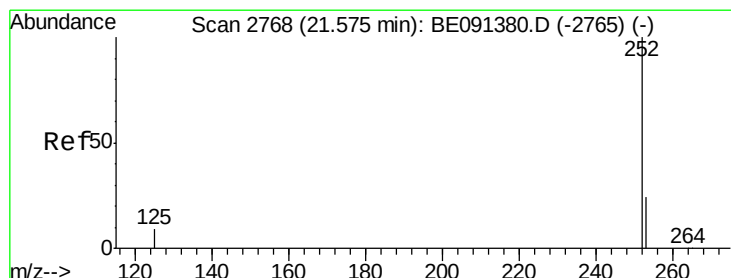
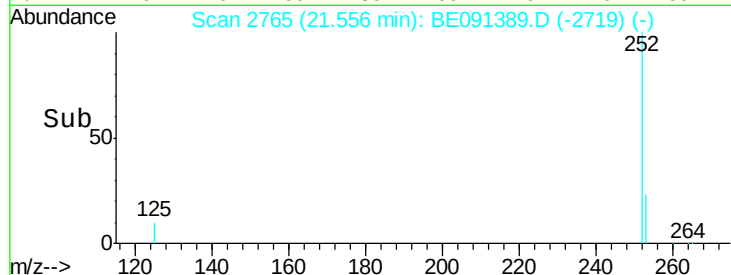
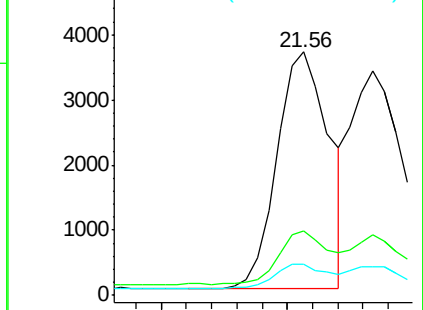
125 12.8 8.3 12.5#



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



#26

Benzo(k)fluoranthene

Concen: 0.08 ng

RT: 21.58 min Scan# 2771

Delta R.T. 0.01 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

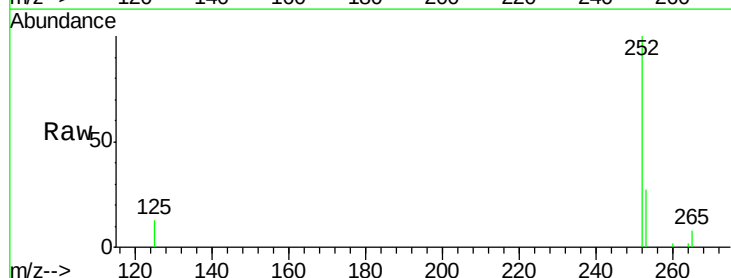
Tgt Ion:252 Resp: 6352

Ion Ratio Lower Upper

252 100

253 27.3 18.1 27.1#

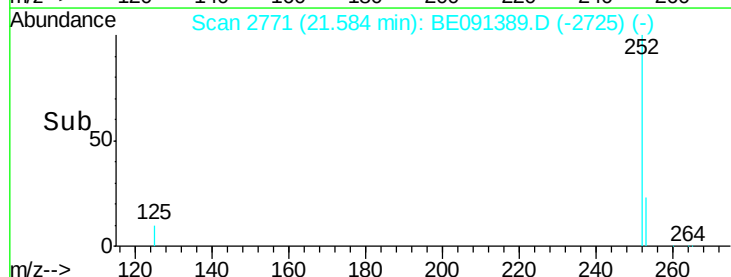
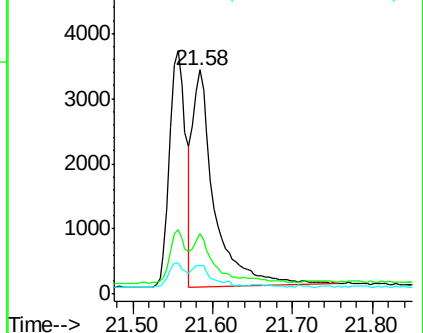
125 12.9 8.2 12.4#

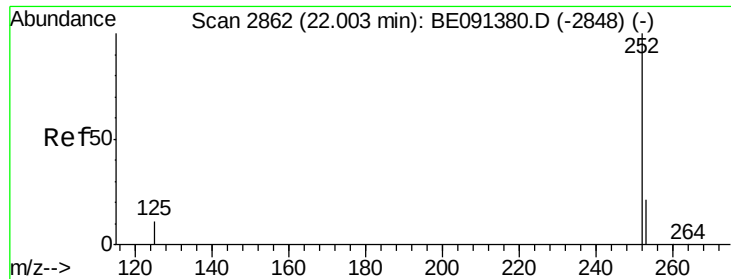


Abundance Ion 252.00 (251.70 to 252.70): E

Ion 253.00 (252.70 to 253.70): E

Ion 125.00 (124.70 to 125.70): E





#27

Benzo(a)pyrene

Concen: 0.21 ng

RT: 22.01 min Scan# 2864

Delta R.T. 0.00 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01

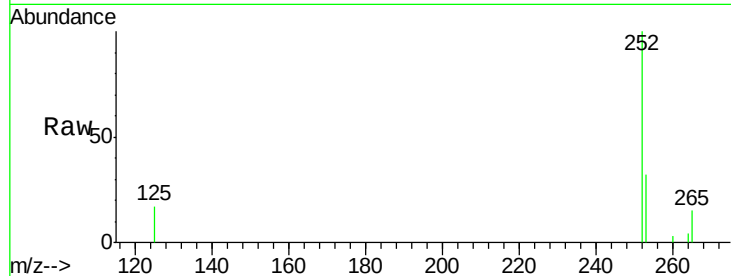
Tgt Ion:252 Resp: 3988

Ion Ratio Lower Upper

252 100

253 31.7 17.5 26.3#

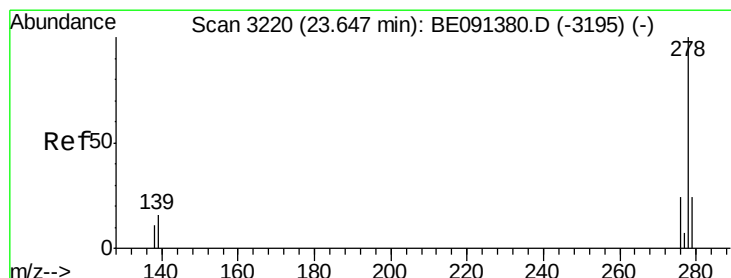
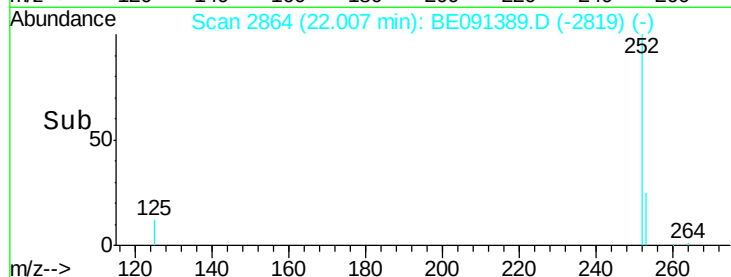
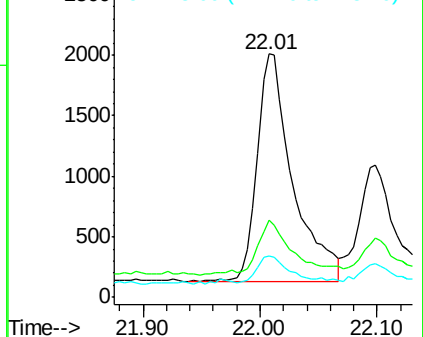
125 17.0 9.4 14.0#



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: 0.29 ng

RT: 23.68 min Scan# 3229

Delta R.T. 0.04 min

Lab File: BE091389.D

Acq: 4 Feb 2016 10:59

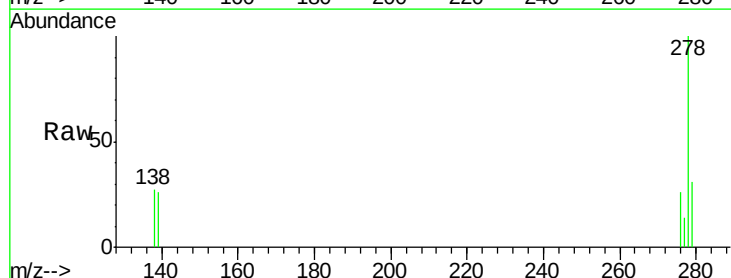
Tgt Ion:278 Resp: 3589

Ion Ratio Lower Upper

278 100

139 26.0 13.0 19.4#

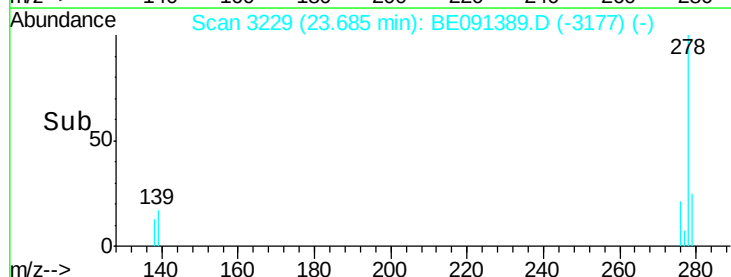
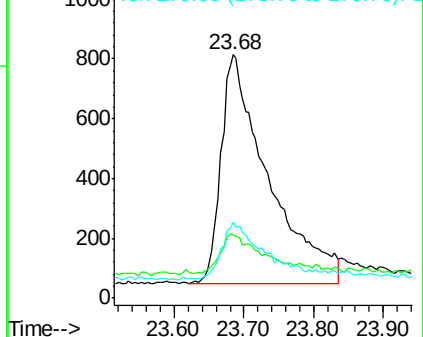
279 31.2 19.2 28.8#

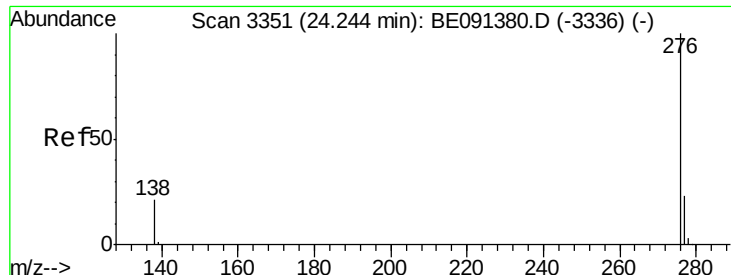


Abundance Ion 278.00 (277.70 to 278.70): E

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: 0.20 ng

RT: 24.28 min Scan# 3359

Delta R.T. 0.03 min

Lab File: BE091389.D

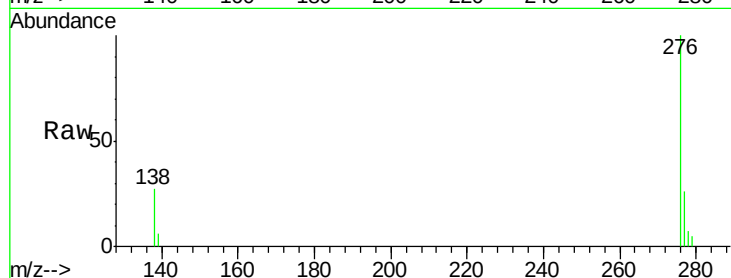
Acq: 4 Feb 2016 10:59

Instrument :

BNA_E

ClientSampleId :

LOD-SOIL2016-01



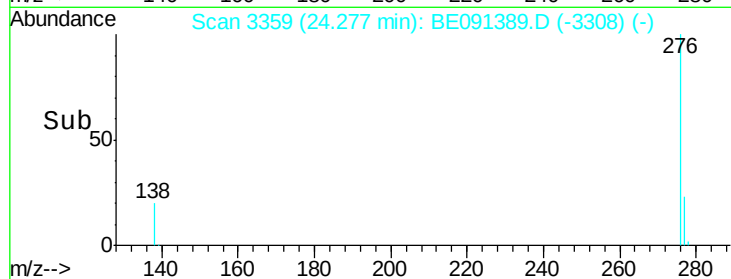
Tgt Ion: 276 Resp: 5260

Ion Ratio Lower Upper

276 100

277 26.1 18.9 28.3

138 27.3 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

