

Data Path : Z:\HPCHEM1\BNA F\DATA\BF121315\
 Data File : BF083755.D
 Acq On : 14 Dec 2015 3:42
 Operator : UM/IZ
 Sample : G4760-01
 Misc :
 ALS Vial : 45 Sample Multiplier: 1

Instrument :
 BNA_F
 ClientSampleId :
 WC121015-SOIL-POPH

Manual Integrations
 APPROVED

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 12/14/2015 6:23:56 PM

Quant Time: Dec 14 06:59:26 2015
 Quant Method : Z:\HPCHEM1\BNA F\METHODS\8270-BF121315.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Mon Dec 14 01:30:12 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	6.92	152	117403m	20.00	ng	0.00
21) Naphthalene-d8	8.21	136	408115m	20.00	ng	0.00
38) Acenaphthene-d10	9.96	164	231675	20.00	ng	0.00
63) Phenanthrene-d10	11.45	188	280460	20.00	ng	0.00
75) Chrysene-d12	14.10	240	275853	20.00	ng	0.02
86) Perylene-d12	15.54	264	308847	20.00	ng	0.03
System Monitoring Compounds						
5) 2-Fluorophenol	5.53	112	723253	99.38	ng	0.00
7) Phenol-d6	6.54	99	821865	89.18	ng	0.00
23) Nitrobenzene-d5	7.48	82	435608m	59.72	ng	0.00
41) 2,4,6-Tribromophenol	10.75	330	152317	64.52	ng	0.00
44) 2-Fluorobiphenyl	9.29	172	611465	32.93	ng	0.00
78) Terphenyl-d14	13.04	244	465677	36.31	ng	0.01
Target Compounds						Qvalue
22) Acetophenone	7.32	105	144019m	14.38	ng	
31) Naphthalene	8.24	128	860474m	40.45	ng	
37) 2-Methylnaphthalene	8.93	142	123676m	9.26	ng	
45) 1,1'-Biphenyl	9.39	154	99664	4.85	ng	96
48) Acenaphthylene	9.84	152	1266736	49.68	ng	# 95
49) Dimethylphthalate	9.68	163	141311	7.82	ng	# 60
51) Acenaphthene	10.00	154	422673	27.42	ng	98
70) Phenanthrene	11.48	178	2244095	150.62	ng	96
71) Anthracene	11.53	178	1212875	78.38	ng	98
72) Carbazole	11.68	167	49021	3.40	ng	# 64
74) Fluoranthene	12.69	202	1294618	84.09	ng	96
77) Pyrene	12.92	202	2093941	96.04	ng	95
80) Benzo(a)anthracene	14.09	228	1432642	91.33	ng	# 95
82) Chrysene	14.12	228	1229588m	80.37	ng	
85) Indeno(1,2,3-cd)pyrene	16.97	276	297287	19.79	ng	# 100
87) Benzo(b)fluoranthene	15.13	252	1003812m	50.95	ng	
88) Benzo(k)fluoranthene	15.14	252	213536m	11.96	ng	
89) Benzo(a)pyrene	15.48	252	905151	51.48	ng	98
90) Dibenzo(a,h)anthracene	16.97	278	100934	5.77	ng	# 83
91) Benzo(a,h,i)perylene	17.40	276	300950	16.75	ng	100

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

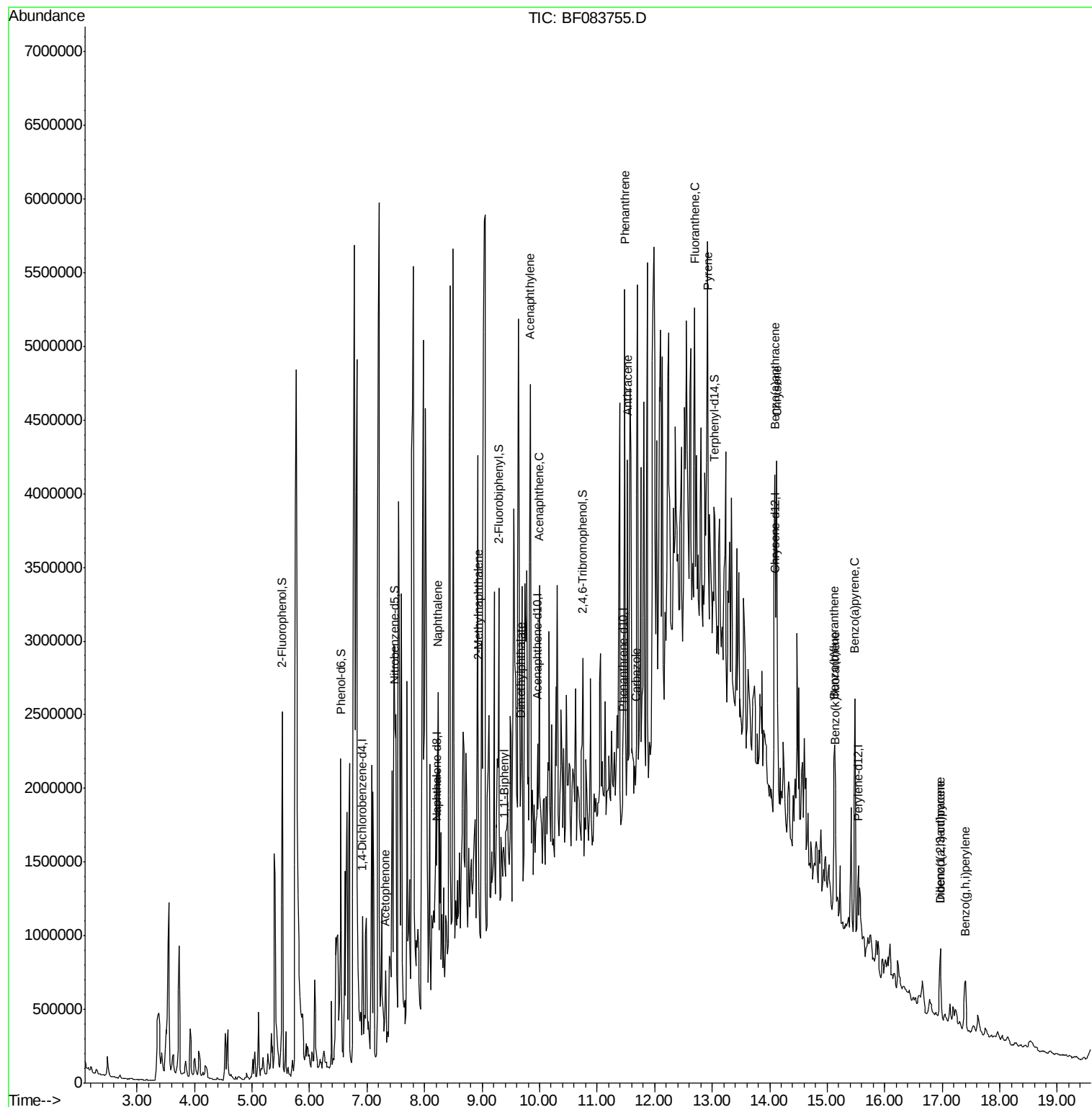
Data Path : Z:\HPCHEM1\BNA F\DATA\BF121315\
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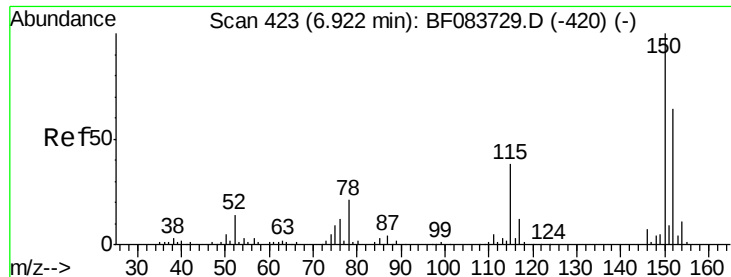
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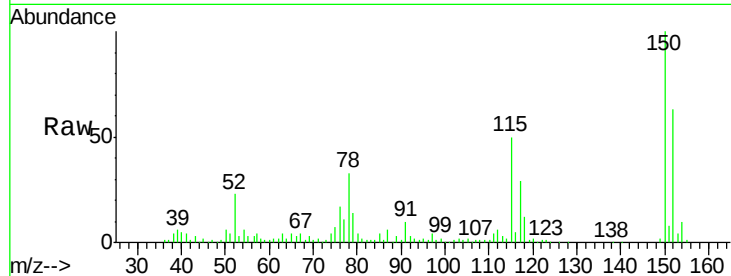




#1

1,4-Dichlorobenzene-d4
Concen: 20.00 ng/ml
RT: 6.92 min Scan# 423
Delta R.T. 0.00 min
Lab File: BF083755.D
Acq: 14 Dec 2015 3:42

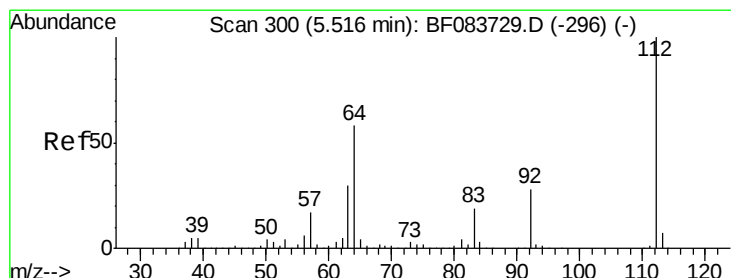
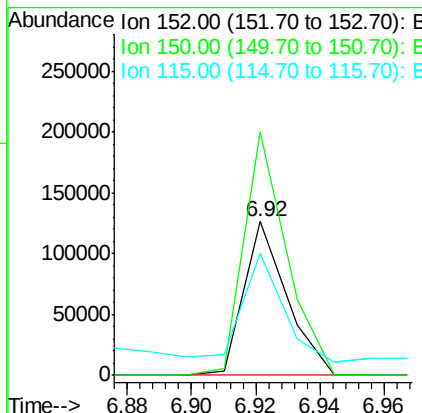
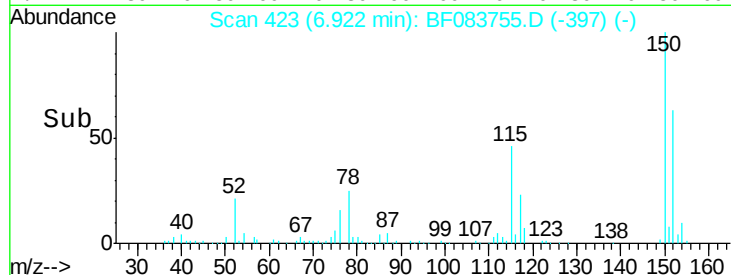
Instrument :
BNA_F
ClientSampleId :
WC121015-SOIL-POPH



Tot Ion	Ratio	Lower	Upper
152	100		
150	158.6	126.5	189.7
115	79.3	52.3	78.5

Manual Integrations
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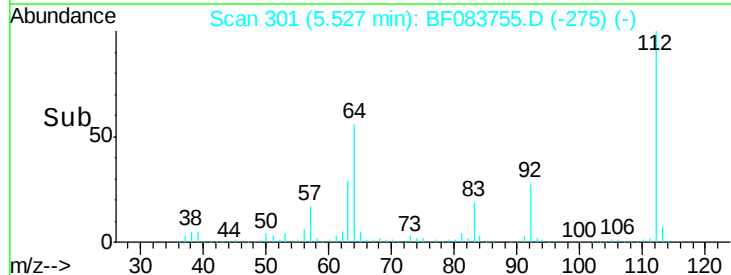
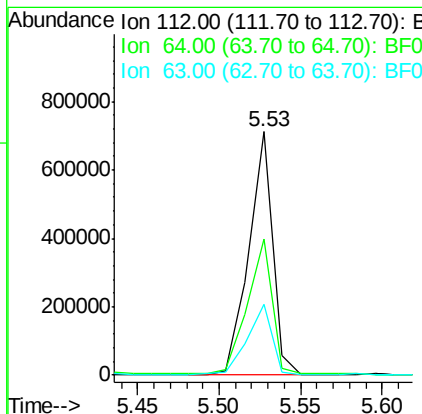
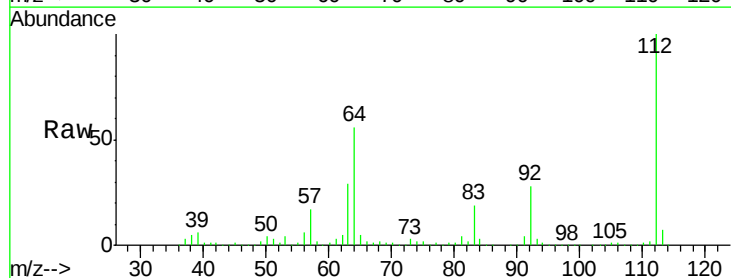
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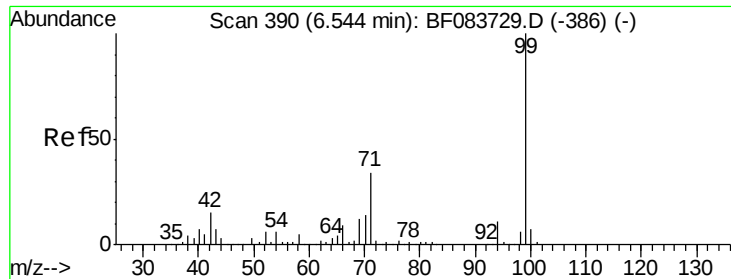


#5

2-Fluorophenol
Concen: 99.38 ng
RT: 5.53 min Scan# 301
Delta R.T. 0.00 min
Lab File: BF083755.D
Acq: 14 Dec 2015 3:42

Tgt Ion	Ratio	Lower	Upper
112	100		
64	56.2	50.5	75.7
63	29.1	25.8	38.6





#7

Phenol-d6

Concen: 89.18 ng

RT: 6.54 min Scan# 390

Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

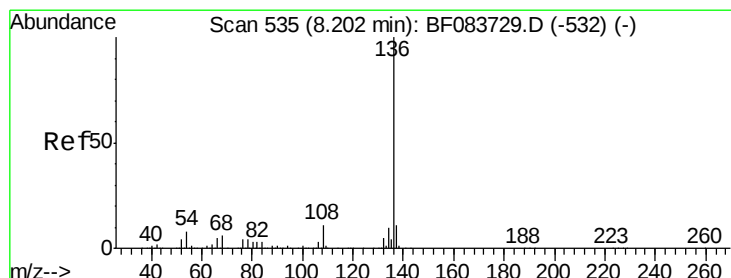
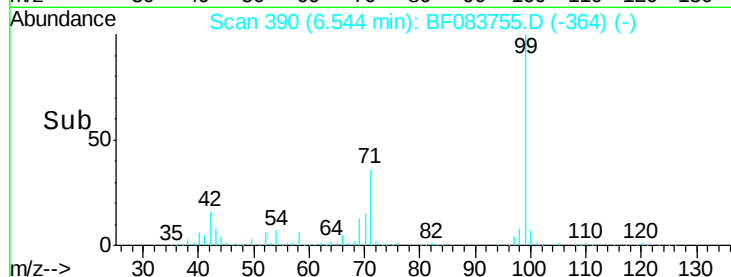
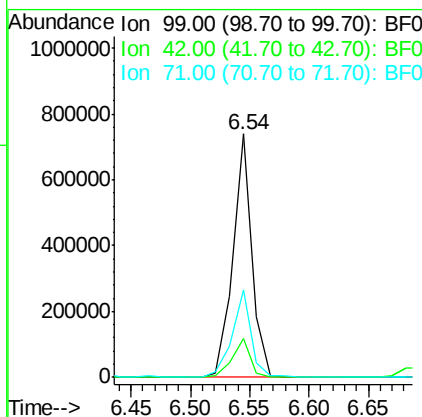
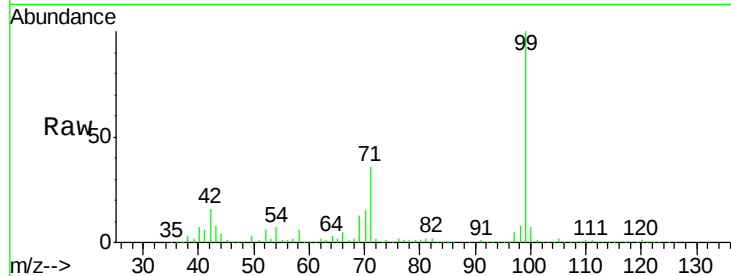
ClientSampleId :

WC121015-SOIL-POPH

Tot Ion	Ion	Ratio	Resp	Lower	Upper
99	100		821865		
42	16.1	17.3	25.9#		
71	36.0	26.6	40.0		

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#21

Naphthalene-d8

Concen: 20.00 ng m

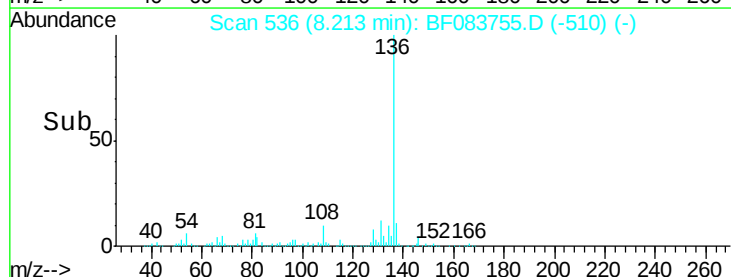
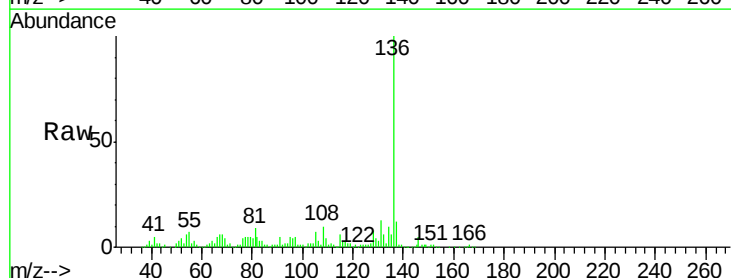
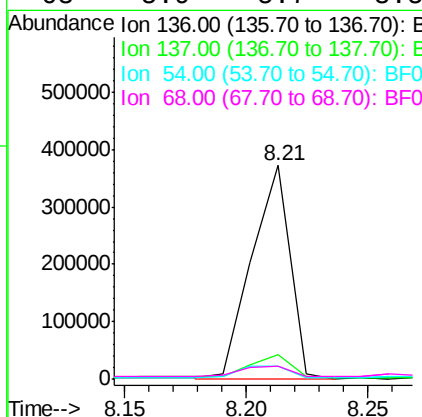
RT: 8.21 min Scan# 536

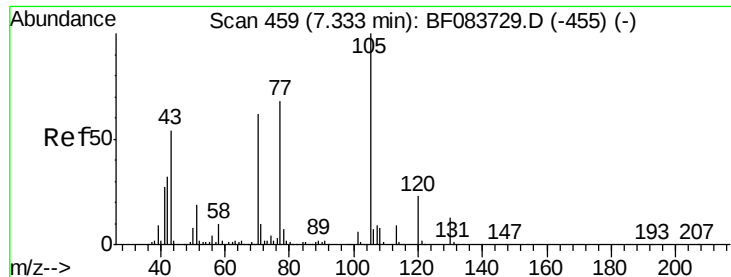
Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
136	100		408115		
137	11.6	8.7	13.1		
54	6.3	7.8	11.6#		
68	5.9	5.7	8.5		





#22

Acetophenone

Concen: 14.38 ng m

RT: 7.32 min Scan# 458

Delta R.T. -0.01 min

Lab File: BF083755.D

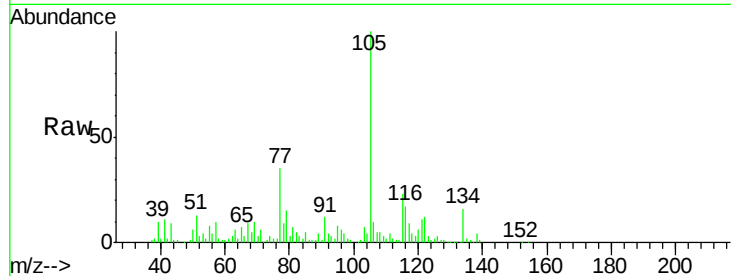
Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

ClientSampleId :

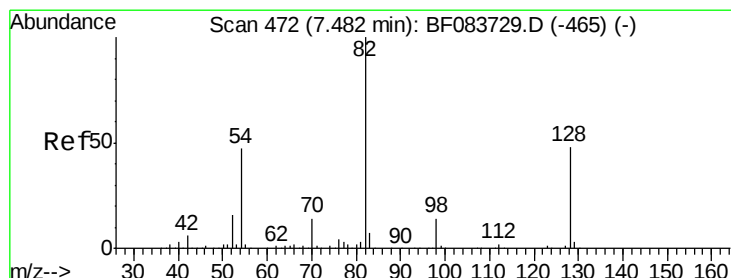
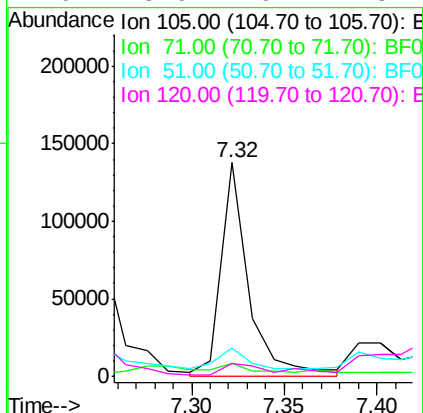
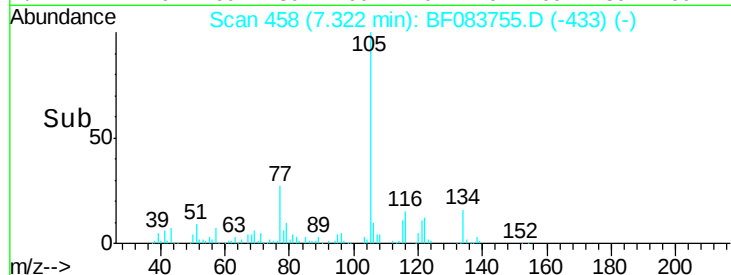
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Tot Ion	Ion	Ratio	Resp	Lower	Upper
105	105	100	144019		
71	71	6.3	1.3	1.9#	
51	51	13.2	23.8	35.8#	
120	120	5.9	16.7	25.1#	

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#23

Nitrobenzene-d5

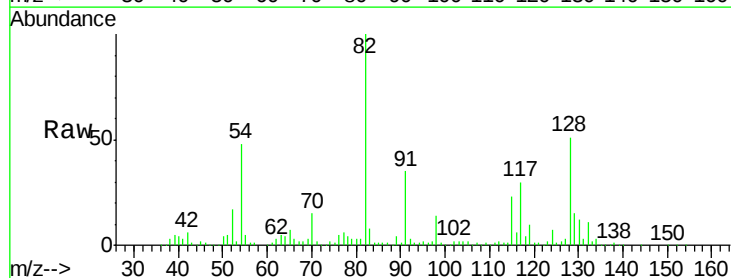
Concen: 59.72 ng m

RT: 7.48 min Scan# 472

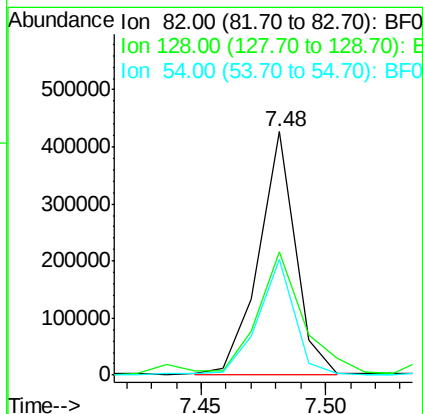
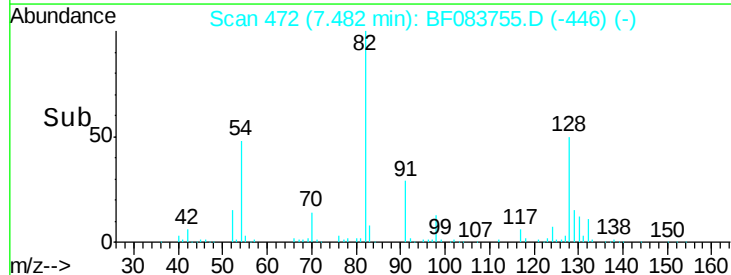
Delta R.T. 0.00 min

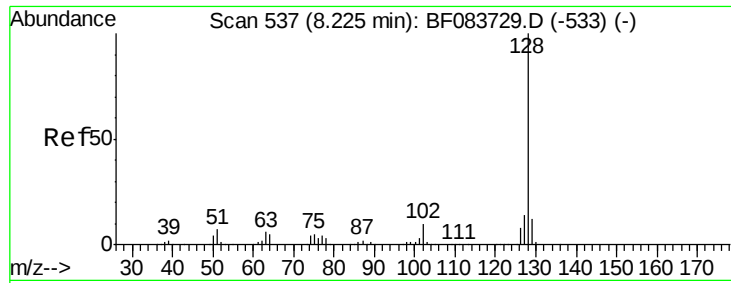
Lab File: BF083755.D

Acq: 14 Dec 2015 3:42



Tgt Ion	Ion	Ratio	Resp	Lower	Upper
82	82	100	435608		
128	128	50.6	30.7	46.1#	
54	54	47.7	42.5	63.7	





#31

Naphthalene

Concen: 40.45 ng m

RT: 8.24 min Scan# 538

Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

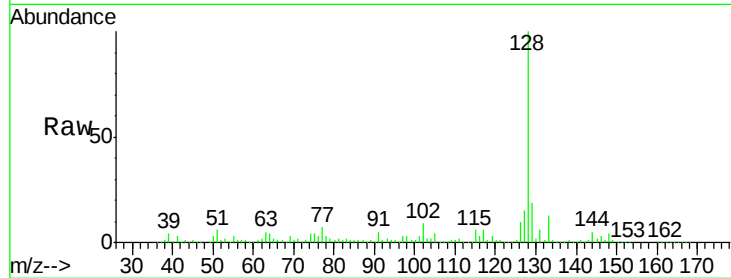
ClientSampleId :

WC121015-SOIL-POPH

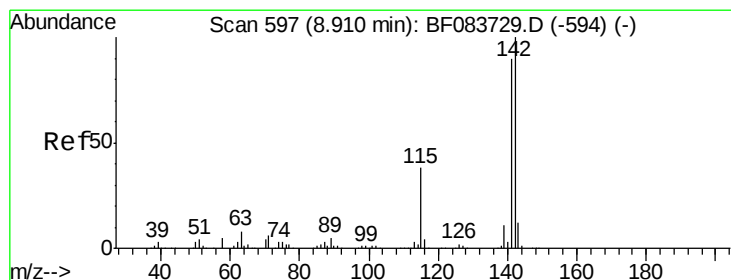
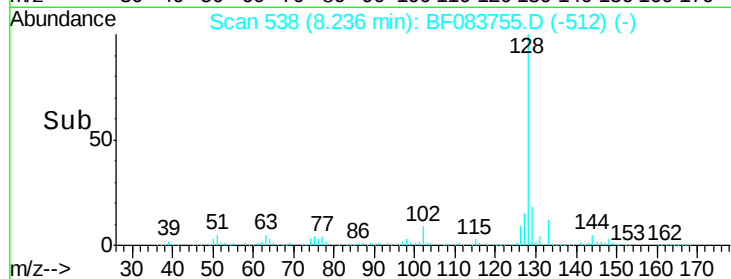
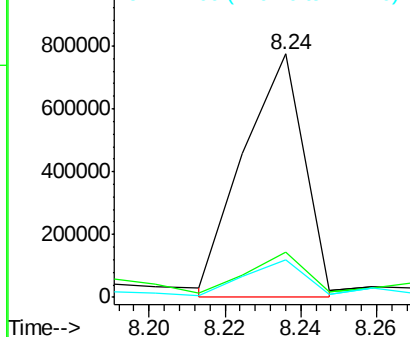
Tot Ion:	128	Resp:	860474
Ion Ratio	Lower	Upper	
128	100		
129	18.7	8.6	13.0#
127	15.2	10.6	16.0

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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



#37

2-Methylnaphthalene

Concen: 9.26 ng m

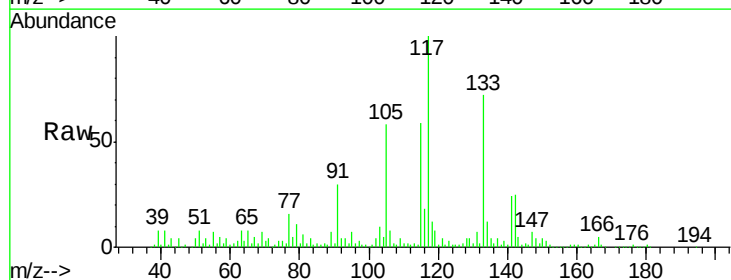
RT: 8.93 min Scan# 599

Delta R.T. 0.01 min

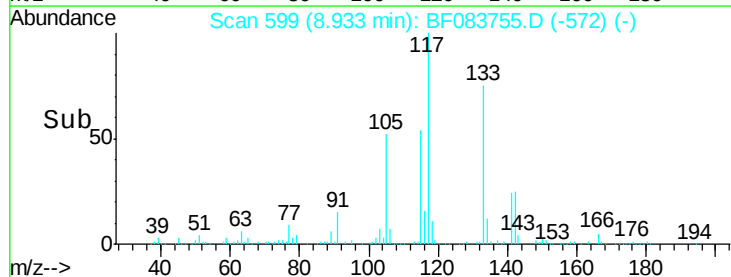
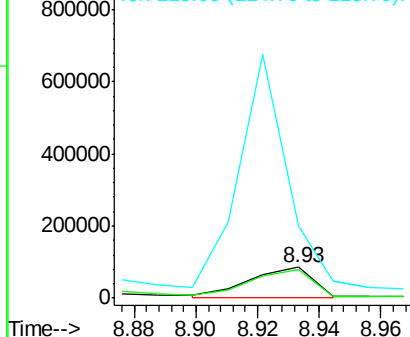
Lab File: BF083755.D

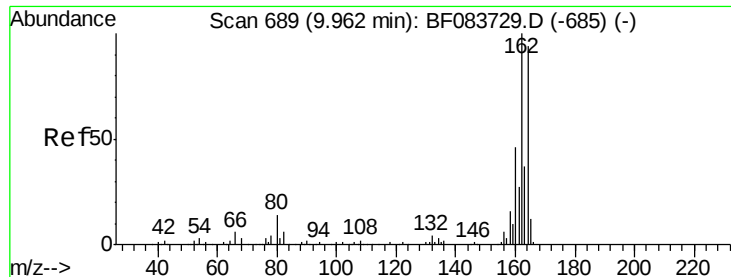
Acq: 14 Dec 2015 3:42

Tgt Ion:	142	Resp:	123676
Ion Ratio	Lower	Upper	
142	100		
141	93.7	70.3	105.5
115	232.5	29.2	43.8#



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





#38

Acenaphthene-d10

Concen: 20.00 ng

RT: 9.96 min Scan# 689

Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

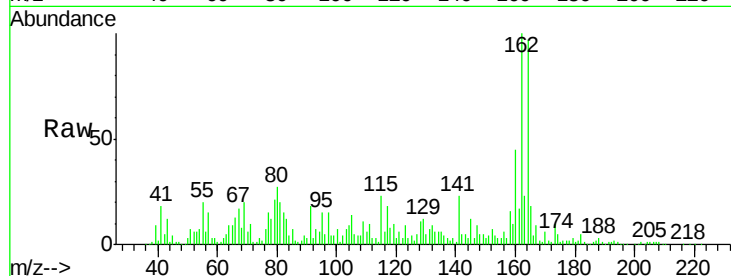
ClientSampleId :

WC121015-SOIL-POPH

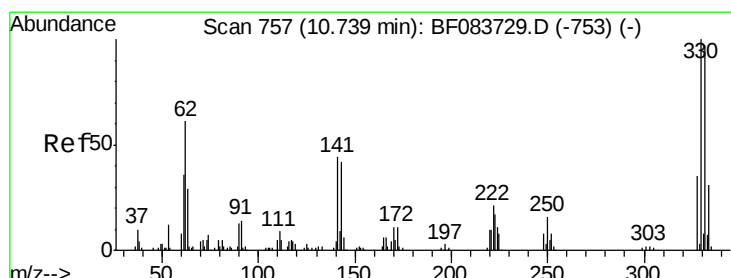
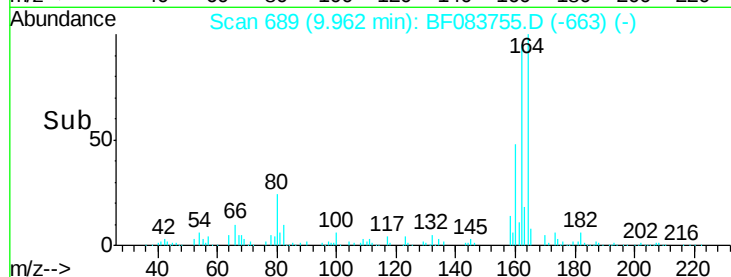
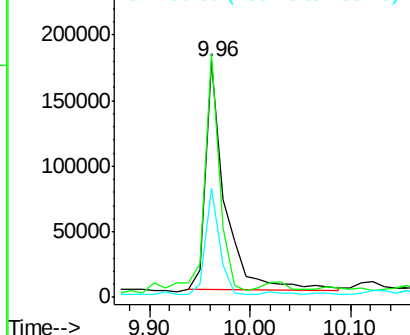
Tot Ion:	164	Resp:	231675
Ion Ratio	Lower	Upper	
164	100		
162	103.5	78.8	118.2
160	46.4	33.4	50.2

Manual Integrations
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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



#41

2,4,6-Tribromophenol

Concen: 64.52 ng

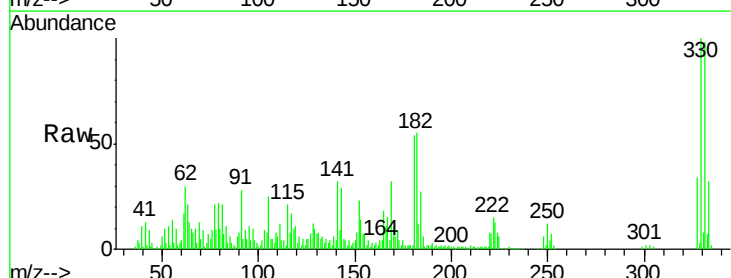
RT: 10.75 min Scan# 758

Delta R.T. 0.00 min

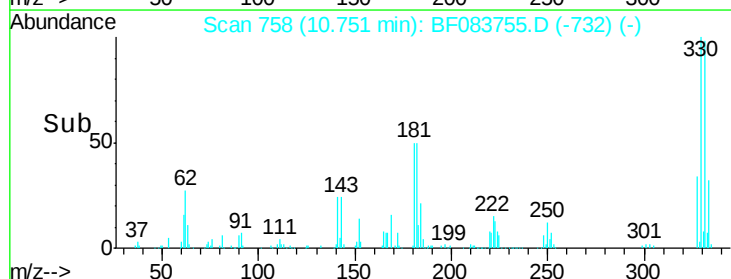
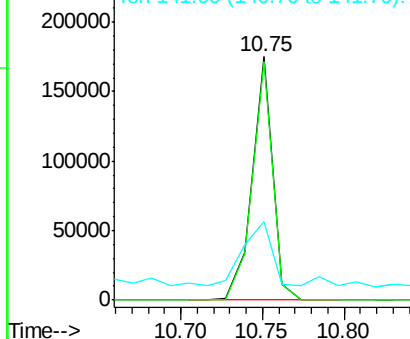
Lab File: BF083755.D

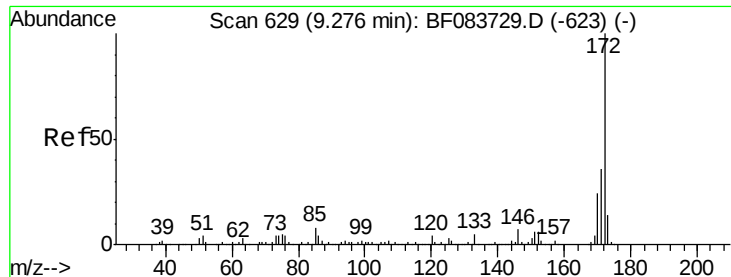
Acq: 14 Dec 2015 3:42

Tgt Ion:	330	Resp:	152317
Ion Ratio	Lower	Upper	
330	100		
332	97.7	0.0	0.0#
141	36.8	0.0	0.0#



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





#44

2-Fluorobiphenyl

Concen: 32.93 ng

RT: 9.29 min Scan# 630

Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

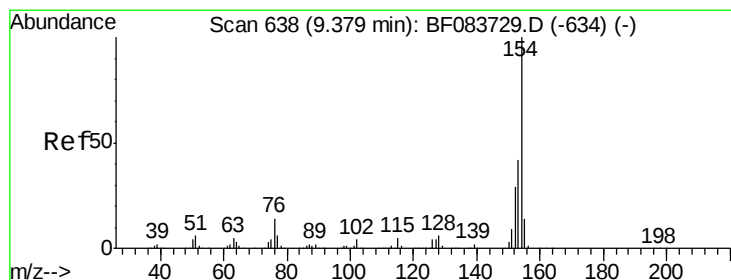
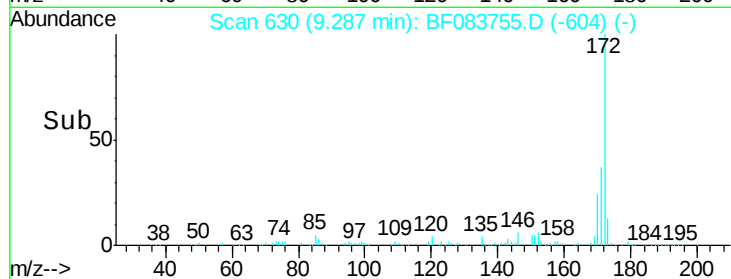
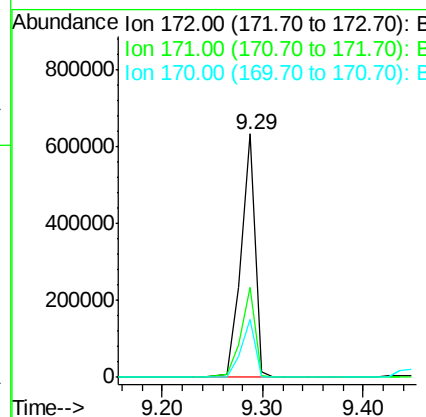
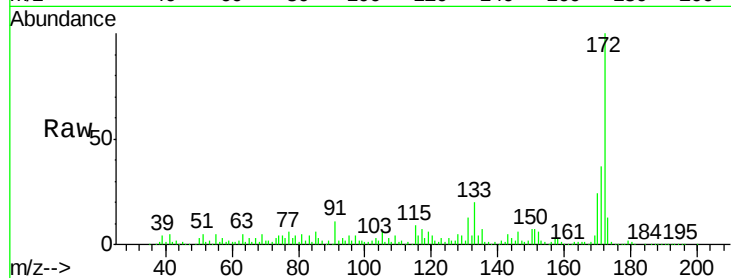
ClientSampleId :

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Manual Integrations
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Tot Ion:	172	Resp:	611465
Ion Ratio		Lower	Upper
172	100		
171	36.8	28.6	42.8
170	24.1	19.4	29.0



#45

1,1'-Biphenyl

Concen: 4.85 ng

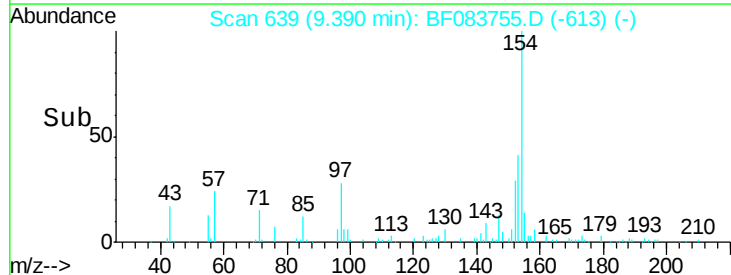
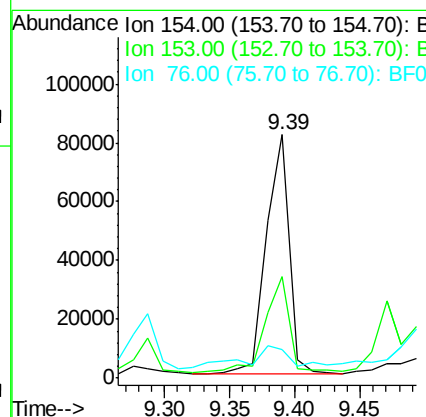
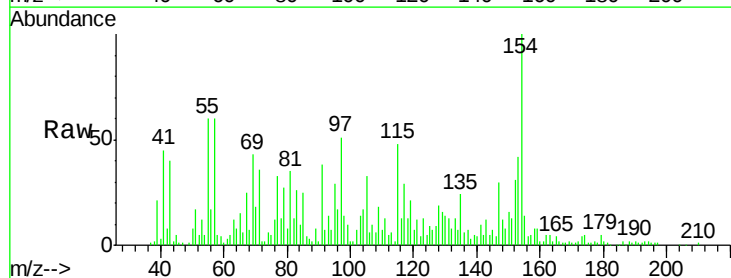
RT: 9.39 min Scan# 639

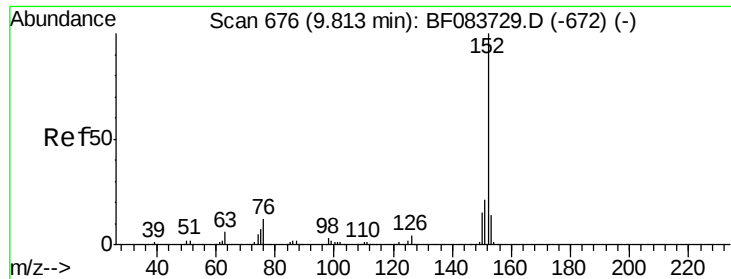
Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion:	154	Resp:	99664
Ion Ratio		Lower	Upper
154	100		
153	41.5	20.2	60.2
76	11.8	0.0	34.8





#48

Acenaphthylene

Concen: 49.68 ng

RT: 9.84 min Scan# 678

Delta R.T. 0.01 min

Lab File: BF083755.D

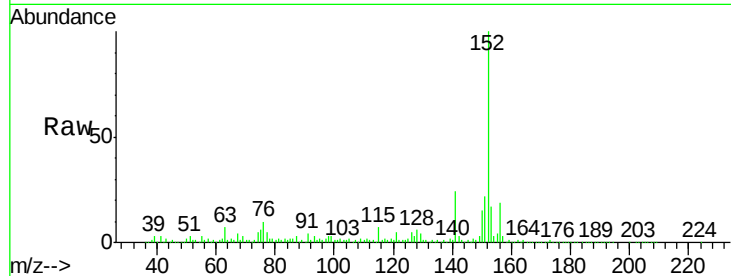
Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

ClientSampleId :

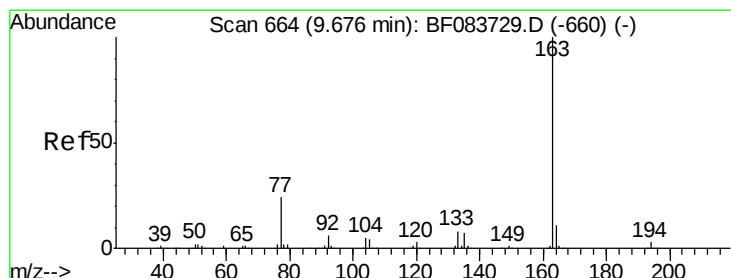
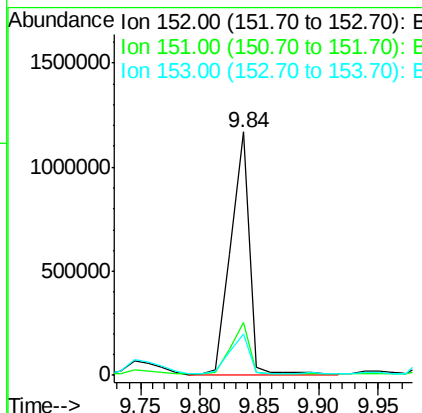
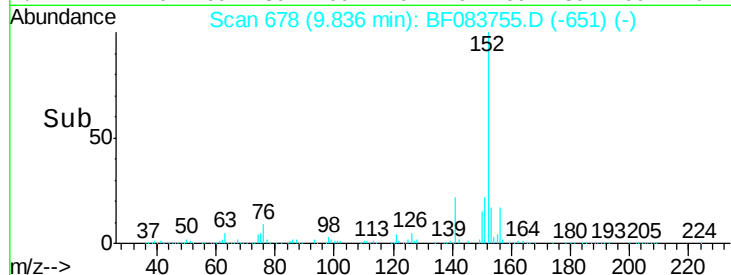
WC121015-SOIL-POPH



Tot Ion	152	Resp	1266736
Ion Ratio	Lower	Upper	
152	100		
151	21.9	16.3	24.5
153	16.9	10.8	16.2#

Manual Integrations
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#49

Dimethylphthalate

Concen: 7.82 ng

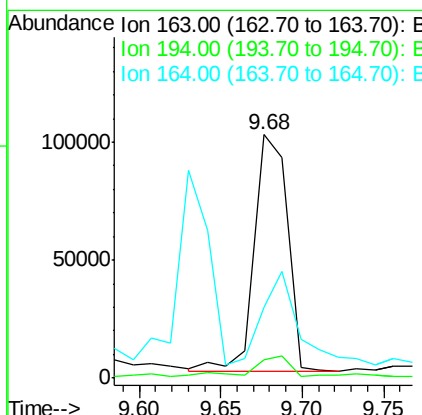
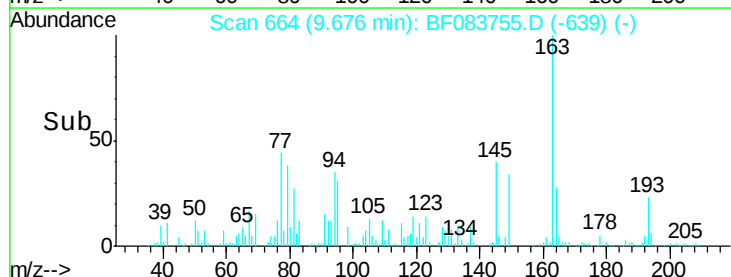
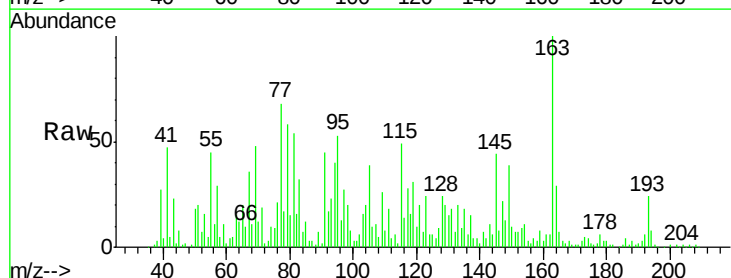
RT: 9.68 min Scan# 664

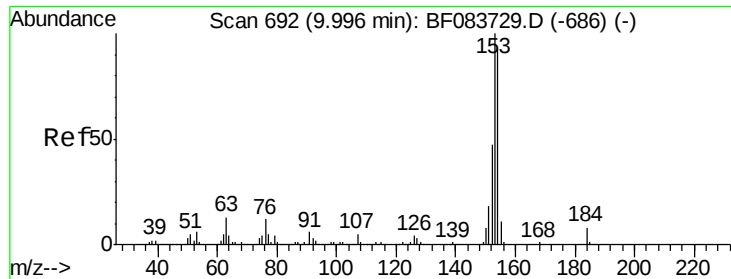
Delta R.T. -0.01 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion	163	Resp	141311
Ion Ratio	Lower	Upper	
163	100		
194	7.6	2.8	4.2#
164	29.1	8.6	13.0#





#51

Acenaphthene

Concen: 27.42 ng

RT: 10.00 min Scan# 692

Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

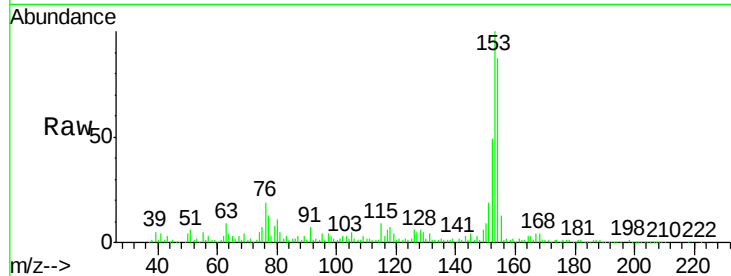
ClientSampleId :

WC121015-SOIL-POPH

Tot Ion	Ratio	Lower	Upper
154	100		
153	115.4	91.4	137.0
152	56.1	43.4	65.2

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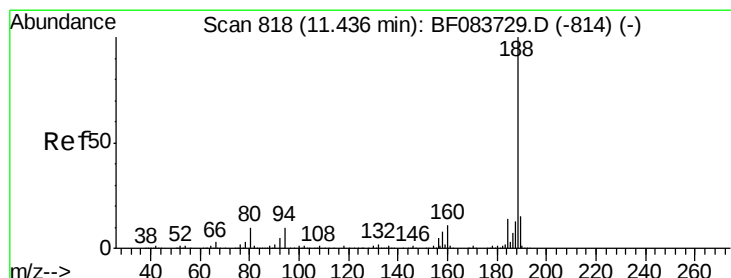
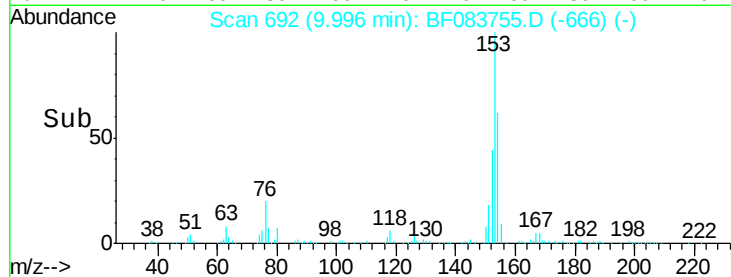
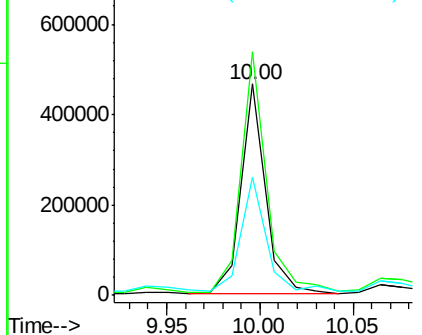
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Abundance Ion 154.00 (153.70 to 154.70): E

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E



#63

Phenanthrene-d10

Concen: 20.00 ng

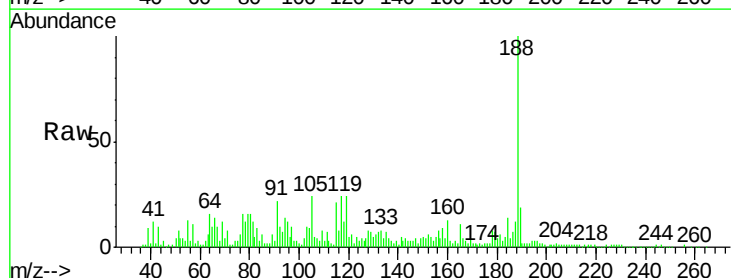
RT: 11.45 min Scan# 819

Delta R.T. 0.00 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

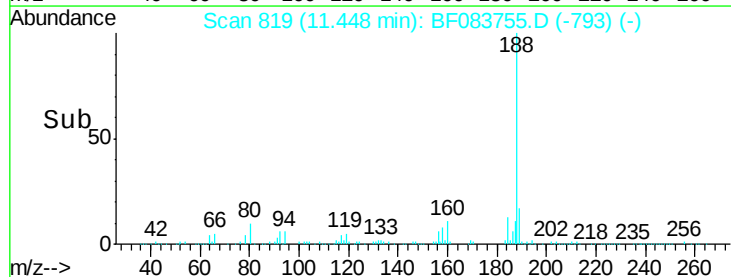
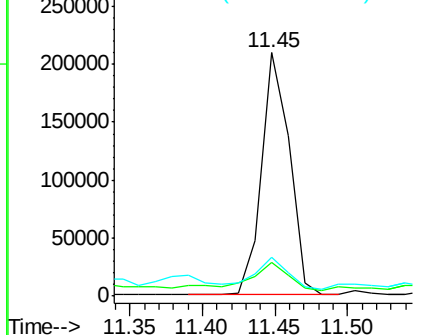
Tgt Ion	Ratio	Lower	Upper
188	100		
94	13.7	9.4	14.2
80	16.2	10.6	16.0

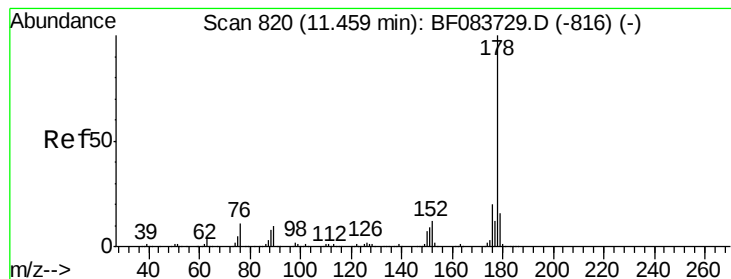


Abundance Ion 188.00 (187.70 to 188.70): E

Ion 94.00 (93.70 to 94.70): BF0

Ion 80.00 (79.70 to 80.70): BF0





#70

Phenanthrene

Concen: 150.62 ng

RT: 11.48 min Scan# 822

Delta R.T. 0.01 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

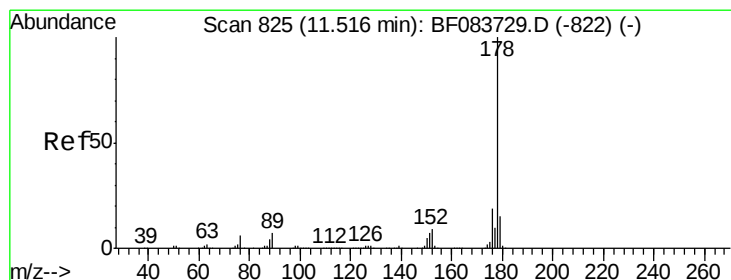
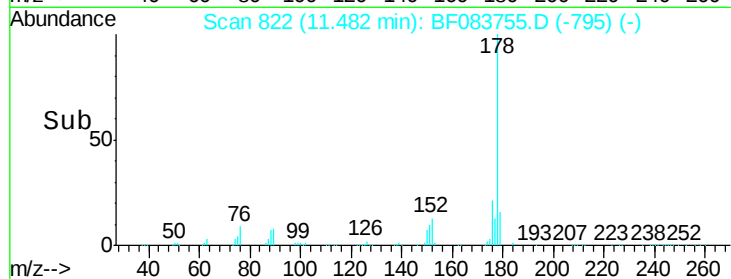
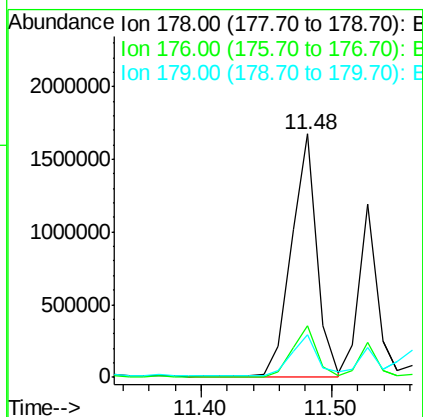
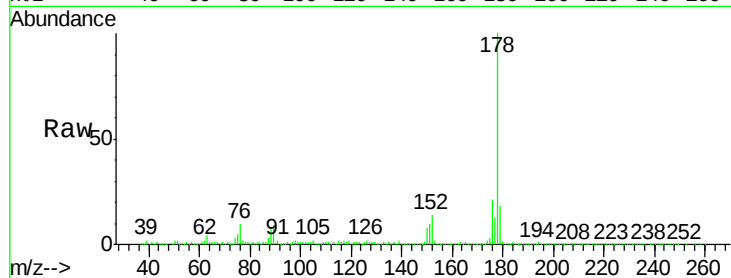
ClientSampleId :

WC121015-SOIL-POPH

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Tot Ion:178 Resp: 2244095
Ion Ratio Lower Upper
178 100
176 21.3 15.7 23.5
179 17.5 12.2 18.4



#71

Anthracene

Concen: 78.38 ng

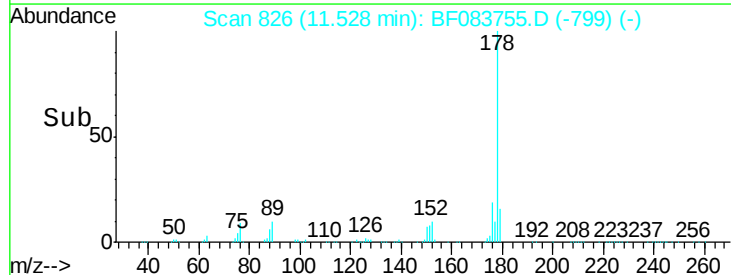
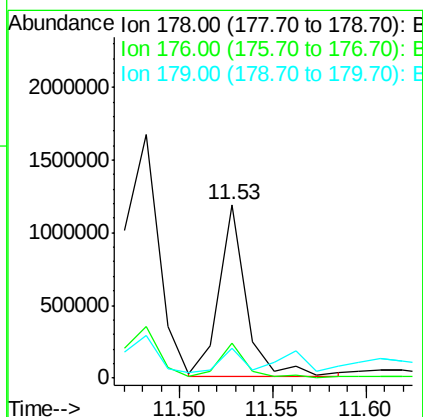
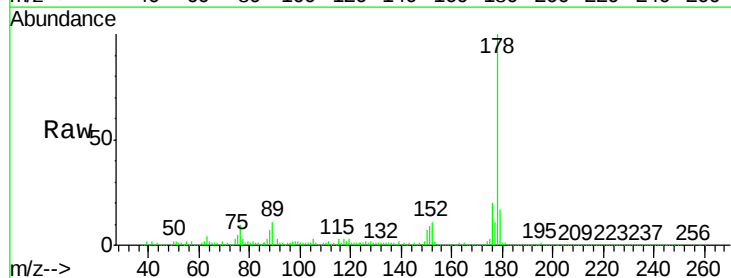
RT: 11.53 min Scan# 826

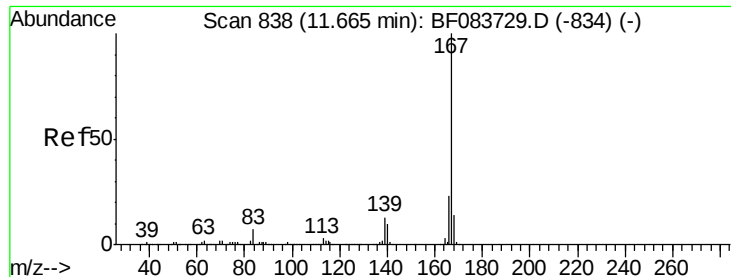
Delta R.T. 0.01 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion:178 Resp: 1212875
Ion Ratio Lower Upper
178 100
176 19.9 15.2 22.8
179 16.9 12.6 18.8





#72

Carbazole

Concen: 3.40 ng

RT: 11.68 min Scan# 839

Delta R.T. 0.01 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

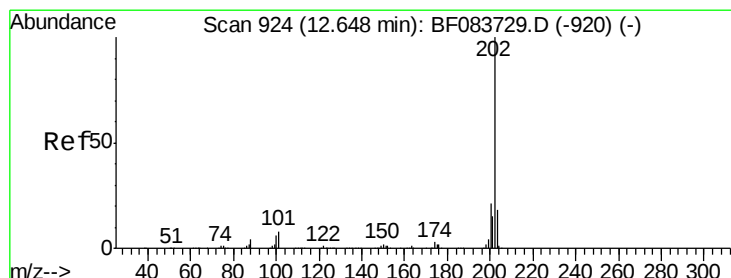
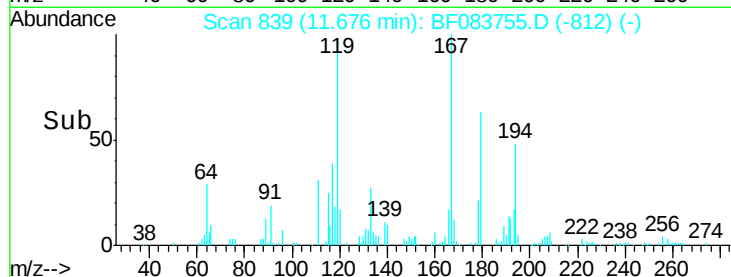
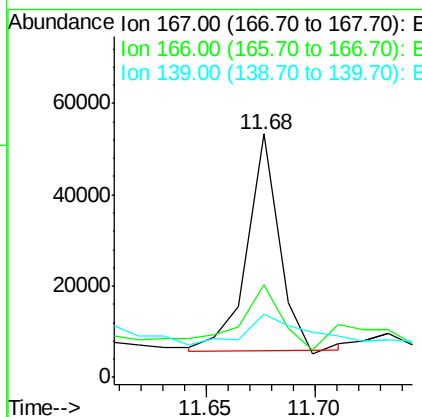
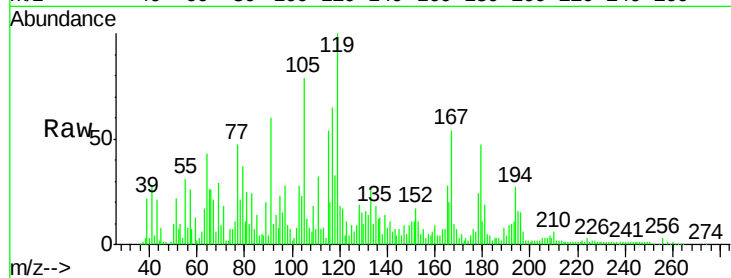
ClientSampleId :

WC121015-SOIL-POPH

Tot Ion:	167	Resp:	49021
Ion Ratio	Lower	Upper	
167	100		
166	38.3	17.2	25.8#
139	25.9	9.3	13.9#

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#74

Fluoranthene

Concen: 84.09 ng

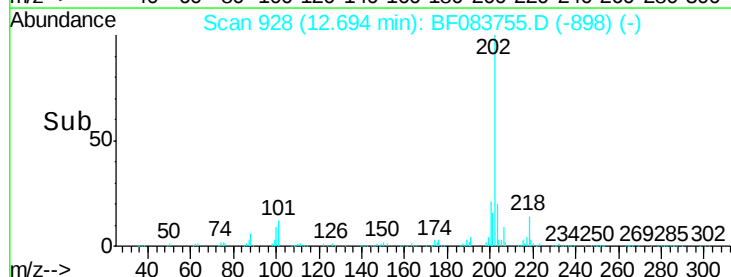
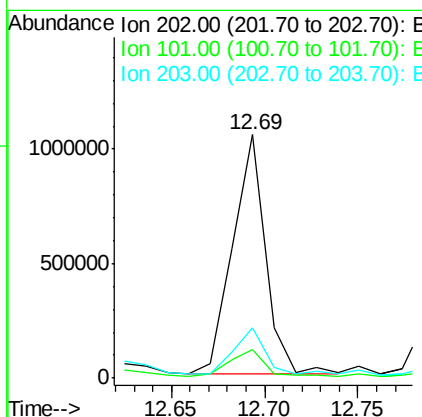
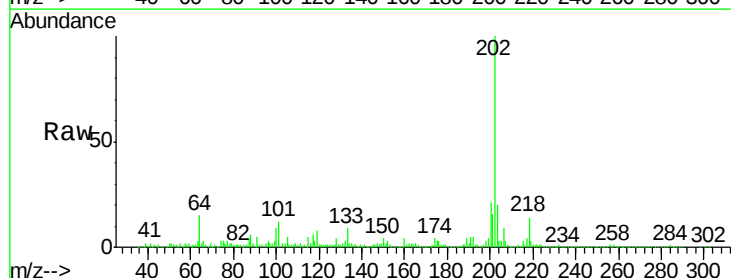
RT: 12.69 min Scan# 928

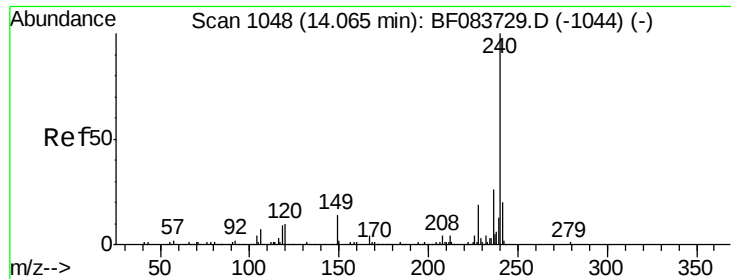
Delta R.T. 0.05 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion:	202	Resp:	1294618
Ion Ratio	Lower	Upper	
202	100		
101	11.9	0.0	31.5
203	20.5	0.0	37.6





#75

Chrysene-d12

Concen: 20.00 ng

RT: 14.10 min Scan# 1051

Delta R.T. 0.02 min

Lab File: BF083755.D

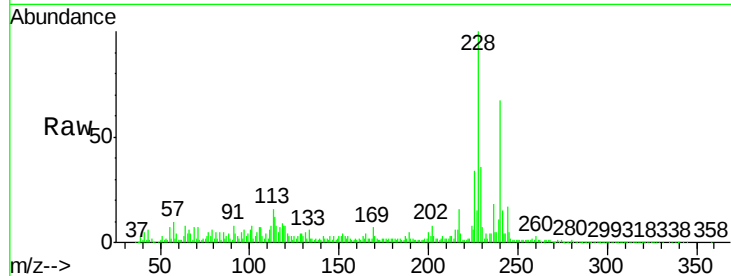
Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

ClientSampleId :

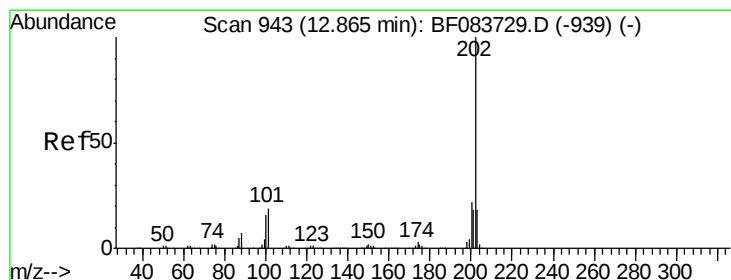
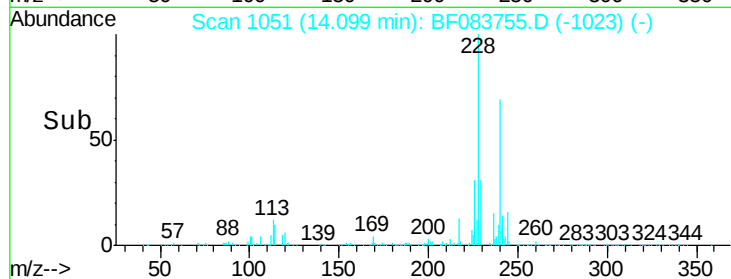
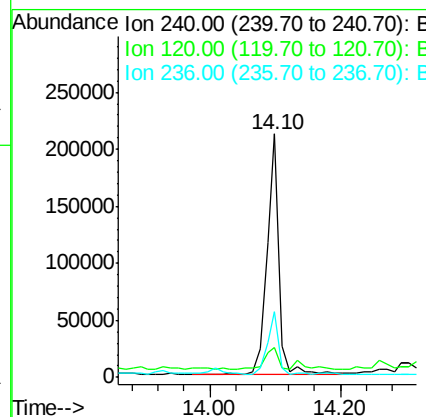
WC121015-SOIL-POPH



Tot Ion	Ratio	Lower	Upper
240	100		
120	12.5	8.1	12.1#
236	26.7	20.8	31.2

Manual Integrations
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#77

Pyrene

Concen: 96.04 ng

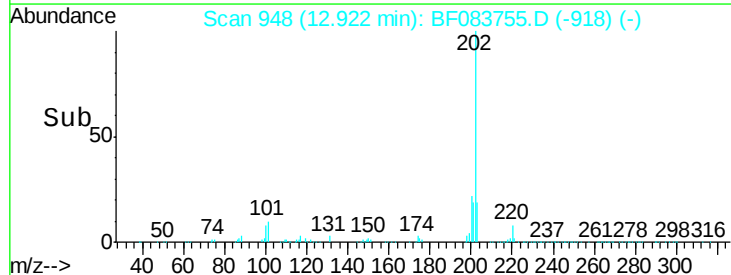
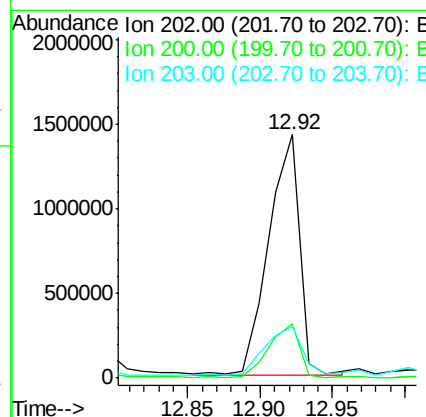
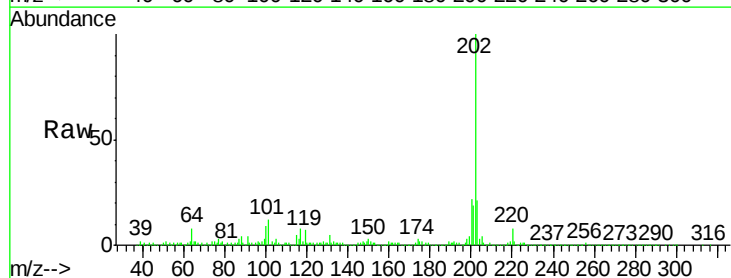
RT: 12.92 min Scan# 948

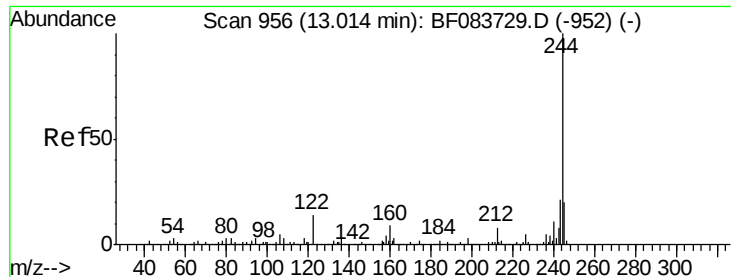
Delta R.T. 0.05 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion	Ratio	Lower	Upper
202	100		
200	22.3	16.7	25.1
203	21.0	14.3	21.5





#78

Terphenyl-d14

Concen: 36.31 ng

RT: 13.04 min Scan# 958

Delta R.T. 0.01 min

Lab File: BF083755.D

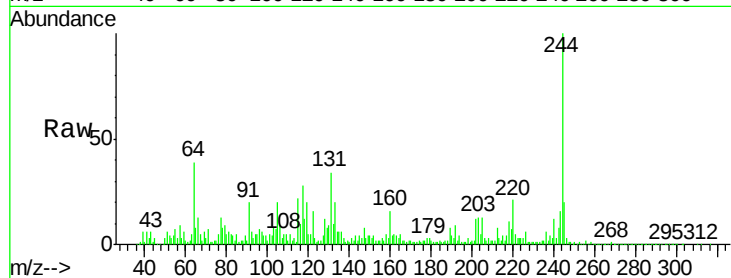
Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

ClientSampleId :

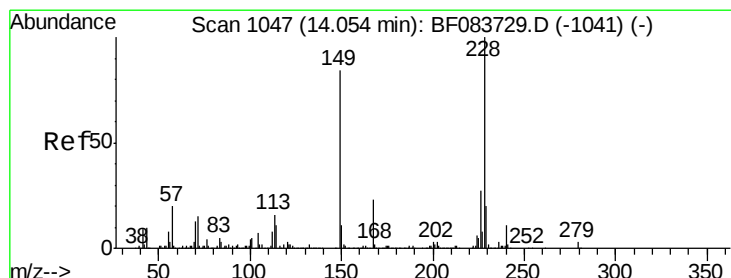
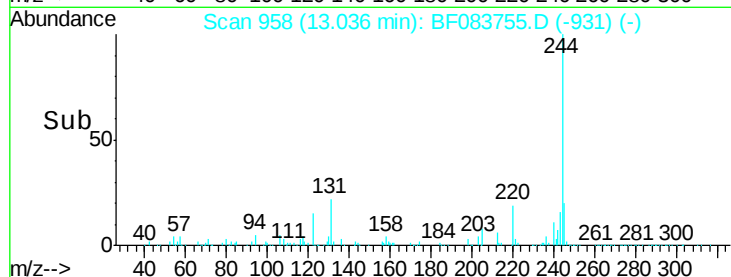
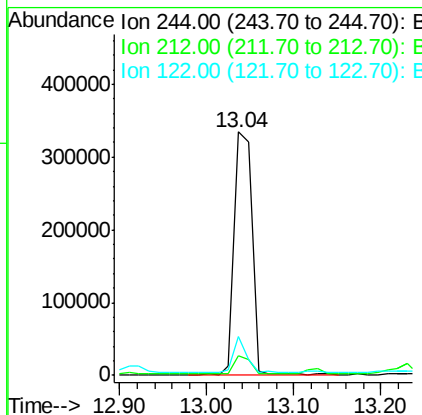
WC121015-SOIL-POPH



Tot Ion	Ratio	Lower	Upper
244	100		
212	8.0	6.1	9.1
122	16.2	11.0	16.6

Manual Integrations
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#80

Benzo(a)anthracene

Concen: 91.33 ng

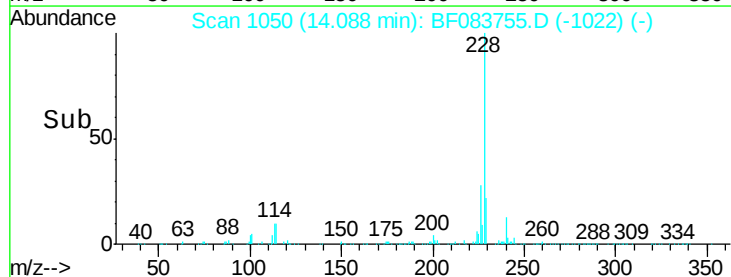
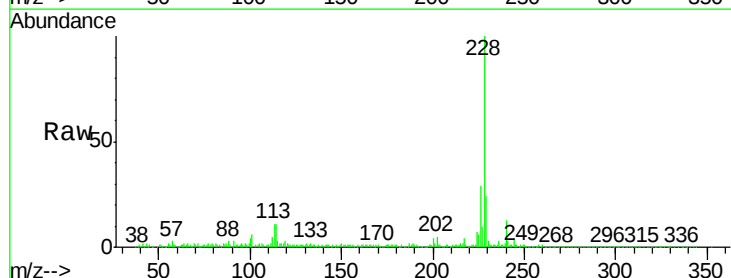
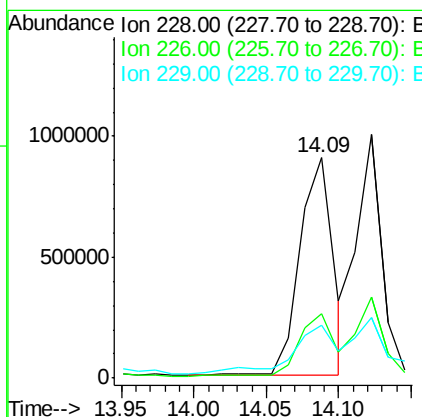
RT: 14.09 min Scan# 1050

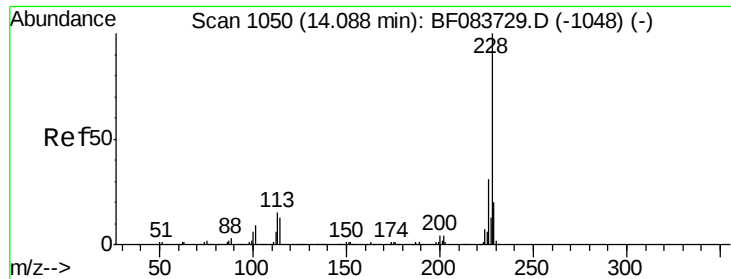
Delta R.T. 0.02 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.3	22.3	33.5
229	24.0	15.7	23.5





#82

Chrysene

Concen: 80.37 ng/mL

RT: 14.12 min Scan# 1053

Delta R.T. 0.02 min

Lab File: BF083755.D

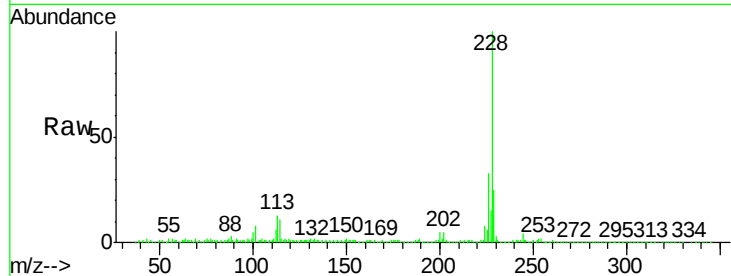
Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

ClientSampleId :

WC121015-SOIL-POPH



Tot Ion:228 Resp: 1229588

Ion Ratio Lower Upper

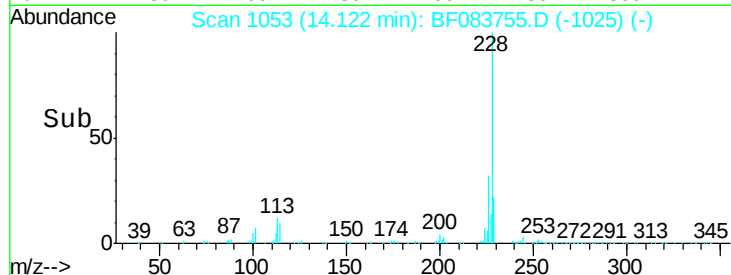
228 100

226 33.3 24.7 37.1

229 24.7 16.3 24.5#

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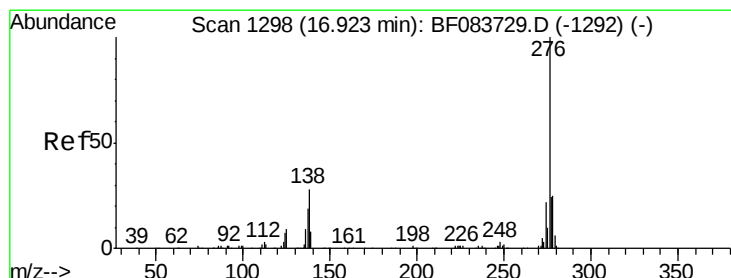
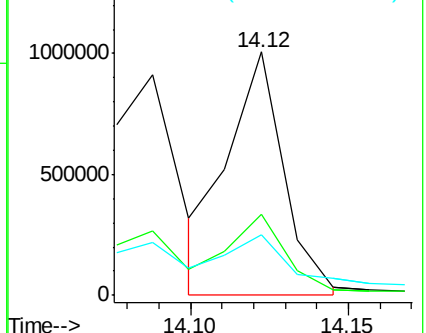
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Abundance Ion 228.00 (227.70 to 228.70): E

Ion 226.00 (225.70 to 226.70): E

Ion 229.00 (228.70 to 229.70): E



#85

Indeno(1,2,3-cd)pyrene

Concen: 19.79 ng/mL

RT: 16.97 min Scan# 1302

Delta R.T. 0.02 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

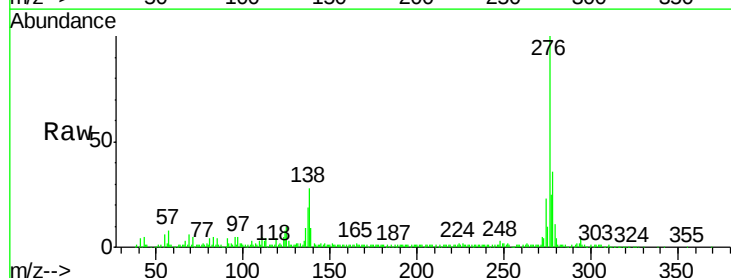
Tgt Ion:276 Resp: 297287

Ion Ratio Lower Upper

276 100

138 26.9 0.0 0.0#

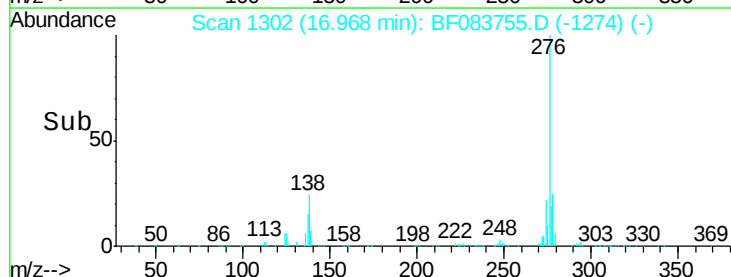
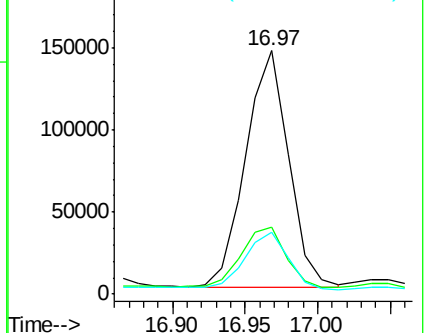
277 25.5 0.0 0.0#

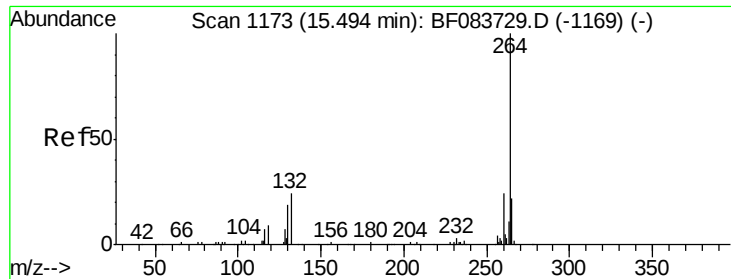


Abundance Ion 276.00 (275.70 to 276.70): E

Ion 138.00 (137.70 to 138.70): E

Ion 277.00 (276.70 to 277.70): E





#86

Pervlene-d12

Concen: 20.00 ng

RT: 15.54 min Scan# 1177

Delta R.T. 0.03 min

Lab File: BF083755.D

Acq: 14 Dec 2015 3:42

Instrument :

BNA_F

ClientSampleId :

WC121015-SOIL-POPH

Tot Ion:264 Resp: 308847
Ion Ratio Lower Upper

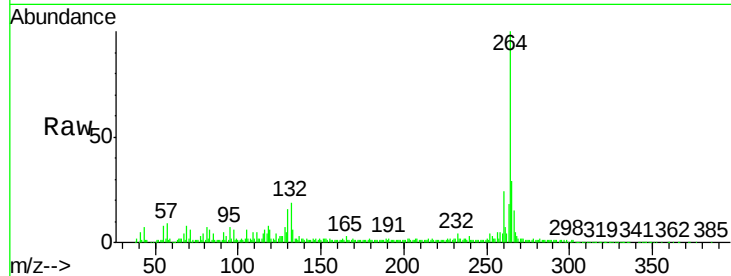
264 100

260 24.3 19.4 29.0

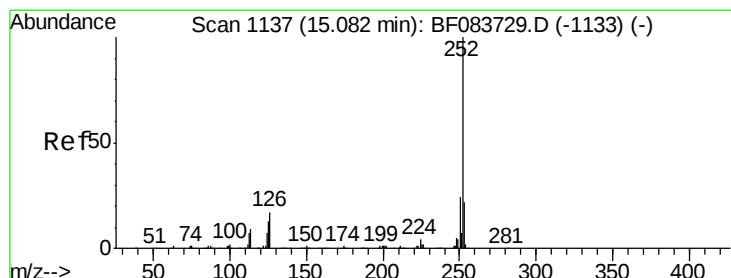
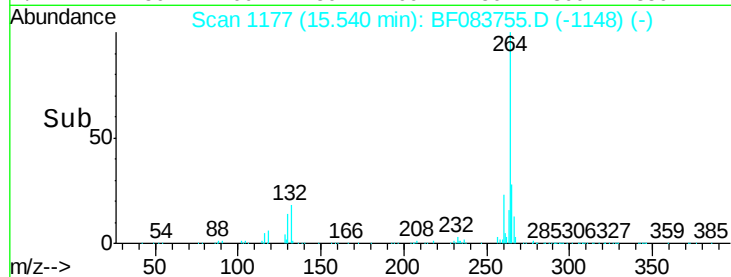
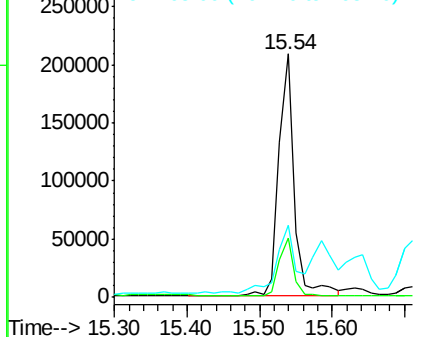
265 29.5 17.8 26.6#

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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



#87

Benzo(b)fluoranthene

Concen: 50.95 ng m

RT: 15.13 min Scan# 1141

Delta R.T. 0.03 min

Lab File: BF083755.D

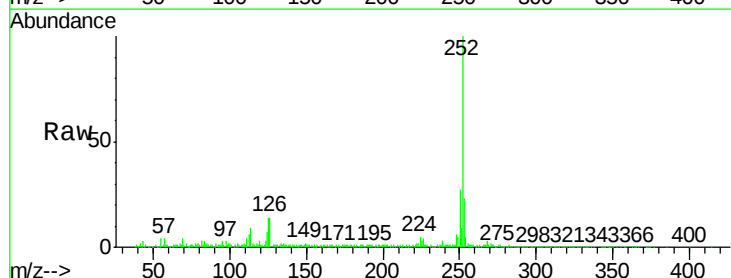
Acq: 14 Dec 2015 3:42

Tgt Ion:252 Resp: 1003812
Ion Ratio Lower Upper

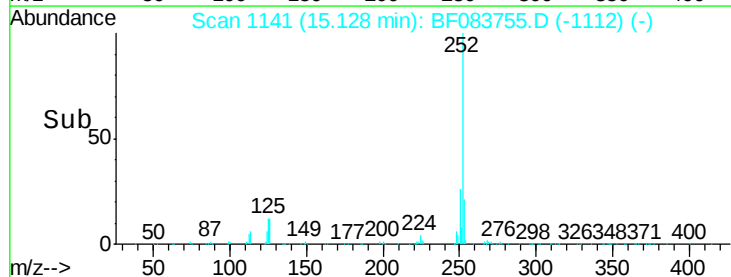
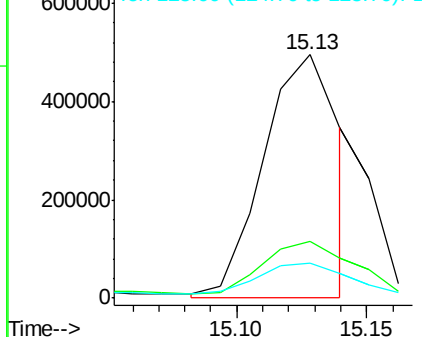
252 100

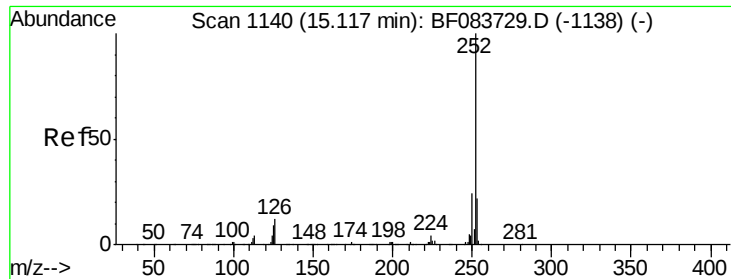
253 23.2 18.2 27.4

125 14.3 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





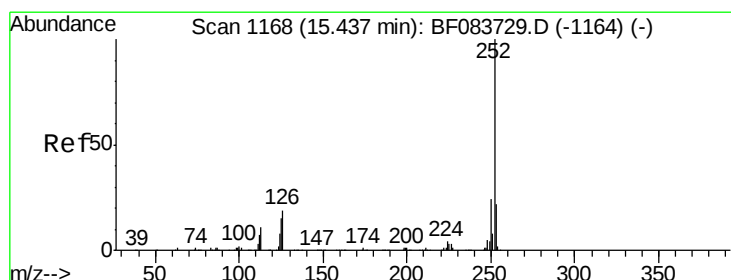
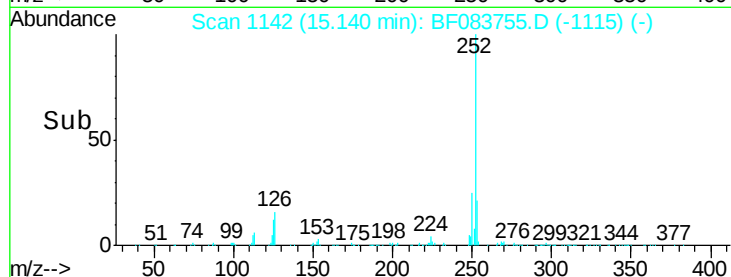
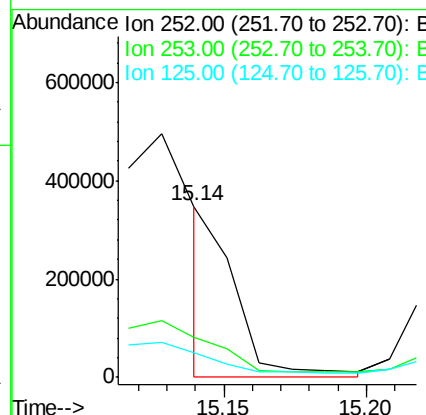
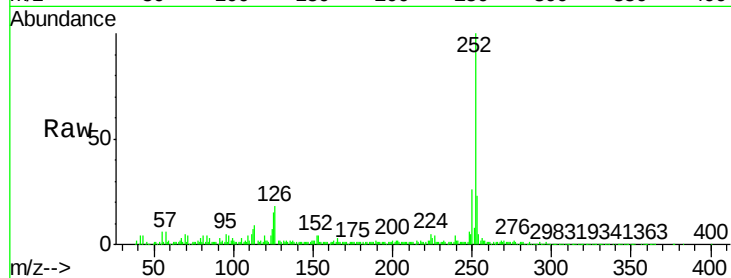
#88
Benzo(k)fluoranthene
Concen: 11.96 ng m
RT: 15.14 min Scan# 1142
Delta R.T. 0.01 min
Lab File: BF083755.D
Acq: 14 Dec 2015 3:42

Instrument :
BNA_F
ClientSampleId :
WC121015-SOIL-POPH

Tot Ion	Ratio	Lower	Upper
252	100		
253	23.4	18.6	27.8
125	14.9	11.5	17.3

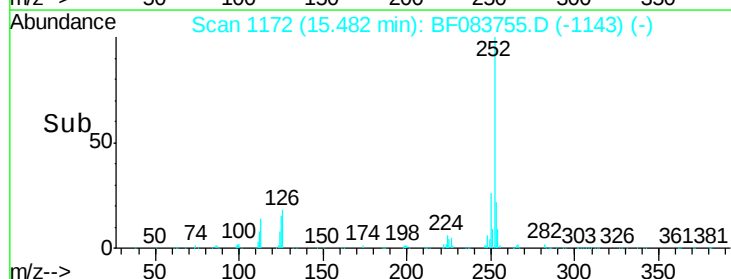
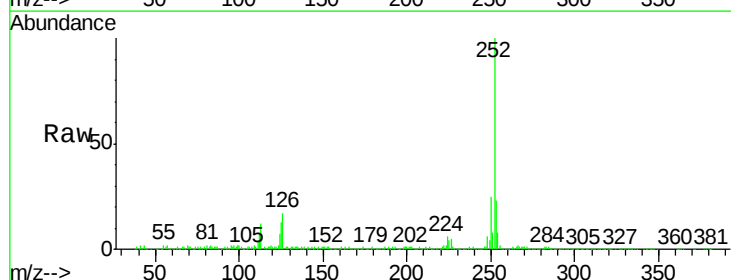
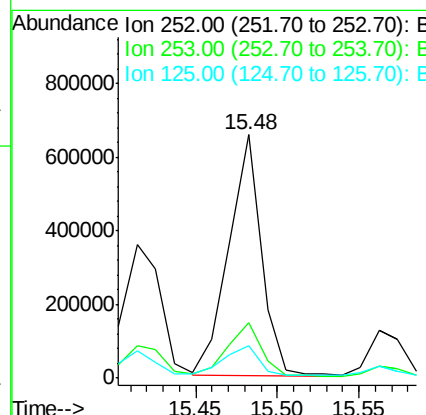
Manual Integrations
APPROVED

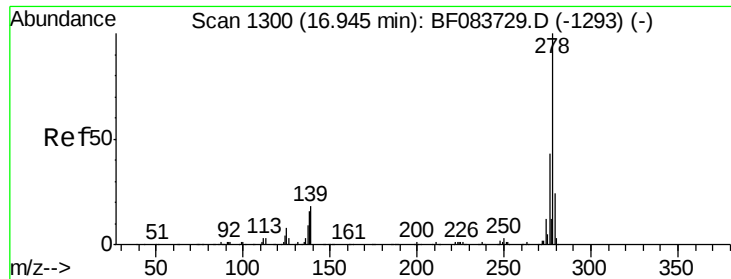
MMdadoda
12/14/2015 6:23:56 PM



#89
Benzo(a)pyrene
Concen: 51.48 ng
RT: 15.48 min Scan# 1172
Delta R.T. 0.03 min
Lab File: BF083755.D
Acq: 14 Dec 2015 3:42

Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.0	17.5	26.3
125	13.3	11.0	16.6





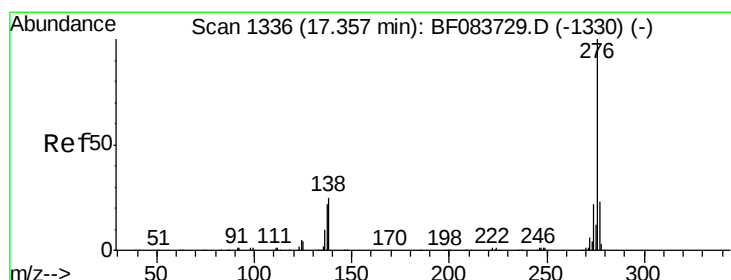
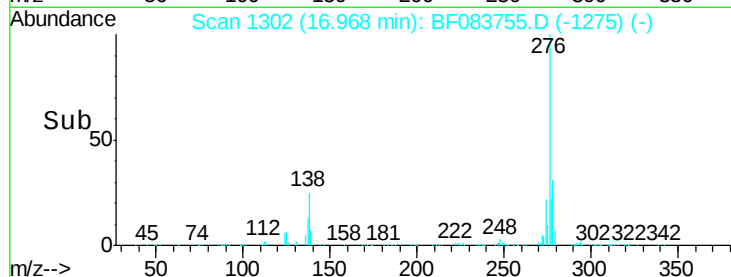
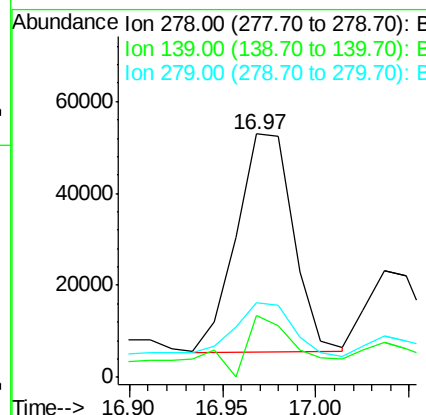
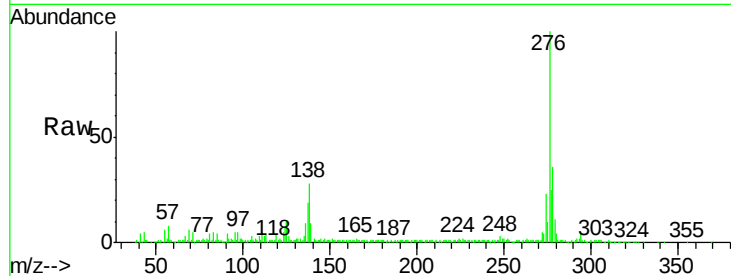
#90
Dibenzo(a,h)anthracene
Concen: 5.77 ng
RT: 16.97 min Scan# 1302
Delta R.T. 0.01 min
Lab File: BF083755.D
Acq: 14 Dec 2015 3:42

Instrument :
BNA_F
ClientSampleId :
WC121015-SOIL-POPH

Tot Ion	Ratio	Lower	Upper
278	100		
139	25.2	12.8	19.2#
279	30.4	18.6	28.0#

Manual Integrations
APPROVED

MMdadoda
12/14/2015 6:23:56 PM



#91
Benzo(g,h,i)perylene
Concen: 16.75 ng
RT: 17.40 min Scan# 1340
Delta R.T. 0.02 min
Lab File: BF083755.D
Acq: 14 Dec 2015 3:42

Tgt Ion	Ratio	Lower	Upper
276	100		
277	24.0	19.2	28.8
138	24.6	19.5	29.3

