

Data Path : Z:\svoasrv\HPCHEM1\BNA_M\Data\BM032023\
 Data File : BM039062.D
 Acq On : 21 Mar 2023 02:12
 Operator : CG/JU
 Sample : 01974-04
 Misc :
 ALS Vial : 18 Sample Multiplier: 1

Instrument :
 BNA_M
 ClientSampleId :
 SHELL-ROAD-2

Manual Integrations
 APPROVED

Reviewed By : Christian Giraldo 03/21/2023
 Supervised By : Jagrut Upadhyay 03/21/2023

Quant Time: Mar 21 03:57:33 2023
 Quant Method : Z:\svoasrv\HPCHEM1\BNA_M\Methods\8270-BM030823.M
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 QLast Update : Fri Mar 17 05:25:34 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.969	152	342600	20.000	ng	0.00
21) Naphthalene-d8	10.781	136	1342963	20.000	ng	-0.01
39) Acenaphthene-d10	14.610	164	731206	20.000	ng	0.00
64) Phenanthrene-d10	17.351	188	1448521	20.000	ng	-0.01
76) Chrysene-d12	21.533	240	1366754	20.000	ng	0.00
86) Perylene-d12	23.968	264	1571102	20.000	ng	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	5.522	112	2294377	101.746	ng	0.00
7) Phenol-d6	7.128	99	2876340	98.201	ng	0.00
23) Nitrobenzene-d5	9.134	82	1706519	62.419	ng	-0.01
42) 2,4,6-Tribromophenol	16.098	330	779292	92.127	ng	0.00
45) 2-Fluorobiphenyl	13.233	172	3185861	56.719	ng	-0.01
79) Terphenyl-d14	19.974	244	4288384	57.366	ng	0.00
Target Compounds						Qvalue
49) Acenaphthylene	14.333	152	235736	3.168	ng	99
58) Fluorene	15.651	166	120627	2.152	ng	99
71) Phenanthrene	17.398	178	2168579	25.508	ng	99
72) Anthracene	17.486	178	457033	5.391	ng	99
73) Carbazole	17.757	167	235032	3.038	ng	98
74) Di-n-butylphthalate	18.321	149	75224	2.566	ng	98
75) Fluoranthene	19.410	202	4066439	45.302	ng	99
78) Pyrene	19.774	202	3939079	38.372	ng	99
81) Benzo(a)anthracene	21.515	228	1812260	18.412	ng	96
83) Chrysene	21.568	228	1990723	20.796	ng	98
84) Bis(2-ethylhexyl)phtha...	21.445	149	64926	3.461	ng	# 94
87) Indeno(1,2,3-cd)pyrene	26.497	276	1310235	10.960	ng	97
88) Benzo(b)fluoranthene	23.227	252	2531071m	25.217	ng	
89) Benzo(k)fluoranthene	23.268	252	919129m	8.799	ng	
90) Benzo(a)pyrene	23.862	252	1789791	18.528	ng	97
91) Dibenzo(a,h)anthracene	26.509	278	333829	3.297	ng	# 86
92) Benzo(g,h,i)perylene	27.280	276	1338643	13.514	ng	98

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

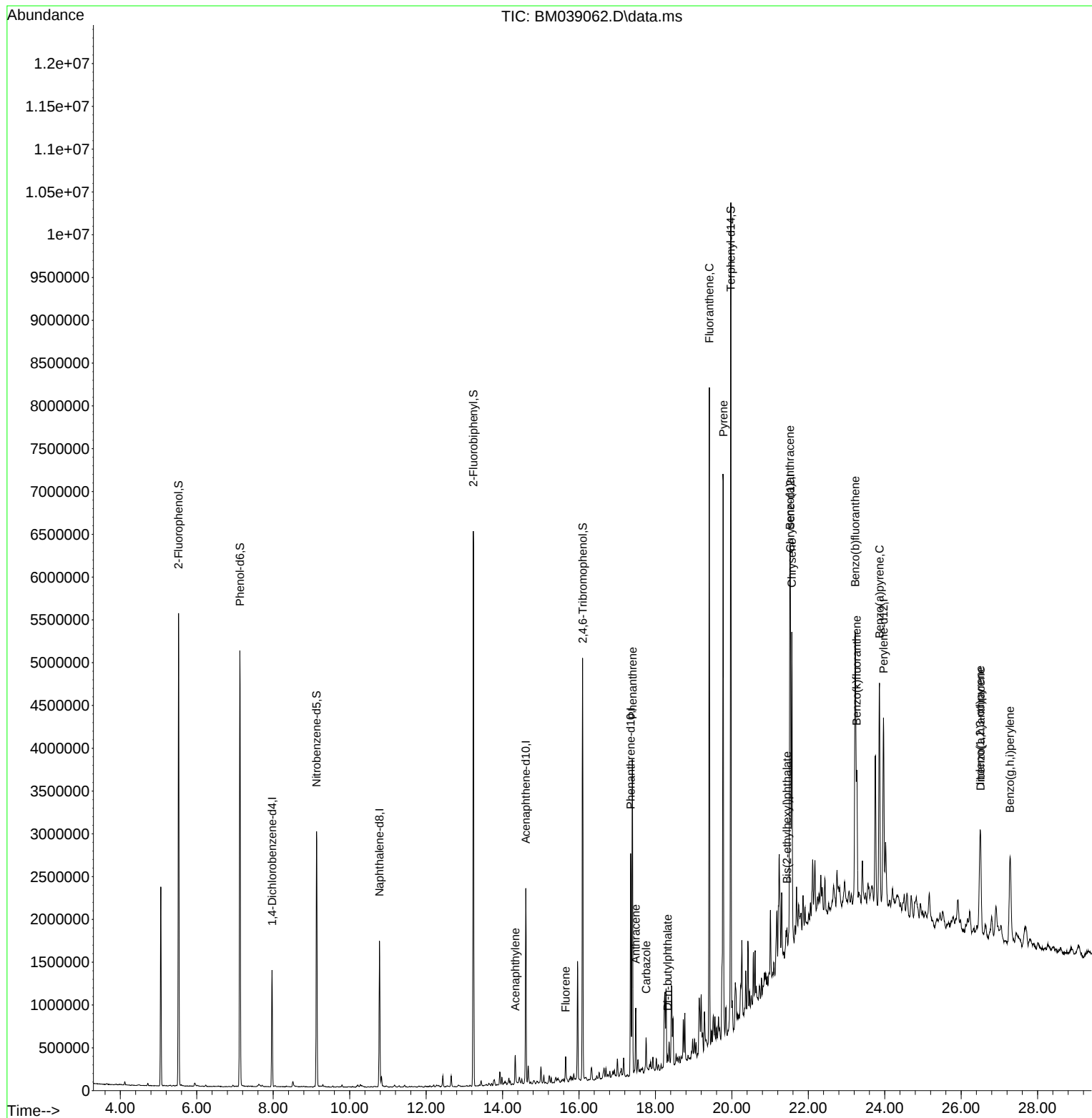
Data Path : Z:\svoasrv\HPCHEM1\BNA_M\Data\BM032023\
Data File : BM039062.D
Acq On : 21 Mar 2023 02:12
Operator : CG/JU
Sample : 01974-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

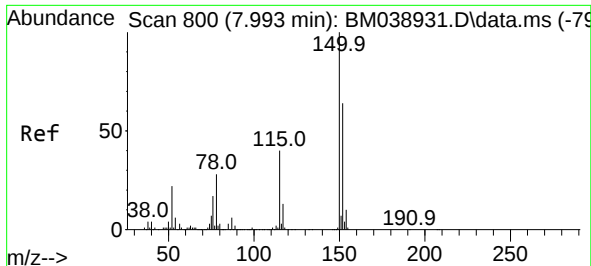
Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2

Quant Time: Mar 21 03:57:33 2023
Quant Method : Z:\svoasrv\HPCHEM1\BNA_M\Methods\8270-BM030823.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Fri Mar 17 05:25:34 2023
Response via : Initial Calibration

Manual Integrations
APPROVED

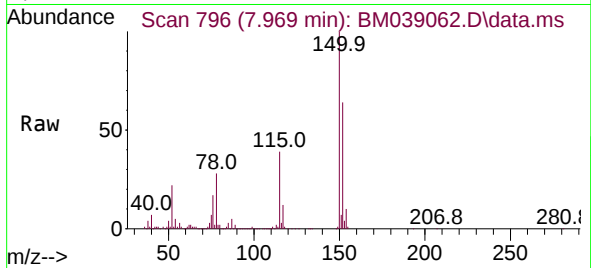
Reviewed By : Christian Giraldo 03/21/2023
Supervised By : Jagrut Upadhyay 03/21/2023





#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 7.969 min Scan# 79
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

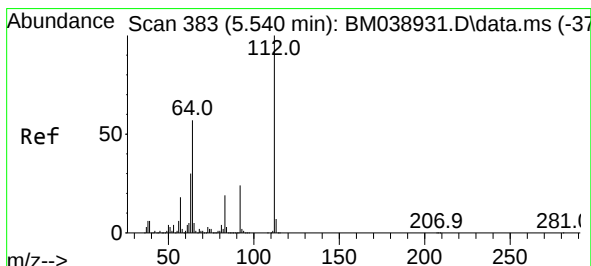
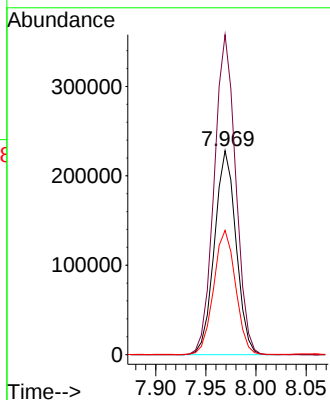
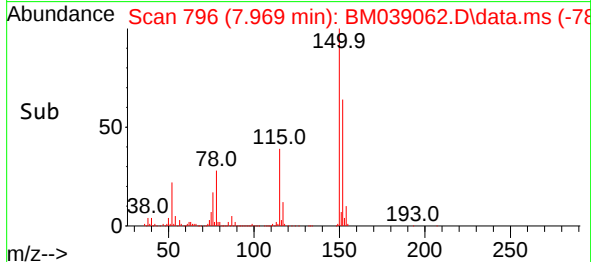
Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2



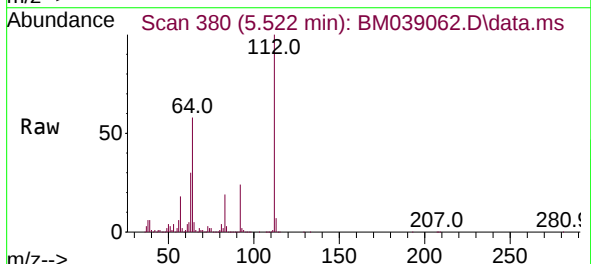
Tgt Ion:152 Resp: 342600
Ion Ratio Lower Upper
152 100
150 157.0 125.1 187.7
115 60.9 49.6 74.4

Manual Integrations
APPROVED

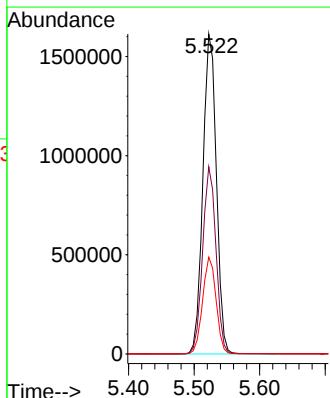
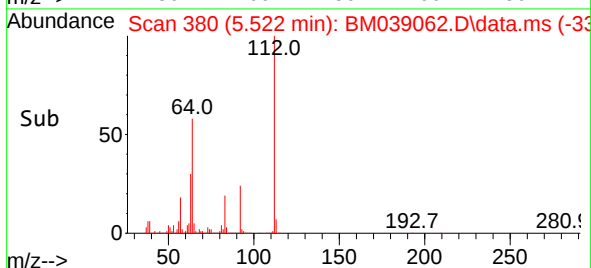
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023



#5
2-Fluorophenol
Concen: 101.746 ng
RT: 5.522 min Scan# 380
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12



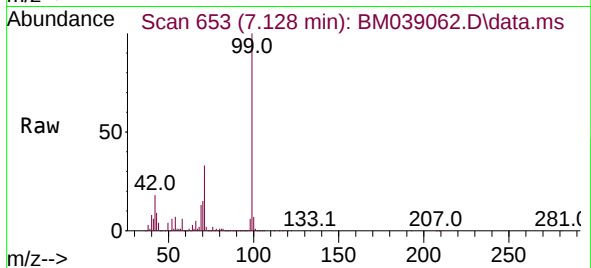
Tgt Ion:112 Resp: 2294377
Ion Ratio Lower Upper
112 100
64 58.5 45.9 68.9
63 30.2 23.8 35.8





#7
Phenol-d6
Concen: 98.201 ng
RT: 7.128 min Scan# 653
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

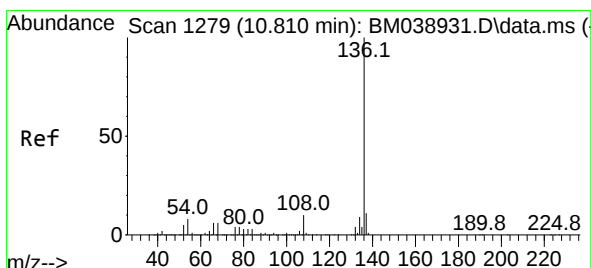
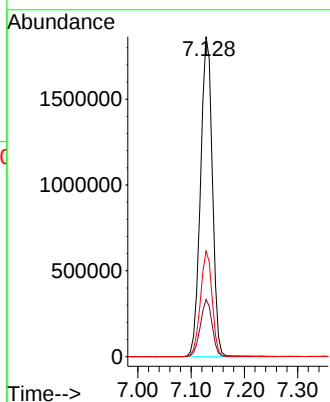
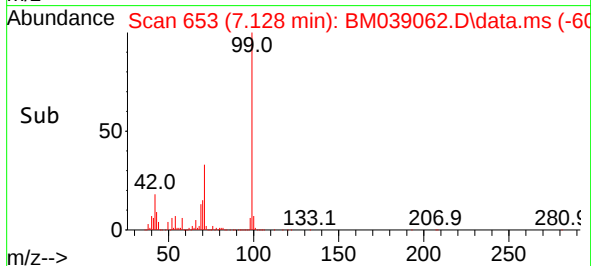
Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2



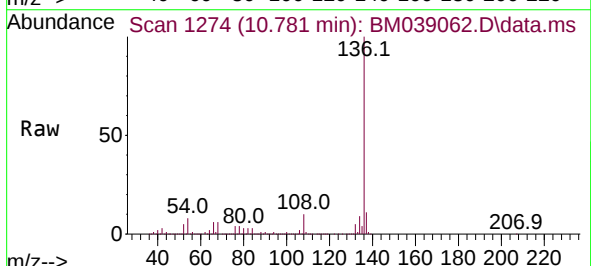
Tgt Ion: 99 Resp: 2876340
Ion Ratio Lower Upper
99 100
42 17.8 13.5 20.3
71 33.0 25.6 38.4

Manual Integrations
APPROVED

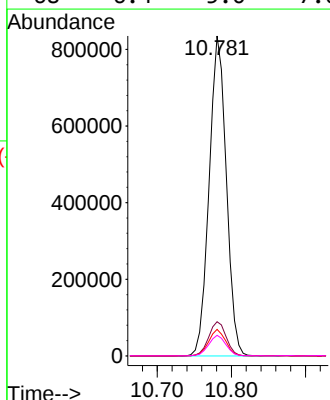
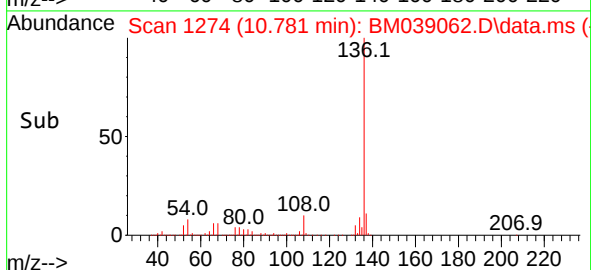
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023

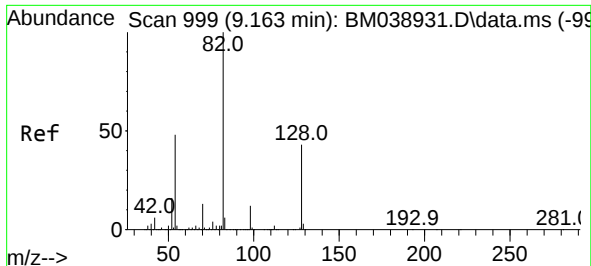


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 10.781 min Scan# 1274
Delta R.T. -0.012 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12



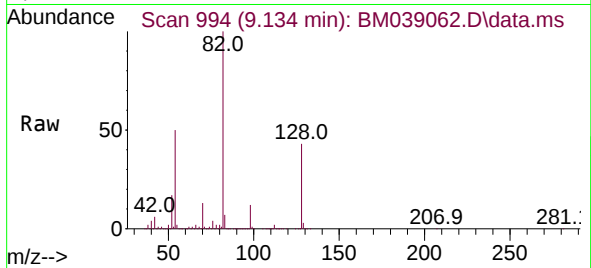
Tgt Ion:136 Resp: 1342963
Ion Ratio Lower Upper
136 100
137 10.7 8.7 13.1
54 8.3 6.3 9.5
68 6.4 5.0 7.6





#23
Nitrobenzene-d5
Concen: 62.419 ng
RT: 9.134 min Scan# 999
Delta R.T. -0.012 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

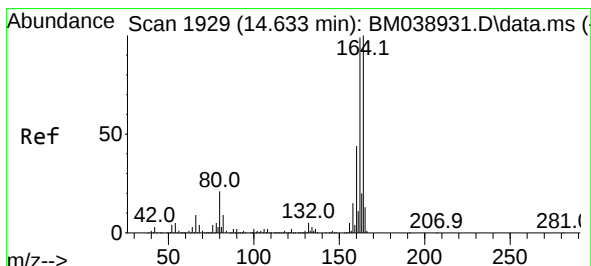
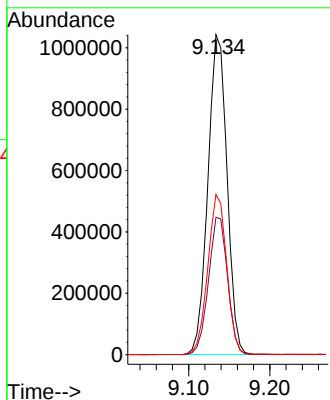
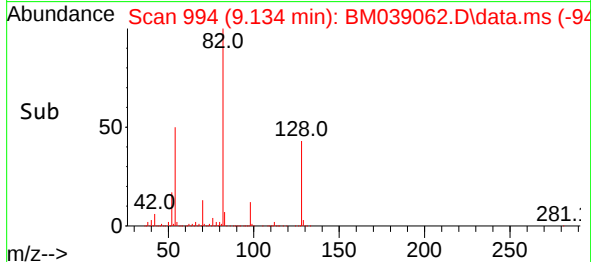
Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2



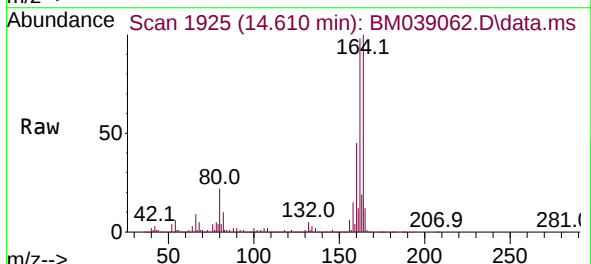
Tgt Ion: 82 Resp: 1706519
Ion Ratio Lower Upper
82 100
128 42.9 34.4 51.6
54 50.0 38.8 58.2

Manual Integrations
APPROVED

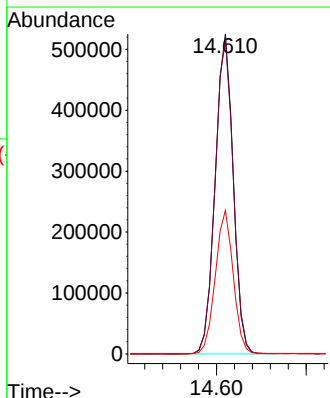
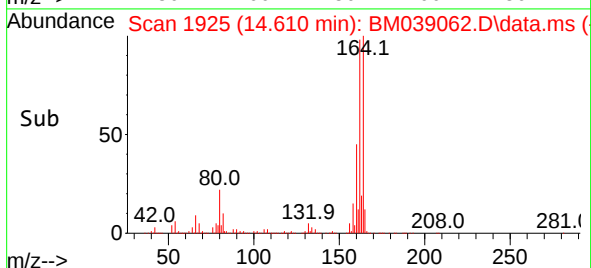
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023

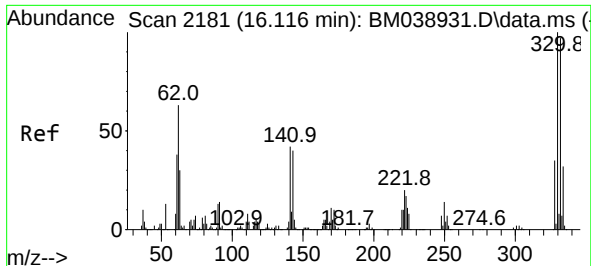


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 14.610 min Scan# 1925
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12



Tgt Ion:164 Resp: 731206
Ion Ratio Lower Upper
164 100
162 98.0 79.2 118.8
160 44.9 35.5 53.3





#42
2,4,6-Tribromophenol
Concen: 92.127 ng
RT: 16.098 min Scan# 2181
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Instrument :

BNA_M

ClientSampleId :

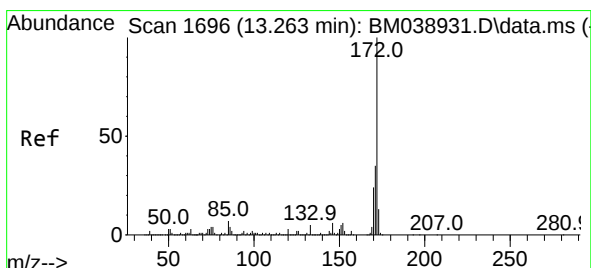
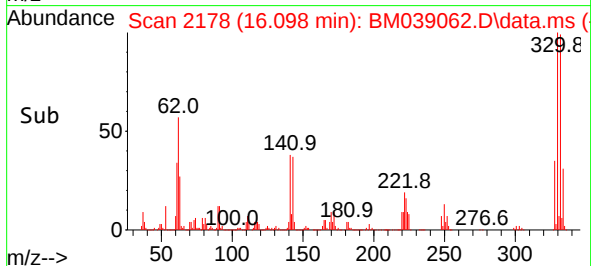
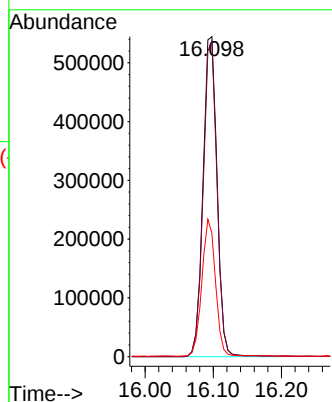
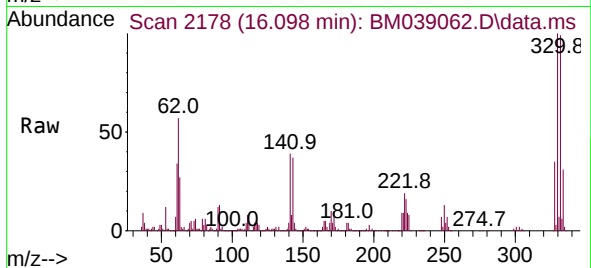
SHELL-ROAD-2

Tgt Ion:330 Resp: 779292
Ion Ratio Lower Upper
330 100
332 96.7 77.4 116.0
141 41.5 32.2 48.4

Manual Integrations

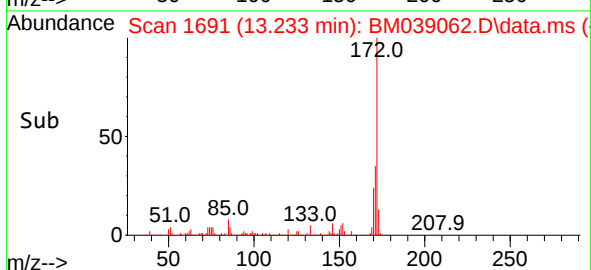
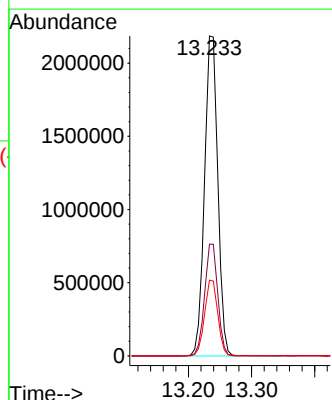
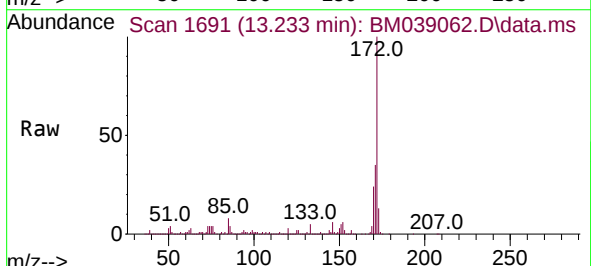
APPROVED

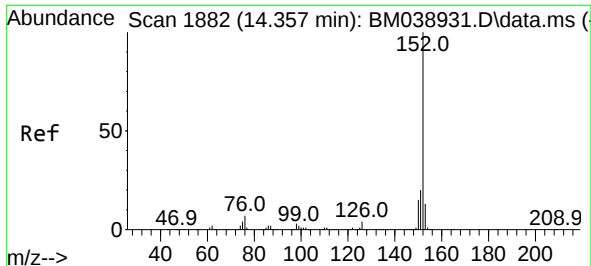
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023



#45
2-Fluorobiphenyl
Concen: 56.719 ng
RT: 13.233 min Scan# 1691
Delta R.T. -0.012 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Tgt Ion:172 Resp: 3185861
Ion Ratio Lower Upper
172 100
171 34.9 28.2 42.2
170 23.7 19.1 28.7





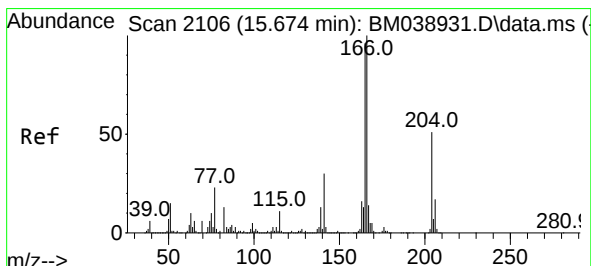
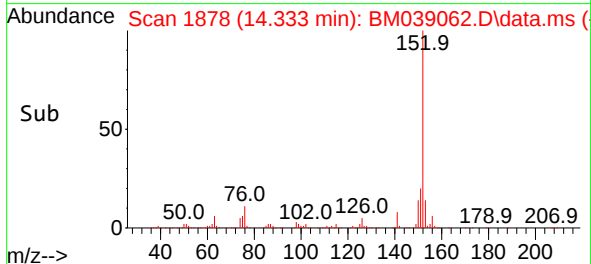
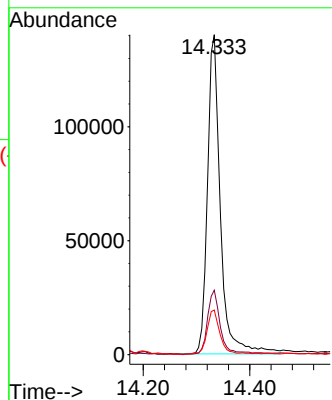
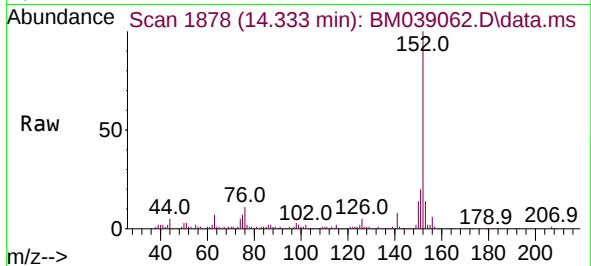
#49
Acenaphthylene
Concen: 3.168 ng
RT: 14.333 min Scan# 1882
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2

Tgt Ion:152 Resp: 235736
Ion Ratio Lower Upper
152 100
151 20.1 15.8 23.8
153 13.9 10.4 15.6

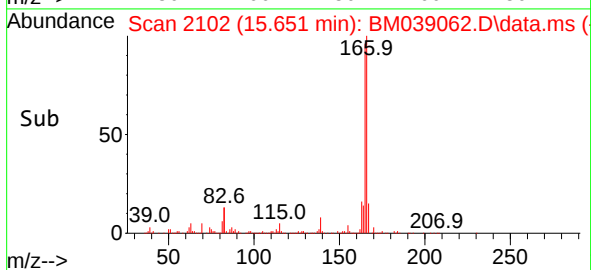
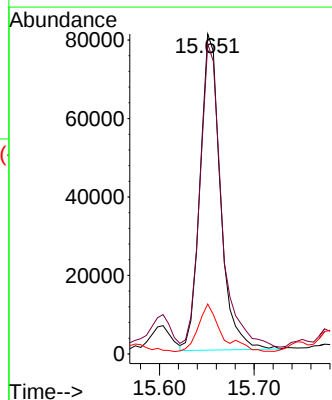
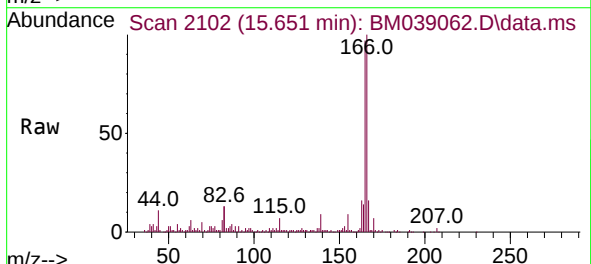
Manual Integrations
APPROVED

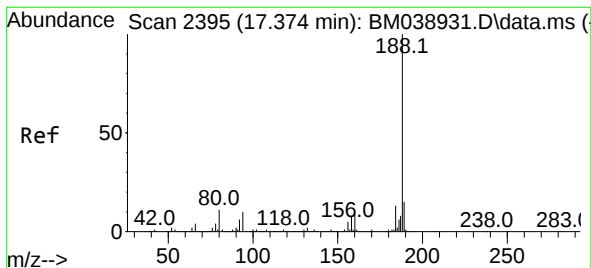
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023



#58
Fluorene
Concen: 2.152 ng
RT: 15.651 min Scan# 2102
Delta R.T. -0.012 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Tgt Ion:166 Resp: 120627
Ion Ratio Lower Upper
166 100
165 96.9 77.1 115.7
167 15.6 10.9 16.3





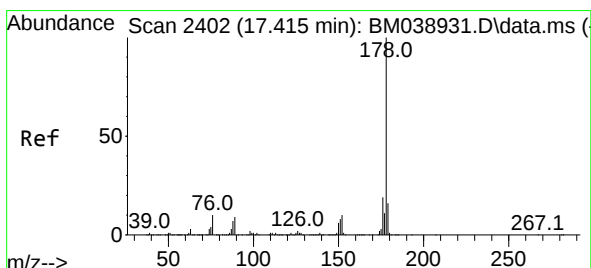
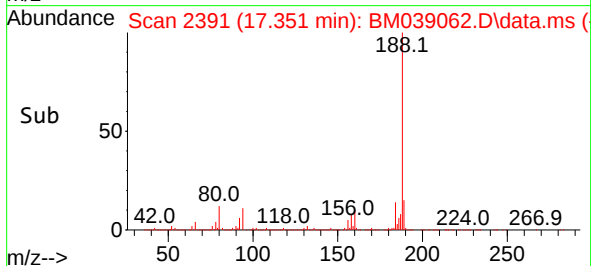
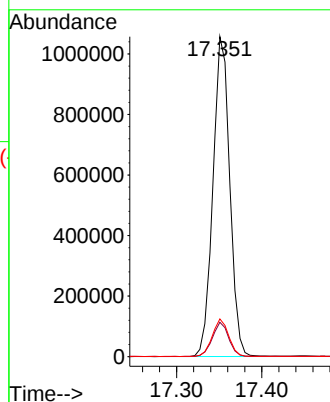
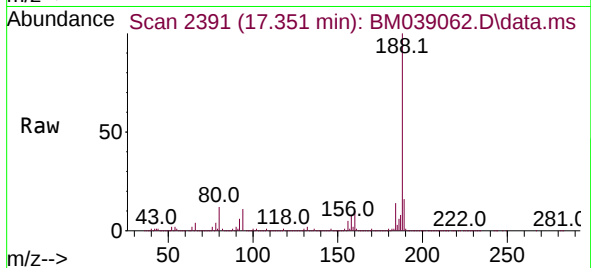
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 17.351 min Scan# 2391
Delta R.T. -0.012 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2

Tgt Ion:188 Resp: 1448521
Ion Ratio Lower Upper
188 100
94 10.7 7.9 11.9
80 11.8 8.5 12.7

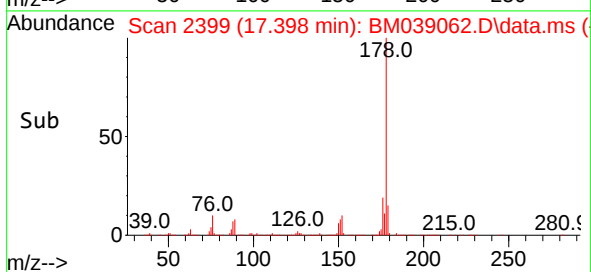
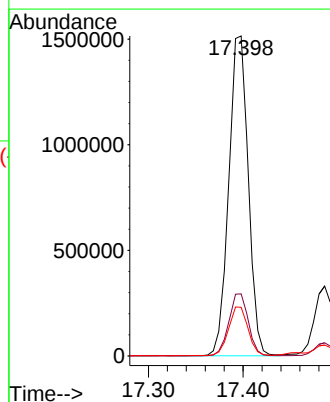
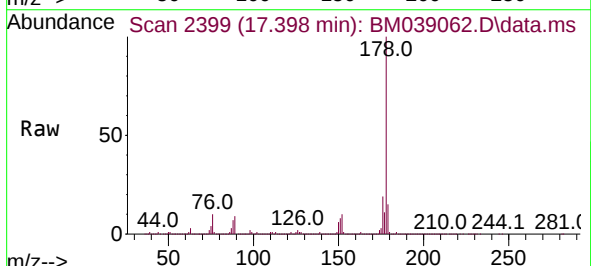
Manual Integrations
APPROVED

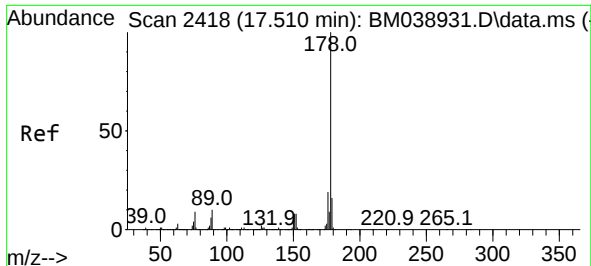
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023



#71
Phenanthrene
Concen: 25.508 ng
RT: 17.398 min Scan# 2399
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Tgt Ion:178 Resp: 2168579
Ion Ratio Lower Upper
178 100
176 19.4 15.6 23.4
179 15.2 12.5 18.7





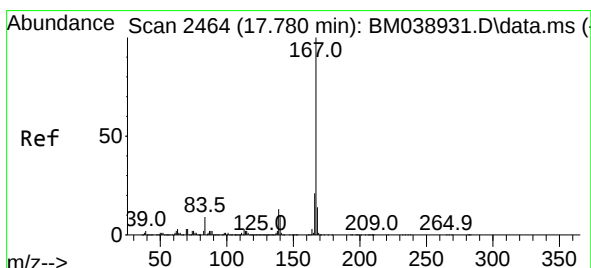
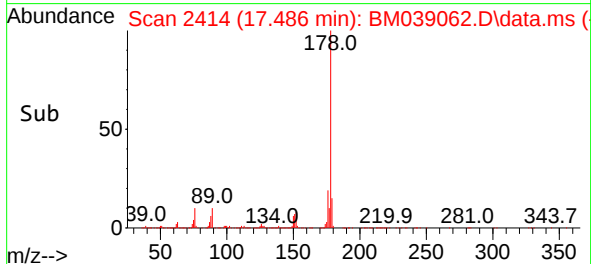
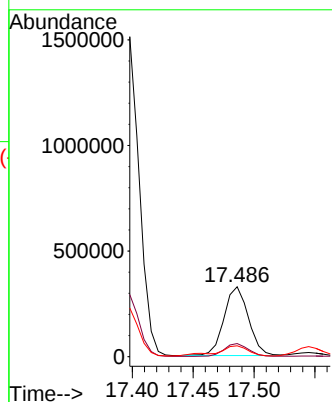
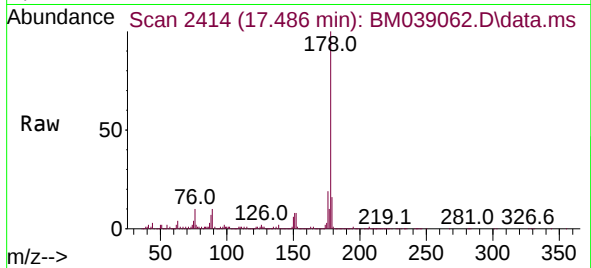
#72
 Anthracene
 Concen: 5.391 ng
 RT: 17.486 min Scan# 2418
 Delta R.T. -0.006 min
 Lab File: BM039062.D
 Acq: 21 Mar 2023 02:12

Instrument :
 BNA_M
 ClientSampleId :
 SHELL-ROAD-2

Tgt Ion:178 Resp: 457033
 Ion Ratio Lower Upper
 178 100
 176 18.7 15.3 22.9
 179 15.5 12.5 18.7

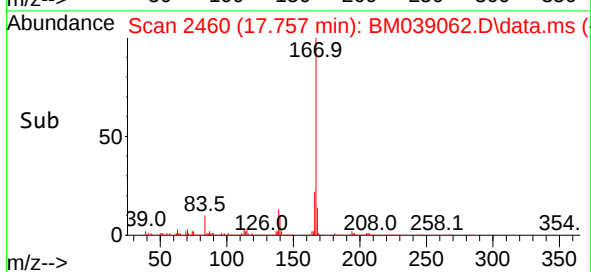
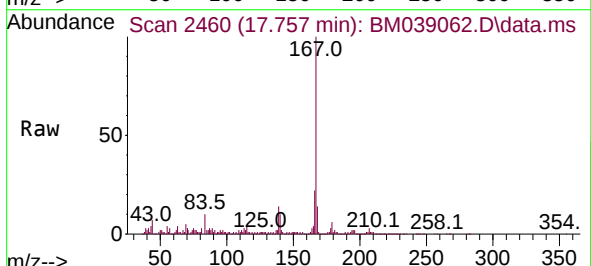
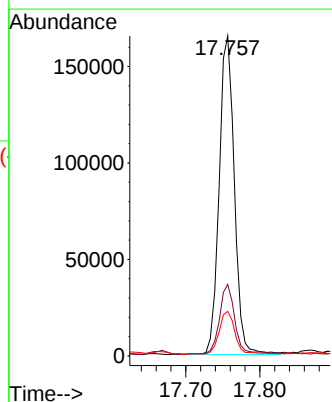
Manual Integrations
 APPROVED

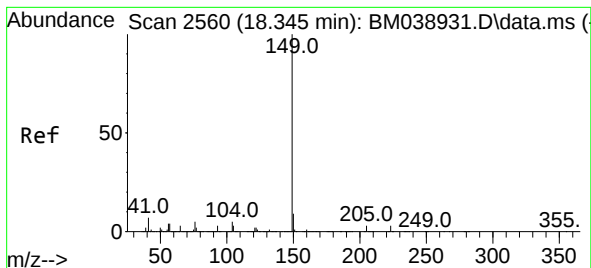
Reviewed By :Christian Giraldo 03/21/2023
 Supervised By :Jagrut Upadhyay 03/21/2023



#73
 Carbazole
 Concen: 3.038 ng
 RT: 17.757 min Scan# 2460
 Delta R.T. -0.006 min
 Lab File: BM039062.D
 Acq: 21 Mar 2023 02:12

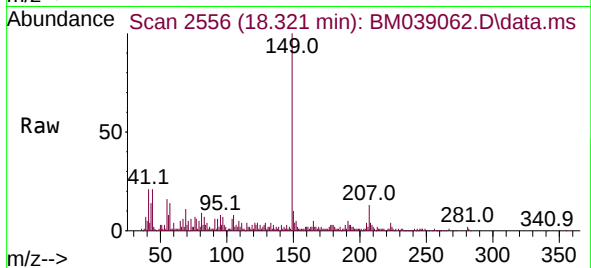
Tgt Ion:167 Resp: 235032
 Ion Ratio Lower Upper
 167 100
 166 22.3 17.0 25.4
 139 13.9 10.3 15.5





#74
Di-n-butylphthalate
Concen: 2.566 ng
RT: 18.321 min Scan# 21
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

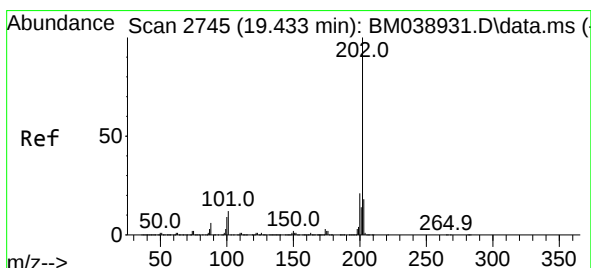
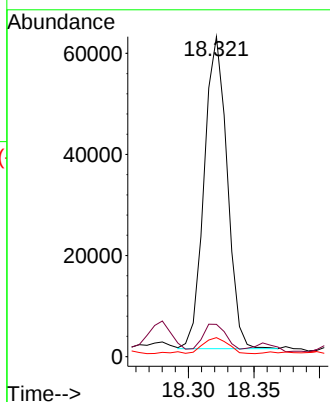
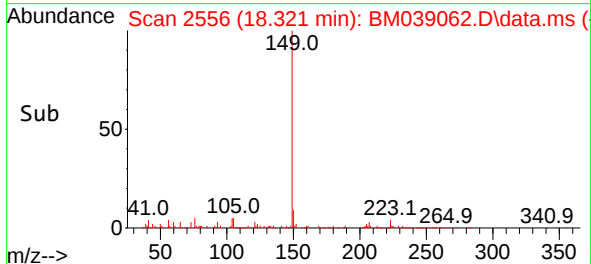
Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2



Tgt Ion:149 Resp: 75224
Ion Ratio Lower Upper
149 100
150 10.1 7.4 11.2
104 5.9 4.3 6.5

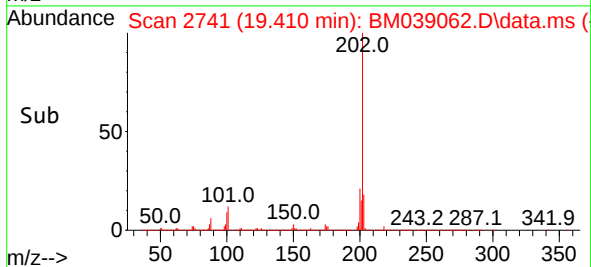
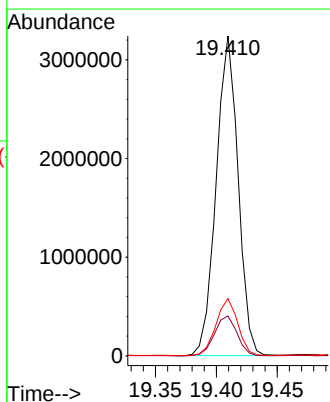
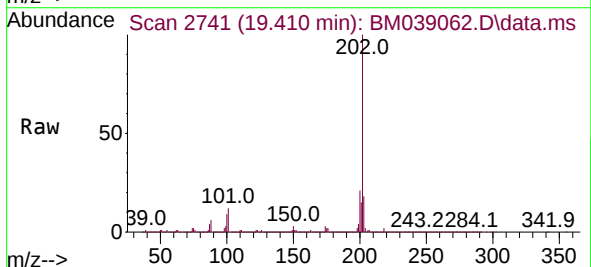
Manual Integrations
APPROVED

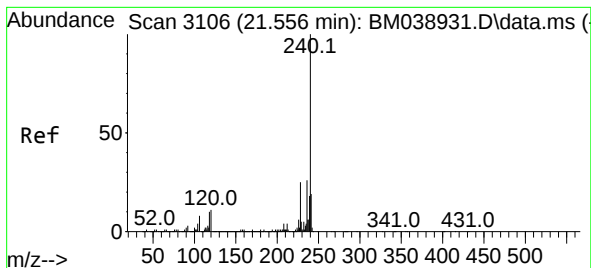
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023



#75
Fluoranthene
Concen: 45.302 ng
RT: 19.410 min Scan# 2741
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

Tgt Ion:202 Resp: 4066439
Ion Ratio Lower Upper
202 100
101 12.5 0.0 31.7
203 17.9 0.0 37.6





#76

Chrysene-d12

Concen: 20.000 ng

RT: 21.533 min Scan# 31

Delta R.T. -0.006 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

Instrument :

BNA_M

ClientSampleId :

SHELL-ROAD-2

Tgt Ion:240 Resp: 1366754

Ion Ratio Lower Upper

240 100

120 12.8 9.2 13.8

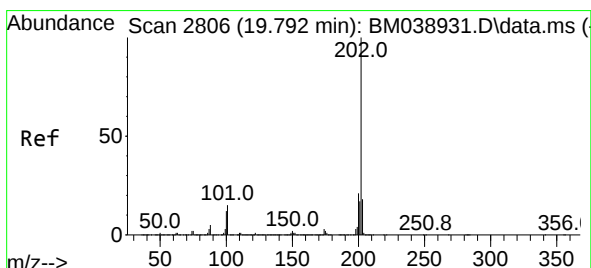
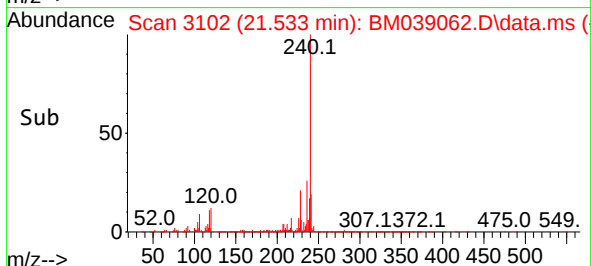
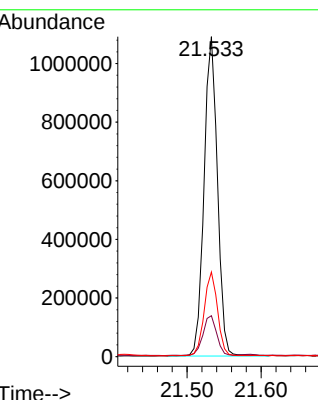
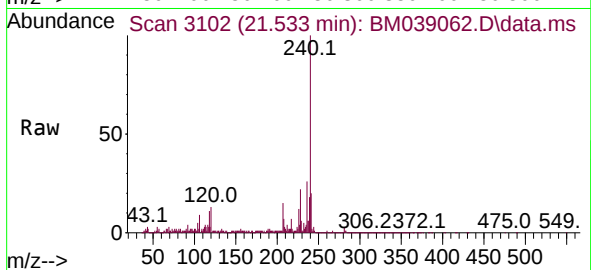
236 26.4 20.8 31.2

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 03/21/2023

Supervised By :Jagrut Upadhyay 03/21/2023



#78

Pyrene

Concen: 38.372 ng

RT: 19.774 min Scan# 2803

Delta R.T. -0.006 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

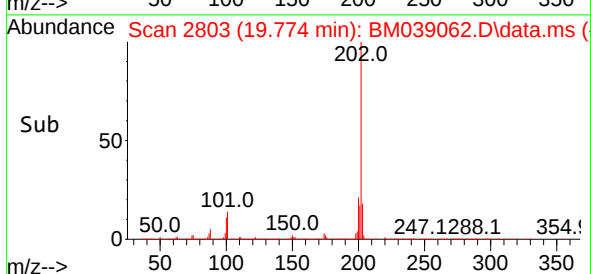
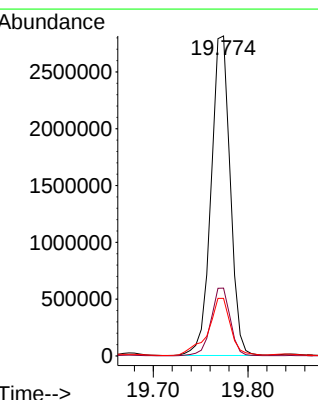
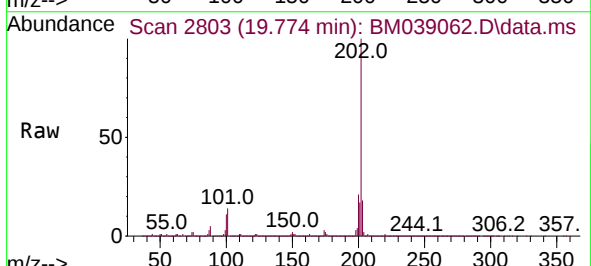
Tgt Ion:202 Resp: 3939079

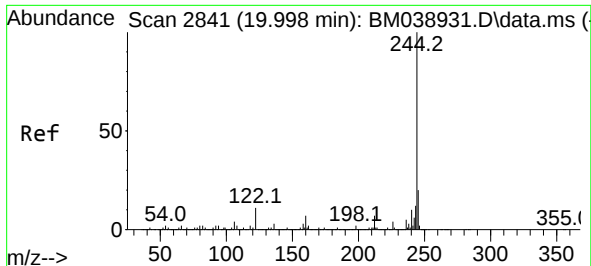
Ion Ratio Lower Upper

202 100

200 21.2 17.1 25.7

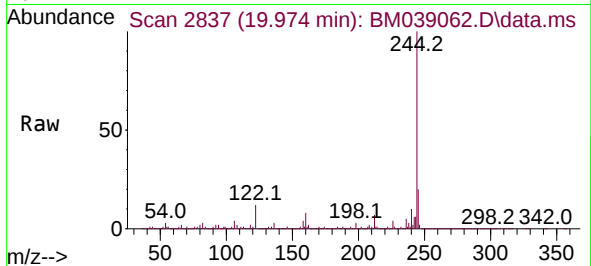
203 18.0 14.1 21.1





#79
Terphenyl-d14
Concen: 57.366 ng
RT: 19.974 min Scan# 2841
Delta R.T. -0.006 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12

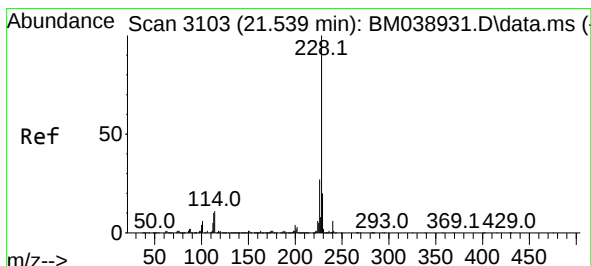
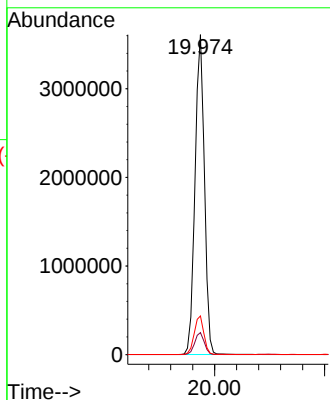
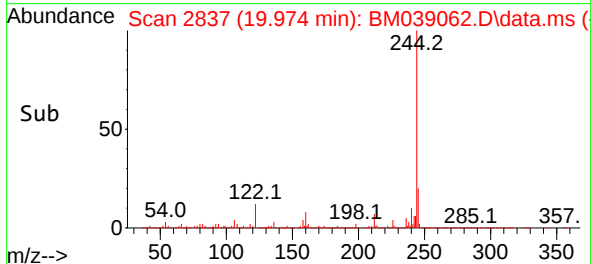
Instrument :
BNA_M
ClientSampleId :
SHELL-ROAD-2



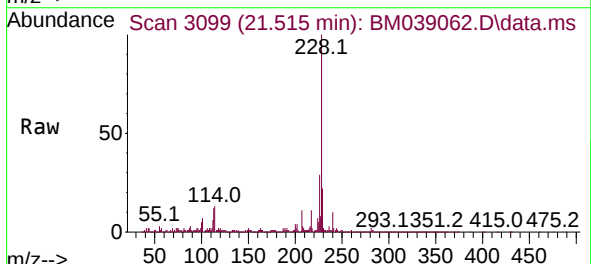
Tgt Ion:244 Resp: 4288384
Ion Ratio Lower Upper
244 100
212 6.9 5.5 8.3
122 12.1 9.0 13.4

Manual Integrations
APPROVED

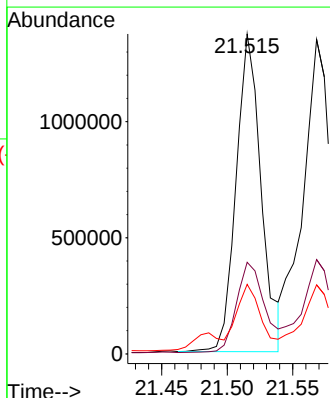
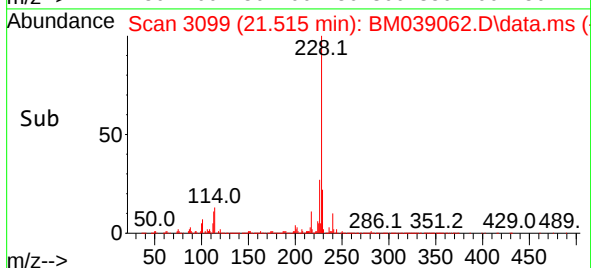
Reviewed By :Christian Giraldo 03/21/2023
Supervised By :Jagrut Upadhyay 03/21/2023

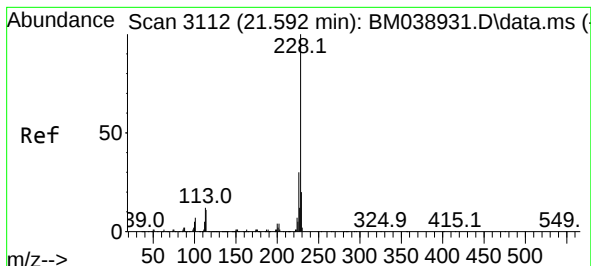


#81
Benzo(a)anthracene
Concen: 18.412 ng
RT: 21.515 min Scan# 3099
Delta R.T. -0.012 min
Lab File: BM039062.D
Acq: 21 Mar 2023 02:12



Tgt Ion:228 Resp: 1812260
Ion Ratio Lower Upper
228 100
226 28.6 21.4 32.2
229 21.7 15.7 23.5





#83

Chrysene

Concen: 20.796 ng

RT: 21.568 min Scan# 3112

Delta R.T. -0.012 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

Instrument :

BNA_M

ClientSampleId :

SHELL-ROAD-2

Tgt Ion:228 Resp: 1990723

Ion Ratio Lower Upper

228 100

226 30.0 24.0 36.0

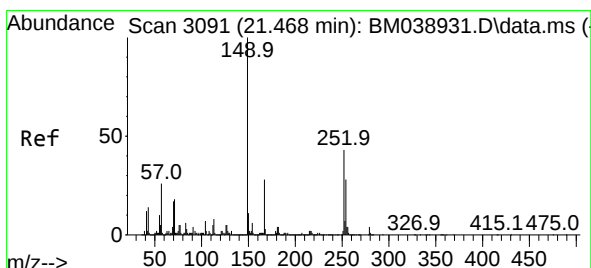
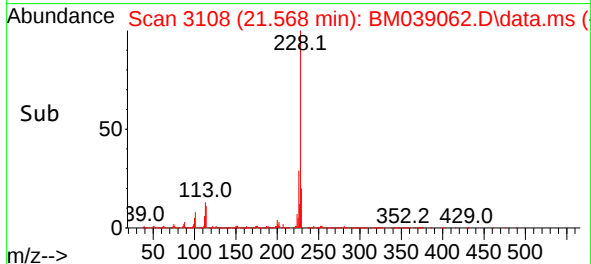
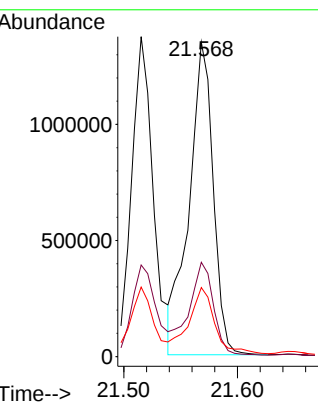
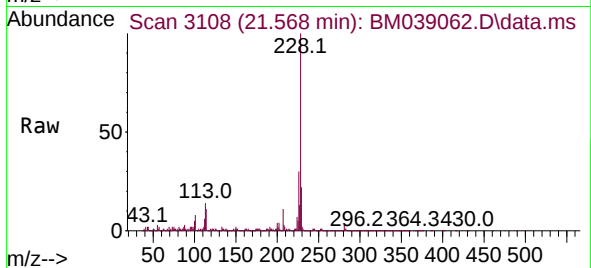
229 21.9 16.0 24.0

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 03/21/2023

Supervised By :Jagrut Upadhyay 03/21/2023



#84

Bis(2-ethylhexyl)phthalate

Concen: 3.461 ng

RT: 21.445 min Scan# 3087

Delta R.T. -0.006 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

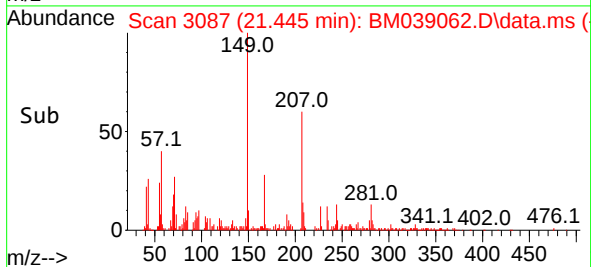
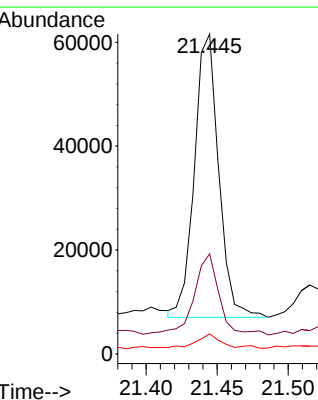
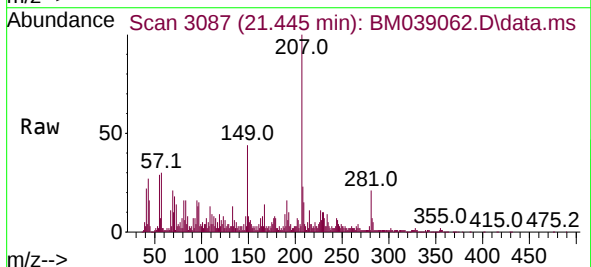
Tgt Ion:149 Resp: 64926

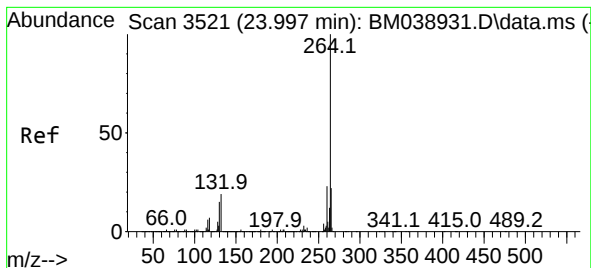
Ion Ratio Lower Upper

149 100

167 31.3 22.3 33.5

279 6.3 3.2 4.8#





#86

Perylene-d12

Concen: 20.000 ng

RT: 23.968 min Scan# 3516

Delta R.T. -0.012 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

Instrument :

BNA_M

ClientSampleId :

SHELL-ROAD-2

Tgt Ion:264 Resp: 1571102

Ion Ratio Lower Upper

264 100

260 23.8 18.7 28.1

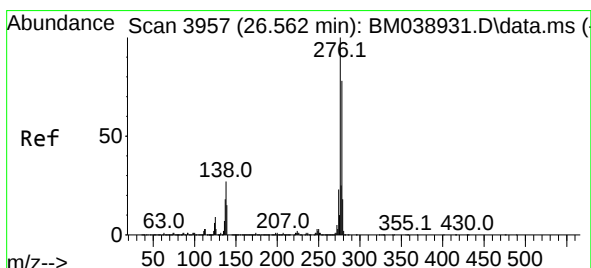
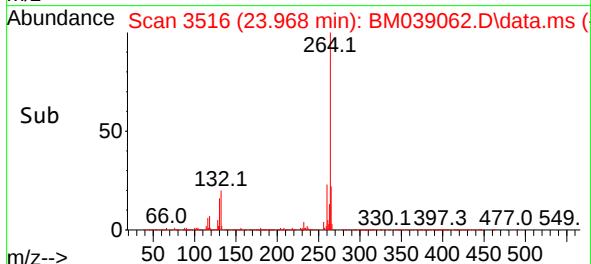
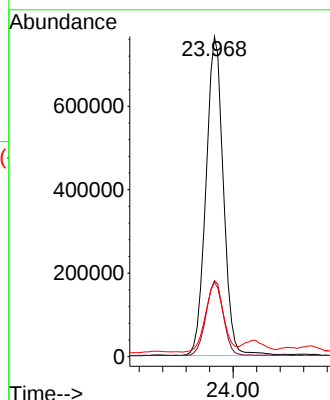
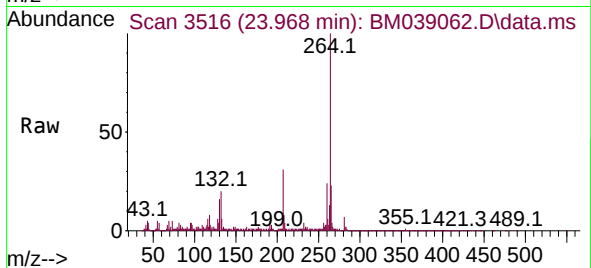
265 23.2 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 03/21/2023

Supervised By :Jagrut Upadhyay 03/21/2023



#87

Indeno(1,2,3-cd)pyrene

Concen: 10.960 ng

RT: 26.497 min Scan# 3946

Delta R.T. -0.023 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

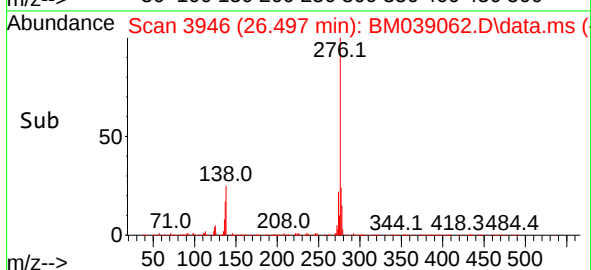
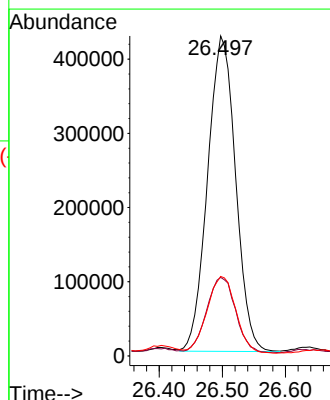
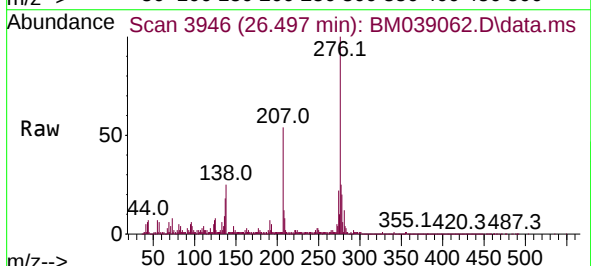
Tgt Ion:276 Resp: 1310235

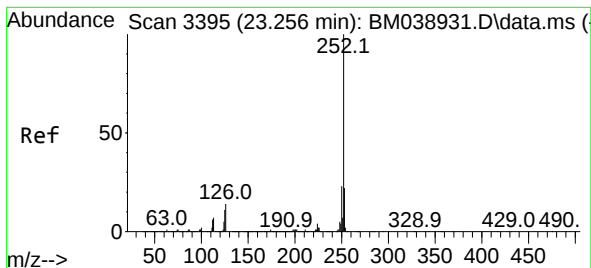
Ion Ratio Lower Upper

276 100

138 24.8 22.1 33.1

277 25.2 20.1 30.1





#88

Benzo(b)fluoranthene

Concen: 25.217 ng m

RT: 23.227 min Scan# 3395

Delta R.T. -0.012 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

Instrument :

BNA_M

ClientSampleId :

SHELL-ROAD-2

Tgt Ion:252 Resp: 253107

Ion Ratio Lower Upper

252 100

253 23.7 17.6 26.4

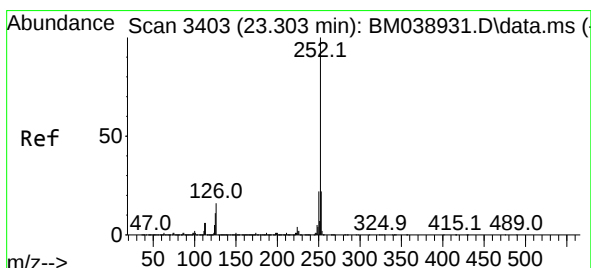
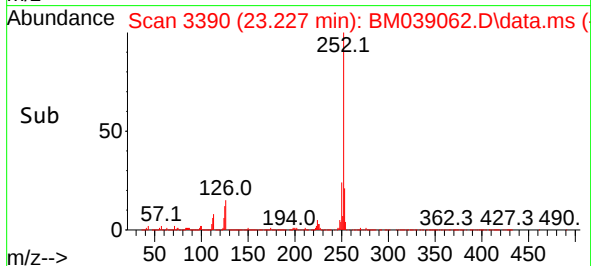
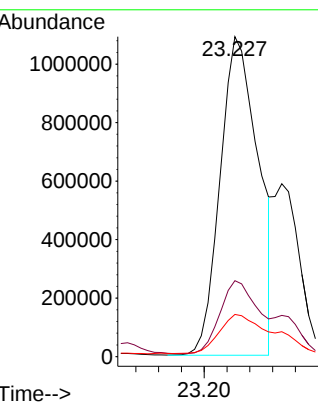
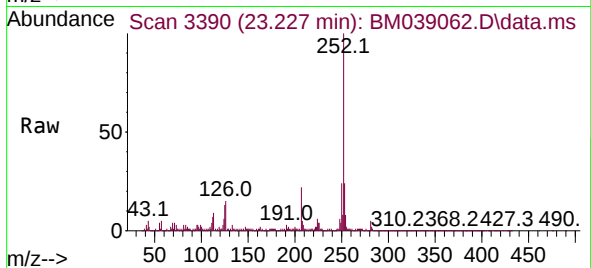
125 13.2 8.8 13.2

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 03/21/2023

Supervised By :Jagrut Upadhyay 03/21/2023



#89

Benzo(k)fluoranthene

Concen: 8.799 ng m

RT: 23.268 min Scan# 3397

Delta R.T. -0.017 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

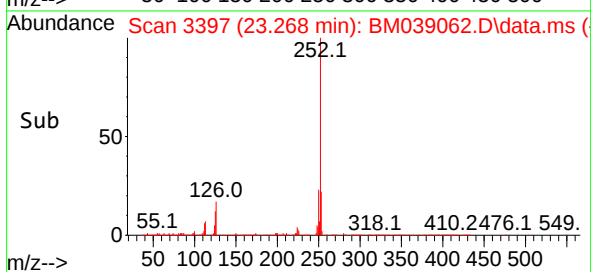
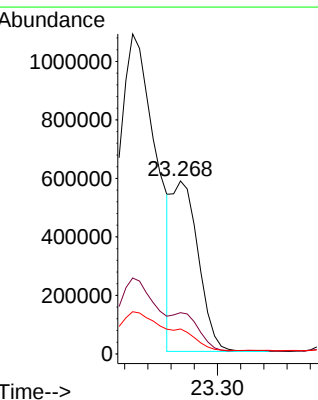
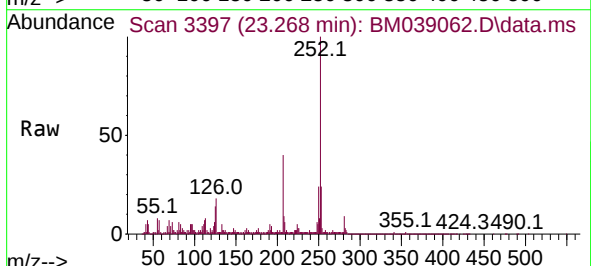
Tgt Ion:252 Resp: 919129

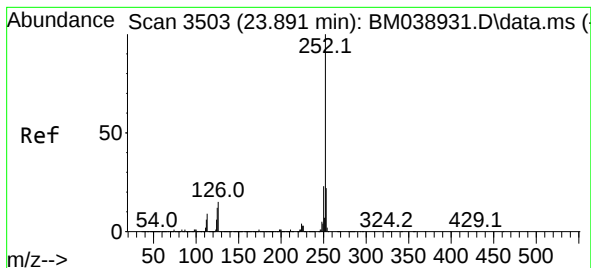
Ion Ratio Lower Upper

252 100

253 23.8 17.5 26.3

125 14.4 8.9 13.3#





#90

Benzo(a)pyrene

Concen: 18.528 ng

RT: 23.862 min Scan# 34

Delta R.T. -0.012 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

Instrument :

BNA_M

ClientSampleId :

SHELL-ROAD-2

Tgt Ion:252 Resp: 178979

Ion Ratio Lower Upper

252 100

253 23.1 17.6 26.4

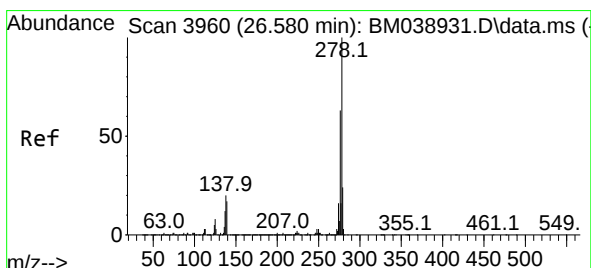
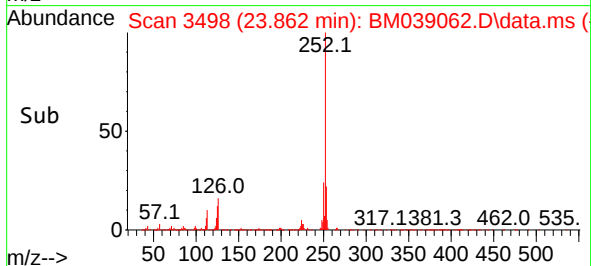
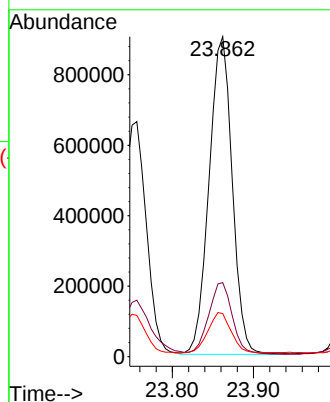
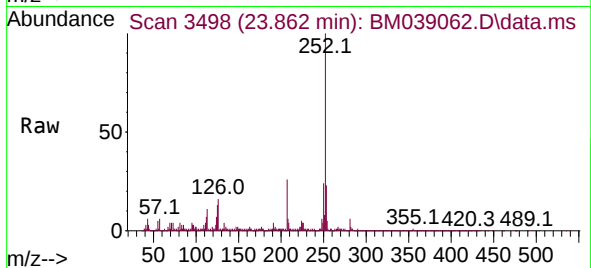
125 13.4 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :Christian Giraldo 03/21/2023

Supervised By :Jagrut Upadhyay 03/21/2023



#91

Dibenzo(a,h)anthracene

Concen: 3.297 ng

RT: 26.509 min Scan# 3948

Delta R.T. -0.029 min

Lab File: BM039062.D

Acq: 21 Mar 2023 02:12

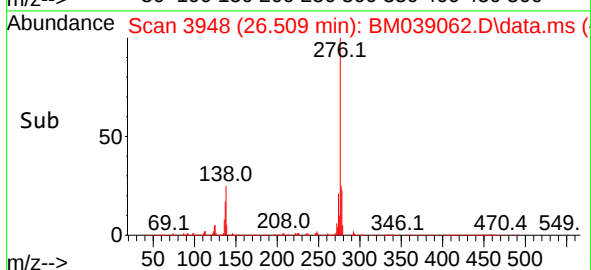
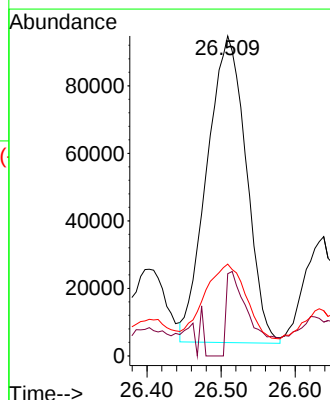
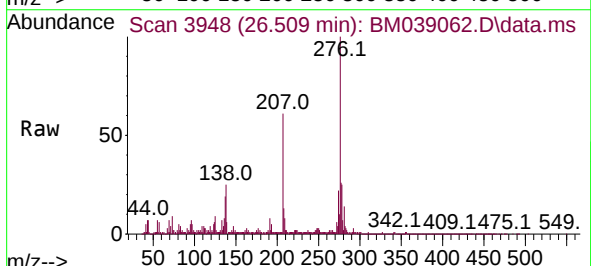
Tgt Ion:278 Resp: 333829

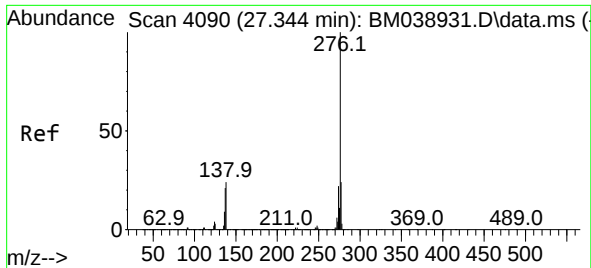
Ion Ratio Lower Upper

278 100

139 25.7 13.7 20.5#

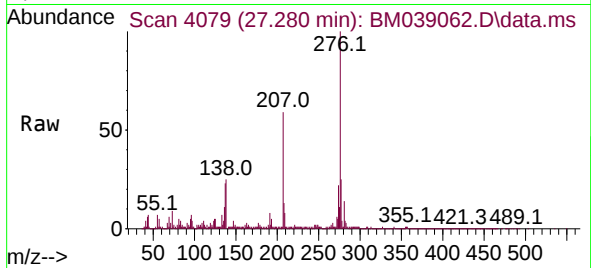
279 28.7 18.9 28.3#





#92
 Benzo(g,h,i)perylene
 Concen: 13.514 ng
 RT: 27.280 min Scan# 4090
 Delta R.T. -0.023 min
 Lab File: BM039062.D
 Acq: 21 Mar 2023 02:12

Instrument :
 BNA_M
 ClientSampleId :
 SHELL-ROAD-2



Tgt Ion: 276 Resp: 133864

Ion	Ratio	Lower	Upper
276	100		
277	24.7	19.3	28.9
138	25.2	19.0	28.6

Manual Integrations
 APPROVED

Reviewed By : Christian Giraldo 03/21/2023
 Supervised By : Jagrut Upadhyay 03/21/2023

