

Data Path : Z:\svoasrv\HPCHEM1\BNA\_M\Data\BM082024\  
 Data File : BM047282.D  
 Acq On : 20 Aug 2024 22:54  
 Operator : RC/JU  
 Sample : P3652-01  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 LIVONIA-SOIL

Quant Time: Aug 21 02:50:58 2024  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_M\Methods\8270-BM081024.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Sun Aug 11 23:47:58 2024  
 Response via : Initial Calibration

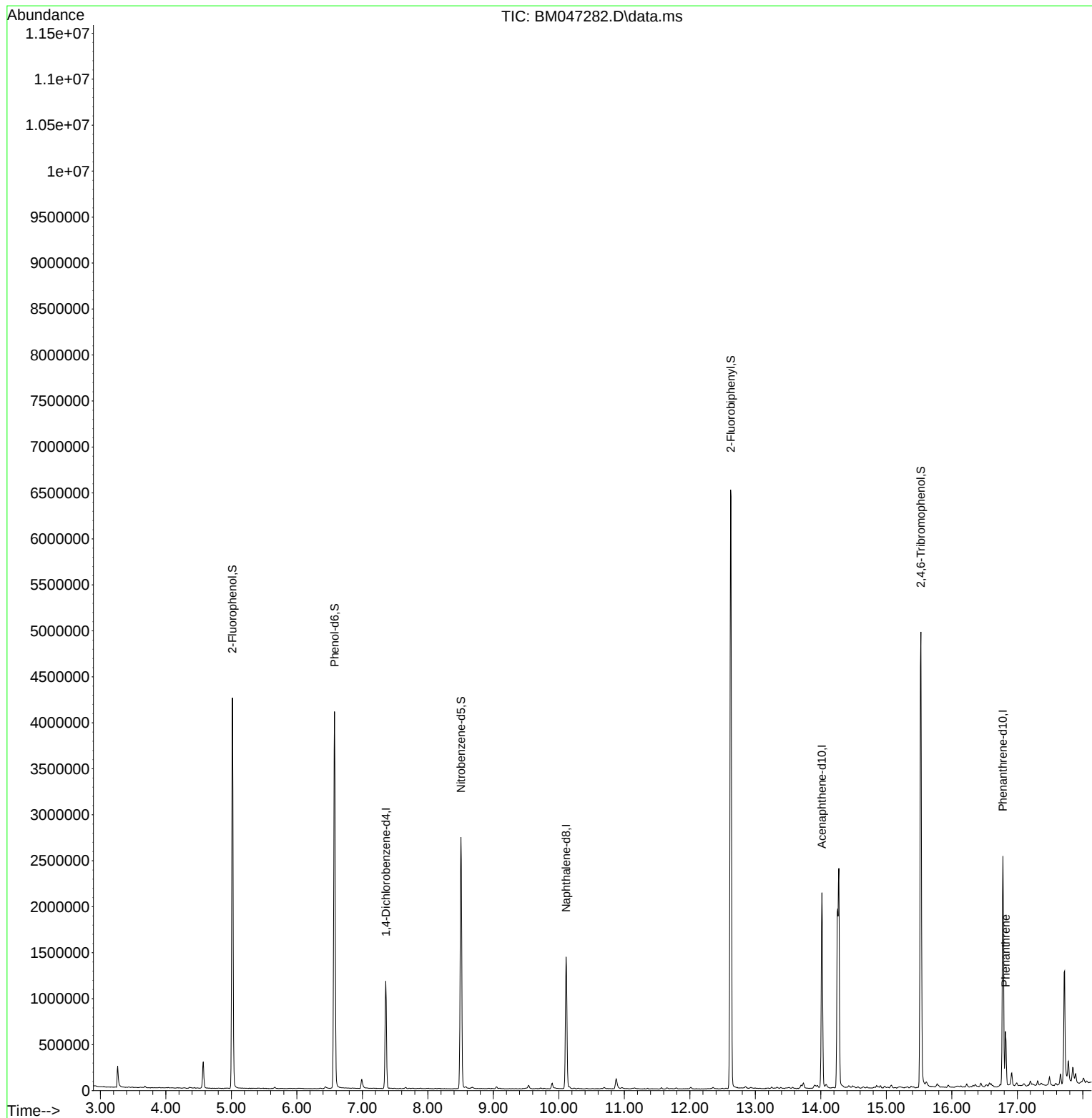
| Compound                    | R.T.   | QIon | Response | Conc      | Units  | Dev(Min) |
|-----------------------------|--------|------|----------|-----------|--------|----------|
| -----                       |        |      |          |           |        |          |
| Internal Standards          |        |      |          |           |        |          |
| 1) 1,4-Dichlorobenzene-d4   | 7.358  | 152  | 312401   | 20.000    | ng     | -0.02    |
| 21) Naphthalene-d8          | 10.110 | 136  | 1173929  | 20.000    | ng     | -0.02    |
| 39) Acenaphthene-d10        | 14.016 | 164  | 750515   | 20.000    | ng     | -0.02    |
| 64) Phenanthrene-d10        | 16.780 | 188  | 1466462  | 20.000    | ng     | -0.01    |
| 76) Chrysene-d12            | 21.021 | 240  | 1120664  | 20.000    | ng     | -0.01    |
| 86) Perylene-d12            | 23.715 | 264  | 1172515  | 20.000    | ng     | -0.01    |
| System Monitoring Compounds |        |      |          |           |        |          |
| 5) 2-Fluorophenol           | 5.016  | 112  | 1787400  | 102.234   | ng     | 0.00     |
| 7) Phenol-d6                | 6.575  | 99   | 2372286  | 98.473    | ng     | -0.01    |
| 23) Nitrobenzene-d5         | 8.505  | 82   | 1605354  | 68.858    | ng     | -0.02    |
| 42) 2,4,6-Tribromophenol    | 15.528 | 330  | 948634   | 109.009   | ng     | -0.01    |
| 45) 2-Fluorobiphenyl        | 12.628 | 172  | 3602771  | 74.048    | ng     | -0.02    |
| 79) Terphenyl-d14           | 19.451 | 244  | 4718156  | 90.213    | ng     | -0.01    |
| Target Compounds            |        |      |          |           |        |          |
|                             |        |      |          |           | Qvalue |          |
| 9) Benzaldehyde             | 6.534  | 77   | 1115     | Below Cal | #      | 56       |
| 71) Phenanthrene            | 16.822 | 178  | 353347   | 4.801     | ng     | 99       |
| 75) Fluoranthene            | 18.857 | 202  | 765144   | 8.548     | ng     | 99       |
| 78) Pyrene                  | 19.221 | 202  | 771573   | 9.642     | ng     | 99       |
| 81) Benzo(a)anthracene      | 21.004 | 228  | 369486   | 4.966     | ng     | 97       |
| 83) Chrysene                | 21.057 | 228  | 352897   | 5.000     | ng     | 98       |
| 87) Indeno(1,2,3-cd)pyrene  | 26.697 | 276  | 216314   | 2.854     | ng     | 95       |
| 88) Benzo(b)fluoranthene    | 22.874 | 252  | 432918   | 6.217     | ng     | 98       |
| 89) Benzo(k)fluoranthene    | 22.874 | 252  | 432918   | 6.582     | ng     | 98       |
| 90) Benzo(a)pyrene          | 23.586 | 252  | 313832   | 5.203     | ng     | 97       |
| 92) Benzo(g,h,i)perylene    | 27.627 | 276  | 223763   | 3.514     | ng     | 97       |
| -----                       |        |      |          |           |        |          |

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

Data Path : Z:\svoasrv\HPCHEM1\BNA\_M\Data\BM082024\  
Data File : BM047282.D  
Acq On : 20 Aug 2024 22:54  
Operator : RC/JU  
Sample : P3652-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

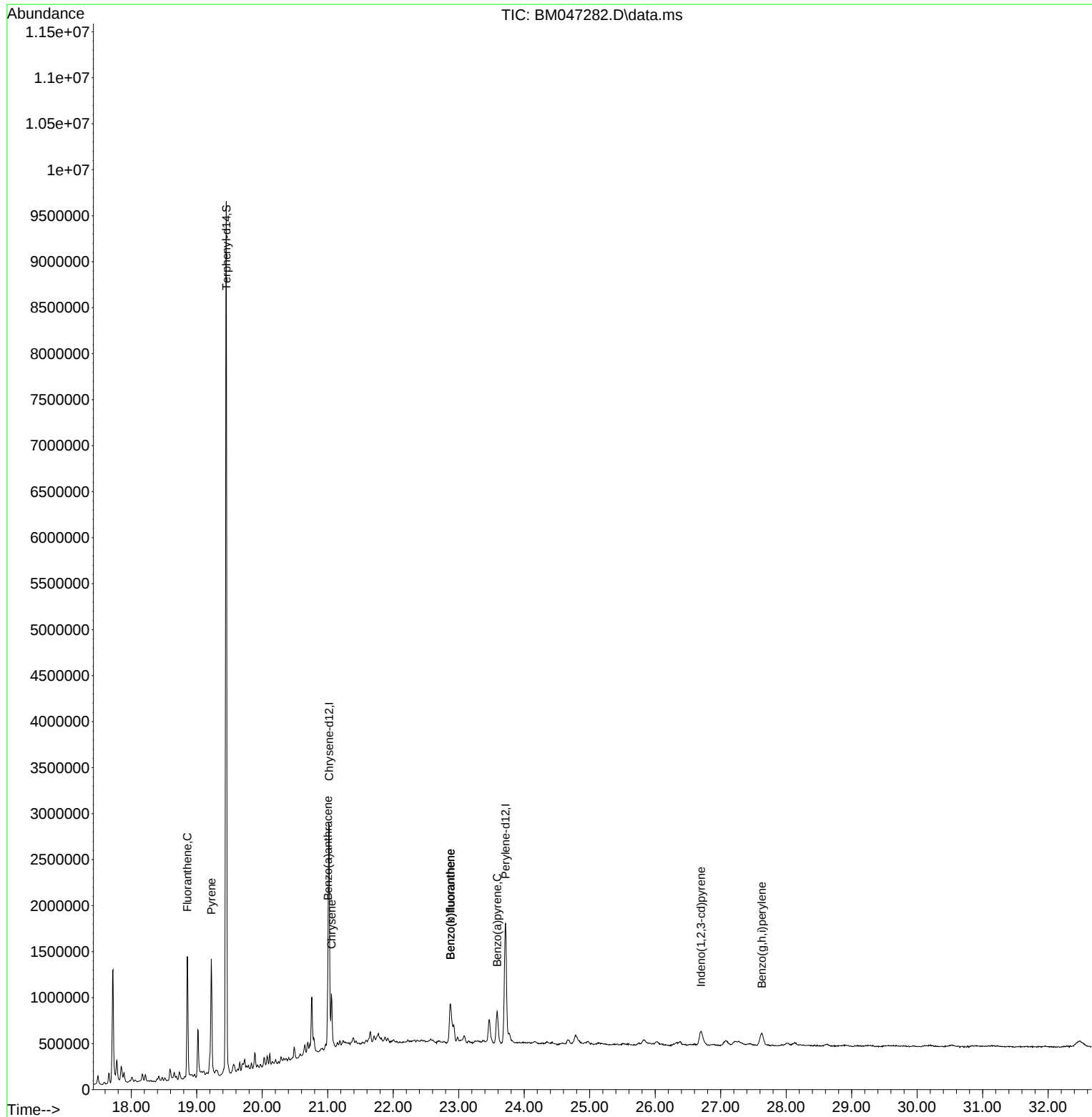
Quant Time: Aug 21 02:50:58 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_M\Methods\8270-BM081024.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sun Aug 11 23:47:58 2024  
Response via : Initial Calibration

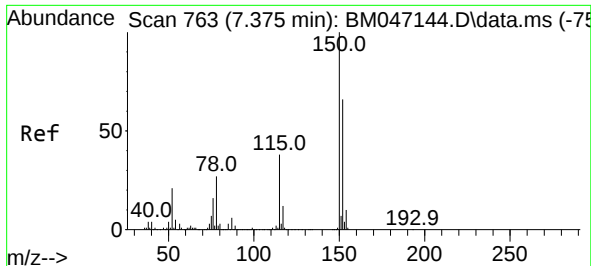


Data Path : Z:\svoasrv\HPCHEM1\BNA\_M\Data\BM082024\  
Data File : BM047282.D  
Acq On : 20 Aug 2024 22:54  
Operator : RC/JU  
Sample : P3652-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

Quant Time: Aug 21 02:50:58 2024  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_M\Methods\8270-BM081024.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Sun Aug 11 23:47:58 2024  
Response via : Initial Calibration

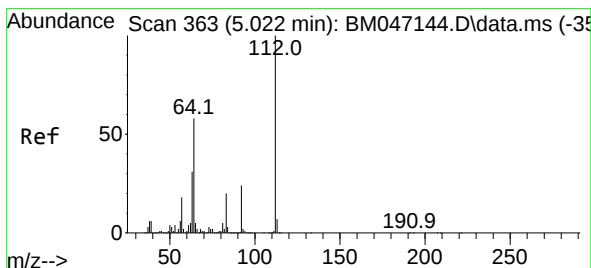
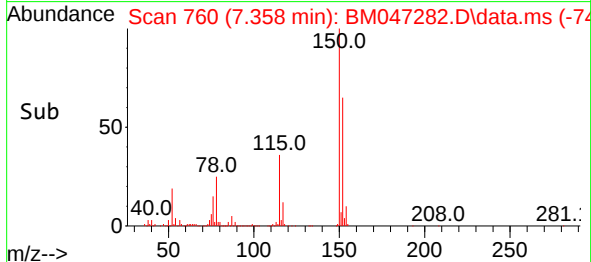
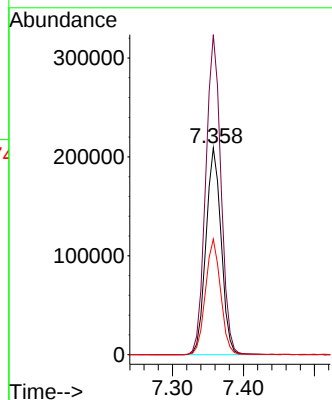
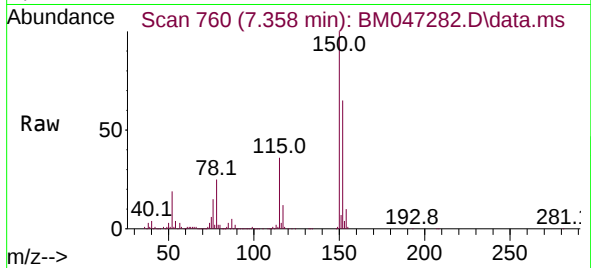




#1  
1,4-Dichlorobenzene-d4  
Concen: 20.000 ng  
RT: 7.358 min Scan# 70  
Delta R.T. -0.017 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

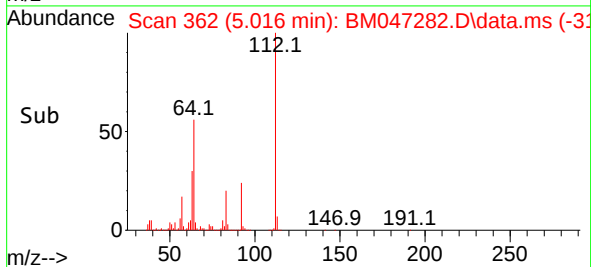
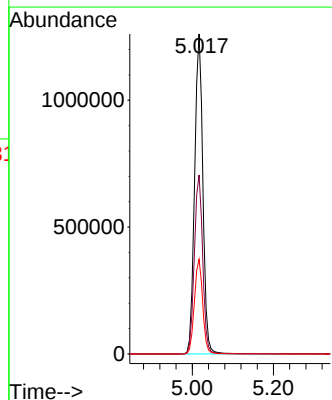
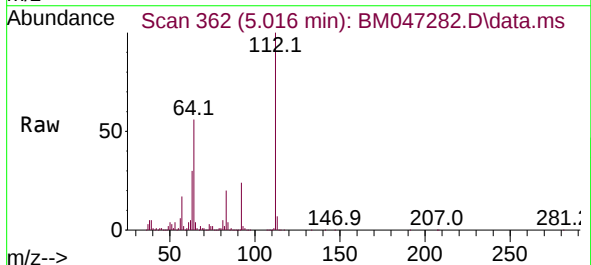
Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

Tgt Ion:152 Resp: 312401  
Ion Ratio Lower Upper  
152 100  
150 154.6 120.5 180.7  
115 55.8 45.5 68.3



#5  
2-Fluorophenol  
Concen: 102.234 ng  
RT: 5.016 min Scan# 362  
Delta R.T. -0.006 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

Tgt Ion:112 Resp: 1787400  
Ion Ratio Lower Upper  
112 100  
64 55.9 46.7 70.1  
63 29.5 24.8 37.2

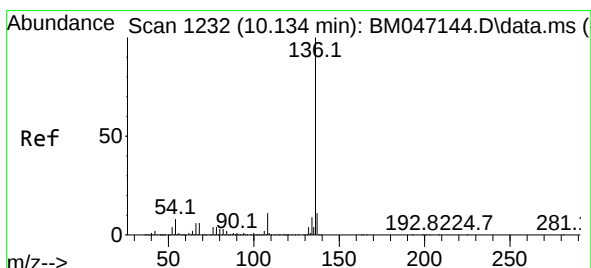
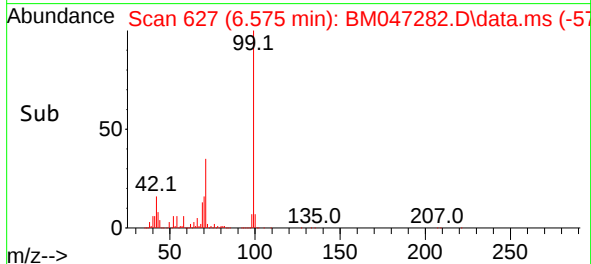
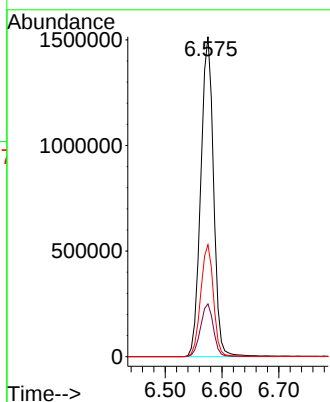
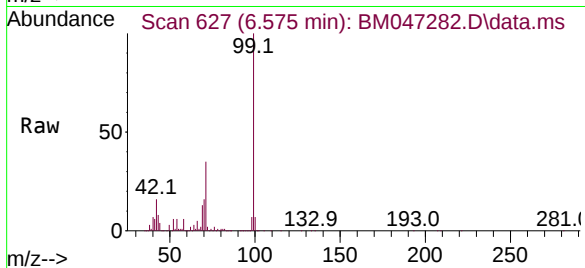




#7  
Phenol-d6  
Concen: 98.473 ng  
RT: 6.575 min Scan# 61  
Delta R.T. -0.012 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

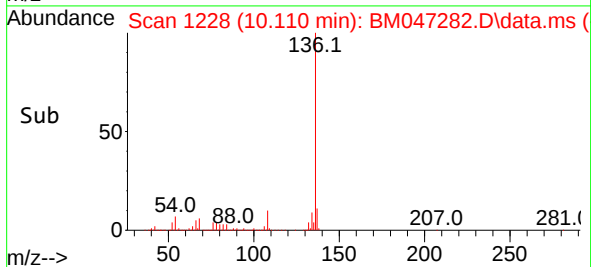
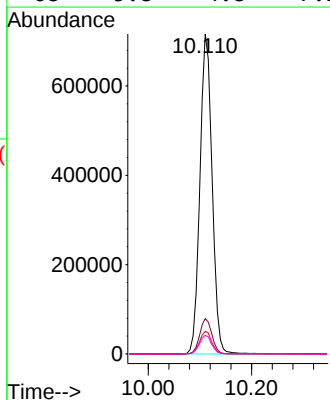
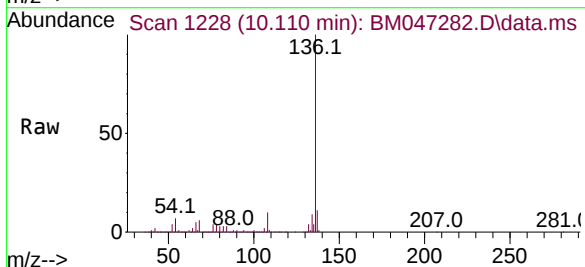
Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

Tgt Ion: 99 Resp: 2372286  
Ion Ratio Lower Upper  
99 100  
42 16.5 14.1 21.1  
71 35.0 28.5 42.7



#21  
Naphthalene-d8  
Concen: 20.000 ng  
RT: 10.110 min Scan# 1228  
Delta R.T. -0.023 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

Tgt Ion: 136 Resp: 1173929  
Ion Ratio Lower Upper  
136 100  
137 11.1 8.8 13.2  
54 7.1 6.0 9.0  
68 5.8 4.8 7.2

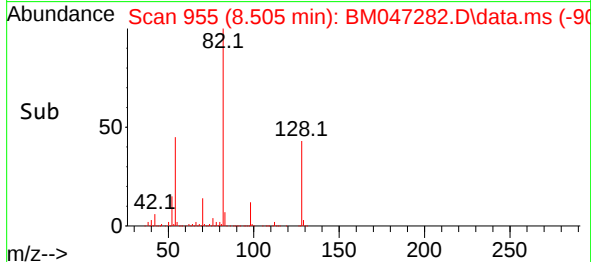
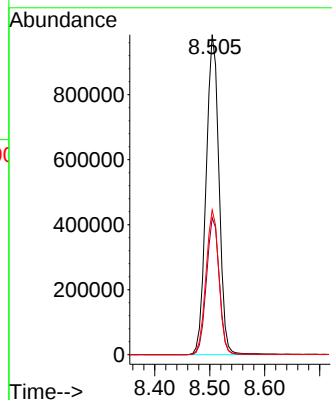
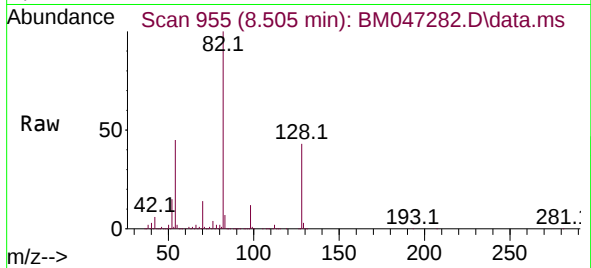




#23  
Nitrobenzene-d5  
Concen: 68.858 ng  
RT: 8.505 min Scan# 91  
Delta R.T. -0.017 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

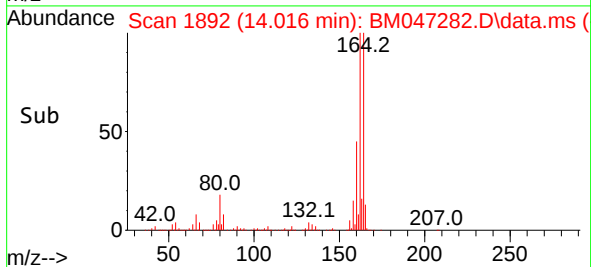
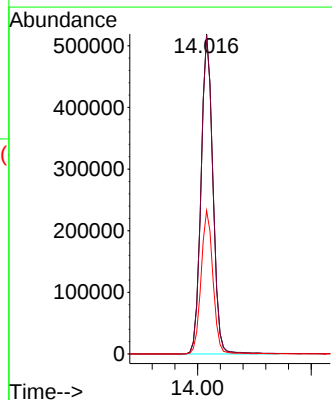
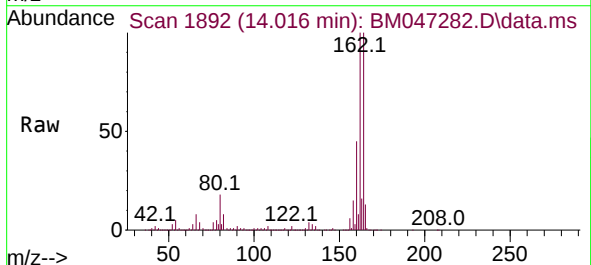
Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

Tgt Ion: 82 Resp: 1605354  
Ion Ratio Lower Upper  
82 100  
128 42.8 32.3 48.5  
54 45.3 37.4 56.2



#39  
Acenaphthene-d10  
Concen: 20.000 ng  
RT: 14.016 min Scan# 1892  
Delta R.T. -0.018 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

Tgt Ion: 164 Resp: 750515  
Ion Ratio Lower Upper  
164 100  
162 99.6 80.7 121.1  
160 44.8 36.0 54.0

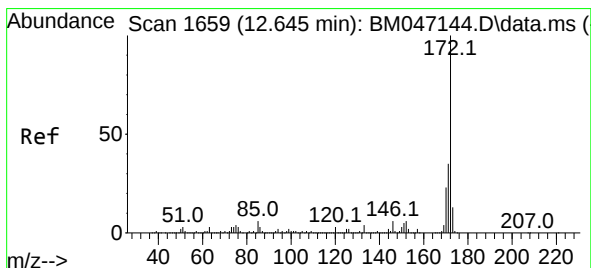
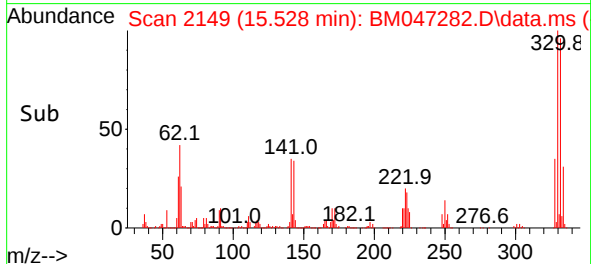
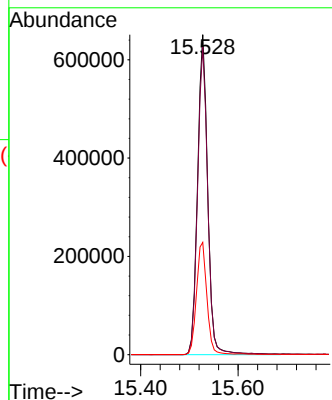
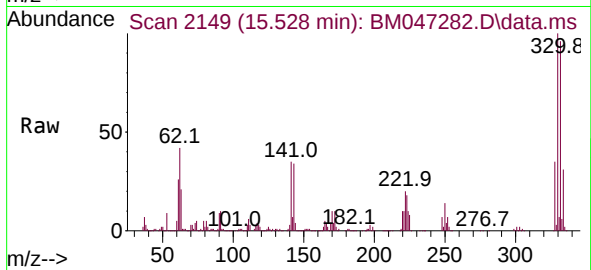




#42  
2,4,6-Tribromophenol  
Concen: 109.009 ng  
RT: 15.528 min Scan# 2151  
Delta R.T. -0.012 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

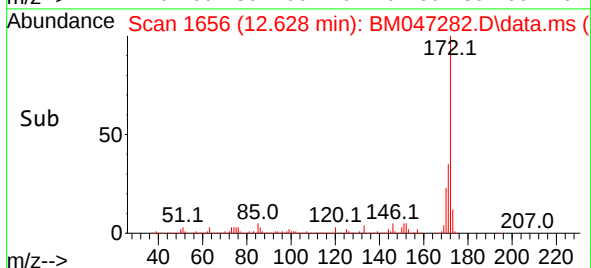
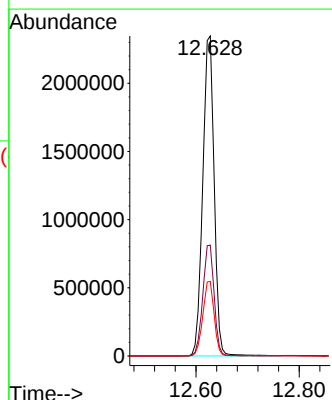
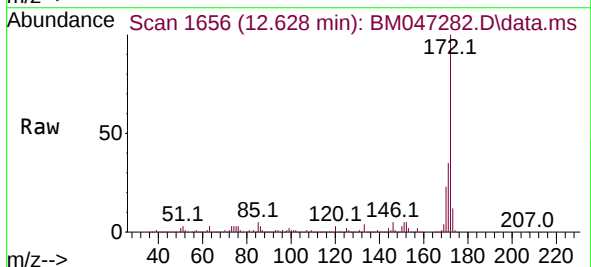
Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

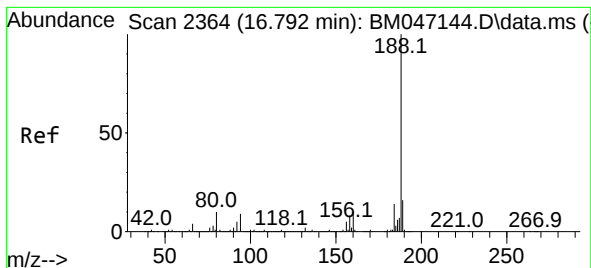
Tgt Ion:330 Resp: 948634  
Ion Ratio Lower Upper  
330 100  
332 95.8 77.4 116.2  
141 35.8 31.6 47.4



#45  
2-Fluorobiphenyl  
Concen: 74.048 ng  
RT: 12.628 min Scan# 1656  
Delta R.T. -0.017 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

Tgt Ion:172 Resp: 3602771  
Ion Ratio Lower Upper  
172 100  
171 34.6 27.8 41.6  
170 23.3 18.7 28.1





#64

Phenanthrene-d10

Concen: 20.000 ng

RT: 16.780 min Scan# 21

Delta R.T. -0.012 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Instrument :

BNA\_M

ClientSampleId :

LIVONIA-SOIL

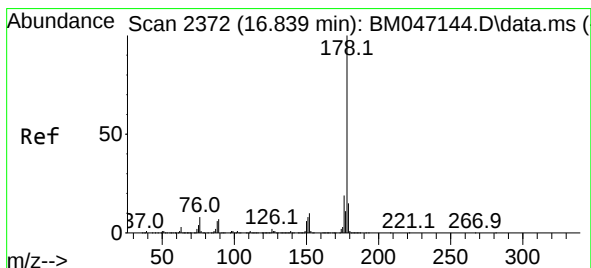
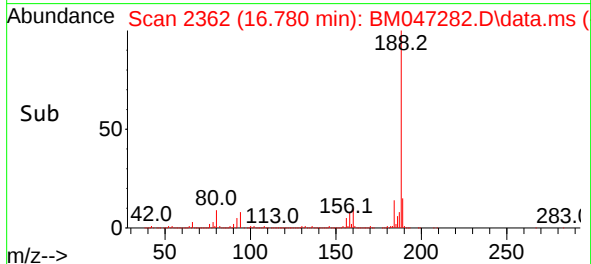
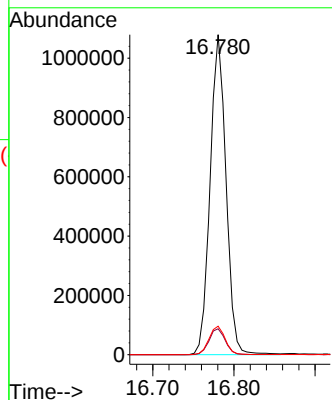
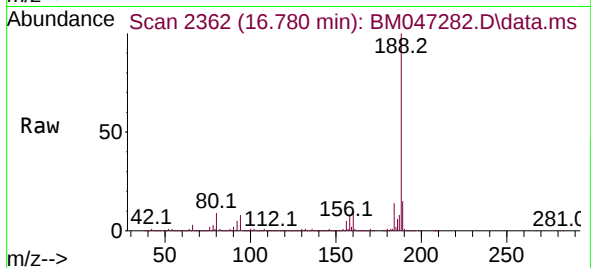
Tgt Ion:188 Resp: 1466462

Ion Ratio Lower Upper

188 100

94 8.1 7.0 10.6

80 8.9 8.0 12.0



#71

Phenanthrene

Concen: 4.801 ng

RT: 16.822 min Scan# 2369

Delta R.T. -0.017 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

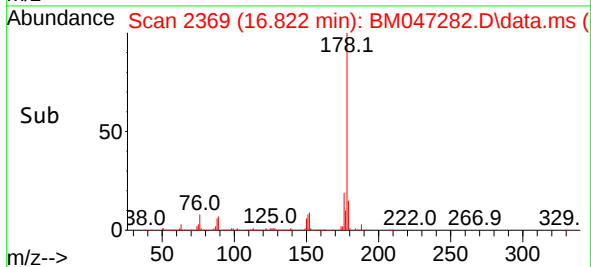
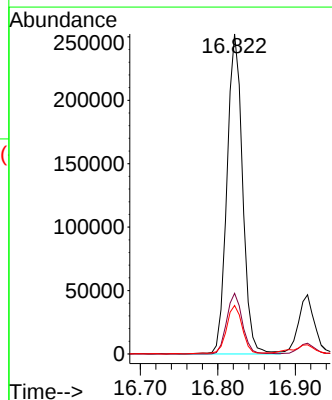
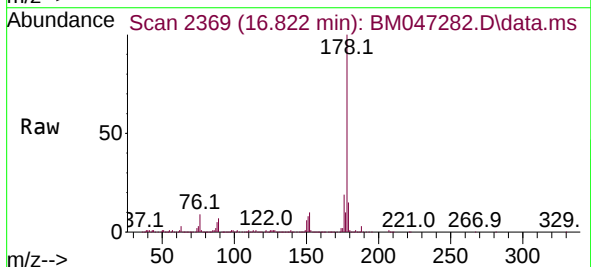
Tgt Ion:178 Resp: 353347

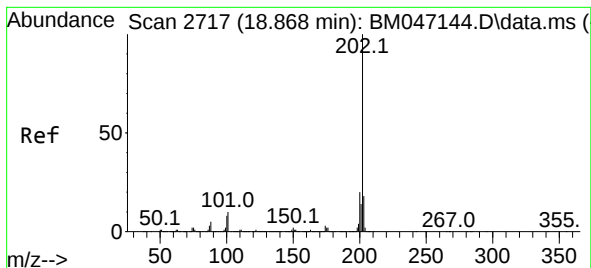
Ion Ratio Lower Upper

178 100

176 18.9 15.3 22.9

179 15.2 12.4 18.6





#75

Fluoranthene

Concen: 8.548 ng

RT: 18.857 min Scan# 21

Delta R.T. -0.012 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Instrument :

BNA\_M

ClientSampleId :

LIVONIA-SOIL

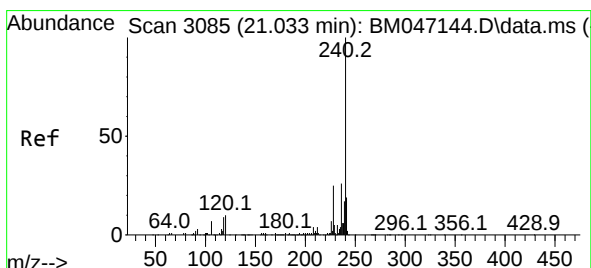
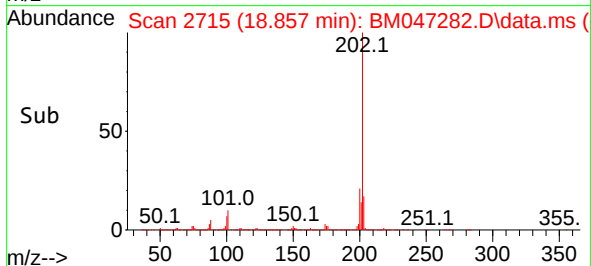
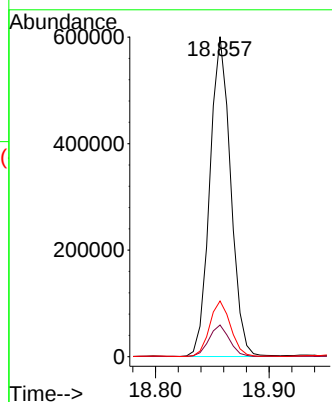
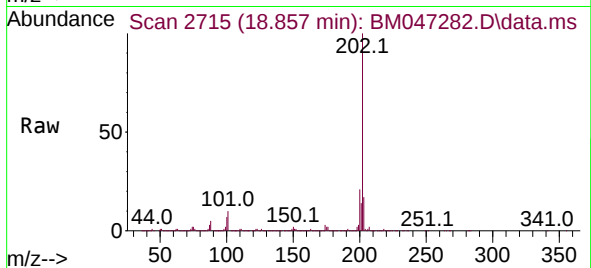
Tgt Ion:202 Resp: 765144

Ion Ratio Lower Upper

202 100

101 9.9 0.0 30.2

203 17.4 0.0 37.6



#76

Chrysene-d12

Concen: 20.000 ng

RT: 21.021 min Scan# 3083

Delta R.T. -0.012 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

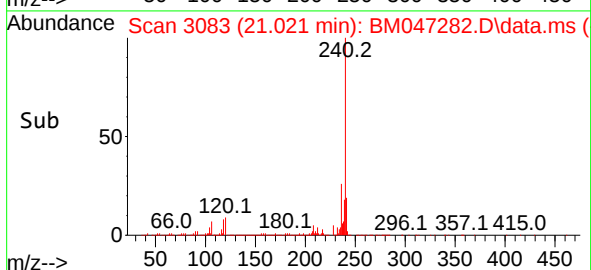
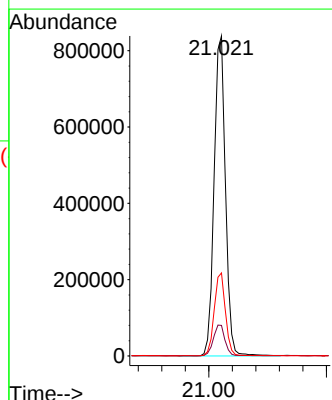
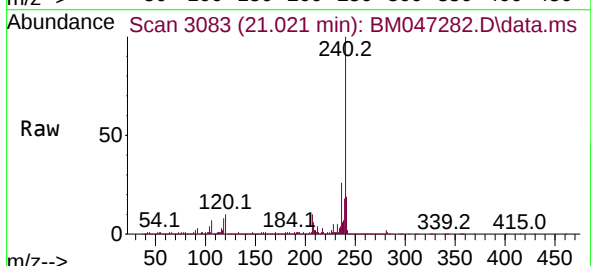
Tgt Ion:240 Resp: 1120664

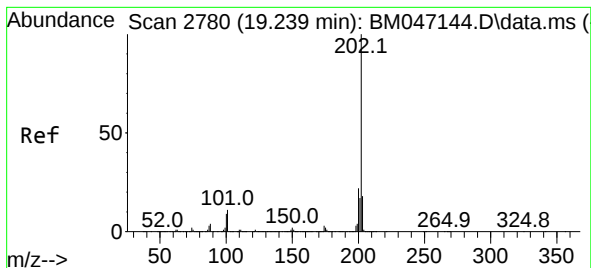
Ion Ratio Lower Upper

240 100

120 9.5 8.2 12.2

236 25.9 20.6 30.8





#78

Pyrene

Concen: 9.642 ng

RT: 19.221 min Scan# 21

Delta R.T. -0.017 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Instrument :

BNA\_M

ClientSampleId :

LIVONIA-SOIL

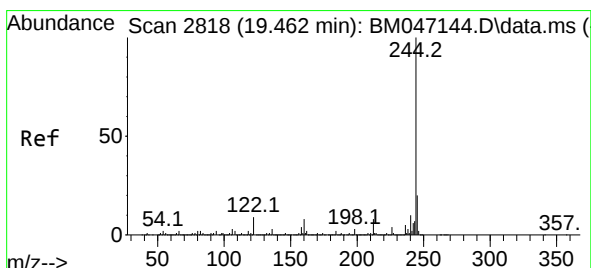
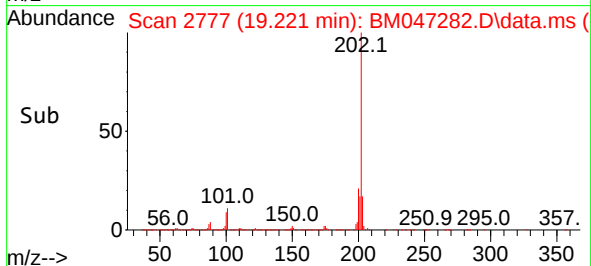
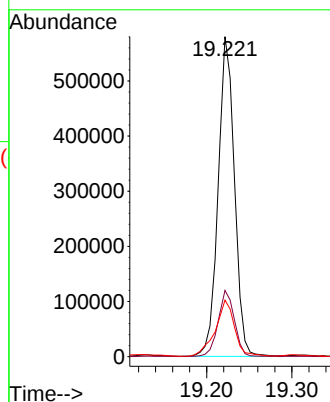
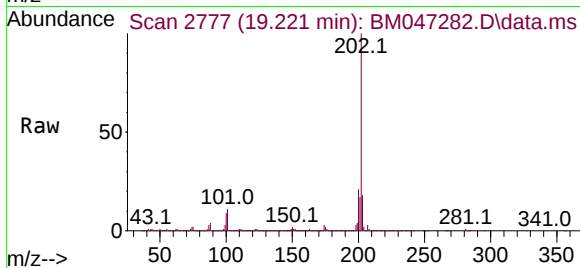
Tgt Ion:202 Resp: 771573

Ion Ratio Lower Upper

202 100

200 20.7 17.2 25.8

203 17.7 14.2 21.2



#79

Terphenyl-d14

Concen: 90.213 ng

RT: 19.451 min Scan# 2816

Delta R.T. -0.012 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

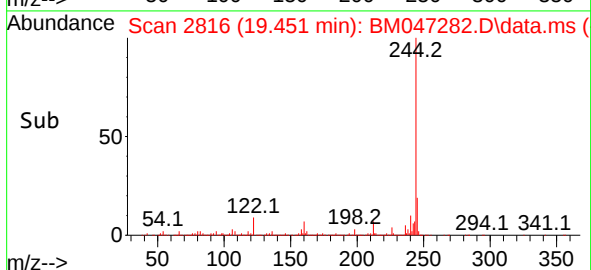
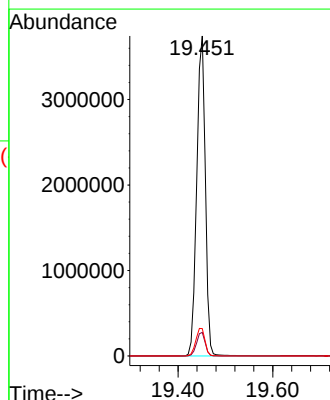
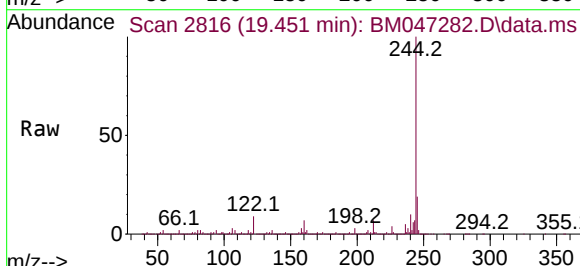
Tgt Ion:244 Resp: 4718156

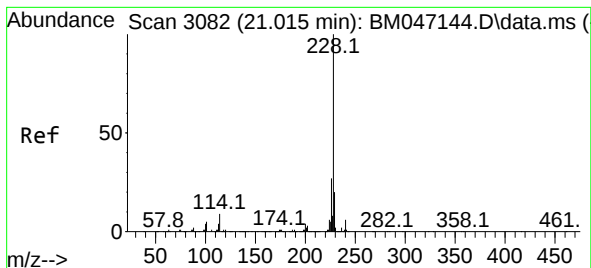
Ion Ratio Lower Upper

244 100

212 7.4 6.2 9.4

122 8.5 7.1 10.7





#81

Benzo(a)anthracene

Concen: 4.966 ng

RT: 21.004 min Scan# 3082

Delta R.T. -0.012 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Instrument :

BNA\_M

ClientSampleId :

LIVONIA-SOIL

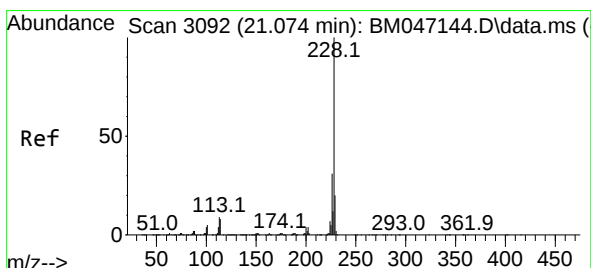
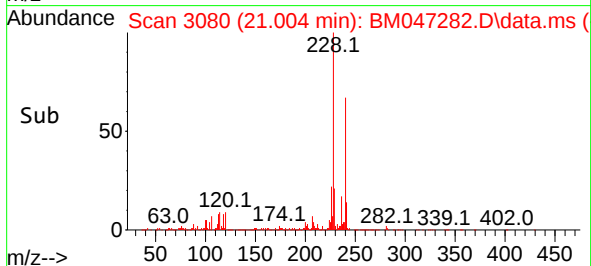
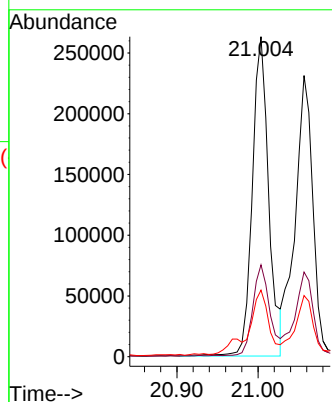
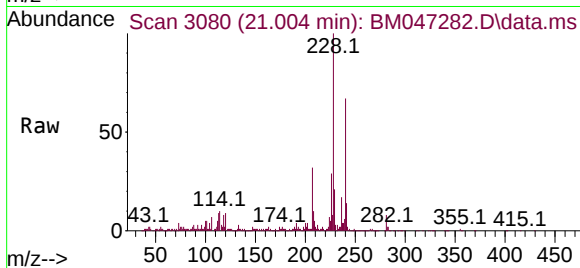
Tgt Ion:228 Resp: 369486

Ion Ratio Lower Upper

228 100

226 28.7 21.8 32.6

229 20.8 15.8 23.8



#83

Chrysene

Concen: 5.000 ng

RT: 21.057 min Scan# 3089

Delta R.T. -0.017 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

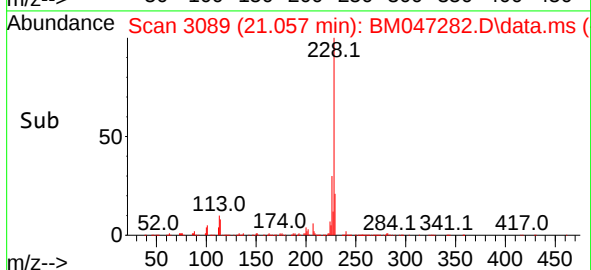
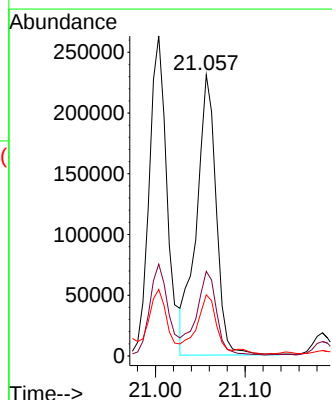
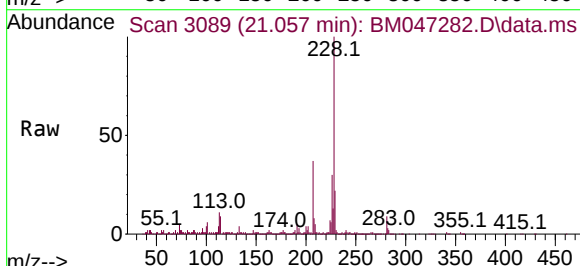
Tgt Ion:228 Resp: 352897

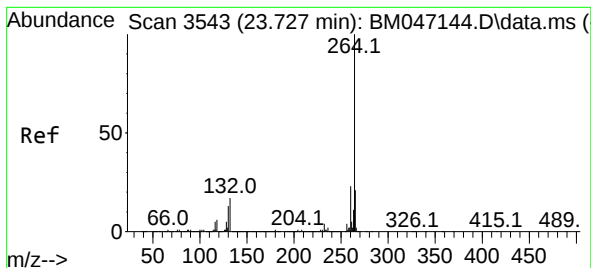
Ion Ratio Lower Upper

228 100

226 30.1 24.4 36.6

229 21.8 15.7 23.5





#86

Perylene-d12

Concen: 20.000 ng

RT: 23.715 min Scan# 3

Delta R.T. -0.012 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Instrument :

BNA\_M

ClientSampleId :

LIVONIA-SOIL

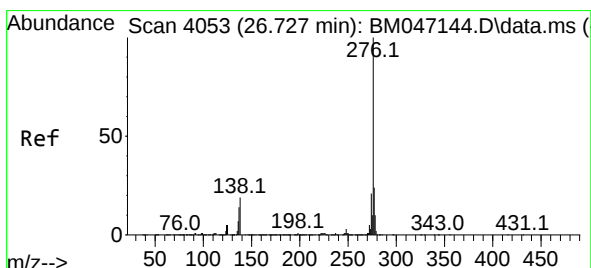
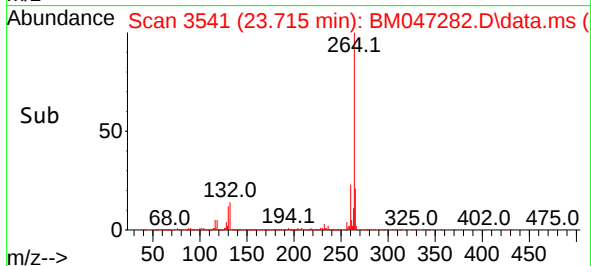
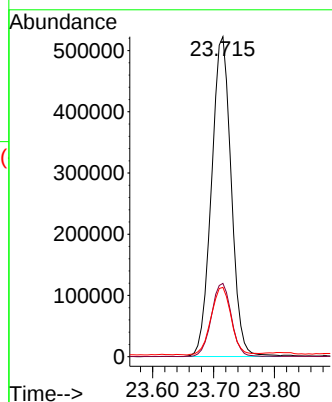
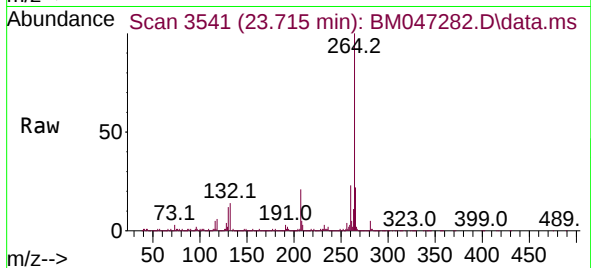
Tgt Ion:264 Resp: 1172515

Ion Ratio Lower Upper

264 100

260 22.9 18.5 27.7

265 21.7 17.3 25.9



#87

Indeno(1,2,3-cd)pyrene

Concen: 2.854 ng

RT: 26.697 min Scan# 4048

Delta R.T. -0.029 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

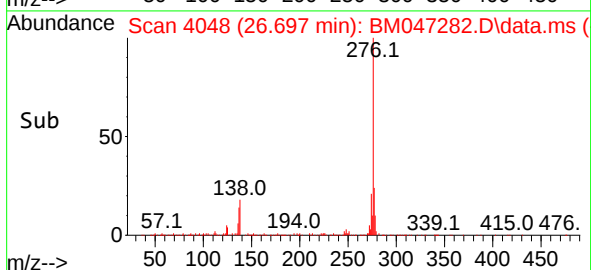
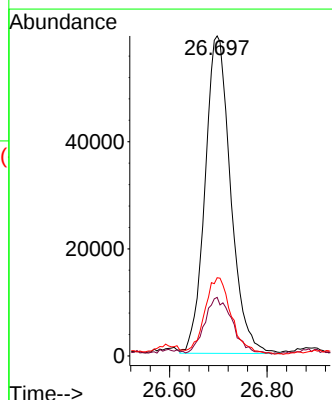
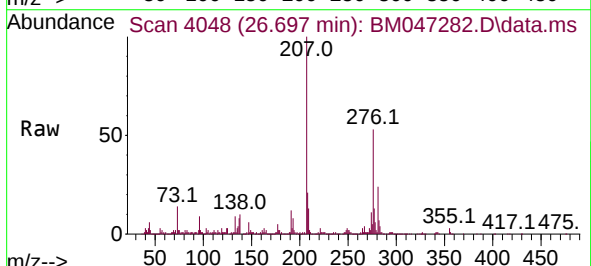
Tgt Ion:276 Resp: 216314

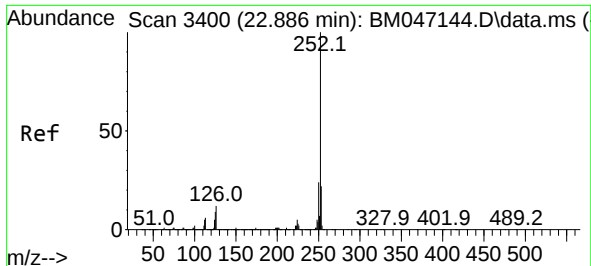
Ion Ratio Lower Upper

276 100

138 19.4 19.4 29.0

277 24.6 20.1 30.1

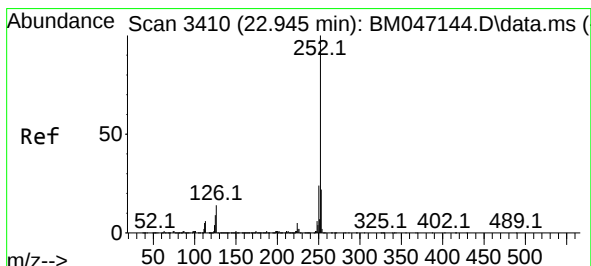
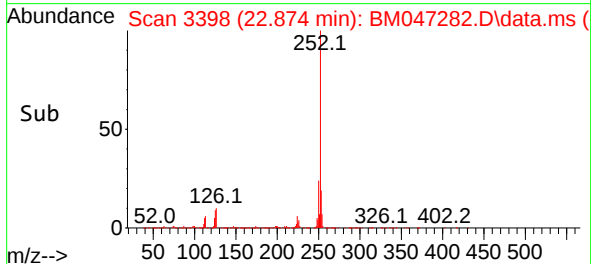
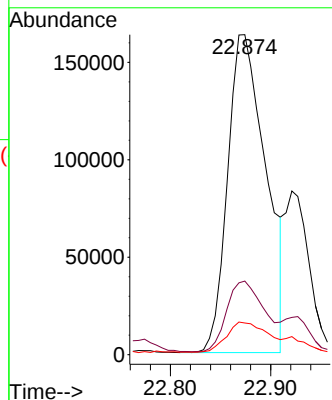
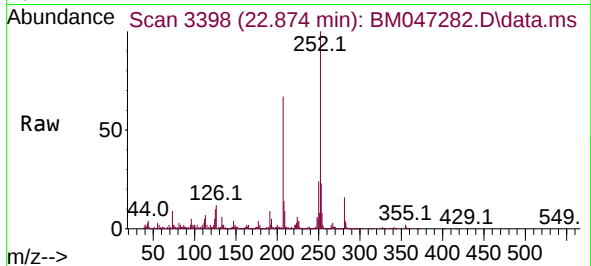




#88  
Benzo(b)fluoranthene  
Concen: 6.217 ng  
RT: 22.874 min Scan# 31  
Delta R.T. -0.012 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

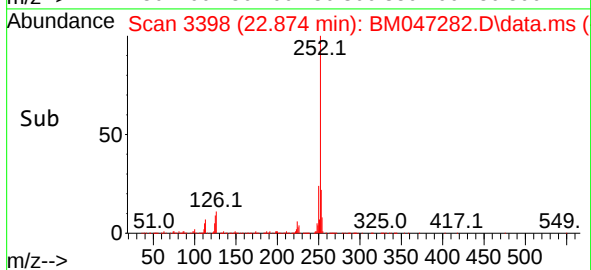
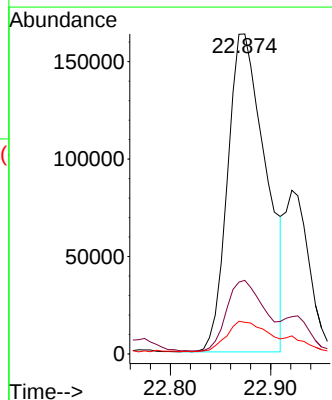
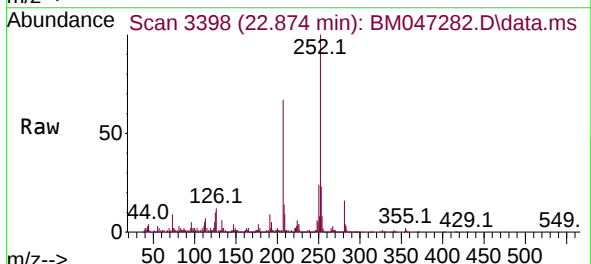
Instrument :  
BNA\_M  
ClientSampleId :  
LIVONIA-SOIL

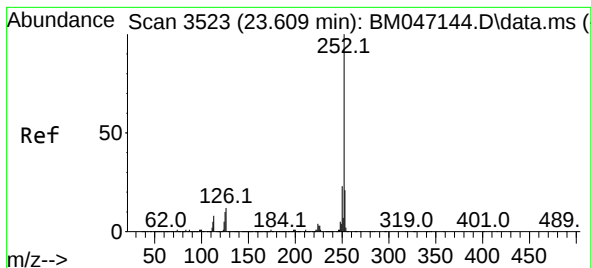
Tgt Ion:252 Resp: 432918  
Ion Ratio Lower Upper  
252 100  
253 23.0 17.8 26.6  
125 9.9 7.4 11.0



#89  
Benzo(k)fluoranthene  
Concen: 6.582 ng  
RT: 22.874 min Scan# 3398  
Delta R.T. -0.070 min  
Lab File: BM047282.D  
Acq: 20 Aug 2024 22:54

Tgt Ion:252 Resp: 432918  
Ion Ratio Lower Upper  
252 100  
253 23.0 17.7 26.5  
125 9.9 7.4 11.2





#90

Benzo(a)pyrene

Concen: 5.203 ng

RT: 23.586 min Scan# 31

Delta R.T. -0.023 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Instrument :

BNA\_M

ClientSampleId :

LIVONIA-SOIL

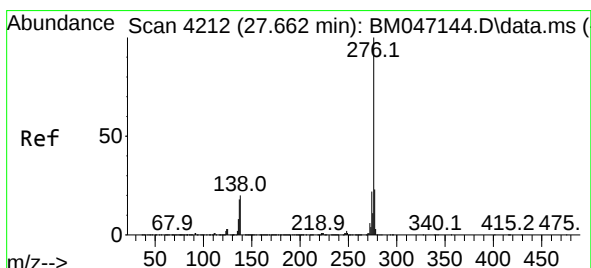
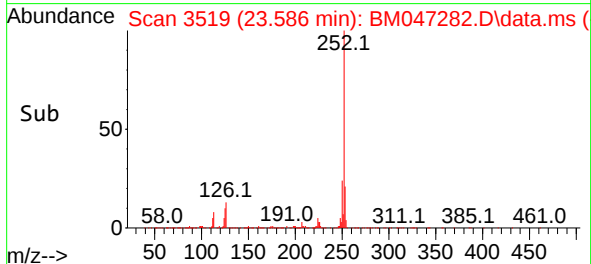
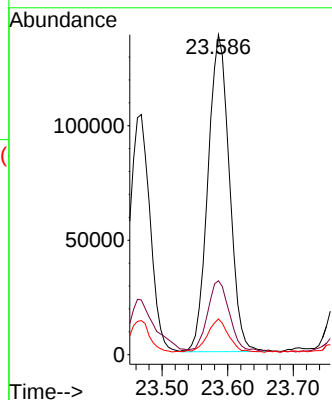
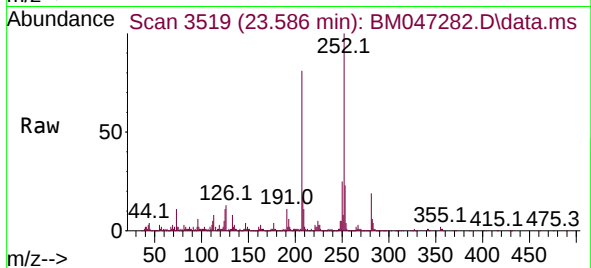
Tgt Ion:252 Resp: 313832

Ion Ratio Lower Upper

252 100

253 23.1 17.1 25.7

125 11.2 8.2 12.2



#92

Benzo(g,h,i)perylene

Concen: 3.514 ng

RT: 27.627 min Scan# 4206

Delta R.T. -0.035 min

Lab File: BM047282.D

Acq: 20 Aug 2024 22:54

Tgt Ion:276 Resp: 223763

Ion Ratio Lower Upper

276 100

277 24.7 18.8 28.2

138 18.8 16.2 24.4

