

Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM101919\  
 Data File : BM023283.D  
 Acq On : 19 Oct 2019 12:07  
 Operator : JU  
 Sample : K5345-09DL 10X  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 ETOK2DL

Manual Integrations  
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mohammad  
 10/22/2019 1:45:03 AM

Quant Time: Oct 19 23:52:25 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM101419MA.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Sat Oct 19 23:34:34 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 7.65  | 152  | 346774   | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.43 | 136  | 1355583  | 20.00 | ng/ul | 0.00     |
| 36) Acenaphthene-d10      | 14.30 | 164  | 809365   | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.04 | 188  | 1631378  | 20.00 | ng/ul | 0.00     |
| 78) Chrysene-d12          | 21.23 | 240  | 1713848  | 20.00 | ng/ul | 0.00     |
| 86) Perylene-d12          | 23.43 | 264  | 2045699  | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |      |       |      |
|--------------------------------|-------|-----|--------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 3.18  | 96  | 3564   | 0.45 | ng/uL | 0.01 |
| 5) Phenol-d5                   | 6.82  | 99  | 46217  | 1.53 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 6.99  | 67  | 30367  | 1.78 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.19  | 132 | 39713  | 1.72 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.36  | 113 | 36316  | 1.50 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 8.80  | 128 | 17287  | 1.88 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.52  | 143 | 16503  | 1.89 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.06 | 165 | 35971  | 1.62 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 10.57 | 131 | 47878  | 1.77 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 13.72 | 166 | 120326 | 1.94 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 13.99 | 160 | 130993 | 1.80 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.50 | 143 | 6185   | 0.62 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.29 | 176 | 107833 | 2.04 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 15.41 | 200 | 5066   | 0.78 | ng/ul | 0.00 |
| 71) Anthracene-d10             | 17.14 | 188 | 166096 | 2.11 | ng/ul | 0.00 |
| 79) Pyrene-d10                 | 19.43 | 212 | 192519 | 2.32 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 23.29 | 264 | 214599 | 2.07 | ng/ul | 0.00 |

## Target Compounds

|                            |       |     |         |        | Ovalue |    |
|----------------------------|-------|-----|---------|--------|--------|----|
| 28) Naphthalene            | 10.48 | 128 | 6566263 | 93.716 | ng/ul  | 99 |
| 34) 2-Methylnaphthalene    | 12.10 | 142 | 876444  | 16.810 | ng/ul  | 97 |
| 41) 1,1'-Biphenyl          | 13.13 | 154 | 202941  | 3.295  | ng/ul  | 97 |
| 48) Acenaphthylene         | 14.02 | 152 | 83136   | 1.118  | ng/ul  | 96 |
| 50) Acenaphthene           | 14.36 | 153 | 630710  | 12.178 | ng/ul  | 98 |
| 54) Dibenzofuran           | 14.70 | 168 | 732252  | 9.959  | ng/ul  | 99 |
| 59) Fluorene               | 15.35 | 166 | 590645  | 9.791  | ng/ul  | 99 |
| 70) Phenanthrene           | 17.09 | 178 | 2898747 | 31.662 | ng/ul  | 99 |
| 72) Anthracene             | 17.17 | 178 | 346902  | 3.667  | ng/ul  | 99 |
| 75) Carbazole              | 17.44 | 167 | 165792  | 1.962  | ng/ul  | 98 |
| 77) Fluoranthene           | 19.10 | 202 | 2088748 | 19.183 | ng/ul  | 99 |
| 80) Pyrene                 | 19.46 | 202 | 1478702 | 13.773 | ng/ul  | 98 |
| 83) Benzo(a)anthracene     | 21.22 | 228 | 722373  | 6.221  | ng/ul  | 96 |
| 85) Chrysene               | 21.27 | 228 | 409564  | 3.798  | ng/ul  | 98 |
| 88) Benzo(b)fluoranthene   | 22.78 | 252 | 645962  | 5.208  | ng/ul  | 97 |
| 89) Benzo(k)fluoranthene   | 22.81 | 252 | 227786m | 1.913  | ng/ul  |    |
| 91) Benzo(a)pyrene         | 23.34 | 252 | 429183  | 3.607  | ng/ul  | 96 |
| 92) Indeno(1,2,3-cd)pyrene | 25.64 | 276 | 206952  | 1.462  | ng/ul  | 99 |
| 94) Benzo(g,h,i)perylene   | 26.31 | 276 | 180036  | 1.545  | ng/ul  | 99 |

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

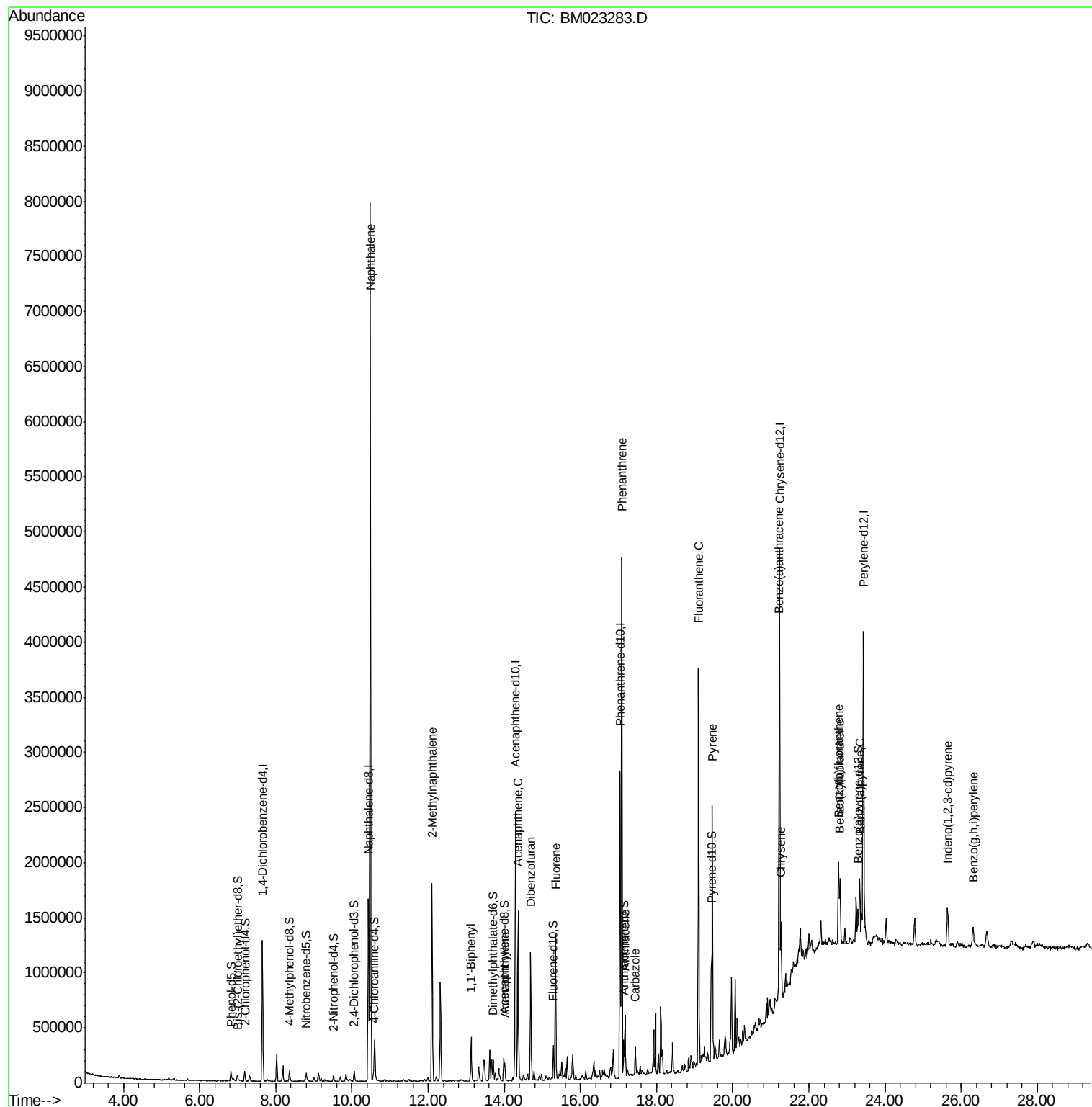
Data Path : Z:\SVOASRV\HPCHEM1\BNA M\DATA\BM101919\  
Data File : BM023283.D  
Acq On : 19 Oct 2019 12:07  
Operator : JU  
Sample : K5345-09DL 10X  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

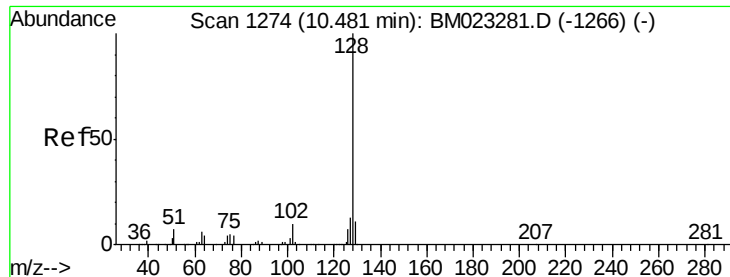
Instrument :  
BNA\_M  
ClientSampleId :  
ETOK2DL

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Quant Time: Oct 19 23:52:25 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM101419MA.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Sat Oct 19 23:34:34 2019  
Response via : Initial Calibration





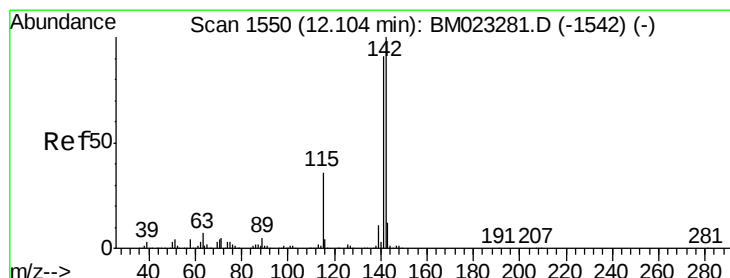
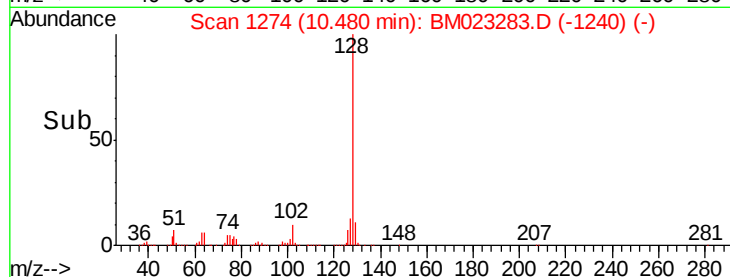
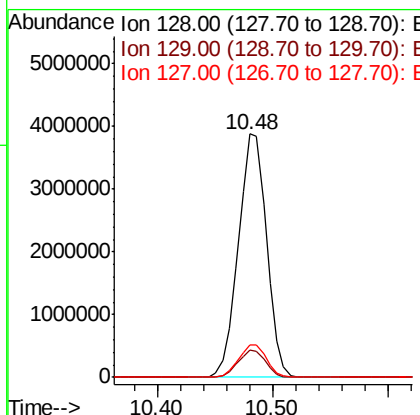
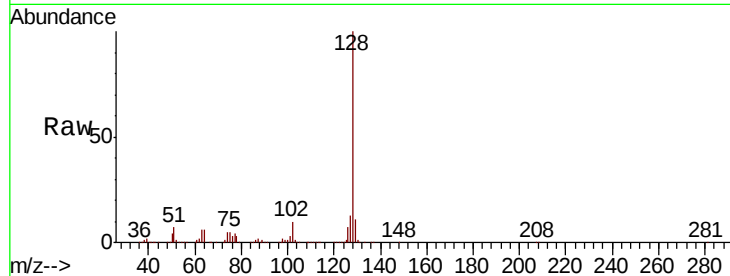
#28  
Naphthalene  
Concen: 93.716 ng/ul  
RT: 10.48 min Scan# 1274  
Delta R.T. -0.00 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

Instrument :  
BNA\_M  
ClientSampleId :  
ETOK2DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.1  | 8.3   | 12.5  |
| 127     | 13.2  | 10.2  | 15.4  |

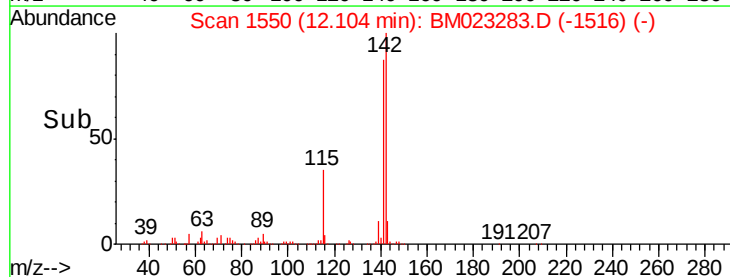
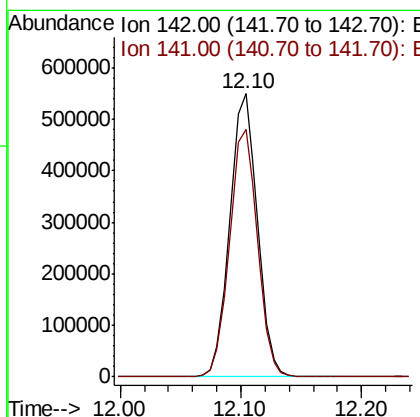
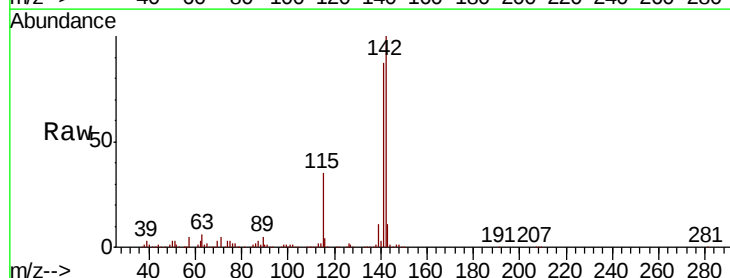
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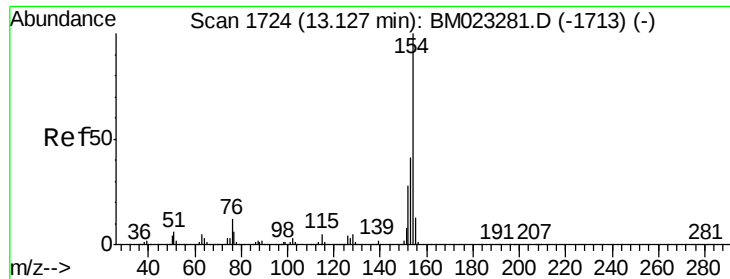
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#34  
2-Methylnaphthalene  
Concen: 16.810 ng/ul  
RT: 12.10 min Scan# 1550  
Delta R.T. -0.00 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 87.4  | 72.1  | 108.1 |





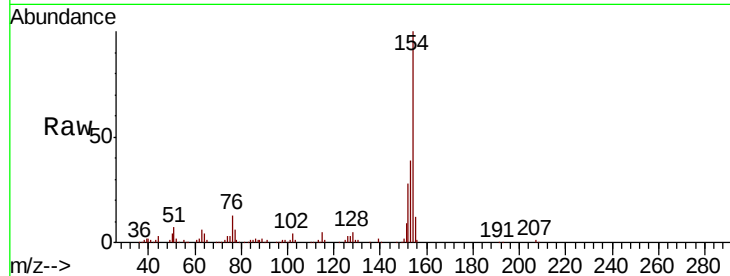
#41  
 1,1'-Biphenyl  
 Concen: 3.295 ng/ul  
 RT: 13.13 min Scan# 1724  
 Delta R.T. -0.00 min  
 Lab File: BM023283.D  
 Acq: 19 Oct 2019 12:07

Instrument :  
 BNA\_M  
 ClientSampleId :  
 ETOK2DL

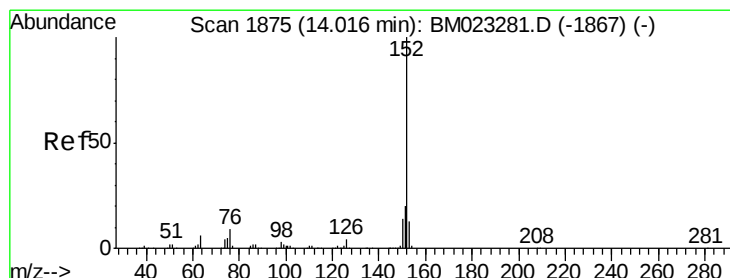
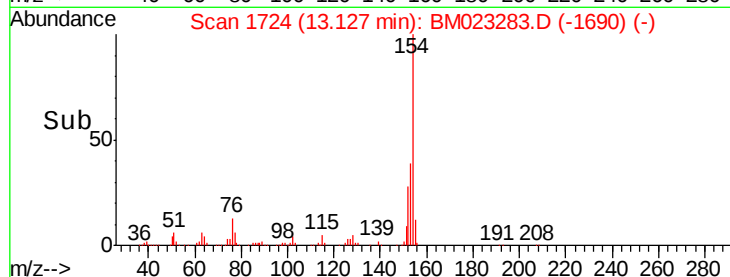
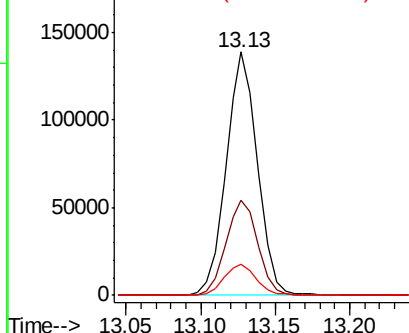
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 154   | Resp: | 202941 |
| Ion Ratio | Lower | Upper |        |
| 154       | 100   |       |        |
| 153       | 38.8  | 33.1  | 49.7   |
| 76        | 12.9  | 10.6  | 15.8   |

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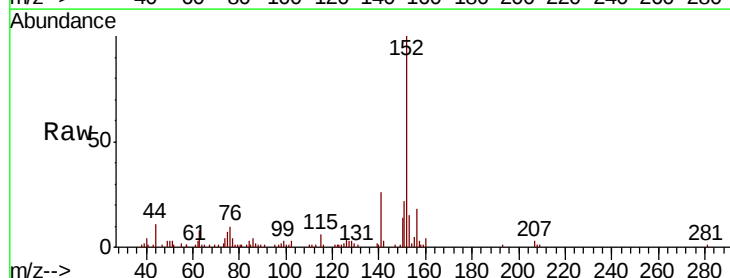


Abundance Ion 154.00 (153.70 to 154.70): E  
 Ion 153.00 (152.70 to 153.70): E  
 Ion 76.00 (75.70 to 76.70): BM

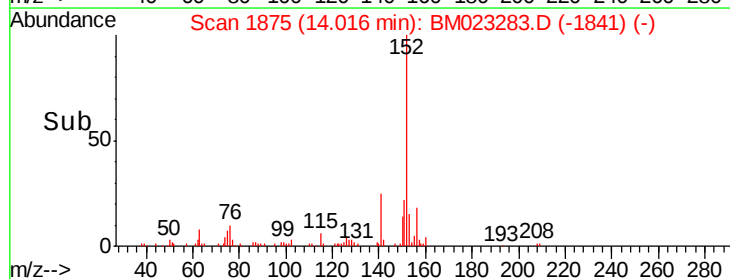
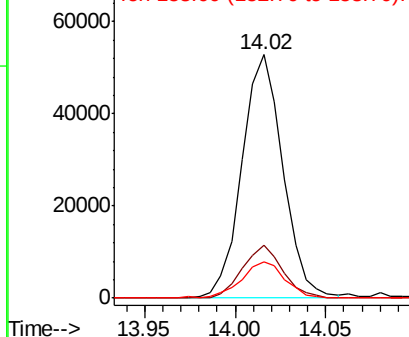


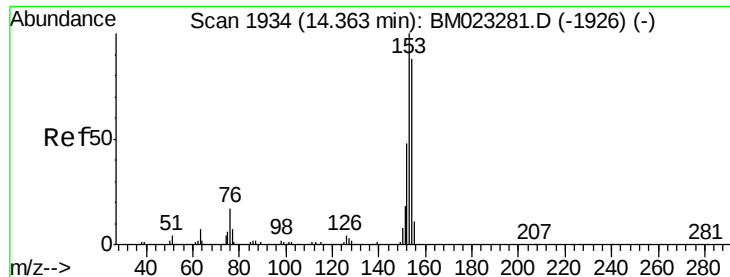
#48  
 Acenaphthylene  
 Concen: 1.118 ng/ul  
 RT: 14.02 min Scan# 1875  
 Delta R.T. -0.00 min  
 Lab File: BM023283.D  
 Acq: 19 Oct 2019 12:07

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 83136 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 21.6  | 15.8  | 23.6  |
| 153       | 14.7  | 10.3  | 15.5  |



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





#50

Acenaphthene

Concen: 12.178 ng/ul

RT: 14.36 min Scan# 1934

Delta R.T. -0.00 min

Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

Instrument :

BNA\_M

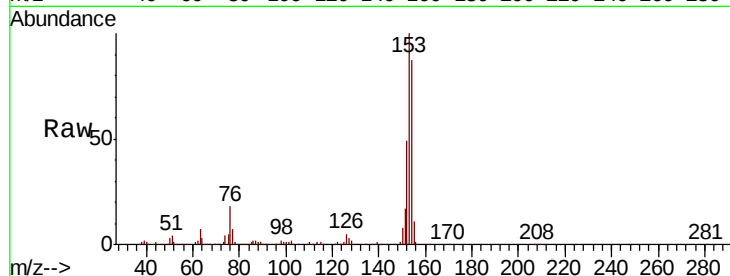
ClientSampleId :

ETOK2DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 153   | Resp: | 630710 |
| Ion Ratio | Lower | Upper |        |
| 153       | 100   |       |        |
| 152       | 48.6  | 38.0  | 57.0   |
| 154       | 86.6  | 70.4  | 105.6  |

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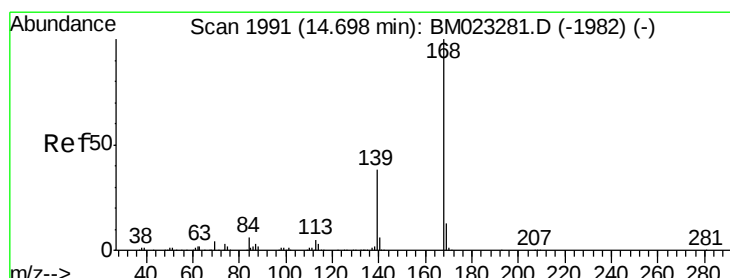
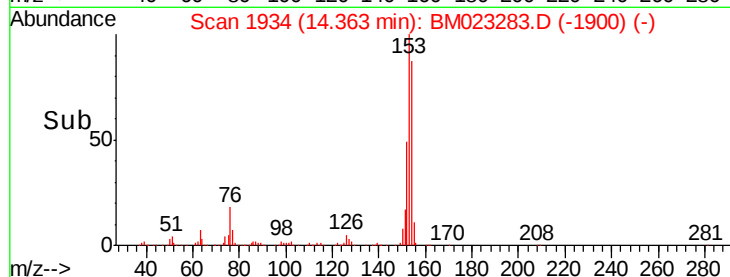
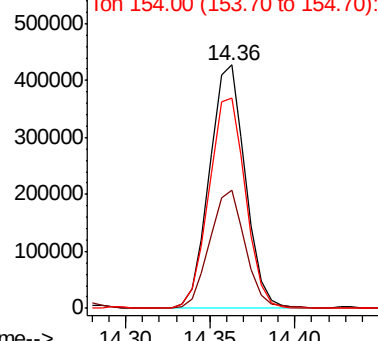


Abundance

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#54

Dibenzofuran

Concen: 9.959 ng/ul

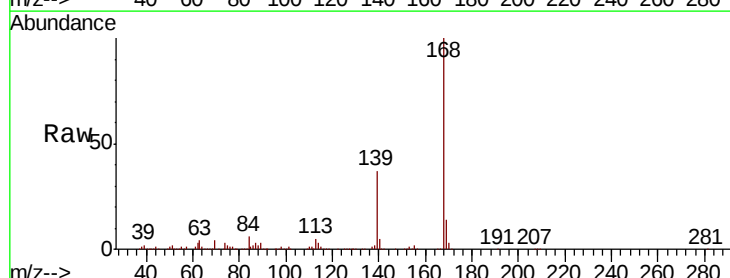
RT: 14.70 min Scan# 1991

Delta R.T. -0.00 min

Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

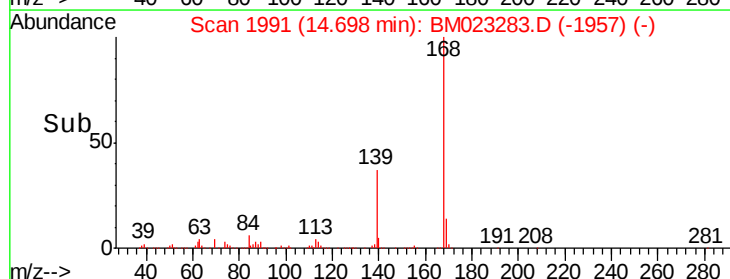
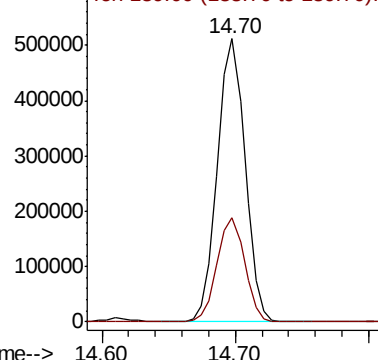
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 168   | Resp: | 732252 |
| Ion Ratio | Lower | Upper |        |
| 168       | 100   |       |        |
| 139       | 36.8  | 30.1  | 45.1   |

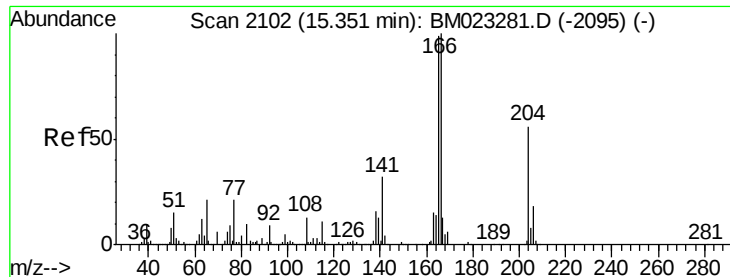


Abundance

Ion 168.00 (167.70 to 168.70): E

Ion 139.00 (138.70 to 139.70): E





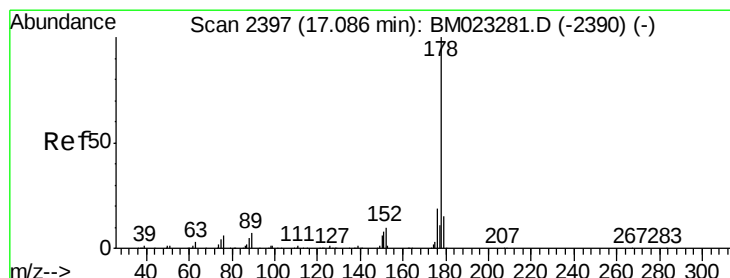
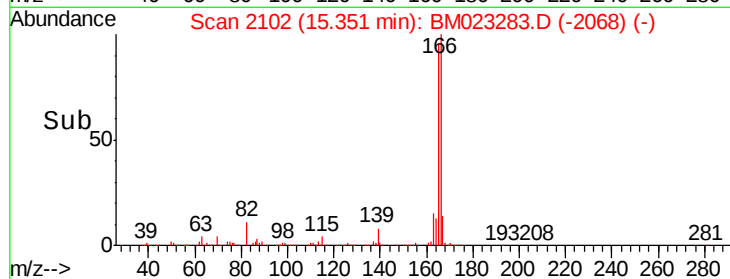
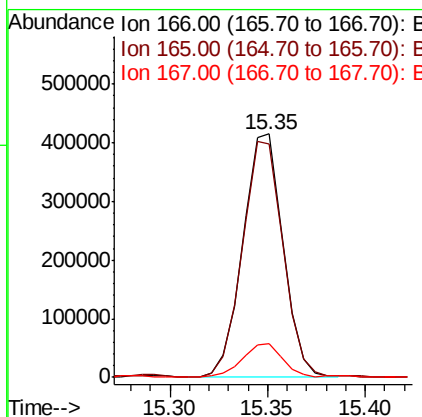
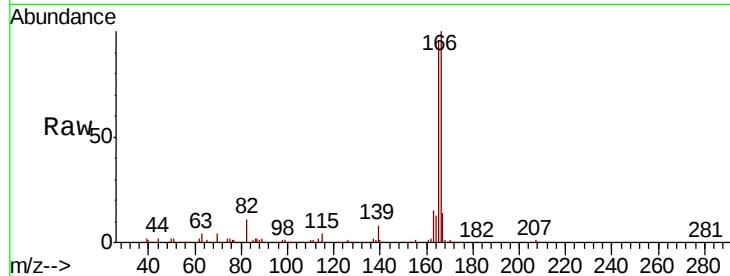
#59  
Fluorene  
Concen: 9.791 ng/ul  
RT: 15.35 min Scan# 2102  
Delta R.T. -0.00 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

Instrument :  
BNA\_M  
ClientSampleId :  
ETOK2DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 96.0  | 77.4  | 116.0 |
| 167     | 13.9  | 10.8  | 16.2  |

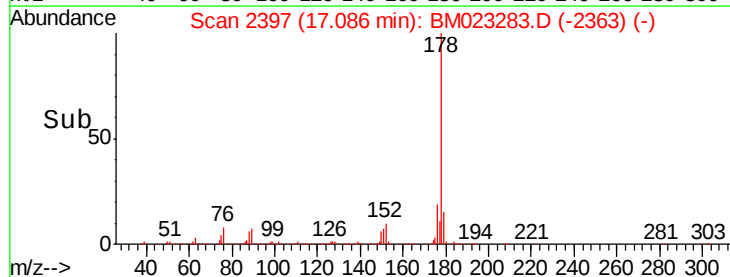
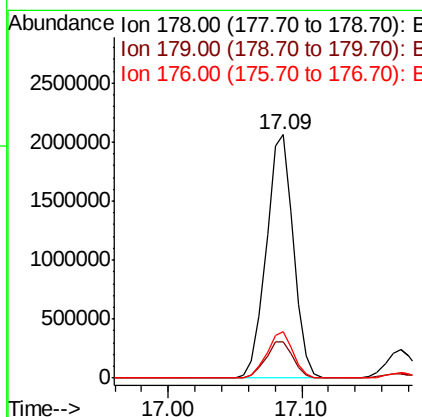
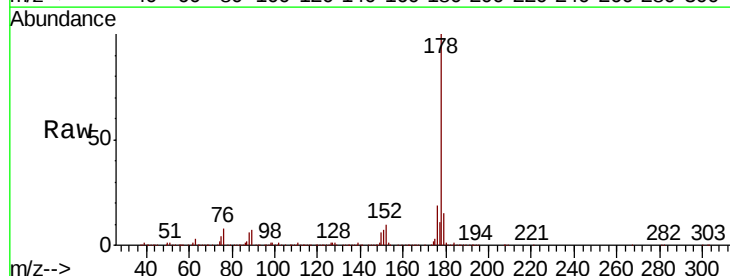
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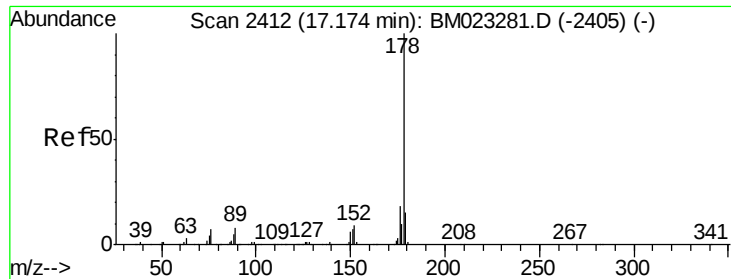
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#70  
Phenanthrene  
Concen: 31.662 ng/ul  
RT: 17.09 min Scan# 2397  
Delta R.T. -0.00 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.0  | 12.3  | 18.5  |
| 176     | 18.9  | 15.5  | 23.3  |





#72

Anthracene

Concen: 3.667 ng/ul

RT: 17.17 min Scan# 2412

Delta R.T. -0.00 min

Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

Instrument :

BNA\_M

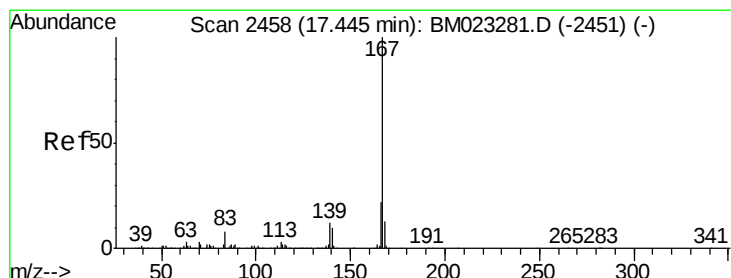
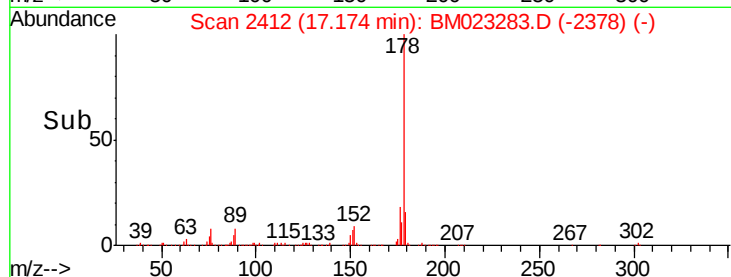
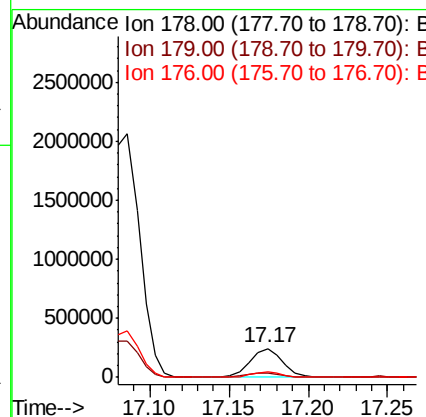
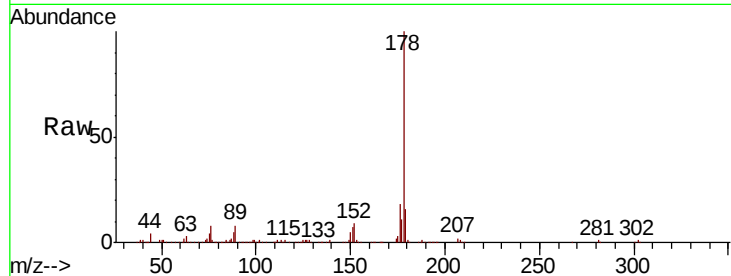
ClientSampleId :

ETOK2DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.9  | 12.3  | 18.5  |
| 176     | 18.0  | 15.0  | 22.4  |

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#75

Carbazole

Concen: 1.962 ng/ul

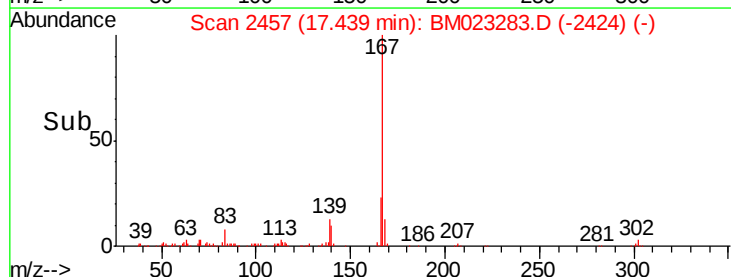
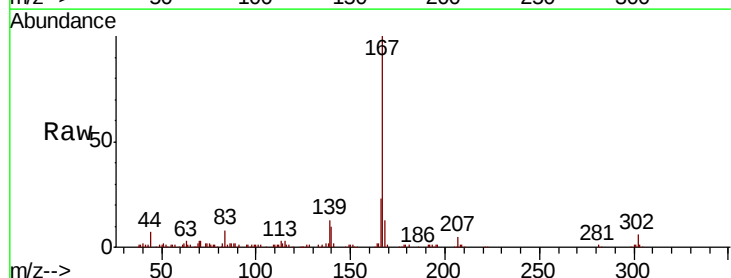
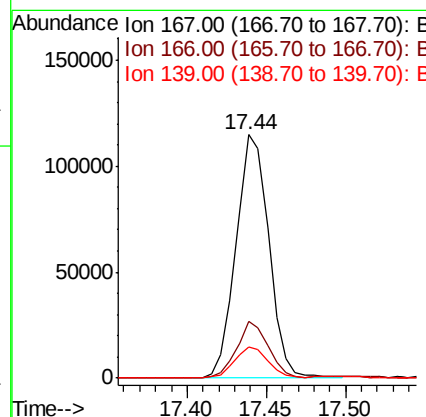
RT: 17.44 min Scan# 2457

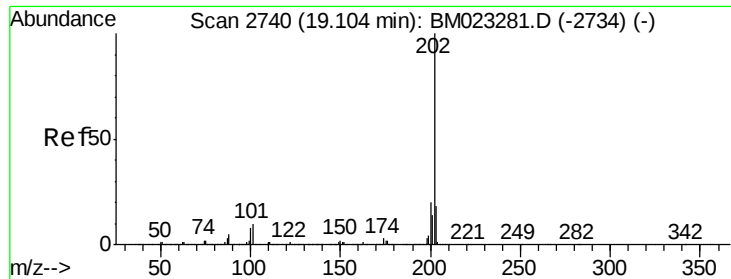
Delta R.T. -0.01 min

Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 23.2  | 17.4  | 26.0  |
| 139     | 13.0  | 10.2  | 15.2  |





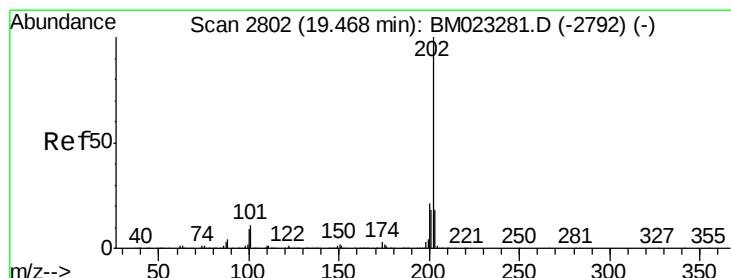
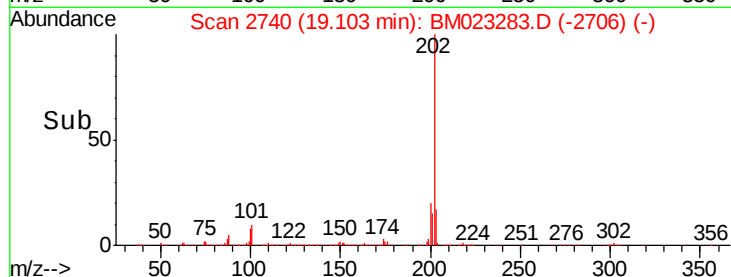
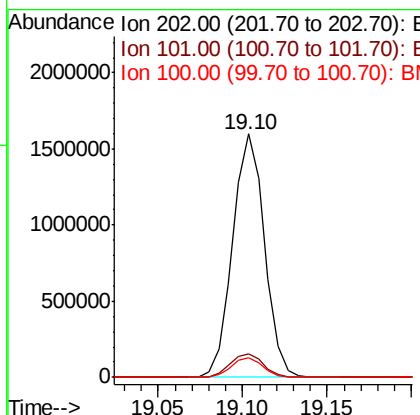
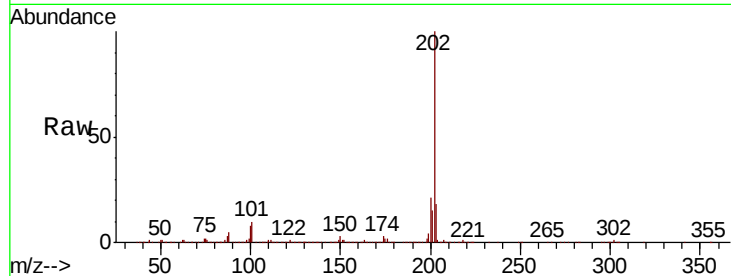
#77  
 Fluoranthene  
 Concen: 19.183 ng/ul  
 RT: 19.10 min Scan# 2740  
 Delta R.T. -0.00 min  
 Lab File: BM023283.D  
 Acq: 19 Oct 2019 12:07

Instrument :  
 BNA\_M  
 ClientSampleId :  
 ETOK2DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 9.9   | 7.8   | 11.8  |
| 100     | 8.0   | 6.1   | 9.1   |

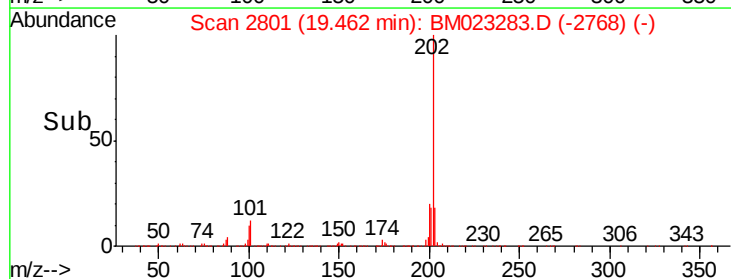
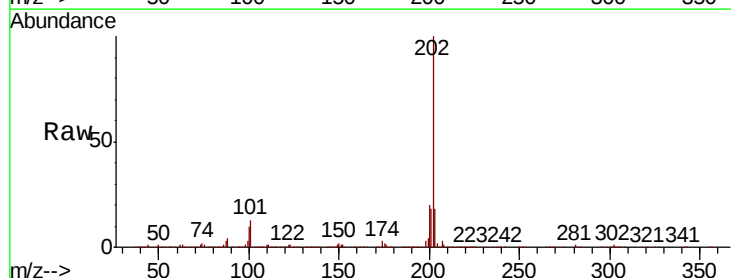
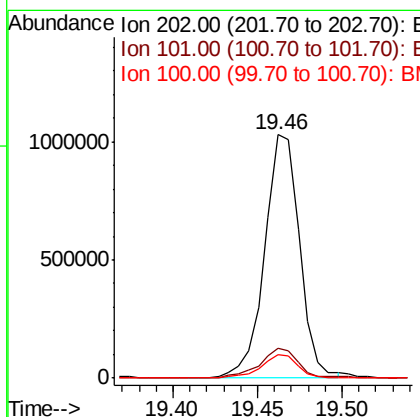
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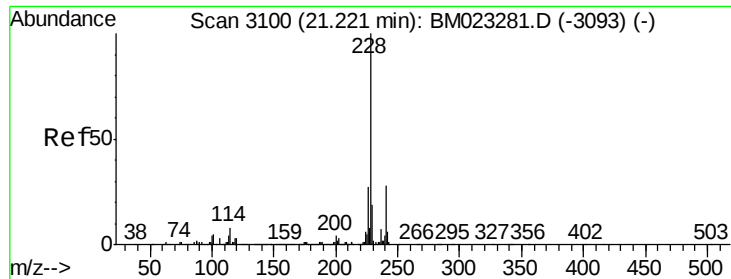
mohammad  
 10/22/2019 1:45:03 AM



#80  
 Pyrene  
 Concen: 13.773 ng/ul  
 RT: 19.46 min Scan# 2801  
 Delta R.T. -0.01 min  
 Lab File: BM023283.D  
 Acq: 19 Oct 2019 12:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 12.5  | 9.1   | 13.7  |
| 100     | 9.6   | 7.5   | 11.3  |





#83

Benzo(a)anthracene

Concen: 6.221 ng/ul

RT: 21.22 min Scan# 3099

Delta R.T. -0.01 min

Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

Instrument :

BNA\_M

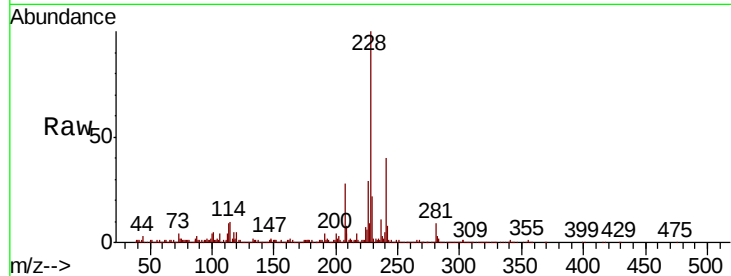
ClientSampleId :

ETOK2DL

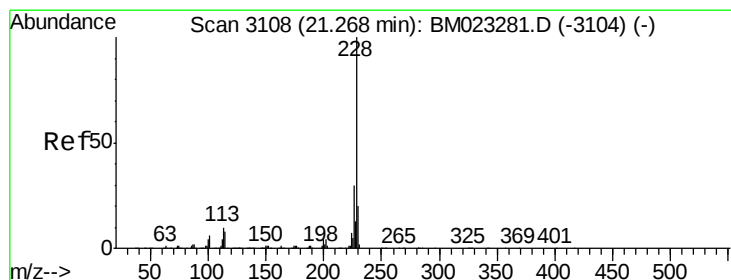
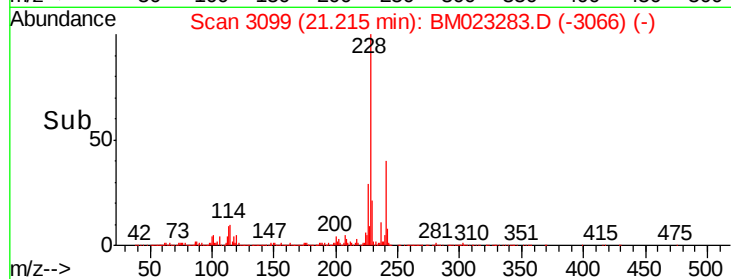
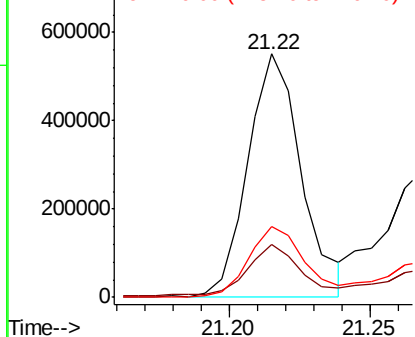
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 228   | Resp: | 722373 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 229       | 21.5  | 15.7  | 23.5   |
| 226       | 28.9  | 21.6  | 32.4   |

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Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 229.00 (228.70 to 229.70): E  
Ion 226.00 (225.70 to 226.70): E



#85

Chrysene

Concen: 3.798 ng/ul

RT: 21.27 min Scan# 3108

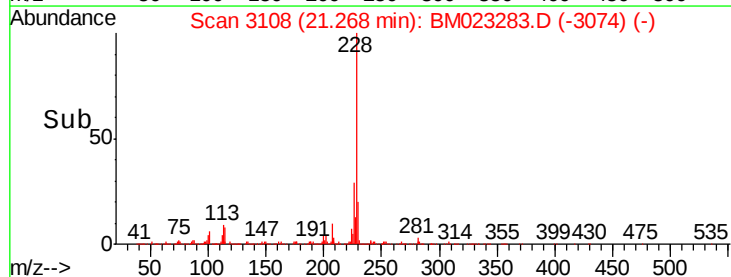
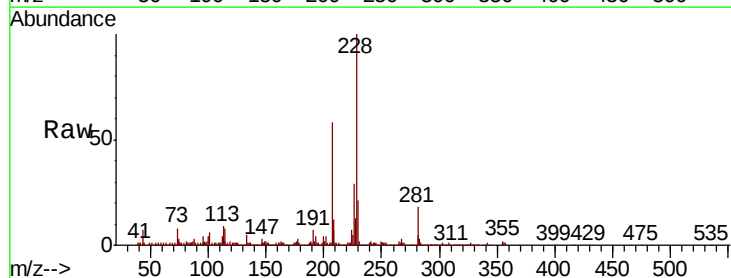
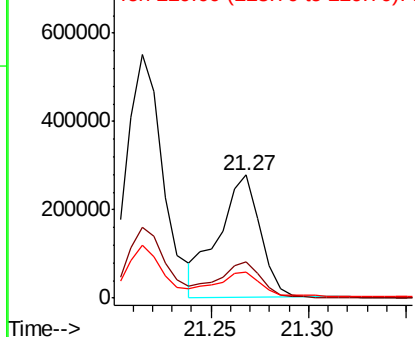
Delta R.T. -0.00 min

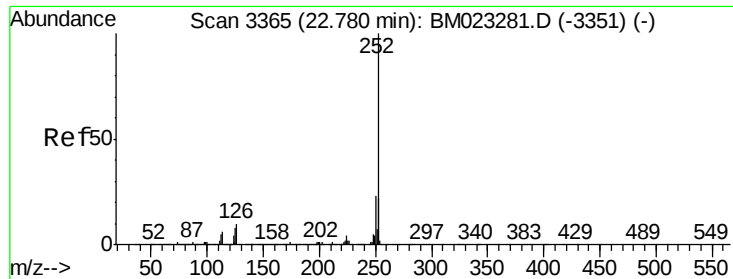
Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 409564 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 29.2  | 23.8  | 35.6   |
| 229       | 21.2  | 15.5  | 23.3   |

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





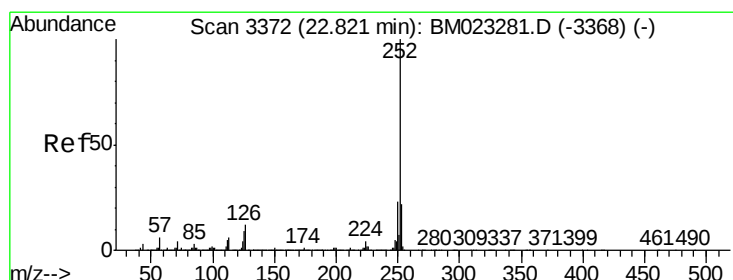
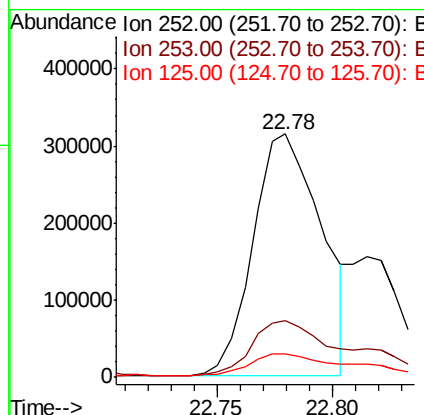
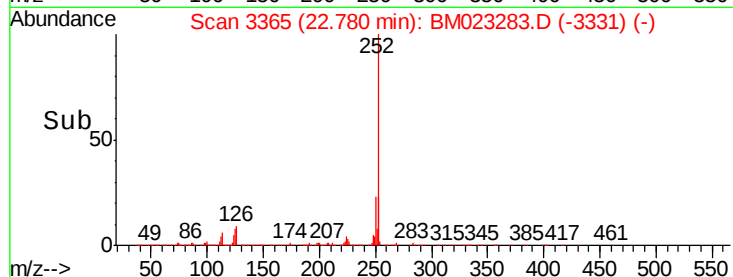
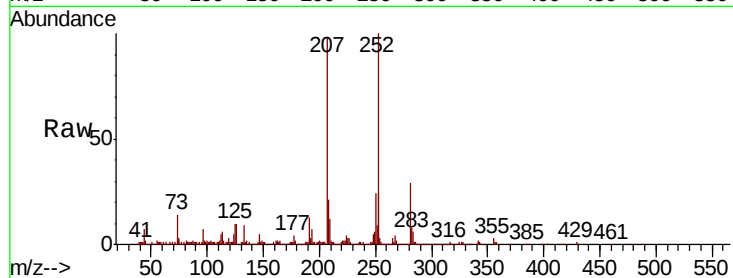
#88  
Benzo(b)fluoranthene  
Concen: 5.208 ng/ul  
RT: 22.78 min Scan# 3365  
Delta R.T. -0.00 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

Instrument :  
BNA\_M  
ClientSampleId :  
ETOK2DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.5  | 17.6  | 26.4  |
| 125     | 9.5   | 6.4   | 9.6   |

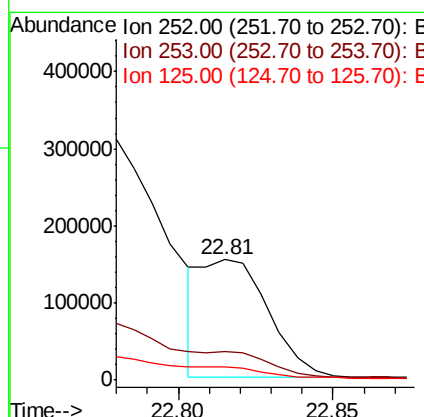
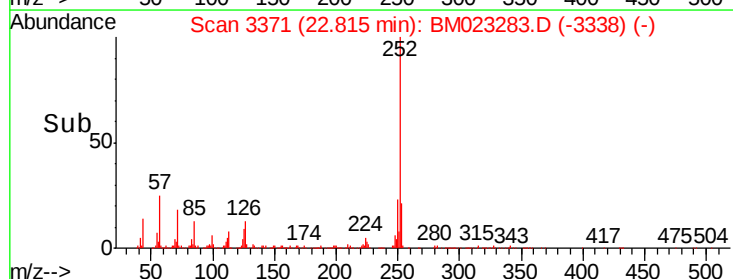
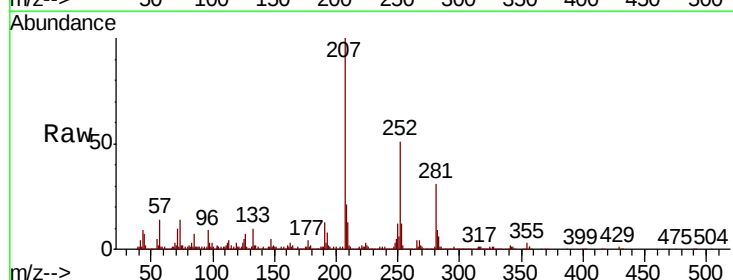
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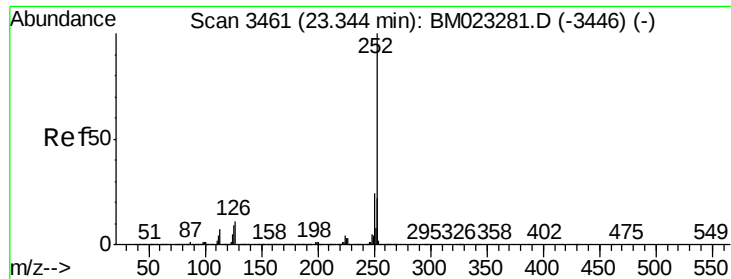
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#89  
Benzo(k)fluoranthene  
Concen: 1.913 ng/ul m  
RT: 22.81 min Scan# 3371  
Delta R.T. -0.01 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.4  | 17.4  | 26.0  |
| 125     | 10.8  | 6.5   | 9.7#  |





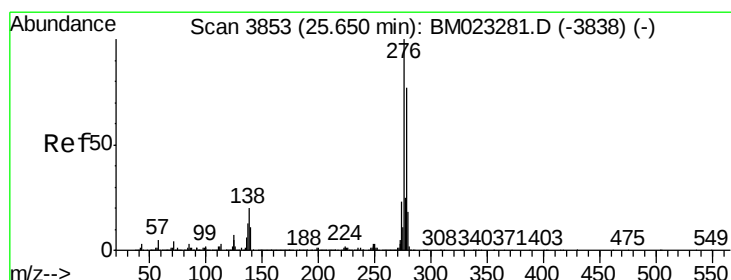
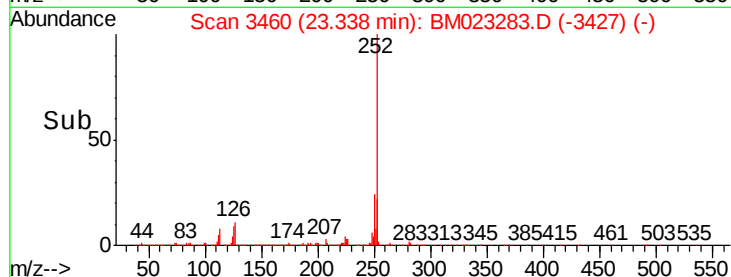
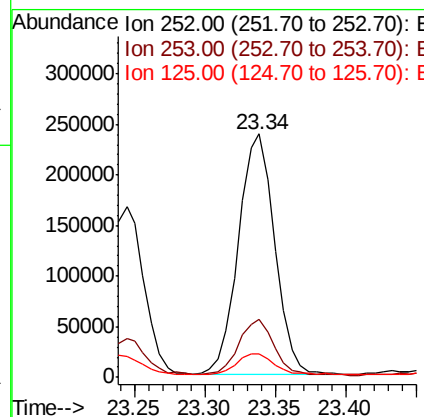
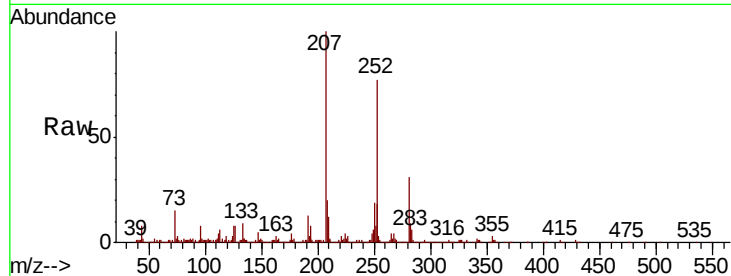
#91  
Benzo(a)pyrene  
Concen: 3.607 ng/ul  
RT: 23.34 min Scan# 3460  
Delta R.T. -0.01 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

Instrument :  
BNA\_M  
ClientSampleId :  
ETOK2DL

| Tot Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 252     | 100   |            |       |
| 253     | 23.6  | 17.2       | 25.8  |
| 125     | 9.9   | 7.4        | 11.0  |

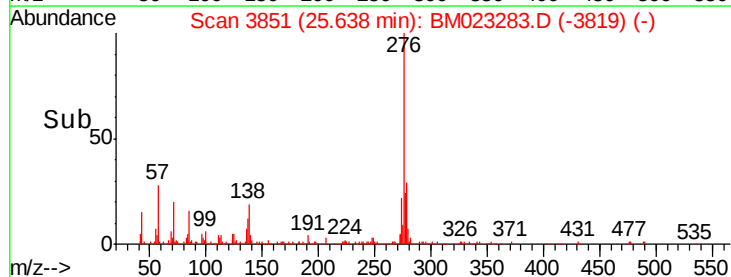
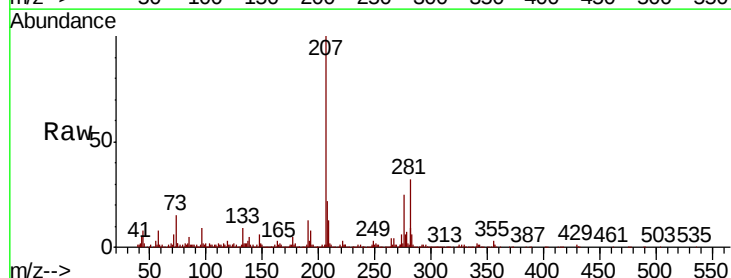
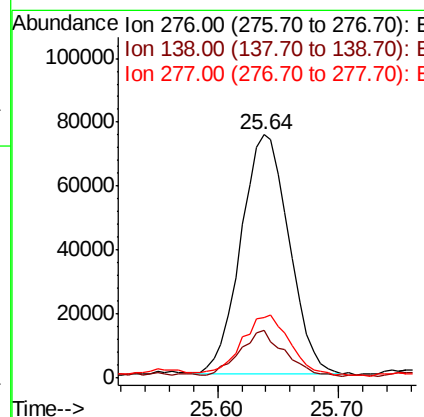
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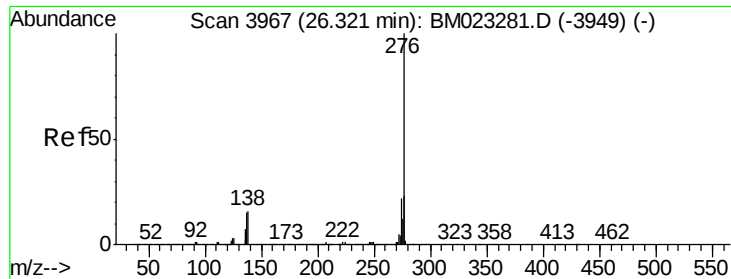
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#92  
Indeno(1,2,3-cd)pyrene  
Concen: 1.462 ng/ul  
RT: 25.64 min Scan# 3851  
Delta R.T. -0.01 min  
Lab File: BM023283.D  
Acq: 19 Oct 2019 12:07

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 276     | 100   |            |       |
| 138     | 19.6  | 14.9       | 22.3  |
| 277     | 24.9  | 19.8       | 29.8  |





#94

Benzo(a,h,i)perylene

Concen: 1.545 ng/ul

RT: 26.31 min Scan# 3965

Delta R.T. -0.01 min

Lab File: BM023283.D

Acq: 19 Oct 2019 12:07

Instrument :

BNA\_M

ClientSampleId :

ETOK2DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 276   | Resp: | 180036 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 17.0  | 14.4  | 21.6   |
| 277       | 23.9  | 19.4  | 29.2   |

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