

Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF112519\  
 Data File : BF117984.D  
 Acq On : 25 Nov 2019 23:49  
 Operator : JU  
 Sample : K5973-01  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUCT-BANK-1

Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF111319.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 2.198       | 13            | 19          | 25           | rVB      | 494507         | 620060        | 20.05%          | 1.654%        |
| 2         | 5.104       | 508           | 513         | 523          | rVB      | 379953         | 458841        | 14.84%          | 1.224%        |
| 3         | 5.504       | 577           | 581         | 584          | rBV      | 2357113        | 2250620       | 72.77%          | 6.003%        |
| 4         | 6.516       | 747           | 753         | 756          | rBV      | 2369431        | 2402315       | 77.68%          | 6.408%        |
| 5         | 6.657       | 773           | 777         | 780          | rBV      | 2899549        | 2513358       | 81.27%          | 6.704%        |
| 6         | 6.886       | 813           | 816         | 820          | rBV      | 997623         | 787646        | 25.47%          | 2.101%        |
| 7         | 7.045       | 839           | 843         | 846          | rBV      | 2375865        | 1992218       | 64.42%          | 5.314%        |
| 8         | 7.451       | 907           | 912         | 915          | rBV      | 1721051        | 1529210       | 49.45%          | 4.079%        |
| 9         | 8.174       | 1031          | 1035        | 1038         | rBV      | 1290351        | 1062924       | 34.37%          | 2.835%        |
| 10        | 9.251       | 1213          | 1218        | 1222         | rBV      | 3205344        | 3057728       | 98.87%          | 8.156%        |
| 11        | 9.645       | 1282          | 1285        | 1288         | rBV      | 570638         | 409658        | 13.25%          | 1.093%        |
| 12        | 9.939       | 1327          | 1335        | 1338         | rBV      | 1457352        | 1245148       | 40.26%          | 3.321%        |
| 13        | 9.968       | 1338          | 1340        | 1343         | rVB      | 143099         | 107127        | 3.46%           | 0.286%        |
| 14        | 10.139      | 1365          | 1369        | 1373         | rBV      | 57231          | 55234         | 1.79%           | 0.147%        |
| 15        | 10.486      | 1425          | 1428        | 1433         | rVB      | 87233          | 76203         | 2.46%           | 0.203%        |
| 16        | 10.727      | 1464          | 1469        | 1472         | rBV      | 2381535        | 2063364       | 66.72%          | 5.504%        |
| 17        | 11.204      | 1546          | 1550        | 1552         | rVB      | 77943          | 64763         | 2.09%           | 0.173%        |
| 18        | 11.286      | 1559          | 1564        | 1568         | rBV4     | 30166          | 45182         | 1.46%           | 0.121%        |
| 19        | 11.321      | 1568          | 1570        | 1573         | rVB      | 46396          | 40977         | 1.32%           | 0.109%        |
| 20        | 11.427      | 1584          | 1588        | 1591         | rBV      | 1368351        | 1384820       | 44.78%          | 3.694%        |
| 21        | 11.451      | 1591          | 1592        | 1596         | rVV      | 841172         | 602947        | 19.50%          | 1.608%        |
| 22        | 11.504      | 1596          | 1601        | 1604         | rVB      | 215392         | 191570        | 6.19%           | 0.511%        |
| 23        | 11.657      | 1622          | 1627        | 1634         | rBV2     | 99830          | 118046        | 3.82%           | 0.315%        |
| 24        | 11.933      | 1670          | 1674        | 1675         | rBV      | 88282          | 83026         | 2.68%           | 0.221%        |
| 25        | 11.957      | 1675          | 1678        | 1682         | rVB2     | 548416         | 517423        | 16.73%          | 1.380%        |
| 26        | 12.045      | 1689          | 1693        | 1695         | rBV      | 147337         | 145331        | 4.70%           | 0.388%        |
| 27        | 12.068      | 1695          | 1697        | 1701         | rVB      | 60352          | 50171         | 1.62%           | 0.134%        |
| 28        | 12.227      | 1719          | 1724        | 1726         | rBV      | 71474          | 69136         | 2.24%           | 0.184%        |
| 29        | 12.251      | 1726          | 1728        | 1731         | rVB      | 68029          | 52959         | 1.71%           | 0.141%        |
| 30        | 12.380      | 1747          | 1750        | 1752         | rVB      | 56351          | 45280         | 1.46%           | 0.121%        |
| 31        | 12.486      | 1765          | 1768        | 1771         | rBV      | 54125          | 59642         | 1.93%           | 0.159%        |
| 32        | 12.521      | 1771          | 1774        | 1776         | rVV3     | 43728          | 44001         | 1.42%           | 0.117%        |
| 33        | 12.568      | 1779          | 1782        | 1787         | rVB2     | 59762          | 68927         | 2.23%           | 0.184%        |
| 34        | 12.645      | 1791          | 1795        | 1799         | rBV      | 1039789        | 952543        | 30.80%          | 2.541%        |

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 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUCT-BANK-1

Integration Parameters: rteint.p  
 Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF111319.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |         |         |         |        |
|----|--------|------|------|------|------|---------|---------|---------|--------|
| 35 | 12.739 | 1808 | 1811 | 1815 | rBV  | 280690  | 267033  | 8.63%   | 0.712% |
| 36 | 12.874 | 1828 | 1834 | 1840 | rBV  | 880118  | 1006576 | 32.55%  | 2.685% |
| 37 | 12.921 | 1840 | 1842 | 1847 | rVB2 | 48637   | 54814   | 1.77%   | 0.146% |
| 38 | 13.021 | 1855 | 1859 | 1862 | rBV  | 3529285 | 3092612 | 100.00% | 8.249% |
| 39 | 13.098 | 1867 | 1872 | 1875 | rBV2 | 55233   | 92856   | 3.00%   | 0.248% |
| 40 | 13.204 | 1887 | 1890 | 1893 | rVB  | 151183  | 143414  | 4.64%   | 0.383% |
| 41 | 13.239 | 1893 | 1896 | 1899 | rBV2 | 73914   | 93632   | 3.03%   | 0.250% |
| 42 | 13.268 | 1899 | 1901 | 1904 | rVB  | 80567   | 67408   | 2.18%   | 0.180% |
| 43 | 13.309 | 1904 | 1908 | 1910 | rBV2 | 100157  | 102851  | 3.33%   | 0.274% |
| 44 | 13.398 | 1920 | 1923 | 1926 | rVB2 | 64766   | 67098   | 2.17%   | 0.179% |
| 45 | 13.433 | 1926 | 1929 | 1933 | rBV2 | 62316   | 82081   | 2.65%   | 0.219% |
| 46 | 13.492 | 1937 | 1939 | 1943 | rVB2 | 57945   | 57517   | 1.86%   | 0.153% |
| 47 | 13.592 | 1953 | 1956 | 1958 | rBV  | 67337   | 68620   | 2.22%   | 0.183% |
| 48 | 13.609 | 1958 | 1959 | 1965 | rVB6 | 67810   | 59035   | 1.91%   | 0.157% |
| 49 | 13.709 | 1974 | 1976 | 1981 | rVB  | 72543   | 65410   | 2.12%   | 0.174% |
| 50 | 13.827 | 1992 | 1996 | 1998 | rBV2 | 78203   | 97456   | 3.15%   | 0.260% |
| 51 | 13.856 | 1998 | 2001 | 2002 | rVV  | 76111   | 78196   | 2.53%   | 0.209% |
| 52 | 13.880 | 2002 | 2005 | 2009 | rVV3 | 228715  | 283976  | 9.18%   | 0.757% |
| 53 | 13.921 | 2009 | 2012 | 2020 | rVB  | 279381  | 380939  | 12.32%  | 1.016% |
| 54 | 14.080 | 2031 | 2039 | 2041 | rBV2 | 1130535 | 1518229 | 49.09%  | 4.050% |
| 55 | 14.103 | 2041 | 2043 | 2048 | rVB  | 431437  | 357134  | 11.55%  | 0.953% |
| 56 | 14.186 | 2054 | 2057 | 2059 | rBV  | 54561   | 46663   | 1.51%   | 0.124% |
| 57 | 14.209 | 2059 | 2061 | 2064 | rVV  | 154976  | 140562  | 4.55%   | 0.375% |
| 58 | 14.251 | 2064 | 2068 | 2071 | rVV2 | 269382  | 298943  | 9.67%   | 0.797% |
| 59 | 14.280 | 2071 | 2073 | 2075 | rVV  | 83688   | 81380   | 2.63%   | 0.217% |
| 60 | 14.303 | 2075 | 2077 | 2079 | rVB  | 105535  | 85087   | 2.75%   | 0.227% |
| 61 | 14.462 | 2102 | 2104 | 2107 | rVB  | 65332   | 56137   | 1.82%   | 0.150% |
| 62 | 14.498 | 2108 | 2110 | 2113 | rVB2 | 46677   | 41709   | 1.35%   | 0.111% |
| 63 | 14.545 | 2115 | 2118 | 2123 | rVV4 | 121368  | 152685  | 4.94%   | 0.407% |
| 64 | 14.598 | 2123 | 2127 | 2133 | rVB6 | 77748   | 137845  | 4.46%   | 0.368% |
| 65 | 14.856 | 2168 | 2171 | 2175 | rVB  | 101293  | 104029  | 3.36%   | 0.277% |
| 66 | 14.939 | 2182 | 2185 | 2188 | rBV2 | 43456   | 53775   | 1.74%   | 0.143% |
| 67 | 15.133 | 2213 | 2218 | 2226 | rBV  | 286500  | 572130  | 18.50%  | 1.526% |
| 68 | 15.209 | 2227 | 2231 | 2234 | rVV  | 123380  | 143803  | 4.65%   | 0.384% |
| 69 | 15.245 | 2234 | 2237 | 2240 | rVB  | 41681   | 43274   | 1.40%   | 0.115% |
| 70 | 15.445 | 2267 | 2271 | 2277 | rVB  | 181258  | 241223  | 7.80%   | 0.643% |
| 71 | 15.509 | 2277 | 2282 | 2287 | rVV  | 224969  | 307733  | 9.95%   | 0.821% |

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Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

Integration Parameters: rteint.p  
Integrator: RTE  
Smoothing : ON Filtering: 5  
Sampling : 1 Min Area: 3 % of largest Peak  
Start Thrs: 0.2 Max Peaks: 100  
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
Peak separation: 5

Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF111319.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

|    |        |      |      |      |      |        |        |        |        |
|----|--------|------|------|------|------|--------|--------|--------|--------|
| 72 | 15.574 | 2288 | 2293 | 2296 | rVV  | 628550 | 794780 | 25.70% | 2.120% |
| 73 | 15.603 | 2296 | 2298 | 2305 | rVB2 | 176114 | 215605 | 6.97%  | 0.575% |
| 74 | 16.056 | 2371 | 2375 | 2380 | rVB  | 88727  | 127420 | 4.12%  | 0.340% |
| 75 | 16.315 | 2415 | 2419 | 2430 | rVB  | 26838  | 70925  | 2.29%  | 0.189% |
| 76 | 16.580 | 2460 | 2464 | 2469 | rBV3 | 51222  | 87897  | 2.84%  | 0.234% |
| 77 | 17.080 | 2544 | 2549 | 2558 | rVB2 | 117493 | 246489 | 7.97%  | 0.657% |
| 78 | 17.268 | 2576 | 2581 | 2586 | rBV2 | 22024  | 44790  | 1.45%  | 0.119% |
| 79 | 17.539 | 2621 | 2627 | 2636 | rVB  | 95682  | 189471 | 6.13%  | 0.505% |

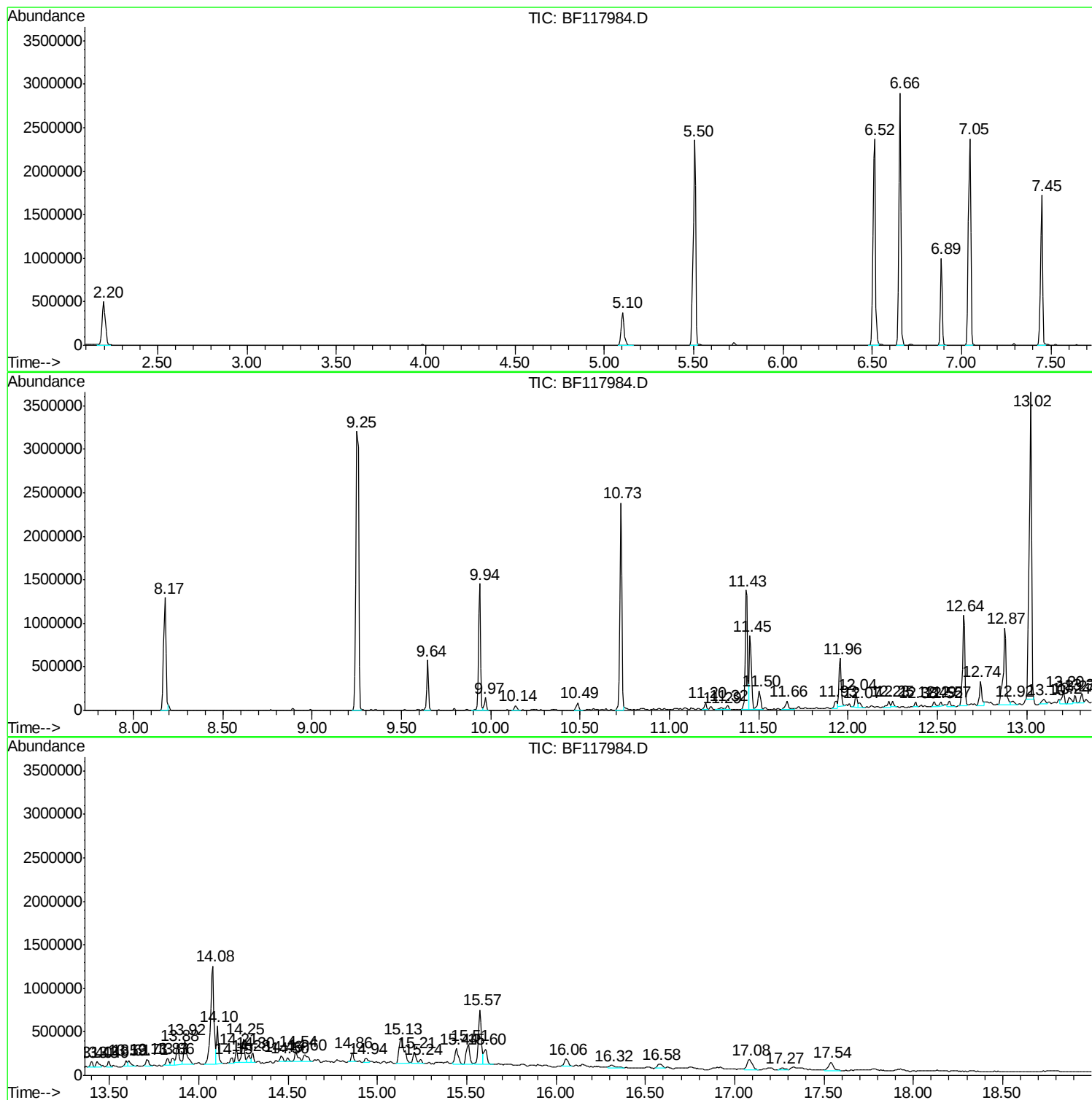
Sum of corrected areas: 37489640

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
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Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
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Sample : K5973-01  
Misc :  
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Instrument :  
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ClientSampleId :  
DUCT-BANK-1

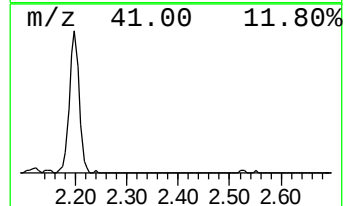
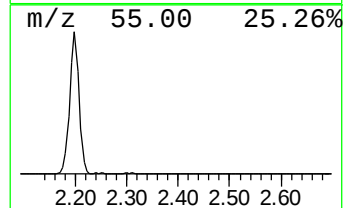
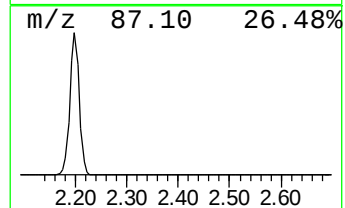
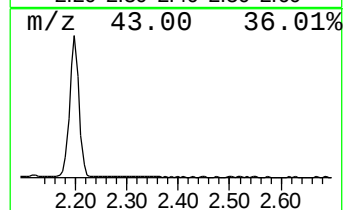
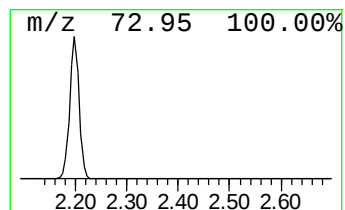
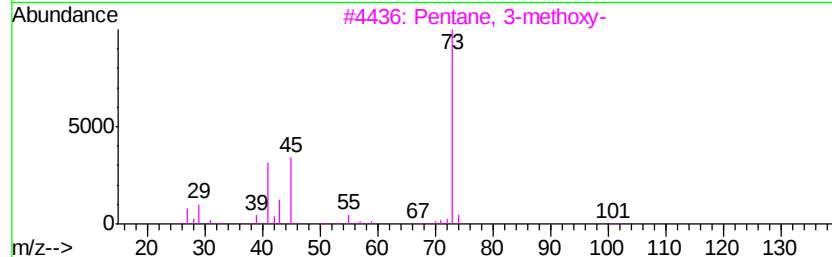
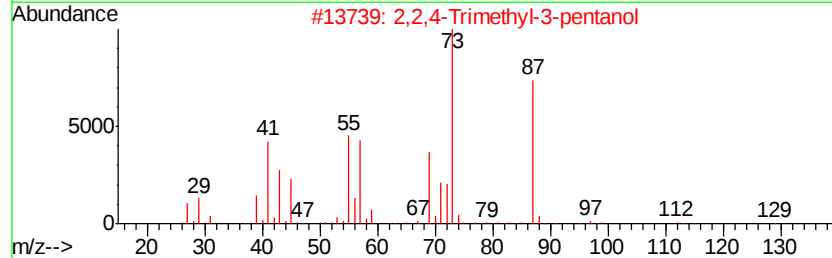
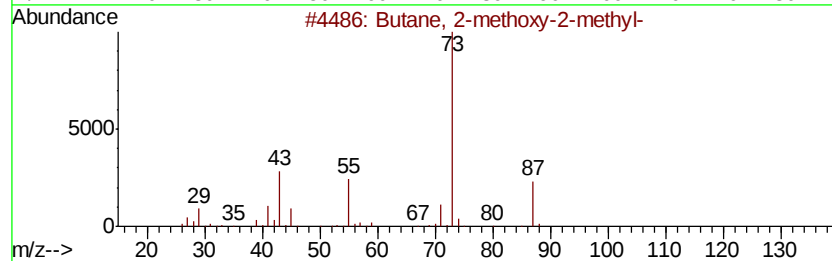
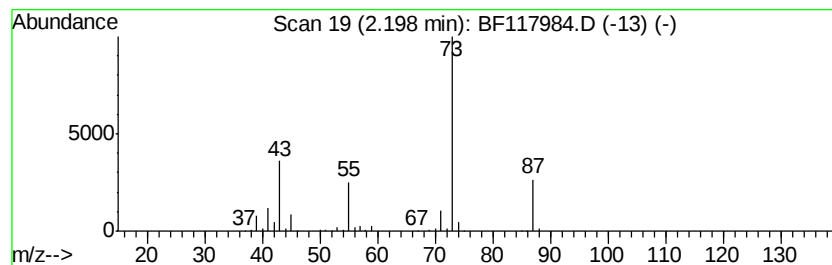
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 Butane, 2-methoxy-2-methyl- Concentration Rank 3

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 2.20 | 15.74 ng | 620060 | 1,4-Dichlorobenzene-d4 | 6.89 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Butane, 2-methoxy-2-methyl- | 102 | C6H14O  | 000994-05-8 | 78   |
| 2    |    | 2,2,4-Trimethyl-3-pentanol  | 130 | C8H18O  | 005162-48-1 | 39   |
| 3    |    | Pentane, 3-methoxy-         | 102 | C6H14O  | 036839-67-5 | 23   |
| 4    |    | N-Ethylformamide            | 73  | C3H7NO  | 000627-45-2 | 9    |
| 5    |    | Borane, dimethoxy-          | 74  | C2H7BO2 | 004542-61-4 | 9    |



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BNA\_F  
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Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

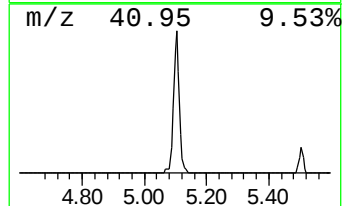
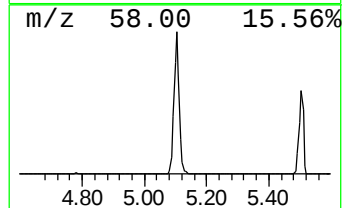
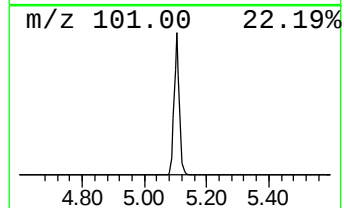
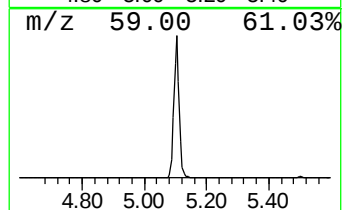
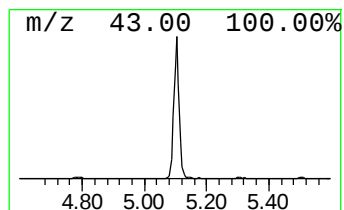
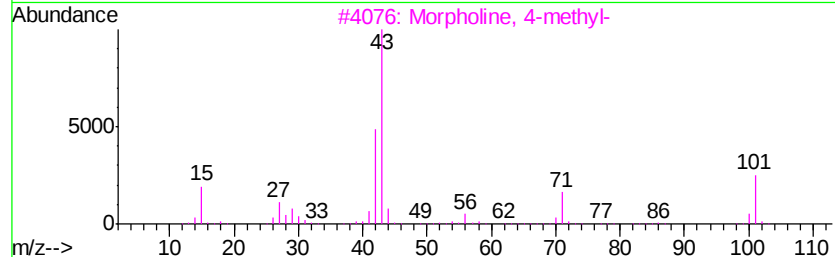
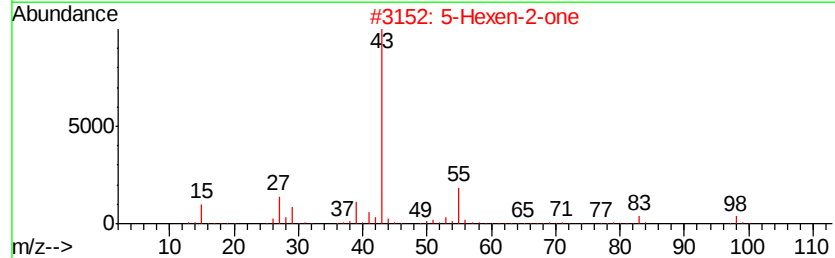
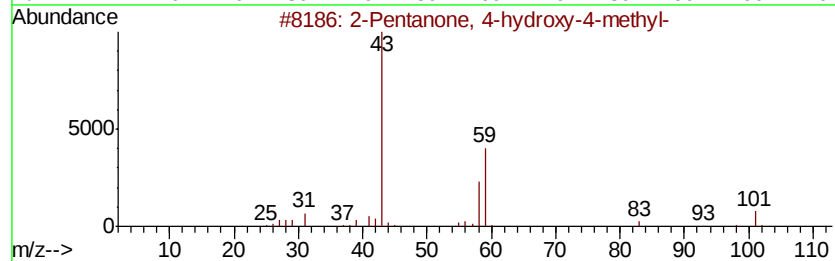
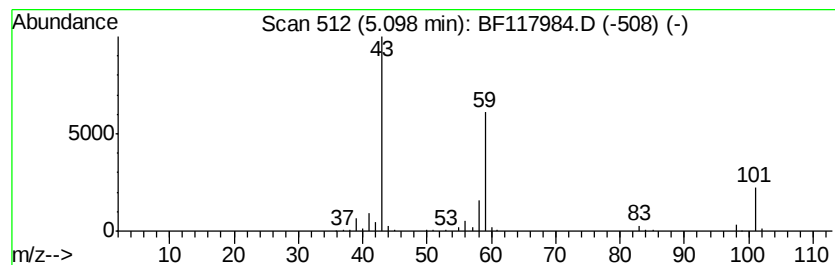
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 2-Pentanone, 4-hydroxy-4-me... Concentration Rank 4

| R.T. | EstConc  | Area   | Relative to ISTD       | R.T. |
|------|----------|--------|------------------------|------|
| 5.10 | 11.65 ng | 458841 | 1,4-Dichlorobenzene-d4 | 6.89 |

| Hit# | of | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------------|-----|---------|-------------|------|
| 1    | 5  | 2-Pentanone, 4-hydroxy-4-methyl- | 116 | C6H12O2 | 000123-42-2 | 72   |
| 2    |    | 5-Hexen-2-one                    | 98  | C6H10O  | 000109-49-9 | 9    |
| 3    |    | Morpholine, 4-methyl-            | 101 | C5H11NO | 000109-02-4 | 9    |
| 4    |    | 2,3-Butanedione, monooxime       | 101 | C4H7NO2 | 000057-71-6 | 9    |
| 5    |    | Butane, 1-ethoxy-                | 102 | C6H14O  | 000628-81-9 | 9    |



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DUCT-BANK-1

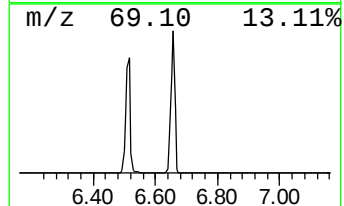
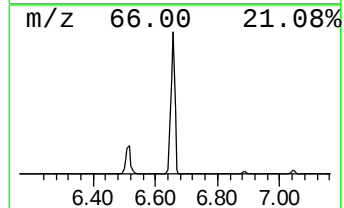
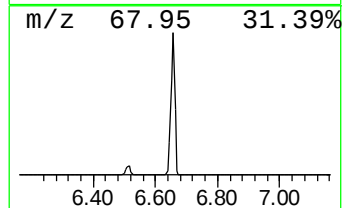
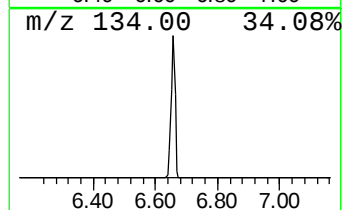
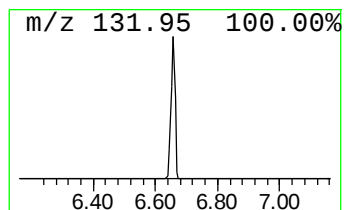
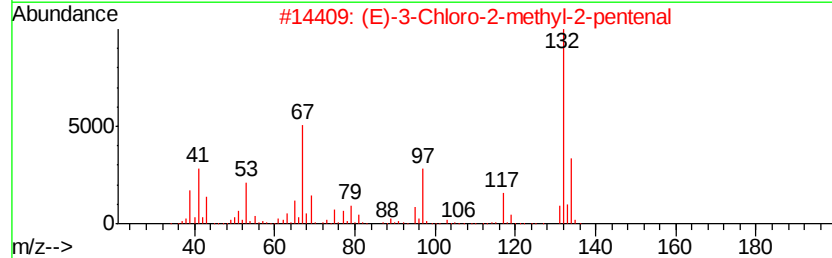
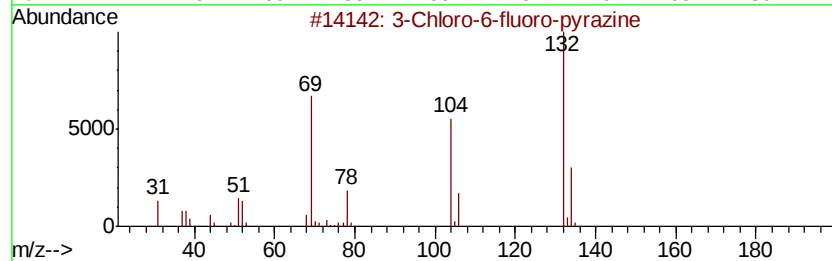
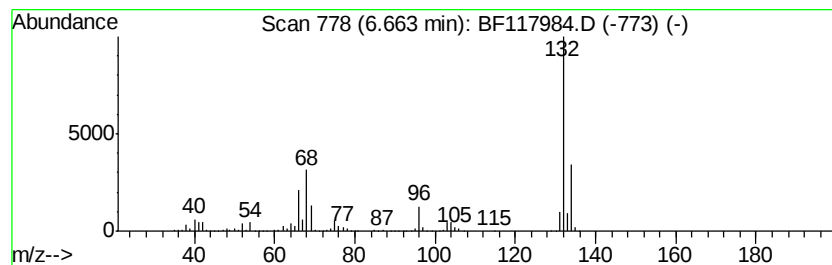
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 3 unknown6.66 Concentration Rank 1

| R.T. | EstConc  | Area    | Relative to ISTD       | R.T. |
|------|----------|---------|------------------------|------|
| 6.66 | 63.82 ng | 2513360 | 1,4-Dichlorobenzene-d4 | 6.89 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
|------|----|-------------------------------------|-----|-----------|--------------|------|
| 1    | 5  | 3-Chloro-6-fluoro-pyrazine          | 132 | C4H2ClFN2 | 1000146-10-7 | 27   |
| 2    |    | (E)-3-Chloro-2-methyl-2-pentenal    | 132 | C6H9ClO   | 031357-76-3  | 16   |
| 3    |    | Tranvlcypropane-propionyl           | 189 | C12H15NO  | 1000123-86-3 | 12   |
| 4    |    | Bicyclo[4.2.0]octa-1,3,5-triene,... | 132 | C10H12    | 028749-81-7  | 9    |
| 5    |    | Benzene, 1-ethenyl-3,5-dimethyl-    | 132 | C10H12    | 005379-20-4  | 9    |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

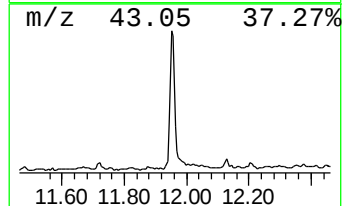
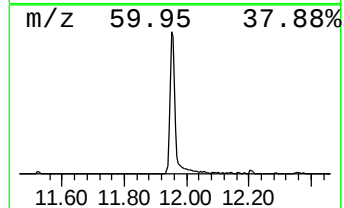
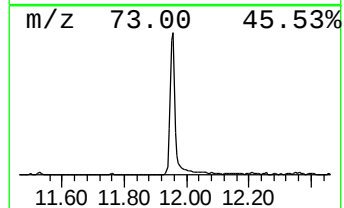
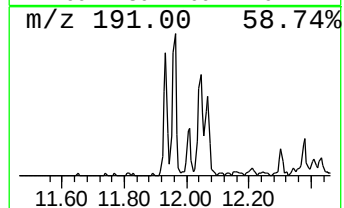
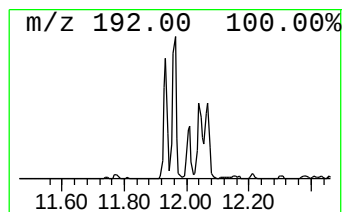
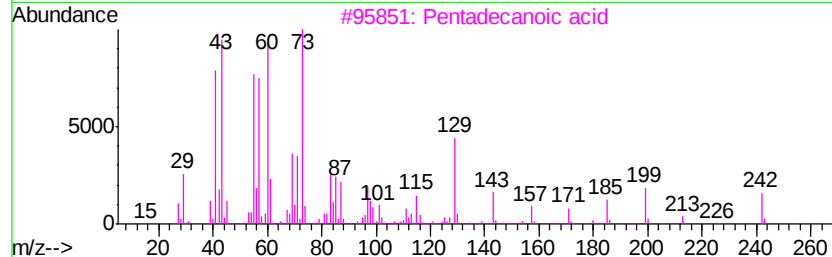
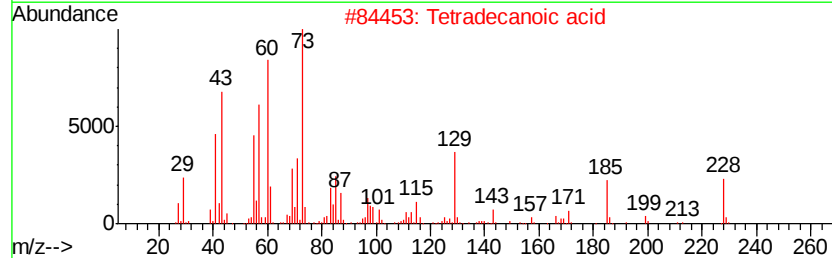
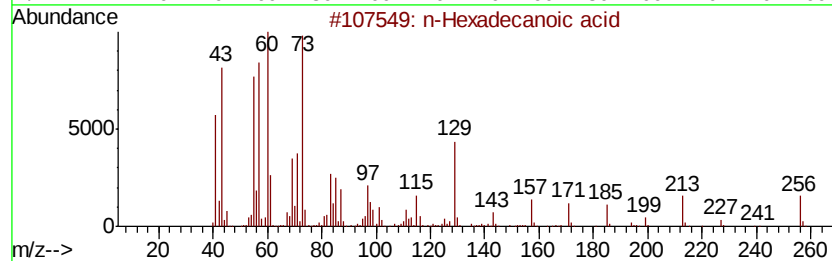
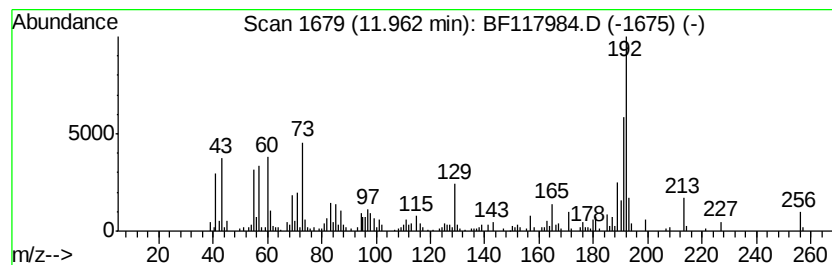
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TIC Integration Parameters: LSCINT.P

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Peak Number 5 n-Hexadecanoic acid Concentration Rank 5

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 11.96 | 7.47 ng | 517423 | Phenanthrene-d10 | 11.43 |

| Hit# of 5 | Tentative ID        | MW  | MolForm  | CAS#        | Qual |
|-----------|---------------------|-----|----------|-------------|------|
| 1         | n-Hexadecanoic acid | 256 | C16H32O2 | 000057-10-3 | 99   |
| 2         | Tetradecanoic acid  | 228 | C14H28O2 | 000544-63-8 | 86   |
| 3         | Pentadecanoic acid  | 242 | C15H30O2 | 001002-84-2 | 86   |
| 4         | Tridecanoic acid    | 214 | C13H26O2 | 000638-53-9 | 86   |
| 5         | n-Decanoic acid     | 172 | C10H20O2 | 000334-48-5 | 60   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

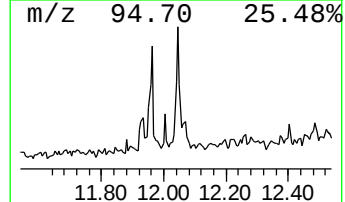
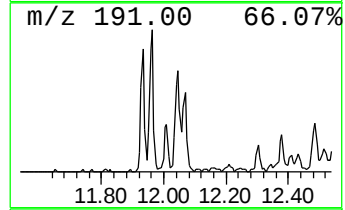
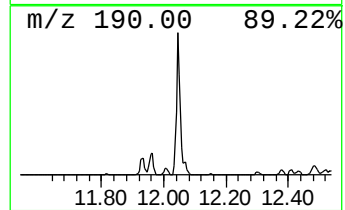
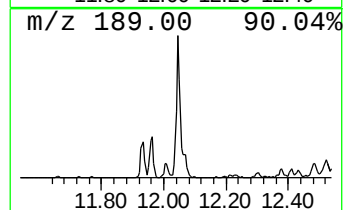
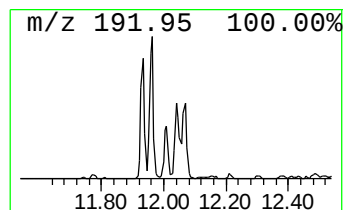
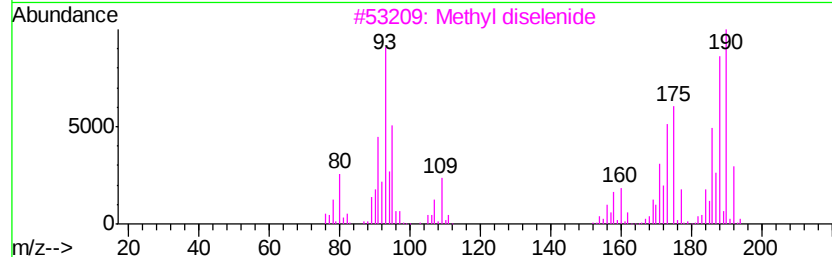
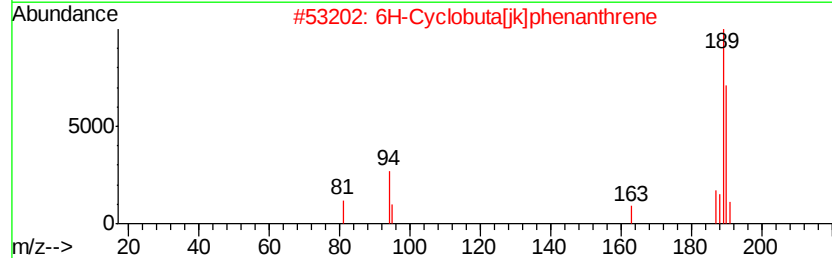
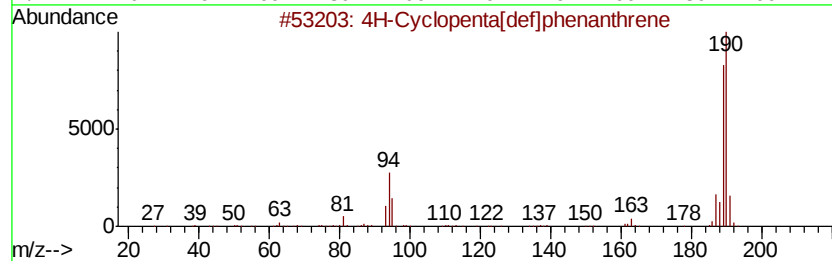
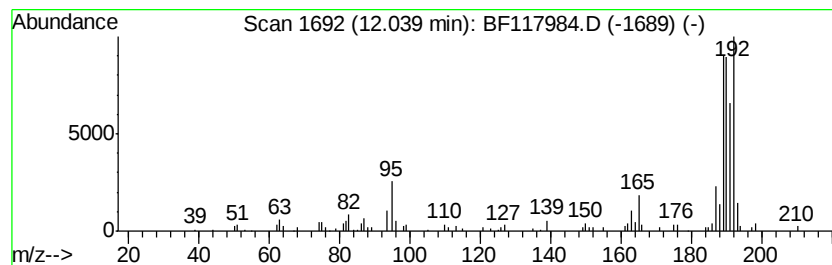
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ClientSampleId :  
DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 6 4H-Cyclopenta[def]phenanthrene Concentration Rank 15

| R.T.      | EstConc                             | Area   | Relative to ISTD | R.T.         |      |
|-----------|-------------------------------------|--------|------------------|--------------|------|
| 12.04     | 2.10 ng                             | 145331 | Phenanthrene-d10 | 11.43        |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm          | CAS#         | Qual |
| 1         | 4H-Cyclopenta[def]phenanthrene      | 190    | C15H10           | 000203-64-5  | 68   |
| 2         | 6H-Cyclobuta[ik]phenanthrene        | 190    | C15H10           | 083469-43-6  | 53   |
| 3         | Methyl diselenide                   | 190    | C2H6Se2          | 007101-31-7  | 45   |
| 4         | Carbonic acid, ethyl 2-formyl-4,... | 262    | C10H8Cl2O4       | 1000331-34-4 | 40   |
| 5         | 2,2'-Bis(4,5-dimethylimidazole)     | 190    | C10H14N4         | 069286-06-2  | 37   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

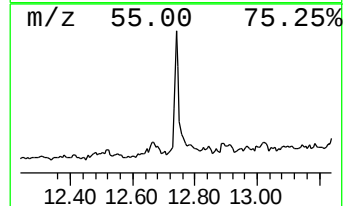
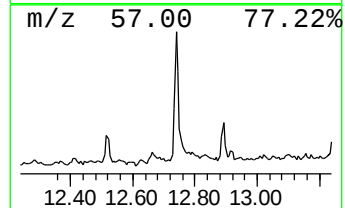
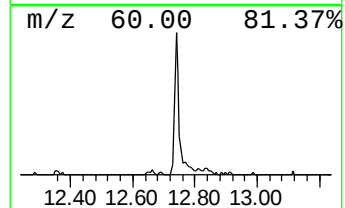
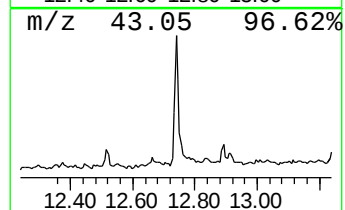
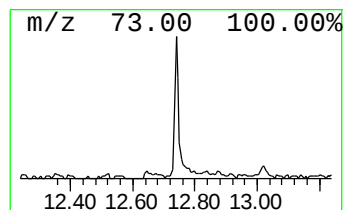
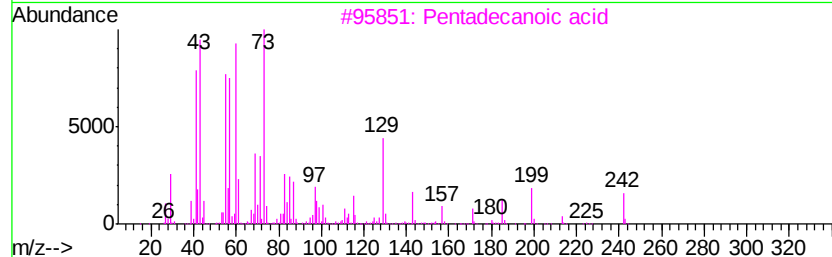
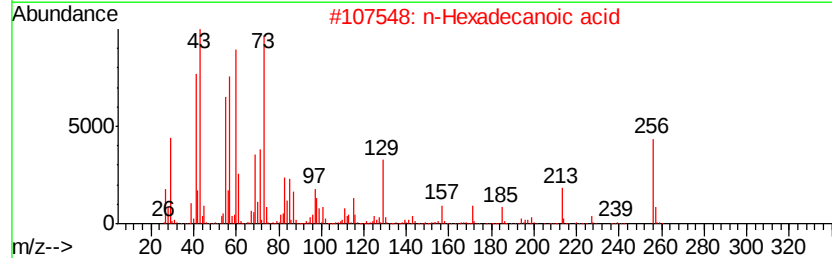
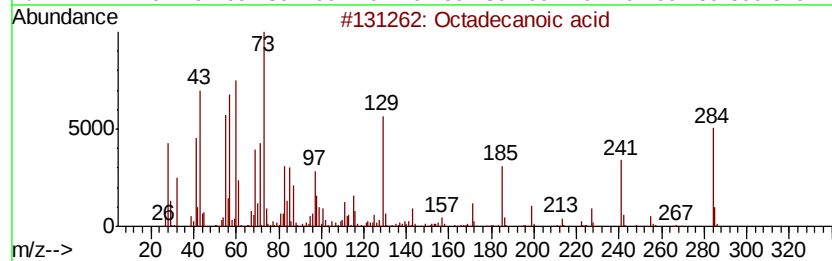
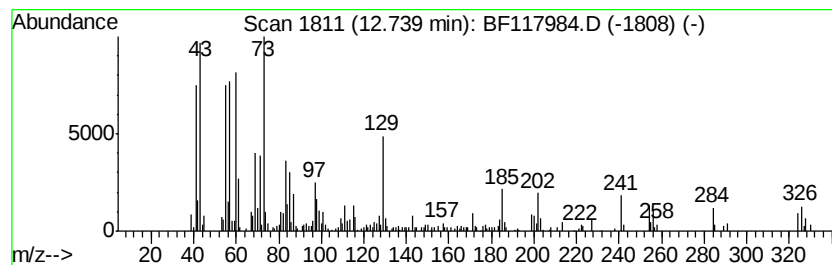
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 7 Octadecanoic acid Concentration Rank 9

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 12.74 | 3.86 ng | 267033 | Phenanthrene-d10 | 11.43 |

| Hit# of | 5 | Tentative ID                       | MW  | MolForm  | CAS#        | Qual |
|---------|---|------------------------------------|-----|----------|-------------|------|
| 1       |   | Octadecanoic acid                  | 284 | C18H36O2 | 000057-11-4 | 99   |
| 2       |   | n-Hexadecanoic acid                | 256 | C16H32O2 | 000057-10-3 | 91   |
| 3       |   | Pentadecanoic acid                 | 242 | C15H30O2 | 001002-84-2 | 83   |
| 4       |   | n-Decanoic acid                    | 172 | C10H20O2 | 000334-48-5 | 60   |
| 5       |   | Octadecanoic acid, 2-(2-hydroxy... | 372 | C22H44O4 | 000106-11-6 | 58   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

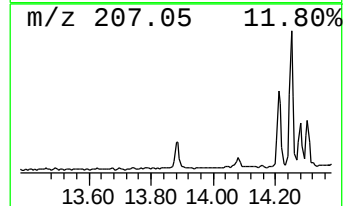
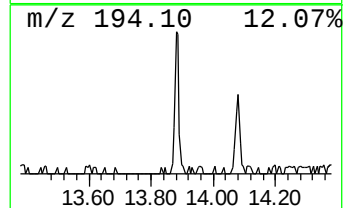
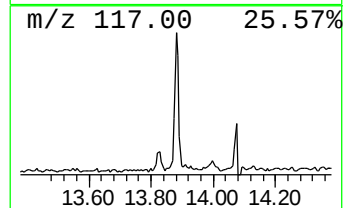
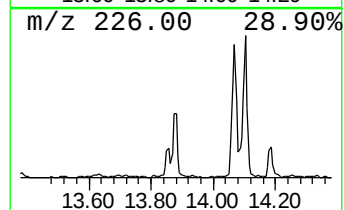
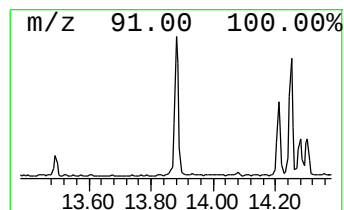
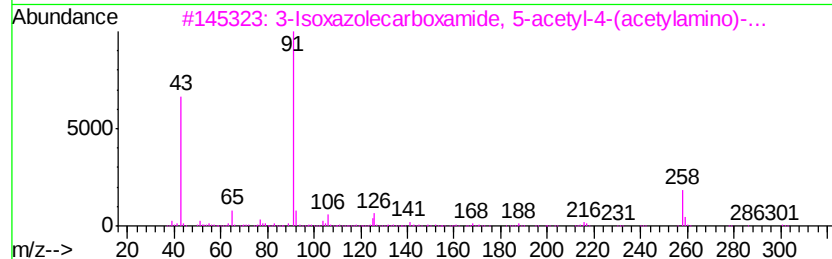
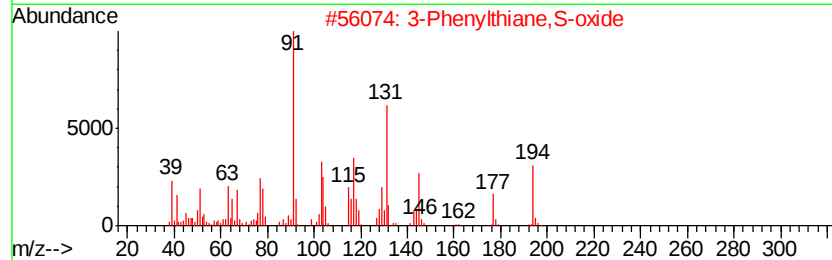
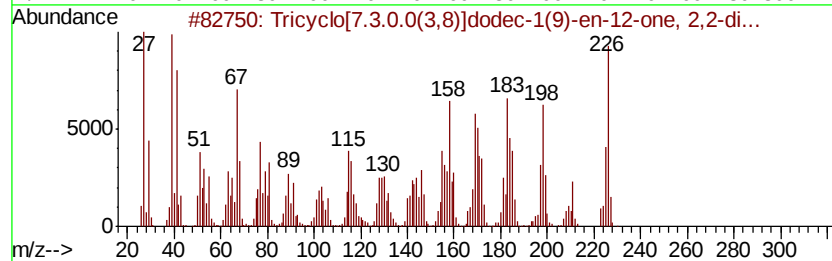
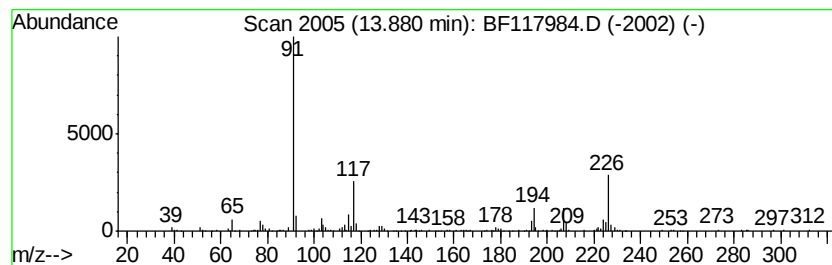
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 8 unknown13.88 Concentration Rank 10

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 13.88 | 3.74 ng | 283976 | Chrysene-d12     | 14.08 |

| Hit# | of | Tentative ID                        | MW  | MolForm    | CAS#         | Qual |
|------|----|-------------------------------------|-----|------------|--------------|------|
| 1    | 5  | Tricyclo[7.3.0.0(3,8)]dodec-1(9)... | 226 | C14H14N2O  | 1000160-53-8 | 20   |
| 2    |    | 3-Phenylthiane,S-oxide              | 194 | C11H14OS   | 058121-26-9  | 16   |
| 3    |    | 3-Isoxazolecarboxamide, 5-acetyl... | 301 | C15H15N3O4 | 1000338-36-8 | 10   |
| 4    |    | Nicotinonitrile, 1,2-dihydro-2-o... | 224 | C14H12N2O  | 004241-21-8  | 10   |
| 5    |    | 2,3-Dihydrobenzoxazol-2-one-3-ca... | 314 | C15H10N2O6 | 300808-99-5  | 10   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

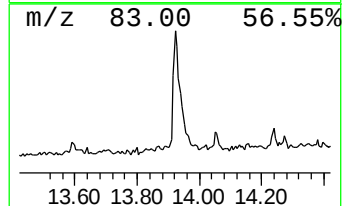
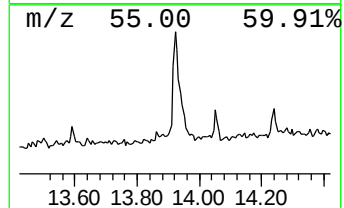
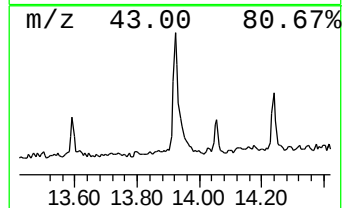
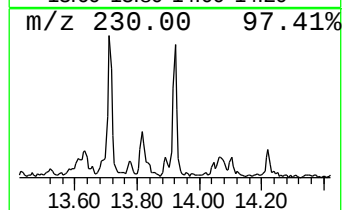
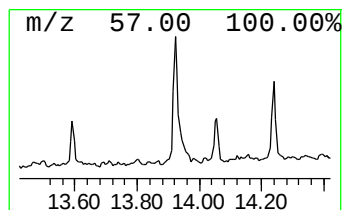
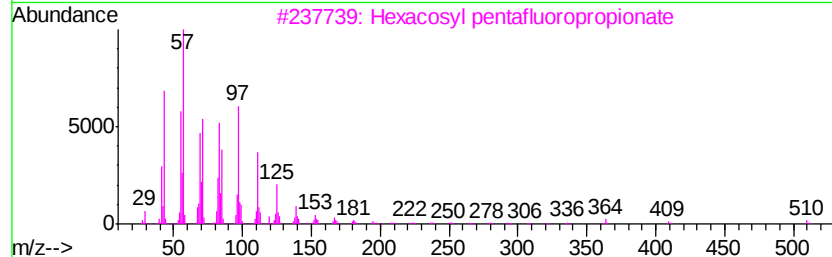
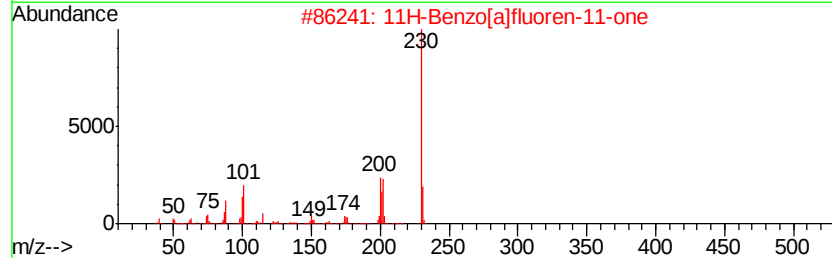
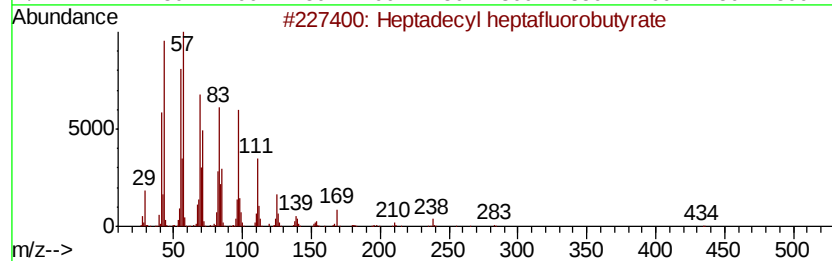
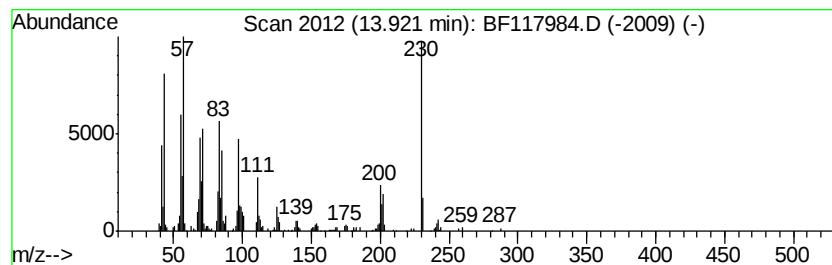
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ClientSampleId :  
DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 Heptadecyl heptafluorobutyrate Concentration Rank 7

| R.T.      | EstConc                         | Area   | Relative to ISTD | R.T.         |      |
|-----------|---------------------------------|--------|------------------|--------------|------|
| 13.92     | 5.02 ng                         | 380939 | Chrysene-d12     | 14.08        |      |
| Hit# of 5 | Tentative ID                    | MW     | MolForm          | CAS#         | Qual |
| 1         | Heptadecyl heptafluorobutyrate  | 452    | C21H35F7O2       | 959085-66-6  | 64   |
| 2         | 11H-Benzo[a]fluoren-11-one      | 230    | C17H10O          | 000479-79-8  | 58   |
| 3         | Hexacosyl pentafluoropropionate | 528    | C29H53F5O2       | 1000351-81-2 | 55   |
| 4         | Ethanol, 2-(tetradecyloxy)-     | 258    | C16H34O2         | 002136-70-1  | 55   |
| 5         | 1-Heneicosanol                  | 312    | C21H44O          | 015594-90-8  | 42   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

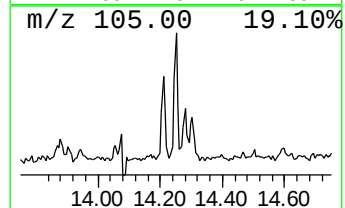
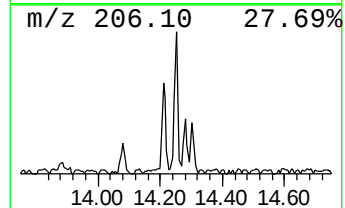
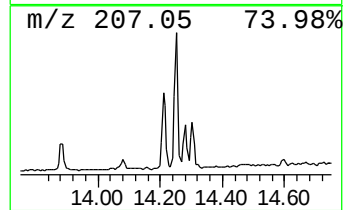
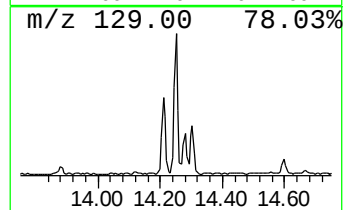
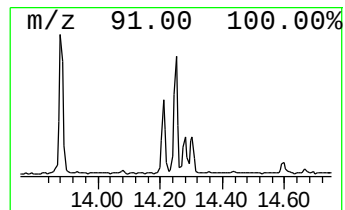
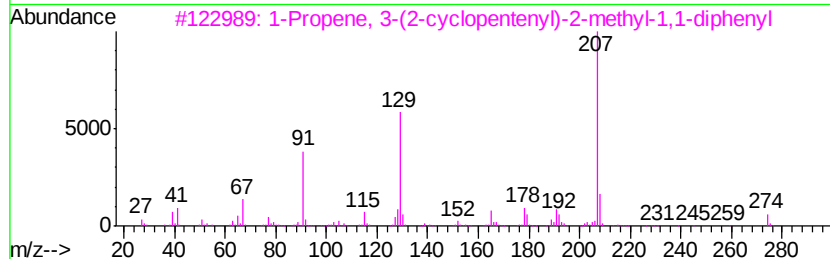
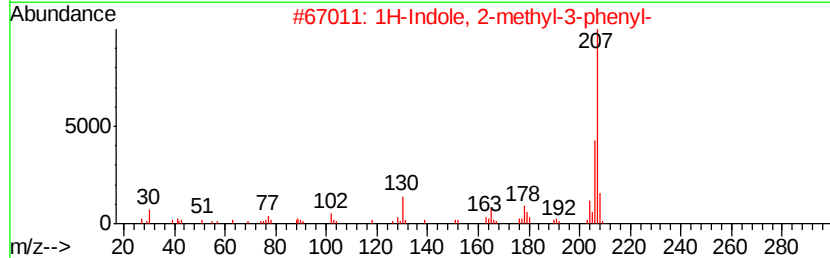
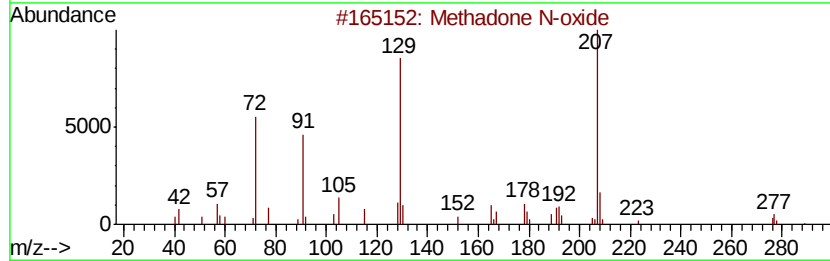
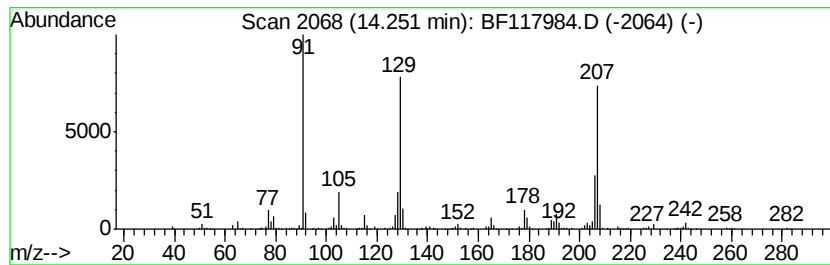
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BNA\_F  
ClientSampleId :  
DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 10 Methadone N-oxide Concentration Rank 8

| R.T.  | EstConc | Area   | Relative to ISTD                    |     | R.T.      |              |      |
|-------|---------|--------|-------------------------------------|-----|-----------|--------------|------|
| 14.25 | 3.94 ng | 298943 | Chrysene-d12                        |     | 14.08     |              |      |
| Hit#  | of      | 5      | Tentative ID                        | MW  | MolForm   | CAS#         | Qual |
| 1     |         |        | Methadone N-oxide                   | 325 | C21H27NO2 | 1000120-80-7 | 58   |
| 2     |         |        | 1H-Indole, 2-methyl-3-phenyl-       | 207 | C15H13N   | 004757-69-1  | 46   |
| 3     |         |        | 1-Propene, 3-(2-cyclopentenyl)-2... | 274 | C21H22    | 1000154-23-3 | 35   |
| 4     |         |        | 1H-Indole, 1-methyl-2-phenyl-       | 207 | C15H13N   | 003558-24-5  | 30   |
| 5     |         |        | Quinoline                           | 129 | C9H7N     | 000091-22-5  | 30   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

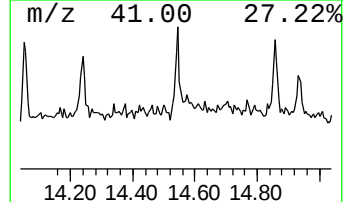
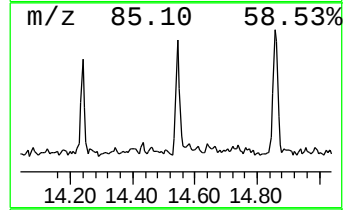
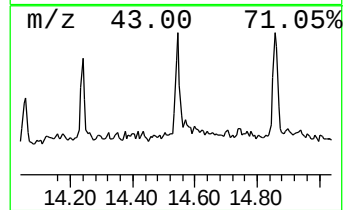
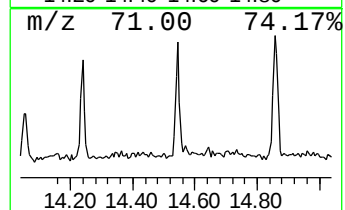
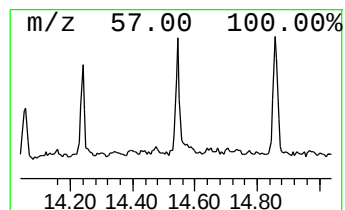
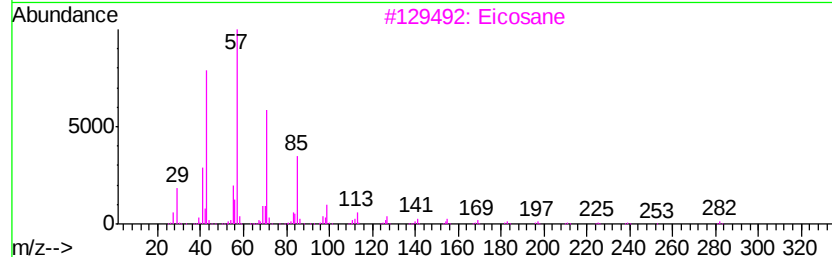
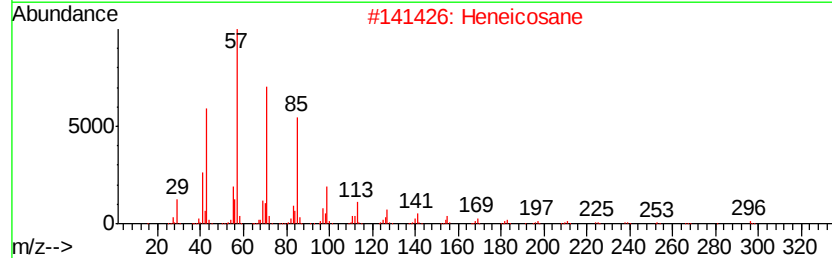
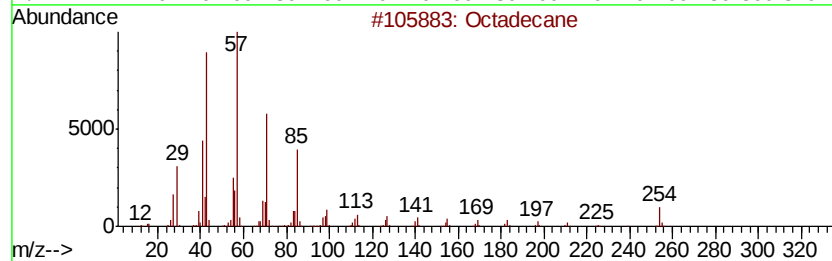
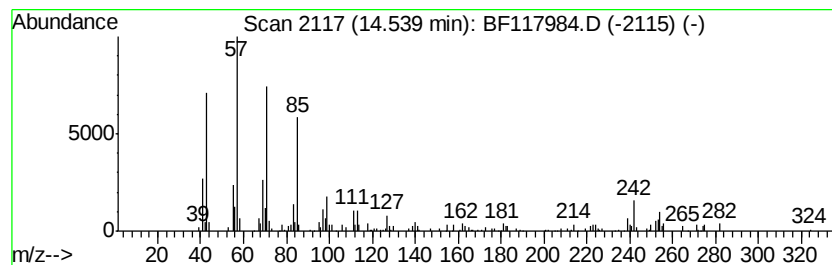
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TIC Integration Parameters: LSCINT.P

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Peak Number 11 Octadecane Concentration Rank 16

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.54 | 2.01 ng | 152685 | Chrysene-d12     | 14.08 |

| Hit# | of | Tentative ID       | MW  | MolForm | CAS#         | Qual |
|------|----|--------------------|-----|---------|--------------|------|
| 1    | 5  | Octadecane         | 254 | C18H38  | 000593-45-3  | 87   |
| 2    |    | Heneicosane        | 296 | C21H44  | 000629-94-7  | 81   |
| 3    |    | Eicosane           | 282 | C20H42  | 000112-95-8  | 81   |
| 4    |    | Octacosane         | 394 | C28H58  | 000630-02-4  | 74   |
| 5    |    | 2-methyloctacosane | 408 | C29H60  | 1000376-72-8 | 74   |



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Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

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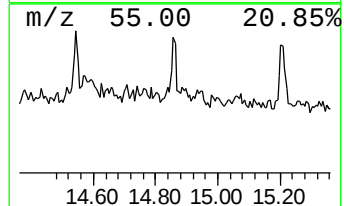
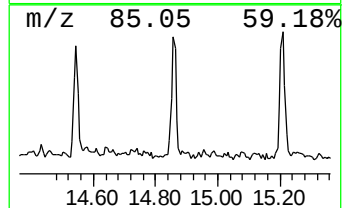
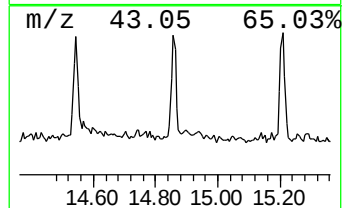
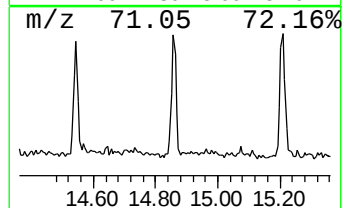
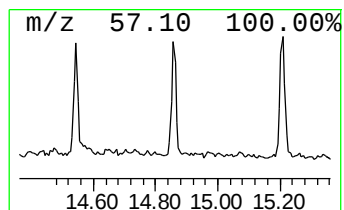
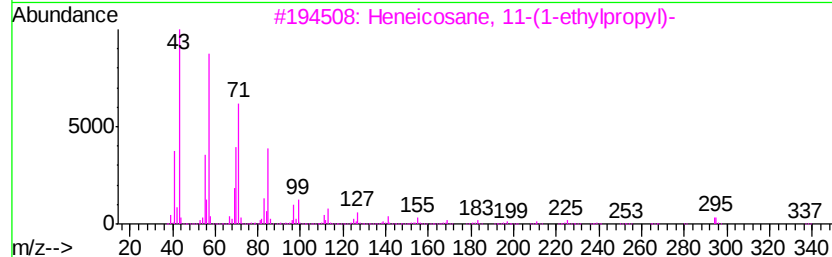
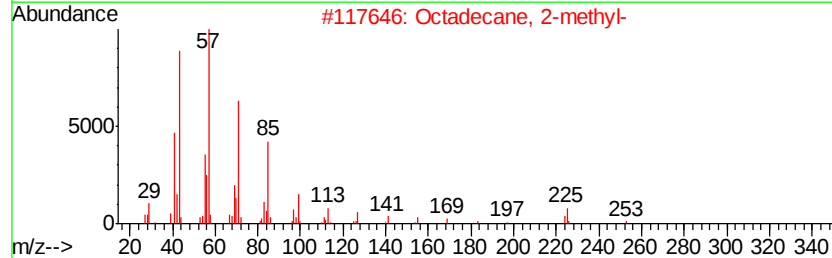
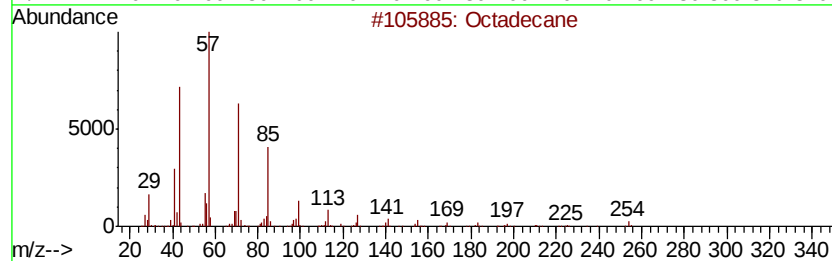
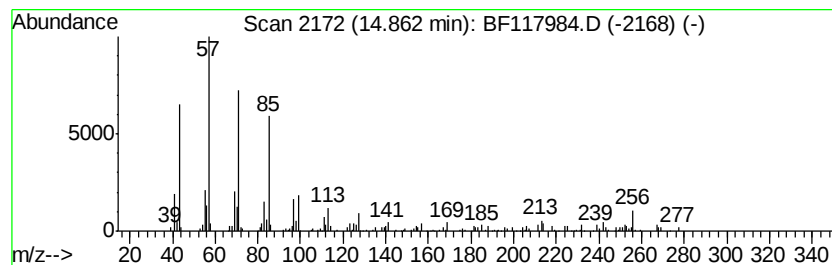
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TIC Integration Parameters: LSCINT.P

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Peak Number 12 Octadecane, 2-methyl- Concentration Rank 13

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 14.86 | 2.62 ng | 104029 | Perylene-d12     | 15.57 |

| Hit# | of | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------------|-----|---------|-------------|------|
| 1    | 5  | Octadecane                       | 254 | C18H38  | 000593-45-3 | 91   |
| 2    |    | Octadecane, 2-methyl-            | 268 | C19H40  | 001560-88-9 | 90   |
| 3    |    | Heneicosane, 11-(1-ethylpropyl)- | 366 | C26H54  | 055282-11-6 | 90   |
| 4    |    | Triacontane                      | 422 | C30H62  | 000638-68-6 | 90   |
| 5    |    | Tetradecane, 2-methyl-           | 212 | C15H32  | 001560-95-8 | 87   |



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Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

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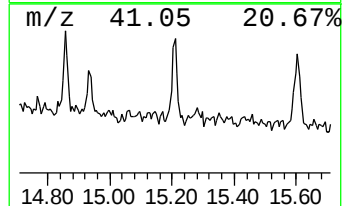
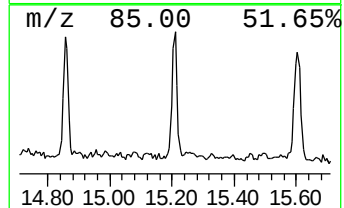
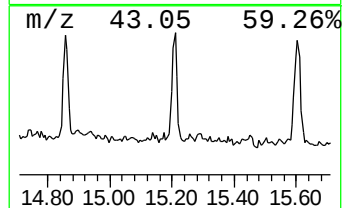
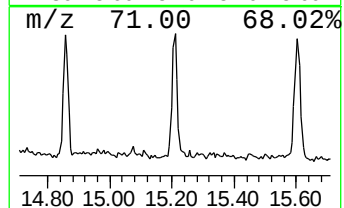
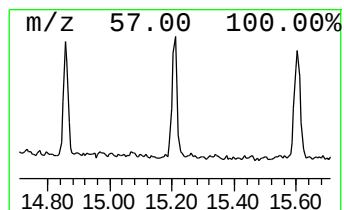
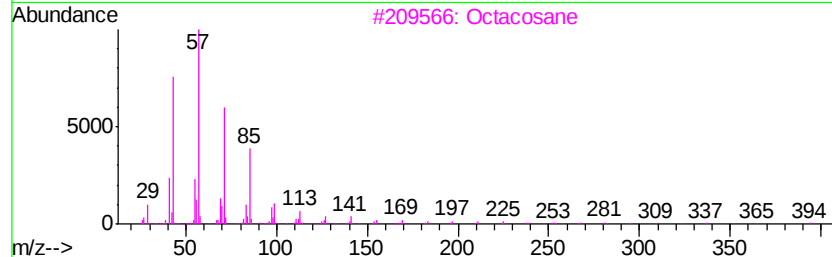
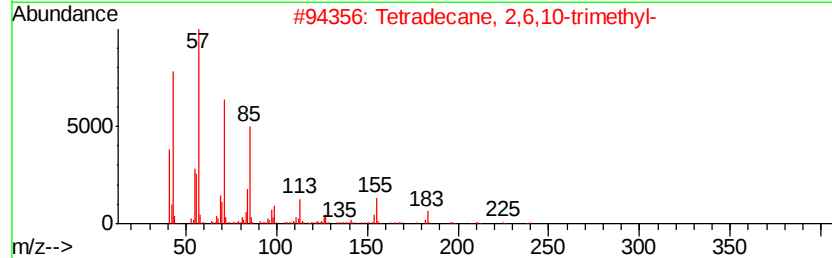
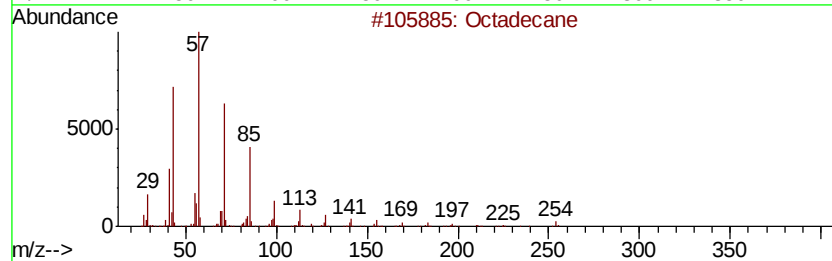
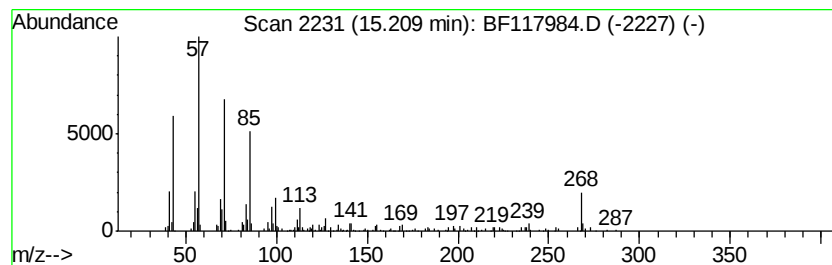
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 13 Hentriacontane Concentration Rank 11

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.21 | 3.62 ng | 143803 | Perylene-d12     | 15.57 |

| Hit# | of | Tentative ID                   | MW  | MolForm | CAS#         | Qual |
|------|----|--------------------------------|-----|---------|--------------|------|
| 1    | 5  | Octadecane                     | 254 | C18H38  | 000593-45-3  | 96   |
| 2    |    | Tetradecane, 2,6,10-trimethyl- | 240 | C17H36  | 014905-56-7  | 90   |
| 3    |    | Octacosane                     | 394 | C28H58  | 000630-02-4  | 81   |
| 4    |    | Hentriacontane                 | 437 | C31H64  | 000630-04-6  | 74   |
| 5    |    | 2-methyloctacosane             | 408 | C29H60  | 1000376-72-8 | 74   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
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Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

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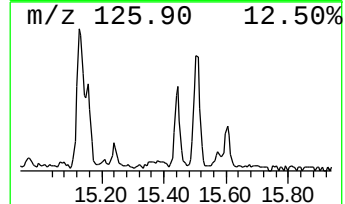
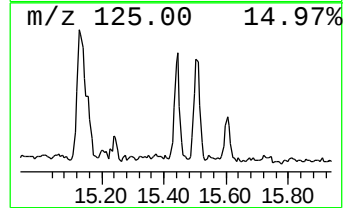
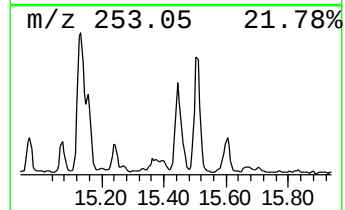
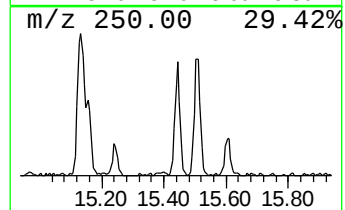
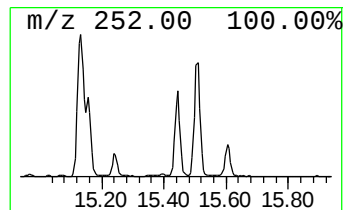
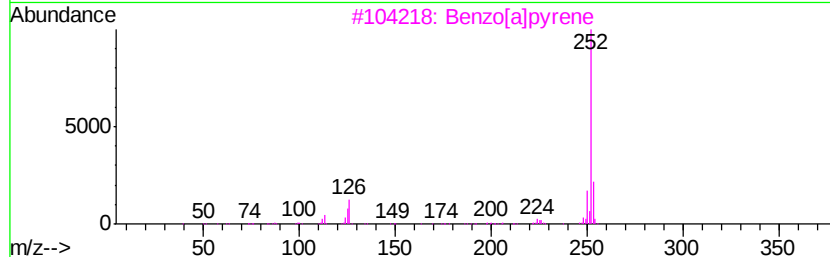
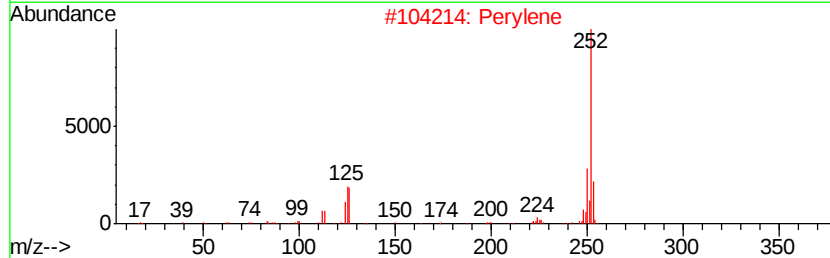
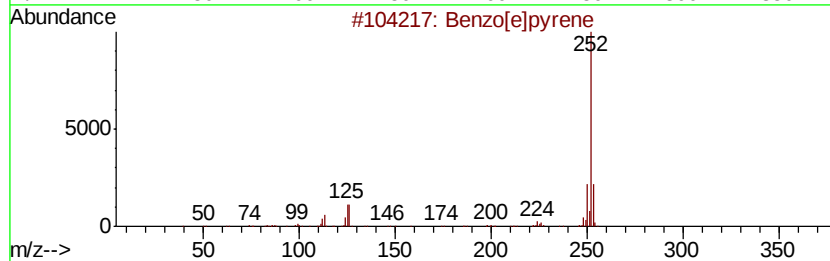
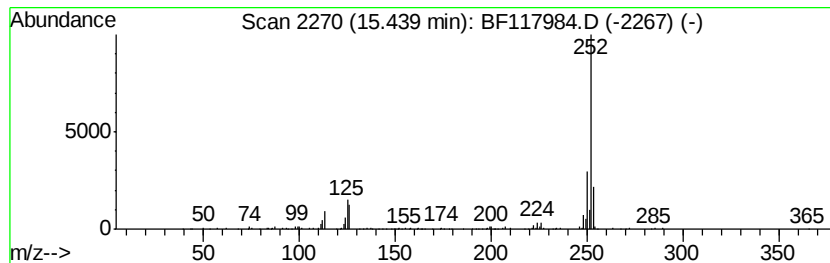
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TIC Integration Parameters: LSCINT.P

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Peak Number 14 Benzo[e]pyrene Concentration Rank 6

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 15.44 | 6.07 ng | 241223 | Perylene-d12     | 15.57 |

| Hit# | of | 5 | Tentative ID             | MW  | MolForm | CAS#        | Qual |
|------|----|---|--------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzo[e]pyrene           | 252 | C20H12  | 000192-97-2 | 99   |
| 2    |    |   | Perylene                 | 252 | C20H12  | 000198-55-0 | 97   |
| 3    |    |   | Benzo[a]pyrene           | 252 | C20H12  | 000050-32-8 | 96   |
| 4    |    |   | Benzo[k]fluoranthene     | 252 | C20H12  | 000207-08-9 | 96   |
| 5    |    |   | Benz[e]acephenanthrylene | 252 | C20H12  | 000205-99-2 | 93   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
Data File : BF117984.D  
Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF111319.M  
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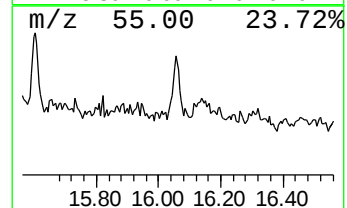
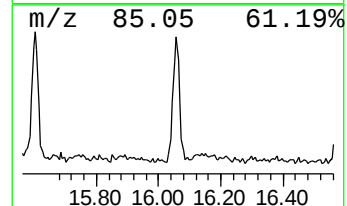
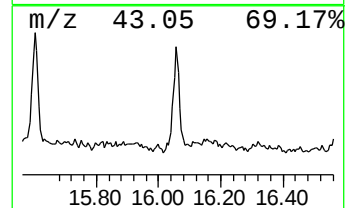
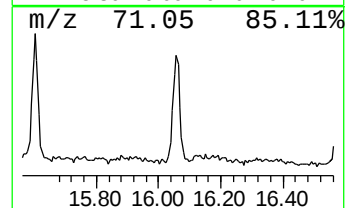
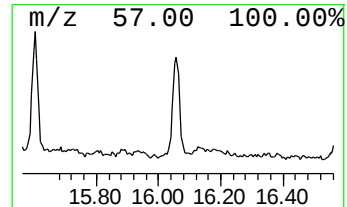
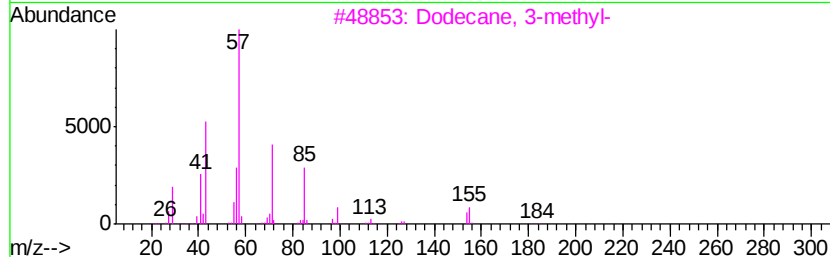
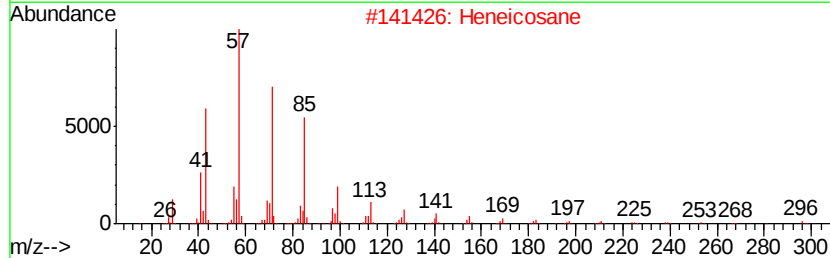
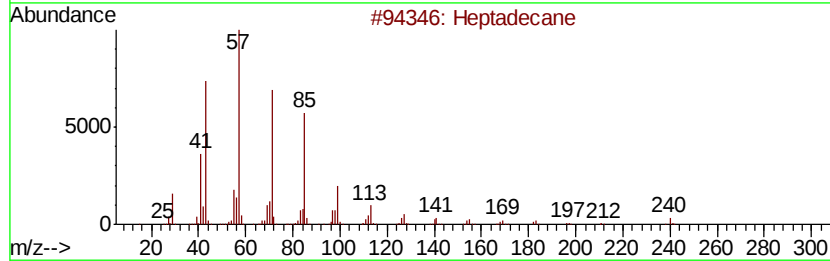
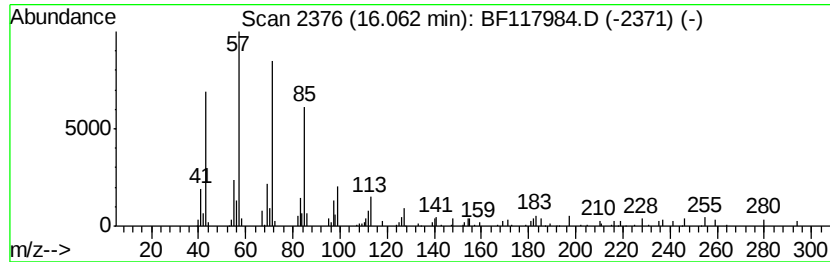
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TIC Integration Parameters: LSCINT.P

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Peak Number 15 Heptadecane Concentration Rank 12

| R.T.  | EstConc | Area   | Relative to ISTD | R.T.  |
|-------|---------|--------|------------------|-------|
| 16.06 | 3.21 ng | 127420 | Perylene-d12     | 15.57 |

| Hit# of | 5                   | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|---------------------|--------------|-----|---------|-------------|------|
| 1       | Heptadecane         |              | 240 | C17H36  | 000629-78-7 | 91   |
| 2       | Heneicosane         |              | 296 | C21H44  | 000629-94-7 | 87   |
| 3       | Dodecane, 3-methyl- |              | 184 | C13H28  | 017312-57-1 | 86   |
| 4       | Octadecane          |              | 254 | C18H38  | 000593-45-3 | 80   |
| 5       | Tetradecane         |              | 198 | C14H30  | 000629-59-4 | 72   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF112519\  
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Acq On : 25 Nov 2019 23:49  
Operator : JU  
Sample : K5973-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
DUCT-BANK-1

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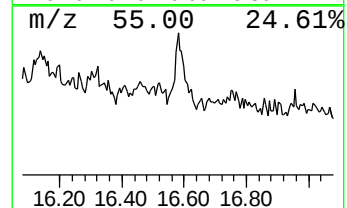
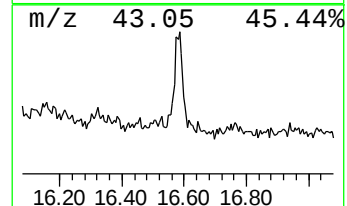
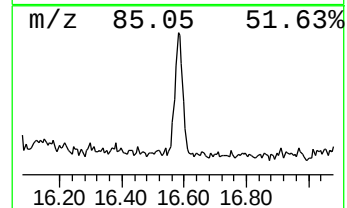
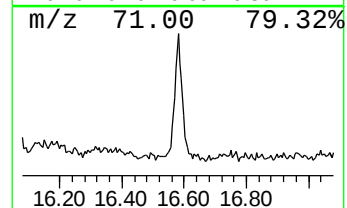
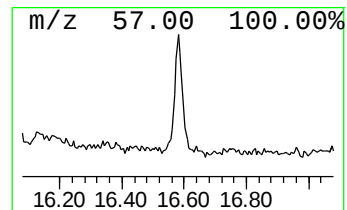
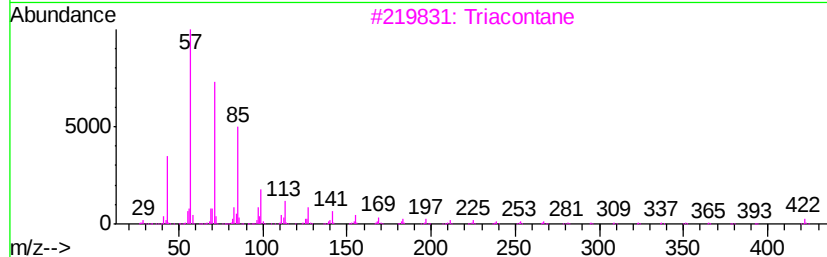
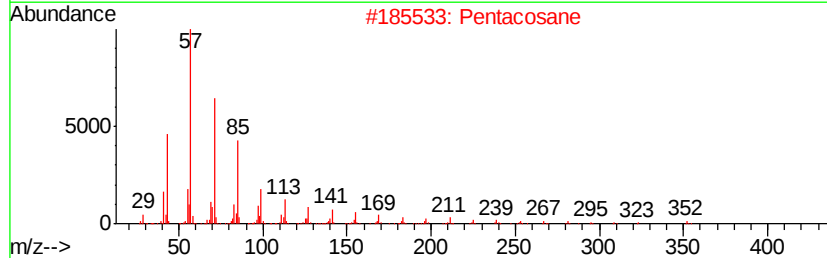
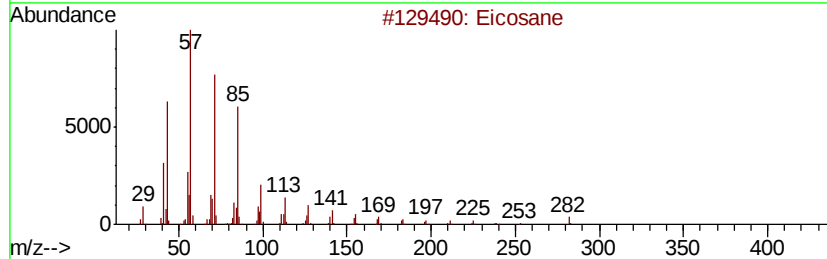
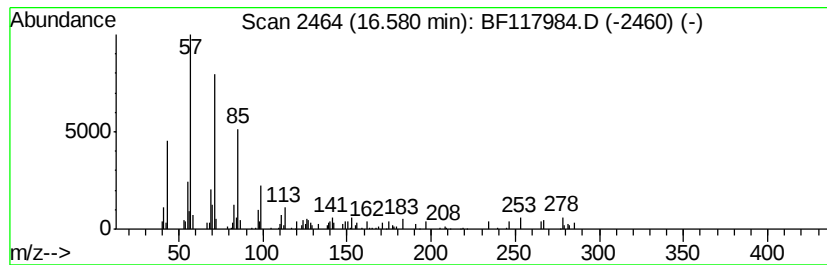
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 16 Eicosane Concentration Rank 14

| R.T.  | EstConc | Area  | Relative to ISTD | R.T.  |
|-------|---------|-------|------------------|-------|
| 16.58 | 2.21 ng | 87897 | Perylene-d12     | 15.57 |

| Hit# | of | 5 | Tentative ID | MW  | MolForm | CAS#        | Qual |
|------|----|---|--------------|-----|---------|-------------|------|
| 1    |    |   | Eicosane     | 282 | C20H42  | 000112-95-8 | 87   |
| 2    |    |   | Pentacosane  | 352 | C25H52  | 000629-99-2 | 86   |
| 3    |    |   | Triacontane  | 422 | C30H62  | 000638-68-6 | 86   |
| 4    |    |   | Heptacosane  | 380 | C27H56  | 000593-49-7 | 83   |
| 5    |    |   | Octacosane   | 394 | C28H58  | 000630-02-4 | 80   |



Data Path : Z:\SVOASRV\HPCHEM1\BNA\_F\DATA\BF112519\  
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 Operator : JU  
 Sample : K5973-01  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 DUCT-BANK-1

Quant Method : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\8270-BF111319.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST11.L  
 TIC Integration Parameters: LSCINT.P

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| Butane, 2-methoxy... | 2.20  | 15.7    | ng    | 620060   | 1                     | 6.89  | 787646  | 20.0 |
| 2-Pentanone, 4-hy... | 5.10  | 11.7    | ng    | 458841   | 1                     | 6.89  | 787646  | 20.0 |
| unknown6.66          | 6.66  | 63.8    | ng    | 2513360  | 1                     | 6.89  | 787646  | 20.0 |
| n-Hexadecanoic acid  | 11.96 | 7.5     | ng    | 517423   | 4                     | 11.43 | 1384820 | 20.0 |
| 4H-Cyclopenta[def... | 12.04 | 2.1     | ng    | 145331   | 4                     | 11.43 | 1384820 | 20.0 |
| Octadecanoic acid    | 12.74 | 3.9     | ng    | 267033   | 4                     | 11.43 | 1384820 | 20.0 |
| unknown13.88         | 13.88 | 3.7     | ng    | 283976   | 5                     | 14.08 | 1518230 | 20.0 |
| Heptadecyl heptaf... | 13.92 | 5.0     | ng    | 380939   | 5                     | 14.08 | 1518230 | 20.0 |
| Methadone N-oxide    | 14.25 | 3.9     | ng    | 298943   | 5                     | 14.08 | 1518230 | 20.0 |
| Octadecane           | 14.54 | 2.0     | ng    | 152685   | 5                     | 14.08 | 1518230 | 20.0 |
| Octadecane, 2-met... | 14.86 | 2.6     | ng    | 104029   | 6                     | 15.57 | 794780  | 20.0 |
| Hentriacontane       | 15.21 | 3.6     | ng    | 143803   | 6                     | 15.57 | 794780  | 20.0 |
| Benzo[e]pyrene       | 15.44 | 6.1     | ng    | 241223   | 6                     | 15.57 | 794780  | 20.0 |
| Heptadecane          | 16.06 | 3.2     | ng    | 127420   | 6                     | 15.57 | 794780  | 20.0 |
| Eicosane             | 16.58 | 2.2     | ng    | 87897    | 6                     | 15.57 | 794780  | 20.0 |