

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF091819\  
 Data File : BF117163.D  
 Acq On : 18 Sep 2019 23:33  
 Operator : HP/JU  
 Sample : K4927-01MS  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SOIL-COMP-1MS

Manual Integrations  
 APPROVED

Jagrut  
 9/19/2019 10:42:15 AM

Quant Time: Sep 19 08:20:32 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Sep 13 16:23:17 2019  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 6.82  | 152  | 68661    | 20.00 | ng    | 0.00     |
| 21) Naphthalene-d8        | 8.10  | 136  | 271864   | 20.00 | ng    | 0.00     |
| 39) Acenaphthene-d10      | 9.85  | 164  | 112149   | 20.00 | ng    | 0.00     |
| 64) Phenanthrene-d10      | 11.33 | 188  | 229095   | 20.00 | ng    | 0.00     |
| 76) Chrysene-d12          | 13.97 | 240  | 155078   | 20.00 | ng    | 0.00     |
| 87) Perylene-d12          | 15.41 | 264  | 157114   | 20.00 | ng    | -0.01    |

## System Monitoring Compounds

|                          |       |     |        |        |    |      |
|--------------------------|-------|-----|--------|--------|----|------|
| 5) 2-Fluorophenol        | 5.45  | 112 | 315223 | 71.68  | ng | 0.01 |
| 7) Phenol-d6             | 6.46  | 99  | 597719 | 105.17 | ng | 0.00 |
| 23) Nitrobenzene-d5      | 7.39  | 82  | 369062 | 71.33  | ng | 0.00 |
| 42) 2,4,6-Tribromophenol | 10.64 | 330 | 126197 | 134.64 | ng | 0.00 |
| 45) 2-Fluorobiphenyl     | 9.17  | 172 | 428737 | 59.77  | ng | 0.00 |
| 79) Terphenyl-d14        | 12.91 | 244 | 565190 | 68.12  | ng | 0.00 |

## Target Compounds

|                                |      |     |        |        |    | Qvalue |
|--------------------------------|------|-----|--------|--------|----|--------|
| 2) 1,4-Dioxane                 | 2.59 | 88  | 37963  | 20.629 | ng | 96     |
| 3) Pyridine                    | 3.35 | 79  | 103395 | 20.527 | ng | 96     |
| 4) n-Nitrosodimethylamine      | 3.29 | 42  | 44480  | 25.732 | ng | 82     |
| 6) Aniline                     | 6.49 | 93  | 146142 | 19.971 | ng | # 90   |
| 8) 2-Chlorophenol              | 6.61 | 128 | 214975 | 45.311 | ng | 98     |
| 9) Benzaldehyde                | 6.37 | 77  | 122611 | 44.156 | ng | 96     |
| 10) Phenol                     | 6.47 | 94  | 279145 | 44.552 | ng | 95     |
| 11) bis(2-Chloroethyl)ether    | 6.56 | 93  | 195662 | 42.489 | ng | 99     |
| 12) 1,3-Dichlorobenzene        | 6.76 | 146 | 220438 | 41.406 | ng | 99     |
| 13) 1,4-Dichlorobenzene        | 6.84 | 146 | 227814 | 41.931 | ng | 99     |
| 14) 1,2-Dichlorobenzene        | 6.99 | 146 | 211916 | 41.894 | ng | 98     |
| 15) Benzyl Alcohol             | 6.97 | 79  | 193576 | 44.414 | ng | 99     |
| 16) 2,2'-oxybis(1-Chloropropan | 7.10 | 45  | 186900 | 41.080 | ng | 92     |
| 17) 2-Methylphenol             | 7.08 | 107 | 175169 | 44.054 | ng | 93     |
| 18) Hexachloroethane           | 7.33 | 117 | 87733  | 41.975 | ng | 96     |
| 19) n-Nitroso-di-n-propylamine | 7.23 | 70  | 152551 | 44.079 | ng | 94     |
| 20) 3+4-Methylphenols          | 7.23 | 107 | 224235 | 45.274 | ng | 93     |
| 22) Acetophenone               | 7.23 | 105 | 309859 | 44.860 | ng | 97     |
| 24) Nitrobenzene               | 7.40 | 77  | 233466 | 45.691 | ng | 97     |
| 25) Isophorone                 | 7.65 | 82  | 421861 | 46.048 | ng | 99     |
| 26) 2-Nitrophenol              | 7.72 | 139 | 108835 | 49.588 | ng | 99     |
| 27) 2,4-Dimethylphenol         | 7.76 | 122 | 185696 | 53.353 | ng | 99     |
| 28) bis(2-Chloroethoxy)methane | 7.85 | 93  | 250785 | 44.431 | ng | 99     |
| 29) 2,4-Dichlorophenol         | 7.96 | 162 | 172054 | 47.178 | ng | 99     |
| 30) 1,2,4-Trichlorobenzene     | 8.05 | 180 | 171628 | 43.560 | ng | 99     |
| 31) Naphthalene                | 8.12 | 128 | 605339 | 46.298 | ng | 99     |
| 32) Benzoic acid               | 7.89 | 122 | 82376  | 33.633 | ng | 93     |
| 33) 4-Chloroaniline            | 8.17 | 127 | 49376  | 8.514  | ng | 98     |
| 34) Hexachlorobutadiene        | 8.24 | 225 | 97366  | 43.557 | ng | 96     |
| 35) Caprolactam                | 8.54 | 113 | 60181m | 48.753 | ng |        |
| 36) 4-Chloro-3-methylphenol    | 8.66 | 107 | 192796 | 45.338 | ng | 96     |
| 37) 2-Methylnaphthalene        | 8.81 | 142 | 292649 | 33.238 | ng | 99     |
| 38) 1-Methylnaphthalene        | 8.91 | 142 | 271267 | 32.896 | ng | 99     |
| 40) 1,2,4,5-Tetrachlorobenzene | 8.98 | 216 | 115645 | 39.933 | ng | 98     |

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF091819\  
 Data File : BF117163.D  
 Acq On : 18 Sep 2019 23:33  
 Operator : HP/JU  
 Sample : K4927-01MS  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 BNA\_F  
 ClientSampleId :  
 SOIL-COMP-1MS

Manual Integrations  
 APPROVED

Jagrut  
 9/19/2019 10:42:15 AM

Quant Time: Sep 19 08:20:32 2019  
 Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Sep 13 16:23:17 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 41) Hexachlorocyclopentadiene  | 8.97  | 237  | 92403    | 72.951 | nq    | 99       |
| 43) 2,4,6-Trichlorophenol      | 9.09  | 196  | 70588    | 35.917 | nq    | 98       |
| 44) 2,4,5-Trichlorophenol      | 9.14  | 196  | 80185    | 38.188 | nq    | 98       |
| 46) 1,1'-Biphenyl              | 9.27  | 154  | 316346   | 35.961 | nq    | 98       |
| 47) 2-Chloronaphthalene        | 9.30  | 162  | 256280   | 36.914 | nq    | 98       |
| 48) 2-Nitroaniline             | 9.40  | 65   | 73886    | 33.179 | nq    | 99       |
| 49) Acenaphthylene             | 9.72  | 152  | 439610   | 42.268 | nq    | 99       |
| 50) Dimethylphthalate          | 9.57  | 163  | 328279   | 41.341 | nq    | 99       |
| 51) 2,6-Dinitrotoluene         | 9.64  | 165  | 68384    | 42.284 | nq    | 97       |
| 52) Acenaphthene               | 9.89  | 154  | 264580   | 42.915 | nq    | 99       |
| 53) 3-Nitroaniline             | 9.81  | 138  | 38966    | 19.096 | nq    | 95       |
| 54) 2,4-Dinitrophenol          | 9.92  | 184  | 46553    | 68.192 | nq    | 95       |
| 55) Dibenzofuran               | 10.06 | 168  | 426066   | 46.839 | nq    | 96       |
| 56) 4-Nitrophenol              | 9.98  | 139  | 94541    | 71.488 | nq    | 94       |
| 57) 2,4-Dinitrotoluene         | 10.05 | 165  | 103517   | 49.310 | nq    | 97       |
| 58) Fluorene                   | 10.40 | 166  | 385311   | 52.584 | nq    | 99       |
| 59) 2,3,4,6-Tetrachlorophenol  | 10.18 | 232  | 76916    | 47.868 | nq    | # 99     |
| 60) Diethylphthalate           | 10.27 | 149  | 399762   | 51.171 | nq    | 99       |
| 61) 4-Chlorophenyl-phenylether | 10.39 | 204  | 165075   | 52.069 | nq    | 94       |
| 62) 4-Nitroaniline             | 10.42 | 138  | 105712   | 49.816 | nq    | 95       |
| 63) Azobenzene                 | 10.55 | 77   | 460902   | 57.765 | nq    | 99       |
| 65) 4,6-Dinitro-2-methylphenol | 10.46 | 198  | 48276    | 46.500 | nq    | 99       |
| 66) n-Nitrosodiphenylamine     | 10.51 | 169  | 369866   | 46.747 | nq    | 98       |
| 67) 4-Bromophenyl-phenylether  | 10.87 | 248  | 106912   | 45.696 | nq    | 95       |
| 68) Hexachlorobenzene          | 10.95 | 284  | 112104   | 43.808 | nq    | 96       |
| 69) Atrazine                   | 11.03 | 200  | 102833   | 55.687 | nq    | 100      |
| 70) Pentachlorophenol          | 11.14 | 266  | 101953   | 84.996 | nq    | 97       |
| 71) Phenanthrene               | 11.36 | 178  | 593760   | 45.630 | nq    | 99       |
| 72) Anthracene                 | 11.41 | 178  | 627542   | 47.238 | nq    | 98       |
| 73) Carbazole                  | 11.56 | 167  | 585437   | 46.427 | nq    | 99       |
| 74) Di-n-butylphthalate        | 11.89 | 149  | 691807   | 46.111 | nq    | 99       |
| 75) Fluoranthene               | 12.54 | 202  | 605291   | 45.271 | nq    | 98       |
| 77) Benzidine                  | 12.66 | 184  | 195368   | 39.109 | nq    | 99       |
| 78) Pyrene                     | 12.77 | 202  | 619053   | 47.575 | nq    | 99       |
| 80) Butylbenzylphthalate       | 13.38 | 149  | 290103   | 47.183 | nq    | 100      |
| 81) Benzo(a)anthracene         | 13.96 | 228  | 465134   | 44.893 | nq    | 100      |
| 82) 3,3'-Dichlorobenzidine     | 13.92 | 252  | 74274    | 22.246 | nq    | 97       |
| 83) Chrysene                   | 13.99 | 228  | 466000   | 46.115 | nq    | 99       |
| 84) Bis(2-ethylhexyl)phthalate | 13.94 | 149  | 384187   | 48.462 | nq    | 99       |
| 85) Di-n-octyl phthalate       | 14.54 | 149  | 616549   | 49.413 | nq    | 99       |
| 86) Indeno(1,2,3-cd)pyrene     | 16.86 | 276  | 435328   | 59.048 | nq    | 99       |
| 88) Benzo(b)fluoranthene       | 14.99 | 252  | 421338   | 44.272 | nq    | 100      |
| 89) Benzo(k)fluoranthene       | 15.02 | 252  | 373908   | 41.475 | nq    | 99       |
| 90) Benzo(a)pyrene             | 15.35 | 252  | 386136   | 46.237 | nq    | 98       |
| 91) Dibenzo(a,h)anthracene     | 16.86 | 278  | 365510   | 54.940 | nq    | 99       |
| 92) Benzo(g,h,i)perylene       | 17.28 | 276  | 366787   | 55.326 | nq    | 98       |

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

Data Path : Z:\SVOASRV\HPCHEM1\BNA F\DATA\BF091819\  
Data File : BF117163.D  
Acq On : 18 Sep 2019 23:33  
Operator : HP/JU  
Sample : K4927-01MS  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
BNA\_F  
ClientSampleId :  
SOIL-COMP-1MS

Manual Integrations  
APPROVED

Jagrut  
9/19/2019 10:42:15 AM

Quant Time: Sep 19 08:20:32 2019  
Quant Method : Z:\SVOASRV\HPCHEM1\BNA F\METHODS\8270-BF091319.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Fri Sep 13 16:23:17 2019  
Response via : Initial Calibration

