Table 1:USFS PM 2.5 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **403.87 (0.01)** |  |  |  |  |  |  |  |  |  |
| CO | -140.69 (1.00) | **-544.55 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | **585.30 (< 0.01)** | 181.43 (0.48) | **725.98 (< 0.01)** |  |  |  |  |  |  |  |
| MT | 240.40 (0.54) | -163.47 (0.26) | **381.08 (0.03)** | **-344.90 (< 0.01)** |  |  |  |  |  |  |
| NM | -339.83 (0.56) | **-743.70 (< 0.01)** | -199.15 (1.00) | **-925.13 (< 0.01)** | **-580.23 (< 0.01)** |  |  |  |  |  |
| NV | 682.21 (1.00) | 278.35 (1.00) | 822.90 (1.00) | 96.92 (1.00) | 441.82 (1.00) | 1022.05 (0.54) |  |  |  |  |
| OR | 91.14 (1.00) | **-312.73 (< 0.01)** | 231.82 (1.00) | **-494.16 (< 0.01)** | -149.26 (0.36) | **430.97 (0.02)** | -591.08 (1.00) |  |  |  |
| UT | 117.11 (1.00) | -286.76 (0.67) | 257.79 (1.00) | **-468.19 (0.02)** | -123.29 (1.00) | 456.94 (0.20) | -565.11 (1.00) | 25.97 (1.00) |  |  |
| WA | 163.63 (1.00) | -240.24 (0.47) | 304.31 (0.67) | **-421.67 (< 0.01)** | -76.77 (1.00) | **503.46 (0.02)** | -518.59 (1.00) | 72.49 (1.00) | 46.52 (1.00) |  |
| WY | -383.99 (0.81) | **-787.86 (< 0.01)** | -243.31 (1.00) | **-969.29 (< 0.01)** | **-624.39 (< 0.01)** | -44.16 (1.00) | -1066.21 (0.52) | -475.13 (0.12) | -501.10 (0.36) | -547.62 (0.07) |

Table 2:USFS PM10 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | 45.62 (1.00) |  |  |  |  |  |  |  |  |  |
| CO | **536.98 (0.01)** | **491.37 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | 60.28 (1.00) | 14.67 (1.00) | **-476.70 (< 0.01)** |  |  |  |  |  |  |  |
| MT | 57.14 (1.00) | 11.53 (1.00) | **-479.84 (< 0.01)** | -3.14 (1.00) |  |  |  |  |  |  |
| NM | 43.70 (1.00) | -1.92 (1.00) | -493.29 (0.05) | -16.59 (1.00) | -13.45 (1.00) |  |  |  |  |  |
| NV | 495.76 (1.00) | 450.15 (1.00) | -41.22 (1.00) | 435.48 (1.00) | 438.62 (1.00) | 452.06 (1.00) |  |  |  |  |
| OR | **-497.78 (< 0.01)** | **-543.40 (<0.01)** | **-1034.76 (< 0.01)** | **-558.06 (< 0.01)** | **-554.93 (< 0.01)** | **-541.48 (< 0.01)** | -993.54 (0.65) |  |  |  |
| UT | 487.40 (0.06) | **441.78 (0.03)** | -49.58 (1.00) | 427.11 (0.05) | **430.25 (0.03)** | 443.70 (0.24) | -8.36 (1.00) | **985.18 (< 0.01)** |  |  |
| WA | -7.33 (1.00) | -52.95 (1.00) | **-544.31 (< 0.01)** | -67.61 (1.00) | -64.48 (1.00) | -51.03 (1.00) | -503.09 (1.00) | **490.45 (< 0.01)** | **-494.73 (0.03)** |  |
| WY | -184.05 (1.00) | -229.66 (1.00) | **-721.03 (0.01)** | -244.33 (1.00) | -241.19 (1.00) | -227.74 (1.00) | -679.81 (1.00) | 313.73 (1.00) | **-671.44 (0.03)** | -176.72 (1.00) |

Table 3:USFS Lead Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-1832.28 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | **-743.15 (< 0.01)** | **1089.13 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | **-1396.66 (< 0.01)** | **435.62 (< 0.01)** | **-653.50 (< 0.01)** |  |  |  |  |  |  |  |
| MT | **-1060.22 (< 0.01)** | **772.06 (< 0.01)** | -317.07  (0.10) | **336.43 (< 0.01)** |  |  |  |  |  |  |
| NM | -377.13 (0.19) | **1455.15 (< 0.01)** | 366.03 (0.26) | **1019.53 (< 0.01)** | **683.10 (< 0.01)** |  |  |  |  |  |
| NV | **-2230.10 (< 0.01)** | -397.82 (1.00) | **-1486.95 (0.02)** | -833.45 (0.56) | -1169.88 (0.11) | **-1852.98 (< 0.01)** |  |  |  |  |
| OR | **-1436.16 (< 0.01)** | **396.12 (< 0.01)** | **-693.01 (< 0.01)** | -39.50 (1.00) | **-375.94 (< 0.01)** | **-1059.03 (< 0.01)** | 793.94 (0.62) |  |  |  |
| UT | -453.66 (0.07) | **1378.62 (< 0.01)** | 289.49 (0.62) | **943.00 (< 0.01)** | **606.57 (< 0.01)** | -76.53 (1.00) | **1776.44 (< 0.01)** | **982.50 (< 0.01)** |  |  |
| WA | **-1190.68 (< 0.01)** | **641.60 (< 0.01)** | **-447.53 (0.03)** | 205.98 (0.55) | -130.46 (0.97) | **-813.55 (< 0.01)** | 1039.42 (0.24) | 245.48 (0.20) | **-737.02 (< 0.01)** |  |
| WY | **-1093.54 (< 0.01)** | **738.73 (< 0.01)** | -350.39 (0.62) | 303.11 (0.62) | -33.32 (1.00) | **-716.42 (< 0.01)** | 1136.56 (0.20) | 342.61 (0.44) | **-639.89 (0.03)** | 97.13 (1.00) |

Table 4:USFS CO Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | 48.82 (1.00) |  |  |  |  |  |  |  |  |  |
| CO | 408.99 (0.07) | **360.17 (0.04)** |  |  |  |  |  |  |  |  |
| ID | **1246.83 (< 0.01)** | **1198.01 (< 0.01)** | **837.84 (< 0.01)** |  |  |  |  |  |  |  |
| MT | **802.20 (< 0.01)** | **753.39 (< 0.01)** | **393.21 (0.01)** | **-444.63 (< 0.01)** |  |  |  |  |  |  |
| NM | **-480.48 (0.02)** | **-529.30 (< 0.01)** | **-889.47 (< 0.01)** | **-1727.32 (< 0.01)** | **-1282.69 (< 0.01)** |  |  |  |  |  |
| NV | 1222.95 (0.07) | 1174.13 (0.08) | 813.96 (0.69) | -23.88 (1.00) | 420.75 (1.00) | **1703.44 (< 0.01)** |  |  |  |  |
| OR | **388.72 (0.01)** | **339.90 (< 0.01)** | -20.27 (1.00) | **-858.11 (< 0.01)** | **-413.48 (< 0.01)** | **869.20 (< 0.01)** | -834.23 (0.60) |  |  |  |
| UT | **655.70 (< 0.01)** | **606.88 (< 0.01)** | 246.71 (1.00) | **-591.13 (< 0.01)** | -146.50 (1.00) | **1136.18 (< 0.01)** | -567.25 (1.00) | 266.98 (0.51) |  |  |
| WA | **1107.00 (< 0.01)** | **1058.18 (< 0.01)** | **698.01 (< 0.01)** | -139.83 (1.00) | **304.80 (0.02)** | **1587.49 (< 0.01)** | -115.95 (1.00) | **718.28 (< 0.01)** | **451.30 (0.04)** |  |
| WY | -527.91 (0.06) | **-576.73 (0.01)** | **-936.90 (< 0.01)** | **-1774.75 (< 0.01)** | **-1330.12 (< 0.01)** | -47.43 (1.00) | **-1750.87 (< 0.01)** | **-916.63 (< 0.01)** | **-1183.61 (< 0.01)** | **-1634.92 (< 0.01)** |

Table 5:USFS NO2 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-998.04 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | **-1832.88 (< 0.01)** | **-834.85 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | **-1339.68 (< 0.01)** | **-341.65 (< 0.01)** | **493.20 (< 0.01)** |  |  |  |  |  |  |  |
| MT | **-2376.01 (< 0.01)** | **-1377.97 (< 0.01)** | **-543.12 (< 0.01)** | **-1036.32 (< 0.01)** |  |  |  |  |  |  |
| NM | **-1236.53 (< 0.01)** | -238.49 (0.73) | **596.36 (< 0.01)** | 103.16 (1.00) | **1139.48 (< 0.01)** |  |  |  |  |  |
| NV | -785.17 (0.88) | 212.86 (1.00) | 1047.71 (0.25) | 554.51 (1.00) | **1590.83 (< 0.01)** | 451.35 (1.00) |  |  |  |  |
| OR | **-607.26 (< 0.01)** | **390.78 (< 0.01)** | **1225.63 (< 0.01)** | **732.43 (< 0.01)** | **1768.75 (< 0.01)** | **629.27 (< 0.01)** | 177.92 (1.00) |  |  |  |
| UT | **-827.59 (< 0.01)** | 170.45 (1.00) | **1005.30 (< 0.01)** | **512.10 (< 0.01)** | **1548.42 (< 0.01)** | 408.94 (0.23) | -42.41 (1.00) | -220.33 (0.98) |  |  |
| WA | **-977.78 (< 0.01)** | 20.25 (1.00) | **855.10 (< 0.01)** | **361.90 (0.01)** | **1398.22 (< 0.01)** | 258.74 (0.88) | -192.61 (1.00) | **-370.53 (< 0.01)** | -150.20 (1.00) |  |
| WY | **-2767.37 (< 0.01)** | **-1769.33 (< 0.01)** | **-934.48 (< 0.01)** | **-1427.68 (< 0.01)** | -391.36 (0.23) | **-1530.84 (< 0.01)** | **-1982.19 (< 0.01)** | **-2160.11 (< 0.01)** | **-1939.78 (< 0.01)** | **-1789.58 (< 0.01)** |

Table 6:USFS O3 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-768.20 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | -57.66 (1.00) | **710.54 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | **-1179.96 (< 0.01)** | **-411.76 (< 0.01)** | **-1122.30 (< 0.01)** |  |  |  |  |  |  |  |
| MT | **-1616.51 (< 0.01)** | **-848.31 (< 0.01)** | **-1558.85 (< 0.01)** | **-436.55 (< 0.01)** |  |  |  |  |  |  |
| NM | -382.07 (0.21) | **386.12 (0.04)** | -324.41 (0.63) | **797.89 (< 0.01)** | **1234.44 (< 0.01)** |  |  |  |  |  |
| NV | -775.61 (1.00) | -7.41 (1.00) | -717.94 (1.00) | 404.36 (1.00) | 840.90 (0.77) | -393.53 (1.00) |  |  |  |  |
| OR | **-1721.21 (< 0.01)** | **-953.01 (< 0.01)** | **-1663.54 (< 0.01)** | **-541.25 (< 0.01)** | -104.70 (1.00) | **-1339.13 (< 0.01)** | -945.60 (0.48) |  |  |  |
| UT | 27.36 (1.00) | **795.56 (< 0.01)** | 85.02 (1.00) | **1207.32 (< 0.01)** | **1643.87 (< 0.01)** | 409.44 (0.26) | 802.97 (1.00) | **1748.57 (< 0.01)** |  |  |
| WA | **-1945.81 (< 0.01)** | **-1177.62**  **(< 0.01)** | **-1888.15 (< 0.01)** | **-765.85 (< 0.01)** | **-329.30 (0.01)** | **-1563.74 (< 0.01)** | -1170.21 (0.15) | -224.61 (0.41) | **-1973.18 (< 0.01)** |  |
| WY | -324.96 (1.00) | 443.24 (0.15) | -267.29 (1.00) | **855.01 (< 0.01)** | **1291.55 (< 0.01)** | 57.12 (1.00) | 450.65 (1.00) | **1396.25 (< 0.01)** | -352.32 (1.00) | **1620.86 (< 0.01)** |

Table 7:USFS SO2 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-1590.98 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | **-1040.25 (< 0.01)** | **550.73 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | **-796.41  (< 0.01)** | **794.57 (< 0.01)** | 243.84 (0.85) |  |  |  |  |  |  |  |
| MT | **-1268.52 (< 0.01)** | **322.46 (< 0.01)** | -228.27 (0.85) | **-472.11 (< 0.01)** |  |  |  |  |  |  |
| NM | **-2163.08 (< 0.01)** | **-572.10 (< 0.01)** | **-1122.83 (< 0.01)** | **-1366.67 (< 0.01)** | **-894.56 (< 0.01)** |  |  |  |  |  |
| NV | -1249.63 (0.09) | 341.35 (1.00) | -209.38 (1.00) | -453.22 (1.00) | 18.89 (1.00) | 913.45 (0.75) |  |  |  |  |
| OR | **-710.05  (< 0.01)** | **880.93 (< 0.01)** | 330.20 (0.11) | 86.36 (1.00) | **558.47 (< 0.01)** | **1453.03 (< 0.01)** | 539.58 (1.00) |  |  |  |
| UT | **-511.90  (0.02)** | **1079.08 (< 0.01)** | **528.35 (0.03)** | 284.51 (0.71) | **756.62 (< 0.01)** | **1651.18 (< 0.01)** | 737.73 (1.00) | 198.15 (1.00) |  |  |
| WA | **-608.52  (< 0.01)** | **982.46 (< 0.01)** | **431.73 (0.04)** | 187.89 (1.00) | **660.00 (< 0.01)** | **1554.56 (< 0.01)** | 641.11 (1.00) | 101.53 (1.00) | -96.63 (1.00) |  |
| WY | **-894.38 (< 0.01)** | **696.60 (< 0.01)** | 145.87 (1.00) | -97.97 (1.00) | 374.14 (0.42) | **1268.70 (< 0.01)** | 355.25 (1.00) | -184.33 (1.00) | -382.48 (0.90) | -285.86 (1.00) |

Table 8:DOI PM 2.5 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **183.66 (0.02)** |  |  |  |  |  |  |  |  |  |
| CO | 24.38 (1.00) | -159.28 (0.06) |  |  |  |  |  |  |  |  |
| ID | 10.26 (1.00) | **-173.40 (0.05)** | -14.12 (1.00) |  |  |  |  |  |  |  |
| MT | -62.58 (1.00) | **-246.24 (< 0.01)** | -86.96 (1.00) | -72.84 (1.00) |  |  |  |  |  |  |
| NM | -182.55 (0.07) | **-366.21 (< 0.01)** | **-206.93 (0.01)** | -192.81 (0.05) | -119.97 (1.00) |  |  |  |  |  |
| NV | -34.45 (1.00) | **-218.11 (0.01)** | -58.83 (1.00) | -44.71 (1.00) | 28.13 (1.00) | 148.10 (0.69) |  |  |  |  |
| OR | -68.73 (1.00) | **-252.39 (< 0.01)** | -93.11 (1.00) | -78.98 (1.00) | -6.15 (1.00) | 113.83 (0.67) | -34.28 (1.00) |  |  |  |
| UT | 31.51 (1.00) | **-152.15 (0.04)** | 7.13 (1.00) | 21.25 (1.00) | 94.09 (1.00) | **214.06 (< 0.01)** | 65.96 (1.00) | 100.24 (0.69) |  |  |
| WA | 14.01 (1.00) | **-169.65 (0.02)** | -10.38 (1.00) | 3.75 (1.00) | 76.59 (1.00) | **196.56 (0.02)** | 48.46  (1.00) | 82.73 (1.00) | -17.50 (1.00) |  |
| WY | **-218.17 (0.04)** | **-401.83 (< 0.01)** | **-242.55 (0.01)** | **-228.42 (0.03)** | -155.59 (0.69) | -35.61 (1.00) | -183.71 (0.34) | -149.44 (0.32) | **-249.67 (< 0.01)** | **-232.17 (0.01)** |

Table 9:DOI PM10 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | -50.63 (1.00) |  |  |  |  |  |  |  |  |  |
| CO | 84.21 (1.00) | 134.84 (0.22) |  |  |  |  |  |  |  |  |
| ID | -145.63 (0.41) | -95.00 (1.00) | **-229.84 (< 0.01)** |  |  |  |  |  |  |  |
| MT | -132.79 (0.70) | -82.16 (1.00) | **-217.00**  **(0.01)** | 12.84 (1.00) |  |  |  |  |  |  |
| NM | 86.57 (1.00) | 137.19 (0.22) | 2.36 (1.00) | **232.20 (< 0.01)** | **219.36 (0.01)** |  |  |  |  |  |
| NV | -1.81 (1.00) | 48.82 (1.00) | -86.02 (1.00) | 143.82 (0.70) | 130.98 (1.00) | -88.38 (1.00) |  |  |  |  |
| OR | **-280.56 (< 0.01)** | **-229.93 (< 0.01)** | **-364.77 (< 0.01)** | -134.93 (0.23) | -147.77 (0.15) | **-367.13 (< 0.01)** | **-278.75**  **(< 0.01)** |  |  |  |
| UT | 5.06 (1.00) | 55.69 (1.00) | -79.15 (1.00) | 150.69 (0.22) | 137.85 (0.39) | -81.51 (1.00) | 6.87 (1.00) | **285.62 (< 0.01)** |  |  |
| WA | -137.86 (0.37) | -87.23 (1.00) | **-222.07 (< 0.01)** | 7.77 (1.00) | -5.07 (1.00) | **-224.42 (< 0.01)** | -136.05 (0.70) | 142.70 (0.06) | -142.91 (0.16) |  |
| WY | **-336.43 (< 0.01)** | **-285.80 (< 0.01)** | **-420.64 (< 0.01)** | -190.80 (0.15) | -203.64 (0.09) | **-423.00 (< 0.01)** | **-334.62 (< 0.01)** | -55.87 (1.00) | **-341.49 (< 0.01)** | -198.57 (0.06) |

Table 10:DOI Lead Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-379.18 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | **-261.04 (< 0.01)** | 118.14  (0.53) |  |  |  |  |  |  |  |  |
| ID | **-351.10**  **(< 0.01)** | 28.08 (1.00) | -90.06 (1.00) |  |  |  |  |  |  |  |
| MT | **-370.00 (< 0.01)** | 9.17 (1.00) | -108.97 (1.00) | -18.91 (1.00) |  |  |  |  |  |  |
| NM | -46.15 (1.00) | **333.02 (< 0.01)** | **214.88 (0.01)** | **304.94 (< 0.01)** | **323.85 (< 0.01)** |  |  |  |  |  |
| NV | **-361.11 (< 0.01)** | 18.07 (1.00) | -100.08 (1.00) | -10.01 (1.00) | 8.89 (1.00) | **-314.96 (< 0.01)** |  |  |  |  |
| OR | **-387.52 (< 0.01)** | -8.34 (1.00) | -126.49 (0.25) | -36.42 (1.00) | -17.52 (1.00) | **-341.37 (< 0.01)** | -26.41 (1.00) |  |  |  |
| UT | -134.92 (0.40) | **244.26 (< 0.01)** | 126.12 (0.51) | **216.18 (< 0.01)** | **235.09 (< 0.01)** | -88.76 (1.00) | **226.19 (0.01)** | **252.60 (< 0.01)** |  |  |
| WA | **-339.27 (< 0.01)** | 39.91 (1.00) | -78.24 (1.00) | 11.83 (1.00) | 30.73 (1.00) | **-293.12 (<0.01)** | 21.84 (1.00) | 48.25 (1.00) | **-204.35 (< 0.01)** |  |
| WY | **-317.93 (< 0.01)** | 61.25 (1.00) | -56.90 (1.00) | 33.16 (1.00) | 52.07 (1.00) | **-271.78 (< 0.01)** | 43.18 (1.00) | 69.59 (1.00) | -183.02  (0.10) | 21.34 (1.00) |

Table 11:DOI CO Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | -120.78 (0.33) |  |  |  |  |  |  |  |  |  |
| CO | -46.15 (1.00) | 74.63 (1.00) |  |  |  |  |  |  |  |  |
| ID | **212.75 (0.01)** | **333.53 (< 0.01)** | **258.90 (< 0.01)** |  |  |  |  |  |  |  |
| MT | **-222.56 (0.01)** | -101.79 (0.83) | -176.42 (0.06) | **-435.31 (< 0.01)** |  |  |  |  |  |  |
| NM | **-291.01 (< 0.01)** | **-170.24 (0.02)** | **-244.87 (< 0.01)** | **-503.77 (< 0.01)** | -68.45 (1.00) |  |  |  |  |  |
| NV | 28.53 (1.00) | 149.31 (0.19) | 74.68 (1.00) | -184.22 (0.11) | **251.10 (< 0.01)** | **319.55 (< 0.01)** |  |  |  |  |
| OR | 3.88 (1.00) | **124.66 (0.04)** | 50.03 (1.00) | **-208.87 (< 0.01)** | **226.45 (< 0.01)** | **294.90 (< 0.01)** | -24.65 (1.00) |  |  |  |
| UT | 40.80 (1.00) | **161.58 (0.01)** | 86.95 (1.00) | **-171.95 (0.05)** | **263.37 (< 0.01)** | **331.82 (< 0.01)** | 12.27 (1.00) | 36.92 (1.00) |  |  |
| WA | **323.99 (< 0.01)** | **444.77 (< 0.01)** | **370.14 (< 0.01)** | 111.24 (0.82) | **546.55 (< 0.01)** | **615.00 (< 0.01)** | **295.46 (< 0.01)** | **320.10 (< 0.01)** | **283.18 (< 0.01)** |  |
| WY | **-365.40**  **(< 0.01)** | **-244.63 (< 0.01)** | **-319.26 (< 0.01)** | **-578.15 (< 0.01)** | -142.84 (0.55) | -74.39 (1.00) | **-393.94 (< 0.01)** | **-369.29 (< 0.01)** | **-406.21 (< 0.01)** | **-689.39 (< 0.01)** |

Table 12:DOI NO2 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-238.79 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | **-449.34 (< 0.01)** | **-210.55 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | **-244.41 (< 0.01)** | -5.63 (1.00) | **204.93 (0.01)** |  |  |  |  |  |  |  |
| MT | **-782.32 (< 0.01)** | **-543.53 (< 0.01)** | **-332.98 (< 0.01)** | **-537.91 (< 0.01)** |  |  |  |  |  |  |
| NM | **-241.51 (< 0.01)** | -2.72 (1.00) | **207.83 (0.01)** | 2.91 (1.00) | **540.81 (< 0.01)** |  |  |  |  |  |
| NV | 1.73 (1.00) | **240.51 (< 0.01)** | **451.07 (< 0.01)** | **246.14 (< 0.01)** | **784.04 (< 0.01)** | **243.23 (< 0.01)** |  |  |  |  |
| OR | **-440.50 (< 0.01)** | **-201.71 (< 0.01)** | 8.84 (1.00) | **-196.09 (< 0.01)** | **341.82 (< 0.01)** | **-198.99 (< 0.01)** | **-442.23 (< 0.01)** |  |  |  |
| UT | **-181.30 (0.01)** | 57.48 (1.00) | **268.04 (< 0.01)** | 63.11 (1.00) | **601.02 (< 0.01)** | 60.21 (1.00) | **-183.03 (0.04)** | **259.20 (< 0.01)** |  |  |
| WA | **-290.51 (< 0.01)** | -51.72 (1.00) | 158.84 (0.05) | -46.09 (1.00) | **491.81 (< 0.01)** | -49.00 (1.00) | **-292.23 (< 0.01)** | **149.99 (0.02)** | -109.20 (0.42) |  |
| WY | **-864.89 (< 0.01)** | **-626.11 (< 0.01)** | **-415.55 (< 0.01)** | **-620.48 (< 0.01)** | -82.57 (1.00) | **-623.39 (< 0.01)** | **-866.62 (< 0.01)** | **-424.39 (< 0.01)** | **-683.59 (< 0.01)** | **-574.39 (< 0.01)** |

Table 13:DOI O3 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-160.77 (0.05)** |  |  |  |  |  |  |  |  |  |
| CO | **222.21 (< 0.01)** | **382.98 (< 0.01)** |  |  |  |  |  |  |  |  |
| ID | -98.04 (1.00) | 62.72 (1.00) | **-320.26 (< 0.01)** |  |  |  |  |  |  |  |
| MT | -154.16 (0.23) | 6.60 (1.00) | **-376.38 (< 0.01)** | -56.12 (1.00) |  |  |  |  |  |  |
| NM | -139.99 (0.30) | 20.78 (1.00) | **-362.20 (< 0.01)** | -41.94 (1.00) | 14.18 (1.00) |  |  |  |  |  |
| NV | 21.59 (1.00) | **182.35 (0.05)** | **-200.63 (0.05)** | 119.63 (1.00) | 175.75 (0.18) | 161.57 (0.24) |  |  |  |  |
| OR | **-347.22 (< 0.01)** | **-186.45 (< 0.01)** | **-569.43 (< 0.01)** | **-249.17 (< 0.01)** | **-193.05 (0.01)** | **-207.23 (< 0.01)** | **-368.80 (< 0.01)** |  |  |  |
| UT | 146.29 (0.16) | **307.06 (< 0.01)** | -75.92 (1.00) | **244.33 (< 0.01)** | **300.45 (< 0.01)** | **286.28 (< 0.01)** | 124.70 (0.65) | **493.51 (< 0.01)** |  |  |
| WA | **-293.69 (< 0.01)** | -132.92 (0.14) | **-515.90 (< 0.01)** | **-195.65 (0.02)** | -139.53 (0.29) | -153.70 (0.14) | **-315.28 (< 0.01)** | 53.53 (1.00) | **-439.98 (< 0.01)** |  |
| WY | 120.17 (1.00) | **280.93 (< 0.01)** | -102.05 (1.00) | **218.21 (0.03)** | **274.33 (< 0.01)** | **260.15 (< 0.01)** | 98.58 (1.00) | **467.38 (< 0.01)** | -26.12 (1.00) | **413.86 (< 0.01)** |

Table 14:DOI SO2 Dunns Test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AZ | CA | CO | ID | MT | NM | NV | OR | UT | WA |
| CA | **-256.58 (< 0.01)** |  |  |  |  |  |  |  |  |  |
| CO | -80.59 (1.00) | **175.99 (0.02)** |  |  |  |  |  |  |  |  |
| ID | 105.23 (1.00) | **361.81 (< 0.01)** | 185.82 (0.05) |  |  |  |  |  |  |  |
| MT | -15.98 (1.00) | **240.60 (< 0.01)** | 64.61 (1.00) | -121.21 (1.00) |  |  |  |  |  |  |
| NM | **-235.35 (< 0.01)** | 21.23 (1.00) | -154.76 (0.22) | **-340.59 (< 0.01)** | **-219.37**  **(0.01)** |  |  |  |  |  |
| NV | -104.98 (1.00) | 151.60 (0.28) | -24.39 (1.00) | **-210.22 (0.05)** | -89.00 (1.00) | 130.37 (1.00) |  |  |  |  |
| OR | **-330.09 (< 0.01)** | -73.51 (1.00) | **-249.50 (< 0.01)** | **-435.33 (< 0.01)** | **-314.11 (< 0.01)** | -94.74 (1.00) | **-225.11 (< 0.01)** |  |  |  |
| UT | -38.53 (1.00) | **218.05 (< 0.01)** | 42.06 (1.00) | -143.76 (0.30) | -22.55 (1.00) | **196.82 (0.01)** | 66.45 (1.00) | **291.56 (< 0.01)** |  |  |
| WA | 17.69 (1.00) | **274.27 (< 0.01)** | 98.28 (1.00) | -87.55 (1.00) | 33.67 (1.00) | **253.04 (< 0.01)** | 122.67 (1.00) | **347.78 (< 0.01)** | 56.22 (1.00) |  |
| WY | -127.63 (1.00) | 128.95 (0.88) | -47.04 (1.00) | **-232.87 (0.02)** | -111.65 (1.00) | 107.72 (1.00) | -22.65 (1.00) | **202.46 (0.02)** | -89.10 (1.00) | -145.32 (0.64) |