

# **APPENDIX I**

## **OBSERVED AND SIMULATED HORIZONTAL HEAD DIFFERENCES**

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# Summary of Observed and Estimated Horizontal Head Differences

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w_01530        | w_01531      | hd00341_09 | -18.4                                   | -11.5                                    | -6.9                                    | -17.7                                   | -12.7                                    | -5.0                                    |
| w_01530        | w_riv03      | hd00342_09 | 9.4                                     | 5.3                                      | 4.0                                     | 8.3                                     | 6.6                                      | 1.7                                     |
| w_01531        | w_01544      | hd00366_09 | -17.5                                   | -19.7                                    | 2.2                                     | -19.7                                   | -16.8                                    | -3.0                                    |
| w_01567        | w_01569      | hd00368_09 | -8.1                                    | -10.0                                    | 1.9                                     | 0.0                                     | -10.5                                    | 10.5                                    |
| w00012         | w00875       | hd00110_09 | 40.0                                    | 31.3                                     | 8.7                                     | 40.4                                    | 32.3                                     | 8.1                                     |
| w00012         | w00076       | hd00109_09 | -12.0                                   | -14.9                                    | 2.9                                     | -13.1                                   | -15.7                                    | 2.6                                     |
| w00030         | w00222       | hd00335_09 | -10.0                                   | -4.1                                     | -5.8                                    | -10.6                                   | -6.5                                     | -4.1                                    |
| w00054         | w00698       | hd00257_09 | -4.0                                    | -0.9                                     | -3.1                                    | -3.4                                    | -0.8                                     | -2.6                                    |
| w00054         | w01405       | hd00074_09 | -5.6                                    | -1.9                                     | -3.7                                    | -4.8                                    | -1.8                                     | -3.0                                    |
| w00054         | w00691       | hd00075_09 | 11.0                                    | 15.8                                     | -4.8                                    | 6.9                                     | 12.0                                     | -5.2                                    |
| w00076         | w00367       | hd00108_09 | -8.2                                    | -5.1                                     | -3.1                                    | -8.5                                    | -5.9                                     | -2.6                                    |
| w00083         | w00876       | hd00118_09 | -6.9                                    | -7.8                                     | 0.8                                     | -6.4                                    | -7.9                                     | 1.5                                     |
| w00083         | w00167       | hd00119_09 | 5.8                                     | 4.3                                      | 1.5                                     | 7.1                                     | 4.3                                      | 2.8                                     |
| w00112         | w00835       | hd00136_09 | -6.0                                    | -3.5                                     | -2.5                                    | -6.1                                    | -4.1                                     | -2.0                                    |
| w00120         | w00165       | hd00170_09 | -3.3                                    | 3.1                                      | -6.4                                    | -1.7                                    | 3.2                                      | -4.8                                    |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00158         | w00966       | hd00220_09 | -2.4                                    | -0.9                                     | -1.5                                    | -2.4                                    | -1.0                                     | -1.4                                    |
| w00164         | w00903       | hd00198_09 | 18.7                                    | 14.8                                     | 3.8                                     | 19.3                                    | 14.8                                     | 4.5                                     |
| w00165         | w00470       | hd00171_09 | 24.0                                    | 17.2                                     | 6.8                                     | 24.3                                    | 18.1                                     | 6.2                                     |
| w00166         | w_01574      | hd00126_09 | 18.0                                    | 15.7                                     | 2.3                                     | 20.2                                    | 17.1                                     | 3.1                                     |
| w00167         | w00927       | hd00120_09 | -2.0                                    | 4.9                                      | -6.9                                    | -2.3                                    | 4.7                                      | -7.0                                    |
| w00167         | w00339       | hd00221_09 | -1.5                                    | -2.2                                     | 0.8                                     | -0.1                                    | -2.1                                     | 2.0                                     |
| w00184         | w00236       | hd00213_09 | 3.1                                     | 4.6                                      | -1.5                                    | 3.4                                     | 4.4                                      | -1.0                                    |
| w00184         | w00372       | hd00212_09 | -3.7                                    | -4.5                                     | 0.8                                     | -4.5                                    | -5.1                                     | 0.6                                     |
| w00184         | w00340       | hd00214_09 | 5.6                                     | 8.9                                      | -3.2                                    | 7.1                                     | 8.7                                      | -1.6                                    |
| w00199         | w00301       | hd00107_09 | 5.5                                     | 4.1                                      | 1.5                                     | 6.1                                     | 4.8                                      | 1.3                                     |
| w00199         | w00349       | hd00091_09 | 2.8                                     | 0.2                                      | 2.5                                     | 2.0                                     | 0.1                                      | 1.9                                     |
| w00207         | w00698       | hd00256_09 | -4.5                                    | -6.7                                     | 2.3                                     | -4.8                                    | -6.2                                     | 1.4                                     |
| w00211         | w00922       | hd00239_09 | -8.1                                    | -5.1                                     | -3.0                                    | -6.7                                    | -3.7                                     | -3.0                                    |
| w00213         | w00914       | hd00332_09 | 3.7                                     | 4.6                                      | -0.9                                    | 4.5                                     | 4.8                                      | -0.3                                    |
| w00216         | w00231       | hd00236_09 | 1.1                                     | 0.7                                      | 0.3                                     | 0.1                                     | 0.8                                      | -0.7                                    |
| w00217         | w00271       | hd00337_09 | 1.3                                     | 2.8                                      | -1.5                                    | 3.7                                     | 1.0                                      | 2.7                                     |
| w00218         | w00838       | hd00240_09 | -6.1                                    | -2.3                                     | -3.8                                    | -7.1                                    | -2.7                                     | -4.4                                    |

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|----------------|--------------|------------|---|--|---|---|--|---|
| w00222         | w00878       | hd00334_09 | -2.4                                    | -3.1                                     | 0.7                                     | -2.8                                    | -2.0                                     | -0.7                                    |
| w00222         | w00888       | hd00333_09 | 5.6                                     | 2.2                                      | 3.4                                     | 5.6                                     | 0.7                                      | 4.9                                     |
| w00231         | w00371       | hd00233_09 | 1.7                                     | 1.8                                      | -0.1                                    | 2.4                                     | 1.9                                      | 0.5                                     |
| w00236         | w00968       | hd00215_09 | 0.9                                     | 0.2                                      | 0.7                                     | 1.5                                     | 0.3                                      | 1.2                                     |
| w00245         | w00404       | hd00248_09 | -0.5                                    | 0.9                                      | -1.4                                    | 0.3                                     | 0.5                                      | -0.3                                    |
| w00249         | w00851       | hd00099_09 | -0.9                                    | -1.9                                     | 1.0                                     | -1.3                                    | -2.6                                     | 1.3                                     |
| w00256         | w00258       | hd00094_09 | -1.0                                    | 2.0                                      | -3.0                                    | -0.6                                    | 1.8                                      | -2.4                                    |
| w00258         | w00835       | hd00114_09 | -3.5                                    | -0.9                                     | -2.6                                    | -3.0                                    | -0.2                                     | -2.8                                    |
| w00258         | w00826       | hd00141_09 | 11.4                                    | 11.7                                     | -0.3                                    | 11.4                                    | 12.4                                     | -1.1                                    |
| w00258         | w00580       | hd00124_09 | 2.9                                     | 1.6                                      | 1.2                                     | 3.3                                     | 1.8                                      | 1.5                                     |
| w00258         | w00805       | hd00155_09 | 15.9                                    | 17.5                                     | -1.6                                    | 15.8                                    | 17.7                                     | -1.9                                    |
| w00258         | w00367       | hd00113_09 | -2.7                                    | -1.1                                     | -1.6                                    | -2.6                                    | -0.3                                     | -2.3                                    |
| w00260         | w00754       | hd00182_09 | -1.3                                    | 0.1                                      | -1.3                                    | -1.0                                    | -0.3                                     | -0.7                                    |
| w00271         | w00901       | hd00336_09 | -1.5                                    | 0.4                                      | -1.8                                    | -0.8                                    | -1.6                                     | 0.7                                     |
| w00281         | w00404       | hd00249_09 | 8.2                                     | 5.4                                      | 2.8                                     | 8.1                                     | 5.1                                      | 3.0                                     |
| w00286         | w00859       | hd00152_09 | -12.8                                   | -11.8                                    | -1.0                                    | -13.1                                   | -13.0                                    | 0.0                                     |
| w00286         | w00874       | hd00151_09 | 3.0                                     | -0.5                                     | 3.5                                     | 0.9                                     | 0.4                                      | 0.6                                     |

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|----------------|--------------|------------|---|--|---|---|--|---|
| w00291         | w01029       | hd00206_09 | -5.2                                    | -1.7                                     | -3.4                                    | -6.2                                    | -1.2                                     | -4.9                                    |
| w00291         | w00599       | hd00228_09 | 6.1                                     | 6.8                                      | -0.8                                    | 6.0                                     | 7.8                                      | -1.9                                    |
| w00298         | w00356       | hd00210_09 | 23.4                                    | 20.6                                     | 2.7                                     | 24.6                                    | 21.5                                     | 3.1                                     |
| w00320         | w00831       | hd00106_09 | -1.3                                    | -1.9                                     | 0.6                                     | -1.0                                    | -2.3                                     | 1.3                                     |
| w00347         | w00928       | hd00122_09 | -19.9                                   | -15.9                                    | -4.0                                    | -17.4                                   | -16.7                                    | -0.7                                    |
| w00347         | w00915       | hd00123_09 | 2.2                                     | 9.2                                      | -7.0                                    | 3.2                                     | 9.2                                      | -6.0                                    |
| w00349         | w00783       | hd00092_09 | 6.7                                     | 7.5                                      | -0.7                                    | 9.2                                     | 8.1                                      | 1.1                                     |
| w00371         | w00954       | hd00234_09 | 6.6                                     | 10.6                                     | -4.0                                    | 5.9                                     | 10.6                                     | -4.8                                    |
| w00372         | w00995       | hd00208_09 | -1.0                                    | 4.1                                      | -5.1                                    | 2.3                                     | 4.5                                      | -2.2                                    |
| w00381         | w00820       | hd00104_09 | 6.7                                     | 7.0                                      | -0.3                                    | 5.4                                     | 8.3                                      | -2.9                                    |
| w00395         | w01029       | hd00227_09 | 6.4                                     | 7.8                                      | -1.4                                    | 4.6                                     | 6.7                                      | -2.1                                    |
| w00400         | w00876       | hd00117_09 | 11.9                                    | 8.6                                      | 3.3                                     | 11.7                                    | 9.4                                      | 2.3                                     |
| w00413         | w00439       | hd00380_09 | 7.6                                     | 0.6                                      | 7.0                                     | 13.0                                    | 6.7                                      | 6.3                                     |
| w00416         | w00422       | hd00271_09 | 14.9                                    | 11.2                                     | 3.7                                     | 16.0                                    | 13.6                                     | 2.4                                     |
| w00416         | w01411       | hd00280_09 | -25.2                                   | -25.3                                    | 0.1                                     | -22.5                                   | -23.3                                    | 0.8                                     |
| w00420         | w00768       | hd00270_09 | 13.9                                    | 11.3                                     | 2.6                                     | 15.6                                    | 11.5                                     | 4.1                                     |
| w00422         | w00439       | hd00272_09 | 12.9                                    | 7.1                                      | 5.8                                     | 18.6                                    | 8.8                                      | 9.8                                     |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00437         | w00544       | hd00267_09 | -14.5                                   | -7.2                                     | -7.3                                    | -13.3                                   | -7.9                                     | -5.5                                    |
| w00439         | w00768       | hd00273_09 | 2.5                                     | 6.6                                      | -4.1                                    | 1.7                                     | 7.3                                      | -5.6                                    |
| w00444         | w00525       | hd00176_09 | 16.0                                    | 19.4                                     | -3.4                                    | 18.0                                    | 20.5                                     | -2.5                                    |
| w00444         | w00749       | hd00183_09 | -1.8                                    | -1.8                                     | 0.0                                     | -2.0                                    | -1.7                                     | -0.2                                    |
| w00449         | w00453       | hd00024_09 | -21.2                                   | -23.4                                    | 2.3                                     | -21.5                                   | -23.7                                    | 2.3                                     |
| w00450         | w00467       | hd00023_09 | -10.3                                   | -8.9                                     | -1.4                                    | -12.1                                   | -8.5                                     | -3.7                                    |
| w00456         | w00468       | hd00026_09 | -31.8                                   | -21.9                                    | -9.9                                    | 0.0                                     | -24.6                                    | 24.6                                    |
| w00458         | w00850       | hd00195_09 | -26.4                                   | -25.9                                    | -0.4                                    | -24.2                                   | -25.6                                    | 1.4                                     |
| w00460         | w_riv12      | hd00345_09 | 8.7                                     | 8.6                                      | 0.1                                     | 7.3                                     | 10.7                                     | -3.5                                    |
| w00460         | w00581       | hd00004_09 | -32.1                                   | -31.1                                    | -0.9                                    | -28.3                                   | -31.2                                    | 2.9                                     |
| w00466         | w00843       | hd00016_09 | -1.1                                    | -0.8                                     | -0.3                                    | -1.0                                    | -1.3                                     | 0.2                                     |
| w00469         | w00483       | hd00003_09 | -42.1                                   | -35.0                                    | -7.1                                    | -41.5                                   | -36.4                                    | -5.0                                    |
| w00469         | w_riv11      | hd00344_09 | 12.4                                    | 6.2                                      | 6.2                                     | 10.7                                    | 8.0                                      | 2.7                                     |
| w00471         | w00821       | hd00146_09 | 7.2                                     | 8.5                                      | -1.3                                    | 6.6                                     | 9.0                                      | -2.4                                    |
| w00479         | w00487       | hd00006_09 | 0.1                                     | 2.4                                      | -2.3                                    | 0.0                                     | 1.4                                      | -1.3                                    |
| w00479         | w_riv04      | hd00343_09 | 52.9                                    | 49.4                                     | 3.5                                     | 50.1                                    | 48.1                                     | 2.0                                     |
| w00480         | w_riv09      | hd00376_09 | 55.3                                    | 47.2                                     | 8.1                                     | 52.8                                    | 48.4                                     | 4.4                                     |

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|----------------|--------------|------------|---|--|---|---|--|---|
| w00480         | w00487       | hd00005_09 | -0.3                                    | -2.2                                     | 1.9                                     | -0.1                                    | -0.4                                     | 0.3                                     |
| w00481         | w00487       | hd00009_09 | -0.7                                    | 1.1                                      | -1.8                                    | -0.6                                    | 0.9                                      | -1.5                                    |
| w00481         | w00483       | hd00362_09 | 0.9                                     | 9.0                                      | -8.2                                    | 0.7                                     | 4.8                                      | -4.1                                    |
| w00486         | w00513       | hd00378_09 | -0.2                                    | -1.8                                     | 1.6                                     | -3.0                                    | -1.3                                     | -1.7                                    |
| w00486         | w00487       | hd00377_09 | -0.1                                    | -2.8                                     | 2.7                                     | -0.3                                    | -1.9                                     | 1.5                                     |
| w00486         | w_01544      | hd00367_09 | -0.6                                    | -0.6                                     | 0.0                                     | -3.8                                    | -0.3                                     | -3.5                                    |
| w00487         | w00489       | hd00008_09 | 1.3                                     | 2.7                                      | -1.4                                    | 1.0                                     | 3.1                                      | -2.0                                    |
| w00487         | w00488       | hd00007_09 | 0.9                                     | 3.3                                      | -2.4                                    | 0.9                                     | 3.8                                      | -2.9                                    |
| w00492         | w_riv07      | hd00346_09 | 55.7                                    | 53.0                                     | 2.6                                     | 54.2                                    | 51.7                                     | 2.5                                     |
| w00492         | w_riv08      | hd00347_09 | 57.5                                    | 53.4                                     | 4.0                                     | 56.0                                    | 52.0                                     | 3.9                                     |
| w00495         | w00523       | hd00035_09 | -16.2                                   | -15.5                                    | -0.7                                    | -16.2                                   | -14.4                                    | -1.8                                    |
| w00497         | w00523       | hd00318_09 | -34.2                                   | -30.3                                    | -3.9                                    | -33.6                                   | -31.4                                    | -2.2                                    |
| w00499         | w00513       | hd00002_09 | -51.3                                   | -46.1                                    | -5.1                                    | -49.7                                   | -45.5                                    | -4.2                                    |
| w00499         | w00574       | hd00259_09 | -18.0                                   | -14.3                                    | -3.7                                    | -18.7                                   | -13.9                                    | -4.8                                    |
| w00500         | w00507       | hd00179_09 | -3.0                                    | -0.8                                     | -2.1                                    | -3.2                                    | -1.0                                     | -2.2                                    |
| w00506         | w00507       | hd00178_09 | 1.6                                     | 0.5                                      | 1.1                                     | 1.5                                     | 0.7                                      | 0.8                                     |
| w00506         | w00525       | hd00177_09 | -4.3                                    | -3.1                                     | -1.1                                    | -4.3                                    | -3.5                                     | -0.8                                    |



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|----------------|--------------|------------|---|--|---|---|--|---|
| w00508         | w00802       | hd00160_09 | 1.0                                     | 0.9                                      | 0.1                                     | 1.6                                     | 1.0                                      | 0.6                                     |
| w00508         | w00788       | hd00159_09 | -0.7                                    | -0.9                                     | 0.3                                     | -1.0                                    | -1.1                                     | 0.1                                     |
| w00514         | w00528       | hd00252_09 | -4.3                                    | -7.7                                     | 3.4                                     | -5.0                                    | -8.0                                     | 2.9                                     |
| w00517         | w00775       | hd00158_09 | 0.7                                     | 2.5                                      | -1.8                                    | 0.9                                     | 2.7                                      | -1.8                                    |
| w00519         | w00520       | hd00001_09 | -25.6                                   | -18.0                                    | -7.6                                    | -22.6                                   | -20.1                                    | -2.5                                    |
| w00520         | w_01544      | hd00370_09 | -24.8                                   | -25.1                                    | 0.4                                     | -28.3                                   | -22.5                                    | -5.7                                    |
| w00522         | w00824       | hd00314_09 | 40.0                                    | 40.9                                     | -0.9                                    | 39.3                                    | 43.9                                     | -4.7                                    |
| w00522         | w00523       | hd00313_09 | -15.3                                   | -14.4                                    | -0.9                                    | -14.9                                   | -12.5                                    | -2.4                                    |
| w00523         | w_riv02      | hd00360_09 | 58.9                                    | 53.8                                     | 5.1                                     | 57.2                                    | 53.8                                     | 3.4                                     |
| w00523         | w00576       | hd00304_09 | -2.0                                    | -5.9                                     | 4.0                                     | -2.7                                    | -4.6                                     | 1.9                                     |
| w00523         | w_01544      | hd00305_09 | 19.4                                    | 20.7                                     | -1.3                                    | 17.1                                    | 20.6                                     | -3.5                                    |
| w00527         | w00564       | hd00261_09 | -8.9                                    | -13.4                                    | 4.5                                     | -8.1                                    | -12.8                                    | 4.8                                     |
| w00528         | w00745       | hd00251_09 | -19.6                                   | -20.3                                    | 0.7                                     | -21.0                                   | -21.1                                    | 0.2                                     |
| w00530         | w00959       | hd00031_09 | -23.6                                   | -28.6                                    | 5.0                                     | -25.2                                   | -27.3                                    | 2.1                                     |
| w00531         | w00706       | hd00263_09 | -0.3                                    | 2.0                                      | -2.3                                    | -0.5                                    | 2.0                                      | -2.5                                    |
| w00535         | w00583       | hd00302_09 | -0.3                                    | -0.6                                     | 0.3                                     | -0.2                                    | -0.6                                     | 0.4                                     |
| w00536         | w00543       | hd00193_09 | 0.0                                     | -6.0                                     | 6.0                                     | -7.7                                    | -6.8                                     | -0.9                                    |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00538         | w00545       | hd00037_09 | -36.4                                   | -36.1                                    | -0.3                                    | -37.0                                   | -36.7                                    | -0.3                                    |
| w00538         | w00708       | hd00265_09 | -25.5                                   | -19.4                                    | -6.1                                    | -24.8                                   | -20.5                                    | -4.3                                    |
| w00539         | w00546       | hd00260_09 | 6.4                                     | 8.5                                      | -2.1                                    | 4.5                                     | 7.4                                      | -2.9                                    |
| w00544         | w00693       | hd00266_09 | -9.9                                    | -5.8                                     | -4.1                                    | -8.9                                    | -5.9                                     | -3.0                                    |
| w00545         | w00738       | hd00038_09 | 35.0                                    | 33.2                                     | 1.8                                     | 37.6                                    | 31.7                                     | 5.9                                     |
| w00545         | w00549       | hd00364_09 | -4.3                                    | -1.1                                     | -3.2                                    | -4.0                                    | -0.6                                     | -3.3                                    |
| w00547         | w00560       | hd00036_09 | 44.6                                    | 41.3                                     | 3.4                                     | 44.1                                    | 40.6                                     | 3.4                                     |
| w00547         | w00562       | hd00310_09 | 21.9                                    | 23.1                                     | -1.2                                    | 22.1                                    | 23.6                                     | -1.5                                    |
| w00549         | w00551       | hd00363_09 | -0.4                                    | -0.8                                     | 0.4                                     | 0.5                                     | -0.4                                     | 0.9                                     |
| w00554         | w00707       | hd00279_09 | -38.5                                   | -32.3                                    | -6.3                                    | 0.0                                     | -33.4                                    | 33.4                                    |
| w00560         | w_01522      | hd00379_09 | 14.2                                    | 15.7                                     | -1.5                                    | 16.7                                    | 19.2                                     | -2.5                                    |
| w00562         | w00577       | hd00311_09 | 30.0                                    | 26.0                                     | 4.0                                     | 30.3                                    | 27.7                                     | 2.6                                     |
| w00566         | w00745       | hd00253_09 | -0.2                                    | 0.3                                      | -0.5                                    | -0.2                                    | 0.2                                      | -0.4                                    |
| w00566         | w00740       | hd00254_09 | 1.2                                     | -0.2                                     | 1.4                                     | 1.5                                     | -0.2                                     | 1.7                                     |
| w00570         | w_riv01      | hd00365_09 | 20.8                                    | 18.8                                     | 2.0                                     | 19.4                                    | 20.2                                     | -0.8                                    |
| w00570         | w00576       | hd00361_09 | -38.2                                   | -39.1                                    | 1.0                                     | -38.5                                   | -36.3                                    | -2.2                                    |
| w00573         | w00917       | hd00323_09 | -13.6                                   | -12.4                                    | -1.2                                    | -14.7                                   | -12.3                                    | -2.4                                    |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00576         | w00791       | hd00039_09 | 52.5                                    | 53.8                                     | -1.4                                    | 52.5                                    | 53.1                                     | -0.7                                    |
| w00583         | w00733       | hd00303_09 | -0.8                                    | -1.5                                     | 0.7                                     | -0.6                                    | -1.5                                     | 0.9                                     |
| w00597         | w00604       | hd00328_09 | 3.2                                     | 7.7                                      | -4.6                                    | 3.9                                     | 7.8                                      | -3.9                                    |
| w00598         | w00880       | hd00149_09 | -7.1                                    | -2.1                                     | -5.1                                    | -6.7                                    | -2.0                                     | -4.7                                    |
| w00599         | w00998       | hd00229_09 | 7.4                                     | 8.9                                      | -1.5                                    | 7.9                                     | 8.8                                      | -0.9                                    |
| w00618         | w01282       | hd00062_09 | 92.5                                    | 92.1                                     | 0.3                                     | 87.0                                    | 87.1                                     | -0.1                                    |
| w00621         | w01282       | hd00065_09 | 61.2                                    | 62.0                                     | -0.8                                    | 58.8                                    | 59.9                                     | -1.1                                    |
| w00621         | w01288       | hd00064_09 | -2.7                                    | -1.0                                     | -1.7                                    | -1.2                                    | -1.2                                     | 0.0                                     |
| w00630         | w00750       | hd00085_09 | 5.4                                     | 3.8                                      | 1.7                                     | -0.2                                    | 0.6                                      | -0.8                                    |
| w00653         | w_e0001      | hd00350_09 | -63.6                                   | -65.6                                    | 1.9                                     | -60.5                                   | -64.6                                    | 4.1                                     |
| w00659         | w00966       | hd00219_09 | 21.7                                    | 7.8                                      | 13.9                                    | 21.9                                    | 8.1                                      | 13.8                                    |
| w00666         | w01009       | hd00331_09 | 0.2                                     | -3.0                                     | 3.3                                     | -0.1                                    | -3.0                                     | 2.8                                     |
| w00706         | w00708       | hd00264_09 | 4.0                                     | 7.2                                      | -3.2                                    | 3.7                                     | 6.3                                      | -2.6                                    |
| w00714         | w00731       | hd00186_09 | -0.5                                    | -4.7                                     | 4.3                                     | -0.5                                    | -4.6                                     | 4.1                                     |
| w00731         | w00737       | hd00185_09 | -0.9                                    | -1.1                                     | 0.2                                     | -1.1                                    | -1.1                                     | 0.0                                     |
| w00733         | w00745       | hd00250_09 | -1.3                                    | -0.9                                     | -0.4                                    | -1.9                                    | -1.1                                     | -0.8                                    |
| w00737         | w00749       | hd00184_09 | -2.3                                    | -0.4                                     | -1.9                                    | -2.2                                    | -0.4                                     | -1.9                                    |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00754         | w00760       | hd00181_09 | 0.3                                     | -2.3                                     | 2.5                                     | 0.1                                     | -2.1                                     | 2.2                                     |
| w00775         | w00788       | hd00371_09 | -1.2                                    | -0.2                                     | -1.0                                    | -1.5                                    | 0.0                                      | -1.6                                    |
| w00799         | w00805       | hd00156_09 | -5.2                                    | -3.9                                     | -1.3                                    | -5.3                                    | -4.0                                     | -1.3                                    |
| w00802         | w00811       | hd00161_09 | 19.1                                    | 16.2                                     | 2.9                                     | 20.3                                    | 17.7                                     | 2.6                                     |
| w00807         | w00812       | hd00087_09 | -5.4                                    | -6.8                                     | 1.4                                     | -5.2                                    | -6.8                                     | 1.6                                     |
| w00811         | w_riv06      | hd00162_09 | 10.8                                    | 7.5                                      | 3.3                                     | 11.1                                    | 8.1                                      | 3.0                                     |
| w00813         | w00818       | hd00101_09 | -22.7                                   | -19.2                                    | -3.4                                    | -23.4                                   | -19.8                                    | -3.7                                    |
| w00816         | w_riv06      | hd00163_09 | 1.5                                     | -0.8                                     | 2.4                                     | 2.1                                     | -1.0                                     | 3.1                                     |
| w00821         | w_01574      | hd00127_09 | -8.7                                    | -12.0                                    | 3.3                                     | -8.4                                    | -12.6                                    | 4.2                                     |
| w00828         | w_01577      | hd00130_09 | -18.3                                   | -19.9                                    | 1.6                                     | 0.0                                     | -22.5                                    | 22.5                                    |
| w00830         | w00832       | hd00140_09 | 14.2                                    | 15.2                                     | -1.0                                    | 19.9                                    | 19.3                                     | 0.6                                     |
| w00835         | w00845       | hd00154_09 | 6.8                                     | 2.0                                      | 4.8                                     | 5.0                                     | 3.0                                      | 2.0                                     |
| w00843         | w_riv12      | hd00353_09 | 2.2                                     | 3.6                                      | -1.4                                    | 2.7                                     | 3.8                                      | -1.1                                    |
| w00845         | w00859       | hd00153_09 | 6.3                                     | 7.6                                      | -1.3                                    | 7.7                                     | 7.3                                      | 0.4                                     |
| w00847         | w00861       | hd00019_09 | -22.3                                   | -18.9                                    | -3.4                                    | -24.0                                   | -17.3                                    | -6.7                                    |
| w00849         | w00877       | hd00242_09 | 40.9                                    | 36.4                                     | 4.6                                     | 41.5                                    | 38.8                                     | 2.7                                     |
| w00851         | w00858       | hd00098_09 | -1.1                                    | -3.8                                     | 2.8                                     | -0.8                                    | -4.3                                     | 3.5                                     |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00868         | w00877       | hd00243_09 | 16.8                                    | 13.9                                     | 2.8                                     | 17.7                                    | 15.5                                     | 2.2                                     |
| w00874         | w00880       | hd00150_09 | 1.9                                     | 7.1                                      | -5.2                                    | 4.6                                     | 7.6                                      | -3.0                                    |
| w00881         | w00901       | hd00232_09 | -16.2                                   | -11.6                                    | -4.6                                    | -16.3                                   | -12.5                                    | -3.8                                    |
| w00885         | w00912       | hd00247_09 | -5.4                                    | -1.5                                     | -3.9                                    | -7.3                                    | 0.3                                      | -7.7                                    |
| w00895         | w00896       | hd00029_09 | -9.6                                    | 0.1                                      | -9.7                                    | -6.6                                    | 0.2                                      | -6.8                                    |
| w00896         | w_01592      | hd00321_09 | 30.5                                    | 26.7                                     | 3.8                                     | 30.3                                    | 27.4                                     | 2.9                                     |
| w00896         | w00905       | hd00028_09 | 10.6                                    | -0.1                                     | 10.8                                    | 7.8                                     | -0.2                                     | 8.0                                     |
| w00901         | w00906       | hd00231_09 | 18.1                                    | 12.0                                     | 6.1                                     | 18.7                                    | 15.4                                     | 3.3                                     |
| w00912         | w00914       | hd00246_09 | -5.6                                    | -5.7                                     | 0.1                                     | -2.6                                    | -5.1                                     | 2.5                                     |
| w00913         | w_01599      | hd00359_09 | 15.8                                    | 21.4                                     | -5.6                                    | 18.5                                    | 20.8                                     | -2.3                                    |
| w00917         | w00933       | hd00027_09 | 7.6                                     | 8.2                                      | -0.6                                    | 8.3                                     | 8.3                                      | 0.0                                     |
| w00917         | w_01592      | hd00322_09 | -3.8                                    | -4.6                                     | 0.7                                     | -2.7                                    | -3.8                                     | 1.2                                     |
| w00927         | w00928       | hd00121_09 | 5.4                                     | 2.8                                      | 2.5                                     | 6.9                                     | 2.8                                      | 4.1                                     |
| w00940         | w00945       | hd00223_09 | -0.1                                    | 0.1                                      | -0.2                                    | -0.3                                    | 0.2                                      | -0.5                                    |
| w00945         | w00958       | hd00224_09 | 6.8                                     | 3.2                                      | 3.6                                     | 8.7                                     | 3.2                                      | 5.5                                     |
| w00959         | w00965       | hd00030_09 | -18.4                                   | -9.2                                     | -9.2                                    | -16.5                                   | -9.2                                     | -7.3                                    |
| w00965         | w00977       | hd00372_09 | 58.6                                    | 43.3                                     | 15.3                                    | 57.9                                    | 42.0                                     | 15.9                                    |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w00965         | w00985       | hd00034_09 | 48.2                                    | 51.9                                     | -3.7                                    | 47.7                                    | 50.5                                     | -2.8                                    |
| w00968         | w00978       | hd00216_09 | 0.7                                     | 1.4                                      | -0.7                                    | 0.8                                     | 1.3                                      | -0.5                                    |
| w00970         | w00978       | hd00217_09 | 3.2                                     | 1.1                                      | 2.1                                     | 2.3                                     | 0.9                                      | 1.4                                     |
| w00977         | w00994       | hd00373_09 | 5.3                                     | 16.0                                     | -10.7                                   | 5.4                                     | 15.8                                     | -10.4                                   |
| w00978         | w01002       | hd00226_09 | 7.8                                     | 11.2                                     | -3.4                                    | 9.9                                     | 11.2                                     | -1.2                                    |
| w00985         | w00987       | hd00374_09 | 19.2                                    | 6.1                                      | 13.1                                    | 18.3                                    | 6.2                                      | 12.1                                    |
| w00998         | w01002       | hd00230_09 | 9.6                                     | 12.1                                     | -2.5                                    | 12.3                                    | 12.2                                     | 0.1                                     |
| w01002         | w01004       | hd00225_09 | 17.0                                    | 17.0                                     | -0.1                                    | 15.3                                    | 17.3                                     | -2.0                                    |
| w01004         | w01009       | hd00330_09 | 11.6                                    | 9.6                                      | 2.0                                     | 13.1                                    | 9.9                                      | 3.2                                     |
| w01020         | w01023       | hd00326_09 | 4.8                                     | 4.8                                      | 0.0                                     | 0.0                                     | 4.8                                      | -4.8                                    |
| w01054         | w01396       | hd00077_09 | 22.0                                    | 30.6                                     | -8.5                                    | -3.7                                    | 7.7                                      | -11.4                                   |
| w01060         | w01416       | hd00191_09 | 18.0                                    | 17.4                                     | 0.6                                     | 17.9                                    | 16.6                                     | 1.3                                     |
| w01060         | w01412       | hd00189_09 | 36.5                                    | 37.7                                     | -1.1                                    | 40.3                                    | 37.6                                     | 2.8                                     |
| w01084         | w01101       | hd00288_09 | -18.3                                   | -13.4                                    | -4.8                                    | -22.8                                   | -14.5                                    | -8.2                                    |
| w01099         | w01102       | hd00067_09 | -15.0                                   | -16.8                                    | 1.8                                     | -14.0                                   | -16.8                                    | 2.9                                     |
| w01099         | w01103       | hd00068_09 | 6.1                                     | -0.1                                     | 6.2                                     | 6.2                                     | 0.1                                      | 6.1                                     |
| w01101         | w01139       | hd00287_09 | -102.1                                  | -91.5                                    | -10.7                                   | -97.7                                   | -94.5                                    | -3.1                                    |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w01102         | w01406       | hd00066_09 | -19.9                                   | -21.0                                    | 1.1                                     | -18.8                                   | -21.5                                    | 2.7                                     |
| w01103         | w01331       | hd00073_09 | -1.5                                    | 0.0                                      | -1.5                                    | 3.4                                     | -0.2                                     | 3.5                                     |
| w01137         | w01470       | hd00044_09 | -59.7                                   | -52.7                                    | -7.0                                    | -59.1                                   | -54.0                                    | -5.1                                    |
| w01137         | w01433       | hd00284_09 | 34.7                                    | 40.3                                     | -5.6                                    | 38.0                                    | 43.1                                     | -5.1                                    |
| w01145         | w01439       | hd00293_09 | -3.0                                    | -7.5                                     | 4.5                                     | -3.9                                    | -8.2                                     | 4.3                                     |
| w01215         | w01223       | hd00290_09 | -39.3                                   | -43.2                                    | 3.9                                     | -31.7                                   | -41.9                                    | 10.2                                    |
| w01215         | w01447       | hd00291_09 | 6.3                                     | 9.7                                      | -3.3                                    | 10.4                                    | 12.3                                     | -1.9                                    |
| w01227         | w01248       | hd00355_09 | -115.4                                  | -114.0                                   | -1.4                                    | -111.7                                  | -108.2                                   | -3.5                                    |
| w01227         | w01346       | hd00356_09 | 22.3                                    | 24.2                                     | -1.8                                    | 24.3                                    | 27.8                                     | -3.5                                    |
| w01229         | w01346       | hd00057_09 | -31.1                                   | -30.4                                    | -0.8                                    | -30.2                                   | -31.1                                    | 1.0                                     |
| w01229         | w01318       | hd00058_09 | -17.2                                   | -15.9                                    | -1.4                                    | -16.6                                   | -16.3                                    | -0.3                                    |
| w01238         | w01259       | hd00060_09 | 49.4                                    | 49.8                                     | -0.3                                    | 46.2                                    | 46.3                                     | -0.2                                    |
| w01238         | w01318       | hd00059_09 | -9.9                                    | -8.9                                     | -1.0                                    | -9.7                                    | -9.2                                     | -0.5                                    |
| w01252         | w01472       | hd00309_09 | 39.0                                    | 41.5                                     | -2.4                                    | 40.3                                    | 40.5                                     | -0.2                                    |
| w01256         | w01285       | hd00053_09 | 18.7                                    | 21.6                                     | -2.9                                    | 17.5                                    | 20.1                                     | -2.6                                    |
| w01256         | w01257       | hd00052_09 | -16.6                                   | -16.7                                    | 0.1                                     | -15.6                                   | -14.8                                    | -0.8                                    |
| w01257         | w01258       | hd00051_09 | -13.5                                   | -15.8                                    | 2.3                                     | -15.2                                   | -16.6                                    | 1.4                                     |

| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w01258         | w01262       | hd00050_09 | -22.3                                   | -16.9                                    | -5.4                                    | -17.4                                   | -18.4                                    | 1.0                                     |
| w01259         | w01282       | hd00061_09 | 30.9                                    | 31.1                                     | -0.3                                    | 29.6                                    | 31.2                                     | -1.6                                    |
| w01261         | w01423       | hd00045_09 | -58.2                                   | -59.1                                    | 0.9                                     | -59.9                                   | -55.3                                    | -4.6                                    |
| w01261         | w01262       | hd00049_09 | 16.5                                    | 15.6                                     | 0.9                                     | 16.7                                    | 14.9                                     | 1.8                                     |
| w01266         | w01274       | hd00048_09 | -37.4                                   | -41.6                                    | 4.2                                     | -39.9                                   | -39.4                                    | -0.5                                    |
| w01273         | w01423       | hd00047_09 | 8.1                                     | 7.8                                      | 0.3                                     | 6.2                                     | 6.8                                      | -0.7                                    |
| w01273         | w01471       | hd00046_09 | -109.9                                  | -111.6                                   | 1.7                                     | -112.2                                  | -113.7                                   | 1.5                                     |
| w01279         | w01431       | hd00056_09 | -58.9                                   | -64.3                                    | 5.4                                     | -64.1                                   | -63.9                                    | -0.2                                    |
| w01282         | w01283       | hd00055_09 | -8.7                                    | -7.4                                     | -1.3                                    | -7.6                                    | -8.2                                     | 0.6                                     |
| w01283         | w01285       | hd00054_09 | -40.6                                   | -38.6                                    | -2.1                                    | -39.6                                   | -38.7                                    | -0.9                                    |
| w01321         | w01331       | hd00072_09 | 2.0                                     | 1.1                                      | 0.9                                     | 2.1                                     | 1.2                                      | 0.9                                     |
| w01321         | w01329       | hd00071_09 | -1.6                                    | -1.0                                     | -0.6                                    | -2.0                                    | -1.0                                     | -1.0                                    |
| w01329         | w01339       | hd00070_09 | -5.4                                    | -3.3                                     | -2.1                                    | -7.9                                    | -3.3                                     | -4.6                                    |
| w01339         | w01376       | hd00069_09 | -15.0                                   | -10.3                                    | -4.8                                    | -14.8                                   | -10.7                                    | -4.1                                    |
| w01364         | w01396       | hd00078_09 | 0.5                                     | 0.4                                      | 0.0                                     | -7.0                                    | -3.6                                     | -3.4                                    |
| w01372         | w01383       | hd00081_09 | -5.2                                    | -7.0                                     | 1.9                                     | -3.5                                    | -5.2                                     | 1.7                                     |
| w01383         | w01392       | hd00080_09 | -5.9                                    | -3.5                                     | -2.3                                    | -2.2                                    | -2.3                                     | 0.1                                     |



| Well Name From | Well Name To | PEST ID    | 2001<br>Observed<br>HHD(Feet<br>NAVD88) | 2001<br>Simulated<br>HHD(Feet<br>NAVD88) | 2001<br>Residual<br>HHD(Feet<br>NAVD88) | 2009<br>Observed<br>HHD(Feet<br>NAVD88) | 2009<br>Simulated<br>HHD(Feet<br>NAVD88) | 2009<br>Residual<br>HHD(Feet<br>NAVD88) |
|----------------|--------------|------------|---|--|---|---|--|---|
| w01410         | w01412       | hd00190_09 | -5.1                                    | -0.7                                     | -4.4                                    | -5.2                                    | -0.8                                     | -4.4                                    |
| w01439         | w01445       | hd00299_09 | -5.9                                    | -4.1                                     | -1.8                                    | -7.5                                    | -4.6                                     | -2.9                                    |
| w01439         | w01444       | hd00295_09 | -5.1                                    | -2.2                                     | -2.9                                    | -4.0                                    | -3.1                                     | -0.9                                    |
| w01439         | w01447       | hd00292_09 | -5.7                                    | -2.5                                     | -3.2                                    | -7.7                                    | -3.4                                     | -4.3                                    |
| w01444         | w01454       | hd00294_09 | -22.6                                   | -24.2                                    | 1.6                                     | -26.2                                   | -27.0                                    | 0.8                                     |
| w01445         | w01462       | hd00298_09 | -42.0                                   | -35.8                                    | -6.2                                    | -39.8                                   | -34.0                                    | -5.7                                    |
| w01467         | w01477       | hd00283_09 | -48.2                                   | -48.8                                    | 0.5                                     | -58.0                                   | -47.5                                    | -10.5                                   |