APPENDIX D6 HYDROLOGY

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D6.1 SURFACE WATER

The Appendix D6 Hydrology pages, table, figure and exhibits are sequentially numbered of in this section, such as D6-1. The addendums are numbered by the sub-section, such as Figure D6B.1-1.

D6.1.1 DRAINAGE BASIN DESCRIPTION

The Nichols Ranch ISR Project areas exist in the Cottonwood and Willow Creek drainage areas. The Nichols Ranch Unit is located in the Cottonwood Creek drainage while the Hank Unit is located in the Willow Creek drainage.

The Nichols Ranch Unit is located near the confluence of the Cottonwood Creek drainage with the Dry Fork of the Powder River. Figure D6-1 shows the Cottonwood drainage area. The majority of the Nichols Unit drains directly to Cottonwood Creek while a portion of the northern part of the area drains to Tex Draw which is a tributary to the Dry Fork of the Powder River. Cottonwood Creek is a tributary to the Dry Fork of the Powder River and its confluence is located approximately ½ mile downstream of the project area. Tex Draw also enters the Dry Fork of the Powder River approximately 2 miles downstream of the project area.

Area of the Cottonwood Creek drainage basin is 80.2 square miles. Dry Fork of the Powder River is a tributary to Powder River which is a tributary to the Yellowstone River, which is a part of the Missouri River drainage basin. Land surface elevation in Cottonwood Creek drainage varies from 5,974 to 4,590 ft-msl at the mouth. The channel elevation varies from 4,622 to 4,660ft-msl in the project area. Cottonwood Creek channel is flat at a gradient of approximately 0.003 ft/ft.

The Tex Draw drainage area is 5.2 square miles and its elevation varies from a peak of 5,085 to an elevation of 4,540 ft-msl at its confluence with the Dry Fork of the Powder River. None of the Tex Draw channel exists within the Nichols Ranch Unit area but the northwestern portion of the project area drains to Tex Draw. Tex Draw has a much steeper gradient due to being a smaller ephemeral channel and has an approximate gradient of 0.01 ft/ft just north of the project area.

The Hank Unit is located in the Dry Willow and Willow Creek drainages. Dry Willow is a tributary to Willow Creek which is a tributary of the Powder River. Dry Willow and a portion of Willow Creek drainage upstream of the Dry Willow confluence are shown in Figure D6-1. The Hank Unit is roughly 16 miles upstream of the confluence of Willow Creek and the Powder River. Willow Creek is oriented in a westerly direction through the northern end of the unit.

The area of the Willow Creek drainage basin above the Dry Willow Creek confluence is approximately 13.2 square miles. Elevation in the Willow Creek drainage varies from 6,052 to 4,795 ft-msl at the confluence of Dry Willow Creek. The short reach of the Willow Creek channel within the unit boundary ranges in elevation from 5,015 to 5,040 ft-msl.

The gradient of the stream channel within the Hank Unit is about 0.008 ft/ft, and the active stream channel width varies from a few feet to several tens of feet.

The drainage area of Dry Willow Creek is 12.2 square miles. The maximum elevation in this drainage basin is 6,018 ft and the elevation at the confluence is 4,795 ft. The elevation of the channel in the Hank Unit area of Dry Willow Creek varies from 4,995 ft to 5,085 ft-msl. The stream channel in this area has a gradient slightly greater than 0.01ft/ft.

D6.1.2 SURFACE-WATER FLOW

Dry Willow, Willow and Cottonwood Creeks and Tex Draw are classified as ephemeral streams in the project area. Stream flows only occur in response to heavy snow melt and to large rainstorms. Runoff flows are typically intermittent in the spring and early summer and the stream channels are dry the remainder of the year except during major thunderstorms in the area.

The estimated peak flows for various recurrence intervals for Cottonwood, Tex, Dry Willow and Willow Creek drainages are presented in Table D6-1. The technique that was used to estimate the peak flows is presented in Lowham (1976).

The predicted peak flows in Table D6-1 vary from 454 cubic feet per second (csf) for a two-year recurrence interval to 7,500 csf for a hundred year recurrence interval for Cottonwood Creek drainage. The peak flows for Tex Draw vary from 170 to 2,720 csf for the 2 and 100 year recurrence intervals.

The predicted peak flows for the Dry Willow Creek and Willow Creek above Dry Willow Creek vary from a low of 231 csf for the 2 year recurrence interval for Dry Willow up to a peak of 3,840 for the 100 year recurrence interval. The estimates for Dry Willow and Willow Creek are very similar due to similarity in drainage area.

The smaller drainages at the Nichols unit were divided into drainages NDA1-NDA6. The Craig-Rankl method (1978) for small drainage basins in Wyoming was used to estimate the peak discharges for the small sub-basins. Each of these drainages will drain to the north side of Cottonwood Creek. The ten-year peak flows from these drainages vary from a low of 119 to a high of 611 csf. Eight sub basins were divided for the Hank unit. These sub basins are labeled HDA1-HDA8 and are shown on Figure D6-1. Table D6-1 presents the peak flows for these sub basins with a ten-year flood varying from 77 to 256 csf using the Craig-Rankl method (1978).

The flow velocities for the 10-year peak discharges are calculated to present an estimate of the channel velocities during a significant runoff event. The bottom half of Table D6-1 presents the calculation of the flow velocities based on typical channel slope and the 10-yr peak discharge. The 10-year peak discharge was selected as representing a reasonable design period for the life of this operation. These 10-year peaks are calculated for the confluence of the drainages and therefore are a very conservative representation of the peak at the project location. The peak velocities for Cottonwood Creek are smaller due to the wide flood plane

and the milder channel slope. Cottonwood Creek does have an incised pilot channel which has been dammed and, therefore, runoff flow during any significant event will be spread over a very significant width of the flood plane. The velocities in Tex Draw, Dry Willow and Willow Creek will be much greater due to the steeper channel slope and are near 10 ft/sec.

The flow velocity over the ten-year peak discharge for the smaller sub basins is also presented in Table D6-1. The velocities for the Nichols Ranch unit vary from a low of 7.4 to a high of 10.8 ft/sec. Flow velocities were also calculated for the 8 sub basins for the Hank unit and those flood velocities vary from 8.6 to 12.4 ft/sec.

D6.1.3 SURFACE-WATER QUALITY

The surface water quality from the Cottonwood, Tex, Dry Willow and Willow Creek drainages is generally very good in the upper channel reaches of these areas. A typical TDS is 200 mg/l. Water quality generally deteriorates as the surface water flows further down stream and is in contact with the streambed for longer periods of time.

The U. S. Geological Survey has monitored the Dead Horse Creek drainage which is approximately 30 miles north of the confluence of the Dry Fork with the Powder River and roughly 20 miles north of the confluence of Willow Creek with the Powder River. Dead Horse Creek drainage area is 151 square miles, which is significantly greater than the local drainages of the mining area. Limited water quality data from this gauging station shows that ion concentrations are significant with conductivity greater than 2,000 mhos/cm.

Table D6A.1-1 in Addendum D6A presents water quality data available from surface water samples within the drainages in the project. Figure D6-1 shows the location of surface water quality samples. These surface water results should be representative of conditions in 2007 because CBM discharges in this area have not started. Discharges to Tex Draw are expected to start in 2008 but a large portion of this area will not have CBM discharges because one of the major CBM producers is piping water to a deep injection well. The three surface water samples in early 2008 also should be representative of pre-CBM discharges because no CBM surface discharges have occurred in these drainages. The Dry Willow Reservoir which is upstream of the Hank Unit had a TDS of 174 mg/l. The Brown Water Pond also had a very low TDS due to the pond proximity to the drainage divide. This pond captures water after it has moved only a relatively short distance. The Dry Willow Reservoir and Brown Water Pond were dry in September of 2007 and early 2008. Additional samples on Dry Willow Creek and Cottonwood Creek show that the TDS can exceed 2,000 mg/l in the surface runoff. The spring of 2008 TDS from Dry Willow Creek and Cottonwood Creek downstream (D) of Nichols Unit are much lower while the TDS from the Cottonwood Creek upstream (U) of Nichols which is similar to the late 1970 higher values. This data shows that the surface water quality can naturally vary greatly. Surface runoff water quality is generally dominated by bicarbonate concentrates but increase concentrations of calcium and sulfate are observed with increasing exposure time in channels.

D6.2 GROUND-WATER HYDROLOGY

The regional ground-water setting has been defined by Hodson and others, 1973. The Nichols Ranch permit area is located in the south-central Powder River Basin, to the west of the Middle Pumpkin Butte. Geologic structure in the permit area is relatively flat with a gentle dip to the southwest toward the basin axis. The Wasatch Formation is the uppermost geologic unit in the area of the Nichols Ranch Permit. The sands within the Wasatch Formation create regional aquifers in this area. Whitehead, 1996 also presents information relative to the regional groundwater setting in this area. Ground water in the Wasatch aquifers generally flows to the north and northwest in this area. The water quality in these aquifers would also generally be good, with a TDS concentration typically from <1000 mg/l to <2,000 mg/l. The aquifers of interest in this area are sands within the Wasatch Formation. The confining units between the aquifers are also within the Wasatch Formation.

The sandstones and the coal seams form aquifers in the Fort Union Formation. The aquifers will be deeper than the Wasatch aquifers but the general flow in the aquifer would be expected to be in the similar direction as the flow in the Wasatch aquifers. Whitehead, 1996 indicates that some of the flow between the aquifers is upwards in this region. Ground-water quality of the Fort Union aquifers would also be expected to be relatively good with TDS generally less than 2,000 mg/l.

The Lance Formation consists mainly of very fine to fine grain sandstone shale and coal beds. The ground-water flow direction in the Lance Formation in this area is expected to be to the north. Water quality data is very limited on the Lance Formation in this area but the TDS would be expected to be >2000 mg/l based on the limited data. The TDS is less toward the outcrop area to the southwest. TDS concentrations near the outcrops have been reported to be <1000 mg/l.

The Foxhills Sandstone exists below the base of the Lance Formation. Foxhills is mainly a fine to medium grain sandstone. The ground-water flow direction in the Foxhills would be expected to be to the north in this area based on a map presented in Whitehead, 1996. The TDS of the Foxhills is likely to be >2000 mg/l in this area based on the limited data available for this aquifer. The TDS in the outcrop area to the southwest has been measured to be from 1000 to >2000 mg/l.

The Lewis Shale underlies the Foxhill aquifer and is mainly an aquitard. This shale contains some lenses of fine grained sandstone but is generally not a very significant producer of water. The water quality in the Lewis Shale would be expected to be very poor. TDS in the Lewis Shale is likely to exceed 5000 mg/l in this area.

D6.2.1 GEOLOGIC SETTING AND WELL CONSTRUCTION

The Nichols Ranch ISR Project is located in the outcrop of the Wasatch Formation. The stratigraphy of the Wasatch at this site consists of alternating layers of sand and shale with lignite marker beds. The mineable ore exists in two sand members, designated as the A Sand at the Nichols Ranch Unit and F Sand at the Hank Unit. These two sand members are typically separated by the B and C Sands and adjacent aquitards.

The aquifer and aquitard sequence at the project area is shown in Figure D6-2. This shows labeled sands from the 1, A, B, C, F, G, and H Sands. This figure also shows the aquitards that exist between the different sands and those aquitards are labeled as by the combination of labels for the two adjacent sands. These sands are the same names that are used at Power Resources North Butte permit which exists just north of the Hank Unit site.

The majority of the wells completed in the Nichols Ranch Unit are completed in the A Sand because this is the ore bearing sand in this area. Figure D6-3 shows the locations of the Nichols Ranch Unit wells and Exhibit D6-1 shows the locations of wells within three miles of the Nichols Ranch Unit. Table D6-2 presents the tabulation of the well data for the Nichols Unit wells. This table shows that eleven of the wells have been completed in the A Sand with one well completed in each of the 1, B and C Sands while two wells have been completed in the F Sand and one well in the Cottonwood alluvium. Wells MN-1, MN-2, URZNB-1 and URZN1-2 are completed as open-hole completions, while the remainder wells have well screens in their completion interval. Addendum D6L gives the Uranium Data Submission Spreadsheets which contain additional information on the wells.

Table D6-3 presents the basic well data for the Hank Unit wells while Figure D6-4 shows the location of the Hank Unit wells. Exhibit D6-2 shows the locations of wells within three miles of the Hank Unit. Eleven of these wells are completed in the F Sand because this is the ore bearing sand in this area. Four of the wells are completed in the overlying G Sand while one of the wells is completed in the underlying C Sand. In areas where the C Sand does not exist, the B Sand is the underlying aquifer and seven of the wells in this area are completed in the B Sand. Additionally, four existing stock wells are completed across a combination of the sands.

D6.2.2 SUMMARY OF AQUIFER AND AQUITARD PROPERTIES

Numerous single-well pump tests and multi-well pump tests were conducted at the Nichols Ranch and Hank Units to define the aquifer properties. The detailed hydrologic analyses and supporting data are contained in Addendums D6B and D6C for Nichols Ranch Unit and Hank Unit respectively. Three multi-well pump tests were conducted at the Nichols Unit site and are referred to in this report as the MN-1, MN-2 and MN-6 tests. Three multi-well tests were performed at the Hank Unit site. These tests are referred to as the URZHF-1, URZHF-5 and SS1F tests. Tables D6-3 and D6-4 present the basic well data for wells used to define the aquifer properties for the Nichols Ranch and Hank Units respectively. Addendum D6J presents the aquifer test theory used to analyze the pump tests.

D6.2.2.1 AQUIFER PROPERTIES

In addition to determining the aquifer properties from the multi-well test, numerous single-well tests were conducted to define the aquifer properties. Several pump tests were previously conducted by Cleveland-Cliffs and Uranerz and the results of these tests were analyzed and included in the general hydrologic analysis.

Table D6-4 presents a summary of the aquifer properties for the Nichols Ranch Unit. This table shows a summary of the aquifer properties for the A, B, C, F and 1 Sands for the Nichols Ranch Unit. For the A Sand, the single-well pump tests are presented first and then the results for the three multi-well pump tests are presented. Transmissivities

for the A Sand aquifer vary from a low of 101 to a high of 460 gal/day/ft. A value of 350 gal/day/ft is thought to best represent the A Sand in the Nichols Unit area. The hydraulic

conductivity (horizontal permeability) varies from 0.18 to slightly greater than 0.7 ft/day (0.08 to 0.36 Darcy), and a value of 0.5 ft/day is thought to best represent the A Sand. Average storage coefficient for the A Sand was 1.8E-4.

The one single-well pump test in the B Sand produced a transmissivity of 174 gal/day/ft and a horizontal permeability of 0.37 ft/day. The single-well pump tests for the 1 Sand produced a transmissivity of 88 and 101 gal/day/ft for the 1 Sand. A significantly higher transmissivity was obtained from the single-well test for the F Sand well at 1,410 gal/day/ft and a hydraulic conductivity of 3.6 ft/day. A small transmissivity of 45 gal/day/ft and hydraulic conductivity of 0.099 ft/day were determined for the C Sand.

Table D6-5 presents the summary of aquifer properties for the Hank Unit. This table presents results of aquifer properties testing for the F, A, B, C and G aquifers in the Hank Unit area.

The properties in the F Sand vary greatly in the Hank Unit area. The transmissivities vary from a low of 18 to a high of 6,670 gal/day/ft. Hydraulic conductivity varies from a low of 0.14 ft/day to a high of 9.4 ft/day (0.07 to 4.5 Darcy). A transmissivity of 400 gal/day/ft is thought to best represent the majority of the F Sand in the Hank Unit and the hydraulic conductivity of 0.6 ft/day is also thought to best represent the F Sand. A storage coefficient of 6.8E-5 was determined for the F Sand at the SS1-F site. The water level in the ore zone of the Hank Unit is near the top of the sand and therefore the F Sand is not fully saturated and is therefore an unconfined aquifer at the Hank Unit. The primary storage property for an unconfined aquifer is specific yield and a specific yield of 0.05 is thought to best represent the F Sand in this area.

Similar tests were conducted on two G Sand wells. The transmissivities of this G Sand varied from 0.4 to 2.9 gal/day/ft with hydraulic conductivities varying from 0.005 to 0.022 ft/day.

The aquifer properties for the underlying sands were determined for the C, B and A Sands. The aquifer properties for the C Sand were a low transmissivity of 1.9 gal/day/ft and a hydraulic conductivity of 0.025 ft/day. The transmissivities for the B and A Sand varied over a much larger range from 264 to 1,300 gal/day/ft. Hydraulic conductivities for the B and A Sand varied from 0.38 to 2.2 ft/day.

D6.2.2.2 AQUITARD PROPERTIES

The vertical permeabilities of the aquitard in the Powder River Basin have been defined at numerous locations. These permeabilities have been measured in multi-well pump tests with the Neuman-Witherspoon (1972) method, determined from the results from the leaky aquifer pump test analysis with the modified Hantush (1960) method, and from laboratory measurements. This data has shown that the vertical permeability of these aquitards is low enough that site specific measurements of the aquitard permeabilities are not necessary. Aquitard permeabilities were measured in the area just north of the Hank Unit in Power Resources North Butte permit. This permit presents aquitards evaluated with

the Neuman-Witherspoon field test for the aquitard between the F and C Sands. The vertical permeability of this material was 3.8E-8 cm/sec (3.5E-2 ft/yr). A second multi-well test at the North Butte site defined the aquitard permeability between the A Sand and the 1 Sand. The results of this test were 4.1E-8 cm/sec (4.2E-2 ft/yr). Additional field tests were evaluated using the modified Hantush method to define the vertical permeability of the aquitard. These calculated permeabilities varied from a low of 6.7E-9 to a high of 6.9E-8 cm/sec. Laboratory permeabilities were also measured on two samples of the aquitards at the North Butte permit and these permeabilities varied from 6.4E-9 to 1.3E-8 cm/sec. This data shows that the aquitards in this area have sufficiently small vertical permeabilities to restrict the movement of ground water from one aquifer to the next. Aquifer confinement will be further defined for each of the wellfields during the wellfield multi-well pump test.

D6.2.3 GROUND-WATER FLOW

Water levels have been measured in the wells in the Nichols Ranch ISR Project area to define the direction and gradient of the ground water movement and define water-level changes in the aquifers in this area. Addendum D6D presents the water-level plots and tabulation of ground-water levels. Addendum D6L also presents a tabulation of the water levels in the Uranium Data Submission Spreadsheets.

The historical and current water-level elevation maps for the aquifers in this area are essentially the same. Water-level plots show that historically only small changes have occurred in these water levels since the late 1970s. Also, the coal bed methane production in the immediate area has not started and therefore the 2007 piezometric surface maps can be used as historical water-level elevations.

The water level elevation for the A Sand, which is the production sand at the Nichols Ranch Unit, is presented in Figure D6-5. This water-level elevation map shows that the ground water in the A Sand is flowing to the northwest with an average gradient of 0.0033 ft/ft. This gradient, an effective porosity of 0.05 and an average hydraulic conductivity of 0.5 ft/day indicates that the ground water in the A Sand is flowing at an average rate of 0.033 ft/day (12 ft/yr).

The regional piezometric surface of the A Sand aquifer is developed from the Nichols Unit A Sand wells and from three additional A Sand wells in this region. Figure D6-5a presents the regional water-level elevation map for the A Sand. This map shows that the regional ground water flow direction is the same as that in the Nichols Unit area. The regional ground-water velocity would be expected to be similar to the local ground-water velocity in the Nichols Unit area.

An F Sand well was added at the Nichols Ranch Unit to define the shallow ground water at this site. Figure D6-6 shows the water-level elevation for F Sand well URZNF-3. The water-level elevation of this shallow sand is roughly 25 feet higher than the water-level

elevation than the A Sand at this location. An additional shallow monitoring well was installed at the Nichols Ranch Unit in the Cottonwood alluvium. This monitoring well is

located on the downstream edge of the Nichols Ranch Unit area (see Figure D6-3 for location). Completion information for this well is presented in Table D6-3 and the well has a water-level elevation of 4,629 ft-msl. This water-level elevation is approximately 35 feet below the water-level elevation of the A Sand in this area.

Figure D6-6 shows the water-level elevation for the F Sand for the Nichols Ranch ISR Project area. This map includes wells in both the Nichols Ranch and Hank Units. The ground-water elevation shows that the water in the F Sand is flowing west with an average gradient of 0.005 ft/ft. This gradient, along with an average hydraulic conductivity of 0.6 ft/day and an effective porosity of 0.05, indicates that the ground water velocity is moving at 0.06 ft/day (22 ft/yr). Ground water in the F Sand flows into the Cottonwood alluvium in the area of the Nichols Ranch Unit.

A water-level elevation for the 1 Sand, the underlying aquifer to the Nichols Ranch A Sand production, is presented in Figure D6-6a. This water-level elevation map shows that the ground-water flow in the 1 Sand is mainly to the northwest. The gradient of the 1 Sand piezometric surface is 0.006 ft/ft and this gradient, and a hydraulic conductivity of 0.26 ft/day and an effective porosity of 0.05 indicates ground water in the 1 Sand is moving at 0.03 ft/day (11 ft/yr).

Figure D6-7 presents the water-level elevations for wells that are completed in the B and C Sands. The water-level elevations in these sands indicate that the gradient is to the west in the Nichols Ranch ISR Project area for both the Nichols Ranch and Hank Units (see Figure D6-7). The piezometric gradient in the ground-water systems has a north-northwest gradient further to the north of the Hank Unit. Similar gradients are observed in the B and C Sand aquifers as in the A and F Sand aquifers.

The shallow sands in the Hank Unit area are more likely to be affected by local topography changes than the deeper sands. Figure D6-8 presents a water-level elevation map for the G and H Sands which are the overlying sands for the F Sand in the Hank Unit. These piezometric contours are for the G Sand and show a much steeper gradient of 0.014 ft/ft to the west. This gradient, an average hydraulic conductivity of 0.005 ft/day and an effective porosity of 0.05 indicate that the ground water in these sands is moving at an average rate of 0.0014 ft/day (0.5 ft/year).

The head in H Sand well URZHH-7 is shown on Figure D6-8 with a water-level elevation of 5,072.9 ft-msl. H Sand well URZHH-7 was installed to define the shallow groundwater at the Hank Site. This well is completed in the H Sand which is above the G Sand. The H Sand has a water-level elevation approximately 150 feet higher than the G Sand in this area of the Hank Unit.

D6.2.3.1 NICHOLS RANCH UNIT WATER LEVEL CHANGES

The water-level elevations have been measured on the Nichols Ranch ISR Project wells and are presented in Addendum D6D. Table D6D.1-1 in Addendum D6D presents the water-level data tabulation for the Nichols Ranch Unit wells while Table D6D.2-1 presents the water-level data collected for the Hank Unit wells. Figures D6D.1-1 through D6D.1-3 in Addendum D6D present the water-level elevations; versus time for the Nichols Ranch Unit wells. Water levels for the A Sand wells for the last year have been fairly steady.

Water-level elevations for the B Sand well URZNB-1 and the 1 Sand well URZN1-2 are slightly less than the water level elevation in adjacent A Sand well MN-1. The vertical head difference between these two aquifers and the A Sand is approximately 10 feet. Water levels have been fairly steady in the B Sand and 1 Sand in the Nichols Ranch Unit area.

Water-level changes in the DW-4 cluster of wells to the northeast of the Nichols Ranch Unit have also been fairly steady. These water levels were also measured in 1978 and 1979 and were slightly lower than the recent water levels. The comparison in head between the F Sand, C Sand and A Sand and a comparison of the historical 1978 and 1979 data to the recent data are presented for the DW-4 site. Water levels are about 55 feet higher in the F Sand than those observed in the C and A Sands.

D6.2.3.2 HANK UNIT WATER LEVEL CHANGES

The water-level changes for the Hank Unit wells are presented in Figures D6A.2-1 through D6D.2-5 in Addendum D6D, while Table D6D.2-1 in Addendum D6D lists the water levels. The water-level changes for the Hank 1, Dry Willow #1, URZHF-1, URZHC-2, and URZHG-3 wells are presented in Figure D6A.2-1 Addendum D6D. The recent water levels in the F Sand in Hank 1 and Dry Willow #1 wells have been fairly steady. The recent water levels in the Hank 1 well are approximately 14 feet higher than the 1979 measurement. Water levels in the Dry Willow well are approximately five feet higher than they were in 1979.

Figure D6D.2-2 in Addendum D6D presents the water levels measured for the second new well cluster including, G Sand well URZHG-4, F Sand well URZHF-5 and B Sand well URZHB-6. The head in the G Sand in this area is approximately 35 feet higher than the head in the F Sand while the F Sand head is similarly higher than the B Sand head.

The BR wells are presented in Figure D6D.2-3 in Addendum D6D and these wells are located on the northern side of the Hank Unit. These wells were monitored in the early 1980s for a period of slightly more than two years. Recent water levels in F Sand wells BR-B and BR-G are similar to those that were measured in the early 1980s.

Figure D6D.2-4 in Addendum D6D presents the plot of water levels for F Sand well WC-MN1. This well is monitored continuously by the BLM in conjunction with to their coal bed methane monitoring program. A plot of data for this well shows that in 1999 through early 2000 the water level was rising in this well and then gradually declined for the next 6-7 years. During the last several months of monitoring, the water levels in well WC-WN1 have declined at a faster rate than the previous years. Monitoring in March and April in 2007 shows a gradual water-level rise. This plot also shows one data point that was measured in 1979 which is a slightly lower water level than the present level.

The BLM has also monitored three alluvial wells in the Dry Willow alluvial system. The water levels for these wells are shown in Figure D6D.2-5 in Addendum D6D with alluvial wells DRYMW1 showing saturation in portions of 2000 through 2001 and well DRYMW3 having some saturation in late 2003. Both of these wells were dry in August of 2007 and through the majority of the monitoring period.

D6.2.3.3 COAL BED PRODUCTION EFFECTS ON WATER LEVELS

This section presents the potential effects of the coal bed water production on the ore sands. Coal bed methane (CBM) production has been underway for more than 10 years in the Powder River Basin. The CBM production in this uranium in-situ recovery (ISR) project area is presently in the process of being developed. The CBM wells typically produce a few tens of gallons per minute (gpm) and then production rates significantly decrease with time. This

water production has typically resulted in several hundred feet of drawdown in the coal aquifer. The potential effect of the drawdowns on the ISR operation is discussed in this section.

Exhibit D6-5 shows the spacing from the base with the A Sand at the Nichols Ranch Unit to the top of the coal which is 765 feet. The base of the F Sand to the top of the coal of the Hank Unit is 1160 Feet (see Exhibit D6-5). The fluvial deposition of the sandstones creates areas where a sandstone has direct connection with other sandstones. The thickest layer of sandstone that has been observed from the logs in the Powder River Basin is approximately 150 feet. Therefore, the large zone between the ore sands and the first major coal seam should always contain some layers of shale where drawdowns from the coal should be greatly attenuated and unlikely to reach the sandstones in the interval of the coal.

Artificial connections through the shales above the first major CBM coal seam could be developed through deep exploration drill holes or deep wells which penetrate the coal seam. Typically, drill holes in the Nichols Ranch permit area are drilled only down into the 1 Sand. A few deeper exploration drill holes were drilled and a very few penetrated the coal seam. Figure D6-8a presents the location of the deep drill holes in this area that extend below 800 feet deep. This figure presents the ID name of the drill hole and the total depth for each of the holes. Drill hole CC-4-6 is the only exploration hole that extends down to the first major coal seam. The seal in drill hole CC-4-6 and drill holes CC-65 through CC-68, CC-74, CC-78 and CC-79 in the northeast portion of the wellfield will be evaluated to determine if these holes are adequately abandoned. The remainder of the other deep drill holes, are far enough from the well field that they should not create a potential problem relative to ISR containment of solutions.

The State Engineer's records have been searched for permitted wells and all wells that exceed a total depth of 800 feet and not an oil and gas well are posted on Figure D6-8a. The majority of wells in this area that are greater than 800 feet depth are oil and gas wells. Figure D6-8a shows the location of eight deep permitted wells that are not oil and gas wells. The total depth of these deep wells is shown on Figure D6-8a adjacent to the well name. All of these wells are shallow enough that they would not penetrate the CBM coal seam but two of these wells may be within a couple hundred feet of the coal seam. If the CBM drawdowns propagate up into a deeper sand which is within the completion interval of one of these wells, there is a potential for further propagation of drawdown to shallower sands depending on the well completions. Some shales should be present between the Nichols Ranch ore sands and the completion top of the most of these wells. These shales should still retard drawdowns and prevent impacts on the ore sand aquifer water levels. However, the North Dry Willow #1 well will allow the drawdowns that reach the lower sands in this well to propagate up to the ore sand at Hank. This well will be abandoned or at a minimum, the ore zone sand of the well will be sealed off prior to ISR operation in this area.

This portion of this section presents water-level changes that have been observed relative to CBM drawdowns.

The BLM has monitored water levels in the coal aquifers and sand aquifers above the coal for the last several years. The network of monitoring wells is used to define the effects of water extraction from the coal bed production zone on water levels in the coal and overlying aquifer. The monitoring well locations, drawdown and footage between the bottom of the sand completion and the top of the CBM completion is presented on Figure D6-8b. The nearest monitoring site to the Hank Unit is a coal well approximately 5 miles due north of the northern boundary of the Hank Unit. Figure D6D.3-1 of Addendum D6D presents the water-level elevations of the Pistol Coal Well. Water levels in this coal aquifer well started to greatly decline in 2007 and had only varied over a range of slightly greater than 10 feet for the previous ten years. This well did not show a significant effect from the production of water from the coal aquifer until 2007.

The Bullwacker Sand and Coal wells, which are located approximately 6 miles southwest of the Nichols Ranch Unit, have been monitored since 2002. Figure D6D.3-2 in Addendum D6D presents the water level changes for the 2 Bullwacker wells. The sand well, which is completed 100 feet above the coal, has had approximately 170 feet of water level decline through early 2008. The coal well, which has also been monitored over this same period of time, shows a decline in water level starting in 2002 with a drop of approximately 600 feet by early 2008. This indicates that, at the Bullwacker site, the coal has had a large amount of drawdown and the sand water level appears to be declining steadily with the coal. This sand unit must be hydraulically connected with the coal or some well completion is allowing connection between the coal and this sand.

The coal and sand are monitored by the BLM at a location 10 miles west of Nichols Ranch Unit at the Streeter site. Figure D6D.3-3 in Addendum D6D presents the water-level elevation for the Streeter Sand and Coal wells. This figure shows that the water level in the Streeter Sand well has been steady in the last two years. This sand is 621 feet above the top of the coal. The water levels from the Streeter Coal well were fairly steady from late 2004 through mid 2005 when water levels started to gradually decline. Water levels from this well have declined approximately 62 feet from mid 2005 through early 2008. The early change in the water level from the Streeter Sand well is unusual because the water level initially declined and then became steady. The recent steady water levels in the sand well indicate that the sand aquifer has not been affected by the CBM production.

The sand well in the All Night Creek area is completed 124 feet above the coal. These two wells (completed in the sand and coal) are approximately 10 miles to the southwest of the Hank Unit. Figure D6D.3-4 in Addendum D6D presents the water level changes for the All Night Creek wells. The water level changes in the coal are greater than 600 feet while the water levels have not changed significantly in the sand well.

The Beaver Federal Sand and Coal wells are located approximately 19 miles north-northeast of the Hank Unit. Figure D6D.3-5 of Addendum D6D presents the water levels for the Beaver Federal Sand and Coal wells. The water level has not changed appreciably in the

Beaver Federal Sand well, while the coal's water level has declined greater than 450 feet. This sand is 561 feet above the coal, similar to the A Sand completion above the coal. The response of the ore sand water levels in the Nichols Ranch project to coal bed production should be similar to the response in this well.

The sixth cluster of CBM monitoring wells is located to the northwest of the Nichols Ranch ISR project. The Juniper well group water-level changes are presented on Figure D6D.3-6 in Addendum D6D. The water-level elevations do not show a significant change in the sand well which is completed 418 feet above the top of the coal. The coal water-level declines are greater than 500 feet in this area.

The CBM water-level monitoring shows that sand wells completed a few hundred feet above the coal in this area have not exhibited drawdowns. The exception to this is the drawdowns observed in the Bullwhacker Sand well which is completed only 100 feet above the top of the coal. It is likely that the drawdown in this sand well is caused by some artificial connection between the sand and the coal in this area.

The drawdown in the coal seam(s) for CBM production has the potential to cause hydrologic impacts in adjacent stratigraphic layers. The magnitude of drawdown in the coal for CBM production can be large, and thus the propagation of this drawdown into and through adjacent layers is of concern for other water or mineral extraction operations within these potentially affected strata. For uranium ISR operations in the vicinity of CBM activities, both the well field operation and lixiviant control could potentially be affected by significant water level changes due to external stresses.

In the Powder River Basin (PRB), the uranium production sand/sandstones are within the Wasatch Formation and are separated from the CBM production coal seams by a substantial thickness of sand/sandstone and silt/shale sequences. The fine-grained silt or shale layers act as aquitards and greatly restrict or preclude the vertical movement of ground water. This in turn limits the vertical propagation of drawdown. In order to evaluate the potential hydrologic impacts of CBM production on the uranium ore-bearing sands in the PRB, a multi-layer MODFLOW model was constructed to represent a typical stratigraphic column at the Nichols Ranch project area. The modeled 13 layer stratigraphic column extends from the coal seam up through a sandstone representing a likely uranium production sand in order to evaluate the hydrologic impacts on the sequence of layers from the coal to the uranium production sand. The horizontal modeled area was set as a rectangle 15,000 feet by 5,000 feet. This quasi-strip configuration facilitated the placement of a separate constant head boundary for each layer at one end of the strip to represent the regional supporting aquifer system. The boundary condition at the other end of the strip was set as a variable head boundary. Well extraction stresses were placed in the coal seam layer approximately one-third of the total strip dimension from the variable head boundary end of the strip. In order to evaluate drawdown impacts, the resulting drawdown in the coal and overlying layers was analyzed for a location directly over the area where the well stresses were applied.

All layers in the model were established as confined aquifers with a uniform storage coefficient of 1.0 E-05. The top layer was a 40 foot thick sand layer with a transmissivity of 424 gal/day/ft which corresponds to a hydraulic conductivity of 5.0 E-04 cm/sec. Shale/silt

intervals were broken into two layers for modeling purposes to further refine estimates of drawdown within the finer grained material where large gradients could potentially develop. Layers 2 and 3 were 50 foot thick shale layers with a transmissivity of 0.5 gal/day/foot. Layers 4, 5, and 6 repeated the thickness and properties sequence of layers 1 through 3. Layers 7, 8, and 9 also repeated this sequence. Layer 10 was modeled as a 40 foot thick sand with a modest transmissivity of 21 gal/day/foot. Layers 11 and 12 were 20 foot thick shale intervals with a transmissivity of 0.5 gal/day/foot. Layer 13 was a 40 foot thick coal seam with a transmissivity of 21 gal/day/foot. The total sequence thickness is 500 feet and can generally be described as the uranium production ore sand (top) and CBM production coal seam (bottom) separated by an alternating sequence comprised of four shale layers and three intermediate sand layers.

The initial water level elevation (hereafter termed head) for each layer was scaled in a generally linear manner from an arbitrary value of 500 feet for the coal seam (layer 13) to 560 feet for the upper sand aquifer (layer 1). The difference between the head in the upper and lower layers represents the likely condition of progressively higher head in overlying aquifers. A simulation was also conducted with a much larger differential in initial head between upper and lower aquifers and the results were generally similar to those presented in the following discussion.

The model simulation period was 20 years in 15 stress periods. The stress period intervals were selected to provide complete definition of the transient drawdown response for the coal and adjacent layers. The magnitude of the wells stresses in the coal seam was varied to produce a large drawdown in the coal at the end of the simulation. The vertical conveyance between layers (termed Vcont in MODFLOW) was set as a uniform value for the interface between all layers and was then varied to produce total drawdown in layers 12 and 11 that was similar in magnitude to that predicted by the Neuman-Witherspoon (1972) method. This method allows calculation of drawdown in an adjacent aquitard based on the predicted drawdown in an aquifer.

The results of the MODFLOW simulation are presented for a selected model cell in Figure D6-8c. Only the results for layers 7 through 13 are presented because there were no significant changes in head for layers 1 through 6. A large degree of drawdown (493 feet) was produced in the coal seam (layer 13). Layers 12 and 11 are shale layers directly above the coal and the magnitude of predicted drawdown in these layers is still large at 291 feet and 154 feet, respectively. These drawdowns compare favorably with those predicted by the Neuman-Witherspoon (1972) method and were used in evaluating the Vcont. The predicted drawdown in the sand layer nearest to the coal seam (layer 10) was greatly muted at 32 feet. The progressively diminishing drawdown the shale/sand sequences in general reflects the very small quantities of ground water that are actually conveyed vertically in the very low permeability shales. This tiny vertical conveyance produces only a very small stress on the sand aquifer (layer 10), and thus the magnitude of drawdown rapidly decreases with increasing distance from the coal seam.

The predicted drawdown in layers 9 and 8 (shale layers overlying the deepest sand in the sequence) is 19 feet and 9.1 feet respectively, which continues the trend of rapidly diminishing drawdown while moving upward through the strata sequence. The predicted

drawdown in the next sand aquifer (layer 7) is an insignificant 0.1 feet. As mentioned previously, there were no significant predicted changes in head for layers above layer 7.

A summary of the model results is that a large drawdown in the coal seam resulting from CBM production may cause significant drawdown in the adjacent aquitard(s). This drawdown may also propagate into and through aquifers located in close vertical proximity to the coal seam, but will be greatly muted by even modestly transmissive layers within the sequence. For multiple shale/sand sequences above the coal, the drawdown is progressively attenuated and will not propagate beyond one or two alternating sequences above the coal seam. The attenuation of drawdown within a shale layer is very large, so the presence of even thin continuous aquitards above the coal will greatly dampen the propagation of drawdown to overlying layers. However, any strata that has a permeability similar to or greater than that in the coal, and is in direct contact with the coal, will exhibit a drawdown response that is similar to that of the coal. With the typical lithology present in the Nichols Ranch project area, the CBM induced drawdown will not have a measurable impact on ore sand water levels unless there is an artificial connection through an improperly completed well or improperly abandoned bore hole.

The CBM drawdowns in the coal aquifer should not increase the potential for vertical excursions. The numerous aquitards between the coal and the ore sands should prevent the occurrence of significant drawdowns in the ore sands from CBM production. An artificial connection between the ore sand and the coal aquifer through a deep drill hole or deep well is the most likely pathway for a vertical excursion and thus the potential for such a connection should be evaluated.

CBM drawdowns could potentially cause drawdown in an ore sand if there are artificial connections with the production coal. In most cases, this CBM induced drawdown is not expected to appreciably affect gradients within a mine unit and therefore will not significantly increase the potential for horizontal excursions. Unless the artificial connection is directly within a mine unit, the changes in the piezometric surface should affect the mining in a relatively uniform manner. If drawdown occurs within a mine unit it is due to an artificial connection, this actually reduces the potential for horizontal excursion while, as previously noted, raising concerns for vertical excursion.

The modeling of the vertical propagation of CBM drawdown through the shale and sand layers shows that the first continuous shale will greatly dampen the drawdowns in the aquifers above the shale. Some drawdown is likely to occur in the first aquifer above the coal aquifer but drawdowns should be very small beyond the first sand. Some of the sands near the coal aquifer may have direct connection with the coal at some locations and, therefore, significant drawdown may develop in these connected aquifers. Ore sands, which are several hundred feet above the top of the coal, should not exhibit drawdown from the coal bed production unless artificial connections between the sand and the coal aquifer. It will be very important to determine if artificial connections exist within an ISR well field area and to correct any potential connections. Artificial connections that exist at some distance from the well field should not affect the potential for vertical or horizontal excursions.

D6.2.4 GROUND-WATER QUALITY

The ground-water quality at the Nichols Ranch ISR Project areas has been defined by sampling numerous wells in several aquifers in this area. Addendum D6E contains a

tabulation of all ground-water quality. Addendum D6L also presents the water quality data in the Uranium Data Submission Spreadsheets. Some of the older water quality results were deemed not representative of the aquifer and are not used in the summary calculations of water quality. A criterium was established whereby the largest measured constituent concentration was deemed an outlier if it was greater than five times the next highest value in the data set. These outlier water quality results are highlighted in the water quality table in Addendum D6E.

Table D6-6 presents the summary of the ground-water quality. These summaries are grouped for the A Sand, F Sand, B and C Sands together, then the G and H Sands and finally the 1 Sand. The values in Addendum D6E that are highlighted are not included in Table D6-6 calculations. Three sets of parameters are listed in the upper half of the first page in Table D6-6. The A Sand wells MN-1, MN-2, MN-3, MN-4, MN-5, MN-6 and DW-4L were used to calculate the average concentrations for the A Sand. The first row presents the number of samples followed by the average of those samples for that particular constituent. The maximum, mean and standard deviation are also given in the summary tabulations. The A Sand water typically has very low TDS, (less than 500 mg/l), with its major components being sodium, sulfate and bicarbonate.

For the twenty-nine samples, the TDS varies from a minimum of 289 to 370 mg/l with a standard deviation of 23 mg/l. The sulfate concentrations for the twenty-nine samples vary from 85 to 183 mg/l while the chloride concentrations vary from 4 to 16 mg/l. Variations are 84 to 130 mg/l for sodium and 5.3 to 11 mg/l for calcium. The variation of uranium concentrations are over a small range from less than detection values to a maximum 0.027 mg/l. These A Sand wells are fully penetrating wells and therefore the uranium and radium concentrations will be significantly less for the average of the aquifer than within the ore zone. Radium concentrations from the A Sand vary from less than detection to 36.3 pCi/l. The radium-226 concentrations would likely be in a few hundred pCi/l for a partially penetrating well completed only in the ore zone.

The second group of three sets of summary parameters is for the F Sand wells DW-4U, Hank 1, Dry Willow #1, WC-MN1, BR-B, C #1, SS1F, URZHF-1, URZHF-5 and URZNF-3. F Sand wells BR-G and OW43756 were not included in summary calculations because their water level elevations indicate that they are receiving water from an aquifer with a higher head. Thirty-six samples have been collected from the F Sand wells, with the average TDS concentration greater than 1,000 mg/l. The range in TDS concentration is from 710 to 1,860 mg/l. Sodium, calcium, bicarbonate and sulfate are the major dissolved constituents in this water.

The sulfate concentrations varied over a large range from 418 to 981 mg/l while the chloride concentrations are low in the F Sand water with a variation of less than detection to 33 mg/l. The cations with the largest concentrations are sodium with a variation from 94 to 245 mg/l and calcium which varies from 44 to 293 mg/l. Uranium concentrations varied from less than detection to a high of 5.25 mg/l in this ore bearing sand. Radium concentrations have varied from less than detection to 562 pCi/l.

The two sands that are typically between the A and F production sands are the B and C Sands. The water quality data for these two sands were grouped together in water quality tabulations, and these two sands are connected in some areas. The second page of Table D6-6 presents the summary of the water quality for the B and C Sands. This analysis includes wells BR-Q, BR-T, NBHW-13, DW-4M, F. Brown #1, Brown #5, SS1-M, SS1-U, URZNB-1, URZHC-2 and URZHB-6. TDS concentrations for these aquifers are typically above 600 mg/l with the larger major constituent concentrations being those of sodium, bicarbonate and sulfate.

The TDS of this water ranges from 278 to 966 mg/l. Sodium is the major cation in this water with concentration variations of 85 to 250 mg/l. Sulfate is a major anion with concentrated variation from 121 to 620 mg/l. These sands do show low concentrations of uranium in some areas that is attributed to limited mineralization. The radium concentrations in the B and C aquifers vary from less than detection to a maximum of 128 pCi/l.

The second group of parameters on the second page of Table D6-6 is for the G and H Sands which are the overlying sands for the F Sand in the Hank Unit area. This summary was made from water quality from BR-I, BR-F and BR-H wells. This tabulation shows that, on average, the TDS is near 500 mg/l with a range of 225 to 696 mg/l. The major constituents with the highest concentrations are sodium, sulfate and bicarbonate. Well BR-I could not be located and there is no recent sample.

The uranium concentrations in the G and H Sands varied from less than detection to 0.018 mg/l for uranium and from less than detection up to 1.9 pCi/l for radium-226. This data indicates that the wells completed in the G and H Sands are not near mineralized areas.

The third page of Table D6-6 presents the summary of water quality for the 1 Sand well URZN1-2 in the Nichols Ranch Unit area. This data shows that the TDS is slightly greater than 200 mg/l with sodium and bicarbonate being the major components of this water quality. The sulfate and chloride concentrations for the 1 Sand vary over a very small range. Sodium concentrations vary from 92 to 104 mg/l. Bicarbonate is the major anion in this water with very low levels of uranium and radium indicating no mineralization near this 1 Sand well. No other constituent concentrations are significant in the water from the 1 Sand.

D6.3 WATER RIGHTS

Surface and ground-water rights on, adjacent to, and within 3 miles of the Nichols Ranch ISR Project are listed in Table D6F.1-1 in Addendum F and Table D6F.2-1 for the surface water and Tables D6G.1-1, D6G.1-2, D6G.2-1 and D6G.2-2 for the Nichols Ranch Unit and Hank Unit permitted water wells. Table D6G.1-1 lists the wells within the Nichols Ranch Unit while Table D6G.1-2 in Addendum D6G list wells in and within three miles of the Nichols Ranch Unit. Table D6F.1-2 in Addendum D6F lists the abbreviations used by the State Engineers Office for both the surface and ground-water

rights. Figures D6-9 and D6-10 present the locations of the Nichols Ranch Unit and Hank Unit surface rights respectively. Exhibits D6-1 and D6-2 show the locations of the permitted wells within three miles of the Nichols Ranch Unit and Hank Unit respectively. No adjudicated surface water rights are located in or adjacent to (within ½ mile of the project unit) the Nichols Ranch ISR Project. The surface water rights that do exist within the proposed mining project area are limited to stock/storage ponds and ephemeral creeks. Ground-water rights in the Nichols Ranch ISR Project area are mainly associated with the old monitoring wells and stock wells. No other adjudicated water rights are in the project area and lands adjacent to the project area according to the Wyoming State Engineers Office. Uranerz Energy Corporation also does not hold any adjudicated water rights in the project area. Most wells that are located within the Nichols Ranch ISR Project area were previously installed by uranium exploration companies, the T-Chair Livestock Company, or coal bed methane companies. Several additional wells have been completed in the project areas by Uranerz Energy Corporation for use in collecting base line ground water quality data.

The current regional ground water use in this area is mainly wells for wildlife and livestock. A few domestic wells exist at the ranch houses. The production of water from coal bed methane has been occurring in the region for slightly greater than 10 years but is expected to start in the permit area in the near future.

Wells in the area of the proposed project area are uniformly distributed over the area excluding monitoring/sampling wells that are permitted by Uranerz Energy Corporation. Most of the wells are used for livestock watering through the use of windmills or electric well pumps. Well depths vary from 180 feet to 1,000 feet in depth, and most wells are completed in sands other than the ore bearing sands. Those wells that are completed in the ore bearing sand will be abandoned using acceptable WDEQ methods or will be used as monitoring wells if not completed in multiple sands. No wells in or adjacent to the project area are used for domestic water consumption. A domestic water supply well is found on the Pfister Ranch (BR-T), located approximately 0.6 miles north of the northern boundary of the Hank Unit. This well is completed at a depth that is stratigraphically below the zones planned for the ISR mining at the Hank Unit. Additionally, the well is located at a large distance from any Hank planned wellfield areas and in the B Sand. It is unlikely that any mining activities that take place in the Hank area will affect this well because of the physical separation of the well from the ore zone. The extensive ground-water monitoring program utilized during the mining project will detect any problems prior to this well being adversely affected by mining activity.

Six permitted wells exist within ½ mile of the Hank Unit area. These wells consist of the Connie #2 well which is nearly ½ mile east of the project area. This well is used to supply water for stock and has a depth of 350 ft. This well is thought to be in the top portion of the F Sand. The Paden #1 and North Dry Willow #1 wells are very near the mineralized areas near the Hank Unit. The North Dry Willow #1 well is completed in the F Sand through sands down below the 1 Sand and will have to be abandoned before a wellfield pump test in this area. The Paden #1 well is also very near the ore zone in this area and is completed in the C, B and A Sands. This well will have to be monitored

during pump testing to determine if it has any connection with the F Sand. If the Paden #1 well has connection with the F Sand it will also need to be replaced. The Brown-WS well is completed in the C, B and A Sands. It is located greater than 1,000 feet west of the mineralized area in Hank Unit. The Brown #5 stock well is located just north of the northern edge of the Hank Unit area. This well has a depth of 540 feet and is completed

in the B Sand. The distance of the ISR operation from this well makes it unlikely that mining operations will affect its water level or water quality. The sixth permitted well at the Hank Unit is the Means #1 well, which is used for stock watering and is 700 feet deep and also likely extends down to the A Sand.

Six permitted wells that are not related to the mining operations also exist within ½ mile of Nichols Ranch Unit. The Red Spring Artesian #1 well is located just north of the northwest corner of the project area. This well is completed to 740 feet deep and was a flowing well. The well was not flowing in August of 2007. This well likely extends to sands below the A Sand.

The other five wells are in the southern portion of the project area. The Brown 20-9 well is within the Nichols Ranch Unit. This well is thought to be completed in the A Sand and has a total depth of 740 feet with perforations from 495 to 695 feet.

The Dry Fork #3 well is completed to a depth of 360 feet. With this depth, the well completion interval should be significantly shallower than the A Sand.

The N1, 11894 well, which is located in Section 19, is completed down to a depth of 310 feet. This well is likely completed in the C Sand.

D6.4 COAL BED METHANE WELLS AND OIL/GAS WELLS

Wells permitted for coal bed methane production are presented on Exhibits D6-3 and D6-4 for the Nichols Ranch Unit and Hank Unit respectively. The tabulation of the coal bed methane wells is presented in Addendum D6H. Exhibit D6-5 shows the footage between the base of the ore sand for each of the two sites and the top of the coal bed methane coal.

The coal bed methane wells in the area of the Nichols Ranch are expected to start water production in 2008. Presently no coal bed methane water is being discharged to the stream channels but it is expected to start in 2008 into Tex Draw. The majority of the coal bed methane wells in this area are planned to be pumped to a deep injection well.

Oil/Gas wells are shown on Exhibit D6-6 for the combined Nichols Ranch Project. Tabulation of the oil/gas wells is presented in Addendum D6H.

D6.5 EXPLORATION DRILL HOLES

The areas surrounding the Nichols Ranch ISR Project have been historically drilled by several different companies over the past 50 years. Companies such as Cleveland-Cliff Iron Company, American Nuclear Company, Texas Eastern Nuclear, Everest Minerals Corporation, Rio Algom Mining, and Silver King Mines have historically drilled in the Pumpkin Buttes Mining District. A search of the drill hole database maintained by Uranerz Energy Corporation resulted in a total of 546 abandoned exploration drill holes located within the Nichols Ranch ISR Project boundaries that were drilled by Cleveland Cliff Iron Company (CC), Rio Algom (RAM), Texas Eastern Nuclear (TE), and Uranerz

Energy Corporation (U). Holes drilled from 1997 through 2007 have been plugged in accordance with current State of Wyoming regulations. A reasonable inspection of the project area showed that these abandoned holes were marked with a stake or pin flag after plugging was completed. To the best of Uranerz Energy Corporations knowledge all holes drilled prior to 1997 were sealed and surface plugged in compliance with the State of Wyoming regulations in effect at the time of drilling. No problems are anticipated with past abandoned drill holes.

All known abandoned drill holes are listed in Tables D6I.1-1, D6I.1-2, D6I.2-1 and D6I.2-2. The first letters of the drill holes (historic and current) denote the company that drilled the hole as seen after the company name in the previous paragraph. The location and density of all drill holes is shown on Exhibits D6-7 and D6-8.

D6.6 REFERENCES

Craig, Gordon S, Jr., and James G. Rankl, 1978. Analysis of Runoff from Small Drainage Basins in Wyoming. Geological Survey Water-Supply Paper 2056.

Hantush, M.S., 1960. Modification of the Theory of Leaky Aquifers. Journal of Geophysical Research, Vol. 65, No. 11, pp. 3713-3725.

Hodson, W.G., R.H. Pearl and S.A. Druse, 1973. Water Resource of the Powder River Basin and Adjacent Areas, Northeastern Wyoming. U.S.G.S. Hydrologic Atlas HA-465.

Lowham, H.W., 1976. Techniques for Estimating Flow Characteristics of Wyoming streams. U.S.G.S.. Water Resource Investigation 76-112.

Neuman, S.P. and P.A. Witherspoon, 1972. Field Determination of the Hydraulic Properties of Leaky Multiple Aquifer Systems. Water Resources Research. vol. 8, No 5.

Whitehead, R.L. 1996. Ground Water Atlas of the United States, Montana, North Dakota, South Dakota, Wyoming. USGS HA 730-I.

TABLE D6-1. SURFACE DRAINAGE PROPERTIES, ESTIMATED PEAK FLOWS AND VELOCITIES

SITE	DRAINAGE AREA (sq. mi)	ESTIMATED PEAK FLOWS (CFS) RECURRENCE INTERVAL (YRS)					
		2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
Cottonwood Creek	80.2	454	1220	2150	3760	5420	7500
Tex Draw	5.2	170	456	782	1370	1970	2720
Dry Willow Creek	12.2	231	620	1070	1870	2700	3730
Willow Creek	13.2	231	638	1100	1930	2780	3840
NDA1	0.25	43	85	122	177	224	277
NDA2	0.33	50	101	145	212	271	337
NDA3	0.24	42	83	119	172	218	270
NDA4	0.3	48	96	137	199	254	315
NDA5	0.65	75	153	223	332	429	541
NDA6	3.2	189	407	611	950	1268	1648
HDA1	0.12	28	55	77	109	136	166
HDA2	0.4	56	114	164	241	309	385
HDA3	0.25	43	85	122	177	224	277
HDA4	0.48	63	127	184	272	350	438
HDA5	0.34	51	103	148	216	277	344
HDA6	0.81	85	175	256	384	499	631
HDA7	0.49	64	129	187	275	354	444
HDA8	0.2	38	75	106	152	193	237

10-YEAR VELOCITIES

Channel Station (ft)	Base Width (ft)	Side Slope (?H:1V)	Bottom Slope (ft/ft)	Discharge (cfs)	Normal Flow Depth (ft)	Flow Area (ft^2)
CTW CRK	100	2	0.0030	2150	3.425	366.0
Tex DRW	10	2	0.0100	782	4.314	80.3
DRY WIL	20	2	0.0100	1070	3.853	106.7
WIL CRK	20	2	0.0080	1100	4.158	117.7
NDA1	5	2	0.0250	122	1.700	14.3
NDA2	5	2	0.0150	145	2.117	19.5
NDA3	5	2	0.0290	119	1.615	13.3
NDA4	5	2	0.0290	137	1.737	14.7
NDA5	5	2	0.0170	223	2.537	25.6
NDA6	5	2	0.0150	611	4.209	56.5
HDA1	5	2	0.0400	77	1.176	8.6
HDA2	5	2	0.0400	164	1.755	14.9
HDA3	5	2	0.0400	122	1.505	12.1
HDA4	5	2	0.0400	184	1.862	16.2
HDA5	5	2	0.0400	148	1.665	13.9
HDA6	5	2	0.0400	256	2.200	20.7
HDA7	5	2	0.0280	187	2.052	18.7
HDA8	5	2	0.0280	106	1.534	12.4

TABLE D6-1. SURFACE DRAINAGE PROPERTIES, ESTIMATED PEAK FLOWS AND VELOCITIES (cont'd)

Channel Station (ft)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Flow Velocity (fps)	Top Width (ft)	Froude Number	Average Unit Discharge (cfs/ft)
CTW CRK	115.32	3.17	5.87	113.70	0.58	20.12
Tex DRW	29.29	2.74	9.73	27.25	1.00	41.98
DRY WIL	37.23	2.87	10.02	35.41	1.02	38.62
WIL CRK	38.59	3.05	9.34	36.63	0.92	38.85
NDA1	12.60	1.13	8.54	11.80	1.37	14.51
NDA2	14.47	1.35	7.43	13.47	1.09	15.74
NDA3	12.22	1.09	8.94	11.46	1.46	14.44
NDA4	12.77	1.15	9.30	11.95	1.48	16.15
NDA5	16.35	1.56	8.72	15.15	1.18	22.14
NDA6	23.82	2.37	10.81	21.83	1.19	45.52
HDA1	10.26	0.84	8.86	9.71	1.65	10.43
HDA2	12.85	1.16	10.98	12.02	1.74	19.28
HDA3	11.73	1.03	10.12	11.02	1.70	15.22
HDA4	13.33	1.22	11.33	12.45	1.75	21.11
HDA5	12.45	1.11	10.68	11.66	1.73	17.78
HDA6	14.84	1.39	12.39	13.80	1.78	27.27
HDA7	14.18	1.32	9.99	13.21	1.48	20.49
HDA8	11.86	1.04	8.55	11.14	1.43	13.12

TABLE D6-2. BASIC WELL DATA FOR NICHOLS RANCH UNIT WELLS.

WELL NAME	NORTH. COORD.	EAST. COORD.	MP ELEV. (ft-msl)	CASING DIA. (in)	STICK-UP ABOVE LSD	WELL DEPTH (ft-mp)	WATER LEVEL				SCREEN INTERVAL (ft-lsd)	AQUIFER
							DATE	DEPTH (ft-mp)	ELEVATION (ft-msl)			
20-9	1102911	275410	4664.08	5.0	0.9	740	---	--	---		495 - 615	A
	1102911	275410	4664.08	5.0	0.9	740	---	--	---		635 - 655	A
CALVING #1	1100015	289109	4824.00	5.0	1.6	560	---	--	---		390 - 420	A
	1100015	289109	4824.00	5.0	1.6	560	---	--	---		440 - 500	A
Dry Fork #3	1100675	273123	4720.00		---	360	---	--	---		-	C
DW-4L	1112331	276856	4969.73	5.0	0.4	795	12/20/2006	311.48	4658.25		726 - 795	A
DW-4M	1112331	276769	4970.17	5.0	0.3	441	10/4/2007	286.14	4684.03		389 - 441	C
DW-4U	1111406	276812	4966.75	5.0	0.3	310	10/4/2007	230.24	4736.51		256 - 309	F
GARDEN	---	---	---		---	---	---	--	---		-	A
MN-1	1105710	273118	4715.14	4.5	1.3	556	10/4/2007	49.83	4665.31	#	479 - 556	A
MN-2	1108147	273844	4840.00	4.5	0.7	670	10/4/2007	179.00	4661.00	#	560 - 670	A
MN-3	1106960	275167	4764.64	4.5	0.7	585	10/4/2007	96.65	4667.99		479 - 585	A
MN-4	1109835	272220	4800.36	4.5	2.2	623	10/4/2007	146.75	4653.61		520 - 623	A
MN-5	1108755	272120	4883.28	4.5	2.3	727	10/4/2007	228.10	4655.18		628 - 727	A
MN-6	1107478	272220	4761.18	4.5	2.2	593	10/4/2007	103.85	4657.33		485 - 593	A
, 11894	1102532	269925	4622.33	2.0	0.0	310	---	--	---		191 - 310	F
Nichols #1	1107430	272265	4758.88	5.0	1.2	620	10/4/2007	101.25	4657.63		550 - 565	A
Pats #1	1102872	279812	4690.00		---	405	---	--	---		375 - 405	B
Pug #1	1102383	275338	4685.00		---	370	---	--	---		340 - 370	C
Red Spring A#1	1111694	269021	4710.00	6.0	2.9	740	---	--	---		-	A
URZN1-2	1105691	273081	4714.31	4.5	1.1	645	10/4/2007	63.78	4650.53	#	600 - 645	1
URZNB-1	1105725	273149	4716.36	4.5	1.3	375	10/4/2007	62.14	4654.22	#	330 - 375	B
URZNF-3	1105992	273707	4728.87	4.0	2.3	173	10/4/2007	89.20	4639.67		153 - 173	F
URZNQ-4	1103219	272397	4638.44	4.0	1.5	35	10/4/2007	9.33	4629.11		15 - 35	ALL
W. of WW1	1116674	286130	5080.00	6.0	2.3	720	9/26/2007	372.30	4707.70		340 - 370	C
	1116674	286130	5080.00	6.0	2.3	720	9/26/2007	372.30	4707.70		540 - 720	A

NOTE: * = Abandoned
# = Open Hole Completion
ALL = Alluvial
W. of WW1 = West of Widow Women
MP = Measuring Point (at top of casing)
MSL = Mean Sea Level
LSD = Land Surface Datum

TABLE D6-3. BASIC WELL DATA FOR HANK UNIT WELLS.

WELL NAME	NORTH. COORD.	EAST. COORD.	MP ELEV. (ft-msl)	CASING DIA. (in)	STICK-UP ABOVE LSD	WELL DEPTH (ft-mp)	WATER LEVEL			SCREEN INTERVAL (ft-lsd)	AQUIFER
							DATE	DEPTH (ft-mp)	ELEVATION (ft-msl)		
BR-B	1129884	299194	5029.70	5.0	1.5	300	10/4/2007	141.61	4888.09	200 - 280	F
BR-F	1128473	302583	5082.25	5.0	1.6	160	10/4/2007	69.25	5013.00	60 - 100	G
BR-G	1125397	305568	5157.27	5.0	1.6	320	10/4/2007	148.19	5009.08	240 - 320	F
BR-H	1127077	293768	4957.56	5.0	1.6	200	10/4/2007	95.56	4862.00	140 - 180	G
BR-I	1128729	303971	5130.88	4.0	1.7	80	8/28/2007	> 80.00	< 5050.88	40 - 80	H
BR-K	1129697	306515	5193.00	4.0	1.7	124	9/28/2007	> 129.95	< 5063.05	84 - 124	H
Brown #5	1128252	301915	5061.76	5.0	1.3	540	9/26/2007	215.60	4846.16	460 - 540	B
	1128252	301915	5061.76	5.0	1.3	540	9/26/2007	215.60	4846.16	460 - 540	B
Brown-WS	1125026	299713	5146.00	6.0	1.2	702	2/21/2007	266.62	4879.38	340 - 380	C
	1125026	299713	5146.00	6.0	1.2	702	2/21/2007	266.62	4879.38	425 - 465	B
	1125026	299713	5146.00	6.0	1.2	702	2/21/2007	266.62	4879.38	540 - 620	A
BR-Q	1125878	305553	5154.22	5.0	1.1	600	10/4/2007	292.08	4862.14	500 - 600	B
BR-T	1131333	300699	5033.00	5.0	---	496	3/11/1981	196.50	4836.50	390 - 470	B
BR-U	1128876	300158	4983.18	4.0	1.7	23	4/13/1982	11.86	4971.32	5 - 23	ALL
C #1	1100216	304090	5137.00	5.0	1.1	232	10/4/2007	191.95	4945.05	146 - 232	F
[illegible] Willow #1	1112155	304041	5154.19	6.0	1.3	320	10/4/2007	222.10	4932.09	220 - 320	F
DRYMW1	1121212	293031	4930.00	3.0	0.3	19	10/4/2007	> 19.20	< 4910.80	-	ALL
DRYMW3	1121635	292581	4920.00	3.0	0.5	19	10/4/2007	> 18.60	< 4901.40	-	ALL
F. Brown #1	1108650	288324	4890.00	7.0	2.3	520	10/4/2007	198.04	4691.96	423 - 483	B
Hank 1	1122566	302568	5251.01	6.0	1.8	440	8/8/2007	355.35	4895.66	354 - 440	F
Means #1	1108983	301384	5259.86	6.0	1.1	700	9/26/2007	338.60	4921.26	320 - 330	F
	1108983	301384	5259.86	6.0	1.1	700	9/26/2007	338.60	4921.26	640 - 650	B
NBHW-13	1128356	295943	4969.86	4.5	1.7	470	10/4/2007	130.63	4839.23	424 - 446	B
North Dry Willo	1116100	303879	5205.00	6.0	0.3	1132	---	--	---	250 - 280	F
	1116100	303879	5205.00	6.0	0.3	1132	---	--	---	380 - 410	C
	1116100	303879	5205.00	6.0	0.3	1132	---	--	---	540 - 570	B
	1116100	303879	5205.00	6.0	0.3	1132	---	--	---	700 - 770	A
	1116100	303879	5205.00	6.0	0.3	1132	---	--	---	990 - 1100	1
Old Maid #1	1115480	292878	5080.00	6.0	2.3	300	6/6/2007	197.40	4882.60	250 - 300	F
OW43756	1115602	298221	5052.00	6.0	2.0	251	10/4/2007	146.80	4905.20	-	G,F
Paden #1	1115635	304361	5195.85	5.0	1.8	650	2/21/2007	310.00	4885.85	400 - 440	C,B,A
	1115635	304361	5195.85	5.0	1.8	650	2/21/2007	310.00	4885.85	570 - 630	C,B,A
SS1-F	1129626	295559	4975.00	4.5	1.1	185	6/26/2007	116.02	4858.98	145 - 185	F
SS1-FPU	1129700	295428	4976.00	2.0	2.3	175	6/26/2007	117.26	4858.74	-	F
SS1-L	1129551	295690	4974.00	5.0	0.9	654	7/25/2007	140.93	4833.07	534 - 652	A

TABLE D6-3. BASIC WELL DATA FOR HANK UNIT WELLS.

WELL NAME	NORTH. COORD.	EAST. COORD.	MP ELEV. (ft-msl)	CASING DIA. (in)	STICK-UP ABOVE LSD	WELL DEPTH (ft-mp)	WATER LEVEL				SCREEN INTERVAL (ft-lsd)	AQUIFER
							DATE	DEPTH (ft-mp)	ELEVATION (ft-msl)			
SS1-M	1129546	295602	4974.00	5.0	1.2	454	6/26/2007	140.41	4833.59		405 - 454	B
SS1-U	1129619	295647	4975.00	5.0	0.9	372	6/18/2007	138.01	4836.99		323 - 372	C
URZHB-6	1124299	302427	5213.78	4.5	1.1	650	10/4/2007	352.08	4861.70	#	536 - 650	B
URZHC-2	1118511	302629	5234.76	4.5	1.3	485	10/4/2007	342.68	4892.08	#	440 - 485	C
URZHF-1	1118584	302588	5231.73	4.5	0.9	440	10/4/2007	328.33	4903.40	#	369 - 440	F
URZHF-5	1124265	302426	5217.67	4.5	1.7	410	10/4/2007	316.30	4901.37	#	369 - 386	F
URZHG-3	1118491	302556	5228.82	4.5	1.2	300	10/4/2007	273.88	4954.94	#	270 - 300	G
URZHG-4	1124257	302457	5215.78	4.5	1.1	290	10/4/2007	280.39	4935.39	#	270 - 290	G
URZHH-7	1118639	301082	5169.37	4.0	2.2	135	10/4/2007	96.68	5072.69		115 - 135	H
	1118639	301082	5169.37	4.0	2.2	135	10/4/2007	96.68	5072.69		85 - 105	H
WC-MN1	1121306	292653	4942.00	5.0	2.5	210	1/1/1999	99.00	4843.00		150 - 210	F

NOTE: * = Abandoned
# = Open Hole Completion
ALL = Alluvial

TABLE D6A.1-1. SURFACE WATER QUALITY

SITE	DATE	FLOW (CFS)	TEMP °C	pH(f)	Cond(f)	D.O.	TDS	TSS	Turbidity	Alkalinity	U	Ra226	Ra226(e)	NH3	CO3	HCO3	SO4	F	Cl
Dry Willow Reservoir	10/22/1978	-	11	8.3	330	8	174	17	15	95	0.0086	0.6	±0.6	0.5	-	116	20	0.17	2.2
	4/21/1979	-	13	8.9	345	-	174	8	10	103	<0.001	0.9	1.4	0.1	19	106	19	0.1	1.5
Brown Water Pond	11/7/1978	-	6	9.6	315	12	152	26	18	44	0.002	0.5	0.6	<0.02	7	39	43	0.04	0.48
	4/20/1979	-	10	8.5	324	8	163	27	13	86.5	<0.001	0	0.4	0.2	5.4	100	48	0.2	1.6
Dry Willow Creek	4/18/1979	-	20	7.8	1675	7	1190	206	200	259	0.054	0.4	0.3	0.1	0	316	631	0.3	7.4
	6/10/2008	-	-	-	-	-	184	-	-	-	0.001	-0.1	-	0.1	<1	75	3	<0.1	<1
N. Cottonwood Creek	4/20/1979	2.48	12	7.9	1460	6	944	229	180	202	0.01	0.3	0.3	<0.1	0	246	491	0.2	5.9
Cottonwood Creek @ Brown Ranch	4/20/1979	1.15	8	7.7	3300	7	1300	6	1	233	0.012	0	0.4	<0.1	0	284	1178	0.2	7.7
Cottonwood Creek	4/20/1979	2.3	16	8	3275	7	2310	829	780	214	0.028	0.2	0.4	<0.1	0	261	1370	0.2	10.9
Cottonwood U Nichols	6/9/2008	-	-	-	-	-	1800	-	-	-	0.137	0	-	0.7	<1	245	1030	0.2	18
Cottonwood D Nichols	6/10/2008	-	-	-	-	-	197	-	-	-	0.0009	-0.1	-	<0.1	<1	148	12	<0.1	<1

SITE	DATE	N	Ca	Mg	K	Na	Fe	Mn	Cu	Zn	Pb	Ni	Cr	Ba	V	Mo	Al	B	Se
Dry Willow Reservoir	10/22/1978	<0.01	30	5.7	5	5.2	0.03	<0.01	0.01	0.02	<0.01	0.02	<0.01	0.1	<0.1	<0.1	<0.1	0.6	<0.003
	4/21/1979	0.31	40	6.6	4.2	6.3	0.57	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1	<0.003
Brown Water Pond	11/7/1978	<0.01	20	5.5	5	3.8	0.17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.003
	4/20/1979	0.03	40	4.9	1.6	5.1	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1	0.1	<0.003
Dry Willow Creek	4/18/1979	0.19	242	53	5.4	76	0.24	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.003
	6/10/2008	0.1	20	3	14	<1	0.25	0.04	<0.01	<0.01	0.002	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	0.003
N. Cottonwood Creek	4/20/1979	0.09	160	44	5.4	64	0.06	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1	<0.1	0.001	<0.003
Cottonwood Creek @ Brown Ranch	4/20/1979	0.06	278	145	7.5	165	0.03	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.1	<0.1	<0.1	<0.1	0.1	0.001
Cottonwood Creek	4/20/1979	0.19	365	100	7.7	159	0.03	0.01	0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.1	<0.1	<0.1	0.1	<0.003
Cottonwood U Nichols	6/9/2008	0.1	141	77	27	288	0.19	0.36	<0.01	0.01	<0.001	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	0.1	0.001
Cottonwood D Nichols	6/10/2008	<0.05	22	5	13	18	0.57	0.05	<0.01	<0.01	0.001	<0.05	<0.05	<0.1	<0.1	<0.1	0.2	<0.1	0.002

SITE	DATE	As	Hg	Cd
Dry Willow Reservoir	10/22/1978	<0.003	<0.0005	<0.01
	4/21/1979	<0.003	<0.0005	<0.01
Brown Water Pond	11/7/1978	<0.003	0.0037	<0.01
	4/20/1979	<0.003	0.0025	<0.01
Dry Willow Creek	4/18/1979	0.002	<0.0005	<0.01
	6/10/2008	0.001	<0.001	<0.005
N. Cottonwood Creek	4/20/1979	<0.003	<0.0005	<0.01
Cottonwood Creek @ Brown Ranch	4/20/1979	<0.003	<0.0005	<0.01
Cottonwood Creek	4/20/1979	0.002	0.0038	<0.01
Cottonwood U Nichols	6/9/2008	0.003	<0.001	<0.005
Cottonwood D Nichols	6/10/2008	0.004	<0.001	<0.005

NOTES: *LOCATION

Dry Willow Reservoir	T43N-R75W-S17 NE
Brown Water Pond	T43N-R76W-S22 NE
Dry Willow Creek	T43N-R76W-S01 SE
N. Cottonwood Creek	UNKNOWN
Cottonwood Creek @ Brown Ranch	T43N-R76W-S22 SE
Cottonwood Creek	UNKNOWN

*All concentrations are in mg/l, except conductivity in µmhos/cm and radium in pCi/l.

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FIGURES

TABLES

D6D.1 NICHOLS RANCH UNIT GROUND-WATER LEVELS

The ground-water levels for the Nichols Ranch Unit are presented in this section of Addendum D6D. Figure D6D.1-1 presents the water levels for A Sand wells MN-1, MN-2 and MN-3. It also presents the water level elevations for overlying aquifer B Sand well URZNB-1 and underlying aquifer 1 Sand well URZN1-2. The water level elevation in the A Sand at MN-1 is slightly higher than the overlying B Sand and the underlying 1 Sand which are adjacent to well MN-1. This figure also shows one old water level elevation for A Sand well MN-1. Water levels in the A, B and 1 Sands have been fairly steady during late 2006 and the first half of 2007.

Figure D6D.1-2 presents additional A Sand wells at the Nichols Ranch Unit. This figure shows water level elevations for the Nichols #1, MN-4, MN-5 and MN-6 wells. No 1979 data was measured for any of these four A Sand wells. The initial water level measurement on well MN-5 was an error due to blockage in the well. These four wells show fairly steady water levels with a slight decline in elevation with time.

An additional cluster of wells is located to the northeast of the Nichols Ranch Unit and these wells are DW-4U, DW-4M and DW-4L. The A Sand well DW-4L has no measurements in 2006 and 2007 due to this well being used for drilling water supply. The B Sand water-level elevation is slightly higher in 2006 and 2007 than it was in 1978 and 1979. The F Sand well DW-4U also has slightly higher water level elevations in 2006 and 2007 than it did in 1978 and 1979. The water level elevation from F Sand well DW-4U is approximately 55 feet higher than the B and A Sand water level elevation.

TABLE D6D.1-1 WATER-LEVEL DATA FOR NICHOLS RANCH UNIT WELLS

WATER-LEVEL ELEVATION (FT-MSL)

DW-4L

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/1/1978	289.00	4680.73
11/1/1978	288.50	4681.23
1/1/1979	288.00	4681.73
4/1/1979	289.00	4680.73
8/1/1979	289.00	4680.73
10/1/1979	289.00	4680.73
12/20/2006	311.48	4658.25

DW-4M

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/1/1978	292.00	4678.17
11/1/1978	291.80	4678.37
1/1/1979	291.00	4679.17
4/1/1979	290.00	4680.17
8/1/1979	290.00	4680.17
10/1/1979	290.00	4680.17
9/2/2006	285.69	4684.48
6/29/2007	286.86	4683.31
9/26/2007	286.60	4683.57
10/4/2007	286.14	4684.03

DW-4U

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/1/1978	233.00	4733.75
1/1/1979	233.00	4733.75
4/1/1979	233.00	4733.75
8/1/1979	233.00	4733.75
10/1/1979	233.00	4733.75
9/7/2006	230.55	4736.20
5/14/2007	231.53	4735.22
9/26/2007	230.80	4735.95
10/4/2007	230.24	4736.51

MN-1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
1/1/1979	29.00	4686.14
9/7/2006	48.87	4666.27
12/14/2006	50.62	4664.52
3/20/2007	49.24	4665.90
3/27/2007	50.20	4664.94
5/30/2007	49.73	4665.41
6/15/2007	49.55	4665.59
6/26/2007	49.71	4665.43
7/10/2007	49.99	4665.15
7/24/2007	51.33	4663.81
10/4/2007	49.83	4665.31

MN-2

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/14/2006	178.97	4661.03
12/14/2006	178.58	4661.42
3/20/2007	178.42	4661.58
3/20/2007	178.23	4661.77
3/27/2007	179.71	4660.29
5/30/2007	178.84	4661.16
6/26/2007	178.68	4661.32
7/10/2007	179.78	4660.22
7/10/2007	180.41	4659.59
9/10/2007	179.02	4660.98
10/4/2007	179.00	4661.00

MN-3

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/14/2006	96.51	4668.13
3/20/2007	96.10	4668.54
3/27/2007	96.94	4667.70
4/18/2007	96.91	4667.73
5/30/2007	96.59	4668.05
7/10/2007	97.18	4667.46
7/24/2007	98.06	4666.58
8/7/2007	97.67	4666.97
10/4/2007	96.65	4667.99

MN-4

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/14/2006	146.18	4654.18
3/20/2007	145.74	4654.62
5/30/2007	146.40	4653.96
7/10/2007	147.06	4653.30
10/4/2007	146.75	4653.61

MN-5

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/7/2006	204.61	4678.67
3/20/2007	227.22	4656.06
3/27/2007	229.77	4653.51
4/18/2007	227.99	4655.29
5/2/2007	227.90	4655.38
5/3/2007	227.77	4655.51
5/14/2007	227.79	4655.49
6/4/2007	227.90	4655.38
6/4/2007	227.86	4655.42
7/10/2007	228.71	4654.57
8/7/2007	229.15	4654.13
10/4/2007	228.10	4655.18

MN-6

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
3/20/2007	102.53	4658.65
3/20/2007	102.56	4658.62
5/30/2007	103.20	4657.98
6/15/2007	103.20	4657.98
7/10/2007	103.37	4657.81
10/4/2007	103.85	4657.33

Nichols #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
3/20/2007	99.44	4659.44
4/18/2007	99.96	4658.92
5/2/2007	100.02	4658.86
5/14/2007	99.98	4658.90
5/30/2007	99.85	4659.03
6/4/2007	99.67	4659.21
7/10/2007	100.26	4658.62
7/24/2007	101.14	4657.74
10/4/2007	101.25	4657.63

URZN1-2

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/14/2006	64.10	4650.21
3/23/2007	64.79	4649.52
3/27/2007	64.80	4649.51
5/30/2007	63.96	4650.35
6/4/2007	63.95	4650.36
6/15/2007	62.35	4651.96
6/26/2007	64.17	4650.14
7/10/2007	64.08	4650.23
7/24/2007	63.94	4650.37
8/7/2007	64.04	4650.27
8/28/2007	64.31	4650.00
10/4/2007	63.78	4650.53

URZNB-1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/14/2006	63.67	4652.69
3/21/2007	63.50	4652.86
3/27/2007	63.35	4653.01
5/30/2007	62.67	4653.69
5/30/2007	62.72	4653.64
6/15/2007	64.13	4652.23
6/26/2007	62.60	4653.76
7/10/2007	62.61	4653.75
7/24/2007	62.55	4653.81
8/7/2007	62.60	4653.76
10/4/2007	62.14	4654.22

URZNF-3

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/10/2007	89.57	4639.30
10/4/2007	89.20	4639.67

URZNQ-4

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/10/2007	9.20	4629.24
10/4/2007	9.33	4629.11

W. of WW1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/26/2007	372.30	4707.70

Abandoned well

- W. of WW1

D6D.2 HANK UNIT GROUND-WATER LEVELS

The Hank Unit water levels are presented in this section of Addendum D6D. Figure D6D.2-1 presents the plot of Hank 1, Dry Willow #1, URZHF-1, URZHC-2 and URZHG-3. Table D6D.2-1 presents the water level tabulation of the water level data for the Hank Unit wells. This figure shows that the water-levels have been fairly steady with the 2006 and 2007 water levels in Hank 1 and Dry Willow #1 being higher than the water levels observed in 1978 and 1979. Water levels in the new F Sand well URZHF-1 and the new G Sand well URZHG-3 have been fairly steady while significant variation has been observed in C Sand well URZHC-2. These water level changes are likely due to lag in recovery from stresses on this well.

Figure D6D.2-2 presents the water level elevation for new wells URZHG-4, URZHF-5 and URZHB-6. This cluster of wells shows that the water level elevation is significantly higher in the G Sand and lower in the B Sand, as would be expected in this area.

Figure D6D.2-3 presents the water level elevations for the BR series wells. This plot shows slightly greater than 2 years of water level data from late 1979 to early 1982 for these wells. The few 2006 and 2007 water level elevations are also shown on this plot for these wells.

Figure D6D.2-4 presents a plot of F Sand well WC-MN1. This well has recently been monitored for the last few years with a continuous recorder by the Bureau of Land Management (BLM). This data shows that this F Sand water level had been gradually declining since 2001 and increased its rate of decline in late 2006. The most recent water levels in 2007 and early 2008 show a water level rising rate similar to the larger declining rate in late 2006. The 2006 and 2007 water-level changes are likely due to water usage from the F Sand for several months. One lower water level elevation was measured in this well in 1979.

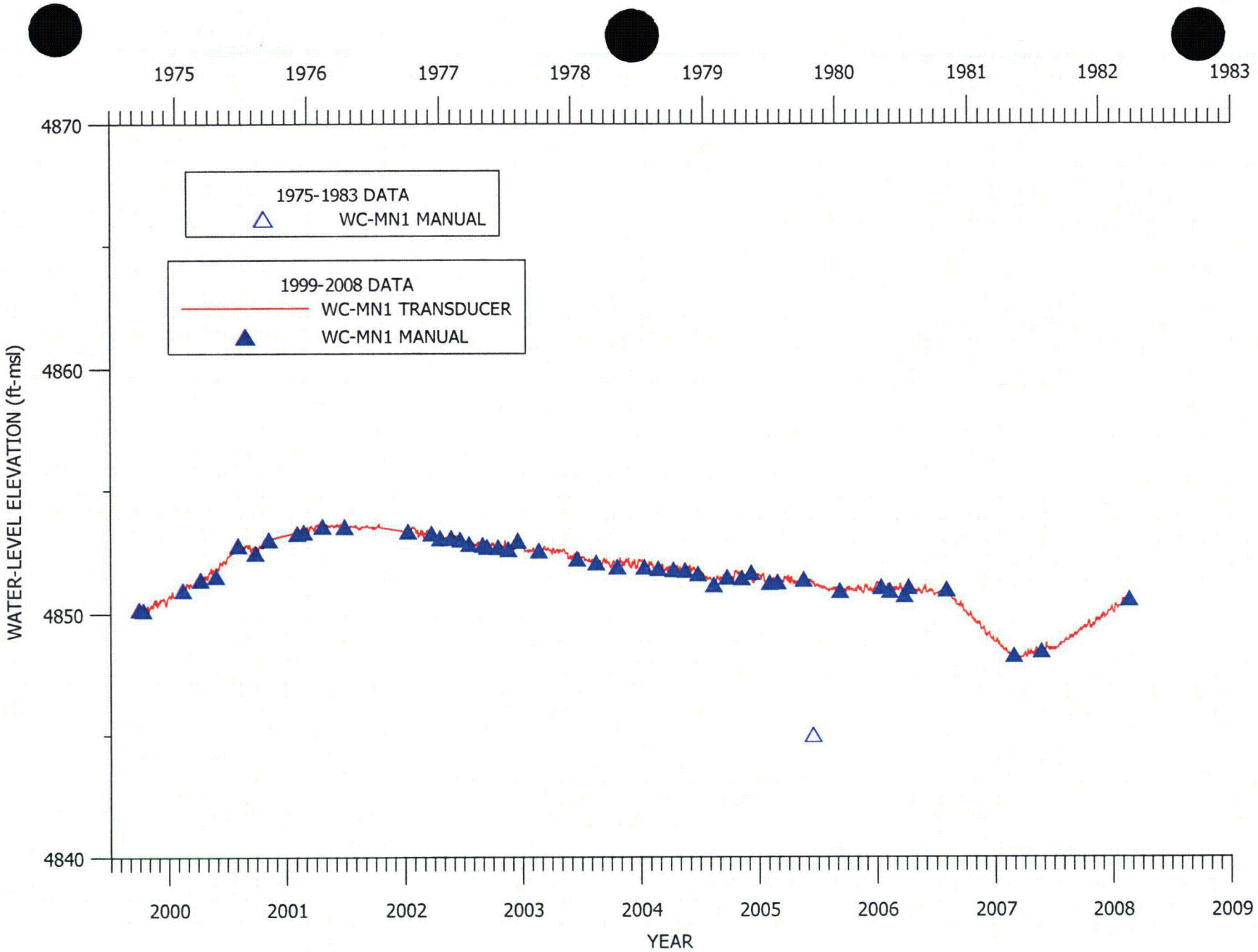

FIGURE D6D.2-4. WATER-LEVEL ELEVATION VERSUS TIME FOR DRY WILLOW SAND WELL (WC-MN1)

TABLE D6D.2-1 WATER-LEVEL DATA FOR HANK UNIT WELLS

WATER-LEVEL ELEVATION (FT-MSL)

BR-B

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/18/1979	142.74	4886.96
9/25/1979	142.80	4886.90
10/4/1979	142.74	4886.96
10/10/1979	142.76	4886.94
10/18/1979	142.78	4886.92
10/24/1979	142.74	4886.96
11/27/1979	144.10	4885.60
1/9/1980	142.20	4887.50
1/22/1980	142.55	4887.15
2/6/1980	142.29	4887.41
3/18/1980	141.58	4888.12
4/15/1980	141.45	4888.25
5/15/1980	141.30	4888.40
6/4/1980	141.15	4888.55
7/29/1980	141.22	4888.48
8/22/1980	141.45	4888.25
9/29/1980	141.70	4888.00
10/22/1980	141.53	4888.17
1/14/1981	141.20	4888.50
3/11/1981	142.04	4887.66
4/9/1981	141.33	4888.37
5/20/1981	141.15	4888.55
7/7/1981	141.56	4888.14
8/19/1981	141.33	4888.37
10/8/1981	141.47	4888.23
11/3/1981	141.31	4888.39
12/1/1981	140.40	4889.30
3/2/1982	141.27	4888.43
4/13/1982	140.85	4888.85
1/24/2007	142.95	4886.75
10/4/2007	141.61	4888.09

BR-F

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/18/1979	69.29	5012.96
9/25/1979	69.82	5012.43
10/4/1979	70.52	5011.73
10/10/1979	70.32	5011.93
10/18/1979	68.69	5013.56
10/24/1979	68.67	5013.58
11/6/1979	68.35	5013.90
1/22/1980	65.97	5016.28
2/6/1980	65.26	5016.99
3/12/1980	64.54	5017.71
4/15/1980	64.41	5017.84
5/15/1980	64.25	5018.00
6/4/1980	64.25	5018.00
7/29/1980	64.69	5017.56
8/22/1980	64.70	5017.55
9/29/1980	64.76	5017.49
10/29/1980	65.27	5016.98
1/14/1981	65.00	5017.25
3/11/1981	65.27	5016.98
4/9/1981	65.04	5017.21
5/20/1981	65.00	5017.25
8/19/1981	65.31	5016.94
10/8/1981	65.42	5016.83
11/3/1981	65.77	5016.48
12/1/1981	65.24	5017.01
3/2/1982	66.25	5016.00
4/13/1982	65.90	5016.35
11/28/2006	66.86	5015.39
1/24/2007	70.00	5012.25
5/16/2007	69.56	5012.69
6/5/2007	69.02	5013.23
6/15/2007	69.13	5013.12
6/18/2007	69.05	5013.20
10/4/2007	69.25	5013.00

BR-G

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/20/1979	242.55	4914.72
9/25/1979	191.84	4965.43
10/4/1979	164.95	4992.32
10/10/1979	163.59	4993.68
10/18/1979	162.23	4995.04
10/25/1979	162.91	4994.36
1/9/1980	164.21	4993.06
1/22/1980	164.84	4992.43
2/6/1980	164.49	4992.78
3/18/1980	164.40	4992.87
4/15/1980	164.53	4992.74
5/15/1980	163.66	4993.61
6/4/1980	164.07	4993.20
7/30/1980	164.04	4993.23
8/22/1980	157.72	4999.55
9/29/1980	154.92	5002.35
10/28/1980	154.49	5002.78
1/14/1981	153.90	5003.37
2/19/1981	151.95	5005.32
4/13/1981	150.00	5007.27
5/19/1981	150.33	5006.94
6/29/1981	148.83	5008.44
8/19/1981	146.85	5010.42
9/28/1981	147.20	5010.07
11/3/1981	146.97	5010.30
12/1/1981	146.50	5010.77
4/13/1982	137.25	5020.02
12/19/2006	150.01	5007.26
2/27/2007	149.90	5007.37
7/31/2007	148.96	5008.31
8/8/2007	148.82	5008.45
10/4/2007	148.19	5009.08

BR-H

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/19/1979	90.83	4866.73
9/25/1979	90.75	4866.81
10/4/1979	90.70	4866.86
10/11/1979	90.62	4866.94
10/18/1979	90.97	4866.59
10/24/1979	90.94	4866.62
1/9/1980	90.89	4866.67
1/22/1980	91.29	4866.27
2/6/1980	91.14	4866.42
3/18/1980	90.88	4866.68
4/15/1980	90.79	4866.77
5/15/1980	90.73	4866.83
6/4/1980	90.62	4866.94
7/29/1980	90.75	4866.81
8/22/1980	90.96	4866.60
9/29/1980	91.31	4866.25
10/22/1980	91.13	4866.43
1/14/1981	91.70	4865.86
2/19/1981	91.94	4865.62
4/9/1981	91.75	4865.81
5/20/1981	91.64	4865.92
7/7/1981	91.60	4865.96
8/19/1981	92.07	4865.49
10/8/1981	92.10	4865.46
11/3/1981	92.26	4865.30
12/1/1981	91.88	4865.68
3/2/1982	92.71	4864.85
4/13/1982	92.37	4865.19
1/24/2007	96.70	4860.86
5/24/2007	95.80	4861.76
10/4/2007	95.56	4862.00

BR-I

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/25/1979	49.30	5081.58
10/4/1979	49.10	5081.78
10/10/1979	49.18	5081.70
10/18/1979	49.04	5081.84
1/15/1980	49.88	5081.00
1/22/1980	50.01	5080.87
2/6/1980	49.79	5081.09
3/12/1980	50.15	5080.73
4/15/1980	50.16	5080.72
5/7/1980	50.47	5080.41
5/15/1980	50.47	5080.41
6/4/1980	50.49	5080.39
7/30/1980	50.81	5080.07
8/22/1980	50.99	5079.89
9/29/1980	51.26	5079.62
10/22/1980	52.13	5078.75
3/11/1981	52.13	5078.75
4/9/1981	50.77	5080.11
4/14/1981	51.55	5079.33
5/19/1981	52.50	5078.38
7/7/1981	52.23	5078.65
8/20/1981	52.51	5078.37
10/8/1981	52.48	5078.40
11/3/1981	52.83	5078.05
12/1/1981	52.48	5078.40
3/2/1982	53.30	5077.58
4/13/1982	56.45	5074.43
8/28/2007	> 80.00	< 5050.88

BR-K

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/25/1979	116.75	5076.25
10/4/1979	120.04	5072.96
10/5/1979	122.62	5070.38
10/10/1979	122.41	5070.59
10/18/1979	122.24	5070.76
9/28/2007	> 129.95	< 5063.05

Brown #5

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/26/2007	215.60	4846.16
9/26/2007	215.60	4846.16

Brown-WS

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
2/21/2007	266.62	4879.38
12/6/2007	266.77	4879.23

Abandoned well

- Brown-WS

TABLE D6D.2-1 WATER-LEVEL DATA FOR HANK UNIT WELLS

WATER-LEVEL ELEVATION (FT-MSL)

BR-Q

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/14/1979	302.25	4851.97
12/18/1979	308.57	4845.65
1/9/1980	306.62	4847.60
1/22/1980	306.51	4847.71
2/6/1980	306.13	4848.09
3/18/1980	306.20	4848.02
4/15/1980	304.35	4849.87
5/15/1980	303.51	4850.71
6/4/1980	303.77	4850.45
7/30/1980	303.77	4850.45
8/22/1980	305.21	4849.01
9/29/1980	308.06	4846.16
10/28/1980	301.73	4852.49
1/14/1981	303.10	4851.12
2/19/1981	303.39	4850.83
4/13/1981	301.03	4853.19
5/19/1981	301.17	4853.05
7/7/1981	299.71	4854.51
8/19/1981	298.99	4855.23
10/8/1981	298.34	4855.88
11/3/1981	297.95	4856.27
12/1/1981	296.42	4857.80
4/13/1982	295.80	4858.42
2/21/2007	291.50	4862.72
8/8/2007	292.19	4862.03
10/4/2007	292.08	4862.14

BR-T

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
12/12/1979	199.70	4833.30
1/15/1980	205.69	4827.31
3/18/1980	204.68	4828.32
5/15/1980	200.55	4832.45
6/4/1980	201.29	4831.71
8/22/1980	196.04	4836.96
9/29/1980	208.78	4824.22
10/29/1980	190.88	4842.12
3/11/1981	196.50	4836.50

BR-U

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
11/14/1979	6.74	4976.44
11/30/1979	6.84	4976.34
1/9/1980	6.89	4976.29
2/6/1980	6.83	4976.35
3/12/1980	6.67	4976.51
4/15/1980	6.78	4976.40
5/15/1980	6.83	4976.35
6/4/1980	7.40	4975.78
7/30/1980	8.25	4974.93
8/22/1980	8.06	4975.12
9/29/1980	8.57	4974.61
10/22/1980	8.50	4974.68
1/14/1981	9.10	4974.08
2/19/1981	8.85	4974.33
4/9/1981	9.03	4974.15
5/12/1981	9.15	4974.03
7/7/1981	9.63	4973.55
8/19/1981	10.15	4973.03
10/8/1981	10.94	4972.24
11/3/1981	11.23	4971.95
4/13/1982	11.86	4971.32

C #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
1/1/1979	194.00	4943.00
8/2/2007	192.22	4944.78
10/4/2007	191.95	4945.05

Dry Willow #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
1/1/1979	228.00	4926.19
3/22/2007	223.27	4930.92
5/2/2007	222.46	4931.73
5/24/2007	222.83	4931.36
9/5/2007	223.00	4931.19
10/4/2007	222.10	4932.09

DRYMW1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/4/2007	> 19.20	< 4910.80

DRYMW3

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/4/2007	> 18.60	< 4901.40

F. Brown #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/4/2007	198.04	4691.96

Hank 1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
1/1/1979	369.00	4882.01
9/7/2006	355.26	4895.75
4/19/2007	354.96	4896.05
4/19/2007	354.54	4896.47
5/2/2007	355.52	4895.49
7/11/2007	355.87	4895.14
7/31/2007	355.48	4895.53
8/8/2007	355.35	4895.66

Means #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
11/16/2006	354.00	4905.86
9/26/2007	338.60	4921.26

NBHW-13

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
11/28/2006	132.77	4837.09
2/21/2007	132.00	4837.86
5/16/2007	130.96	4838.90
7/25/2007	130.96	4838.90
10/4/2007	130.63	4839.23

Old Maid #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
6/6/2007	197.40	4882.60

OW43756

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
9/26/2007	146.40	4905.60
9/26/2007	146.40	4905.60
10/4/2007	146.80	4905.20

Paden #1

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
2/21/2007	310.00	4885.85

SS1-F

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
6/15/2007	116.00	4859.00
6/18/2007	115.74	4859.26
6/26/2007	116.02	4858.98

SS1-FPU

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
6/15/2007	117.31	4858.69
6/18/2007	116.98	4859.02
6/26/2007	117.26	4858.74

SS1-L

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/12/1978	148.92	4825.08
11/1/1978	149.00	4825.00
1/1/1979	146.00	4828.00
8/1/1979	203.00	4771.00
10/26/1979	140.50	4833.50
6/5/2007	140.72	4833.28
6/18/2007	140.67	4833.33
7/25/2007	140.93	4833.07

SS1-M

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
11/1/1978	151.00	4823.00
1/1/1979	146.00	4828.00
8/1/1979	139.00	4835.00
10/1/1979	140.50	4833.50
6/15/2007	140.71	4833.29
6/18/2007	140.00	4834.00
6/26/2007	140.41	4833.59

SS1-PU

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
11/1/1978	---	---
1/1/1979	---	---
6/15/2007	---	---
6/18/2007	---	---
6/26/2007	---	---

SS1-U

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
10/1/1978	149.00	4826.00
11/1/1978	160.00	4815.00
1/1/1979	144.00	4831.00
8/1/1979	140.00	4835.00
10/1/1979	139.00	4836.00
6/15/2007	138.04	4836.96
6/18/2007	138.01	4836.99

URZHB-6

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
7/27/2007	352.69	4861.09
7/31/2007	350.82	4862.96
8/8/2007	350.82	4862.96
8/28/2007	352.54	4861.24
10/4/2007	352.08	4861.70

Abandoned well

- URZHB-6

TABLE D6D.2-1 WATER-LEVEL DATA FOR HANK UNIT WELLS

WATER-LEVEL ELEVATION (FT-MSL)

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
URZHC-2		
12/19/2006	349.01	4885.75
5/2/2007	338.70	4896.06
5/24/2007	341.32	4893.44
6/4/2007	349.09	4885.67
6/26/2007	342.30	4892.46
6/28/2007	341.98	4892.78
7/13/2007	343.09	4891.67
7/24/2007	341.12	4893.64
8/2/2007	343.73	4891.03
9/6/2007	343.32	4891.44
10/4/2007	342.68	4892.08
URZHF-1		
12/19/2006	328.30	4903.43
6/26/2007	329.50	4902.23
7/24/2007	328.91	4902.82
10/4/2007	328.33	4903.40
URZHF-5		
7/27/2007	315.51	4902.16
7/31/2007	317.09	4900.58
8/8/2007	317.41	4900.26
10/4/2007	316.30	4901.37
URZHG-3		
6/26/2007	274.43	4954.39
6/28/2007	274.38	4954.44
7/24/2007	274.22	4954.60
10/4/2007	273.88	4954.94
URZHG-4		
7/31/2007	280.67	4935.11
8/8/2007	280.63	4935.15
10/4/2007	280.39	4935.39
URZHH-7		
9/5/2007	96.43	5072.94
10/4/2007	96.68	5072.69
WC-MN1		
10/29/1979	97.00	4845.00
1/1/1999	99.00	4843.00
10/12/1999	93.83	4848.17
2/11/2000	93.02	4848.98
4/6/2000	92.59	4849.41
5/24/2000	92.45	4849.55
8/4/2000	91.21	4850.79
9/27/2000	91.51	4850.49
11/8/2000	90.98	4851.02
2/1/2001	90.73	4851.27
2/20/2001	90.67	4851.33
4/18/2001	90.44	4851.56
6/26/2001	90.45	4851.55
1/7/2002	90.64	4851.36
3/19/2002	90.73	4851.27
4/16/2002	90.91	4851.09
5/20/2002	90.90	4851.10
6/18/2002	90.97	4851.03
7/16/2002	91.15	4850.85
8/29/2002	91.19	4850.81
9/12/2002	91.27	4850.73
10/16/2002	91.28	4850.72
11/18/2002	91.36	4850.64
12/17/2002	91.02	4850.98
2/18/2003	91.42	4850.58
8/15/2003	91.91	4850.09
10/20/2003	92.08	4849.92
1/8/2004	92.09	4849.91
2/20/2004	92.15	4849.85
4/7/2004	92.20	4849.80
5/13/2004	92.23	4849.77
6/23/2004	92.36	4849.64
8/12/2004	92.81	4849.19
9/23/2004	95.50	4846.50
11/9/2004	92.53	4849.47
12/8/2004	92.32	4849.68
1/31/2005	92.73	4849.27
2/25/2005	92.70	4849.30
5/16/2005	92.59	4849.41
9/8/2005	93.05	4848.95
1/11/2006	93.24	4848.76
2/8/2006	93.05	4848.95
3/23/2006	93.24	4848.76
4/5/2006	92.91	4849.09
6/16/2006	91.75	4850.25
7/31/2006	93.01	4848.99
2/26/2007	95.71	4846.29
5/21/2007	95.53	4846.47

Abandoned well

D6D.3 COAL BED WATER LEVELS

This section of Addendum D6D presents water levels in the coal aquifer and overlying sands that have been collected in this area by the Bureau of Land Management (BLM). Tabulation of these water levels is not presented in this addendum but can be obtained from the BLM.

Figure D6D.3-1 presented the water level elevation changes for a coal well which is approximately 5 miles north of the Hank Unit. The Pistol Coal well shows that water levels have been fairly steady with a gradual decline for the last few years. These water level changes could be natural. The second water level elevation plot is presented for the Bullwacker Sand and Coal wells. The water level elevations for both the sand well and the coal well are presented in this figure with the water level elevations on the left scale for the sand and on the right scale for the coal. These wells are approximately 6 miles to the southwest of the Nichols Ranch Unit. The coal water level elevations in this well have decreased greater than 600 feet while the sand water level elevations show a fairly similar pattern with a total decline of 140 feet. This sand well is 140 feet above the coal, which is much closer to the coal than the A Sand is at the Nichols Ranch Unit. This sand unit must be connected with the coal or some well completion is allowing connection between the coal and this sand unit.

The Streeter Coal and Sand wells are located approximately 12 miles due west of the Nichols Ranch Unit. Figure D6D.3-3 presents the water level elevation for this sand well, which is 624 feet above the coal well at this location. The water level elevation in the coal well has dropped approximately 20 feet in this area. Water level elevations for the last couple years in the sand well have been fairly steady but have declined approximately 9 feet from late 2004 to late 2005. The completion of this sand well is closer to the completion interval of the A Sand above the coal at the Nichols Ranch Unit. It is difficult to say whether this sand water level elevation has been affected by the coal bed methane dewatering.

Figure D6D.3-4 presents the water level elevations for the All Night Coal and Sand wells which are located approximately 12 miles southeast of the Hank Unit. The coal well shows greater than 400 feet of water level decline in this area while the sand well which is completed approximately 124 feet above the coal shows essentially no decline in its water-level. Water-levels in the sand aquifers that are significantly above the coal are expected to respond similar to this well as long as no wells in the area connect the coal to the sand units.

The Beaver Federal Sand and Coal wells are located 20 miles north-northeast of the Hank Unit. Figure D6D.3-5 shows that the water levels in the coal well have declined greater than 230 feet while the water-levels in the sand well have been very steady. The sand well is completed 541 feet above the coal, similar to the A Sand completion above the coal. This response should be similar to the responses of the ore sands due to the coal bed methane production.

Figure D6D.3-6 presents the water-level elevation changes for the Juniper Sand and Coal wells. Coal water levels have declined greater than 600 feet at the Juniper monitoring site. The blue data on Figure D6D.3-6 shows steady manual water-level measurements while the transducer water levels were erratic in 2007. Water-level monitoring from the Juniper Sand well does not indicate a significant amount of drawdown in this sand well from the CBM water production.

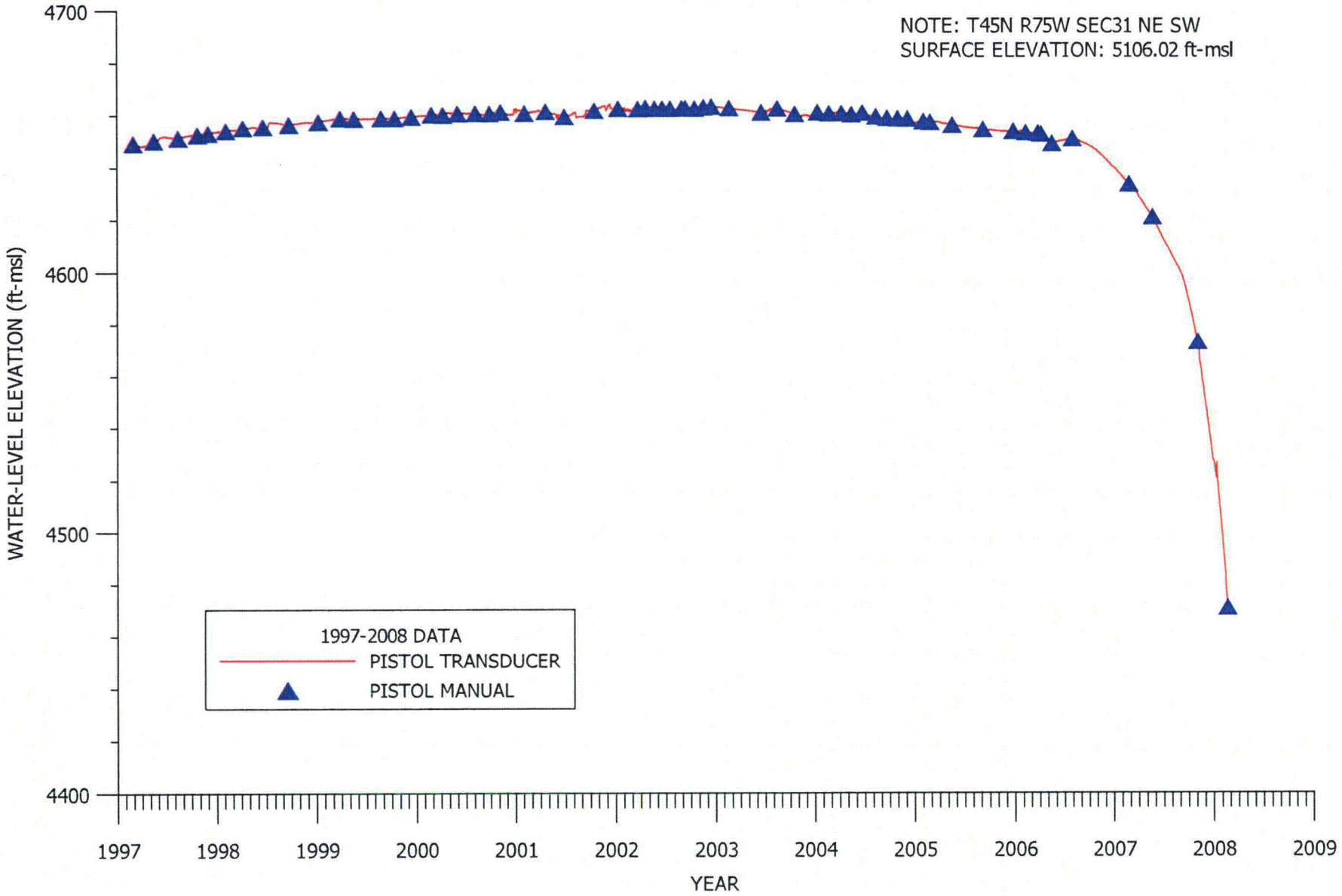

FIGURE D6D.3-1. WATER-LEVEL ELEVATION VERSUS TIME FOR PISTOL COAL WELL

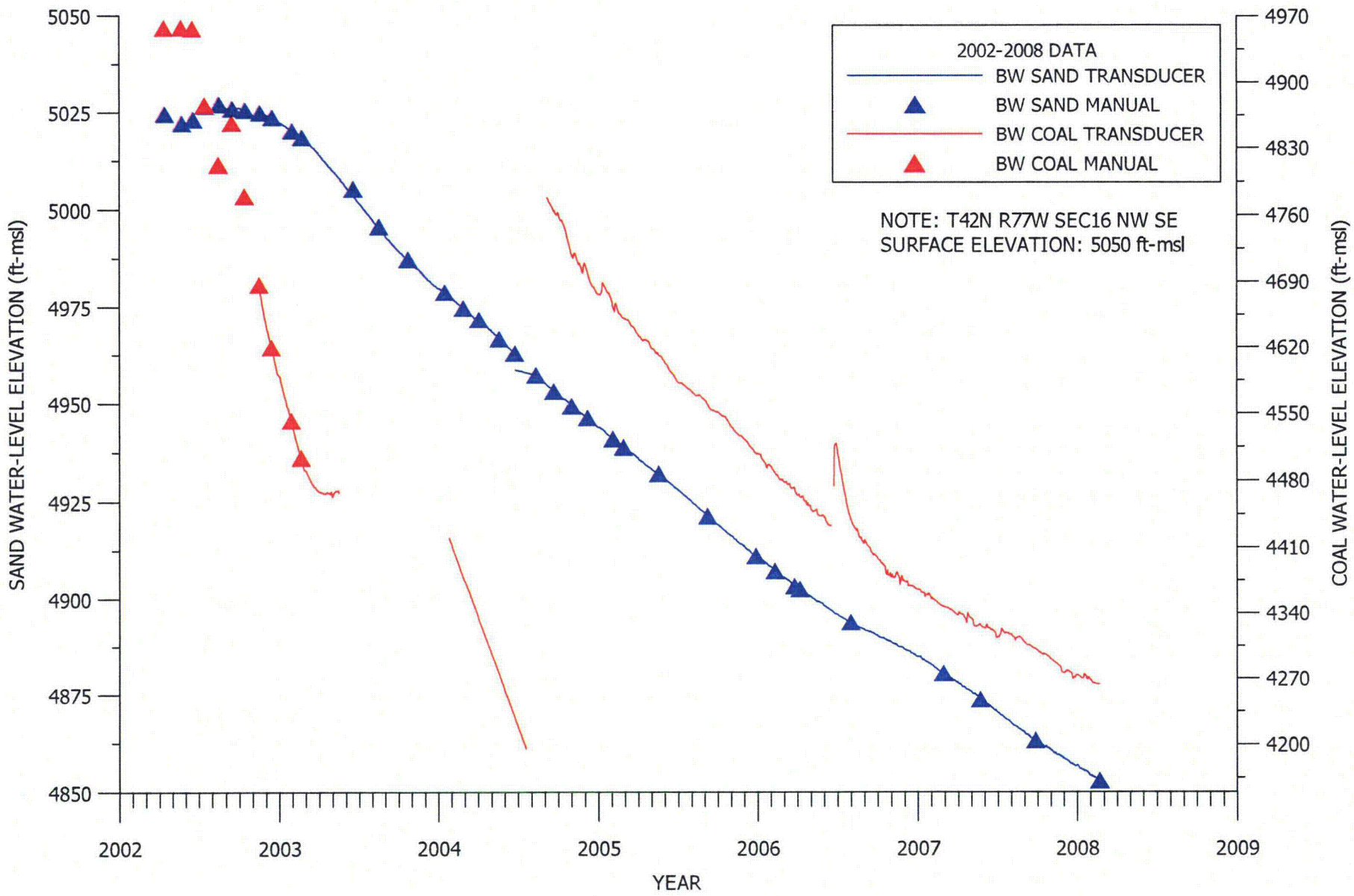

FIGURE D6D.3-2. WATER-LEVEL ELEVATION VERSUS TIME FOR BULLWACKER SAND and COAL WELLS

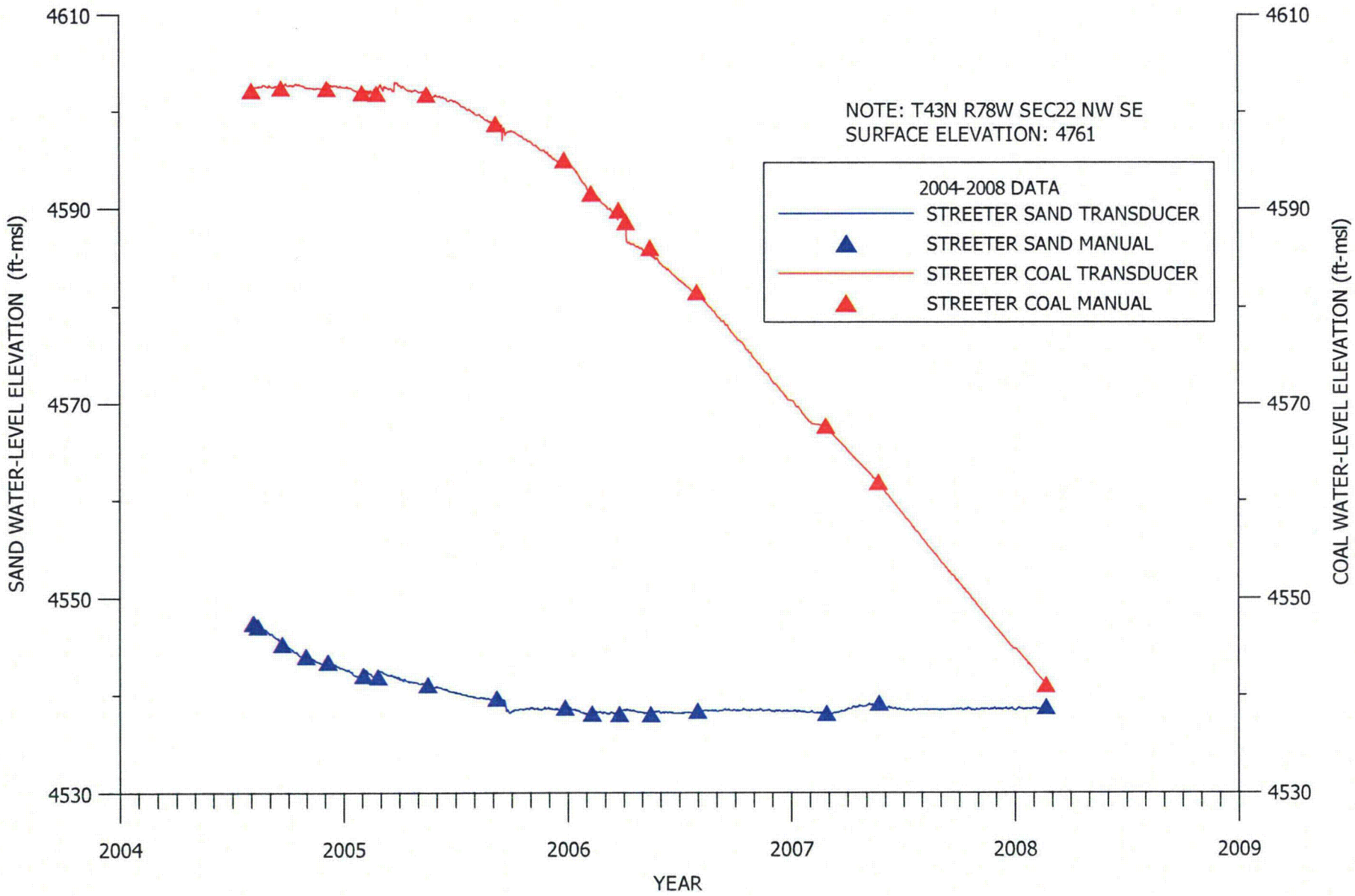

FIGURE D6D.3-3. WATER-LEVEL ELEVATION VERSUS TIME FOR STREETER SAND and COAL WELLS

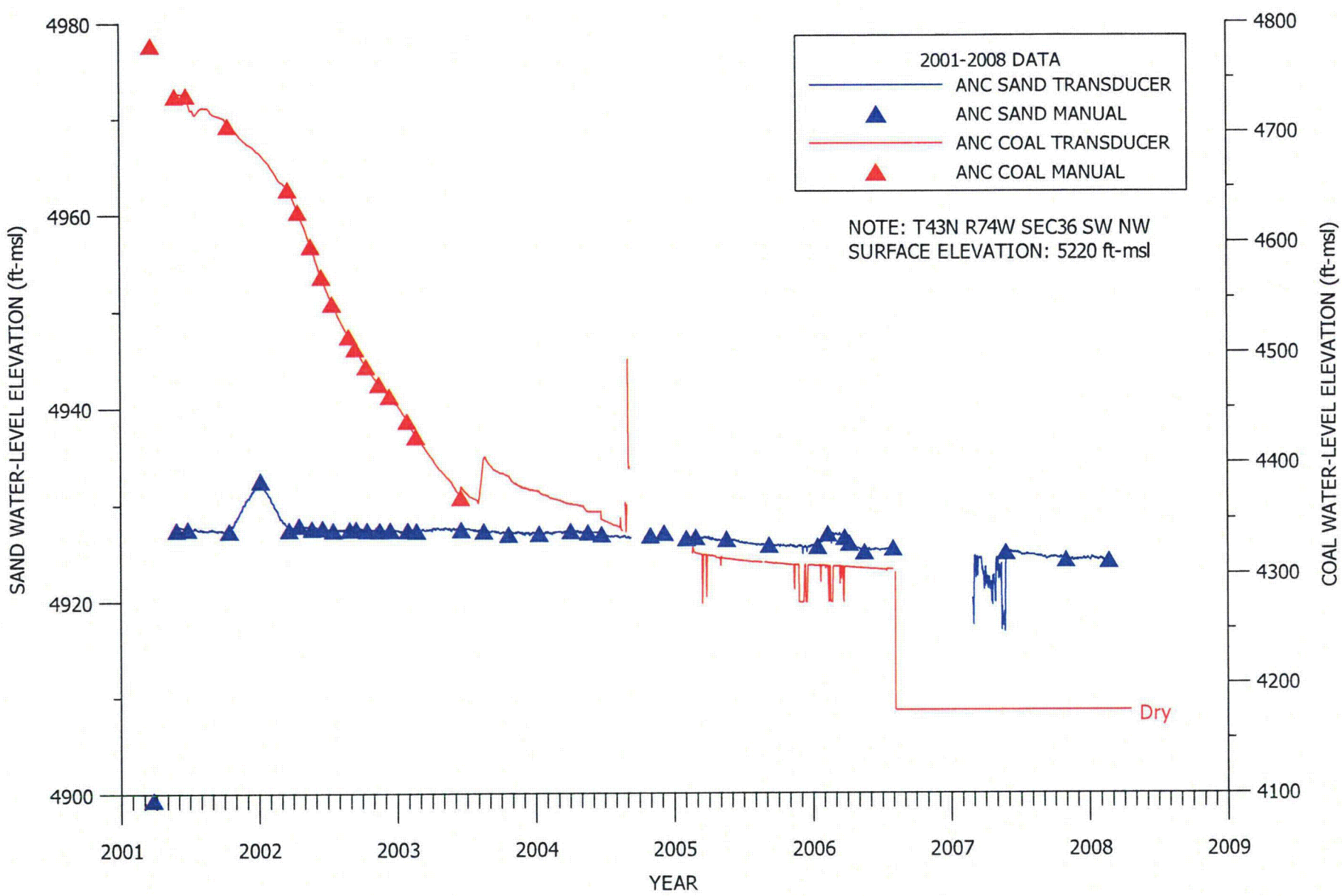

FIGURE D6D.3-4. WATER-LEVEL ELEVATION VERSUS TIME FOR ALL NIGHT CREEK SAND and COAL WELLS

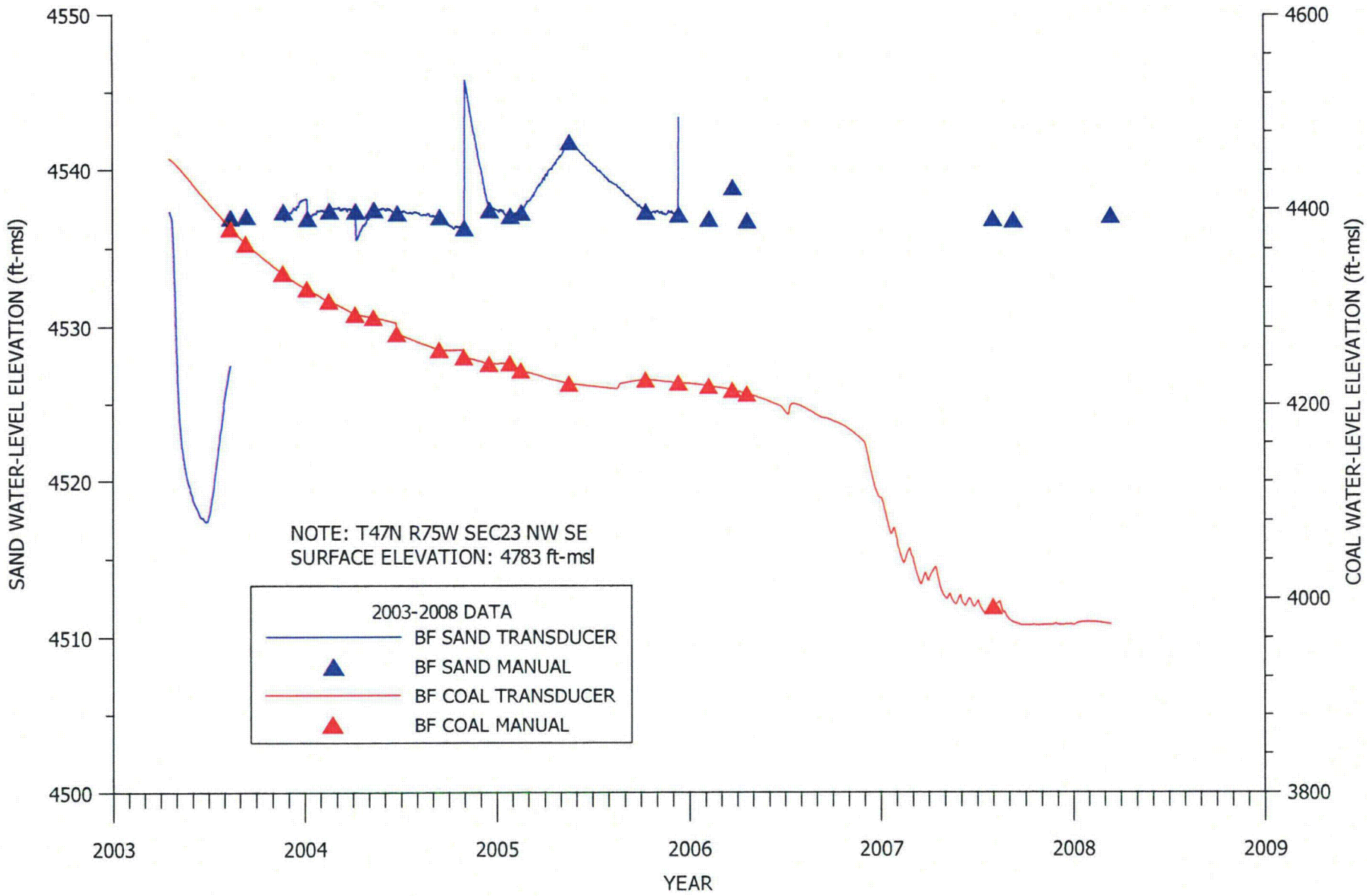

FIGURE D6D.3-5. WATER-LEVEL ELEVATION VERSUS TIME FOR BEAVER FEDERAL SAND and COAL WELLS

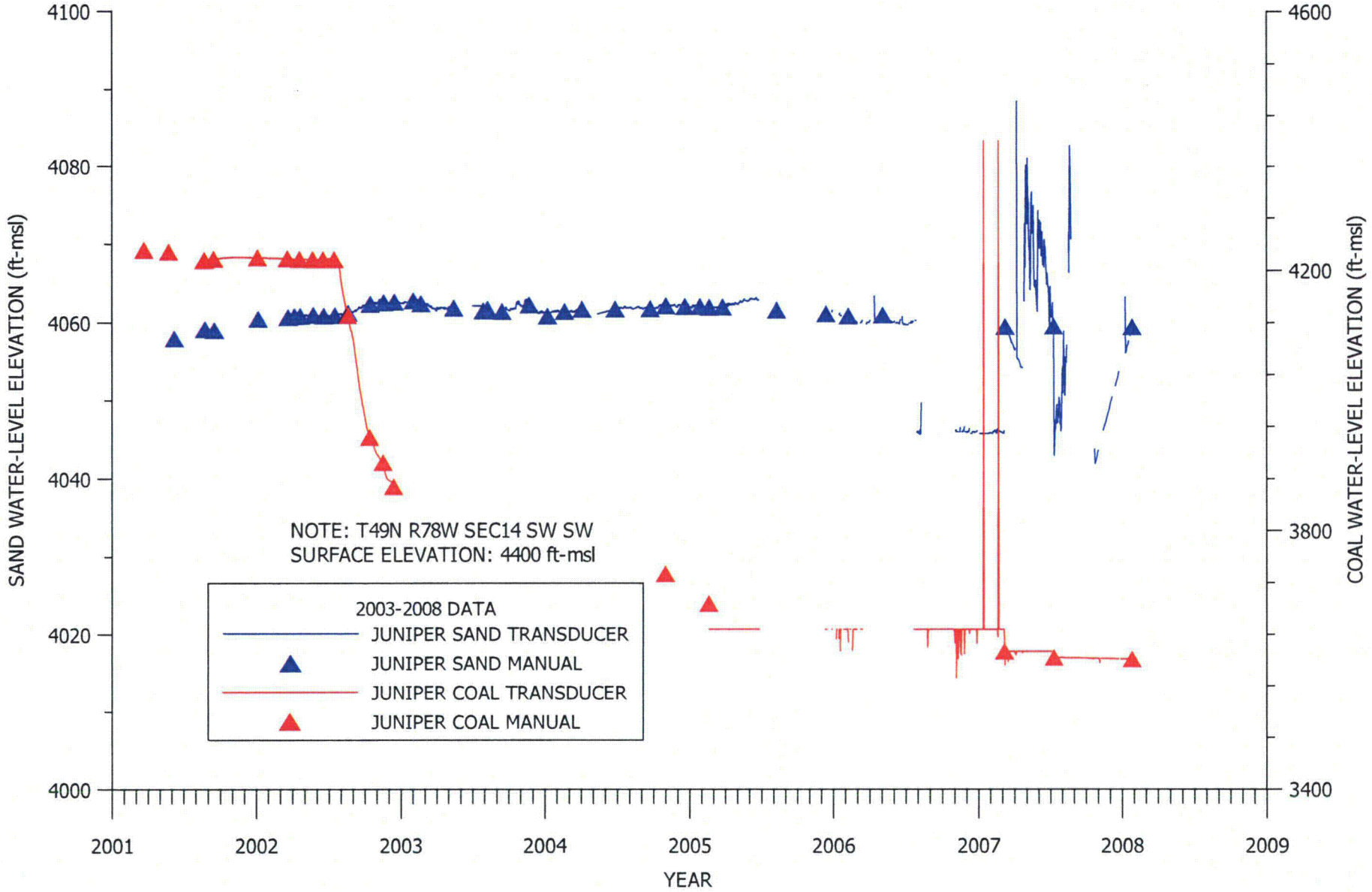

FIGURE D6D.3-6. WATER-LEVEL ELEVATION VERSUS TIME FOR JUNIPER SAND and COAL WELLS

ADDENDUM D6K:

PUMP TEST SOP

November 2007

Aquifer Properties Testing
Standard Operating Procedures

Hydro-Engineering L.L.C.

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List of Tables

Attachments

Acronyms and Abbreviations

°C	degrees Celsius
bgs	below ground surface
cfs	cubic feet per second
EPA	Environmental Protection Agency
°F	degrees Fahrenheit
ft	foot (feet)
gpd	gallons per day
gpm	gallons per minute
ISR	in situ recovery
MWPT	multi-well pump test
psf	pounds per square foot
psi	pounds per square inch
SWPT	single well pump test
WDEQ	Wyoming Department of Environmental Quality
WY	Wyoming

1. INTRODUCTION

The following discussion contains guidelines utilized by Hydro-Engineering (HYDRO) for the performance and analysis of pumping tests to determine aquifer properties. Procedures and methodologies contained herein serve as a framework for designing, performing, and analyzing the results of a pumping test. As with many testing programs, these procedures must be adapted to the specific circumstances of the planned pumping test according to the engineering judgment of the user. This discussion does not include procedures for conducting slug tests or other aquifer properties testing methods that do not utilize a pumping system with a period of continuous discharge.

Procedures described in this document have been developed utilizing a variety of sources including: documented procedures (e.g. EPA, 1993 and U. S. Geological Survey Open-File Report 02-197, 2002), past experience in conducting pumping tests, and multiple references for ground water testing procedures. The presumption in this document is that well installation and completion techniques are already established, and that wells have been adequately developed.

2. AQUIFER PROPERTIES DEFINITIONS

Terminology and definitions related to pumping tests are included in the following discussion. This discussion is in summary form for the purpose of clarifying terminology used throughout this document, but is not a comprehensive review of all aquifer properties definitions.

An aquifer is defined as a water-bearing geologic unit capable of yielding water in economically usable quantities. An aquitard is a confining bed or unit that restricts or retards the flow of ground water and does not readily yield water. For most practical purposes, the orientation of both aquifers and aquitards is generally horizontal. An aquiclude is a geologic unit that prevents the flow of ground water (typically in a vertical direction through horizontal bedding).

The potentiometric surface is an imaginary surface representing the static head or level of ground water for a particular aquifer or aquitard. An aquifer is defined as confined if the potentiometric surface is above the top of the aquifer unit. An aquifer is defined as being unconfined or a water table aquifer if the potentiometric surface is within the interval of the aquifer unit.

Total porosity of a geologic material is the fraction of pore space within that material. Effective porosity is a measure of interconnected pore space and also reflects the size and shape of pores within the medium.

The ground-water conveyance properties of aquifer materials are defined by the hydraulic conductivity and/or transmissivity. The value of hydraulic conductivity indicates the volume of water that will move through a unit area of the aquifer in a unit interval of time under a unit hydraulic gradient. Hydraulic conductivity has units of length/time (L/T) and the term is often used interchangeably with coefficient of permeability. Transmissivity is the product of hydraulic conductivity and saturated aquifer thickness and has units of L^2/T.

The ground water storage properties are defined by the storage coefficient for confined aquifers and by the specific yield for unconfined aquifers. Both storage properties are dimensionless and reflect the volume of water yielded from or stored in a unit volume of the aquifer under a unit change in water level or head.

Static water level is the level to which water will rise in a well or piezometer in the absence of pumping or other withdrawals or injection of water in the area of the well. Drawdown is the difference between the static water level and the water level in a well after pumping has started. Recovery is the gradual return of the water level to the static water level after pumping has stopped. Residual drawdown is the gradually diminishing drawdown in a well that remains after pumping has stopped.

Boundaries may exist in an aquifer and are generally described as either recharge or low permeability boundaries. Recharge boundaries typically reflect streams, lakes, reservoirs, etc. which supply water to the aquifer. Low permeability boundaries can be created by a variety of geologic features including the limits of the permeable aquifer material, faulting etc., and they retard or prevent water flow in a generally horizontal direction.

3. TYPES OF PUMPING TESTS

Pumping tests are typically classified as single well or multi-well tests. A single well test involves only the well from which water is extracted. Multi-well tests require at least one pumping well and one or more observation wells.

3.1 Single Well Pump Tests

A single well pump test (SWPT) is used primarily to evaluate the yield, drawdown response, and performance of the pumping well. The testing can also be used to determine the hydraulic conductivity and transmissivity of the aquifer materials in the immediate vicinity of the well. In some cases, storage properties of the aquifer can be inferred from a SWPT, but these storage properties should be used with caution as they are much less reliable than storage properties determined from an observation well in a MWPT.

The typical SWPT includes pumping of a well while simultaneously monitoring water level in the well. Continued monitoring of the water level after pumping has stopped can also be valuable in determining hydraulic properties of the aquifer.

The simplest and most widely used approach for a SWPT is a constant discharge test where a relatively steady pumping rate is maintained throughout the pumping period. Variants of the SWPT include a constant drawdown test where the pump discharge is continuously adjusted to maintain a constant drawdown in the pumping well, and a step drawdown test where the discharge is deliberately increased at specified intervals. These variants of the SWPT are generally used to refine estimates of short-term and long-term yield for production water wells.

3.2 Multi-well Pump Tests

A multi-well pump test (MWPT) is a more comprehensive test of aquifer and aquitard properties. In addition to the SWPT information provided for the pumping well, a MWPT can be used to evaluate storage properties of the aquifer, regional water conveyance (hydraulic conductivity and transmissivity) properties, continuity of the aquifer, the presence of barriers, and the hydraulic conveyance of overlying or underlying aquitards.

A typical MWPT includes a pumping well or wells and one or more observation wells. The water level is monitored in the observation well(s) and possibly the pumping well during the test. The observation well(s) can be completed within the same unit as the pumping well to evaluate aquifer conveyance and storage properties and to confirm continuity of the aquifer or the presence of boundaries. Observation wells can also be completed in adjacent strata to evaluate vertical continuity through aquitards.

4. BACKGROUND INFORMATION

The available geologic and well information should be compiled prior to the design of a SWPT or MWPT. This information should include but is not limited to: defining aquifer and aquitard strata; locations for available and proposed pumping or observation wells; well completion details for all available and proposed wells; the location and character of potential boundaries such as faults and streams; and available well yield estimates or measurements. Other useful information may include available water quality information, proximity to reliable pump power sources, installed pump performance curves, and acceptable water discharge procedures.

5. SINGLE WELL PUMP TESTS

The primary design criteria for a SWPT are the pumping rate and pumping duration. There are typically constraints imposed on the maximum pumping rate by installed pump performance, existing discharge pipe size, maximum pump size, available power supply, etc. The acceptable pump test duration is a function of pumping rate, aquifer type, aquifer thickness, proximity to any potential boundaries and intended usage of the results.

The type of SWPT conducted can also be influenced by the intended use of the well. In the case of water level or water quality monitoring wells, a SWPT is often conducted as a matter of opportunity during sampling or well development. In this case, the pumping rate and test duration criteria are relaxed. If the SWPT is required to evaluate well production, presence of boundaries, etc. the pumping rate and pumping duration should be more critically evaluated.

Attachment 1 contains an example pump test form that can be used for both SWPT's and MWPT's. The available well information should be recorded for the pumping well in a SWPT. The critical records for analysis of well yield and aquifer properties are the water levels during and shortly after the pumping period, and the discharge during the test. If a transducer/data logger is used, the

transducer pressure range, logger/channel number, setting depth, initial reading etc. should be recorded to allow processing of the transducer data.

5.1 Required Measurements

The necessary measurements during a SWPT include: static water level, pumping start and stop times, water level changes, and discharge rate. Other relevant information that should be recorded includes: weather conditions during the testing, condition of the well, location and type of discharge, and methods of measurement. If the test duration is more than 12 hours and the stress rate is relatively low, it may also be informative to record barometric pressure changes during the test.

5.1.1 Water Level Measurement

The water level in the well should be monitored/recorded prior to, during, and immediately after the pump test. Acceptable methods for water level measurement are electrical continuity-based sounder (E-Tape), submersible transducer, or air line system. The E-Tape and submersible transducer are the preferred methods as they generally have much better resolution and accuracy than an air line system. Air line systems with precision pressure transducers or gauges can be used if the accuracy of the instrumentation is acceptable. Sonic or acoustic water level measurement devices should only be used if it can be demonstrated that the accuracy under the testing conditions is acceptable.

The preferred method of E-Tape or transducer operation is within a drawdown tube to isolate the water level measurement device(s) from cascading water or water surface disturbances. E-Tapes should be marked or be readable to the nearest 0.01 feet. If there is not a clearly marked measuring point on the well, the location where the measurement was taken should be recorded and the same measuring point should be used throughout the test. If a transducer is used to monitor the water level, the resolution of the transducer should be no greater than 2% of the total anticipated drawdown in the well.

The required frequency of water level measurements in the pumping well of a SWPT is subject to adjustment during testing. If the person(s) conducting the test are evaluating the drawdown while conducting the test, the frequency of measurements can be adjusted to produce sufficient measurements to allow analysis by the proposed methods. If the aquifer is unconfined, the early measurements may be important for accurate interpretation of transmissivity. In contrast, the analysis of transmissivity for a confined aquifer usually relies on measurements taken a few minutes or more after the pump start. If a transducer/data logger is used to monitor water level with a constant frequency, the frequency of readings should reflect the anticipated test duration and test conditions. Frequencies as high as once per minute can be used for short duration tests, while recording intervals of every 5, 15 or 20 minutes may be adequate for longer duration tests. Table 1 presents guidelines for frequency of water level measurements. These frequencies can be adjusted during the test by the operator if warranted.

Table 1. Guidelines for Water Level Measurement Frequency

Unconfined Aquifer		Confined Aquifer	
Time since Pump Start	**Measurement Frequency**	**Time since Pump Start**	**Measurement Frequency**
0 to 2 minutes	every 30 seconds	0 to 1 minutes	every 30 seconds
3 to 10 minutes	every minute	1 to 4 minutes	every minute
10 to 20 minutes	every 2 minutes	4 to 10 minutes	every 2 minutes
20 to 60 minutes	every 5 minutes	10 to 30 minutes	every 5 minutes
60 to 120 minutes	every 10 minutes	30 to 60 minutes	every 10 minutes
2 hours to 12 hours	every 30 minutes	1 hour to 2 hours	every 15 minutes
12 hours to 48 hours	every 4 hours	2 hours to 6 hours	every 30 minutes
after 48 hours	every 24 hours	6 hours to 12 hours	every 2 hours
		12 hours to 48 hours	every 4 hours
		after 48 hours	every 24 hours
Uniform Frequency	Variable depending on test	Uniform Frequency	Variable depending on test
with logger	conditions	with logger	conditions

If the data logger has the capability of variable water level measurement intervals, the programmed intervals can be adjusted to fit a logarithmic schedule that approximates the frequencies in Table 1. Higher frequency of measurement is acceptable.

The pump test log should include records for water levels, discharge rates, and other relevant information (see Attachment 1). There should be a date and time associated with water level and discharge rate measurements.

5.1.2 Transducer Water Level Measurement

If transducer/data loggers are used to record water level, the data recorded is subject to the type and manufacturer of the transducer. Transducers are available in a variety of configurations, but one of the more critical distinctions is whether the transducer is vented or non-vented. A vented transducer has a vent tube to allow equilibration of the reference pressure in the transducer with ambient atmospheric pressure. This allows the transducer to register a constant reading for a steady water level in a well under varying barometric pressure. The cable with a vent tube must be handled carefully to avoid pinching of the tube which can result in erroneous readings.

A non-vented transducer has a closed reference pressure and requires simultaneous measurement of barometric pressure in order to allow correction of the transducer readings for changes in barometric pressure. Individual manufacturers typically provide the companion barometric pressure instruments and incorporate the correction into operating software. For short-term tests of a few hours where changes in barometric pressure over the test period are small, it is not necessary to make this correction.

The format of data logger files is subject to the manufacturer's programming but should include, at a minimum, date and time of reading and a reading of depth of water over the transducer in known units. If a transducer/logger has provisions to input a setting depth, this feature can be utilized to provide direct output of water level. Post-processing of the data can also be used to convert the data to a usable format for analysis. Refer to the manufacturer's instructions for use of each transducer or logger.

The reading range of a transducer should correspond with the expected drawdown in the pumping well. If possible, the transducer range should be approximately 130% of the expected drawdown and the transducer should be set at a depth that is no more than 90% of the full transducer range. As an example, a transducer with a range of 100 feet can be set a depth of 190 feet in a well with a depth to water of 100 feet and a pump setting depth of 200 feet. If the expected magnitude of drawdown is small, the available transducer with the smallest range that is greater the expected drawdown should be used.

5.1.3 Discharge Rate Measurement

The discharge rate should be monitored throughout the test. Acceptable methods for monitoring discharge include: instantaneous flow meters, totalizing flow meters, and timed capture of a known volume or weight.

Manual reading or electronic recording flow meters are acceptable. There are no significant restrictions on the type of flow meters that can be used provided the level of performance is acceptable. The recommended criterion for selecting and sizing a flow meter is that the meter be capable of measuring discharge from the well to within +/-10% of the smallest anticipated discharge during the test. The flow meter should also have a measurement range from 50% to 200% of the anticipated pump test discharge from the well. The frequency of discharge readings should be: a minimum of three readings per test, a reading following each discharge adjustment, and a reading corresponding to each manual water level measurement after the first 12 hours of the test. In order to determine discharge rate with a totalizing meter that does not have an instantaneous rate reading, the operator can take paired totalizing meter readings separated by a few minutes in time. If the totalizing meter reading is in gallons, the difference between sequential readings should be divided by the number of minutes separating the readings to determine the discharge rate in gallons per minute (gpm).

Timed capture of a known volume or weight can be used to determine discharge rate. This method for directing the discharge into the measurement container should not appreciably change the discharge rate. If valve setting changes are used to redirect the flow, the potential for changing the rate should be carefully evaluated. Pressure gages or visual observation can be used to evaluate potential discharge rate changes when redirecting flow for rate measurement. The volume of the container should be large enough that it takes 10 seconds or more to fill the container to a measured volume at the maximum flow rate. An example calculation for a 5 gallon capture volume over 17 seconds is as follows: the measured volume of 5 gallons is divided by a capture time of 17 seconds, and this quantity is multiplied by 60 to convert the reading to units of gpm. The result of this computation is 17.6 gpm.

5.2 Design Discharge Rate

The planned discharge rate for a SWPT is usually subject to a variety of constraints that may include: existing pump capacity, maximum practical pump size or power requirements, allowable discharge conditions, sustainable well yields, etc. Within these constraints, a guideline objective is to pump at a rate which results in drawdown over the test duration that is a significant fraction of the available drawdown. The available drawdown is equal to the depth of water over the pump intake. With preliminary estimates of well yield or aquifer transmissivity from well development or other

testing, the planned discharge rate can be estimated using the Straight-Line method as described later in this document.

If a pump is installed or a portable pumping unit is used, the preferred pump setting is above or near the top of the screened interval to provide water flow past the pump motor. For wells where there is a large depth of water over the screened interval, the pump can be set at a depth that is slight greater than the maximum anticipated drawdown during the test. However, if the aquifer is unconfined or there is insufficient water depth above the screen, the pump should be set as deep as possible up to a few feet above the bottom of the well. If there are no other constraints for pump discharge sizing, a general guideline for desired pump capacity would be approximately 110% of the target discharge at a total dynamic head (tdh) corresponding to 80% of the available drawdown. This allows minor valve setting restriction to adjust the discharge without significant oversizing of the pump. However, this refined pump sizing requires substantial prior knowledge of the likely well yield and experience in pump selection and design. The more typical pump design would slightly oversize a pump using available estimates of well yield to allow operation at smaller rates if necessary.

If there is an existing pump in place or a portable pump unit with defined pump performance is used, the target drawdown over the test is a significant fraction of the available drawdown. However, the pump constraints may not allow testing to reach this objective. If the available pump is undersized, it should be operated at the maximum practical discharge. If the pump is grossly oversized and restricting the discharge to an acceptable rate could potentially damage the pump or discharge pipe, the pump should be operated at the minimum allowable rate and the test should be stopped when the water level is approaching the pump intake.

5.3 Pump Test Duration

The duration of a SWPT can be adjusted according to the requirements of the analysis and the aquifer conditions. If the test is primarily to determine local aquifer transmissivity for a monitoring well, relatively short test duration may be adequate. The water level data can be evaluated during the test to determine if it is adequate for the intended analysis, and the test continued as long as necessary to produce the required data. If the well will be utilized as a production well, the duration of the test should be extended to refine the estimates of long-term well yield. SWPT durations of 30 minutes to 48 hours may be warranted depending on proposed usage of the well and the ratio of demand rate to available well yield. For a planned production well where the discharge demand is only a small fraction of the potential well yield, a test duration of a few hours should be sufficient. Conversely, if the discharge demand is approaching the maximum well yield, the SWPT duration should be extended as long as possible to determine sustainable yield.

Other factors that may affect pump test duration are the presence of boundaries or the effects of stratification within the aquifer. If the presence of a boundary is suspected, the data should be reviewed periodically and preliminary plots developed to evaluate the drawdown response. A distinct inflection point in the semi-log plots described later in this document is usually considered indicative of a boundary influence.

5.4 Recovery Monitoring

Following the cessation of pumping, the water level will gradually recover and approach the static water level in the well. Continued monitoring of this water level recovery may allow additional

analysis of aquifer transmissivity by methods described later in this document. If the recovery data is be analyzed, the post pumping water level monitoring period should be at least as long as the pumping period. The frequency after the pump off time should generally correspond with the schedule listed in Table 1 with the substitution of pump off time for pump start time.

6. MULTI-WELL PUMP TESTS

The design criteria for a MWPT include selection and location of pumping well(s), selection and location of observation well(s), pumping rate, and pumping duration. In addition to evaluating the aquifer properties and yield of the pumping well, a MWPT allows a more regional evaluation of transmissivity, determination of aquifer storage properties, evaluation of aquifer continuity, and evaluation of potential communication with adjacent aquifers..

If the selection and location of the pumping well is not dictated by other concerns or constraints, the pumping well should be centrally located within the testing area. The optimal distribution of observation wells is in a radial pattern surrounding the pumping well, but there are usually other constraints that govern the selection and location of observation wells.

6.1 Well Selection

A variety of criteria are used in selecting both the pumping and observation wells. The pumping well should be selected to evaluate aquifer properties in the central area to be tested. Ideally, the pumping well should have sufficient yield to produce drawdown at selected observation well locations. The completion interval for the pumping well should also correspond with the desired testing interval. If the pumping well is partially penetrating, the correlation with completion intervals for observation wells should also be considered in well selection.

Observation wells can be selected to provide information about aquifer properties, heterogeneity of aquifer properties, continuity within the aquifer, communication with adjacent aquifers, or the influence of potential boundaries. For two observation wells completed within the same strata as the pumping wells, the preferred orientation of the observation wells is in an orthogonal configuration relative to the pumping well. This configuration generally provides the most refined estimates of directional transmissivity and/or distance to potential boundaries. Ideally, the observation wells should be located close enough to the pumping well to exhibit one foot or more of drawdown during the MWPT. The Theis equation described later in this document can be used to estimate the drawdown at observation wells for the planned pump test.

Observation wells completed in adjacent aquifers should be located as close as possible to the pumping well. This generally increases the likelihood that any vertical communication between aquifers will be revealed. An exception to this criterion occurs when there is faulting that can potentially connect adjacent aquifers across the fault. In this case, observation wells should be located across the fault and completed in intervals to evaluate potential communication across the fault.

Observation wells should also be located to evaluate potential boundaries. If a boundary may be present, the preferred observation well configuration would place a well on both the pumping well side and opposite side of the suspected boundary location.

6.2 Required Measurements

The necessary measurements for the pumping well in a MWPT include: static water level, pumping start and stop times, water level changes, and discharge rate. Other relevant information that should be recorded includes: weather conditions during the testing, condition of the well, location and type of discharge, and methods of measurement. For most MWPT's with a duration of more than 24 hours, it is necessary to record barometric pressure prior to, during, and after the pumping period in order to correct the data for barometric pressure fluctuations. The necessary measurements for observation wells include water levels prior to, during and after the pumping period. The pump test forms in Attachment 1 and Attachment 2 can be used for recording of water level data for the pumping well and observation wells, respectively.

6.2.1 Water Level Measurement

The acceptable methods of water level measurement for a MWPT are basically the same as those for a SWPT. The preferred method of water level measurement for observation wells is with a transducer with at least one reference measurement with an E-Tape. The range and resolution of transducers for observation wells should correspond with the anticipated drawdown in the well if possible. A general guideline for selecting transducers for observation wells is to use a transducer with a range that is approximately 150% of the expected drawdown. If the expected drawdown is much smaller than the pressure range of available transducers, the transducers with the smallest pressure range should be used. The transducers should generally be set at a depth below the water level that is approximately 90% of the transducer range unless there is a rising water level trend or recovery from a previous test.

The required frequency of water level measurements in the pumping well after the pump start of a MWPT is generally the same as that listed in Table 1 for a SWPT. The frequency of water level measurements in observation wells is dependent on several factors, including: distance to pumping well, correlation of completion intervals with the pumping well, and the presence of boundaries. The required water level measurement frequency for each observation well should be evaluated according to the preceding criteria. For observation wells located very close to (e.g. within 50 feet) and completed within the same strata as the pumping well, the measurement frequency after pump start should be similar to that of the pumping well. For more distant observation wells in the same strata as the pumping well, the interval between water level measurements can be increased in a manner that is generally proportional to the distance from the pumping well. A general guideline for uniform measurement intervals using transducers is 5 to 20 minutes depending on distance to the pumping well and the expected magnitude of drawdown in the observation well.

If the data logger has the capability of variable water level measurement intervals, the programmed intervals can be adjusted to fit a logarithmic schedule that approximates the frequencies in Table 1. Higher frequency of measurement is acceptable.

The pump test log should include records for water levels, discharge rates, and other relevant information (see Attachment 1). There should be a date and time associated with water level and discharge rate measurements.

6.2.2 Pretest data

For MWPT's where there will be observation wells at a significant distance from the pumping well and the expected duration is more than 24 hours, it is advisable to collect water level data prior to the pumping period. This data can be used to identify prior trends in the water levels and to correct water level data for barometric pressure influences. These corrections may be appropriate for observation wells where the expected magnitude of drawdown over the test is small. The appropriate length of the pretest period depends primarily on the expected magnitude of drawdown in the most distant well and the existence of significant trends. Pretest periods of one (1) or more days are desirable if the drawdown response in distant observation wells will potentially be obscured by barometric or prior trend influences. In order to correct the water level data for barometric pressure influences, the barometric pressure must be recorded throughout the pretest period. The transducer water level measurement interval during the pretest period can typically be 15 minutes or more. The barometric pressure should be recorded hourly or more frequently during the pretest, pumping and recovery period.

6.2.3 Discharge Rate Measurement

The discharge rate measurement criteria and methods for a MWPT are essentially the same as those for a SWPT. The duration of a MWPT is typically longer than a SWPT so discharge measurements should be distributed throughout the pumping period. Acceptable methods for discharge measurement are the same as those for a SWPT.

6.3 Design Discharge Rate

The criteria for selecting target discharge rate for a MWPT are basically the same as those SWPT. Ideally, the planned discharge rate would produce drawdown in the pumping well over the test duration that is a significant fraction of available drawdown. Like a SWPT, the range of available discharge rates may be subject to numerous constraints. The available drawdown is again defined as the depth of water over the pump intake. With preliminary estimates of well yield or aquifer transmissivity from well development or other testing, the planned discharge rate can be estimated using the Straight-Line method as described later in this document.

If a pump is installed or a portable pumping unit is used, the preferred pump setting is above or near the top of the screened interval to provide water flow past the pump motor. For wells where there is a large depth of water over the screened interval, the pump can be set at a depth that is slight greater than the maximum anticipated pumping well drawdown during the test. However, if the aquifer is unconfined or there is insufficient water depth above the screen, the pump should be set as deep as possible up to a few feet above the bottom of the well. If there are no other constraints for pump discharge sizing, a general guideline for desired pump capacity would be approximately 110% of the target discharge at a total dynamic head (tdh) corresponding to 80% of the available drawdown. This allows minor valve setting restriction to adjust the discharge without significant oversizing of the pump. However, this refined pump sizing requires substantial prior knowledge of the likely well yield and experience in pump selection and design. The more typical pump design would slightly

oversize a pump using available estimates of well yield to allow operation at smaller rates if necessary.

If there is an existing pump in place or a portable pump unit with defined pump performance is used, the target drawdown in the pumping well over the test is a significant fraction of the available drawdown. However, the pump constraints may not allow testing to reach this objective. If the available pump is undersized, it should be operated at the maximum practical discharge. If the pump is grossly oversized and restricting the discharge to an acceptable rate could potentially damage the pump or discharge pipe, the pump should be operated at the minimum allowable rate and the test should be stopped when the water level is approaching the pump intake.

6.4 Pump Test Duration

The duration of a MWPT is dependent primarily on the location and completion intervals for the available observation wells. For a pumping well with an adjacent observation well, acceptable test duration can plausibly be as short as an hour. A typical pumping duration for an ISR well field MWPT with observation wells at a distance of 500 or more feet from the pumping well is 72 hours or more. With most MWPT's, it is necessary to evaluate data during the test to determine if the drawdown response in the observation wells is adequate for the intended analysis. The magnitude of drawdown in observation wells where analytical techniques will be used to evaluate transmissivity and storage properties should be large enough that it is clearly distinguishable from natural fluctuations in water level. Regulatory testing requirements may also mandate a minimum magnitude of drawdown in specific observation wells. If necessary, the pumping period can be extended to increase drawdown at observation wells. For distant observation wells, the drawdown response will be lagged from that in wells closer to the pumping well, and the drawdown will generally continue for some period after the pumping is stopped.

6.5 Recovery Monitoring

Following the cessation of pumping, the water level in the pumping well and responsive observation wells will gradually recover and approach the static water level in the well. Continued monitoring of this water level recovery will allow additional analysis of aquifer transmissivity and storage properties by methods described later in this document. For typical analysis of recovery data, the post pumping water level monitoring period should be at least as long as the pumping period. In general, the frequency of transducer water level measurements for the recovery monitoring can be continued from the pumping period.

7. PUMP TEST ANALYSIS

The analysis of pump test data will be according to established and documented methods. The principle methods of analysis are the Straight-Line method, the Theis method, the Theis recovery method (see Ferris et al., 1962), and Hantush's Modified Method (Hantush, 1960). These methods are described within this section. More sophisticated methods will be used to evaluate aquifer properties under unconfined conditions, to correct for aquifer thinning, to correct for partial penetration, to analyze aquitard vertical permeability, and to evaluate the location of boundaries through image well analysis. Additionally, modified versions of the Theis method and the Straight-

Line method can be used for MWPT's with multiple pumping wells. For MWPT's with suitable observation well locations and completions, directional transmissivity of the aquifer may be evaluated using a method described by Papadopulos (1965).

7.1 Theis Equation

Theis, in 1935, introduced his equation to determine drawdowns in a non-leaky, confined aquifer. The following is a general definition of the Theis equation:

$$T = \frac{114.6Q\ W(u)}{s}$$

$$u = \frac{2693r^2S}{Tt}$$

where: s = drawdown, in feet
Q = discharge, in gallons per minute (gpm)
W(u) = well function, the integral from u to infinity of $(e^{-u})/u\ du$
T = Transmissivity
u = well function variable
r = observation well radius from pumping well, in feet
S = storage coefficient
and t = time since pumping started, in minutes

Pump test data are analyzed by matching the log-log plot of drawdown versus time to Theis' type curve [W(u) vs. 1/u] and applying the above equations to the match. Pages 92-98 of Ferris and others (1962) present a more thorough discussion of the Theis equation.

The value of the integral expression for W(u) is given by the following series:

$$W(u) = -0.577216 - \ln u + u - \frac{u^2}{2.2!} + \frac{u^3}{3.3!} \ldots$$

where all terms are as previously defined.

Theis' method is typically used for observation wells in a MWPT. Although the bore hole radius can be used as in input for the pumping well in a SWPT, the method is overly sensitive for a small radius and the resulting transmissivity and storage coefficient are of questionable utility for a pumping well. Theis' equation can also be used to estimate drawdown for the purposes of pump test design with preliminary estimates of transmissivity and storage coefficient.

7.2 Straight-Line (Jacob) Equation

Jacob (1944) developed a simplified form of Theis' drawdown equation by truncating the well function series after the first two terms. Assuming the truncation, the following equations were developed to analyze drawdown versus time data on semi-log plots and is called the straight-line or Jacob equation:

$$T = 264\ Q[\log (t_2/t_1)]/(s_2-s_1)$$

$$T = 264\ Q/\Delta s$$

$$S = T\ t_o/4800r^2$$

s_1 = drawdown, in feet, at time since pumping started, t_1, in minutes
s_2 = drawdown, in feet, at time since pumping started, t_2, in minutes

and $t_2 > t_1$
Δs = change in drawdown over one log cycle of time on a semi-log plot, in feet
S = storage coefficient
t_o = straight-line intercept of zero drawdown, in minutes
r = radius of well, in feet

A straight line is fitted to the semi-log plot of drawdown versus time (log scale) to obtain transmissivity. Jacob suggested the u values less than 0.01 are needed before his straight-line method is useful. However, a plot of W(u) versus 1/u on semi-log paper indicates that this method should be applicable for values of u as large as 0.1. Kruseman and de Rider (1991) suggest the use of a u of less than 0.1 to meet the Jacob condition. Pages 98-100 of Ferris and others (1962) may be consulted for additional information on Jacob's method.

7.3 Theis Recovery Equation

Theis' equation can be modified to handle recharge of a well or multiple pumping periods by summation of the well functions. The following equation is the solution of Theis' equation for one pumping and recharge cycle (Recovery equation) of a non-leaky confined aquifer using a log-log match format:

$$T = 114.6\ Q\ [W(u) - W(u')]s'$$
$$u' = 2693\ r^2\ S/Tt'$$
$$T = 114.6\ Q\ [W(u) - W(u) + W(u')]\ sr$$
$$= 114.6\ Q\ W(u')/sr$$
$$s_r = s - s'$$

where: s_r = recovery, in feet
s' = residual drawdown (static water level – water level @ t'), in feet
W(u') = recovery well function

u' = recovery well function variable
t' = time since pumping stopped, in minutes

The recovery data sets are analyzed by matching the log-log plot of the recovery versus time since pumping stopped to Theis' type curve. The type curve variables are W(u') and 1/u' for the recovery match. The recovery is computed by estimating the drawdown which would have occurred if pumping had continued, and subtracting this predicted drawdown from the residual drawdown. For example, the recovery at 100 minutes after pumping has stopped is computed by estimating the drawdown had the pumping continued uninterrupted, and subtracting the estimated drawdown from the residual drawdown. The straight-line fit of the drawdown is normally extended to obtain these estimates of drawdown.

The well functions of the residual-drawdown form of Theis' equation were approximated by using the first two terms in the well function series. The following equations present the semi-log form of the Theis recovery equation:

$$T = 264\ Q\ [\log (t/t')]/s'$$

Or

$$T = 264\ Q/\Delta s'$$

where: t = time since pumping started, in minutes
t' = time since pumping stopped, in minutes
s' = residual drawdown, in feet
and $\Delta s'$ = change in residual drawdown over one log cycle of t/t' on a semi-log plot, in feet

Therefore, when residual drawdown is plotted on an arithmetic scale versus t/t' on a logarithmic scale, the above equation can be used for the straight-line fit (see Ferris, et.al, 1962, pages 100 through 102).

7.4 Hantush's Modified Method

Hantush (1960) presents a modification of the theory of leaky confined aquifers which had previously been described by Hantush and Jacob (1955). The modification took into account the storage of water in the semipervious confining bed. Equations developed are as follows:

$$T = \frac{114.6Q}{s} H(u, BETA)$$

where: H(u, BETA) = the integral from u to infinity of (e^-y)/y
[complementary error of the function of
(BETA/Square Root U) / Square Root (y(y-u))]dy

u = [(2693)r^2(S)]/Tt

And BETA = r/4b Square Root (K' Ss' / K Ss)

The main parameters are as follows:

	T	= transmissivity, gal/day/ft.
	Q	= discharge, gpm
	s	= drawdown, ft.
	y	= variable of integration
	r	= radius, ft.
	S	= storage coefficient
	t	= time, min.
	b	= aquifer thickness, ft.
	K	= aquifer permeability, ft/day
	K'	= confining layer permeability, ft/day
	Ss	= aquifer specific storage, 1/ft.
and	Ss'	= confining layer specific storage, 1/ft.

This form of the beta equation assumes all leakage is coming from only one of the two confining layers. Hantush (1961) presented tabulations of H(u, BETA) for varying values of u and BETA, and subsequently, a family of type curves showing H(u, BETA) vs. 1/u has been developed. Main aquifer properties can be determined by matching plots of observed drawdown versus time data to one of Hantush's type curves and using the equations presented above. The specific storage of the confining layer can be determined from laboratory measurements of the coefficient of compressibility and void ratio on a core of the aquitard, or estimated from the specific storage of the aquifer if the laboratory measurements are not available.

7.5 Directional Transmissivity

Directional transmissivity of the aquifer was quantified using a method described by Papadopulos (1965). Papadopulos derived an equation for the drawdown distribution around a well discharging at a constant rate from an infinite horizontal anisotropic aquifer. Aquifer-test data from a minimum of three observation wells are analyzed to obtain principal transmissivities and the orientation of the principal axes.

The equations derived by Papadopulos for use in a type-curve matching technique are as follows:

$$s = \frac{114.6Q\,W(Uxy)}{\left[(Txx)(Tyy) - Txy^2\right]^{1/2}}$$

and

$$Uxy = \frac{(1.87S)}{(t)} \frac{\left[(Txx)(y^2) + (Tyy)(x^2) - (2Txy)(x)(y)\right]}{\left[(Txx)(Tyy) - Txy^2\right]}$$

Where: s = drawdown, in feet
Q = discharge, in gpm
W(Uxy) = well function
Txx, Tyy & Txy = transmissivity components, in gal/day/ft

Uxy = well function variable
S = storage coefficient
t = elapsed time, in days
x = distance from pumping well of observation well along arbitrarily selected x-axis, in feet
and y = distance from pumping well of observation well along arbitrarily selected y-axis (orthogonal to x-axis), in feet

For each of the three wells analyzed, observed drawdown data are matched against type curves to determine values of s, t, W(Uxy) and U(xy). Three equations with three unknowns are then solved simultaneously to determine the transmissivity components Txx, Tyy and Txy. Then principal transmissivities, Tee and Tnn, are calculated from the following equations:

$$Tee = \frac{1}{2}\left[(Txx + Tyy) + (Txx - Tyy)^2 + 4Txy^2\right]$$

and

$$Tnn = \frac{1}{2}\left[(Txx + Tyy)^2 + 4Txy^2\right]$$

where: Tee = maximum transmissivity
Tnn = minimum transmissivity

The angle between the arbitrarily selected x-axis and the axis of maximum transmissivity (θ) is then determined by the following equation:

$$\theta = \arctan(Tee - Txx)/Txy$$

8. SUMMARY

The preceding discussion of pumping test procedures and analysis provides guidelines for planning and conducting SWPT's and MWPT's. These guidelines must be adapted to the circumstances of the planned testing.

9. REFERENCES

EPA, 1993, Suggested Operating Procedures for Aquifer Pumping Tests, United States Environmental Protection Agency, EPA/540/S-93/503

Ferris, J.G., D.B. Knowles, R.H. Brown, and R.W. Stallman, 1962, Theory of Aquifer Tests, U.S. Geological Survey, Water-Supply Paper 1536-E.

Hantush, M.S., and C.E. Jacob, 1955, Nonsteady radial flow in an infinite leaky aquifer: Am. Geophys. Union Trans., V. 36, No. 1, p. 95-100.

Hantush, M.S., 1960, Modification of the theory of leaky aquifers: Jour. Geophys. Research, V. 65, No. 11, p. 3713-3725.

Hantush, M.S., 1961, Tables of the Function H (u, BETA): New Mexico Inst. Mining and Technology, Prof. Paper 103, 14p.

Jacob, C.E., 1944, Notes on determining permeability of pumping tests under water-table conditions, U.S. Geol. Survey, open-file report.

Kruseman, G.P. and N.A. de Rider, 1991, Analysis and Evaluation of Pumping Test Data, Publication 47, International Institute for Land Reclamation and Improvement, The Netherlands.

Papadopulos, I.S., 1965, Nonsteady flow to a well in an infinite anisotropic aquifer, International Association of Scientific Hydrology, Symposium of Dubrovnik.

U. S. Geological Survey, 2002, Documentation of Spreadsheets for the Analysis of Aquifer-Test and Slug-Test Data, Open-File Report 02-197.

Attachment 1. Example Pumping Well Pump Test Form

PUMP TEST FORM

				Project	
Pumping Well		Total Depth		Page	
Obs Well		MPE		Date	
Obs Well		Stick Up		Bar. Press (Y or N)	
Obs Well		Pump Setting		Bar. Press. File	
Obs Well		S.W.L		Transducer (Y or N)	
Obs Well		Pump Start Date		Transducer Range	
Obs Well		Pump Start Time		Logger No.	
Obs Well		Pump Stop Date		Logger Channel	
Obs Well		Pump Stop Time		Ini. Trans. Reading	

Date	Time	DTW	Discharge Rate	pH	Temp	Conductivity	Comment

Attachment 2. Example Observation Well Pump Test Form

OBSERVATION WELL TEST FORM

				Project	______
Well Name	______	Pumping Well	______	Page	______
Total Depth	______	Pump Start Date	______	Transducer (Y or N)	______
MPE	______	Pump Start Time	______	Transducer Range	______
Stick Up	______	Pump Stop Date	______	Logger No.	______
S.W.L	______	Pump Stop Time	______	Logger Channel	______
				Ini. Trans. Reading	______

Comments:

Date	Time	DTW	Comment	Date	Time	DTW	Comment

ADDENDUM D6L:

URANIUM DATA SUBMISSION SPREADSHEETS

November 2007

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Nichols Ranch	20-9	11/16/06	FIELD PH	8.34	EPA 150.1	
Nichols Ranch	20-9	11/16/06	FIELD SP	503	SM 2510 B	
Nichols Ranch	20-9	11/16/06	FIELD WATER TEMP	12.4	Field Temperature	
Nichols Ranch	20-9	05/18/07	FIELD PH	8.66	EPA 150.1	
Nichols Ranch	20-9	05/18/07	FIELD SP	505	SM 2510 B	
Nichols Ranch	20-9	05/18/07	FIELD WATER TEMP	13.4	Field Temperature	
Nichols Ranch	Calving # 1	03/20/07	FIELD PH		EPA 150.1	
Nichols Ranch	Calving # 1	03/20/07	FIELD SP		SM 2510 B	
Nichols Ranch	Calving # 1	03/20/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	Calving # 1	08/22/07	FIELD PH	8.12	EPA 150.1	
Nichols Ranch	Calving # 1	08/22/07	FIELD SP	501	SM 2510 B	
Nichols Ranch	Calving # 1	08/22/07	FIELD WATER TEMP	19.8	Field Temperature	
Nichols Ranch	DW-4L	09/07/06	FIELD PH	8.57	EPA 150.1	
Nichols Ranch	DW-4L	09/07/06	FIELD SP	575	SM 2510 B	
Nichols Ranch	DW-4L	09/07/06	FIELD WATER TEMP	16.4	Field Temperature	
Nichols Ranch	DW-4L	12/20/06	FIELD PH	8.54	EPA 150.1	
Nichols Ranch	DW-4L	12/20/06	FIELD SP	614	SM 2510 B	
Nichols Ranch	DW-4L	12/20/06	FIELD WATER TEMP	14.5	Field Temperature	
Nichols Ranch	DW-4L	05/17/07	FIELD PH	8.88	EPA 150.1	
Nichols Ranch	DW-4L	05/17/07	FIELD SP	619	SM 2510 B	
Nichols Ranch	DW-4L	05/17/07	FIELD WATER TEMP	16.4	Field Temperature	
Nichols Ranch	DW-4M	12/20/06	FIELD PH	8.1	EPA 150.1	
Nichols Ranch	DW-4M	12/20/06	FIELD SP	933	SM 2510 B	
Nichols Ranch	DW-4M	12/20/06	FIELD WATER TEMP	10.9	Field Temperature	
Nichols Ranch	DW-4M	05/18/07	FIELD PH	8.34	EPA 150.1	
Nichols Ranch	DW-4M	05/18/07	FIELD SP	1005	SM 2510 B	
Nichols Ranch	DW-4M	05/18/07	FIELD WATER TEMP	14.7	Field Temperature	
Nichols Ranch	DW-4U	12/21/06	FIELD PH	7.41	EPA 150.1	
Nichols Ranch	DW-4U	12/21/06	FIELD SP	1483	SM 2510 B	
Nichols Ranch	DW-4U	12/21/06	FIELD WATER TEMP	11.9	Field Temperature	
Nichols Ranch	DW-4U	05/14/07	FIELD PH	7	EPA 150.1	
Nichols Ranch	DW-4U	05/14/07	FIELD SP	1291	SM 2510 B	
Nichols Ranch	DW-4U	05/14/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	DW-4U	05/17/07	FIELD PH	7.78	EPA 150.1	
Nichols Ranch	DW-4U	05/17/07	FIELD SP	1484	SM 2510 B	
Nichols Ranch	DW-4U	05/17/07	FIELD WATER TEMP	12.3	Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Nichols Ranch	GARDEN	08/22/07	FIELD PH	8.65	EPA 150.1	
Nichols Ranch	GARDEN	08/22/07	FIELD SP	601	SM 2510 B	
Nichols Ranch	GARDEN	08/22/07	FIELD WATER TEMP	14.1	Field Temperature	
Nichols Ranch	MN-1	12/14/06	FIELD PH	8.68	EPA 150.1	
Nichols Ranch	MN-1	12/14/06	FIELD SP	512	SM 2510 B	
Nichols Ranch	MN-1	12/14/06	FIELD WATER TEMP	14.1	Field Temperature	
Nichols Ranch	MN-1	05/02/07	FIELD PH	7.26	EPA 150.1	
Nichols Ranch	MN-1	05/02/07	FIELD SP	517	SM 2510 B	
Nichols Ranch	MN-1	05/02/07	FIELD WATER TEMP	15.6	Field Temperature	
Nichols Ranch	MN-1	07/13/07	FIELD PH	8.41	EPA 150.1	
Nichols Ranch	MN-1	07/13/07	FIELD SP	508	SM 2510 B	
Nichols Ranch	MN-1	07/13/07	FIELD WATER TEMP	17.7	Field Temperature	
Nichols Ranch	MN-2	12/14/06	FIELD PH	8.45	EPA 150.1	
Nichols Ranch	MN-2	12/14/06	FIELD SP	554	SM 2510 B	
Nichols Ranch	MN-2	12/14/06	FIELD WATER TEMP	13.6	Field Temperature	
Nichols Ranch	MN-2	04/18/07	FIELD PH	7.56	EPA 150.1	
Nichols Ranch	MN-2	04/18/07	FIELD SP	569	SM 2510 B	
Nichols Ranch	MN-2	04/18/07	FIELD WATER TEMP	14.8	Field Temperature	
Nichols Ranch	MN-2	06/29/07	FIELD PH	8.25	EPA 150.1	
Nichols Ranch	MN-2	06/29/07	FIELD SP	534	SM 2510 B	
Nichols Ranch	MN-2	06/29/07	FIELD WATER TEMP	17.1	Field Temperature	
Nichols Ranch	MN-2	09/10/07	FIELD PH	8.77	EPA 150.1	
Nichols Ranch	MN-2	09/10/07	FIELD SP	583	SM 2510 B	
Nichols Ranch	MN-2	09/10/07	FIELD WATER TEMP	14.7	Field Temperature	
Nichols Ranch	MN-2	09/10/07	FIELD PH	8.77	EPA 150.1	
Nichols Ranch	MN-2	09/10/07	FIELD SP	583	SM 2510 B	
Nichols Ranch	MN-2	09/10/07	FIELD WATER TEMP	14.7	Field Temperature	
Nichols Ranch	MN-3	12/14/06	FIELD PH	8.25	EPA 150.1	
Nichols Ranch	MN-3	12/14/06	FIELD SP	595	SM 2510 B	
Nichols Ranch	MN-3	12/14/06	FIELD WATER TEMP	13.7	Field Temperature	
Nichols Ranch	MN-3	01/25/07	FIELD PH	8.26	EPA 150.1	
Nichols Ranch	MN-3	01/25/07	FIELD SP	560	SM 2510 B	
Nichols Ranch	MN-3	01/25/07	FIELD WATER TEMP	13.8	Field Temperature	
Nichols Ranch	MN-3	04/18/07	FIELD PH	8.23	EPA 150.1	
Nichols Ranch	MN-3	04/18/07	FIELD SP	583	SM 2510 B	
Nichols Ranch	MN-3	04/18/07	FIELD WATER TEMP		Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Nichols Ranch	MN-3	08/07/07	FIELD PH	8.26	EPA 150.1	
Nichols Ranch	MN-3	08/07/07	FIELD SP	583	SM 2510 B	
Nichols Ranch	MN-3	08/07/07	FIELD WATER TEMP	16.7	Field Temperature	
Nichols Ranch	MN-4	12/14/06	FIELD PH	8.48	EPA 150.1	
Nichols Ranch	MN-4	12/14/06	FIELD SP	565	SM 2510 B	
Nichols Ranch	MN-4	12/14/06	FIELD WATER TEMP	14.9	Field Temperature	
Nichols Ranch	MN-4	01/25/07	FIELD PH	8.41	EPA 150.1	
Nichols Ranch	MN-4	01/25/07	FIELD SP	541	SM 2510 B	
Nichols Ranch	MN-4	01/25/07	FIELD WATER TEMP	14	Field Temperature	
Nichols Ranch	MN-4	04/18/07	FIELD PH	7.61	EPA 150.1	
Nichols Ranch	MN-4	04/18/07	FIELD SP	568	SM 2510 B	
Nichols Ranch	MN-4	04/18/07	FIELD WATER TEMP	14.9	Field Temperature	
Nichols Ranch	MN-4	07/10/07	FIELD PH	8.2	EPA 150.1	
Nichols Ranch	MN-4	07/10/07	FIELD SP	559	SM 2510 B	
Nichols Ranch	MN-4	07/10/07	FIELD WATER TEMP	17	Field Temperature	
Nichols Ranch	MN-5	04/18/07	FIELD PH	8.39	EPA 150.1	
Nichols Ranch	MN-5	04/18/07	FIELD SP	554	SM 2510 B	
Nichols Ranch	MN-5	04/18/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	MN-5	05/30/07	FIELD PH	8.2	EPA 150.1	
Nichols Ranch	MN-5	05/30/07	FIELD SP	512	SM 2510 B	
Nichols Ranch	MN-5	05/30/07	FIELD WATER TEMP	14.9	Field Temperature	
Nichols Ranch	MN-5	08/07/07	FIELD PH	8.27	EPA 150.1	
Nichols Ranch	MN-5	08/07/07	FIELD SP	535	SM 2510 B	
Nichols Ranch	MN-5	08/07/07	FIELD WATER TEMP	16.2	Field Temperature	
Nichols Ranch	MN-6	03/23/07	FIELD PH	8.31	EPA 150.1	
Nichols Ranch	MN-6	03/23/07	FIELD SP	507	SM 2510 B	
Nichols Ranch	MN-6	03/23/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	N-1 11894	11/16/06	FIELD PH	8.68	EPA 150.1	
Nichols Ranch	N-1 11894	11/16/06	FIELD SP	502	SM 2510 B	
Nichols Ranch	N-1 11894	11/16/06	FIELD WATER TEMP	11.1	Field Temperature	
Nichols Ranch	N-1 11894	05/18/07	FIELD PH	8.78	EPA 150.1	
Nichols Ranch	N-1 11894	05/18/07	FIELD SP	505	SM 2510 B	
Nichols Ranch	N-1 11894	05/18/07	FIELD WATER TEMP	12.5	Field Temperature	
Nichols Ranch	URZN1-2	12/20/06	FIELD PH	8.78	EPA 150.1	
Nichols Ranch	URZN1-2	12/20/06	FIELD SP	421	SM 2510 B	
Nichols Ranch	URZN1-2	12/20/06	FIELD WATER TEMP	14.1	Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Nichols Ranch	URZN1-2	03/23/07	FIELD PH	8.99	EPA 150.1	
Nichols Ranch	URZN1-2	03/23/07	FIELD SP	417	SM 2510 B	
Nichols Ranch	URZN1-2	03/23/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	URZN1-2	06/04/07	FIELD PH	8.82	EPA 150.1	
Nichols Ranch	URZN1-2	06/04/07	FIELD SP	409	SM 2510 B	
Nichols Ranch	URZN1-2	06/04/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	URZN1-2	08/29/07	FIELD PH	9.15	EPA 150.1	
Nichols Ranch	URZN1-2	08/29/07	FIELD SP	417	SM 2510 B	
Nichols Ranch	URZN1-2	08/29/07	FIELD WATER TEMP	16.3	Field Temperature	
Nichols Ranch	URZNB-1	12/22/07	FIELD PH	9.14	EPA 150.1	
Nichols Ranch	URZNB-1	12/22/07	FIELD SP	541	SM 2510 B	
Nichols Ranch	URZNB-1	12/22/07	FIELD WATER TEMP	13.4	Field Temperature	
Nichols Ranch	URZNB-1	03/21/07	FIELD PH	9.43	EPA 150.1	
Nichols Ranch	URZNB-1	03/21/07	FIELD SP	535	SM 2510 B	
Nichols Ranch	URZNB-1	03/21/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	URZNB-1	05/30/07	FIELD PH	9.51	EPA 150.1	
Nichols Ranch	URZNB-1	05/30/07	FIELD SP	549	SM 2510 B	
Nichols Ranch	URZNB-1	05/30/07	FIELD WATER TEMP		Field Temperature	
Nichols Ranch	URZNB-1	08/07/07	FIELD PH	9.62	EPA 150.1	
Nichols Ranch	URZNB-1	08/07/07	FIELD SP	548	SM 2510 B	
Nichols Ranch	URZNB-1	08/07/07	FIELD WATER TEMP	15.8	Field Temperature	
Nichols Ranch	URZNF-3	09/10/07	FIELD PH	8.36	EPA 150.1	
Nichols Ranch	URZNF-3	09/10/07	FIELD SP	1716	SM 2510 B	
Nichols Ranch	URZNF-3	09/10/07	FIELD WATER TEMP	13.7	Field Temperature	
Nichols Ranch	URZNQ-4	12/17/07	FIELD PH	6.95	EPA 150.1	
Nichols Ranch	URZNQ-4	12/17/07	FIELD SP	2710	SM 2510 B	
Nichols Ranch	URZNQ-4	12/17/07	FIELD WATER TEMP	10.7	Field Temperature	
Nichols Ranch	W. of WW1	03/15/07	FIELD PH	7.46	EPA 150.1	
Nichols Ranch	W. of WW1	03/15/07	FIELD SP	1239	SM 2510 B	
Nichols Ranch	W. of WW1	03/15/07	FIELD WATER TEMP	12.9	Field Temperature	
Nichols Ranch	W. of WW1	06/06/07	FIELD PH	7.64	EPA 150.1	
Nichols Ranch	W. of WW1	06/06/07	FIELD SP	1282	SM 2510 B	
Nichols Ranch	W. of WW1	06/06/07	FIELD WATER TEMP	13	Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Hank	BR-B	11/09/06	FIELD PH	7.52	EPA 150.1	
Hank	BR-B	11/09/06	FIELD COND.	1391	SM 2510 B	
Hank	BR-B	11/09/06	FIELD WATER TEMP	10.8	Field Temperature	
Hank	BR-B	01/24/07	FIELD PH	7.36	EPA 150.1	
Hank	BR-B	01/24/07	FIELD COND.	1348	SM 2510 B	
Hank	BR-B	01/24/07	FIELD WATER TEMP	11.2	Field Temperature	
Hank	BR-B	04/25/07	FIELD PH	6.89	EPA 150.1	
Hank	BR-B	04/25/07	FIELD COND.	1422	SM 2510 B	
Hank	BR-B	04/25/07	FIELD WATER TEMP	11.6	Field Temperature	
Hank	BR-F	11/28/06	FIELD PH	9.24	EPA 150.1	
Hank	BR-F	11/28/06	FIELD COND.	451	SM 2510 B	
Hank	BR-F	11/28/06	FIELD WATER TEMP	10.3	Field Temperature	
Hank	BR-F	01/25/07	FIELD PH	10.24	EPA 150.1	
Hank	BR-F	01/25/07	FIELD COND.	414	SM 2510 B	
Hank	BR-F	01/25/07	FIELD WATER TEMP	11.6	Field Temperature	
Hank	BR-F	05/16/07	FIELD PH	8.86	EPA 150.1	
Hank	BR-F	05/16/07	FIELD COND.	465	SM 2510 B	
Hank	BR-F	05/16/07	FIELD WATER TEMP		Field Temperature	
Hank	BR-G	12/19/06	FIELD PH	7.37	EPA 150.1	
Hank	BR-G	12/19/06	FIELD COND.	2400	SM 2510 B	
Hank	BR-G	12/19/06	FIELD WATER TEMP	12.1	Field Temperature	
Hank	BR-G	02/27/07	FIELD PH	7.75	EPA 150.1	
Hank	BR-G	02/27/07	FIELD COND.	2440	SM 2510 B	
Hank	BR-G	02/27/07	FIELD WATER TEMP	13	Field Temperature	
Hank	BR-G	05/16/07	FIELD PH	7.6	EPA 150.1	
Hank	BR-G	05/16/07	FIELD COND.	2390	SM 2510 B	
Hank	BR-G	05/16/07	FIELD WATER TEMP	13.4	Field Temperature	
Hank	BR-H	11/21/06	FIELD PH	7.98	EPA 150.1	
Hank	BR-H	11/21/06	FIELD COND.	1098	SM 2510 B	
Hank	BR-H	11/21/06	FIELD WATER TEMP	12.6	Field Temperature	
Hank	BR-H	01/24/07	FIELD PH	7.94	EPA 150.1	
Hank	BR-H	01/24/07	FIELD COND.	1006	SM 2510 B	
Hank	BR-H	01/24/07	FIELD WATER TEMP	14.8	Field Temperature	
Hank	BR-H	04/25/07	FIELD PH	7.06	EPA 150.1	
Hank	BR-H	04/25/07	FIELD COND.	1886	SM 2510 B	
Hank	BR-H	04/25/07	FIELD WATER TEMP	12.5	Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Hank	Brown # 5	09/05/07	FIELD PH	7.93	EPA 150.1	
Hank	Brown # 5	09/05/07	FIELD COND.	1380	SM 2510 B	
Hank	Brown # 5	09/05/07	FIELD WATER TEMP	13.9	Field Temperature	
Hank	Brown WS	09/07/06	FIELD PH	7.77	EPA 150.1	
Hank	Brown WS	09/07/06	FIELD COND.	1023	SM 2510 B	
Hank	Brown WS	09/07/06	FIELD WATER TEMP	13.8	Field Temperature	
Hank	Brown WS	12/06/06	FIELD PH	7.8	EPA 150.1	
Hank	Brown WS	12/06/06	FIELD COND.	1160	SM 2510 B	
Hank	Brown WS	12/06/06	FIELD WATER TEMP	11.7	Field Temperature	
Hank	Brown WS	02/21/07	FIELD PH	8.46	EPA 150.1	
Hank	Brown WS	02/21/07	FIELD COND.	1119	SM 2510 B	
Hank	Brown WS	02/21/07	FIELD WATER TEMP	11.6	Field Temperature	
Hank	Brown WS	05/16/07	FIELD PH	8.37	EPA 150.1	
Hank	Brown WS	05/16/07	FIELD COND.	1174	SM 2510 B	
Hank	Brown WS	05/16/07	FIELD WATER TEMP	12.6	Field Temperature	
Hank	BR-Q	12/19/06	FIELD PH	8.1	EPA 150.1	
Hank	BR-Q	12/19/06	FIELD COND.	1351	SM 2510 B	
Hank	BR-Q	12/19/06	FIELD WATER TEMP	13.6	Field Temperature	
Hank	BR-Q	02/27/07	FIELD PH	8.3	EPA 150.1	
Hank	BR-Q	02/27/07	FIELD COND.	1326	SM 2510 B	
Hank	BR-Q	02/27/07	FIELD WATER TEMP	13.5	Field Temperature	
Hank	BR-Q	05/16/07	FIELD PH	8.37	EPA 150.1	
Hank	BR-Q	05/16/07	FIELD COND.	1174	SM 2510 B	
Hank	BR-Q	05/16/07	FIELD WATER TEMP	12.6	Field Temperature	
Hank	BR-Q	08/08/07	FIELD PH	7.14	EPA 150.1	
Hank	BR-Q	08/08/07	FIELD COND.	1171	SM 2510 B	
Hank	BR-Q	08/08/07	FIELD WATER TEMP	17.7	Field Temperature	
Hank	BR-T	08/22/07	FIELD PH	7.89	EPA 150.1	
Hank	BR-T	08/22/07	FIELD COND.	1351	SM 2510 B	
Hank	BR-T	08/22/07	FIELD WATER TEMP	15.8	Field Temperature	
Hank	Dry Willow # 1	03/22/07	FIELD PH	7.15	EPA 150.1	
Hank	Dry Willow # 1	03/22/07	FIELD COND.	1162	SM 2510 B	
Hank	Dry Willow # 1	03/22/07	FIELD WATER TEMP	11.3	Field Temperature	
Hank	Dry Willow # 1	05/02/07	FIELD PH	7.17	EPA 150.1	
Hank	Dry Willow # 1	05/02/07	FIELD COND.	1067	SM 2510 B	
Hank	Dry Willow # 1	05/02/07	FIELD WATER TEMP		Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Hank	Dry Willow # 1	05/24/07	FIELD PH	7.01	EPA 150.1	
Hank	Dry Willow # 1	05/24/07	FIELD COND.	1100	SM 2510 B	
Hank	Dry Willow # 1	05/24/07	FIELD WATER TEMP	13.2	Field Temperature	
Hank	Dry Willow # 1	09/05/07	FIELD PH	8.07	EPA 150.1	
Hank	Dry Willow # 1	09/05/07	FIELD COND.	1202	SM 2510 B	
Hank	Dry Willow # 1	09/05/07	FIELD WATER TEMP	11.3	Field Temperature	
Hank	Hank 1	12/20/06	FIELD PH	7.81	EPA 150.1	
Hank	Hank 1	12/20/06	FIELD COND.	1341	SM 2510 B	
Hank	Hank 1	12/20/06	FIELD WATER TEMP	13.2	Field Temperature	
Hank	Hank 1	01/25/07	FIELD PH	7.78	EPA 150.1	
Hank	Hank 1	01/25/07	FIELD COND.	1269	SM 2510 B	
Hank	Hank 1	01/25/07	FIELD WATER TEMP	13.1	Field Temperature	
Hank	Hank 1	05/02/07	FIELD PH	7.3	EPA 150.1	
Hank	Hank 1	05/02/07	FIELD COND.	1174	SM 2510 B	
Hank	Hank 1	05/02/07	FIELD WATER TEMP		Field Temperature	
Hank	Means # 1	11/16/06	FIELD PH	7.31	EPA 150.1	
Hank	Means # 1	11/16/06	FIELD COND.	1661	SM 2510 B	
Hank	Means # 1	11/16/06	FIELD WATER TEMP	12.1	Field Temperature	
Hank	Means # 1	03/12/07	FIELD PH	7.02	EPA 150.1	
Hank	Means # 1	03/12/07	FIELD COND.	1563	SM 2510 B	
Hank	Means # 1	03/12/07	FIELD WATER TEMP	13.5	Field Temperature	
Hank	Means # 1	6/607	FIELD PH	7.73	EPA 150.1	
Hank	Means # 1	6/607	FIELD COND.	1631	SM 2510 B	
Hank	Means # 1	6/607	FIELD WATER TEMP	12.1	Field Temperature	
Hank	Means # 1	09/05/07	FIELD PH	7.75	EPA 150.1	
Hank	Means # 1	09/05/07	FIELD COND.	1641	SM 2510 B	
Hank	Means # 1	09/05/07	FIELD WATER TEMP	12.4	Field Temperature	
Hank	NBHW-13	11/28/06	FIELD PH	7.65	EPA 150.1	
Hank	NBHW-13	11/28/06	FIELD COND.	1271	SM 2510 B	
Hank	NBHW-13	11/28/06	FIELD WATER TEMP	11.6	Field Temperature	
Hank	NBHW-13	02/23/07	FIELD PH	8.12	EPA 150.1	
Hank	NBHW-13	02/23/07	FIELD COND.	1239	SM 2510 B	
Hank	NBHW-13	02/23/07	FIELD WATER TEMP	13	Field Temperature	
Hank	NBHW-13	05/16/07	FIELD PH	7.54	EPA 150.1	
Hank	NBHW-13	05/16/07	FIELD COND.	1167	SM 2510 B	
Hank	NBHW-13	05/16/07	FIELD WATER TEMP		Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Hank	NBHW-13	7.25.07	FIELD PH	7.82	EPA 150.1	
Hank	NBHW-13	7.25.07	FIELD COND.	1121	SM 2510 B	
Hank	NBHW-13	7.25.07	FIELD WATER TEMP	15.2	Field Temperature	
Hank	Old Maid # 1	03/12/07	FIELD PH	6.97	EPA 150.1	
Hank	Old Maid # 1	03/12/07	FIELD COND.	1113	SM 2510 B	
Hank	Old Maid # 1	03/12/07	FIELD WATER TEMP	13	Field Temperature	
Hank	OW43756	06/21/07	FIELD PH	7.08	EPA 150.1	
Hank	OW43756	06/21/07	FIELD COND.	1310	SM 2510 B	
Hank	OW43756	06/21/07	FIELD WATER TEMP	15	Field Temperature	
Hank	Paden # 1	12/06/06	FIELD PH	7.18	EPA 150.1	
Hank	Paden # 1	12/06/06	FIELD COND.	2270	SM 2510 B	
Hank	Paden # 1	12/06/06	FIELD WATER TEMP	12.3	Field Temperature	
Hank	Paden # 1	02/27/07	FIELD PH	7.5	EPA 150.1	
Hank	Paden # 1	02/27/07	FIELD COND.	2260	SM 2510 B	
Hank	Paden # 1	02/27/07	FIELD WATER TEMP	11.8	Field Temperature	
Hank	Paden # 1	6/607	FIELD PH	7.36	EPA 150.1	
Hank	Paden # 1	6/607	FIELD COND.	2230	SM 2510 B	
Hank	Paden # 1	6/607	FIELD WATER TEMP	12.8	Field Temperature	
Hank	Paden # 1	09/05/07	FIELD PH	7.38	EPA 150.1	
Hank	Paden # 1	09/05/07	FIELD COND.	219	SM 2510 B	
Hank	Paden # 1	09/05/07	FIELD WATER TEMP	13	Field Temperature	
Hank	SS1-F	06/21/07	FIELD PH	7.75	EPA 150.1	
Hank	SS1-F	06/21/07	FIELD COND.	1220	SM 2510 B	
Hank	SS1-F	06/21/07	FIELD WATER TEMP	12.2	Field Temperature	
Hank	SS1-L	04/27/07	FIELD PH	7.31	EPA 150.1	
Hank	SS1-L	04/27/07	FIELD COND.	1331	SM 2510 B	
Hank	SS1-L	04/27/07	FIELD WATER TEMP	12.1	Field Temperature	
Hank	SS1-L	06/05/07	FIELD PH	7.66	EPA 150.1	
Hank	SS1-L	06/05/07	FIELD COND.	1178	SM 2510 B	
Hank	SS1-L	06/05/07	FIELD WATER TEMP	14	Field Temperature	
Hank	SS1-L	07/25/07	FIELD PH	7.74	EPA 150.1	
Hank	SS1-L	07/25/07	FIELD COND.	1199	SM 2510 B	
Hank	SS1-L	07/25/07	FIELD WATER TEMP	14.2	Field Temperature	
Hank	SS1-U	06/20/07	FIELD PH	7.81	EPA 150.1	
Hank	SS1-U	06/20/07	FIELD COND.	1159	SM 2510 B	
Hank	SS1-U	06/20/07	FIELD WATER TEMP	14.9	Field Temperature	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	PARAMETER_VALUE	ANALYTICAL_METHOD	COMMENTS
Hank	URZHB-6	08/28/07	FIELD PH	7.97	EPA 150.1	
Hank	URZHB-6	08/28/07	FIELD COND.	1361	SM 2510 B	
Hank	URZHB-6	08/28/07	FIELD WATER TEMP	14.7	Field Temperature	
Hank	URZHC-2	08/07/07	FIELD PH	9.67	EPA 150.1	
Hank	URZHC-2	08/07/07	FIELD COND.	670	SM 2510 B	
Hank	URZHC-2	08/07/07	FIELD WATER TEMP	16.3	Field Temperature	
Hank	URZHC-2	09/07/07	FIELD PH	10.07	EPA 150.1	
Hank	URZHC-2	09/07/07	FIELD COND.	751	SM 2510 B	
Hank	URZHC-2	09/07/07	FIELD WATER TEMP	16.8	Field Temperature	
Hank	URZHF-1	07/27/07	FIELD PH	9.21	EPA 150.1	
Hank	URZHF-1	07/27/07	FIELD COND.	1393	SM 2510 B	
Hank	URZHF-1	07/27/07	FIELD WATER TEMP	17.1	Field Temperature	
Hank	URZHF-5	08/02/07	FIELD PH	8.76	EPA 150.1	
Hank	URZHF-5	08/02/07	FIELD COND.	995	SM 2510 B	
Hank	URZHF-5	08/02/07	FIELD WATER TEMP	15.5	Field Temperature	

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-B	9/18/1979	4886.96		
HANK	BR-B	9/18/1979	4881.26		
HANK	BR-B	9/25/1979	4881.2		
HANK	BR-B	9/25/1979	4886.9		
HANK	BR-B	10/4/1979	4881.26		
HANK	BR-B	10/4/1979	4886.96		
HANK	BR-B	10/10/1979	4886.94		
HANK	BR-B	10/10/1979	4881.24		
HANK	BR-B	10/18/1979	4886.92		
HANK	BR-B	10/18/1979	4881.22		
HANK	BR-B	10/24/1979	4881.26		
HANK	BR-B	10/24/1979	4886.96		
HANK	BR-B	11/27/1979	4885.6		
HANK	BR-B	11/27/1979	4879.9		
HANK	BR-B	1/9/1980	4887.5		
HANK	BR-B	1/9/1980	4881.8		
HANK	BR-B	1/22/1980	4887.15		
HANK	BR-B	1/22/1980	4881.45		
HANK	BR-B	2/6/1980	4887.41		
HANK	BR-B	2/6/1980	4881.71		
HANK	BR-B	3/18/1980	4882.42		
HANK	BR-B	3/18/1980	4888.12		
HANK	BR-B	4/15/1980	4882.55		
HANK	BR-B	4/15/1980	4888.25		
HANK	BR-B	5/15/1980	4888.4		
HANK	BR-B	5/15/1980	4882.7		
HANK	BR-B	6/4/1980	4888.55		
HANK	BR-B	6/4/1980	4882.85		
HANK	BR-B	7/29/1980	4888.48		
HANK	BR-B	7/29/1980	4882.78		
HANK	BR-B	8/22/1980	4882.55		
HANK	BR-B	8/22/1980	4888.25		
HANK	BR-B	9/29/1980	4882.3		
HANK	BR-B	9/29/1980	4888		
HANK	BR-B	10/22/1980	4882.47		
HANK	BR-B	10/22/1980	4888.17		
HANK	BR-B	1/14/1981	4882.8		
HANK	BR-B	1/14/1981	4888.5		
HANK	BR-B	3/11/1981	4887.66		
HANK	BR-B	3/11/1981	4881.96		
HANK	BR-B	4/9/1981	4888.37		
HANK	BR-B	4/9/1981	4882.67		
HANK	BR-B	5/20/1981	4882.85		
HANK	BR-B	5/20/1981	4888.55		
HANK	BR-B	7/7/1981	4882.44		
HANK	BR-B	7/7/1981	4888.14		
HANK	BR-B	8/19/1981	4882.67		
HANK	BR-B	8/19/1981	4888.37		
HANK	BR-B	10/8/1981	4888.23		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-B	10/8/1981	4882.53		
HANK	BR-B	11/3/1981	4882.69		
HANK	BR-B	11/3/1981	4888.39		
HANK	BR-B	12/1/1981	4889.3		
HANK	BR-B	12/1/1981	4883.6		
HANK	BR-B	3/2/1982	4882.73		
HANK	BR-B	3/2/1982	4888.43		
HANK	BR-B	4/13/1982	4888.85		
HANK	BR-B	4/13/1982	4883.15		
HANK	BR-B	1/24/2007	4881.05		
HANK	BR-B	1/24/2007	4886.75		
HANK	BR-B	10/4/2007	4888.09		
HANK	BR-B	10/4/2007	4882.39		
HANK	BR-F	9/18/1979	5012.71		
HANK	BR-F	9/18/1979	5012.96		
HANK	BR-F	9/25/1979	5012.18		
HANK	BR-F	9/25/1979	5012.43		
HANK	BR-F	10/4/1979	5011.48		
HANK	BR-F	10/4/1979	5011.73		
HANK	BR-F	10/10/1979	5011.68		
HANK	BR-F	10/10/1979	5011.93		
HANK	BR-F	10/18/1979	5013.31		
HANK	BR-F	10/18/1979	5013.56		
HANK	BR-F	10/24/1979	5013.58		
HANK	BR-F	10/24/1979	5013.33		
HANK	BR-F	11/6/1979	5013.9		
HANK	BR-F	11/6/1979	5013.65		
HANK	BR-F	1/22/1980	5016.03		
HANK	BR-F	1/22/1980	5016.28		
HANK	BR-F	2/6/1980	5016.74		
HANK	BR-F	2/6/1980	5016.99		
HANK	BR-F	3/12/1980	5017.46		
HANK	BR-F	3/12/1980	5017.71		
HANK	BR-F	4/15/1980	5017.84		
HANK	BR-F	4/15/1980	5017.59		
HANK	BR-F	5/15/1980	5017.75		
HANK	BR-F	5/15/1980	5018		
HANK	BR-F	6/4/1980	5018		
HANK	BR-F	6/4/1980	5017.75		
HANK	BR-F	7/29/1980	5017.31		
HANK	BR-F	7/29/1980	5017.56		
HANK	BR-F	8/22/1980	5017.3		
HANK	BR-F	8/22/1980	5017.55		
HANK	BR-F	9/29/1980	5017.24		
HANK	BR-F	9/29/1980	5017.49		
HANK	BR-F	10/29/1980	5016.73		
HANK	BR-F	10/29/1980	5016.98		
HANK	BR-F	1/14/1981	5017		
HANK	BR-F	1/14/1981	5017.25		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-F	3/11/1981	5016.98		
HANK	BR-F	3/11/1981	5016.73		
HANK	BR-F	4/9/1981	5016.96		
HANK	BR-F	4/9/1981	5017.21		
HANK	BR-F	5/20/1981	5017		
HANK	BR-F	5/20/1981	5017.25		
HANK	BR-F	8/19/1981	5016.69		
HANK	BR-F	8/19/1981	5016.94		
HANK	BR-F	10/8/1981	5016.58		
HANK	BR-F	10/8/1981	5016.83		
HANK	BR-F	11/3/1981	5016.48		
HANK	BR-F	11/3/1981	5016.23		
HANK	BR-F	12/1/1981	5016.76		
HANK	BR-F	12/1/1981	5017.01		
HANK	BR-F	3/2/1982	5015.75		
HANK	BR-F	3/2/1982	5016		
HANK	BR-F	4/13/1982	5016.1		
HANK	BR-F	4/13/1982	5016.35		
HANK	BR-F	11/28/2006	5015.39		
HANK	BR-F	11/28/2006	5015.14		
HANK	BR-F	1/24/2007	5012		
HANK	BR-F	1/24/2007	5012.25		
HANK	BR-F	5/16/2007	5012.44		
HANK	BR-F	5/16/2007	5012.69		
HANK	BR-F	6/5/2007	5012.98		
HANK	BR-F	6/5/2007	5013.23		
HANK	BR-F	6/15/2007	5013.12		
HANK	BR-F	6/15/2007	5012.87		
HANK	BR-F	6/18/2007	5013.2		
HANK	BR-F	6/18/2007	5012.95		
HANK	BR-F	10/4/2007	5013		
HANK	BR-F	10/4/2007	5012.75		
HANK	BR-G	9/20/1979	4929.45		
HANK	BR-G	9/20/1979	4914.72		
HANK	BR-G	9/25/1979	4965.43		
HANK	BR-G	9/25/1979	4980.16		
HANK	BR-G	10/4/1979	4992.32		
HANK	BR-G	10/4/1979	5007.05		
HANK	BR-G	10/10/1979	5008.41		
HANK	BR-G	10/10/1979	4993.68		
HANK	BR-G	10/18/1979	5009.77		
HANK	BR-G	10/18/1979	4995.04		
HANK	BR-G	10/25/1979	5009.09		
HANK	BR-G	10/25/1979	4994.36		
HANK	BR-G	1/9/1980	5007.79		
HANK	BR-G	1/9/1980	4993.06		
HANK	BR-G	1/22/1980	5007.16		
HANK	BR-G	1/22/1980	4992.43		
HANK	BR-G	2/6/1980	5007.51		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-G	2/6/1980	4992.78		
HANK	BR-G	3/18/1980	5007.6		
HANK	BR-G	3/18/1980	4992.87		
HANK	BR-G	4/15/1980	4992.74		
HANK	BR-G	4/15/1980	5007.47		
HANK	BR-G	5/15/1980	5008.34		
HANK	BR-G	5/15/1980	4993.61		
HANK	BR-G	6/4/1980	5007.93		
HANK	BR-G	6/4/1980	4993.2		
HANK	BR-G	7/30/1980	5007.96		
HANK	BR-G	7/30/1980	4993.23		
HANK	BR-G	8/22/1980	4999.55		
HANK	BR-G	8/22/1980	5014.28		
HANK	BR-G	9/29/1980	5017.08		
HANK	BR-G	9/29/1980	5002.35		
HANK	BR-G	10/28/1980	5017.51		
HANK	BR-G	10/28/1980	5002.78		
HANK	BR-G	1/14/1981	5003.37		
HANK	BR-G	1/14/1981	5018.1		
HANK	BR-G	2/19/1981	5020.05		
HANK	BR-G	2/19/1981	5005.32		
HANK	BR-G	4/13/1981	5022		
HANK	BR-G	4/13/1981	5007.27		
HANK	BR-G	5/19/1981	5021.67		
HANK	BR-G	5/19/1981	5006.94		
HANK	BR-G	6/29/1981	5008.44		
HANK	BR-G	6/29/1981	5023.17		
HANK	BR-G	8/19/1981	5010.42		
HANK	BR-G	8/19/1981	5025.15		
HANK	BR-G	9/28/1981	5024.8		
HANK	BR-G	9/28/1981	5010.07		
HANK	BR-G	11/3/1981	5010.3		
HANK	BR-G	11/3/1981	5025.03		
HANK	BR-G	12/1/1981	5025.5		
HANK	BR-G	12/1/1981	5010.77		
HANK	BR-G	4/13/1982	5020.02		
HANK	BR-G	4/13/1982	5034.75		
HANK	BR-G	12/19/2006	5021.99		
HANK	BR-G	12/19/2006	5007.26		
HANK	BR-G	2/27/2007	5022.1		
HANK	BR-G	2/27/2007	5007.37		
HANK	BR-G	7/31/2007	5023.04		
HANK	BR-G	7/31/2007	5008.31		
HANK	BR-G	8/8/2007	5008.45		
HANK	BR-G	8/8/2007	5023.18		
HANK	BR-G	10/4/2007	5009.08		
HANK	BR-G	10/4/2007	5023.81		
HANK	BR-H	9/19/1979	4866.73		
HANK	BR-H	9/19/1979	4864.17		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-H	9/25/1979	4864.25		
HANK	BR-H	9/25/1979	4866.81		
HANK	BR-H	10/4/1979	4864.3		
HANK	BR-H	10/4/1979	4866.86		
HANK	BR-H	10/11/1979	4866.94		
HANK	BR-H	10/11/1979	4864.38		
HANK	BR-H	10/18/1979	4864.03		
HANK	BR-H	10/18/1979	4866.59		
HANK	BR-H	10/24/1979	4864.06		
HANK	BR-H	10/24/1979	4866.62		
HANK	BR-H	1/9/1980	4866.67		
HANK	BR-H	1/9/1980	4864.11		
HANK	BR-H	1/22/1980	4866.27		
HANK	BR-H	1/22/1980	4863.71		
HANK	BR-H	2/6/1980	4863.86		
HANK	BR-H	2/6/1980	4866.42		
HANK	BR-H	3/18/1980	4864.12		
HANK	BR-H	3/18/1980	4866.68		
HANK	BR-H	4/15/1980	4864.21		
HANK	BR-H	4/15/1980	4866.77		
HANK	BR-H	5/15/1980	4866.83		
HANK	BR-H	5/15/1980	4864.27		
HANK	BR-H	6/4/1980	4866.94		
HANK	BR-H	6/4/1980	4864.38		
HANK	BR-H	7/29/1980	4864.25		
HANK	BR-H	7/29/1980	4866.81		
HANK	BR-H	8/22/1980	4864.04		
HANK	BR-H	8/22/1980	4866.6		
HANK	BR-H	9/29/1980	4863.69		
HANK	BR-H	9/29/1980	4866.25		
HANK	BR-H	10/22/1980	4863.87		
HANK	BR-H	10/22/1980	4866.43		
HANK	BR-H	1/14/1981	4865.86		
HANK	BR-H	1/14/1981	4863.3		
HANK	BR-H	2/19/1981	4865.62		
HANK	BR-H	2/19/1981	4863.06		
HANK	BR-H	4/9/1981	4863.25		
HANK	BR-H	4/9/1981	4865.81		
HANK	BR-H	5/20/1981	4865.92		
HANK	BR-H	5/20/1981	4863.36		
HANK	BR-H	7/7/1981	4863.4		
HANK	BR-H	7/7/1981	4865.96		
HANK	BR-H	8/19/1981	4865.49		
HANK	BR-H	8/19/1981	4862.93		
HANK	BR-H	10/8/1981	4862.9		
HANK	BR-H	10/8/1981	4865.46		
HANK	BR-H	11/3/1981	4862.74		
HANK	BR-H	11/3/1981	4865.3		
HANK	BR-H	12/1/1981	4865.68		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-H	12/1/1981	4863.12		
HANK	BR-H	3/2/1982	4864.85		
HANK	BR-H	3/2/1982	4862.29		
HANK	BR-H	4/13/1982	4865.19		
HANK	BR-H	4/13/1982	4862.63		
HANK	BR-H	1/24/2007	4858.3		
HANK	BR-H	1/24/2007	4860.86		
HANK	BR-H	5/24/2007	4861.76		
HANK	BR-H	5/24/2007	4859.2		
HANK	BR-H	10/4/2007	4859.44		
HANK	BR-H	10/4/2007	4862		
HANK	BR-I	9/25/1979	5106.7		
HANK	BR-I	9/25/1979	5081.58		
HANK	BR-I	10/4/1979	5106.9		
HANK	BR-I	10/4/1979	5081.78		
HANK	BR-I	10/10/1979	5081.7		
HANK	BR-I	10/10/1979	5106.82		
HANK	BR-I	10/18/1979	5106.96		
HANK	BR-I	10/18/1979	5081.84		
HANK	BR-I	1/15/1980	5106.12		
HANK	BR-I	1/15/1980	5081		
HANK	BR-I	1/22/1980	5105.99		
HANK	BR-I	1/22/1980	5080.87		
HANK	BR-I	2/6/1980	5081.09		
HANK	BR-I	2/6/1980	5106.21		
HANK	BR-I	3/12/1980	5080.73		
HANK	BR-I	3/12/1980	5105.85		
HANK	BR-I	4/15/1980	5105.84		
HANK	BR-I	4/15/1980	5080.72		
HANK	BR-I	5/7/1980	5105.53		
HANK	BR-I	5/7/1980	5080.41		
HANK	BR-I	5/15/1980	5105.53		
HANK	BR-I	5/15/1980	5080.41		
HANK	BR-I	6/4/1980	5105.51		
HANK	BR-I	6/4/1980	5080.39		
HANK	BR-I	7/30/1980	5080.07		
HANK	BR-I	7/30/1980	5105.19		
HANK	BR-I	8/22/1980	5105.01		
HANK	BR-I	8/22/1980	5079.89		
HANK	BR-I	9/29/1980	5079.62		
HANK	BR-I	9/29/1980	5104.74		
HANK	BR-I	10/22/1980	5103.87		
HANK	BR-I	10/22/1980	5078.75		
HANK	BR-I	3/11/1981	5078.75		
HANK	BR-I	3/11/1981	5103.87		
HANK	BR-I	4/9/1981	5105.23		
HANK	BR-I	4/9/1981	5080.11		
HANK	BR-I	4/14/1981	5079.33		
HANK	BR-I	4/14/1981	5104.45		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-I	5/19/1981	5078.38		
HANK	BR-I	5/19/1981	5103.5		
HANK	BR-I	7/7/1981	5078.65		
HANK	BR-I	7/7/1981	5103.77		
HANK	BR-I	8/20/1981	5103.49		
HANK	BR-I	8/20/1981	5078.37		
HANK	BR-I	10/8/1981	5078.4		
HANK	BR-I	10/8/1981	5103.52		
HANK	BR-I	11/3/1981	5078.05		
HANK	BR-I	11/3/1981	5103.17		
HANK	BR-I	12/1/1981	5078.4		
HANK	BR-I	12/1/1981	5103.52		
HANK	BR-I	3/2/1982	5077.58		
HANK	BR-I	3/2/1982	5102.7		
HANK	BR-I	4/13/1982	5099.55		
HANK	BR-I	4/13/1982	5074.43		
HANK	BR-I	8/28/2007	5076		
HANK	BR-I	8/28/2007	5050.88		
HANK	BR-K	9/25/1979	5076.25		
HANK	BR-K	10/4/1979	5072.96		
HANK	BR-K	10/5/1979	5070.38		
HANK	BR-K	10/10/1979	5070.59		
HANK	BR-K	10/18/1979	5070.76		
HANK	BR-K	9/28/2007	5063.05		
HANK	Brown #5	9/26/2007	4846.16		
HANK	Brown #5	9/26/2007	4846.16		
HANK	Brown-WS	2/21/2007	4879.38		
HANK	Brown-WS	12/6/2007	4879.23		
HANK	BR-Q	12/14/1979	4847.75		
HANK	BR-Q	12/14/1979	4851.97		
HANK	BR-Q	12/18/1979	4841.43		
HANK	BR-Q	12/18/1979	4845.65		
HANK	BR-Q	1/9/1980	4847.6		
HANK	BR-Q	1/9/1980	4843.38		
HANK	BR-Q	1/22/1980	4847.71		
HANK	BR-Q	1/22/1980	4843.49		
HANK	BR-Q	2/6/1980	4848.09		
HANK	BR-Q	2/6/1980	4843.87		
HANK	BR-Q	3/18/1980	4848.02		
HANK	BR-Q	3/18/1980	4843.8		
HANK	BR-Q	4/15/1980	4849.87		
HANK	BR-Q	4/15/1980	4845.65		
HANK	BR-Q	5/15/1980	4846.49		
HANK	BR-Q	5/15/1980	4850.71		
HANK	BR-Q	6/4/1980	4846.23		
HANK	BR-Q	6/4/1980	4850.45		
HANK	BR-Q	7/30/1980	4846.23		
HANK	BR-Q	7/30/1980	4850.45		
HANK	BR-Q	8/22/1980	4849.01		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-Q	8/22/1980	4844.79		
HANK	BR-Q	9/29/1980	4841.94		
HANK	BR-Q	9/29/1980	4846.16		
HANK	BR-Q	10/28/1980	4852.49		
HANK	BR-Q	10/28/1980	4848.27		
HANK	BR-Q	1/14/1981	4846.9		
HANK	BR-Q	1/14/1981	4851.12		
HANK	BR-Q	2/19/1981	4850.83		
HANK	BR-Q	2/19/1981	4846.61		
HANK	BR-Q	4/13/1981	4848.97		
HANK	BR-Q	4/13/1981	4853.19		
HANK	BR-Q	5/19/1981	4853.05		
HANK	BR-Q	5/19/1981	4848.83		
HANK	BR-Q	7/7/1981	4854.51		
HANK	BR-Q	7/7/1981	4850.29		
HANK	BR-Q	8/19/1981	4855.23		
HANK	BR-Q	8/19/1981	4851.01		
HANK	BR-Q	10/8/1981	4855.88		
HANK	BR-Q	10/8/1981	4851.66		
HANK	BR-Q	11/3/1981	4856.27		
HANK	BR-Q	11/3/1981	4852.05		
HANK	BR-Q	12/1/1981	4857.8		
HANK	BR-Q	12/1/1981	4853.58		
HANK	BR-Q	4/13/1982	4858.42		
HANK	BR-Q	4/13/1982	4854.2		
HANK	BR-Q	2/21/2007	4858.5		
HANK	BR-Q	2/21/2007	4862.72		
HANK	BR-Q	8/8/2007	4857.81		
HANK	BR-Q	8/8/2007	4862.03		
HANK	BR-Q	10/4/2007	4857.92		
HANK	BR-Q	10/4/2007	4862.14		
HANK	BR-T	12/12/1979	4833.3		
HANK	BR-T	1/15/1980	4827.31		
HANK	BR-T	3/18/1980	4828.32		
HANK	BR-T	5/15/1980	4832.45		
HANK	BR-T	6/4/1980	4831.71		
HANK	BR-T	8/22/1980	4836.96		
HANK	BR-T	9/29/1980	4824.22		
HANK	BR-T	10/29/1980	4842.12		
HANK	BR-T	3/11/1981	4836.5		
HANK	BR-U	11/14/1979	4976.44		
HANK	BR-U	11/30/1979	4976.34		
HANK	BR-U	1/9/1980	4976.29		
HANK	BR-U	2/6/1980	4976.35		
HANK	BR-U	3/12/1980	4976.51		
HANK	BR-U	4/15/1980	4976.4		
HANK	BR-U	5/15/1980	4976.35		
HANK	BR-U	6/4/1980	4975.78		
HANK	BR-U	7/30/1980	4974.93		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	BR-U	8/22/1980	4975.12		
HANK	BR-U	9/29/1980	4974.61		
HANK	BR-U	10/22/1980	4974.68		
HANK	BR-U	1/14/1981	4974.08		
HANK	BR-U	2/19/1981	4974.33		
HANK	BR-U	4/9/1981	4974.15		
HANK	BR-U	5/12/1981	4974.03		
HANK	BR-U	7/7/1981	4973.55		
HANK	BR-U	8/19/1981	4973.03		
HANK	BR-U	10/8/1981	4972.24		
HANK	BR-U	11/3/1981	4971.95		
HANK	BR-U	4/13/1982	4971.32		
HANK	C #1	1/1/1979	4943		
HANK	C #1	8/2/2007	4944.78		
HANK	C #1	10/4/2007	4945.05		
HANK	Dry Willow #1	1/1/1979	4926.19		
HANK	Dry Willow #1	1/1/1979	4939		
HANK	Dry Willow #1	3/22/2007	4930.92		
HANK	Dry Willow #1	3/22/2007	4943.73		
HANK	Dry Willow #1	5/2/2007	4931.73		
HANK	Dry Willow #1	5/2/2007	4944.54		
HANK	Dry Willow #1	5/24/2007	4931.36		
HANK	Dry Willow #1	5/24/2007	4944.17		
HANK	Dry Willow #1	9/5/2007	4931.19		
HANK	Dry Willow #1	9/5/2007	4944		
HANK	Dry Willow #1	10/4/2007	4932.09		
HANK	Dry Willow #1	10/4/2007	4944.9		
HANK	DRYMW1	10/4/2007	4910.8		
HANK	DRYMW3	10/4/2007	4901.4		
NICHOLS RANCH	DW-4L	10/1/1978	4680.73		
NICHOLS RANCH	DW-4L	10/1/1978	4650		
NICHOLS RANCH	DW-4L	11/1/1978	4681.23		
NICHOLS RANCH	DW-4L	11/1/1978	4650.5		
NICHOLS RANCH	DW-4L	1/1/1979	4681.73		
NICHOLS RANCH	DW-4L	1/1/1979	4651		
NICHOLS RANCH	DW-4L	4/1/1979	4650		
NICHOLS RANCH	DW-4L	4/1/1979	4680.73		
NICHOLS RANCH	DW-4L	8/1/1979	4650		
NICHOLS RANCH	DW-4L	8/1/1979	4680.73		
NICHOLS RANCH	DW-4L	10/1/1979	4680.73		
NICHOLS RANCH	DW-4L	10/1/1979	4650		
NICHOLS RANCH	DW-4L	12/20/2006	4627.52		
NICHOLS RANCH	DW-4L	12/20/2006	4658.25		
NICHOLS RANCH	DW-4M	10/1/1978	4647		
NICHOLS RANCH	DW-4M	10/1/1978	4678.17		
NICHOLS RANCH	DW-4M	11/1/1978	4647.2		
NICHOLS RANCH	DW-4M	11/1/1978	4678.37		
NICHOLS RANCH	DW-4M	1/1/1979	4648		
NICHOLS RANCH	DW-4M	1/1/1979	4679.17		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
NICHOLS RANCH	DW-4M	4/1/1979	4649		
NICHOLS RANCH	DW-4M	4/1/1979	4680.17		
NICHOLS RANCH	DW-4M	8/1/1979	4680.17		
NICHOLS RANCH	DW-4M	8/1/1979	4649		
NICHOLS RANCH	DW-4M	10/1/1979	4649		
NICHOLS RANCH	DW-4M	10/1/1979	4680.17		
NICHOLS RANCH	DW-4M	9/2/2006	4653.31		
NICHOLS RANCH	DW-4M	9/2/2006	4684.48		
NICHOLS RANCH	DW-4M	6/29/2007	4683.31		
NICHOLS RANCH	DW-4M	6/29/2007	4652.14		
NICHOLS RANCH	DW-4M	9/26/2007	4652.4		
NICHOLS RANCH	DW-4M	9/26/2007	4652.4		
NICHOLS RANCH	DW-4M	9/26/2007	4683.57		
NICHOLS RANCH	DW-4M	9/26/2007	4683.57		
NICHOLS RANCH	DW-4M	10/4/2007	4652.86		
NICHOLS RANCH	DW-4M	10/4/2007	4684.03		
NICHOLS RANCH	DW-4U	10/1/1978	4706		
NICHOLS RANCH	DW-4U	10/1/1978	4733.75		
NICHOLS RANCH	DW-4U	1/1/1979	4733.75		
NICHOLS RANCH	DW-4U	1/1/1979	4706		
NICHOLS RANCH	DW-4U	4/1/1979	4706		
NICHOLS RANCH	DW-4U	4/1/1979	4733.75		
NICHOLS RANCH	DW-4U	8/1/1979	4733.75		
NICHOLS RANCH	DW-4U	8/1/1979	4706		
NICHOLS RANCH	DW-4U	10/1/1979	4733.75		
NICHOLS RANCH	DW-4U	10/1/1979	4706		
NICHOLS RANCH	DW-4U	9/7/2006	4736.2		
NICHOLS RANCH	DW-4U	9/7/2006	4708.45		
NICHOLS RANCH	DW-4U	5/14/2007	4707.47		
NICHOLS RANCH	DW-4U	5/14/2007	4735.22		
NICHOLS RANCH	DW-4U	9/26/2007	4708.2		
NICHOLS RANCH	DW-4U	9/26/2007	4735.95		
NICHOLS RANCH	DW-4U	9/26/2007	4708.2		
NICHOLS RANCH	DW-4U	9/26/2007	4735.95		
NICHOLS RANCH	DW-4U	10/4/2007	4736.51		
NICHOLS RANCH	DW-4U	10/4/2007	4708.76		
HANK	F. Brown #1	10/4/2007	4691.96		
HANK	Hank 1	1/1/1979	4881		
HANK	Hank 1	1/1/1979	4891		
HANK	Hank 1	1/1/1979	4882.01		
HANK	Hank 1	9/7/2006	4904.74	Y	
HANK	Hank 1	9/7/2006	4894.74	Y	
HANK	Hank 1	9/7/2006	4895.75	Y	
HANK	Hank 1	4/19/2007	4905.04		
HANK	Hank 1	4/19/2007	4895.04		
HANK	Hank 1	4/19/2007	4896.05		
HANK	Hank 1	4/19/2007	4905.46		
HANK	Hank 1	4/19/2007	4895.46		
HANK	Hank 1	4/19/2007	4896.47		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	Hank 1	5/2/2007	4904.48		
HANK	Hank 1	5/2/2007	4894.48		
HANK	Hank 1	5/2/2007	4895.49		
HANK	Hank 1	7/11/2007	4894.13		
HANK	Hank 1	7/11/2007	4904.13		
HANK	Hank 1	7/11/2007	4895.14		
HANK	Hank 1	7/31/2007	4895.53		
HANK	Hank 1	7/31/2007	4904.52		
HANK	Hank 1	7/31/2007	4894.52		
HANK	Hank 1	8/8/2007	4904.65		
HANK	Hank 1	8/8/2007	4894.65		
HANK	Hank 1	8/8/2007	4895.66		
HANK	Means #1	11/16/2006	4905.86		
HANK	Means #1	9/26/2007	4921.26		
NICHOLS RANCH	MN-1	1/1/1979	4693		
NICHOLS RANCH	MN-1	1/1/1979	4686.14		
NICHOLS RANCH	MN-1	9/7/2006	4673.13		
NICHOLS RANCH	MN-1	9/7/2006	4666.27		
NICHOLS RANCH	MN-1	12/14/2006	4671.38		
NICHOLS RANCH	MN-1	12/14/2006	4664.52		
NICHOLS RANCH	MN-1	3/20/2007	4672.76		
NICHOLS RANCH	MN-1	3/20/2007	4665.9		
NICHOLS RANCH	MN-1	3/27/2007	4671.8		
NICHOLS RANCH	MN-1	3/27/2007	4664.94		
NICHOLS RANCH	MN-1	5/30/2007	4672.27		
NICHOLS RANCH	MN-1	5/30/2007	4665.41		
NICHOLS RANCH	MN-1	6/15/2007	4665.59		
NICHOLS RANCH	MN-1	6/15/2007	4672.45		
NICHOLS RANCH	MN-1	6/26/2007	4672.29		
NICHOLS RANCH	MN-1	6/26/2007	4665.43		
NICHOLS RANCH	MN-1	7/10/2007	4665.15		
NICHOLS RANCH	MN-1	7/10/2007	4672.01		
NICHOLS RANCH	MN-1	7/24/2007	4670.67		
NICHOLS RANCH	MN-1	7/24/2007	4663.81		
NICHOLS RANCH	MN-1	10/4/2007	4672.17		
NICHOLS RANCH	MN-1	10/4/2007	4665.31		
NICHOLS RANCH	MN-2	12/14/2006	4592.03		
NICHOLS RANCH	MN-2	12/14/2006	4592.42		
NICHOLS RANCH	MN-2	3/20/2007	4592.58		
NICHOLS RANCH	MN-2	3/20/2007	4592.77		
NICHOLS RANCH	MN-2	3/27/2007	4591.29		
NICHOLS RANCH	MN-2	5/30/2007	4592.16		
NICHOLS RANCH	MN-2	6/26/2007	4592.32		
NICHOLS RANCH	MN-2	7/10/2007	4591.22		
NICHOLS RANCH	MN-2	7/10/2007	4590.59		
NICHOLS RANCH	MN-2	9/10/2007	4591.98		
NICHOLS RANCH	MN-2	10/4/2007	4592		
NICHOLS RANCH	MN-3	12/14/2006	4669.49		
NICHOLS RANCH	MN-3	12/14/2006	4668.13		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
NICHOLS RANCH	MN-3	3/20/2007	4669.9		
NICHOLS RANCH	MN-3	3/20/2007	4668.54		
NICHOLS RANCH	MN-3	3/27/2007	4669.06		
NICHOLS RANCH	MN-3	3/27/2007	4667.7		
NICHOLS RANCH	MN-3	4/18/2007	4667.73		
NICHOLS RANCH	MN-3	4/18/2007	4669.09		
NICHOLS RANCH	MN-3	5/30/2007	4669.41		
NICHOLS RANCH	MN-3	5/30/2007	4668.05		
NICHOLS RANCH	MN-3	7/10/2007	4668.82		
NICHOLS RANCH	MN-3	7/10/2007	4667.46		
NICHOLS RANCH	MN-3	7/24/2007	4666.58		
NICHOLS RANCH	MN-3	7/24/2007	4667.94		
NICHOLS RANCH	MN-3	8/7/2007	4668.33		
NICHOLS RANCH	MN-3	8/7/2007	4666.97		
NICHOLS RANCH	MN-3	10/4/2007	4669.35		
NICHOLS RANCH	MN-3	10/4/2007	4667.99		
NICHOLS RANCH	MN-4	12/14/2006	4719.82		
NICHOLS RANCH	MN-4	12/14/2006	4654.18		
NICHOLS RANCH	MN-4	3/20/2007	4720.26		
NICHOLS RANCH	MN-4	3/20/2007	4654.62		
NICHOLS RANCH	MN-4	5/30/2007	4719.6		
NICHOLS RANCH	MN-4	5/30/2007	4653.96		
NICHOLS RANCH	MN-4	7/10/2007	4718.94		
NICHOLS RANCH	MN-4	7/10/2007	4653.3		
NICHOLS RANCH	MN-4	10/4/2007	4653.61		
NICHOLS RANCH	MN-4	10/4/2007	4719.25		
NICHOLS RANCH	MN-5	9/7/2006	4678.67		
NICHOLS RANCH	MN-5	9/7/2006	4666.39		
NICHOLS RANCH	MN-5	3/20/2007	4656.06		
NICHOLS RANCH	MN-5	3/20/2007	4643.78		
NICHOLS RANCH	MN-5	3/27/2007	4653.51		
NICHOLS RANCH	MN-5	3/27/2007	4641.23		
NICHOLS RANCH	MN-5	4/18/2007	4643.01		
NICHOLS RANCH	MN-5	4/18/2007	4655.29		
NICHOLS RANCH	MN-5	5/2/2007	4643.1		
NICHOLS RANCH	MN-5	5/2/2007	4655.38		
NICHOLS RANCH	MN-5	5/3/2007	4655.51		
NICHOLS RANCH	MN-5	5/3/2007	4643.23		
NICHOLS RANCH	MN-5	5/14/2007	4643.21		
NICHOLS RANCH	MN-5	5/14/2007	4655.49		
NICHOLS RANCH	MN-5	6/4/2007	4655.38		
NICHOLS RANCH	MN-5	6/4/2007	4643.1		
NICHOLS RANCH	MN-5	6/4/2007	4655.42		
NICHOLS RANCH	MN-5	6/4/2007	4643.14		
NICHOLS RANCH	MN-5	7/10/2007	4654.57		
NICHOLS RANCH	MN-5	7/10/2007	4642.29		
NICHOLS RANCH	MN-5	8/7/2007	4654.13		
NICHOLS RANCH	MN-5	8/7/2007	4641.85		
NICHOLS RANCH	MN-5	10/4/2007	4655.18		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
NICHOLS RANCH	MN-5	10/4/2007	4642.9		
NICHOLS RANCH	MN-6	3/20/2007	4658.65		
NICHOLS RANCH	MN-6	3/20/2007	4660.47		
NICHOLS RANCH	MN-6	3/20/2007	4658.62		
NICHOLS RANCH	MN-6	3/20/2007	4660.44		
NICHOLS RANCH	MN-6	5/30/2007	4659.8		
NICHOLS RANCH	MN-6	5/30/2007	4657.98		
NICHOLS RANCH	MN-6	6/15/2007	4657.98		
NICHOLS RANCH	MN-6	6/15/2007	4659.8		
NICHOLS RANCH	MN-6	7/10/2007	4657.81		
NICHOLS RANCH	MN-6	7/10/2007	4659.63		
NICHOLS RANCH	MN-6	10/4/2007	4659.15		
NICHOLS RANCH	MN-6	10/4/2007	4657.33		
HANK	NBHW-13	11/28/2006	4841.23		
HANK	NBHW-13	11/28/2006	4837.09		
HANK	NBHW-13	2/21/2007	4837.86		
HANK	NBHW-13	2/21/2007	4842		
HANK	NBHW-13	5/16/2007	4843.04		
HANK	NBHW-13	5/16/2007	4838.9		
HANK	NBHW-13	7/25/2007	4838.9		
HANK	NBHW-13	7/25/2007	4843.04		
HANK	NBHW-13	10/4/2007	4839.23		
HANK	NBHW-13	10/4/2007	4843.37		
HANK	NBHW-14	12/19/2006	4801.37		
NICHOLS RANCH	Nichols #1	3/20/2007	4680.56		
NICHOLS RANCH	Nichols #1	3/20/2007	4659.44		
NICHOLS RANCH	Nichols #1	3/20/2007	4614.56		
NICHOLS RANCH	Nichols #1	4/18/2007	4614.04		
NICHOLS RANCH	Nichols #1	4/18/2007	4658.92		
NICHOLS RANCH	Nichols #1	4/18/2007	4680.04		
NICHOLS RANCH	Nichols #1	5/2/2007	4613.98		
NICHOLS RANCH	Nichols #1	5/2/2007	4658.86		
NICHOLS RANCH	Nichols #1	5/2/2007	4679.98		
NICHOLS RANCH	Nichols #1	5/14/2007	4614.02		
NICHOLS RANCH	Nichols #1	5/14/2007	4658.9		
NICHOLS RANCH	Nichols #1	5/14/2007	4680.02		
NICHOLS RANCH	Nichols #1	5/30/2007	4659.03		
NICHOLS RANCH	Nichols #1	5/30/2007	4680.15		
NICHOLS RANCH	Nichols #1	5/30/2007	4614.15		
NICHOLS RANCH	Nichols #1	6/4/2007	4659.21		
NICHOLS RANCH	Nichols #1	6/4/2007	4614.33		
NICHOLS RANCH	Nichols #1	6/4/2007	4680.33		
NICHOLS RANCH	Nichols #1	7/10/2007	4679.74		
NICHOLS RANCH	Nichols #1	7/10/2007	4658.62		
NICHOLS RANCH	Nichols #1	7/10/2007	4613.74		
NICHOLS RANCH	Nichols #1	7/24/2007	4657.74		
NICHOLS RANCH	Nichols #1	7/24/2007	4678.86		
NICHOLS RANCH	Nichols #1	7/24/2007	4612.86		
NICHOLS RANCH	Nichols #1	10/4/2007	4657.63		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
NICHOLS RANCH	Nichols #1	10/4/2007	4678.75		
NICHOLS RANCH	Nichols #1	10/4/2007	4612.75		
HANK	Old Maid #1	6/6/2007	4882.6		
HANK	OW43756	9/26/2007	4905.6		
HANK	OW43756	9/26/2007	4905.6		
HANK	OW43756	10/4/2007	4905.2		
HANK	Paden #1	2/21/2007	4880		
HANK	Paden #1	2/21/2007	4918		
HANK	Paden #1	2/21/2007	4885.85		
HANK	SS1-F	6/15/2007	4859		
HANK	SS1-F	6/18/2007	4859.26		
HANK	SS1-F	6/26/2007	4858.98		
HANK	SS1-FPU	6/15/2007	4858.69		
HANK	SS1-FPU	6/18/2007	4859.02		
HANK	SS1-FPU	6/26/2007	4858.74		
HANK	SS1-L	10/12/1978	4825.08		
HANK	SS1-L	11/1/1978	4825		
HANK	SS1-L	1/1/1979	4828		
HANK	SS1-L	8/1/1979	4771		
HANK	SS1-L	10/26/1979	4833.5		
HANK	SS1-L	6/5/2007	4833.28		
HANK	SS1-L	6/18/2007	4833.33		
HANK	SS1-L	7/25/2007	4833.07		
HANK	SS1-M	11/1/1978	4823		
HANK	SS1-M	1/1/1979	4828		
HANK	SS1-M	8/1/1979	4835		
HANK	SS1-M	10/1/1979	4833.5		
HANK	SS1-M	6/15/2007	4833.29		
HANK	SS1-M	6/18/2007	4834		
HANK	SS1-M	6/26/2007	4833.59		
HANK	SS1-U	10/1/1978	4826		
HANK	SS1-U	11/1/1978	4815		
HANK	SS1-U	1/1/1979	4831		
HANK	SS1-U	8/1/1979	4835		
HANK	SS1-U	10/1/1979	4836		
HANK	SS1-U	6/15/2007	4836.96		
HANK	SS1-U	6/18/2007	4836.99		
NICHOLS RANCH	URZHB-6	7/27/2007	4861.09		
NICHOLS RANCH	URZHB-6	7/31/2007	4862.96		
NICHOLS RANCH	URZHB-6	8/8/2007	4862.96		
NICHOLS RANCH	URZHB-6	8/28/2007	4861.24		
NICHOLS RANCH	URZHB-6	10/4/2007	4861.7		
NICHOLS RANCH	URZHC-2	12/19/2006	4885.75		
NICHOLS RANCH	URZHC-2	5/2/2007	4896.06		
NICHOLS RANCH	URZHC-2	5/24/2007	4893.44		
NICHOLS RANCH	URZHC-2	6/4/2007	4885.67		
NICHOLS RANCH	URZHC-2	6/26/2007	4892.46		
NICHOLS RANCH	URZHC-2	6/28/2007	4892.78		
NICHOLS RANCH	URZHC-2	7/13/2007	4891.67		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
NICHOLS RANCH	URZHC-2	7/24/2007	4893.64		
NICHOLS RANCH	URZHC-2	8/2/2007	4891.03		
NICHOLS RANCH	URZHC-2	9/6/2007	4891.44		
NICHOLS RANCH	URZHC-2	10/4/2007	4892.08		
NICHOLS RANCH	URZHF-1	12/19/2006	4903.43		
NICHOLS RANCH	URZHF-1	6/26/2007	4902.23		
NICHOLS RANCH	URZHF-1	7/24/2007	4902.82		
NICHOLS RANCH	URZHF-1	10/4/2007	4903.4		
NICHOLS RANCH	URZHF-5	7/27/2007	4902.16		
NICHOLS RANCH	URZHF-5	7/31/2007	4900.58		
NICHOLS RANCH	URZHF-5	8/8/2007	4900.26		
NICHOLS RANCH	URZHF-5	10/4/2007	4901.37		
NICHOLS RANCH	URZHG-3	6/26/2007	4954.39		
NICHOLS RANCH	URZHG-3	6/28/2007	4954.44		
NICHOLS RANCH	URZHG-3	7/24/2007	4954.6		
NICHOLS RANCH	URZHG-3	10/4/2007	4954.94		
NICHOLS RANCH	URZHG-4	7/31/2007	4935.11		
NICHOLS RANCH	URZHG-4	8/8/2007	4935.15		
NICHOLS RANCH	URZHG-4	10/4/2007	4935.39		
NICHOLS RANCH	URZHH-7	9/5/2007	5072.94		
NICHOLS RANCH	URZHH-7	10/4/2007	5072.69		
NICHOLS RANCH	URZN1-2	12/14/2006	4650.21		
NICHOLS RANCH	URZN1-2	3/23/2007	4649.52		
NICHOLS RANCH	URZN1-2	3/27/2007	4649.51		
NICHOLS RANCH	URZN1-2	5/30/2007	4650.35		
NICHOLS RANCH	URZN1-2	6/4/2007	4650.36		
NICHOLS RANCH	URZN1-2	6/15/2007	4651.96		
NICHOLS RANCH	URZN1-2	6/26/2007	4650.14		
NICHOLS RANCH	URZN1-2	7/10/2007	4650.23		
NICHOLS RANCH	URZN1-2	7/24/2007	4650.37		
NICHOLS RANCH	URZN1-2	8/7/2007	4650.27		
NICHOLS RANCH	URZN1-2	8/28/2007	4650		
NICHOLS RANCH	URZN1-2	10/4/2007	4650.53		
NICHOLS RANCH	URZNB-1	12/14/2006	4652.69		
NICHOLS RANCH	URZNB-1	3/21/2007	4652.86		
NICHOLS RANCH	URZNB-1	3/27/2007	4653.01		
NICHOLS RANCH	URZNB-1	5/30/2007	4653.69		
NICHOLS RANCH	URZNB-1	5/30/2007	4653.64		
NICHOLS RANCH	URZNB-1	6/15/2007	4652.23		
NICHOLS RANCH	URZNB-1	6/26/2007	4653.76		
NICHOLS RANCH	URZNB-1	7/10/2007	4653.75		
NICHOLS RANCH	URZNB-1	7/24/2007	4653.81		
NICHOLS RANCH	URZNB-1	8/7/2007	4653.76		
NICHOLS RANCH	URZNB-1	10/4/2007	4654.22		
NICHOLS RANCH	URZNF-3	9/10/2007	4639.3		
NICHOLS RANCH	URZNF-3	10/4/2007	4639.67		
NICHOLS RANCH	URZNQ-4	9/10/2007	4629.24		
NICHOLS RANCH	URZNQ-4	10/4/2007	4629.11		
NICHOLS RANCH	W. of WW1	9/26/2007	4707.7		

MINE_NAME	WELL_NAME	MEAS_DATE	GW_ELEV	GASSY	COMMENTS
HANK	WC-MN1	10/29/1979	4845		
HANK	WC-MN1	1/1/1999	4843		

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	11894 Well	11/16/2006	Conductivity	umhos/cm	509	Energy Laboratories	C06110808-002	11/18/06	A2510 B	
			pH	s.u.	8.11			11/18/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	298			11/20/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			11/20/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	152			11/20/06	A2320 B	
			Calcium	mg/L	7			11/30/06	E200.7	
			Chloride	mg/L	5			11/20/06	A4500-Cl B	
			Fluoride	mg/L	0.03			11/20/06	A4500-F C	
			Magnesium	mg/L	ND			11/30/06	E200.7	
			Nitrogen, Ammonia as N		ND			11/20/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/20/06	E353.2	
			Potassium	mg/L	2			11/30/06	E200.7	
			Silica	mg/L	6.9			11/30/06	E200.7	
			Sodium	mg/L	100			11/30/06	E200.7	
			Sulfate	mg/L	104			11/21/06	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/20/06	E200.8	
			Arsenic	mg/L	0.004			11/20/06	E200.8	
			Barium	mg/L	ND			11/20/06	E200.8	
			Boron	mg/L	ND			11/30/06	E200.7	
			Cadmium	mg/L	ND			11/20/06	E200.8	
			Chromium	mg/L	ND			11/20/06	E200.8	
			Copper	mg/L	ND			11/20/06	E200.8	
			Iron	mg/L	ND			11/30/06	E200.7	
			Lead	mg/L	ND			11/20/06	E200.8	
			Manganese	mg/L	ND			11/20/06	E200.8	
			Mercury	mg/L	ND			11/20/06	E200.8	
			Molybdenum	mg/L	ND			11/20/06	E200.8	
			Nickel	mg/L	ND			11/20/06	E200.8	
			Selenium	mg/L	ND			11/20/06	E200.8	
			Uranium	mg/L	0.0301			11/20/06	E200.8	
			Vanadium	mg/L	ND			11/20/06	E200.8	
			Zinc	mg/L	ND			11/20/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			11/30/06	E200.7	
			Manganese	mg/L	ND			11/30/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	22.3			12/07/06	E900.0	
			Gross Alpha precision (+)	pCi/L	1.1			12/07/06	E900.0	
			Gross Beta	pCi/L	6.6			12/07/06	E900.0	
			Gross Beta precision (+)	pCi/L	1.6			12/07/06	E900.0	
			Radium 226	pCi/L	ND			12/08/06	E903.0	
			Radium 228	pCi/L	ND			12/04/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.015			12/04/06	Calculation	
			Anions	meq/L	4.81			12/04/06	Calculation	
			Cations	meq/L	4.81			12/04/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	301			12/04/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	990			12/04/06	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	11894 Well	05/18/07	Conductivity	umhos/cm	492	Energy Laboratories	C07050983-001	05/21/07	A2510 B	
			pH	s.u.	8.49			05/21/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	274			05/21/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			05/21/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	152			05/21/07	A2320 B	
			Calcium	mg/L	7			05/31/07	E200.7	
			Chloride	mg/L	5			05/21/07	A4500-Cl B	
			Fluoride	mg/L	0.4			05/22/07	A4500-F C	
			Magnesium	mg/L	ND			05/31/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/22/07	E353.2	
			Nitrogen, Nitrate as N						A4500-NO2 B	
			Potassium	mg/L	1			05/31/07	E200.7	
			Silica	mg/L	7			05/31/07	E200.7	
			Sodium	mg/L	98			05/31/07	E200.7	
			Sulfate	mg/L	105			05/22/07	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/21/07	E200.8	
			Arsenic	mg/L	0.004			05/21/07	E200.8	
			Barium	mg/L	ND			05/21/07	E200.8	
			Boron	mg/L	ND			05/31/07	E200.7	
			Cadmium	mg/L	ND			05/21/07	E200.8	
			Chromium	mg/L	ND			05/21/07	E200.8	
			Copper	mg/L	0.01			05/21/07	E200.8	
			Iron	mg/L	ND			05/31/07	E200.7	
			Lead	mg/L	0.001			05/21/07	E200.8	
			Manganese	mg/L	ND			05/21/07	E200.8	
			Mercury	mg/L	ND			05/21/07	E200.8	
			Molybdenum	mg/L	ND			05/21/07	E200.8	
			Nickel	mg/L	ND			05/21/07	E200.8	
			Selenium	mg/L	ND			05/21/07	E200.8	
			Uranium	mg/L	0.0279			05/21/07	E200.8	
			Vanadium	mg/L	ND			05/21/07	E200.8	
			Zinc	mg/L	ND			05/21/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/31/07	E200.7	
			Manganese	mg/L	ND			05/31/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	21.1			06/08/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.2			06/08/07	E900.0	
			Gross Beta	pCi/L	5.7			06/08/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.4			06/08/07	E900.0	
			Radium 226	pCi/L	ND			06/04/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			05/29/07	RA-05	
			Radium 228 precision (+)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.15			06/01/07	Calculation	
			Anions	meq/L	4.91			06/01/07	Calculation	
			Cations	meq/L	4.71			06/01/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	302			06/01/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.91			06/01/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	Cotton Art.	11/16/2006	Conductivity	umhos/cm	509	Energy Laboratories	C06110808-003	11/18/06	A2510 B	
			pH	s.u.	8.73			11/18/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	298			11/20/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	8			11/20/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	269			11/20/06	A2320 B	
			Calcium	mg/L	5			11/30/06	E200.7	
			Chloride	mg/L	3			11/20/06		
			Fluoride	mg/L	0.8			11/20/06	A4500-F C	
			Magnesium	mg/L	ND			11/30/06	E200.7	
			Nitrogen, Ammonia as N		0.06			11/20/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/20/06	E353.2	
			Potassium	mg/L	2			11/30/06	E200.7	
			Silica	mg/L	8.0			11/30/06	E200.7	
			Sodium	mg/L	108			11/30/06	E200.7	
			Sulfate	mg/L	18			11/21/06	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/20/06	E200.8	
			Arsenic	mg/L	ND			11/20/06	E200.8	
			Barium	mg/L	ND			11/20/06	E200.8	
			Boron	mg/L	ND			11/30/06	E200.7	
			Cadmium	mg/L	ND			11/20/06	E200.8	
			Chromium	mg/L	ND			11/20/06	E200.8	
			Copper	mg/L	ND			11/20/06	E200.8	
			Iron	mg/L	ND			11/30/06	E200.7	
			Lead	mg/L	ND			11/20/06	E200.8	
			Manganese	mg/L	0.01			11/20/06	E200.8	
			Mercury	mg/L	ND			11/20/06	E200.8	
			Molybdenum	mg/L	ND			11/20/06	E200.8	
			Nickel	mg/L	ND			11/20/06	E200.8	
			Selenium	mg/L	ND			11/20/06	E200.8	
			Uranium	mg/L	0.0017			11/20/06	E200.8	
			Vanadium	mg/L	ND			11/20/06	E200.8	
			Zinc	mg/L	ND			11/20/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			11/30/06	E200.7	
			Manganese	mg/L	0.01			11/30/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			12/07/06	E900.0	
			Gross Alpha precision (±)	pCi/L	ND				E900.0	
			Gross Beta	pCi/L	ND			12/07/06	E900.0	
			Gross Beta precision (±)	pCi/L	ND				E900.0	
			Radium 226	pCi/L	ND			12/08/06	E903.0	
			Radium 226 precision (±)	pCi/L	ND				E903.0	
			Radium 228	pCi/L	ND			12/04/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.486			12/04/06	Calculation	
			Anions	meq/L	5.13			12/04/06	Calculation	
			Cations	meq/L	5.08			12/04/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	284			12/04/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.05			12/04/06	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	Cotton Art.	05/18/07	Conductivity	umhos/cm	491	Energy Laboratories	C07050983-002	05/21/07	A2510 B	
			pH	s.u.	8.54			05/21/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	268			05/21/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	5			05/21/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	291			05/21/07	A2320 B	
			Calcium	mg/L	5			05/31/07	E200.7	
			Chloride	mg/L	1			05/21/07	A4500-Cl B	
			Fluoride	mg/L	0.7			05/22/07	A4500-F C	
			Magnesium	mg/L	ND			05/31/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.12			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/22/07	E353.2	
			Nitrogen, Nitrate as N						A4500-NO2 B	
			Potassium	mg/L	2			05/31/07	E200.7	
			Silica	mg/L	8			05/31/07	E200.7	
			Sodium	mg/L	107			05/31/07	E200.7	
			Sulfate	mg/L	19			05/22/07	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/21/07	E200.8	
			Arsenic	mg/L	ND			05/21/07	E200.8	
			Barium	mg/L	ND			05/21/07	E200.8	
			Boron	mg/L	ND			05/31/07	E200.7	
			Cadmium	mg/L	ND			05/21/07	E200.8	
			Chromium	mg/L	ND			05/21/07	E200.8	
			Copper	mg/L	ND			05/21/07	E200.8	
			Iron	mg/L	ND			05/31/07	E200.7	
			Lead	mg/L	ND			05/21/07	E200.8	
			Manganese	mg/L	0.01			05/21/07	E200.8	
			Mercury	mg/L	ND			05/21/07	E200.8	
			Molybdenum	mg/L	ND			05/21/07	E200.8	
			Nickel	mg/L	ND			05/21/07	E200.8	
			Selenium	mg/L	ND			05/21/07	E200.8	
			Uranium	mg/L	ND			05/21/07	E200.8	
			Vanadium	mg/L	ND			05/21/07	E200.8	
			Zinc	mg/L	ND			05/21/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/31/07	E200.7	
			Manganese	mg/L	0.01			05/31/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	1			06/08/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.4			06/08/07	E900.0	
			Gross Beta	pCi/L	ND			06/08/07	E900.0	
			Gross Beta precision (±)	pCi/L	ND				E900.0	
			Radium 226	pCi/L	ND			06/04/07	E903.0	
			Radium 226 precision (+)	pCi/L	ND				E903.0	
			Radium 228	pCi/L	ND			05/30/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-3.67			06/01/07	Calculation	
			Anions	meq/L	5.39			06/01/07	Calculation	
			Cations	meq/L	5			06/01/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	291			06/01/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.92			06/01/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	DW-4L	7/7/2006	Conductivity	umhos/cm	613		Energy Laboratories	C06070312-001	07/12/06	A2510 B	
			pH	s.u.	8.71				07/12/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	364				07/12/06	A2540 C	
			Major Ions								
			Alkalinity,Total as CaCO3		12				07/12/06	A2320 B	
			Carbonate as CO_3	mg/L	3				07/12/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	118				07/12/06	A2320 B	
			Calcium	mg/L	9.2				07/25/06	E200.7	
			Chloride	mg/L	9				07/13/06	A4500-CL B	
			Fluoride	mg/L	0.2				07/13/06	A4500-F C	
			Magnesium	mg/L	0.9				07/25/07	E200.7	
			Nitrogen, Ammonia as N		ND				07/24/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND				07/12/06	E353.2	
			Nitrogen, Nitrate as N	mg/L	ND				07/11/06	A4500-NO2 B	
			Potassium	mg/L	1.9				07/25/06	E200.7	
			Silica	mg/L	10.4				07/25/06	E200.7	
			Sodium	mg/L	108				07/25/06	E200.7	
			Sulfate	mg/L	166				07/25/06	E200.7	
			Metals - Dissolved								
			Aluminum	mg/L	ND				07/18/06	E200.8	
			Arsenic	mg/L	ND				07/18/06	E200.8	
			Barium	mg/L	ND				07/18/06	E200.8	
			Boron	mg/L	ND				07/25/06	E200.7	
			Cadmium	mg/L	ND				07/18/06	E200.8	
			Chromium	mg/L	ND				07/18/06	E200.8	
			Copper	mg/L	ND				07/18/06	E200.8	
			Iron	mg/L	0.65				07/25/06	E200.7	
			Lead	mg/L	ND				07/18/06	E200.8	
			Manganese	mg/L	0.02				07/18/06	E200.8	
			Mercury	mg/L	ND				07/18/06	E200.8	
			Molybdenum	mg/L	ND				07/18/06	E200.8	
			Nickel	mg/L	ND				07/18/06	E200.8	
			Selenium	mg/L	ND				07/18/06	E200.8	
			Uranium	mg/L	ND				07/18/06	E200.8	
			Vanadium	mg/L	ND				07/18/06	E200.8	
			Zinc	mg/L	ND				07/18/06	E200.8	
			Metals - Total								
			Iron	mg/L	N/A					E200.7	
			Manganese	mg/L	N/A					E200.7	
			Radionuclides - Dissolved								
			Gross Alpha	pCi/L	N/A					E900.0	
			Gross Alpha precision (+)	pCi/L	N/A					E900.0	
			Gross Beta	pCi/L	N/A					E900.0	
			Gross Beta precision (+)	pCi/L	N/A					E900.0	
			Radium 226	pCi/L	4.3				07/18/06	E903.0	
			Radium 226 precision (+)	pCi/L	0.6				07/18/06	E903.0	
			Radium 228	pCi/L	N/A					RA-05	
			Data Quality								
			A/C Balance (±5)	%	-4.14				07/26/06	Calculation	
			Anions	meq/L	5.75				07/26/06	Calculation	
			Cations	meq/L	5.3				07/26/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	366				07/26/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.99				07/26/06	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	DW-4L	09/07/06	Conductivity	umhos/cm	643	Energy Laboratories	C06090278-002	09/11/06	A2510 B	
			pH	s.u.	8.18			09/11/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	332			09/11/06	A2540 C	
			Major Ions							
			Alkalinity,Total as CaCO3		112			09/12/06	A2320 B	
			Carbonate as CO_3	mg/L	ND			09/12/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	137			09/12/06	A2320 B	
			Calcium	mg/L	8.9			09/25/06	E200.7	
			Fluoride	mg/L	0.1			09/25/06	A4500-F C	
			Magnesium	mg/L	1			09/12/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/08/06	E353.2	
			Nitrogen, Nitrate as N		ND			09/25/06	A4500-NO2 B	
			Potassium	mg/L	1.9			09/25/06	E200.7	
			Silica	mg/L	10			09/25/06	E200.7	
			Sodium	mg/L	123			09/25/06	E200.7	
			Sulfate	mg/L	183			09/25/06	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/12/06	E200.8	
			Arsenic	mg/L	ND			09/12/06	E200.8	
			Barium	mg/L	ND			09/12/06	E200.8	
			Boron	mg/L	ND			09/25/06	E200.7	
			Cadmium	mg/L	ND			09/12/06	E200.8	
			Chromium	mg/L	ND			09/12/06	E200.8	
			Copper	mg/L	ND			09/12/06	E200.8	
			Iron	mg/L	0.25			09/25/06	E200.7	
			Lead	mg/L	ND			09/12/06	E200.8	
			Manganese	mg/L	0.02			09/12/06	E200.8	
			Mercury	mg/L	ND			09/12/06	E200.8	
			Molybdenum	mg/L	ND			09/12/06	E200.8	
			Nickel	mg/L	ND			09/12/06	E200.8	
			Selenium	mg/L	ND			09/12/06	E200.8	
			Uranium	mg/L	ND			09/12/06	E200.8	
			Vanadium	mg/L	ND			09/12/06	E200.8	
			Zinc	mg/L	ND			09/12/06	E200.8	
			Metals - Total							
			Iron	mg/L	NT				E200.7	
			Manganese	mg/L	NT				E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L					E900.0	
			Gross Alpha precision (+)	pCi/L					E900.0	
			Gross Beta	pCi/L					E900.0	
			Gross Beta precision (+)	pCi/L					E900.0	
			Radium 226	pCi/L	ND			09/25/06	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L					RA-05	
			Data Quality							
			A/C Balance (+5)	%	-2.73			10/02/06	Calculation	
			Anions	meq/L	6.29			10/02/06	Calculation	
			Cations	meq/L	5.95			10/02/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	404			10/02/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.82			10/02/06	Calculation	

MINE_NAME	[redacted]	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]	MENTS
Nichols Ranch		DW-4L	12/20/06	Conductivity	umhos/cm	610		Energy Laboratories	C06120892	12/21/06	A2510 B		
				pH	s.u.	8.64				12/21/06	A4500-H B		
				Solids, Total Dissolved @ 180 °C	mg/L	352				12/21/06	A2540 C		
				Major Ions									
				Carbonate as CO_3	mg/L	3				12/22/06	A2320 B		
				Bicarbonate as HCO_3	mg/L	127				12/22/06	A2320 B		
				Calcium	mg/L	9				01/09/07	E200.7		
				Chloride	mg/L	10				12/21/06	A4500-Cl B		
				Fluoride	mg/L	0.2				12/22/06	A4500-F C		
				Magnesium	mg/L	ND				01/09/07	E200.7		
				Nitrogen, Ammonia as N	mg/L	0.07				12/21/06	A4500-NH3 G		
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				12/27/06	E353.2		
				Potassium	mg/L	2				01/09/07	E200.7		
				Silica	mg/L	9.6				01/09/07	E200.7		
				Sodium	mg/L	130				01/09/07	E200.7		
				Sulfate	mg/L	170				12/23/06	A4500-SO4 E		
				Metals - Dissolved									
				Aluminum	mg/L	ND				12/28/06	E200.8		
				Arsenic	mg/L	ND				12/22/06	E200.8		
				Barium	mg/L	ND				12/22/06	E200.8		
				Boron	mg/L	ND				01/09/07	E200.7		
				Cadmium	mg/L	ND				12/22/06	E200.8		
				Chromium	mg/L	ND				12/22/06	E200.8		
				Copper	mg/L	ND				12/22/06	E200.8		
				Iron	mg/L	0.08				01/09/07	E200.7		
				Lead	mg/L	ND				12/22/06	E200.8		
				Manganese	mg/L	0.03				12/22/06	E200.8		
				Mercury	mg/L	ND				12/22/06	E200.8		
				Molybdenum	mg/L	ND				12/22/06	E200.8		
				Nickel	mg/L	ND				12/22/06	E200.8		
				Selenium	mg/L	ND				12/22/06	E200.8		
				Uranium	mg/L	ND				12/27/06	E200.8		
				Vanadium	mg/L	ND				12/22/06	E200.8		
				Zinc	mg/L	ND				12/22/06	E200.8		
				Metals - Total									
				Iron	mg/L	0.10				01/08/07	E200.7		
				Manganese	mg/L	0.03				01/08/07	E200.7		
				Radionuclides - Dissolved									
				Gross Alpha	pCi/L	3.0				01/06/07	E900.0		
				Gross Alpha precision (+)	pCi/L	0.7				01/06/07	E900.0		
				Gross Beta	pCi/L	2.8				01/06/07	E900.0		
				Gross Beta precision (+)	pCi/L	1.5				01/06/07	E900.0		
				Radium 226	pCi/L	1.3				01/13/07	E903.0		
				Radium 226 precision (+)	pCi/L	0.5				01/13/07	E903.0		
				Radium 228	pCi/L	ND				01/08/07	RA-05		
				Radium 228 precision (+)	pCi/L	NA					RA-05		
				Data Quality									
				A/C Balance (+5)	%	0.738				01/12/07	Calculation		
				Anions	meq/L	6.16				01/12/07	Calculation		
				Cations	meq/L	6.25				01/12/07	Calculation		
				Solids, Total Dissolved Calculated	mg/L	405				01/12/07	Calculation		
				TDS Balance (0.80-1.20)	dec. %	0.870				01/12/07	Calculation		

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	DW-4L	05/17/07	Conductivity	umhos/cm	605	Energy Laboratories	C07051004-002	05/21/07	A2510 B	
			pH	s.u.	8.67			05/21/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	360			05/21/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			05/21/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	128			05/21/07	A2320 B	
			Calcium	mg/L	8			05/30/07	E200.7	
			Chloride	mg/L	10			05/21/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/22/07	A4500-F C	
			Magnesium	mg/L	0.9			05/30/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/24/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/22/07	E353.2	
			Potassium	mg/L	1.9			05/30/07	E200.7	
			Silica	mg/L	9			05/30/07	E200.7	
			Sodium	mg/L	112			05/30/07	E200.7	
			Sulfate	mg/L	155			05/30/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/23/07	E200.8	
			Arsenic	mg/L	ND			05/23/07	E200.8	
			Barium	mg/L	ND			05/23/07	E200.8	
			Boron	mg/L	ND			05/30/07	E200.7	
			Cadmium	mg/L	ND			05/23/07	E200.8	
			Chromium	mg/L	ND			05/23/07	E200.8	
			Copper	mg/L	ND			05/23/07	E200.8	
			Iron	mg/L	0.1			05/30/07	E200.7	
			Lead	mg/L	ND			05/23/07	E200.8	
			Manganese	mg/L	0.01			05/23/07	E200.8	
			Mercury	mg/L	ND			05/23/07	E200.8	
			Molybdenum	mg/L	ND			05/23/07	E200.8	
			Nickel	mg/L	ND			05/23/07	E200.8	
			Selenium	mg/L	ND			05/23/07	E200.8	
			Uranium	mg/L	ND			05/23/07	E200.8	
			Vanadium	mg/L	ND			05/23/07	E200.8	
			Zinc	mg/L	ND			05/23/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.1			05/30/07	E200.7	
			Manganese	mg/L	0.01			05/30/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			06/08/07	E900.0	
			Gross Alpha precision (±)	pCi/L					E900.0	
			Gross Beta	pCi/L	ND			06/08/07	E900.0	
			Gross Beta precision (±)	pCi/L					E900.0	
			Radium 226	pCi/L	ND			06/04/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			05/30/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.78			05/31/07	Calculation	
			Anions	meq/L	5.7			05/31/07	Calculation	
			Cations	meq/L	5.39			05/31/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	362			05/31/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.99			05/31/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	DW-4U	12/21/2006	Conductivity	umhos/cm	1480	Energy Laboratories	C06120941-001	12/23/06	A2510 B	
			pH	s.u.	8.01			12/23/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1050			12/23/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			12/26/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	143			12/26/06	A2320 B	
			Calcium	mg/L	105			01/11/07	E200.7	
			Chloride	mg/L	3			12/27/06	A4500-Cl B	
			Fluoride	mg/L	ND			12/26/06	A4500-F C	
			Magnesium	mg/L	25			01/11/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			01/04/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/27/06	E353.2	
			Potassium	mg/L	7			01/11/07	E200.7	
			Silica	mg/L	8.5			01/11/07	E200.7	
			Sodium	mg/L	187			01/11/07	E200.7	
			Sulfate	mg/L	650			12/26/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			01/05/07	E200.8	
			Arsenic	mg/L	ND			12/26/06	E200.8	
			Barium	mg/L	ND			12/26/06	E200.8	
			Boron	mg/L	ND			01/11/07	E200.7	
			Cadmium	mg/L	ND			12/26/06	E200.8	
			Chromium	mg/L	ND			12/26/06	E200.8	
			Copper	mg/L	ND			12/26/06	E200.8	
			Iron	mg/L	ND			01/11/07	E200.7	
			Lead	mg/L	ND			12/26/06	E200.8	
			Manganese	mg/L	0.06			12/26/06	E200.8	
			Mercury	mg/L	ND			12/26/06	E200.8	
			Molybdenum	mg/L	ND			01/05/07	E200.8	
			Nickel	mg/L	ND			12/26/06	E200.8	
			Selenium	mg/L	ND			12/26/06	E200.8	
			Uranium	mg/L	0.0906			12/26/06	E200.8	
			Vanadium	mg/L	ND			12/26/06	E200.8	
			Zinc	mg/L	ND			12/26/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			01/11/07	E200.7	
			Manganese	mg/L	0.06			01/11/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	76.9			01/07/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.4			01/07/07	E900.0	
			Gross Beta	pCi/L	25.5			01/07/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.9			01/07/07	E900.0	
			Radium 226	pCi/L	ND			01/14/07	E903.0	
			Radium 226 precision (±)	pCi/L	ND			01/08/07	E903.0	
			Radium 228	pCi/L	ND				RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.98			01/12/07	Calculation	
			Anions	meq/L	15.0			01/12/07	Calculation	
			Cations	meq/L	15.6			01/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1000			01/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.05			01/12/07	Calculation	

MINE NAME	[redacted] TATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER [redacted]	LAB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted] MENTS
Nichols Ranch	DW-4U	05/14/07	Conductivity	umhos/cm	1560	Energy Laboratories	C07050673-001	05/15/07	A2510 B	
			pH	s.u.	7.87			05/15/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1050			05/15/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/15/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	154			05/15/07	A2320 B	
			Calcium	mg/L	102			05/22/07	E200.7	
			Chloride	mg/L	3			05/16/07	A4500-Cl B	
			Fluoride	mg/L	0.1			05/16/07	A4500-F C	
			Magnesium	mg/L	26			05/22/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/15/07	E353.2	
			Potassium	mg/L	7			05/22/07	E200.7	
			Silica	mg/L	8.6			05/22/07	E200.7	
			Sodium	mg/L	204			05/22/07	E200.7	
			Sulfate	mg/L	655			05/15/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/18/07	E200.8	
			Arsenic	mg/L	ND			05/16/07	E200.8	
			Barium	mg/L	ND			05/16/07	E200.8	
			Boron	mg/L	ND			05/22/07	E200.7	
			Cadmium	mg/L	ND			05/16/07	E200.8	
			Chromium	mg/L	ND			05/16/07	E200.8	
			Copper	mg/L	ND			05/16/07	E200.8	
			Iron	mg/L	ND			05/22/07	E200.7	
			Lead	mg/L	ND			05/16/07	E200.8	
			Manganese	mg/L	0.06			05/16/07	E200.8	
			Mercury	mg/L	ND			05/16/07	E200.8	
			Molybdenum	mg/L	ND			05/16/07	E200.8	
			Nickel	mg/L	ND			05/16/07	E200.8	
			Selenium	mg/L	ND			05/16/07	E200.8	
			Uranium	mg/L	0.0938			05/16/07	E200.8	
			Vanadium	mg/L	ND			05/16/07	E200.8	
			Zinc	mg/L	ND			05/16/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/22/07	E200.7	
			Manganese	mg/L	0.05			05/22/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	66.3			06/04/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.6			06/04/07	E900.0	
			Gross Beta	pCi/L	27.7			06/04/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.1			06/04/07	E900.0	
			Radium 226	pCi/L	0.6			05/28/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.3			05/28/07	E903.0	
			Radium 228	pCi/L	ND			05/22/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.117			05/24/07	Calculation	
			Anions	meq/L	16.2			05/24/07	Calculation	
			Cations	meq/L	16.3			05/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1080			05/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.97			05/24/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	DW-4U	05/17/07	Conductivity	umhos/cm	1460	Energy Laboratories	C07051004-001	05/21/07	A2510 B	
			pH	s.u.	7.9			05/21/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1030			05/21/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/21/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	151			05/21/07	A2320 B	
			Calcium	mg/L	104			05/30/07	E200.7	
			Chloride	mg/L	6			05/21/07	A4500-Cl B	
			Fluoride	mg/L	ND			05/22/07	A4500-F C	
			Magnesium	mg/L	26			05/30/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/24/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/22/07	E353.2	
			Potassium	mg/L	7			05/30/07	E200.7	
			Silica	mg/L	8.7			05/30/07	E200.7	
			Sodium	mg/L	198			05/30/07	E200.7	
			Sulfate	mg/L	649			05/22/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/23/07	E200.8	
			Arsenic	mg/L	ND			05/23/07	E200.8	
			Barium	mg/L	ND			05/23/07	E200.8	
			Boron	mg/L	ND			05/30/07	E200.7	
			Cadmium	mg/L	ND			05/23/07	E200.8	
			Chromium	mg/L	ND			05/23/07	E200.8	
			Copper	mg/L	ND			05/23/07	E200.8	
			Iron	mg/L	ND			05/30/07	E200.7	
			Lead	mg/L	ND			05/23/07	E200.8	
			Manganese	mg/L	0.05			05/23/07	E200.8	
			Mercury	mg/L	ND			05/23/07	E200.8	
			Molybdenum	mg/L	ND			05/23/07	E200.8	
			Nickel	mg/L	ND			05/23/07	E200.8	
			Selenium	mg/L	ND			05/23/07	E200.8	
			Uranium	mg/L	0.0963			05/23/07	E200.8	
			Vanadium	mg/L	ND			05/23/07	E200.8	
			Zinc	mg/L	ND			05/23/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/30/07	E200.7	
			Manganese	mg/L	0.05			05/30/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	61.3			06/08/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.3			06/08/07	E900.0	
			Gross Beta	pCi/L	20.4			06/08/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.8			06/08/07	E900.0	
			Radium 226	pCi/L	ND			06/04/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			05/30/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.092			05/31/07	Calculation	
			Anions	meq/L	16.2			05/31/07	Calculation	
			Cations	meq/L	16.1			05/31/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1070			05/31/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.96			05/31/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-2	12/14/2006	Conductivity	umhos/cm	534	Energy Laboratories	C06120680-004	12/16/06	A2510 B	
			pH	s.u.	8.57			12/16/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	334			12/18/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			12/16/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	137			12/16/06	A2320 B	
			Calcium	mg/L	8			12/28/06	E200.7	
			Chloride	mg/L	7			12/18/07	A4500-Cl B	
			Fluoride	mg/L	0.3			12/16/06	A4500-F C	
			Magnesium	mg/L	ND			12/28/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/19/06	E353.2	
			Potassium	mg/L	2			12/28/06	E200.7	
			Silica	mg/L	9.6			12/28/06	E200.7	
			Sodium	mg/L	111			12/28/06	E200.7	
			Sulfate	mg/L	108			12/19/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/19/06	E200.8	
			Arsenic	mg/L	0.002			12/19/06	E200.8	
			Barium	mg/L	ND			12/19/06	E200.8	
			Boron	mg/L	ND			12/28/06	E200.7	
			Cadmium	mg/L	ND			12/19//06	E200.8	
			Chromium	mg/L	ND			12/19/06	E200.8	
			Copper	mg/L	ND			12/19/06	E200.8	
			Iron	mg/L	ND			12/28/06	E200.7	
			Lead	mg/L	ND			12/19/06	E200.8	
			Manganese	mg/L	ND			12/19/06	E200.8	
			Mercury	mg/L	ND			12/19/06	E200.8	
			Molybdenum	mg/L	ND			12/19/06	E200.8	
			Nickel	mg/L	ND			12/19/06	E200.8	
			Selenium	mg/L	ND			12/19/06	E200.8	
			Uranium	mg/L	0.0214			12/19/06	E200.8	
			Vanadium	mg/L	ND			12/19/06	E200.8	
			Zinc	mg/L	ND			12/19/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			12/28/06	E200.7	
			Manganese	mg/L	ND			12/28/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	18.8			12/27/06	E900.0	
			Gross Alpha precision (+)	pCi/L	1.2			12/27/06	E900.0	
			Gross Beta	pCi/L	11			12/27/06	E900.0	
			Gross Beta precision (+)	pCi/L	1.6			12/27/06	E900.0	
			Radium 226	pCi/L	0.9			12/27/06	E903.0	
			Radium 226 precision (+)	pCi/L	0.3			12/27/06	E903.0	
			Radium 228	pCi/L	ND			12/21/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.19			12/29/06	Calculation	
			Anions	meq/L	5.44			12/29/06	Calculation	
			Cations	meq/L	5.32			12/29/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	347			12/29/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.960			12/29/06	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	COMMENTS
Nichols Ranch	MN-2	04/18/07	Conductivity	umhos/cm	580	Energy Laboratories	C07040872-002	04/19/07	A2510 B	
			pH	s.u.	8.45			04/19/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	348			04/19/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			04/19/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	152			04/19/07	A2320 B	
			Calcium	mg/L	8			05/02/07	E200.7	
			Chloride	mg/L	8			04/20/07	A4500-Cl B	
			Fluoride	mg/L	0.2			04/19/07	A4500-F C	
			Magnesium	mg/L	ND			05/02/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			04/24/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			04/20/07	E353.2	
			Potassium	mg/L	2			05/02/07	E200.7	
			Silica	mg/L	8.5			05/02/07	E200.7	
			Sodium	mg/L	118			05/02/07	E200.7	
			Sulfate	mg/L	132			04/23/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/23/07	E200.8	
			Arsenic	mg/L	0.002			04/20/07	E200.8	
			Barium	mg/L	ND			04/20/07	E200.8	
			Boron	mg/L	ND			05/02/07	E200.7	
			Cadmium	mg/L	ND			04/20/07	E200.8	
			Chromium	mg/L	ND			04/20/07	E200.8	
			Copper	mg/L	ND			04/20/07	E200.8	
			Iron	mg/L	ND			05/02/07	E200.7	
			Lead	mg/L	ND			04/20/07	E200.8	
			Manganese	mg/L	0.01			04/20/07	E200.8	
			Mercury	mg/L	ND			04/20/07	E200.8	
			Molybdenum	mg/L	ND			04/20/07	E200.8	
			Nickel	mg/L	ND			04/20/07	E200.8	
			Selenium	mg/L	ND			04/20/07	E200.8	
			Uranium	mg/L	0.0169			04/20/07	E200.8	
			Vanadium	mg/L	ND			04/20/07	E200.8	
			Zinc	mg/L	ND			04/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/02/07	E200.7	
			Manganese	mg/L	0.01			05/02/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	19.7			04/26/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.2			04/26/07	E900.0	
			Gross Beta	pCi/L	5.1			04/26/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.4			04/26/07	E900.0	
			Radium 226	pCi/L	1.4			05/06/07	E903.0	
			Radium 226precision (+)	pCi/L	0.4			05/06/07	E903.0	
			Radium 228	pCi/L	ND			04/30/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	1.09			05/03/07	Calculation	
			Anions	meq/L	5.54			05/03/07	Calculation	
			Cations	meq/L	5.66			05/03/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	354			05/03/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.98			05/03/07	Calculation	

MINE NAME	STATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER	LAB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	MENTS
Nichols Ranch	MN-2	06/29/07	Conductivity	umhos/cm	577	Energy Laboratories	C07061572-001	07/03/07	A2510 B	
			pH	s.u.	7.41			07/03/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	310			07/03/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			07/06/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	156			07/06/07	A2320 B	
			Calcium	mg/L	8			07/10/07	E200.7	
			Chloride	mg/L	6			07/02/07	A4500-Cl B	
			Fluoride	mg/L	0.2			07/03/07	A4500-F C	
			Magnesium	mg/L	ND			07/10/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			07/09/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			07/16/07	E353.2	
			Potassium	mg/L	2			07/10/07	E200.7	
			Silica	mg/L	9.6			07/10/07	E200.7	
			Sodium	mg/L	117			07/10/07	E200.7	
			Sulfate	mg/L	136			07/05/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			07/04/07	E200.8	
			Arsenic	mg/L	0.003			07/04/07	E200.8	
			Barium	mg/L	ND			07/04/07	E200.8	
			Boron	mg/L	ND			07/10/07	E200.7	
			Cadmium	mg/L	ND			07/04/07	E200.8	
			Chromium	mg/L	ND			07/04/07	E200.8	
			Copper	mg/L	ND			07/04/07	E200.8	
			Iron	mg/L	ND			07/10/07	E200.7	
			Lead	mg/L	ND			07/04/07	E200.8	
			Manganese	mg/L	ND			07/04/07	E200.8	
			Mercury	mg/L	ND			07/04/07	E200.8	
			Molybdenum	mg/L	ND			07/04/07	E200.8	
			Nickel	mg/L	ND			07/04/07	E200.8	
			Selenium	mg/L	ND			07/04/07	E200.8	
			Uranium	mg/L	0.0226			07/04/07	E200.8	
			Vanadium	mg/L	ND			07/04/07	E200.8	
			Zinc	mg/L	ND			07/04/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			07/10/07	E200.7	
			Manganese	mg/L	ND			07/10/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	24.8			07/18/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.2			07/18/07	E900.0	
			Gross Beta	pCi/L	8.4			07/18/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.5			07/18/07	E900.0	
			Radium 226	pCi/L	0.9			07/11/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.4			07/11/07	E903.0	
			Radium 228	pCi/L	ND			07/06/07	RA-05	
			Radium 228 precision (±)	pCi/L	NA			NA	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.225			07/11/07	Calculation	
			Anions	meq/L	5.57			07/11/07	Calculation	
			Cations	meq/L	5.54			07/11/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	355			07/11/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.87			07/11/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-2	09/10/07	Conductivity	umhos/cm	549	Energy Laboratories	C07090372	09/11/07	A2510 B	
			pH	s.u.	8.34			09/11/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	312			09/11/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	4			09/11/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	151			09/11/07	A2320 B	
			Calcium	mg/L	8			09/19/07	E200.7	
			Chloride	mg/L	5			09/13/07	A4500-Cl B	
			Fluoride	mg/L	0.3			09/12/07	A4500-F C	
			Magnesium	mg/L	ND			09/19/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/12/07	E353.2	
			Potassium	mg/L	2			09/19/07	E200.7	
			Silica	mg/L	8			09/19/07	E200.7	
			Sodium	mg/L	111			09/19/07	E200.7	
			Sulfate	mg/L	141			09/11/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/20/07	E200.8	
			Arsenic	mg/L	0.009			09/20/07	E200.8	
			Barium	mg/L	ND			09/20/07	E200.8	
			Boron	mg/L	ND			09/19/07	E200.7	
			Cadmium	mg/L	ND			09/20/07	E200.8	
			Chromium	mg/L	ND			09/20/07	E200.8	
			Copper	mg/L	ND			09/20/07	E200.8	
			Iron	mg/L	0.05			09/19/07	E200.7	
			Lead	mg/L	ND			09/20/07	E200.8	
			Manganese	mg/L	0.01			09/20/07	E200.8	
			Mercury	mg/L	ND			09/20/07	E200.8	
			Molybdenum	mg/L	ND			09/20/07	E200.8	
			Nickel	mg/L	ND			09/20/07	E200.8	
			Selenium	mg/L	ND			09/20/07	E200.8	
			Uranium	mg/L	0.0222			09/20/07	E200.8	
			Vanadium	mg/L	ND			09/20/07	E200.8	
			Zinc	mg/L	0.01			09/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			09/19/07	E200.7	
			Manganese	mg/L	0.01			09/19/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	26.2			09/19/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.2			09/19/07	E900.0	
			Gross Beta	pCi/L	6.1			09/19/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.4			09/19/07	E900.0	
			Radium 226	pCi/L	0.7			09/24/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.3			09/24/07	E903.0	
			Radium 228	pCi/L	ND			09/18/07	RA-05	
			Radium 228 precision (+)	pCi/L	NA				RA-05	
			Data Quality							
			A/C Balance (+5)	%	-3.22			09/24/07	Calculation	
			Anions	meq/L	5.71			09/24/07	Calculation	
			Cations	meq/L	5.35			09/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	355			09/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.88			09/24/07	Calculation	

MINE NAME	STATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETEI	LAB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	MENTS
Nichols Ranch	MN-1	12/14/2006	Conductivity	umhos/cm	489	Energy Laboratories	C06120680-003	12/16/06	A2510 B	
			pH	s.u.	8.68			12/16/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	296			12/18/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	4			12/16/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	140			12/16/06	A2320 B	
			Calcium	mg/L	6			12/28/06	E200.7	
			Chloride	mg/L	6			12/18/06	A4500-Cl B	
			Fluoride	mg/L	0.3			12/16/06	A4500-F C	
			Magnesium	mg/L	ND			12/28/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/19/06	E353.2	
			Potassium	mg/L	2			12/28/06	E200.7	
			Silica	mg/L	10.8			12/28/06	E200.7	
			Sodium	mg/L	100			12/28/06	E200.7	
			Sulfate	mg/L	102			12/19/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/19/06	E200.8	
			Arsenic	mg/L	0.002			12/19/06	E200.8	
			Barium	mg/L	ND			12/19/06	E200.8	
			Boron	mg/L	ND			12/28/06	E200.7	
			Cadmium	mg/L	ND			12/19/06	E200.8	
			Chromium	mg/L	ND			12/19/06	E200.8	
			Copper	mg/L	ND			12/19/06	E200.8	
			Iron	mg/L	ND			12/28/06	E200.7	
			Lead	mg/L	ND			12/19/06	E200.8	
			Manganese	mg/L	ND			12/19/06	E200.8	
			Mercury	mg/L	ND			12/19/06	E200.8	
			Molybdenum	mg/L	ND			12/19/06	E200.8	
			Nickel	mg/L	ND			12/19/06	E200.8	
			Selenium	mg/L	ND			12/19/06	E200.8	
			Uranium	mg/L	0.012			12/19/06	E200.8	
			Vanadium	mg/L	ND			12/19/06	E200.8	
			Zinc	mg/L	ND			12/19/06	E200.8	
			Metals - Total							
			Iron	mg/L	0.03			12/28/06	E200.7	
			Manganese	mg/L	0.01			12/28/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	68.4			12/27/06	E900.0	
			Gross Alpha precision (±)	pCi/L	2.2			12/27/06	E900.0	
			Gross Beta	pCi/L	100			12/27/06	E900.0	
			Gross Beta precision (±)	pCi/L	2.7			12/27/06	E900.0	
			Radium 226	pCi/L	19.4			12/27/06	E903.0	
			Radium 226 precision (±)	pCi/L	1.3			12/27/06	E903.0	
			Radium 228	pCi/L	ND			12/21/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.81			12/29/06	Calculation	
			Anions	meq/L	5.03			12/29/06	Calculation	
			Cations	meq/L	4.76			12/29/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	314			12/29/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.940			12/29/06	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-1	05/02/07	Conductivity	umhos/cm	533	Energy Laboratories	C07050200-001	05/04/07	A2510 B	
			pH	s.u.	8.59			05/04/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	322			05/06/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2.8			05/04/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	150			05/04/07	A2320 B	
			Calcium	mg/L	6			05/14/07	E200.7	
			Chloride	mg/L	4			05/03/07	A4500-Cl B	
			Fluoride	mg/L	0.3			05/03/07	A4500-F C	
			Magnesium	mg/L	ND			05/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/07/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/04/07	E353.2	
			Potassium	mg/L	2			05/14/07	E200.7	
			Silica	mg/L	9.2			05/14/07	E200.7	
			Sodium	mg/L	105			05/14/07	E200.7	
			Sulfate	mg/L	111			05/04/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/09/07	E200.8	
			Arsenic	mg/L	0.002			05/09/07	E200.8	
			Barium	mg/L	ND			05/09/07	E200.8	
			Boron	mg/L	ND			05/14/07	E200.7	
			Cadmium	mg/L	ND			05/09/07	E200.8	
			Chromium	mg/L	ND			05/09/07	E200.8	
			Copper	mg/L	ND			05/09/07	E200.8	
			Iron	mg/L	ND			05/14/07	E200.7	
			Lead	mg/L	ND			05/09/07	E200.8	
			Manganese	mg/L	ND			05/09/07	E200.8	
			Mercury	mg/L	ND			05/09/07	E200.8	
			Molybdenum	mg/L	ND			05/09/07	E200.8	
			Nickel	mg/L	ND			05/09/07	E200.8	
			Selenium	mg/L	ND			05/09/07	E200.8	
			Uranium	mg/L	0.0114			05/09/07	E200.8	
			Vanadium	mg/L	ND			05/09/07	E200.8	
			Zinc	mg/L	ND			05/09/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/14/07	E200.7	
			Manganese	mg/L	ND			05/14/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	75.9			05/21/07	E900.0	
			Gross Alpha precision (+)	pCi/L	2.5			05/21/07	E900.0	
			Gross Beta	pCi/L	145			05/21/07	E900.0	
			Gross Beta precision (+)	pCi/L	3.1			05/21/07	E900.0	
			Radium 226	pCi/L	30.4			05/15/07	E903.0	
			Radium 226precision (+)	pCi/L	1.8			05/15/07	E903.0	
			Radium 228	pCi/L	ND			05/09/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-0.79			05/21/07	Calculation	
			Anions	meq/L	5.03			05/21/07	Calculation	
			Cations	meq/L	4.96			05/21/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	315			05/21/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.02			05/21/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER [redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	MN 1	07/13/07	Conductivity	umhos/cm	515	Energy Laboratories	C07070629-001	07/16/07	A2510 B	
			pH	s.u.	8.6			07/16/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	294			07/16/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			07/18/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	153			07/18/07	A2320 B	
			Calcium	mg/L	6			07/26/07	E200.7	
			Chloride	mg/L	8			07/18/07	A4500-Cl B	
			Fluoride	mg/L	0.3			07/23/07	A4500-F C	
			Magnesium	mg/L	ND			07/26/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			07/17/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			07/16/07	E353.2	
			Potassium	mg/L	2			07/26/07	E200.7	
			Silica	mg/L	8.5			07/26/07	E200.7	
			Sodium	mg/L	114			07/26/07	E200.7	
			Sulfate	mg/L	111			07/17/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			07/28/07	E200.8	
			Arsenic	mg/L	0.001			07/28/07	E200.8	
			Barium	mg/L	ND			07/28/07	E200.8	
			Boron	mg/L	ND			07/26/07	E200.7	
			Cadmium	mg/L	ND			07/28/07	E200.8	
			Chromium	mg/L	ND			07/28/07	E200.8	
			Copper	mg/L	ND			07/28/07	E200.8	
			Iron	mg/L	ND			07/26/07	E200.7	
			Lead	mg/L	ND			07/28/07	E200.8	
			Manganese	mg/L	ND			07/26/07	E200.8	
			Mercury	mg/L	ND			07/28/07	E200.8	
			Molybdenum	mg/L	ND			07/28/07	E200.8	
			Nickel	mg/L	ND			07/28/07	E200.8	
			Selenium	mg/L	ND			07/28/07	E200.8	
			Uranium	mg/L	0.0113			07/28/07	E200.8	
			Vanadium	mg/L	ND			07/28/07	E200.8	
			Zinc	mg/L	ND			07/28/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			07/26/07	E200.7	
			Manganese	mg/L	ND			07/26/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	88.2			07/22/07	E900.0	
			Gross Alpha precision (+)	pCi/L	2.2			07/22/07	E900.0	
			Gross Beta	pCi/L	84			07/22/07	E900.0	
			Gross Beta precision (+)	pCi/L	2.4			07/22/07	E900.0	
			Radium 226	pCi/L	36.3			07/30/07	E903.0	
			Radium 226 precision (+)	pCi/L	2.1			07/30/07	E903.0	
			Radium 228	pCi/L	1.9			07/23/07	RA-05	
			Radium 228 precision (+)	pCi/L	0.9			07/23/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	2.02			07/28/07	Calculation	
			Anions	meq/L	5.15			07/28/07	Calculation	
			Cations	meq/L	5.37			07/28/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	329			07/28/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.89			07/28/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	MN-3	12/14/2006	Conductivity	umhos/cm	585	Energy Laboratories	C06120680-001	12/16/06	A2510 B	
			pH	s.u.	8.53			12/16/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	350			12/18/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			12/16/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	146			12/16/06	A2320 B	
			Calcium	mg/L	11			12/28/06	E200.7	
			Chloride	mg/L	14			12/18/06	A4500-Cl B	
			Fluoride	mg/L	0.2			12/16/06	A4500-F C	
			Magnesium	mg/L	ND			12/28/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.57			12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/19/06	E353.2	
			Potassium	mg/L	2			12/28/06	E200.7	
			Silica	mg/L	11.0			12/28/06	E200.7	
			Sodium	mg/L	115			12/28/06	E200.7	
			Sulfate	mg/L	129			12/19/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/19/06	E200.8	
			Arsenic	mg/L	0.001			12/19/06	E200.8	
			Barium	mg/L	ND			12/19/06	E200.8	
			Boron	mg/L	ND			12/28/06	E200.7	
			Cadmium	mg/L	ND			12/19/06	E200.8	
			Chromium	mg/L	ND			12/19/06	E200.8	
			Copper	mg/L	ND			12/19/06	E200.8	
			Iron	mg/L	ND			12/28/06	E200.7	
			Lead	mg/L	ND			12/19/06	E200.8	
			Manganese	mg/L	ND			12/19/06	E200.8	
			Mercury	mg/L	ND			12/19/06	E200.8	
			Molybdenum	mg/L	ND			12/19/06	E200.8	
			Nickel	mg/L	ND			12/19/06	E200.8	
			Selenium	mg/L	ND			12/19/06	E200.8	
			Uranium	mg/L	0.0028			12/19/06	E200.8	
			Vanadium	mg/L	ND			12/19/06	E200.8	
			Zinc	mg/L	ND			12/19/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			12/28/06	E200.7	
			Manganese	mg/L	ND			12/28/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	5.1			12/27/06	E900.0	
			Gross Alpha precision (+)	pCi/L	0.8			12/27/06	E900.0	
			Gross Beta	pCi/L	6.7			12/27/06	E900.0	
			Gross Beta precision (+)	pCi/L	1.5			12/27/06	E900.0	
			Radium 226	pCi/L	0.8			12/27/06	E903.0	
			Radium 226 precision (+)	pCi/L	0.3			12/27/06	E903.0	
			Radium 228	pCi/L	ND			12/21/06	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-3.77			12/29/06	Calculation	
			Anions	meq/L	6.19			12/29/06	Calculation	
			Cations	meq/L	5.74			12/29/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	390			12/29/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.900			12/29/06	Calculation	

MINE NAME	[redacted]	STATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER	[redacted]	LAB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted]	MENTS
Nichols Ranch		MN-3	01/25/07	Conductivity	umhos/cm	581		Energy Laboratories	C07011039-002	01/29/07	A2510 B		
				pH	s.u.	8.43				01/29/07	A4500-H B		
				Solids, Total Dissolved @ 180 °C	mg/L	362				01/29/07	A2540 C		
				Major Ions									
				Carbonate as CO_3	mg/L	2				01/29/07	A2320 B		
				Bicarbonate as HCO_3	mg/L	148				01/29/07	A2320 B		
				Calcium	mg/L	10				01/30/07	E200.7		
				Chloride	mg/L	7				01/29/07	A4500-Cl B		
				Fluoride	mg/L	0.2				01/26/07	A4500-F C		
				Magnesium	mg/L	ND				01/30/07	E200.7		
				Nitrogen, Ammonia as N	mg/L	0.32				01/29/07	A4500-NH3 G		
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				01/30/07	E353.2		
				Potassium	mg/L	3				01/30/07	E200.7		
				Silica	mg/L	8.6				01/30/07	E200.7		
				Sodium	mg/L	113				01/30/07	E200.7		
				Sulfate	mg/L	149				01/29/07	A4500-SO4 E		
				Metals - Dissolved									
				Aluminum	mg/L	ND				01/30/07	E200.8		
				Arsenic	mg/L	ND				01/30/07	E200.8		
				Barium	mg/L	ND				01/30/07	E200.8		
				Boron	mg/L	ND				01/30/07	E200.7		
				Cadmium	mg/L	ND				01/30/07	E200.8		
				Chromium	mg/L	ND				01/30/07	E200.8		
				Copper	mg/L	ND				01/30/07	E200.8		
				Iron	mg/L	ND				01/30/07	E200.7		
				Lead	mg/L	ND				01/30/07	E200.8		
				Manganese	mg/L	ND				01/30/07	E200.8		
				Mercury	mg/L	ND				01/30/07	E200.8		
				Molybdenum	mg/L	ND				01/30/07	E200.8		
				Nickel	mg/L	ND				01/30/07	E200.8		
				Selenium	mg/L	ND				01/30/07	E200.8		
				Uranium	mg/L	0.0021				01/30/07	E200.8		
				Vanadium	mg/L	ND				01/30/07	E200.8		
				Zinc	mg/L	ND				01/30/07	E200.8		
				Metals - Total									
				Iron	mg/L	ND				01/30/07	E200.7		
				Manganese	mg/L	ND				01/30/07	E200.7		
				Radionuclides - Dissolved									
				Gross Alpha	pCi/L	5.1				02/07/07	E900.0		
				Gross Alpha precision (±)	pCi/L	0.6				02/07/07	E900.0		
				Gross Beta	pCi/L	ND				02/07/07	E900.0		
				Gross Beta precision (±)	pCi/L	NA				02/07/07	E900.0		
				Radium 226	pCi/L	1.1				02/12/07	E903.0		
				Radium 226 precision (±)	pCi/L	0.4				02/12/07	E903.0		
				Radium 228	pCi/L	ND				02/07/07	RA-05		
				Data Quality									
				A/C Balance (±5)	%	-1.87				02/02/07	Calculation		
				Anions	meq/L	5.81				02/02/07	Calculation		
				Cations	meq/L	5.59				02/02/07	Calculation		
				Solids, Total Dissolved Calculated	mg/L	367				02/02/07	Calculation		
				TDS Balance (0.80-1.20)	dec. %	0.990				02/02/07	Calculation		

MINE_NAME	[redacted]	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]
Nichols Ranch	MN-3	04/18/07	Conductivity	umhos/cm	595		Energy Laboratories	C07040901-001	04/20/07	A2510 B	
			pH	s.u.	8.51				04/20/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	346				04/20/07	A2540 C	
			Major Ions								
			Carbonate as CO_3	mg/L	2				04/20/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	151				04/20/07	A2320 B	
			Calcium	mg/L	10				05/02/07	E200.7	
			Chloride	mg/L	7				04/20/07	A4500-Cl B	
			Fluoride	mg/L	0.3				04/23/07	A4500-F C	
			Magnesium	mg/L	ND				05/02/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.18				04/24/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND				04/20/07	E353.2	
			Potassium	mg/L	2				05/02/07	E200.7	
			Silica	mg/L	9.1				05/02/07	E200.7	
			Sodium	mg/L	122				05/02/07	E200.7	
			Sulfate	mg/L	145				04/23/07	A4500-SO4 E	
			Metals - Dissolved								
			Aluminum	mg/L	ND				04/23/07	E200.8	
			Arsenic	mg/L	0.001				04/20/07	E200.8	
			Barium	mg/L	ND				04/20/07	E200.8	
			Boron	mg/L	ND				05/02/07	E200.7	
			Cadmium	mg/L	ND				04/20/07	E200.8	
			Chromium	mg/L	ND				04/20/07	E200.8	
			Copper	mg/L	ND				04/20/07	E200.8	
			Iron	mg/L	ND				05/02/07	E200.7	
			Lead	mg/L	ND				04/20/07	E200.8	
			Manganese	mg/L	ND				04/20/07	E200.8	
			Mercury	mg/L	ND				04/20/07	E200.8	
			Molybdenum	mg/L	ND				04/20/07	E200.8	
			Nickel	mg/L	ND				04/20/07	E200.8	
			Selenium	mg/L	ND				04/20/07	E200.8	
			Uranium	mg/L	0.0023				04/20/07	E200.8	
			Vanadium	mg/L	ND				04/20/07	E200.8	
			Zinc	mg/L	ND				04/20/07	E200.8	
			Metals - Total								
			Iron	mg/L	0.03				05/02/07	E200.7	
			Manganese	mg/L	ND				05/02/07	E200.7	
			Radionuclides - Dissolved								
			Gross Alpha	pCi/L	6.2				05/05/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.7				05/05/07	E900.0	
			Gross Beta	pCi/L	5.9				05/05/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.4				05/05/07	E900.0	
			Radium 226	pCi/L	0.8				05/06/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.4				05/06/07	E903.0	
			Radium 228	pCi/L	4.2				04/30/07	RA-05	
			Radium 228 precision (+)	pCi/L	1.4				04/30/07	RA-05	
			Data Quality								
			A/C Balance (+5)	%	1.48				05/03/07	Calculation	
			Anions	meq/L	5.78				05/03/07	Calculation	
			Cations	meq/L	5.95				05/03/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	373				05/03/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.93				05/03/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	COMMENTS
Nichols Ranch	MN-3	08/07/07	Conductivity	umhos/cm	579	Energy Laboratories	C07080507-001	08/09/07	A2510 B	
			pH	s.u.	8.46			08/09/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	358			08/09/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			08/09/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	152			08/09/07	A2320 B	
			Calcium	mg/L	10			08/20/07	E200.7	
			Chloride	mg/L	16			08/13/07	A4500-Cl B	
			Fluoride	mg/L	0.3			08/14/07	A4500-F C	
			Magnesium	mg/L	ND			08/20/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.18			08/10/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/13/07	E353.2	
			Potassium	mg/L	2			08/20/07	E200.7	
			Silica	mg/L	8.6			08/20/07	E200.7	
			Sodium	mg/L	122			08/20/07	E200.7	
			Sulfate	mg/L	152			08/10/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			08/24/07	E200.8	
			Arsenic	mg/L	0.001			08/24/07	E200.8	
			Barium	mg/L	ND			08/24/07	E200.8	
			Boron	mg/L	ND			08/20/07	E200.7	
			Cadmium	mg/L	ND			08/24/07	E200.8	
			Chromium	mg/L	ND			08/24/07	E200.8	
			Copper	mg/L	ND			08/24/07	E200.8	
			Iron	mg/L	ND			08/20/07	E200.7	
			Lead	mg/L	ND			08/24/07	E200.8	
			Manganese	mg/L	ND			08/24/07	E200.8	
			Mercury	mg/L	ND			08/24/07	E200.8	
			Molybdenum	mg/L	ND			08/24/07	E200.8	
			Nickel	mg/L	ND			08/24/07	E200.8	
			Selenium	mg/L	ND			08/24/07	E200.8	
			Uranium	mg/L	0.0027			08/24/07	E200.8	
			Vanadium	mg/L	ND			08/24/07	E200.8	
			Zinc	mg/L	ND			08/24/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			08/20/07	E200.7	
			Manganese	mg/L	ND			08/20/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	3.7			08/23/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.6			08/23/07	E900.0	
			Gross Beta	pCi/L	2.2			08/23/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.4			08/23/07	E900.0	
			Radium 226	pCi/L	0.7			08/20/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.3			08/20/07	E903.0	
			Radium 228	pCi/L	ND			08/14/07	RA-05	
			Radium 228 precision (+)	pCi/L	NA			08/14/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-2.02			08/24/07	Calculation	
			Anions	meq/L	6.2			08/24/07	Calculation	
			Cations	meq/L	5.95			08/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	389			08/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.92			08/24/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-4	12/14/2006	Conductivity	umhos/cm	571	Energy Laboratories	C06120680-002	12/16/06	A2510 B	
			pH	s.u.	8.67			12/16/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	330			12/18/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			12/16/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	133			12/16/06	A2320 B	
			Calcium	mg/L	7			12/28/06	E200.7	
			Chloride	mg/L	8			12/18/06	A4500-Cl B	
			Fluoride	mg/L	0.3			12/16/06	A4500-F C	
			Magnesium	mg/L	ND			12/28/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.05			12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/19/06	E353.2	
			Potassium	mg/L	2			12/28/06	E200.7	
			Silica	mg/L	10.3			12/28/06	E200.7	
			Sodium	mg/L	113			12/28/06	E200.7	
			Sulfate	mg/L	119			12/19/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/19/06	E200.8	
			Arsenic	mg/L	0.003			12/19/06	E200.8	
			Barium	mg/L	ND			12/19/06	E200.8	
			Boron	mg/L	ND			12/28/06	E200.7	
			Cadmium	mg/L	ND			12/19/06	E200.8	
			Chromium	mg/L	ND			12/19/06	E200.8	
			Copper	mg/L	ND			12/19/06	E200.8	
			Iron	mg/L	ND			12/28/06	E200.7	
			Lead	mg/L	ND			12/19/06	E200.8	
			Manganese	mg/L	ND			12/19/06	E200.8	
			Mercury	mg/L	ND			12/19/06	E200.8	
			Molybdenum	mg/L	ND			12/19/06	E200.8	
			Nickel	mg/L	ND			12/19/06	E200.8	
			Selenium	mg/L	ND			12/19/06	E200.8	
			Uranium	mg/L	0.0056			12/19/06	E200.8	
			Vanadium	mg/L	ND			12/19/06	E200.8	
			Zinc	mg/L	ND			12/19/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			12/28/06	E200.7	
			Manganese	mg/L	ND			12/28/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	11.6			12/27/06	E900.0	
			Gross Alpha precision (±)	pCi/L	1.1			12/27/06	E900.0	
			Gross Beta	pCi/L	31.3			12/27/06	E900.0	
			Gross Beta precision (±)	pCi/L	1.9			12/27/06	E900.0	
			Radium 226	pCi/L	2.3			12/27/06	E903.0	
			Radium 226 precision (±)	pCi/L	0.05			12/27/06	E903.0	
			Radium 228	pCi/L	ND			12/21/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.00			12/29/06	Calculation	
			Anions	meq/L	5.63			12/29/06	Calculation	
			Cations	meq/L	5.41			12/29/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	359			12/29/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.920			12/29/06	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-4	01/25/07	Conductivity	umhos/cm	551	Energy Laboratories	C07011039-003	01/29/07	A2510 B	
			pH	s.u.	8.49			01/29/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	338			01/29/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			01/29/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	141			01/29/07	A2320 B	
			Calcium	mg/L	7			01/30/07	E200.7	
			Chloride	mg/L	7			01/29/07	A4500-Cl B	
			Fluoride	mg/L	0.3			01/26/07	A4500-F C	
			Magnesium	mg/L	ND			01/30/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.09			01/29/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			01/30/07	E353.2	
			Potassium	mg/L	2			01/30/07	E200.7	
			Silica	mg/L	8.4			01/30/07	E200.7	
			Sodium	mg/L	113			01/30/07	E200.7	
			Sulfate	mg/L	138			01/29/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			01/30/07	E200.8	
			Arsenic	mg/L	0.003			01/30/07	E200.8	
			Barium	mg/L	ND			01/30/07	E200.8	
			Boron	mg/L	ND			01/30/07	E200.7	
			Cadmium	mg/L	ND			01/30/07	E200.8	
			Chromium	mg/L	ND			01/30/07	E200.8	
			Copper	mg/L	ND			01/30/07	E200.8	
			Iron	mg/L	ND			01/30/07	E200.7	
			Lead	mg/L	ND			01/30/07	E200.8	
			Manganese	mg/L	ND			01/30/07	E200.8	
			Mercury	mg/L	ND			01/30/07	E200.8	
			Molybdenum	mg/L	ND			01/30/07	E200.8	
			Nickel	mg/L	ND			01/30/07	E200.8	
			Selenium	mg/L	ND			01/30/07	E200.8	
			Uranium	mg/L	0.0051			01/30/07	E200.8	
			Vanadium	mg/L	ND			01/30/07	E200.8	
			Zinc	mg/L	ND			01/30/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			01/30/07	E200.7	
			Manganese	mg/L	ND			01/30/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	15.5			02/08/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.0			02/08/07	E900.0	
			Gross Beta	pCi/L	32.5			02/08/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.8			02/08/07	E900.0	
			Radium 226	pCi/L	2.9			02/12/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.6			02/12/07	E903.0	
			Radium 228	pCi/L	ND			02/07/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.856			02/02/07	Calculation	
			Anions	meq/L	5.48			02/02/07	Calculation	
			Cations	meq/L	5.39			02/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	348			02/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.970			02/02/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-4	04/18/07	Conductivity	umhos/cm	577	Energy Laboratories	C07040872-001	04/19/07	A2510 B	
			pH	s.u.	8.48			04/19/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	356			04/19/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			04/19/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	147			04/19/07	A2320 B	
			Calcium	mg/L	7			05/02/07	E200.7	
			Chloride	mg/L	7			04/20/07	A4500-Cl B	
			Fluoride	mg/L	0.2			04/19/07	A4500-F C	
			Magnesium	mg/L	ND			05/02/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			04/24/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			04/20/07	E353.2	
			Potassium	mg/L	2			05/02/07	E200.7	
			Silica	mg/L	8.7			05/02/07	E200.7	
			Sodium	mg/L	117			05/02/07	E200.7	
			Sulfate	mg/L	135			04/23/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/23/07	E200.8	
			Arsenic	mg/L	0.003			04/20/07	E200.8	
			Barium	mg/L	ND			04/20/07	E200.8	
			Boron	mg/L	ND			05/02/07	E200.7	
			Cadmium	mg/L	ND			04/20/07	E200.8	
			Chromium	mg/L	ND			04/20/07	E200.8	
			Copper	mg/L	ND			04/20/07	E200.8	
			Iron	mg/L	ND			05/02/07	E200.7	
			Lead	mg/L	ND			04/20/07	E200.8	
			Manganese	mg/L	ND			04/20/07	E200.8	
			Mercury	mg/L	ND			04/20/07	E200.8	
			Molybdenum	mg/L	ND			04/20/07	E200.8	
			Nickel	mg/L	ND			04/20/07	E200.8	
			Selenium	mg/L	ND			04/20/07	E200.8	
			Uranium	mg/L	0.0044			04/20/07	E200.8	
			Vanadium	mg/L	ND			04/20/07	E200.8	
			Zinc	mg/L	ND			04/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/02/07	E200.7	
			Manganese	mg/L	ND			05/02/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	12.5			04/26/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1			04/26/07	E900.0	
			Gross Beta	pCi/L	11.9			04/26/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.5			04/26/07	E900.0	
			Radium 226	pCi/L	3.1			05/06/07	E903.0	
			Radium 226 precision (+)	pCi/L	*0.6*			*05/06/07*	E903.0	
			Radium 228	pCi/L	ND			04/30/07	RA-05	
			Radium 228 precision (+)	pCi/L	NA				RA-05	
			Data Quality							
			A/C Balance (+5)	%	0.883			05/03/07	Calculation	
			Anions	meq/L	5.49			05/03/07	Calculation	
			Cations	meq/L	5.58			05/03/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	352			05/03/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.01			05/03/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	MN-4	07/10/07	Conductivity	umhos/cm	559	Energy Laboratories	C07070477-001	07/12/07	A2510 B	
			pH	s.u.	8.47			07/12/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	344			07/12/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			07/16/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	148			07/16/07	A2320 B	
			Calcium	mg/L	7			07/27/07	E200.7	
			Chloride	mg/L	6			07/13/07	A4500-Cl B	
			Fluoride	mg/L	0.3			07/13/07	A4500-F C	
			Magnesium	mg/L	ND			07/27/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			07/17/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			07/12/07	E353.2	
			Potassium	mg/L	2			07/27/07	E200.7	
			Silica	mg/L	9.7			07/27/07	E200.7	
			Sodium	mg/L	121			07/27/07	E200.7	
			Sulfate	mg/L	136			07/12/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			07/23/07	E200.8	
			Arsenic	mg/L	0.002			07/23/07	E200.8	
			Barium	mg/L	ND			07/23/07	E200.8	
			Boron	mg/L	ND			07/27/07	E200.7	
			Cadmium	mg/L	ND			07/23/07	E200.8	
			Chromium	mg/L	ND			07/23/07	E200.8	
			Copper	mg/L	ND			07/23/07	E200.8	
			Iron	mg/L	ND			07/27/07	E200.7	
			Lead	mg/L	ND			07/23/07	E200.8	
			Manganese	mg/L	ND			07/23/07	E200.8	
			Mercury	mg/L	ND			07/23/07	E200.8	
			Molybdenum	mg/L	ND			07/23/07	E200.8	
			Nickel	mg/L	ND			07/23/07	E200.8	
			Selenium	mg/L	ND			07/23/07	E200.8	
			Uranium	mg/L	0.0051			07/23/07	E200.8	
			Vanadium	mg/L	ND			07/23/07	E200.8	
			Zinc	mg/L	ND			07/23/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			07/27/07	E200.7	
			Manganese	mg/L	ND			07/27/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	13.3			07/20/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.9			07/20/07	E900.0	
			Gross Beta	pCi/L	20.6			07/20/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.7			07/20/07	E900.0	
			Radium 226	pCi/L	2.9			07/24/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.6			07/24/07	E903.0	
			Radium 228	pCi/L	ND			07/19/07	RA-05	
			Radium 228 precision (+)	pCi/L	NA				RA-05	
			Data Quality							
			A/C Balance (+5)	%	1.6			07/30/07	Calculation	
			Anions	meq/L	5.53			07/30/07	Calculation	
			Cations	meq/L	5.71			07/30/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	358			07/30/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.96			07/30/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	MN-5	4/18/2007	Conductivity	umhos/cm	540	Energy Laboratories	C07040901-002	04/20/07	A2510 B	
			pH	s.u.	8.51			04/20/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	334			04/20/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	3			04/20/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	149			04/20/07	A2320 B	
			Calcium	mg/L	7			05/02/07	E200.7	
			Chloride	*mg/L*	*6*			04/20/07	A4500-Cl B	
			Fluoride	mg/L	0.3			04/23/07	A4500-F C	
			Magnesium	mg/L	ND			05/02/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			04/24/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			04/20/07	E353.2	
			Potassium	*mg/L*	*2*			05/02/07	E200.7	
			Silica	mg/L	8.7			05/02/07	E200.7	
			Sodium	mg/L	115			05/02/07	E200.7	
			Sulfate	mg/L	126			04/23/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/23/07	E200.8	
			Arsenic	mg/L	0.002			04/20/07	E200.8	
			Barium	mg/L	ND			04/20/07	E200.8	
			Boron	mg/L	ND			05/02/07	E200.7	
			Cadmium	*mg/L*	*ND*			04/20/07	E200.8	
			Chromium	mg/L	ND			04/20/07	E200.8	
			Copper	mg/L	ND			04/20/07	E200.8	
			Iron	mg/L	ND			05/02/07	E200.7	
			Lead	mg/L	ND			04/20/07	E200.8	
			Manganese	mg/L	ND			04/20/07	E200.8	
			Mercury	mg/L	ND			04/20/07	E200.8	
			Molybdenum	mg/L	ND			04/20/07	E200.8	
			Nickel	mg/L	ND			04/20/07	E200.8	
			Selenium	mg/L	ND			04/20/07	E200.8	
			Uranium	mg/L	0.0106			04/20/07	E200.8	
			Vanadium	mg/L	ND			04/20/07	E200.8	
			Zinc	mg/L	ND			04/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.04			05/02/07	E200.7	
			Manganese	mg/L	ND			05/02/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	20.4			05/18/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.2			05/18/07	E900.0	
			Gross Beta	pCi/L	18.4			05/18/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.7			05/18/07	E900.0	
			Radium 226	pCi/L	2.6			05/06/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.6			05/06/07	E903.0	
			Radium 228	pCi/L	ND			04/30/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.13			05/03/07	Calculation	
			Anions	meq/L	5.35			05/03/07	Calculation	
			Cations	meq/L	5.47			05/03/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	342			05/03/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.980			05/03/07	Calculation	

MINE_NAME	S[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_[redacted]	AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	MN-5	05/30/07	Conductivity	umhos/cm	552	Energy Laboratories	C07060018-001	06/01/07	A2510 B	
			pH	s.u.	8.51			06/01/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	328			06/01/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			06/01/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	147			06/01/07	A2320 B	
			Calcium	mg/L	7			06/08/07	E200.7	
			Chloride	mg/L	6			06/04/07	A4500-Cl B	
			Fluoride	mg/L	0.2			06/02/07	A4500-F C	
			Magnesium	mg/L	ND			06/08/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			06/08/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			06/04/07	E353.2	
			Potassium	mg/L	2			06/08/07	E200.7	
			Silica	mg/L	9.6			06/08/07	E200.7	
			Sodium	mg/L	117			06/08/07	E200.7	
			Sulfate	mg/L	125			06/01/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			06/05/07	E200.8	
			Arsenic	mg/L	0.003			06/05/07	E200.8	
			Barium	mg/L	ND			06/05/07	E200.8	
			Boron	mg/L	ND			06/08/07	E200.7	
			Cadmium	mg/L	ND			06/05/07	E200.8	
			Chromium	mg/L	ND			06/05/07	E200.8	
			Copper	mg/L	ND			06/05/07	E200.8	
			Iron	mg/L	ND			06/08/07	E200.7	
			Lead	mg/L	ND			06/05/07	E200.8	
			Manganese	mg/L	ND			06/05/07	E200.8	
			Mercury	mg/L	ND			06/05/07	E200.8	
			Molybdenum	mg/L	ND			06/05/07	E200.8	
			Nickel	mg/L	ND			06/05/07	E200.8	
			Selenium	mg/L	ND			06/05/07	E200.8	
			Uranium	mg/L	0.0122			06/05/07	E200.8	
			Vanadium	mg/L	ND			06/05/07	E200.8	
			Zinc	mg/L	ND			06/05/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			06/08/07	E200.7	
			Manganese	mg/L	ND			06/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	16.4			06/15/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1			06/15/07	E900.0	
			Gross Beta	pCi/L	10.9			06/15/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.5			06/15/07	E900.0	
			Radium 226	pCi/L	3.3			06/11/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.7			06/11/07	E903.0	
			Radium 228	pCi/L	ND			06/07/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	2			06/11/07	Calculation	
			Anions	meq/L	5.28			06/11/07	Calculation	
			Cations	meq/L	5.49			06/11/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	341			06/11/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.96			06/11/07	Calculation	

MINE_NAME	S[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]NTS
Nichols Ranch	MN-5	08/07/07	Conductivity	umhos/cm	533	Energy Laboratories	C07080507-002	08/09/07	A2510 B	
			pH	s.u.	8.46			08/09/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	338			08/09/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			08/09/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	152			08/09/07	A2320 B	
			Calcium	mg/L	7			08/20/07	E200.7	
			Chloride	mg/L	5			08/13/07	A4500-Cl B	
			Fluoride	mg/L	0.3			08/14/07	A4500-F C	
			Magnesium	mg/L	ND			08/20/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			08/10/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/13/07	E353.2	
			Potassium	mg/L	2			08/20/07	E200.7	
			Silica	mg/L	8.2			08/20/07	E200.7	
			Sodium	mg/L	115			08/20/07	E200.7	
			Sulfate	mg/L	133			08/10/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			08/24/07	E200.8	
			Arsenic	mg/L	0.002			08/24/07	E200.8	
			Barium	mg/L	ND			08/24/07	E200.8	
			Boron	mg/L	ND			08/20/07	E200.7	
			Cadmium	mg/L	ND			08/24/07	E200.8	
			Chromium	mg/L	ND			08/24/07	E200.8	
			Copper	mg/L	ND			08/24/07	E200.8	
			Iron	mg/L	ND			08/20/07	E200.7	
			Lead	mg/L	ND			08/24/07	E200.8	
			Manganese	mg/L	ND			08/24/07	E200.8	
			Mercury	mg/L	ND			08/24/07	E200.8	
			Molybdenum	mg/L	ND			08/24/07	E200.8	
			Nickel	mg/L	ND			08/24/07	E200.8	
			Selenium	mg/L	ND			08/24/07	E200.8	
			Uranium	mg/L	0.0128			08/24/07	E200.8	
			Vanadium	mg/L	ND			08/24/07	E200.8	
			Zinc	mg/L	ND			08/24/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			08/20/07	E200.7	
			Manganese	mg/L	ND			08/20/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	20.8			08/23/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.2			08/23/07	E900.0	
			Gross Beta	pCi/L	16.1			08/23/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.6			08/23/07	E900.0	
			Radium 226	pCi/L	2.4			08/20/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.5			08/20/07	E903.0	
			Radium 228	pCi/L	ND			08/14/07	RA-05	
			Radium 228 precision (±)	pCi/L	NA				RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.246			08/24/07	Calculation	
			Anions	meq/L	5.49			08/24/07	Calculation	
			Cations	meq/L	5.46			08/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	348			08/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.97			08/24/07	Calculation	

MINE_NAME	[redacted]	TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]	MENTS
Nichols Ranch		MN-6	3/23/2007	Conductivity	umhos/cm	518		Energy Laboratories	C07031136-002	03/26/07	A2510 B		
				pH	s.u.	8.74				03/26/07	A4500-H B		
				Solids, Total Dissolved @ 180 °C	mg/L	310				03/26/07	A2540 C		
				Major Ions									
				Carbonate as CO_3	mg/L	4				03/26/07	A2320 B		
				Bicarbonate as HCO_3	mg/L	152				03/26/07	A2320 B		
				Calcium	mg/L	7				04/03/07	E200.7		
				Chloride	mg/L	7				03/26/07	A4500-Cl B		
				Fluoride	mg/L	0.3				03/27/07	A4500-F C		
				Magnesium	mg/L	ND				04/03/07	E200.7		
				Nitrogen, Ammonia as N	mg/L	0.16				03/27/07	A4500-NH3 G		
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				03/27/07	E353.2		
				Potassium	mg/L	2				04/03/07	E200.7		
				Silica	mg/L	9				04/03/07	E200.7		
				Sodium	mg/L	115				04/03/07	E200.7		
				Sulfate	mg/L	114				03/27/07	A4500-SO4 E		
				Metals - Dissolved									
				Aluminum	mg/L	ND				04/03/07	E200.8		
				Arsenic	mg/L	0.002				04/03/07	E200.8		
				Barium	mg/L	ND				03/30/07	E200.8		
				Boron	mg/L	ND				04/03/07	E200.7		
				Cadmium	mg/L	ND				03/30/07	E200.8		
				Chromium	mg/L	ND				04/03/07	E200.8		
				Copper	mg/L	ND				04/03/07	E200.8		
				Iron	mg/L	ND				04/03/07	E200.7		
				Lead	mg/L	ND				03/30/07	E200.8		
				Manganese	mg/L	ND				04/03/07	E200.8		
				Mercury	mg/L	ND				03/30/07	E200.8		
				Molybdenum	mg/L	ND				03/30/07	E200.8		
				Nickel	mg/L	ND				04/03/07	E200.8		
				Selenium	mg/L	ND				04/03/07	E200.8		
				Uranium	mg/L	0.0094				04/03/07	E200.8		
				Vanadium	mg/L	ND				04/03/07	E200.8		
				Zinc	mg/L	ND				04/03/07	E200.8		
				Metals - Total									
				Iron	mg/L	ND				04/03/07	E200.7		
				Manganese	mg/L	ND				04/03/07	E200.7		
				Radionuclides - Dissolved									
				Gross Alpha	pCi/L	11.1				04/09/07	E900.0		
				Gross Alpha precision (±)	pCi/L	1.3				04/09/07	E900.0		
				Gross Beta	pCi/L	30.2				04/09/07	E900.0		
				Gross Beta precision (±)	pCi/L	1.8				04/09/07	E900.0		
				Radium 226	pCi/L	1.7				04/09/07	E903.0		
				Radium 226 precision (±)	pCi/L	0.4				04/09/07	E903.0		
				Radium 228	pCi/L	ND				04/04/07	RA-05		
				Data Quality									
				A/C Balance (±5)	%	2.63				04/06/07	Calculation		
				Anions	meq/L	5.19				04/06/07	Calculation		
				Cations	meq/L	5.48				04/06/07	Calculation		
				Solids, Total Dissolved Calculated	mg/L	333				04/06/07	Calculation		
				TDS Balance (0.80-1.20)	dec. %	0.93				04/06/07	Calculation		

MINE_NAME	[redacted]	TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]	MENTS
Nichols Ranch		MN-6	06/15/07	Conductivity	umhos/cm	528		Energy Laboratories	C07060900-001	06/19/07	A2510 B		
				pH	s.u.	8.56				06/19/07	A4500-H B		
				Solids, Total Dissolved @ 180 °C	mg/L	310				06/20/07	A2540 C		
				Major Ions									
				Carbonate as CO_3	mg/L	3				06/25/07	A2320 B		
				Bicarbonate as HCO_3	mg/L	156				06/25/07	A2320 B		
				Calcium	mg/L	6				06/26/07	E200.7		
				Chloride	mg/L	6				06/22/07	A4500-Cl B		
				Fluoride	mg/L	0.4				06/25/07	A4500-F C		
				Magnesium	mg/L	ND				06/26/07	E200.7		
				Nitrogen, Ammonia as N	mg/L	0.2				06/19/07	A4500-NH3 G		
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				06/21/07	E353.2		
				Potassium	mg/L	2				06/26/07	E200.7		
				Silica	mg/L	9.2				06/26/07	E200.7		
				Sodium	mg/L	107				06/26/07	E200.7		
				Sulfate	mg/L	118				06/21/07	A4500-SO4 E		
				Metals - Dissolved									
				Aluminum	mg/L	ND				06/22/07	E200.8		
				Arsenic	mg/L	0.003				06/22/07	E200.8		
				Barium	mg/L	ND				06/22/07	E200.8		
				Boron	mg/L	ND				06/26/07	E200.7		
				Cadmium	mg/L	ND				06/22/07	E200.8		
				Chromium	mg/L	ND				06/22/07	E200.8		
				Copper	mg/L	ND				06/22/07	E200.8		
				Iron	mg/L	ND				06/26/07	E200.7		
				Lead	mg/L	ND				06/22/07	E200.8		
				Manganese	mg/L	ND				06/22/07	E200.8		
				Mercury	mg/L	ND				06/22/07	E200.8		
				Molybdenum	mg/L	ND				06/22/07	E200.8		
				Nickel	mg/L	ND				06/22/07	E200.8		
				Selenium	mg/L	ND				06/22/07	E200.8		
				Uranium	mg/L	0.0084				06/22/07	E200.8		
				Vanadium	mg/L	ND				06/22/07	E200.8		
				Zinc	mg/L	ND				06/22/07	E200.8		
				Metals - Total									
				Iron	mg/L	ND				06/26/07	E200.7		
				Manganese	mg/L	ND				06/26/07	E200.7		
				Radionuclides - Dissolved									
				Gross Alpha	pCi/L	18.9				06/23/07	E900.0		
				Gross Alpha precision (±)	pCi/L	1.2				06/23/07	E900.0		
				Gross Beta	pCi/L	11.9				06/23/07	E900.0		
				Gross Beta precision (±)	pCi/L	1.6				06/23/07	E900.0		
				Radium 226	pCi/L	2.5				07/02/07	E903.0		
				Radium 226 precision (+)	pCi/L	0.6				07/02/07	E903.0		
				Radium 228	pCi/L	ND				06/26/07	RA-05		
				Data Quality									
				A/C Balance (±5)	%	-1.71				06/28/07	Calculation		
				Anions	meq/L	5.28				06/28/07	Calculation		
				Cations	meq/L	5.11				06/28/07	Calculation		
				Solids, Total Dissolved Calculated	mg/L	329				06/28/07	Calculation		
				TDS Balance (0.80-1.20)	dec. %	0.94				06/28/07	Calculation		

MINE_NAME	[redacted] TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted] ENTS
Nichols Ranch	[redacted] -2(Gen. Well)	3/15/2007	Conductivity	umhos/cm	1260		Energy Laboratories	C07030710-001	03/15/07	A2510 B	
			pH	*s.u.*	*7.82*				*03/15/07*	*A4500-H B*	
			Solids, Total Dissolved @ 180 °C	mg/L	884				03/15/07	A2540 C	
			Major Ions								
			Carbonate as CO_3	mg/L	ND				03/16/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	194				03/16/07	A2320 B	
			Calcium	mg/L	100				03/22/07	E200.7	
			Chloride	mg/L	3				03/19/07	A4500-Cl B	
			Fluoride	mg/L	0.01				03/17/07	A4500-F C	
			Magnesium	mg/L	31				03/22/07	E200.7	
			Nitrogen, Ammonia as N		ND				03/20/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND				03/16/07	E353.2	
			Potassium	mg/L	6				03/22/07	E200.7	
			Silica	mg/L	7.9				03/22/07	E200.7	
			Sodium	mg/L	121				03/22/07	E200.7	
			Sulfate	mg/L	518				03/16/07	E200.7	
			Metals - Dissolved								
			Aluminum	mg/L	ND				03/22/07	E200.8	
			Arsenic	mg/L	0.005				03/28/07	E200.8	
			Barium	mg/L	ND				03/29/07	E200.8	
			Boron	mg/L	ND				03/22/07	E200.7	
			Cadmium	mg/L	ND				03/29/07	E200.8	
			Chromium	mg/L	ND				03/22/07	E200.8	
			Copper	mg/L	0.03				03/28/07	E200.8	
			Iron	mg/L	0.53				03/22/07	E200.7	
			Lead	mg/L	0.001				03/29/07	E200.8	
			Manganese	mg/L	0.07				03/28/07	E200.8	
			Mercury	mg/L	ND				03/29/07	E200.8	
			Molybdenum	mg/L	ND				03/29/07	E200.8	
			Nickel	mg/L	ND				03/28/07	E200.8	
			Selenium	mg/L	0.001				03/28/07	E200.8	
			Uranium	mg/L	0.0205				03/29/07	E200.8	
			Vanadium	mg/L	ND				03/28/07	E200.8	
			Zinc	mg/L	0.15				03/28/07	E200.8	
			Metals - Total								
			Iron	mg/L	0.59				03/22/07	E200.7	
			Manganese	mg/L	0.07				03/22/07	E200.7	
			Radionuclides - Dissolved								
			Gross Alpha	pCi/L	19.3				03/29/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.1				03/29/07	E900.0	
			Gross Beta	pCi/L	9.3				03/29/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.5				03/29/07	E900.0	
			Radium 226	pCi/L	4.7				03/28/07	E903.0	
			Radium 226 precision (±)	pCi/L	1				03/28/07	E903.0	
			Radium 228	pCi/L	ND				03/27/07	RA-05	
			Data Quality								
			A/C Balance (±5)	%	-4.05				04/02/07	Calculation	
			Anions	meq/L	14.0				04/02/07	Calculation	
			Cations	meq/L	13.0				04/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	882				04/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.00				04/02/07	Calculation	

MINE_NAME	[redacted]	TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted] MENTS
Nichols Ranch	NH1-2(Gen. Well)		06/06/07	Conductivity	umhos/cm	1390		Energy Laboratories	C07060315-003	06/07/07	A2510 B	
				pH	s.u.	7.83				06/07/07	A4500-H B	
				Solids, Total Dissolved @ 180 °C	mg/L	872				06/07/07	A2540 C	
				Major Ions								
				Carbonate as CO_3	mg/L	ND				06/07/07	A2320 B	
				Bicarbonate as HCO_3	mg/L	198				06/07/07	A2320 B	
				Calcium	mg/L	100				06/12/07	E200.7	
				Chloride	mg/L	3				06/07/07	A4500-Cl B	
				Fluoride	mg/L	ND				06/07/07	A4500-F C	
				Magnesium	mg/L	29				06/12/07	E200.7	
				Nitrogen, Ammonia as N	mg/L	ND				06/08/07	A4500-NH3 G	
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				06/07/07	E353.2	
				Nitrogen, Nitrate as N							A4500-NO2 B	
				Potassium	mg/L	6				06/12/07	E200.7	
				Silica	mg/L	8.1				06/12/07	E200.7	
				Sodium	mg/L	128				06/12/07	E200.7	
				Sulfate	mg/L	517				06/07/07	E200.7	
				Metals - Dissolved								
				Aluminum	mg/L	ND				06/12/07	E200.8	
				Arsenic	mg/L	ND				06/09/07	E200.8	
				Barium	mg/L	ND				06/09/07	E200.8	
				Boron	mg/L	ND				06/12/07	E200.7	
				Cadmium	mg/L	ND				06/09/07	E200.8	
				Chromium	mg/L	ND				06/09/07	E200.8	
				Copper	mg/L	ND				06/09/07	E200.8	
				Iron	mg/L	0.06				06/12/07	E200.7	
				Lead	mg/L	ND				06/09/07	E200.8	
				Manganese	mg/L	0.07				06/09/07	E200.8	
				Mercury	mg/L	ND				06/09/07	E200.8	
				Molybdenum	mg/L	ND				06/09/07	E200.8	
				Nickel	mg/L	ND				06/09/07	E200.8	
				Selenium	mg/L	ND				06/09/07	E200.8	
				Uranium	mg/L	0.0219				06/09/07	E200.8	
				Vanadium	mg/L	ND				06/09/07	E200.8	
				Zinc	mg/L	ND				06/09/07	E200.8	
				Metals - Total								
				Iron	mg/L	0.58				06/12/07	E200.7	
				Manganese	mg/L	0.07				06/12/07	E200.7	
				Radionuclides - Dissolved								
				Gross Alpha	pCi/L	21				06/18/07	E900.0	
				Gross Alpha precision (+)	pCi/L	1.2				06/18/07	E900.0	
				Gross Beta	pCi/L	9.1				06/18/07	E900.0	
				Gross Beta precision (+)	pCi/L	2.1				06/18/07	E900.0	
				Radium 226	pCi/L	0.9				06/18/07	E903.0	
				Radium 226 precision (+)	pCi/L	0.3				06/18/07	E903.0	
				Radium 228	pCi/L	2.7				06/12/07	RA-05	
				Radium 228 precision (+)	pCi/L	1				06/12/07	RA-05	
				Data Quality								
				A/C Balance (+5)	%	-3.77				06/13/07	Calculation	
				Anions	meq/L	14.1				06/13/07	Calculation	
				Cations	meq/L	13.1				06/13/07	Calculation	
				Solids, Total Dissolved Calculated	mg/L	889				06/13/07	Calculation	
				TDS Balance (0.80-1.20)	dec. %	0.98				06/13/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	URZN1-2	12/20/2006	Conductivity	umhos/cm	414	Energy Laboratories	C06120892-004	12/21/06	A2510 B	
			pH	s.u.	9.01			12/21/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	230			12/21/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	14			12/22/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	238			12/22/06	A2320 B	
			Calcium	mg/L	4			01/09/07	E200.7	
			Chloride	mg/L	5			12/21/06		
			Fluoride	mg/L	0.6			12/22/06	A4500-F C	
			Magnesium	mg/L	ND			01/09/07	E200.7	
			Nitrogen, Ammonia as N		0.09			12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/27/06	E353.2	
			Potassium	mg/L	2			01/09/07	E200.7	
			Silica	mg/L	9.2			01/09/07	E200.7	
			Sodium	mg/L	102			01/09/07	E200.7	
			Sulfate	mg/L	2			12/23/06	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/28/06	E200.8	
			Arsenic	mg/L	ND			12/22/06	E200.8	
			Barium	mg/L	ND			12/22/06	E200.8	
			Boron	mg/L	ND			01/09/07	E200.7	
			Cadmium	mg/L	ND			12/22/06	E200.8	
			Chromium	mg/L	ND			12/22/06	E200.8	
			Copper	mg/L	ND			12/22/06	E200.8	
			Iron	mg/L	ND			01/09/07	E200.7	
			Lead	mg/L	ND			12/22/06	E200.8	
			Manganese	mg/L	ND			12/22/06	E200.8	
			Mercury	mg/L	ND			12/22/06	E200.8	
			Molybdenum	mg/L	ND			12/22/06	E200.8	
			Nickel	mg/L	ND			12/22/06	E200.8	
			Selenium	mg/L	ND			12/22/06	E200.8	
			Uranium	mg/L	ND			12/27/06	E200.8	
			Vanadium	mg/L	ND			12/22/06	E200.8	
			Zinc	mg/L	ND			12/22/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			01/08/07	E200.7	
			Manganese	mg/L	ND			01/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			01/06/07	E900.0	
			Gross Alpha precision (+)	pCi/L					E900.0	
			Gross Beta	pCi/L	2.3			01/06/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.5			01/06/07	E900.0	
			Radium 226	pCi/L	ND			01/13/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			01/08/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	3.33			01/12/07	Calculation	
			Anions	meq/L	4.42			01/12/07	Calculation	
			Cations	meq/L	4.73			01/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	251			01/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.920			01/12/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	URZN1-2	03/23/07	Conductivity	umhos/cm	414	Energy Laboratories	C07031136-001	03/26/07	A2510 B	
			pH	s.u.	9.39			03/26/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	246			03/26/07	A2540 C	
			Major Ions							
			Alkalinity,Total as CaCO3						A2320 B	
			Carbonate as CO_3	mg/L	24			03/26/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	209			03/26/07	A2320 B	
			Calcium	mg/L	4			04/03/07	E200.7	
			Fluoride	mg/L	4			03/26/07	A4500-F C	
			Magnesium	mg/L	0.7			03/27/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			04/03/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	0.08			03/27/07	E353.2	
			Nitrogen, Nitrate as N		ND			03/27/07	A4500-NO2 B	
			Potassium	mg/L	3			04/03/07	E200.7	
			Silica	mg/L	8.9			04/03/07	E200.7	
			Sodium	mg/L	104			04/03/07	E200.7	
			Sulfate	mg/L	2			03/27/07	E200.7	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/03/07	E200.8	
			Arsenic	mg/L	ND			04/02/07	E200.8	
			Barium	mg/L	ND			03/30/07	E200.8	
			Boron	mg/L	ND			04/03/07	E200.7	
			Cadmium	mg/L	ND			03/30/07	E200.8	
			Chromium	mg/L	ND			03/30/07	E200.8	
			Copper	mg/L	ND			04/02/07	E200.8	
			Iron	mg/L	ND			04/03/07	E200.7	
			Lead	mg/L	ND			03/30/07	E200.8	
			Manganese	mg/L	ND			03/30/07	E200.8	
			Mercury	mg/L	ND			03/30/07	E200.8	
			Molybdenum	mg/L	ND			03/30/07	E200.8	
			Nickel	mg/L	ND			04/02/07	E200.8	
			Selenium	mg/L	ND			04/02/07	E200.8	
			Uranium	mg/L	ND			04/02/07	E200.8	
			Vanadium	mg/L	ND			03/30/07	E200.8	
			Zinc	mg/L	ND			04/02/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.05			04/03/07	E200.7	
			Manganese	mg/L	ND			04/03/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			04/09/07	E900.0	
			Gross Alpha precision (±)	pCi/L	ND				E900.0	
			Gross Beta	pCi/L	ND			04/09/07	E900.0	
			Gross Beta precision (±)	pCi/L	ND				E900.0	
			Radium 226	pCi/L	ND			04/09/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			04/04/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	4.33			04/06/07	Calculation	
			Anions	meq/L	4.42			04/06/07	Calculation	
			Cations	meq/L	4.82			04/06/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	254			04/06/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.97			04/06/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]MENTS
Nichols Ranch	URZN1-2	06/04/07	Conductivity	umhos/cm	425	Energy Laboratories	C07060204-001	06/06/07	A2510 B	
			pH	s.u.	9.05			06/06/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	204			06/06/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	13			06/06/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	242			06/06/07	A2320 B	
			Calcium	mg/L	4			06/11/07	E200.7	
			Chloride	mg/L	6			06/06/07	A4500-Cl B	
			Fluoride	mg/L	0.6			06/07/07	A4500-F C	
			Magnesium	mg/L	ND			06/11/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.05			06/08/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			06/06/07	E353.2	
			Potassium	mg/L	2			06/11/07	E200.7	
			Silica	mg/L	10.2			06/11/07	E200.7	
			Sodium	mg/L	100			06/11/07	E200.7	
			Sulfate	mg/L	1			06/06/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			06/07/07	E200.8	
			Arsenic	mg/L	ND			06/07/07	E200.8	
			Barium	mg/L	ND			06/07/07	E200.8	
			Boron	mg/L	ND			06/11/07	E200.7	
			Cadmium	mg/L	ND			06/07/07	E200.8	
			Chromium	mg/L	ND			06/07/07	E200.8	
			Copper	mg/L	ND			06/07/07	E200.8	
			Iron	mg/L	ND			06/11/07	E200.7	
			Lead	mg/L	ND			06/07/07	E200.8	
			Manganese	mg/L	ND			06/07/07	E200.8	
			Mercury	mg/L	ND			06/07/07	E200.8	
			Molybdenum	mg/L	ND			06/07/07	E200.8	
			Nickel	mg/L	ND			06/07/07	E200.8	
			Selenium	mg/L	ND			06/07/07	E200.8	
			Uranium	mg/L	ND			06/07/07	E200.8	
			Vanadium	mg/L	ND			06/07/07	E200.8	
			Zinc	mg/L	ND			06/07/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			06/11/07	E200.7	
			Manganese	mg/L	ND			06/11/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			06/16/07	E900.0	
			Gross Alpha precision (+)	pCi/L					E900.0	
			Gross Beta	pCi/L	ND			06/16/07	E900.0	
			Gross Beta precision (+)	pCi/L					E900.0	
			Radium 226	pCi/L	ND			06/17/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			06/11/07	RA-05	
			Radium 228 precision (+)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (+5)	%	-0.314			06/12/07	Calculation	
			Anions	meq/L	4.61			06/12/07	Calculation	
			Cations	meq/L	4.58			06/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	255			06/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.8			06/12/07	Calculation	

MINE_NAME	[redacted]	ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]	ENTS
Nichols Ranch		URZN1-2	08/29/07	Conductivity	umhos/cm	393		Energy Laboratories	C07081599-001	08/30/07	A2510 B		
				pH	s.u.	7.07				08/30/07	A4500-H B		
				Solids, Total Dissolved @ 180 °C	mg/L	248				08/30/07	A2540 C		
				Major Ions									
				Carbonate as CO_3	mg/L	12				08/31/07	A2320 B		
				Bicarbonate as HCO_3	mg/L	246				08/31/07	A2320 B		
				Calcium	mg/L	3				09/14/07	E200.7		
				Chloride	mg/L	5				08/30/07	A4500-Cl B		
				Fluoride	mg/L	0.7				09/01/07	A4500-F C		
				Magnesium	mg/L	ND				09/14/07	E200.7		
				Nitrogen, Ammonia as N	mg/L	0.06				09/04/07	A4500-NH3 G		
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				08/30/07	E353.2		
				Potassium	mg/L	2				09/14/07	E200.7		
				Silica	mg/L	9.4				09/14/07	E200.7		
				Sodium	mg/L	92				09/14/07	E200.7		
				Sulfate	mg/L	1				08/31/07	A4500-SO4 E		
				Metals - Dissolved									
				Aluminum	mg/L	ND				09/13/07	E200.8		
				Arsenic	mg/L	ND				09/13/07	E200.8		
				Barium	mg/L	ND				09/13/07	E200.8		
				Boron	mg/L	ND				09/14/07	E200.7		
				Cadmium	mg/L	ND				09/13/07	E200.8		
				Chromium	mg/L	ND				09/13/07	E200.8		
				Copper	mg/L	ND				09/13/07	E200.8		
				Iron	mg/L	ND				09/14/07	E200.7		
				Lead	mg/L	ND				09/13/07	E200.8		
				Manganese	mg/L	ND				09/13/07	E200.8		
				Mercury	mg/L	ND				09/13/07	E200.8		
				Molybdenum	mg/L	ND				09/13/07	E200.8		
				Nickel	mg/L	ND				09/13/07	E200.8		
				Selenium	mg/L	ND				09/13/07	E200.8		
				Uranium	mg/L	ND				09/13/07	E200.8		
				Vanadium	mg/L	ND				09/13/07	E200.8		
				Zinc	mg/L	ND				09/13/07	E200.8		
				Metals - Total									
				Iron	mg/L	ND				09/14/07	E200.7		
				Manganese	mg/L	ND				09/14/07	E200.7		
				Radionuclides - Dissolved									
				Gross Alpha	pCi/L	ND				09/10/07	E900.0		
				Gross Alpha precision (+)	pCi/L						E900.0		
				Gross Beta	pCi/L	ND				09/10/07	E900.0		
				Gross Beta precision (+)	pCi/L						E900.0		
				Radium 226	pCi/L	ND				09/09/07	E903.0		
				Radium 226 precision (+)	pCi/L						E903.0		
				Radium 228	pCi/L	ND				09/06/07	RA-05		
				Radium 228 precision (+)	pCi/L						RA-05		
				Data Quality									
				A/C Balance (+5)	%	-4.73				09/17/07	Calculation		
				Anions	meq/L	4.63				09/17/07	Calculation		
				Cations	meq/L	4.22				09/17/07	Calculation		
				Solids, Total Dissolved Calculated	mg/L	247				09/17/07	Calculation		
				TDS Balance (0.80-1.20)	dec. %	1				09/17/07	Calculation		

MINE NAME	[redacted] TATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER	[redacted] LAB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted] MENTS
Nichols Ranch	URZNB-1	12/22/2006	Conductivity	umhos/cm	540	Energy Laboratories	C06120941-002	12/23/06	A2510 B	
			pH	s.u.	9.26			12/23/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	324			12/23/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	13			12/26/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	124			12/26/06	A2320 B	
			Calcium	mg/L	6			01/11/07	E200.7	
			Chloride	mg/L	5			12/27/06	A4500-Cl B	
			Fluoride	mg/L	0.3			12/26/06	A4500-F C	
			Magnesium	mg/L	ND			01/11/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			01/04/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/27/06	E353.2	
			Potassium	mg/L	3			01/11/07	E200.7	
			Silica	mg/L	9.8			01/11/07	E200.7	
			Sodium	mg/L	109			01/11/07	E200.7	
			Sulfate	mg/L	124			12/26/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			01/05/07	E200.8	
			Arsenic	mg/L	0.007			12/26/06	E200.8	
			Barium	mg/L	ND			12/26/06	E200.8	
			Boron	mg/L	ND			01/11/07	E200.7	
			Cadmium	mg/L	ND			12/26/06	E200.8	
			Chromium	mg/L	ND			12/26/06	E200.8	
			Copper	mg/L	ND			12/26/06	E200.8	
			Iron	mg/L	ND			01/11/07	E200.7	
			Lead	mg/L	ND			12/26/06	E200.8	
			Manganese	mg/L	ND			12/26/06	E200.8	
			Mercury	mg/L	ND			12/26/06	E200.8	
			Molybdenum	mg/L	ND			01/05/07	E200.8	
			Nickel	mg/L	ND			12/26/06	E200.8	
			Selenium	mg/L	ND			12/26/06	E200.8	
			Uranium	mg/L	0.0252			12/26/06	E200.8	
			Vanadium	mg/L	ND			12/26/06	E200.8	
			Zinc	mg/L	ND			12/26/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			01/11/07	E200.7	
			Manganese	mg/L	ND			01/11/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	19.7			01/07/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.1			01/07/07	E900.0	
			Gross Beta	pCi/L	9.9			01/07/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.6			01/07/07	E900.0	
			Radium 226	pCi/L	ND			01/14/07	E903.0	
			Radium 228	pCi/L	ND			01/08/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.45			01/12/07	Calculation	
			Anions	meq/L	5.39			01/12/07	Calculation	
			Cations	meq/L	5.13			01/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	340			01/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.950			01/12/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	URZNB-1	03/21/07	Conductivity	umhos/cm	541	Energy Laboratories	C07031060-001	03/23/07	A2510 B	
			pH	s.u.	9.63			03/23/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	278			03/23/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	26			03/23/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	110			03/23/07	A2320 B	
			Calcium	mg/L	6			04/02/07	E200.7	
			Chloride	mg/L	7			03/23/07	A4500-Cl B	
			Fluoride	mg/L	0.3			03/23/07	A4500-F C	
			Magnesium	mg/L	ND			04/02/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/26/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/23/07	E353.2	
			Potassium	mg/L	4			04/02/07	E200.7	
			Silica	mg/L	7.4			04/02/07	E200.7	
			Sodium	mg/L	118			04/02/07	E200.7	
			Sulfate	mg/L	125			03/23/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/31/07	E200.8	
			Arsenic	mg/L	0.007			03/30/07	E200.8	
			Barium	mg/L	ND			03/30/07	E200.8	
			Boron	mg/L	ND			04/02/07	E200.7	
			Cadmium	mg/L	ND			03/30/07	E200.8	
			Chromium	mg/L	ND			03/30/07	E200.8	
			Copper	mg/L	ND			03/30/07	E200.8	
			Iron	mg/L	ND			04/02/07	E200.7	
			Lead	mg/L	ND			03/30/07	E200.8	
			Manganese	mg/L	ND			03/30/07	E200.8	
			Mercury	mg/L	ND			03/30/07	E200.8	
			Molybdenum	mg/L	ND			03/30/07	E200.8	
			Nickel	mg/L	ND			03/30/07	E200.8	
			Selenium	mg/L	ND			03/30/07	E200.8	
			Uranium	mg/L	0.0203			03/30/07	E200.8	
			Vanadium	mg/L	ND			03/30/07	E200.8	
			Zinc	mg/L	ND			03/30/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			03/28/07	E200.7	
			Manganese	mg/L	ND			03/28/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	13.9			04/04/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.9			04/04/07	E900.0	
			Gross Beta	pCi/L	8.5			04/04/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.5			04/04/07	E900.0	
			Radium 226	pCi/L	ND			04/09/07	E903.0	
			Radium 228	pCi/L	ND			04/04/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	2.31			04/04/07	Calculation	
			Anions	meq/L	5.32			04/04/07	Calculation	
			Cations	meq/L	5.57			04/04/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	343			04/04/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.81			04/04/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
Nichols Ranch	URZNB-1	05/30/07	Conductivity	umhos/cm	557	Energy Laboratories	C07060018-002	06/01/07	A2510 B	
			pH	s.u.	9.52			06/01/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	318			06/01/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	18			06/01/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	116			06/01/07	A2320 B	
			Calcium	mg/L	6			06/08/07	E200.7	
			Chloride	mg/L	6			06/04/07	A4500-Cl B	
			Fluoride	mg/L	0.3			06/02/07	A4500-F C	
			Magnesium	mg/L	ND			06/08/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			06/08/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			06/04/07	E353.2	
			Potassium	mg/L	4			06/08/07	E200.7	
			Silica	mg/L	7.9			06/08/07	E200.7	
			Sodium	mg/L	116			06/08/07	E200.7	
			Sulfate	mg/L	121			06/01/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			06/05/07	E200.8	
			Arsenic	mg/L	0.007			06/05/07	E200.8	
			Barium	mg/L	ND			06/05/07	E200.8	
			Boron	mg/L	ND			06/08/07	E200.7	
			Cadmium	mg/L	ND			06/05/07	E200.8	
			Chromium	mg/L	ND			06/05/07	E200.8	
			Copper	mg/L	ND			06/05/07	E200.8	
			Iron	mg/L	ND			06/08/07	E200.7	
			Lead	mg/L	ND			06/05/07	E200.8	
			Manganese	mg/L	ND			06/05/07	E200.8	
			Mercury	mg/L	ND			06/05/07	E200.8	
			Molybdenum	mg/L	ND			06/05/07	E200.8	
			Nickel	mg/L	ND			06/05/07	E200.8	
			Selenium	mg/L	ND			06/05/07	E200.8	
			Uranium	mg/L	0.0194			06/05/07	E200.8	
			Vanadium	mg/L	ND			06/05/07	E200.8	
			Zinc	mg/L	ND			06/05/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			06/08/07	E200.7	
			Manganese	mg/L	ND			06/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	19.4			06/15/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1			06/15/07	E900.0	
			Gross Beta	pCi/L	7.2			06/15/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.4			06/15/07	E900.0	
			Radium 226	pCi/L	3.2			06/11/07	E903.0	
			Radium 228	pCi/L	1.2			06/11/07	RA-05	
					ND			06/07/07		
			Data Quality							
			A/C Balance (+5)	%	2.07			06/11/07	Calculation	
			Anions	meq/L	5.23			06/11/07	Calculation	
			Cations	meq/L	5.46			06/11/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	338			06/11/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.94			06/11/07	Calculation	

MINE_NAME	[redacted]	ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted] ENTS
Nichols Ranch	URZNB-1		08/07/07	Conductivity	umhos/cm	537		Energy Laboratories	C07080507-003	08/09/07	A2510 B	
				pH	s.u.	9.41				08/09/07	A4500-H B	
				Solids, Total Dissolved @ 180 °C	mg/L	312				08/09/07	A2540 C	
				Major Ions								
				Carbonate as CO_3	mg/L	15				08/09/07	A2320 B	
				Bicarbonate as HCO_3	mg/L	123				08/09/07	A2320 B	
				Calcium	mg/L	5				08/20/07	E200.7	
				Chloride	mg/L	6				08/13/07	A4500-Cl B	
				Fluoride	mg/L	0.3				08/14/07	A4500-F C	
				Magnesium	mg/L	ND				08/20/07	E200.7	
				Nitrogen, Ammonia as N	mg/L	ND				08/10/07	A4500-NH3 G	
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				08/13/07	E353.2	
				Potassium	mg/L	4				08/20/07	E200.7	
				Silica	mg/L	6.9				08/20/07	E200.7	
				Sodium	mg/L	116				08/20/07	E200.7	
				Sulfate	mg/L	128				08/10/07	A4500-SO4 E	
				Metals - Dissolved								
				Aluminum	mg/L	ND				08/24/07	E200.8	
				Arsenic	mg/L	0.007				08/24/07	E200.8	
				Barium	mg/L	ND				08/24/07	E200.8	
				Boron	mg/L	ND				08/20/07	E200.7	
				Cadmium	mg/L	ND				08/24/07	E200.8	
				Chromium	mg/L	ND				08/24/07	E200.8	
				Copper	mg/L	ND				08/24/07	E200.8	
				Iron	mg/L	ND				08/20/07	E200.7	
				Lead	mg/L	ND				08/24/07	E200.8	
				Manganese	mg/L	ND				08/24/07	E200.8	
				Mercury	mg/L	ND				08/24/07	E200.8	
				Molybdenum	mg/L	ND				08/24/07	E200.8	
				Nickel	mg/L	ND				08/24/07	E200.8	
				Selenium	mg/L	ND				08/24/07	E200.8	
				Uranium	mg/L	0.0205				08/24/07	E200.8	
				Vanadium	mg/L	ND				08/24/07	E200.8	
				Zinc	mg/L	ND				08/24/07	E200.8	
				Metals - Total								
				Iron	mg/L	ND				08/20/07	E200.7	
				Manganese	mg/L	ND				08/20/07	E200.7	
				Radionuclides - Dissolved								
				Gross Alpha	pCi/L	11.3				08/23/07	E900.0	
				Gross Alpha precision (+)	pCi/L	0.9				08/23/07	E900.0	
				Gross Beta	pCi/L	6.5				08/23/07	E900.0	
				Gross Beta precision (+)	pCi/L	1.5				08/23/07	E900.0	
				Radium 226	pCi/L	ND				08/20/07	E903.0	
				Radium 228	pCi/L	ND				08/14/07	RA-05	
				Data Quality								
				A/C Balance (+5)	%	0.348				08/24/07	Calculation	
				Anions	meq/L	5.37				08/24/07	Calculation	
				Cations	meq/L	5.41				08/24/07	Calculation	
				Solids, Total Dissolved Calculated	mg/L	342				08/24/07	Calculation	
				TDS Balance (0.80-1.20)	dec. %	0.91				08/24/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	URZNB-1a	12/22/2006	Conductivity	umhos/cm	540	Energy Laboratories	C06120941-002	12/23/06	A2510 B	
			pH	s.u.	9.26			12/23/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	324			12/23/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	13			12/26/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	124			12/26/06	A2320 B	
			Calcium	mg/L	6			01/11/07	E200.7	
			Chloride	mg/L	5			12/27/06	A4500-Cl B	
			Fluoride	mg/L	0.3			12/26/06	A4500-F C	
			Magnesium	mg/L	ND			01/11/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			01/04/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/27/06	E353.2	
			Potassium	mg/L	3			01/11/07	E200.7	
			Silica	mg/L	9.8			01/11/07	E200.7	
			Sodium	mg/L	109			01/11/07	E200.7	
			Sulfate	mg/L	124			12/26/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			01/05/07	E200.8	
			Arsenic	mg/L	0.007			12/26/06	E200.8	
			Barium	mg/L	ND			12/26/06	E200.8	
			Boron	mg/L	ND			01/11/07	E200.7	
			Cadmium	mg/L	ND			12/26/06	E200.8	
			Chromium	mg/L	ND			12/26/06	E200.8	
			Copper	mg/L	ND			12/26/06	E200.8	
			Iron	mg/L	ND			01/11/07	E200.7	
			Lead	mg/L	ND			12/26/06	E200.8	
			Manganese	mg/L	ND			12/26/06	E200.8	
			Mercury	mg/L	ND			12/26/06	E200.8	
			Molybdenum	mg/L	ND			01/05/07	E200.8	
			Nickel	mg/L	ND			12/26/06	E200.8	
			Selenium	mg/L	ND			12/26/06	E200.8	
			Uranium	mg/L	0.0252			12/26/06	E200.8	
			Vanadium	mg/L	ND			12/26/06	E200.8	
			Zinc	mg/L	ND			12/26/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			01/11/07	E200.7	
			Manganese	mg/L	ND			01/11/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	19.7			01/07/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.1			01/07/07	E900.0	
			Gross Beta	pCi/L	9.9			01/07/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.6			01/07/07	E900.0	
			Radium 226	pCi/L	ND			01/14/07	E903.0	
			Radium 228	pCi/L	ND			01/08/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.45			01/12/07	Calculation	
			Anions	meq/L	5.39			01/12/07	Calculation	
			Cations	meq/L	5.13			01/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	340			01/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.950			01/12/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MMENTS
Nichols Ranch	URZNQ-4	12/17/2007	Conductivity	umhos/cm	4440	Energy Laboratories	C07120838-001	12/18/07	A2510 B	
			pH	s.u.	7.34			12/18/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	3900			01/10/08	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			12/20/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	499			12/20/07	A2320 B	
			Calcium	mg/L	480			01/04/08	E200.7	
			Chloride	mg/L	31			12/18/07	A4500-Cl B	
			Fluoride	mg/L	0.2			12/20/07	A4500-F C	
			Magnesium	mg/L	139			01/04/08	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.34			12/18/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/19/07	E353.2	
			Potassium	mg/L	11			01/04/08	E200.7	
			Silica	mg/L	11.4			01/04/08	E200.7	
			Sodium	mg/L	426			01/04/08	E200.7	
			Sulfate	mg/L	2340			12/19/07	A4500-SO4 E	
			Metals - Diissolved							
			Aluminum	mg/L	ND			12/31/07	E200.8	
			Arsenic	mg/L	0.005			12/31/07	E200.8	
			Barium	mg/L	ND			12/31/07	E200.8	
			Boron	mg/L	ND			01/04/08	E200.7	
			Cadmium	mg/L	ND			12/31/07	E200.8	
			Chromium	mg/L	ND			12/31/07	E200.8	
			Copper	mg/L	ND			12/31/07	E200.8	
			Iron	mg/L	3.31			01/04/08	E200.7	
			Lead	mg/L	ND			12/31/07	E200.8	
			Manganese	mg/L	1.95			12/31/07	E200.8	
			Mercury	mg/L	ND			12/31/07	E200.8	
			Molybdenum	mg/L	ND			12/31/07	E200.8	
			Nickel	mg/L	ND			12/31/07	E200.8	
			Selenium	mg/L	0.002			12/31/07	E200.8	
			Uranium	mg/L	0.0946			12/31/07	E200.8	
			Vanadium	mg/L	ND			12/31/07	E200.8	
			Zinc	mg/L	ND			12/31/07	E200.8	
			Metals - Total							
			Iron	mg/L	3.33			01/04/08	E200.7	
			Manganese	mg/L	2.06			01/04/08	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	72.6			12/31/07	E900.0	
			Gross Alpha precision (±)	pCi/L	3.9			12/31/07	E900.0	
			Gross Beta	pCi/L	25.8			12/31/07	E900.0	
			Gross Beta precision (±)	pCi/L	7.3			12/31/07	E900.0	
			Radium 226	pCi/L	0.7			01/08/08	E903.0	
			Radium 226 precision (±)	pCi/L	0.3			01/08/08	E903.0	
			Radium 228	pCi/L	ND			01/03/08	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.89			01/11/08	Calculation	
			Anions	meq/L	57.7			01/11/08	Calculation	
			Cations	meq/L	54.5			01/11/08	Calculation	
			Solids, Total Dissolved Calculated	mg/L	3690			01/11/08	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.060			01/11/08	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	URZNF-3	9/10/2007	Conductivity	umhos/cm	1710	Energy Laboratories	C07090372-001	09/11/07	A2510 B	
			pH	s.u.	8.07			09/11/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1170			09/11/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			09/11/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	135			09/11/07	A2320 B	
			Calcium	mg/L	107			09/19/07	E200.7	
			Chloride	mg/L	5			09/13/07	A4500-Cl B	
			Fluoride	mg/L	0.5			09/12/07	A4500-F C	
			Magnesium	mg/L	25			09/19/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.06			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/12/07	E353.2	
			Potassium	mg/L	5			09/19/07	E200.7	
			Silica	mg/L	7.6			09/19/07	E200.7	
			Sodium	mg/L	245			09/19/07	E200.7	
			Sulfate	mg/L	734			09/11/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	0.4			09/20/07	E200.8	
			Arsenic	mg/L	0.015			09/20/07	E200.8	
			Barium	mg/L	ND			09/20/07	E200.8	
			Boron	mg/L	ND			09/19/07	E200.7	
			Cadmium	mg/L	ND			09/20/07	E200.8	
			Chromium	mg/L	ND			09/20/07	E200.8	
			Copper	mg/L	0.02			09/20/07	E200.8	
			Iron	mg/L	0.1			09/19/07	E200.7	
			Lead	mg/L	ND			09/20/07	E200.8	
			Manganese	mg/L	0.17			09/20/07	E200.8	
			Mercury	mg/L	ND			09/20/07	E200.8	
			Molybdenum	mg/L	ND			09/20/07	E200.8	
			Nickel	mg/L	ND			09/20/07	E200.8	
			Selenium	mg/L	0.001			09/20/07	E200.8	
			Uranium	mg/L	0.0589			09/20/07	E200.8	
			Vanadium	mg/L	ND			09/20/07	E200.8	
			Zinc	mg/L	0.08			09/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.36			09/19/07	E200.7	
			Manganese	mg/L	0.17			09/19/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	50.7			09/19/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2.1			09/19/07	E900.0	
			Gross Beta	pCi/L	19.1			09/19/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.9			09/19/07	E900.0	
			Radium 226	pCi/L	5			09/24/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.7			09/24/07	E903.0	
			Radium 228	pCi/L	ND			09/18/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.66			09/24/07	Calculation	
			Anions	meq/L	17.7			09/24/07	Calculation	
			Cations	meq/L	18.3			09/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1200			09/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.980			09/24/07	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	MENTS
Nichols Ranch	MN-2A	9/10/2007	Conductivity	umhos/cm	550	Energy Laboratories	C07090372-003	09/11/07	A2510 B	
			pH	s.u.	8.32			09/11/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	320			09/11/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	4			09/11/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	151			09/11/07	A2320 B	
			Calcium	mg/L	7			09/19/07	E200.7	
			Chloride	mg/L	7			09/13/07	A4500-Cl B	
			Fluoride	mg/L	0.2			09/12/07	A4500-F C	
			Magnesium	mg/L	ND			09/19/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/12/07	E353.2	
			Potassium	mg/L	2			09/19/07	E200.7	
			Silica	mg/L	8.1			09/19/07	E200.7	
			Sodium	mg/L	109			09/19/07	E200.7	
			Sulfate	mg/L	139			09/11/07	A4500-SO4 E	
			Metals - Diissolved							
			Aluminum	mg/L	ND			09/20/07	E200.8	
			Arsenic	mg/L	0.008			09/20/07	E200.8	
			Barium	mg/L	ND			09/20/07	E200.8	
			Boron	mg/L	ND			09/19/07	E200.7	
			Cadmium	mg/L	ND			09/20/07	E200.8	
			Chromium	mg/L	ND			09/20/07	E200.8	
			Copper	mg/L	ND			09/20/07	E200.8	
			Iron	mg/L	ND			09/19/07	E200.7	
			Lead	mg/L	ND			09/20/07	E200.8	
			Manganese	mg/L	ND			09/20/07	E200.8	
			Mercury	mg/L	ND			09/20/07	E200.8	
			Molybdenum	mg/L	ND			09/20/07	E200.8	
			Nickel	mg/L	ND			09/20/07	E200.8	
			Selenium	mg/L	ND			09/20/07	E200.8	
			Uranium	mg/L	0.0204			09/20/07	E200.8	
			Vanadium	mg/L	ND			09/20/07	E200.8	
			Zinc	mg/L	ND			09/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			09/19/07	E200.7	
			Manganese	mg/L	0.01			09/19/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	27.4			09/19/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.3			09/19/07	E900.0	
			Gross Beta	pCi/L	9.9			09/19/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.5			09/19/07	E900.0	
			Radium 226	pCi/L	0.8			09/24/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.3			09/24/07	E903.0	
			Radium 228	pCi/L	3.6			09/18/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-4.66			09/24/07	Calculation	
			Anions	meq/L	5.7			09/24/07	Calculation	
			Cations	meq/L	5.22			09/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	351			09/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.910			09/24/07	Calculation	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	COMMENTS
Hank	Hank 1	6/29/2006	Conductivity	umhos/cm	1340	Energy Laboratories	C06061591-001	07/06/06	A2510 B	
			pH	s.u.	8.04	Energy Laboratories		07/06/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	924	Energy Laboratories		07/11/06	A2540 C	
			Major Ions							
			Alkalinity, Total		88	Energy Laboratories			A2320 B	
			Carbonate as CO_3	mg/L	ND	Energy Laboratories		07/10/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	107	Energy Laboratories		07/10/06	A2320 B	
			Calcium	mg/L	77.4	Energy Laboratories		07/12/06	E200.7	
			Chloride	mg/L	5	Energy Laboratories		07/03/06	A4500-Cl B	
			Fluoride	mg/L	0.2	Energy Laboratories		07/07/06	A4500-F C	
			Magnesium	mg/L	16.9	Energy Laboratories		07/12/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	N/A	Energy Laboratories		07/05/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND	Energy Laboratories		06/30/06	E353.2	
			Potassium	mg/L	5.2	Energy Laboratories		07/12/06	E200.7	
			Silica	mg/L	10.3	Energy Laboratories		07/12/06	E200.7	
			Sodium	mg/L	200	Energy Laboratories		07/12/06	E200.7	
			Sulfate	mg/L	565	Energy Laboratories		07/12/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Arsenic	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Barium	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Boron	mg/L	ND	Energy Laboratories		07/12/06	E200.7	
			Cadmium	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Chromium	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Copper	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Iron	mg/L	0.76	Energy Laboratories		07/12/06	E200.7	
			Lead	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Manganese	mg/L	0.06	Energy Laboratories		07/08/06	E200.8	
			Mercury	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Molybdenum	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Nickel	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Selenium	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Uranium	mg/L	0.0043	Energy Laboratories		07/08/06	E200.8	
			Vanadium	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Zinc	mg/L	ND	Energy Laboratories		07/08/06	E200.8	
			Metals - Total							
			Iron	mg/L	N/A	Energy Laboratories			E200.7	
			Manganese	mg/L	N/A	Energy Laboratories			E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	N/A	Energy Laboratories			E900.0	
			Gross Alpha precision (±)	pCi/L	N/A	Energy Laboratories			E900.0	
			Gross Beta	pCi/L	N/A	Energy Laboratories			E900.0	
			Gross Beta precision (±)	pCi/L	N/A	Energy Laboratories			E900.0	
			Radium 226	pCi/L	102	Energy Laboratories		07/12/06	E903.0	
			Radium 226 precision (±)	pCi/L	2.9	Energy Laboratories		07/12/06	E903.0	
			Radium 228	pCi/L	N/A	Energy Laboratories			RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.65	Energy Laboratories		07/14/06	Calculation	
			Anions	meq/L	13.7	Energy Laboratories		07/14/06	Calculation	
			Cations	meq/L	14.1	Energy Laboratories		07/14/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	933	Energy Laboratories		07/14/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.99	Energy Laboratories		07/14/06	Calculation	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	COMMENTS
Hank	Hank 1	12/20/06	Conductivity	umhos/cm	1340	Energy Laboratories	C06120892-003	12/21/06	A2510 B	
			pH	s.u.	8.01	Energy Laboratories		12/21/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	868	Energy Laboratories		12/21/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND	Energy Laboratories		12/22/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	109	Energy Laboratories		12/22/06	A2320 B	
			Calcium	mg/L	77	Energy Laboratories		01/09/07	E200.7	
			Chloride	mg/L	9	Energy Laboratories		12/21/06	A4500-Cl B	
			Fluoride	mg/L	0.2	Energy Laboratories		12/22/06	A4500-F C	
			Magnesium	mg/L	16	Energy Laboratories		01/09/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.07	Energy Laboratories		12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND	Energy Laboratories		12/27/06	E353.2	
			Potassium	mg/L	6	Energy Laboratories		01/09/07	E200.7	
			Silica	mg/L	10.6	Energy Laboratories		01/09/07	E200.7	
			Sodium	mg/L	200	Energy Laboratories		01/09/07	E200.7	
			Sulfate	mg/L	477	Energy Laboratories		12/23/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND	Energy Laboratories		12/28/06	E200.8	
			Arsenic	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Barium	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Boron	mg/L	ND	Energy Laboratories		01/09/07	E200.7	
			Cadmium	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Chromium	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Copper	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Iron	mg/L	1.15	Energy Laboratories		01/09/07	E200.7	
			Lead	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Manganese	mg/L	0.08	Energy Laboratories		12/22/06	E200.8	
			Mercury	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Molybdenum	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Nickel	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Selenium	mg/L	0.002	Energy Laboratories		12/22/06	E200.8	
			Uranium	mg/L	0.0034	Energy Laboratories		12/27/06	E200.8	
			Vanadium	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Zinc	mg/L	ND	Energy Laboratories		12/22/06	E200.8	
			Metals - Total							
			Iron	mg/L	1.20	Energy Laboratories		01/08/07	E200.7	
			Manganese	mg/L	0.08	Energy Laboratories		01/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	326	Energy Laboratories		01/05/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2.6	Energy Laboratories		01/05/07	E900.0	
			Gross Beta	pCi/L	193	Energy Laboratories		01/05/07	E900.0	
			Gross Beta precision (±)	pCi/L	3.3	Energy Laboratories		01/05/07	E900.0	
			Radium 226	pCi/L	119	Energy Laboratories		01/13/07	E903.0	
			Radium 226 precision (+)	pCi/L	4.3	Energy Laboratories		01/13/07	E903.0	
			Radium 228	pCi/L	ND	Energy Laboratories		01/08/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.816	Energy Laboratories		01/12/07	Calculation	
			Anions	meq/L	14.4	Energy Laboratories		01/12/07	Calculation	
			Cations	meq/L	14.1	Energy Laboratories		01/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	965	Energy Laboratories		01/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.900	Energy Laboratories		01/12/07	Calculation	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	COMMENTS
Hank	Hank 1	01/25/07	Conductivity	umhos/cm	1350	Energy Laboratories	C07011039	01/29/07	A2510 B	
			pH	s.u.	7.16	Energy Laboratories		01/29/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	936	Energy Laboratories		01/29/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND	Energy Laboratories		01/29/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	112	Energy Laboratories		01/29/07	A2320 B	
			Calcium	mg/L	77	Energy Laboratories		01/30/07	E200.7	
			Chloride	mg/L	6	Energy Laboratories		01/29/07	A4500-Cl B	
			Fluoride	mg/L	0.2	Energy Laboratories		01/26/07	A4500-F C	
			Magnesium	mg/L	16	Energy Laboratories		01/30/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND	Energy Laboratories		01/29/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND	Energy Laboratories		01/30/07	E353.2	
			Potassium	mg/L	6	Energy Laboratories		01/30/07	E200.7	
			Silica	mg/L	9.8	Energy Laboratories		01/30/07	E200.7	
			Sodium	mg/L	186	Energy Laboratories		01/30/07	E200.7	
			Sulfate	mg/L	590	Energy Laboratories		01/29/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Arsenic	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Barium	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Boron	mg/L	ND	Energy Laboratories		01/30/07	E200.7	
			Cadmium	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Chromium	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Copper	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Iron	mg/L	ND	Energy Laboratories		01/30/07	E200.7	
			Lead	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Manganese	mg/L	0.07	Energy Laboratories		01/30/07	E200.8	
			Mercury	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Molybdenum	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Nickel	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Selenium	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Uranium	mg/L	0.0028	Energy Laboratories		01/30/07	E200.8	
			Vanadium	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Zinc	mg/L	ND	Energy Laboratories		01/30/07	E200.8	
			Metals - Total							
			Iron	mg/L	1.34	Energy Laboratories		01/30/07	E200.7	
			Manganese	mg/L	0.07	Energy Laboratories		01/30/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	338	Energy Laboratories		02/07/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2.8	Energy Laboratories		02/07/07	E900.0	
			Gross Beta	pCi/L	210	Energy Laboratories		02/07/07	E900.0	
			Gross Beta precision (±)	pCi/L	3.1	Energy Laboratories		02/07/07	E900.0	
			Radium 226	pCi/L	137	Energy Laboratories		02/12/07	E903.0	
			Radium 226 precision (±)	pCi/L	3.8	Energy Laboratories		02/12/07	E903.0	
			Radium 228	pCi/L	ND	Energy Laboratories		02/07/07	RA-05	
			Radium 228 precision (±)	pCi/L		Energy Laboratories			RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.87	Energy Laboratories		02/02/07	Calculation	
			Anions	meq/L	14.3	Energy Laboratories		02/02/07	Calculation	
			Cations	meq/L	13.5	Energy Laboratories		02/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	946	Energy Laboratories		02/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.990	Energy Laboratories		02/02/07	Calculation	

MINE_NAME	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	COMMENTS
Hank	Hank 1	05/02/07	Conductivity	umhos/cm	1400	Energy Laboratories	C07050200-003	05/04/07	A2510 B	
			pH	s.u.	7.97	Energy Laboratories		05/04/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	944	Energy Laboratories		05/06/07	A2540 C	
			Major Ions			Energy Laboratories				
			Carbonate as CO_3	mg/L	ND	Energy Laboratories		05/04/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	110	Energy Laboratories		05/04/07	A2320 B	
			Calcium	mg/L	74	Energy Laboratories		05/14/07	E200.7	
			Chloride	mg/L	4	Energy Laboratories		05/03/07	A4500-Cl B	
			Fluoride	mg/L	0.2	Energy Laboratories		05/03/07	A4500-F C	
			Magnesium	mg/L	17	Energy Laboratories		05/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND	Energy Laboratories		05/07/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND	Energy Laboratories		05/04/07	E353.2	
			Potassium	mg/L	6	Energy Laboratories		05/14/07	E200.7	
			Silica	mg/L	10.5	Energy Laboratories		05/14/07	E200.7	
			Sodium	mg/L	192	Energy Laboratories		05/14/07	E200.7	
			Sulfate	mg/L	585	Energy Laboratories		05/04/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Arsenic	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Barium	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Boron	mg/L	ND	Energy Laboratories		05/14/07	E200.7	
			Cadmium	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Chromium	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Copper	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Iron	mg/L	ND	Energy Laboratories		05/14/07	E200.7	
			Lead	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Manganese	mg/L	0.07	Energy Laboratories		05/09/07	E200.8	
			Mercury	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Molybdenum	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Nickel	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Selenium	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Uranium	mg/L	0.0031	Energy Laboratories		05/09/07	E200.8	
			Vanadium	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Zinc	mg/L	ND	Energy Laboratories		05/09/07	E200.8	
			Metals - Total			Energy Laboratories				
			Iron	mg/L	1.24	Energy Laboratories		05/14/07	E200.7	
			Manganese	mg/L	0.08	Energy Laboratories		05/14/07	E200.7	
			Radionuclides - Dissolved			Energy Laboratories				
			Gross Alpha	pCi/L	181	Energy Laboratories		05/21/07	E900.0	
			Gross Alpha precision (±)	pCi/L	3.5	Energy Laboratories		05/21/07	E900.0	
			Gross Beta	pCi/L	173	Energy Laboratories		05/21/07	E900.0	
			Gross Beta precision (±)	pCi/L	3.4	Energy Laboratories		05/21/07	E900.0	
			Radium 226	pCi/L	153	Energy Laboratories		05/15/07	E903.0	
			Radium 226 precision (±)	pCi/L	3.9	Energy Laboratories		05/15/07	E903.0	
			Radium 228	pCi/L	ND	Energy Laboratories		05/09/07	RA-05	
			Radium 228 precision (±)	pCi/L		Energy Laboratories			RA-05	
			Data Quality			Energy Laboratories				
			A/C Balance (±5)	%	-1.85	Energy Laboratories		05/21/07	Calculation	
			Anions	meq/L	14.1	Energy Laboratories		05/21/07	Calculation	
			Cations	meq/L	13.6	Energy Laboratories		05/21/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	944	Energy Laboratories		05/21/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1	Energy Laboratories		05/21/07	Calculation	

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]S
Hank	Brown B	11/9/2006	Conductivity	umhos/cm	1430	Energy Laboratories	C06110512-001	11/11/06	A2510 B	
			pH	s.u.	7.82			11/11/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1000			11/13/06	A2540 C	
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L					A2320 B	
			Carbonate as CO_3	mg/L	ND			11/15/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	271			11/15/06	A2320 B	
			Calcium	mg/L	108			11/28/06	E200.7	
			Chloride	mg/L	2			11/10/06	A4500-Cl B	
			Fluoride	mg/L	ND			11/15/06	A4500-F C	
			Magnesium	mg/L	33.5			11/28/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.09			11/20/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/14/06	E353.2	
			Nitrogen, Nitrite as N	mg/L					A4500-NO2 B	
			Potassium	mg/L	7.4			11/28/06	E200.7	
			Silica	mg/L	12.2			11/28/06	E200.7	
			Sodium	mg/L	160			11/28/06	E200.7	
			Sulfate	mg/L	528			11/13/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/13/06	E200.8	
			Arsenic	mg/L	ND			11/13/06	E200.8	
			Barium	mg/L	ND			11/13/06	E200.8	
			Boron	mg/L	ND			11/28/06	E200.7	
			Cadmium	mg/L	ND			11/13/06	E200.8	
			Chromium	mg/L	ND			11/13/06	E200.8	
			Copper	mg/L	ND			11/13/06	E200.8	
			Iron	mg/L	0.37			11/28/06	E200.7	
			Lead	mg/L	ND			11/13/06	E200.8	
			Manganese	mg/L	0.04			11/13/06	E200.8	
			Mercury	mg/L	ND			11/13/06	E200.8	
			Molybdenum	mg/L	ND			11/13/06	E200.8	
			Nickel	mg/L	ND			11/13/06	E200.8	
			Selenium	mg/L	ND			11/13/06	E200.8	
			Uranium	mg/L	0.0073			11/13/06	E200.8	
			Vanadium	mg/L	ND			11/13/06	E200.8	
			Zinc	mg/L	ND			11/13/06	E200.8	
			Metals - Total							
			Iron	mg/L	0.35			11/28/06	E200.7	
			Manganese	mg/L	0.04			11/28/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	8.54			11/25/06	E900.0	
			Gross Alpha precision (±)	pCi/L	0.5			11/25/06	E900.0	
			Gross Beta	pCi/L	5.02			11/25/06	E900.0	
			Gross Beta precision (±)	pCi/L	1.1			11/25/06	E900.0	
			Radium 226	pCi/L	1.2			11/26/06	E903.0	
			Radium 226 precision (±)	pCi/L	0.5			11/26/06	E903.0	
			Radium 228	pCi/L	ND			11/20/06	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.622			11/29/06	Calculation	
			Anions	meq/L	15.5			11/29/06	Calculation	
			Cations	meq/L	15.3			11/29/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	984			11/29/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.02			11/29/06	Calculation	

MINE NAME	[redacted]	TATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER	[redacted]	AB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	CO	[redacted]	S
Hank		Brown B	01/24/07	Conductivity	umhos/cm	1400		Energy Laboratories	C07010990-001	01/26/07	A2510 B			
				pH	s.u.	7.82				01/26/07	A4500-H B			
				Solids, Total Dissolved @ 180 °C	mg/L	988				01/26/07	A2540 C			
				Major Ions										
				Carbonate as CO_3	mg/L	ND				01/26/07	A2320 B			
				Bicarbonate as HCO_3	mg/L	273				01/26/07	A2320 B			
				Calcium	mg/L	102				02/06/07	E200.7			
				Chloride	mg/L	4				01/26/07	A4500-Cl B			
				Fluoride	mg/L	0.1				01/26/07	A4500-F C			
				Magnesium	mg/L	32.0				02/06/07	E200.7			
				Nitrogen, Ammonia as N	mg/L	0.08				01/29/07	A4500-NH3 G			
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				01/30/07	E353.2			
				Potassium	mg/L	6.8				02/06/07	E200.7			
				Silica	mg/L	12.5				02/06/07	E200.7			
				Sodium	mg/L	149				02/06/07	E200.7			
				Sulfate	mg/L	553				01/26/07	A4500-SO4 E			
				Metals - Dissolved										
				Aluminum	mg/L	ND				01/26/07	E200.8			
				Arsenic	mg/L	ND				01/26/07	E200.8			
				Barium	mg/L	ND				01/26/07	E200.8			
				Boron	mg/L	ND				02/06/07	E200.7			
				Cadmium	mg/L	ND				01/26/07	E200.8			
				Chromium	mg/L	ND				01/26/07	E200.8			
				Copper	mg/L	ND				01/26/07	E200.8			
				Iron	mg/L	0.05				02/06/07	E200.7			
				Lead	mg/L	ND				01/26/07	E200.8			
				Manganese	mg/L	0.04				01/26/07	E200.8			
				Mercury	mg/L	ND				01/26/07	E200.8			
				Molybdenum	mg/L	ND				01/26/07	E200.8			
				Nickel	mg/L	ND				01/26/07	E200.8			
				Selenium	mg/L	ND				01/26/07	E200.8			
				Uranium	mg/L	0.0073				01/26/07	E200.8			
				Vanadium	mg/L	ND				01/26/07	E200.8			
				Zinc	mg/L	ND				01/26/07	E200.8			
				Metals - Total										
				Iron	mg/L	0.06				01/30/07	E200.7			
				Manganese	mg/L	ND				01/30/07	E200.7			
				Radionuclides - Dissolved										
				Gross Alpha	pCi/L	11.4				02/03/07	E900.0			
				Gross Alpha precision (±)	pCi/L	0.8				02/03/07	E900.0			
				Gross Beta	pCi/L	12.6				02/03/07	E900.0			
				Gross Beta precision (±)	pCi/L	1.6				02/03/07	E900.0			
				Radium 226	pCi/L	1.6				02/12/07	E903.0			
				Radium 226 precision (+)	pCi/L	0.4				02/12/07	E903.0			
				Radium 228	pCi/L	ND				02/06/07	RA-05			
				Data Quality										
				A/C Balance (±5)	%	-3.66				02/13/07	Calculation			
				Anions	meq/L	15.5				02/13/07	Calculation			
				Cations	meq/L	14.4				02/13/07	Calculation			
				Solids, Total Dissolved Calculated	mg/L	966				02/13/07	Calculation			
				TDS Balance (0.80-1.20)	dec. %	1.02				02/13/07	Calculation			

MINE_NAME	[redacted]TATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]C[redacted]S
Hank	Brown B	04/25/07	Conductivity	umhos/cm	1430	Energy Laboratories	C07041195-001	04/26/07	A2510 B	
			pH	s.u.	7.7			04/26/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	988			04/27/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			04/26/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	278			04/26/07	A2320 B	
			Calcium	mg/L	116			05/10/07	E200.7	
			Chloride	mg/L	4			04/26/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/01/07	A4500-F C	
			Magnesium	mg/L	35			05/10/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.06			05/01/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			04/27/07	E353.2	
			Potassium	mg/L	8			05/10/07	E200.7	
			Silica	mg/L	14.4			05/10/07	E200.7	
			Sodium	mg/L	157			05/10/07	E200.7	
			Sulfate	mg/L	539			04/27/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/30/07	E200.8	
			Arsenic	mg/L	ND			04/30/07	E200.8	
			Barium	mg/L	ND			04/30/07	E200.8	
			Boron	mg/L	ND			05/10/07	E200.7	
			Cadmium	mg/L	ND			04/30/07	E200.8	
			Chromium	mg/L	ND			04/30/07	E200.8	
			Copper	mg/L	ND			04/30/07	E200.8	
			Iron	mg/L	0.42			05/10/07	E200.7	
			Lead	mg/L	ND			04/30/07	E200.8	
			Manganese	mg/L	0.04			04/30/07	E200.8	
			Mercury	mg/L	ND			04/30/07	E200.8	
			Molybdenum	mg/L	ND			04/30/07	E200.8	
			Nickel	mg/L	ND			04/30/07	E200.8	
			Selenium	mg/L	ND			04/30/07	E200.8	
			Uranium	mg/L	0.0074			04/30/07	E200.8	
			Vanadium	mg/L	ND			04/30/07	E200.8	
			Zinc	mg/L	ND			04/30/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/10/07	E200.7	
			Manganese	mg/L	ND			05/10/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	7.6			05/18/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.7			05/18/07	E900.0	
			Gross Beta	pCi/L	10			05/18/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.7			05/18/07	E900.0	
			Radium 226	pCi/L	2.2			05/12/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.5			05/12/07	E903.0	
			Radium 228	pCi/L	ND			05/07/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.775			05/14/07	Calculation	
			Anions	meq/L	15.9			05/14/07	Calculation	
			Cations	meq/L	15.7			05/14/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1010			05/14/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.98			05/14/07	Calculation	

MINE NAME	[redacted] TATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER VA[redacted]	AB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	CO[redacted]S
Hank	Brown F	11/28/2006	Conductivity	umhos/cm	451	Energy Laboratories	C06111132-001	11/29/06	A2510 B	
			pH	s.u.	9.57			11/29/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	236			11/29/06	A2540 C	
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L					A2320 B	
			Carbonate as CO_3	mg/L	10			11/29/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	63			11/29/06	A2320 B	
			Calcium	mg/L	8			12/06/06	E200.7	
			Chloride	mg/L	3			11/30/06	A4500-Cl B	
			Fluoride	mg/L	0.3			11/29/06	A4500-F C	
			Magnesium	mg/L	2			12/06/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			12/06/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/30/06	E353.2	
			Nitrogen, Nitrite as N	mg/L					A4500-NO2 B	
			Potassium	mg/L	3			12/06/06	E200.7	
			Silica	mg/L	16.7			12/06/06	E200.7	
			Sodium	mg/L	80			12/06/06	E200.7	
			Sulfate	mg/L	126			11/30/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/30/06	E200.8	
			Arsenic	mg/L	0.007			11/30/06	E200.8	
			Barium	mg/L	ND			11/30/06	E200.8	
			Boron	mg/L	ND			12/06/06	E200.7	
			Cadmium	mg/L	ND			11/30/06	E200.8	
			Chromium	mg/L	ND			11/30/06	E200.8	
			Copper	mg/L	ND			11/30/06	E200.8	
			Iron	mg/L	ND			12/06/06	E200.7	
			Lead	mg/L	ND			11/30/06	E200.8	
			Manganese	mg/L	ND			11/30/06	E200.8	
			Mercury	mg/L	ND			11/30/06	E200.8	
			Molybdenum	mg/L	ND			11/30/06	E200.8	
			Nickel	mg/L	ND			11/30/06	E200.8	
			Selenium	mg/L	ND			11/30/06	E200.8	
			Uranium	mg/L	ND			11/30/06	E200.8	
			Vanadium	mg/L	ND			11/30/06	E200.8	
			Zinc	mg/L	ND			11/30/06	E200.8	
			Metals - Total							
			Iron	mg/L	0.07			12/06/06	E200.7	
			Manganese	mg/L	ND			12/06/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			12/13/06	E900.0	
			Gross Alpha precision (±)	pCi/L					E900.0	
			Gross Beta	pCi/L	ND			12/13/06	E900.0	
			Gross Beta precision (±)	pCi/L					E900.0	
			Radium 226	pCi/L	ND			12/13/06	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			12/07/06	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.928			12/07/06	Calculation	
			Anions	meq/L	4.04			12/07/06	Calculation	
			Cations	meq/L	4.12			12/07/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	279			12/07/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.850			12/07/06	Calculation	

MINE_NAME	STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO TS
Hank	Brown F	01/25/07	Conductivity	umhos/cm	445	Energy Laboratories	C07011039-004	01/29/07	A2510 B	
			pH	s.u.	10.5			01/29/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	248			01/29/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	38			01/29/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	13			01/29/07	A2320 B	
			Calcium	mg/L	8			01/30/07	E200.7	
			Chloride	mg/L	3			01/29/07	A4500-Cl B	
			Fluoride	mg/L	0.3			01/26/07	A4500-F C	
			Magnesium	mg/L	ND			01/30/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			01/29/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			01/30/07	E353.2	
			Potassium	mg/L	5			01/30/07	E200.7	
			Silica	mg/L	15.1			01/30/07	E200.7	
			Sodium	mg/L	74			01/30/07	E200.7	
			Sulfate	mg/L	129			01/29/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	0.5			01/30/07	E200.8	
			Arsenic	mg/L	0.003			01/30/07	E200.8	
			Barium	mg/L	ND			01/30/07	E200.8	
			Boron	mg/L	ND			01/30/07	E200.7	
			Cadmium	mg/L	ND			01/30/07	E200.8	
			Chromium	mg/L	ND			01/30/07	E200.8	
			Copper	mg/L	ND			01/30/07	E200.8	
			Iron	mg/L	ND			01/30/07	E200.7	
			Lead	mg/L	ND			01/30/07	E200.8	
			Manganese	mg/L	ND			01/30/07	E200.8	
			Mercury	mg/L	ND			01/30/07	E200.8	
			Molybdenum	mg/L	ND			01/30/07	E200.8	
			Nickel	mg/L	ND			01/30/07	E200.8	
			Selenium	mg/L	ND			01/30/07	E200.8	
			Uranium	mg/L	ND			01/30/07	E200.8	
			Vanadium	mg/L	ND			01/30/07	E200.8	
			Zinc	mg/L	ND			01/30/07	E200.8	
			Metals - Total							
			Iron	mg/L	1.21			01/30/07	E200.7	
			Manganese	mg/L	0.01			01/30/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	1.2			02/08/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.5			02/08/07	E900.0	
			Gross Beta	pCi/L	3.1			02/08/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.4			02/08/07	E900.0	
			Radium 226	pCi/L	ND			02/12/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			02/07/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.76			02/02/07	Calculation	
			Anions	meq/L	4.02			02/02/07	Calculation	
			Cations	meq/L	3.89			02/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	272			02/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.910			02/02/07	Calculation	

MINE NAME	[redacted]TATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER VA[redacted]	AB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	CO[redacted]S
Hank	Brown F	05/16/07	Conductivity	umhos/cm	489	Energy Laboratories	C07050826-001	05/17/07	A2510 B	
			pH	s.u.	8.26			05/17/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	274			05/17/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/17/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	151			05/17/07	A2320 B	
			Calcium	mg/L	14			05/24/07	E200.7	
			Chloride	mg/L	3			05/17/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/17/07	A4500-F C	
			Magnesium	mg/L	ND			05/24/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/17/07	E353.2	
			Potassium	mg/L	6			05/24/07	E200.7	
			Silica	mg/L	20.5			05/24/07	E200.7	
			Sodium	mg/L	83			05/24/07	E200.7	
			Sulfate	mg/L	99			05/17/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	0.6			05/22/07	E200.8	
			Arsenic	mg/L	0.003			05/22/07	E200.8	
			Barium	mg/L	ND			05/22/07	E200.8	
			Boron	mg/L	ND			05/24/07	E200.7	
			Cadmium	mg/L	ND			05/22/07	E200.8	
			Chromium	mg/L	ND			05/22/07	E200.8	
			Copper	mg/L	ND			05/22/07	E200.8	
			Iron	mg/L	0.45			05/24/07	E200.7	
			Lead	mg/L	0.003			05/22/07	E200.8	
			Manganese	mg/L	ND			05/22/07	E200.8	
			Mercury	mg/L	ND			05/22/07	E200.8	
			Molybdenum	mg/L	ND			05/22/07	E200.8	
			Nickel	mg/L	ND			05/22/07	E200.8	
			Selenium	mg/L	ND			05/22/07	E200.8	
			Uranium	mg/L	ND			05/22/07	E200.8	
			Vanadium	mg/L	ND			05/22/07	E200.8	
			Zinc	mg/L	0.01			05/22/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.43			05/24/07	E200.7	
			Manganese	mg/L	0.02			05/24/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	1.4			06/06/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.5			06/06/07	E900.0	
			Gross Beta	pCi/L	5.6			06/06/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.5			06/06/07	E900.0	
			Radium 226	pCi/L	ND			05/31/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			05/24/07	RA-05	
			Radium 228 precision (+)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (+5)	%	0.62			05/29/07	Calculation	
			Anions	meq/L	4.64			05/29/07	Calculation	
			Cations	meq/L	4.7			05/29/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	302			05/29/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.91			05/29/07	Calculation	

MINE_NAME	S	ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CC
Hank		Brown G	12/19/2006	Conductivity	umhos/cm	2360	nergy Laboratories	C06120892-001	12/21/06	A2510 B	
				pH	s.u.	7.81			12/21/06	A4500-H B	
				Solids, Total Dissolved @ 180 °C	mg/L	1860			12/21/06	A2540 C	
				Major Ions							
				Alkalinity, Total as CaCO3	mg/L					A2320 B	
				Carbonate as CO_3	mg/L	ND			12/22/06	A2320 B	
				Bicarbonate as HCO_3	mg/L	117			12/22/06	A2320 B	
				Calcium	mg/L	204			01/09/07	E200.7	
				Chloride	mg/L	8			12/21/06	A4500-Cl B	
				Fluoride	mg/L	0.1			12/22/06	A4500-F C	
				Magnesium	mg/L	51			01/09/07	E200.7	
				Nitrogen, Ammonia as N	mg/L	0.10			12/21/06	A4500-NH3 G	
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/27/06	E353.2	
				Nitrogen, Nitrite as N	mg/L					A4500-NO2 B	
				Potassium	mg/L	10			01/09/07	E200.7	
				Silica	mg/L	9.4			01/09/07	E200.7	
				Sodium	mg/L	284			01/09/07	E200.7	
				Sulfate	mg/L	1200			12/23/06	A4500-SO4 E	
				Metals - Dissolved							
				Aluminum	mg/L	ND			12/22/06	E200.8	
				Arsenic	mg/L	ND			12/22/06	E200.8	
				Barium	mg/L	ND			12/28/06	E200.8	
				Boron	mg/L	ND			01/09/07	E200.7	
				Cadmium	mg/L	ND			12/22/06	E200.8	
				Chromium	mg/L	ND			12/22/06	E200.8	
				Copper	mg/L	ND			12/22/06	E200.8	
				Iron	mg/L	0.50			01/09/07	E200.7	
				Lead	mg/L	ND			12/22/06	E200.8	
				Manganese	mg/L	0.20			12/22/06	E200.8	
				Mercury	mg/L	ND			12/22/06	E200.8	
				Molybdenum	mg/L	ND			12/22/06	E200.8	
				Nickel	mg/L	ND			12/22/06	E200.8	
				Selenium	mg/L	0.001			12/22/06	E200.8	
				Uranium	mg/L	0.0005			12/27/06	E200.8	
				Vanadium	mg/L	ND			12/22/06	E200.8	
				Zinc	mg/L	ND			12/22/06	E200.8	
				Metals - Total							
				Iron	mg/L	0.58			01/08/07	E200.7	
				Manganese	mg/L	0.21			01/08/07	E200.7	
				Radionuclides - Dissolved							
				Gross Alpha	pCi/L	8.1			01/05/07	E900.0	
				Gross Alpha precision (+)	pCi/L	1.3			01/05/07	E900.0	
				Gross Beta	pCi/L	8.4			01/05/07	E900.0	
				Gross Beta precision (+)	pCi/L	3.0			01/05/07	E900.0	
				Radium 226	pCi/L	ND			01/13/07	E903.0	
				Radium 226 precision (+)	pCi/L					E903.0	
				Radium 228	pCi/L	ND			01/08/07	RA-05	
				Radium 228 precision (+)	pCi/L					RA-05	
				Data Quality							
				A/C Balance (±5)	%	-1.52			01/12/07	Calculation	
				Anions	meq/L	27.8			01/12/07	Calculation	
				Cations	meq/L	27			01/12/07	Calculation	
				Solids, Total Dissolved Calculated	mg/L	1860			01/12/07	Calculation	
				TDS Balance (0.80-1.20)	dec. %	1.00			01/12/07	Calculation	

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CC[redacted]
Hank	Brown G	02/27/07	Conductivity	umhos/cm	2360	Energy Laboratories	C07021001-003	02/28/07	A2510 B	
			pH	s.u.	7.90			02/28/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1880			02/28/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			03/01/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	120			03/01/07	A2320 B	
			Calcium	mg/L	210			03/13/07	E200.7	
			Chloride	mg/L	9			03/01/07	A4500-Cl B	
			Fluoride	mg/L	0.1			03/01/07	A4500-F C	
			Magnesium	mg/L	51			03/13/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/02/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/01/07	E353.2	
			Potassium	mg/L	10			03/13/07	E200.7	
			Silica	mg/L	10.2			03/13/07	E200.7	
			Sodium	mg/L	294			03/13/07	E200.7	
			Sulfate	mg/L	1260			03/01/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/02/07	E200.8	
			Arsenic	mg/L	ND			03/02/07	E200.8	
			Barium	mg/L	ND			03/02/07	E200.8	
			Boron	mg/L	ND			03/13/07	E200.7	
			Cadmium	mg/L	ND			03/02/07	E200.8	
			Chromium	mg/L	ND			03/02/07	E200.8	
			Copper	mg/L	ND			03/02/07	E200.8	
			Iron	mg/L	0.57			03/13/07	E200.7	
			Lead	mg/L	ND			03/01/07	E200.8	
			Manganese	mg/L	0.18			03/02/07	E200.8	
			Mercury	mg/L	ND			03/01/07	E200.8	
			Molybdenum	mg/L	ND			03/06/07	E200.8	
			Nickel	mg/L	ND			03/02/07	E200.8	
			Selenium	mg/L	ND			03/02/07	E200.8	
			Uranium	mg/L	0.0005			03/01/07	E200.8	
			Vanadium	mg/L	ND			03/02/07	E200.8	
			Zinc	mg/L	ND			03/02/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.61			03/13/07	E200.7	
			Manganese	mg/L	0.21			03/13/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	4.4			03/17/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2.2			03/17/07	E900.0	
			Gross Beta	pCi/L	18.4			03/17/07	E900.0	
			Gross Beta precision (±)	pCi/L	7.0			03/17/07	E900.0	
			Radium 226	pCi/L	1.3			03/17/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.5			03/17/07	E903.0	
			Radium 228	pCi/L	ND			03/12/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.21			03/14/07	Calculation	
			Anions	meq/L	28.4			03/14/07	Calculation	
			Cations	meq/L	27.7			03/14/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1900			03/14/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.990			03/14/07	Calculation	

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CC[redacted]
Hank	Brown G	05/16/07		umhos/cm	2500	Energy Laboratories	C07050825-002	05/17/07	A2510 B	
			pH	s.u.	7.8			05/17/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1880			05/17/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/17/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	117			05/17/07	A2320 B	
			Calcium	mg/L	211			05/24/07	E200.7	
			Chloride	mg/L	8			05/17/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/17/07	A4500-F C	
			Magnesium	mg/L	52			05/24/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/17/07	E353.2	
			Potassium	mg/L	10			05/24/07	E200.7	
			Silica	mg/L	9.2			05/24/07	E200.7	
			Sodium	mg/L	289			05/24/07	E200.7	
			Sulfate	mg/L	1230			05/17/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/21/07	E200.8	
			Arsenic	mg/L	ND			05/21/07	E200.8	
			Barium	mg/L	ND			05/21/07	E200.8	
			Boron	mg/L	ND			05/24/07	E200.7	
			Cadmium	mg/L	ND			05/21/07	E200.8	
			Chromium	mg/L	ND			05/21/07	E200.8	
			Copper	mg/L	ND			05/21/07	E200.8	
			Iron	mg/L	0.54			05/24/07	E200.7	
			Lead	mg/L	ND			05/21/07	E200.8	
			Manganese	mg/L	0.2			05/21/07	E200.8	
			Mercury	mg/L	ND			05/21/07	E200.8	
			Molybdenum	mg/L	ND			05/21/07	E200.8	
			Nickel	mg/L	ND			05/21/07	E200.8	
			Selenium	mg/L	ND			05/21/07	E200.8	
			Uranium	mg/L	0.0005			05/21/07	E200.8	
			Vanadium	mg/L	ND			05/21/07	E200.8	
			Zinc	mg/L	ND			05/21/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.52			05/24/07	E200.7	
			Manganese	mg/L	0.2			05/24/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	4.8			06/05/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.1			06/05/07	E900.0	
			Gross Beta	pCi/L	10.4			06/05/07	E900.0	
			Gross Beta precision (±)	pCi/L	3			06/05/07	E900.0	
			Radium 226	pCi/L	0.6			05/31/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.3			05/31/07	E903.0	
			Radium 228	pCi/L	ND			05/24/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-0.333			05/29/07	Calculation	
			Anions	meq/L	27.9			05/29/07	Calculation	
			Cations	meq/L	27.7			05/29/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1870			05/29/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.01			05/29/07	Calculation	

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	[redacted]COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	[redacted]rown H	11/21/2006	Conductivity	umhos/cm	1060	[redacted]ergy Laboratories	C06111004-001	11/27/06	A2510 B	
			pH	s.u.	8.47			11/27/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	686			11/27/06	A2540 C	
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L					A2320 B	
			Carbonate as CO_3	mg/L	3			11/27/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	164			11/27/06	A2320 B	
			Calcium	mg/L	47			12/04/06	E200.7	
			Chloride	mg/L	27			11/28/06	A4500-Cl B	
			Fluoride	mg/L	0.04			11/27/06	A4500-F C	
			Magnesium	mg/L	8			12/04/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.10			11/29/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/28/06	E353.2	
			Nitrogen, Nitrite as N	mg/L					A4500-NO2 B	
			Potassium	mg/L	5			12/04/06	E200.7	
			Silica	mg/L	5.5			12/04/06	E200.7	
			Sodium	mg/L	168			12/04/06	E200.7	
			Sulfate	mg/L	353			12/04/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/28/06	E200.8	
			Arsenic	mg/L	ND			11/28/06	E200.8	
			Barium	mg/L	ND			11/28/06	E200.8	
			Boron	mg/L	ND			12/04/06	E200.7	
			Cadmium	mg/L	ND			11/28/06	E200.8	
			Chromium	mg/L	ND			11/28/06	E200.8	
			Copper	mg/L	ND			11/28/06	E200.8	
			Iron	mg/L	ND			12/04/06	E200.7	
			Lead	mg/L	ND			11/28/06	E200.8	
			Manganese	mg/L	0.05			11/28/06	E200.8	
			Mercury	mg/L	ND			11/28/06	E200.8	
			Molybdenum	mg/L	ND			11/28/06	E200.8	
			Nickel	mg/L	ND			11/28/06	E200.8	
			Selenium	mg/L	0.001			11/28/06	E200.8	
			Uranium	mg/L	0.0006			11/28/06	E200.8	
			Vanadium	mg/L	ND			11/28/06	E200.8	
			Zinc	mg/L	ND			11/28/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			12/04/06	E200.7	
			Manganese	mg/L	0.06			12/04/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	3.9			12/02/06	E900.0	
			Gross Alpha precision (±)	pCi/L	0.07			12/02/06	E900.0	
			Gross Beta	pCi/L	5.3			12/02/06	E900.0	
			Gross Beta precision (±)	pCi/L	1.6			12/02/06	E900.0	
			Radium 226	pCi/L	ND			12/11/06	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			12/06/06	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.89			12/05/06	Calculation	
			Anions	meq/L	10.9			12/05/06	Calculation	
			Cations	meq/L	10.5			12/05/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	698			12/05/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.980			12/05/06	Calculation	

MINE_NAME	[redacted]	ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO	[redacted]
Hank	Brown H	01/24/07	Conductivity	umhos/cm	1040		Energy Laboratories	C07010990-002	01/26/07	A2510 B		
			pH	s.u.	8.21				01/26/07	A4500-H B		
			Solids, Total Dissolved @ 180 °C	mg/L	688				01/26/07	A2540 C		
			Major Ions									
			Carbonate as CO_3	mg/L	ND				01/26/07	A2320 B		
			Bicarbonate as HCO_3	mg/L	190				01/26/07	A2320 B		
			Calcium	mg/L	53				02/08/07	E200.7		
			Chloride	mg/L	8				01/26/07	A4500-Cl B		
			Fluoride	mg/L	0.3				01/26/07	A4500-F C		
			Magnesium	mg/L	10				02/08/07	E200.7		
			Nitrogen, Ammonia as N	mg/L	0.16				01/29/07	A4500-NH3 G		
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND				01/30/07	E353.2		
			Potassium	mg/L	5				02/08/07	E200.7		
			Silica	mg/L	6.4				02/08/07	E200.7		
			Sodium	mg/L	185				02/08/07	E200.7		
			Sulfate	mg/L	399				01/26/07	A4500-SO4 E		
			Metals - Dissolved									
			Aluminum	mg/L	ND				01/26/07	E200.8		
			Arsenic	mg/L	ND				01/26/07	E200.8		
			Barium	mg/L	ND				01/26/07	E200.8		
			Boron	mg/L	ND				02/08/07	E200.7		
			Cadmium	mg/L	ND				01/26/07	E200.8		
			Chromium	mg/L	ND				01/26/07	E200.8		
			Copper	mg/L	ND				01/26/07	E200.8		
			Iron	mg/L	ND				02/08/07	E200.7		
			Lead	mg/L	ND				01/26/07	E200.8		
			Manganese	mg/L	0.08				02/08/07	E200.8		
			Mercury	mg/L	ND				01/26/07	E200.8		
			Molybdenum	mg/L	ND				01/26/07	E200.8		
			Nickel	mg/L	ND				01/26/07	E200.8		
			Selenium	mg/L	ND				01/26/07	E200.8		
			Uranium	mg/L	ND				01/26/07	E200.8		
			Vanadium	mg/L	ND				01/26/07	E200.8		
			Zinc	mg/L	ND				01/26/07	E200.8		
			Metals - Total									
			Iron	mg/L	ND				02/09/07	E200.7		
			Manganese	mg/L	0.08				02/06/07	E200.7		
			Radionuclides - Dissolved									
			Gross Alpha	pCi/L	ND				02/03/07	E900.0		
			Gross Alpha precision (+)	pCi/L						E900.0		
			Gross Beta	pCi/L	3.0				02/03/07	E900.0		
			Gross Beta precision (+)	pCi/L	1.4				02/03/07	E900.0		
			Radium 226	pCi/L	ND				02/12/07	E903.0		
			Radium 226 precision (+)	pCi/L						E903.0		
			Radium 228	pCi/L	ND				02/06/07	RA-05		
			Data Quality									
			A/C Balance (±5)	%	0.224				02/13/07	Calculation		
			Anions	meq/L	11.6				02/13/07	Calculation		
			Cations	meq/L	11.7				02/13/07	Calculation		
			Solids, Total Dissolved Calculated	mg/L	761				02/13/07	Calculation		
			TDS Balance (0.80-1.20)	dec. %	0.900				02/13/07	Calculation		

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CC[redacted]
Hank	Brown H	04/25/07	Conductivity	umhos/cm	1080	Energy Laboratories	C07041195-002	04/26/07	A2510 B	
			pH	s.u.	8.09			04/26/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	696			04/27/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			04/26/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	194			04/26/07	A2320 B	
			Calcium	mg/L	51			05/10/07	E200.7	
			Chloride	mg/L	5			04/26/07	A4500-Cl B	
			Fluoride	mg/L	0.4			05/01/07	A4500-F C	
			Magnesium	mg/L	9			05/10/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.1			05/01/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			04/27/07	E353.2	
			Potassium	mg/L	5			05/10/07	E200.7	
			Silica	mg/L	7.8			05/10/07	E200.7	
			Sodium	mg/L	168			05/10/07	E200.7	
			Sulfate	mg/L	379			04/27/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/30/07	E200.8	
			Arsenic	mg/L	ND			04/30/07	E200.8	
			Barium	mg/L	ND			04/30/07	E200.8	
			Boron	mg/L	ND			05/10/07	E200.7	
			Cadmium	mg/L	ND			04/30/07	E200.8	
			Chromium	mg/L	ND			04/30/07	E200.8	
			Copper	mg/L	ND			04/30/07	E200.8	
			Iron	mg/L	ND			05/10/07	E200.7	
			Lead	mg/L	ND			04/30/07	E200.8	
			Manganese	mg/L	0.08			04/30/07	E200.8	
			Mercury	mg/L	ND			04/30/07	E200.8	
			Molybdenum	mg/L	ND			04/30/07	E200.8	
			Nickel	mg/L	ND			04/30/07	E200.8	
			Selenium	mg/L	ND			04/30/07	E200.8	
			Uranium	mg/L	ND			04/30/07	E200.8	
			Vanadium	mg/L	ND			04/30/07	E200.8	
			Zinc	mg/L	ND			04/30/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/10/07	E200.7	
			Manganese	mg/L	0.02			05/10/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	ND			05/18/07	E900.0	
			Gross Alpha precision (±)	pCi/L					E900.0	
			Gross Beta	pCi/L	3.4			05/18/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.4			05/18/07	E900.0	
			Radium 226	pCi/L	ND			05/12/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			05/07/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.1			05/14/07	Calculation	
			Anions	meq/L	11.2			05/14/07	Calculation	
			Cations	meq/L	10.8			05/14/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	720			05/14/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.97			05/14/07	Calculation	

MINE NAME	S[redacted]TION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER V	[redacted] COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	CC[redacted]
Hank	own Q	12/19/2006	Conductivity	umhos/cm	1390	ergy Laboratories	C06120892-002	12/21/06	A2510 B	
			pH	s.u.	8.26			12/21/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	934			12/21/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			12/22/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	101			12/22/06	A2320 B	
			Calcium	mg/L	74			01/09/07	E200.7	
			Chloride	mg/L	5			12/21/06	A4500-Cl B	
			Fluoride	mg/L	0.1			12/22/06	A4500-F C	
			Magnesium	mg/L	14			01/09/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.31			12/21/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			12/27/06	E353.2	
			Potassium	mg/L	6			01/09/07	E200.7	
			Silica	mg/L	10.1			01/09/07	E200.7	
			Sodium	mg/L	215			01/09/07	E200.7	
			Sulfate	mg/L	558			12/23/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/28/06	E200.8	
			Arsenic	mg/L	ND			12/22/06	E200.8	
			Barium	mg/L	ND			12/22/06	E200.8	
			Boron	mg/L	ND			01/09/07	E200.7	
			Cadmium	mg/L	ND			12/22/06	E200.8	
			Chromium	mg/L	ND			12/22/06	E200.8	
			Copper	mg/L	ND			12/22/06	E200.8	
			Iron	mg/L	0.08			01/09/07	E200.7	
			Lead	mg/L	0.001			12/22/06	E200.8	
			Manganese	mg/L	0.07			12/22/06	E200.8	
			Mercury	mg/L	ND			12/22/06	E200.8	
			Molybdenum	mg/L	ND			12/22/06	E200.8	
			Nickel	mg/L	ND			12/22/06	E200.8	
			Selenium	mg/L	0.002			12/22/06	E200.8	
			Uranium	mg/L	0.0089			12/27/06	E200.8	
			Vanadium	mg/L	ND			12/22/06	E200.8	
			Zinc	mg/L	ND			12/22/06	E200.8	
			Metals - Total							
			Iron	mg/L	14.2			01/08/07	E200.7	
			Manganese	mg/L	0.40			01/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	10.9			01/05/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.8			01/05/07	E900.0	
			Gross Beta	pCi/L	10.1			01/05/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.7			01/05/07	E900.0	
			Radium 226	pCi/L	ND			01/13/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			01/08/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.15			01/12/07	Calculation	
			Anions	meq/L	14.7			01/12/07	Calculation	
			Cations	meq/L	14.4			01/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	994			01/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.940			01/12/07	Calculation	

MINE NAME	[redacted]	SAMP DATE	PARAMETER NAME	Units	PARAMETER V	[redacted]	COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted]
Hank	Brown Q	02/27/07	Conductivity	umhos/cm	1400		Energy Laboratories	C07021001-001	02/28/07	A2510 B	
			pH	s.u.	8.02				02/28/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	958				02/28/07	A2540 C	
			Major Ions								
			Carbonate as CO_3	mg/L	ND				03/01/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	100				03/01/07	A2320 B	
			Calcium	mg/L	78				03/12/07	E200.7	
			Chloride	mg/L	3				03/01/07	A4500-Cl B	
			Fluoride	mg/L	0.1				03/01/07	A4500-F C	
			Magnesium	mg/L	13				03/12/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND				03/02/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND				03/01/07	E353.2	
			Potassium	mg/L	7				03/12/07	E200.7	
			Silica	mg/L	10.3				03/12/07	E200.7	
			Sodium	mg/L	223				03/12/07	E200.7	
			Sulfate	mg/L	620				03/01/07	A4500-SO4 E	
			Metals - Dissolved								
			Aluminum	mg/L	ND				03/01/07	E200.8	
			Arsenic	mg/L	ND				03/01/07	E200.8	
			Barium	mg/L	ND				03/01/07	E200.8	
			Boron	mg/L	ND				03/12/07	E200.7	
			Cadmium	mg/L	ND				03/01/07	E200.8	
			Chromium	mg/L	ND				03/01/07	E200.8	
			Copper	mg/L	ND				03/01/07	E200.8	
			Iron	mg/L	0.09				03/12/07	E200.7	
			Lead	mg/L	ND				03/01/07	E200.8	
			Manganese	mg/L	0.07				03/01/07	E200.8	
			Mercury	mg/L	ND				03/01/07	E200.8	
			Molybdenum	mg/L	ND				03/01/07	E200.8	
			Nickel	mg/L	ND				03/01/07	E200.8	
			Selenium	mg/L	ND				03/01/07	E200.8	
			Uranium	mg/L	0.0107				03/01/07	E200.8	
			Vanadium	mg/L	ND				03/01/07	E200.8	
			Zinc	mg/L	ND				03/01/07	E200.8	
			Metals - Total								
			Iron	mg/L	1.46				03/12/07	E200.7	
			Manganese	mg/L	0.09				03/12/07	E200.7	
			Radionuclides - Dissolved								
			Gross Alpha	pCi/L	9.3				03/16/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.3				03/16/07	E900.0	
			Gross Beta	pCi/L	10.0				03/16/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.8				03/16/07	E900.0	
			Radium 226	pCi/L	0.8				03/17/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.4				03/17/07	E903.0	
			Radium 228	pCi/L	ND				03/12/07	RA-05	
			Data Quality								
			A/C Balance (±5)	%	0.811				03/14/07	Calculation	
			Anions	meq/L	14.6				03/14/07	Calculation	
			Cations	meq/L	14.9				03/14/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1000				03/14/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.960				03/14/07	Calculation	

MINE NAME	[redacted] ATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER A	[redacted] COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted] CU [redacted]
Hank	Brown Q	05/16/07	Conductivity	umhos/cm	1450	Energy Laboratories	C07050825-003	05/17/07	A2510 B	
			pH	s.u.	8.12			05/17/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	932			05/17/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/17/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	104			05/17/07	A2320 B	
			Calcium	mg/L	78			05/24/07	E200.7	
			Chloride	mg/L	4			05/17/07	A4500-Cl B	
			Fluoride	mg/L	0.1			05/17/07	A4500-F C	
			Magnesium	mg/L	13			05/24/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/17/07	E353.2	
			Potassium	mg/L	6			05/24/07	E200.7	
			Silica	mg/L	10.1			05/24/07	E200.7	
			Sodium	mg/L	224			05/24/07	E200.7	
			Sulfate	mg/L	610			05/17/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/22/07	E200.8	
			Arsenic	mg/L	ND			05/22/07	E200.8	
			Barium	mg/L	ND			05/22/07	E200.8	
			Boron	mg/L	ND			05/24/07	E200.7	
			Cadmium	mg/L	ND			05/22/07	E200.8	
			Chromium	mg/L	ND			05/22/07	E200.8	
			Copper	mg/L	ND			05/22/07	E200.8	
			Iron	mg/L	0.08			05/24/07	E200.7	
			Lead	mg/L	ND			05/22/07	E200.8	
			Manganese	mg/L	0.07			05/22/07	E200.8	
			Mercury	mg/L	ND			05/22/07	E200.8	
			Molybdenum	mg/L	ND			05/22/07	E200.8	
			Nickel	mg/L	ND			05/22/07	E200.8	
			Selenium	mg/L	ND			05/22/07	E200.8	
			Uranium	mg/L	0.0109			05/22/07	E200.8	
			Vanadium	mg/L	ND			05/22/07	E200.8	
			Zinc	mg/L	ND			05/22/07	E200.8	
			Metals - Total							
			Iron	mg/L	1.5			05/24/07	E200.7	
			Manganese	mg/L	0.09			05/24/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	6.6			06/05/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.7			06/05/07	E900.0	
			Gross Beta	pCi/L	9.3			06/05/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.6			06/05/07	E900.0	
			Radium 226	pCi/L	ND			05/31/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			05/24/07	RA-05	
			Radium 228 precision (+)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (+5)	%	1.4			05/29/07	Calculation	
			Anions	meq/L	14.5			05/29/07	Calculation	
			Cations	meq/L	14.9			05/29/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	998			05/29/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.93			05/29/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_A	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CO[redacted]
Hank	Brown Q	08/08/07	Conductivity	umhos/cm	1380	Energy Laboratories	C07080607-001	08/10/07	A2510 B	
			pH	s.u.	7.83			08/10/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	950			08/10/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			08/10/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	109			08/10/07	A2320 B	
			Calcium	mg/L	69			08/21/07	E200.7	
			Chloride	mg/L	5			08/13/07	A4500-Cl B	
			Fluoride	mg/L	0.1			08/14/07	A4500-F C	
			Magnesium	mg/L	12			08/21/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.06			08/10/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/14/07	E353.2	
			Potassium	mg/L	6			08/21/07	E200.7	
			Silica	mg/L	10.9			08/21/07	E200.7	
			Sodium	mg/L	208			08/21/07	E200.7	
			Sulfate	mg/L	612			08/13/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			08/24/07	E200.8	
			Arsenic	mg/L	ND			08/24/07	E200.8	
			Barium	mg/L	ND			08/24/07	E200.8	
			Boron	mg/L	ND			08/21/07	E200.7	
			Cadmium	mg/L	ND			08/24/07	E200.8	
			Chromium	mg/L	ND			05/24/07	E200.8	
			Copper	mg/L	ND			08/24/07	E200.8	
			Iron	mg/L	0.11			08/21/07	E200.7	
			Lead	mg/L	ND			08/24/07	E200.8	
			Manganese	mg/L	0.06			08/24/07	E200.8	
			Mercury	mg/L	ND			08/24/07	E200.8	
			Molybdenum	mg/L	ND			08/24/07	E200.8	
			Nickel	mg/L	ND			08/24/07	E200.8	
			Selenium	mg/L	ND			08/24/07	E200.8	
			Uranium	mg/L	0.0111			08/24/07	E200.8	
			Vanadium	mg/L	ND			08/24/07	E200.8	
			Zinc	mg/L	ND			08/24/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.77			08/21/07	E200.7	
			Manganese	mg/L	0.08			08/21/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	8.7			08/24/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.9			08/24/07	E900.0	
			Gross Beta	pCi/L	9.2			08/24/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.1			08/24/07	E900.0	
			Radium 226	pCi/L	ND			08/21/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	1.1			08/16/07	RA-05	
			Radium 228 precision (±)	pCi/L	0.8			08/16/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-3.85			08/24/07	Calculation	
			Anions	meq/L	14.7			08/24/07	Calculation	
			Cations	meq/L	13.6			08/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	977			08/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.97			08/24/07	Calculation	

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAR	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_ME
Hank	Brown WS	9/7/2006	Conductivity	umhos/cm			Energy Laboratories	C06090278-001	09/11/06	A2510 B
			pH	s.u.		7.99			09/11/06	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		736			09/11/06	A2540 C
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L		78			09/11/06	A2320 B
			Carbonate as CO_3	mg/L		ND			09/11/06	A2320 B
			Bicarbonate as HCO_3	mg/L		95			09/11/06	A2320 B
			Calcium	mg/L		49.2			09/25/06	E200.7
			Chloride	mg/L		5			09/25/06	A4500-Cl B
			Fluoride	mg/L		0.2			09/12/06	A4500-F C
			Magnesium	mg/L		14.4			09/25/06	E200.7
			Nitrogen, Ammonia as N	mg/L		0.07			09/12/06	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			09/11/06	E353.2
			Nitrogen, Nitrite as N	mg/L		ND			09/08/06	A4500-NO2 B
			Potassium	mg/L		5.1			09/25/06	E200.7
			Silica	mg/L		10.6			09/25/06	E200.7
			Sodium	mg/L		183			09/25/06	E200.7
			Sulfate	mg/L		522			09/25/06	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			09/12/06	E200.8
			Arsenic	mg/L		ND			09/12/06	E200.8
			Barium	mg/L		ND			09/12/06	E200.8
			Boron	mg/L		ND			09/12/06	E200.7
			Cadmium	mg/L		ND			09/12/06	E200.8
			Chromium	mg/L		ND			09/12/06	E200.8
			Copper	mg/L		ND			09/12/06	E200.8
			Iron	mg/L		ND			09/12/06	E200.7
			Lead	mg/L		ND			09/12/06	E200.8
			Manganese	mg/L		ND			09/12/06	E200.8
			Mercury	mg/L		ND			09/12/06	E200.8
			Molybdenum	mg/L		ND			09/12/06	E200.8
			Nickel	mg/L		ND			09/12/06	E200.8
			Selenium	mg/L		ND			09/12/06	E200.8
			Uranium	mg/L		0.0103			09/12/06	E200.8
			Vanadium	mg/L		ND			09/12/06	E200.8
			Zinc	mg/L		0.02			09/12/06	E200.8
			Metals - Total							
			Iron	mg/L						E200.7
			Manganese	mg/L						E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		9			10/26/06	E900.0
			Gross Alpha precision (+)	pCi/L		0.7			10/26/06	E900.0
			Gross Beta	pCi/L		12.8			10/26/06	E900.0
			Gross Beta precision (+)	pCi/L		1.6			10/26/06	E900.0
			Radium 226	pCi/L		ND			09/25/06	E903.0
			Radium 226 precision (+)	pCi/L						E903.0
			Radium 228	pCi/L		ND			11/01/06	RA-05
			Data Quality							
			A/C Balance (±5)	%		-3.46			10/02/06	Calculation
			Anions	meq/L		12.6			10/02/06	Calculation
			Cations	meq/L		11.7			10/02/06	Calculation
			Solids, Total Dissolved Calculated	mg/L		835			10/02/06	Calculation
			TDS Balance (0.80-1.20)	dec. %		0.88			10/02/06	Calculation

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAR	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_ME
Hank	Brown WS	12/06/06	Conductivity	umhos/cm		1180	Energy Laboratories	C06120269-001	12/07/06	A2510 B
			pH	s.u.		8.1			12/07/06	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		764			12/07/06	A2540 C
			Major Ions							
			Carbonate as CO_3	mg/L		ND			12/08/06	A2320 B
			Bicarbonate as HCO_3	mg/L		94			12/08/06	A2320 B
			Calcium	mg/L		45.0			12/08/06	E200.7
			Chloride	mg/L		5			12/08/06	A4500-Cl B
			Fluoride	mg/L		0.2			12/07/06	A4500-F C
			Magnesium	mg/L		13.0			12/08/06	E200.7
			Nitrogen, Ammonia as N	mg/L		ND			12/14/06	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			12/08/06	E353.2
			Potassium	mg/L		5.0			12/08/06	E200.7
			Silica	mg/L		9.4			12/08/06	E200.7
			Sodium	mg/L		176			12/08/06	E200.7
			Sulfate	mg/L		447			12/12/06	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			12/08/06	E200.8
			Arsenic	mg/L		0.001			12/08/06	E200.8
			Barium	mg/L		ND			12/08/06	E200.8
			Boron	mg/L		ND			12/08/06	E200.7
			Cadmium	mg/L		ND			12/08/06	E200.8
			Chromium	mg/L		ND			12/08/06	E200.8
			Copper	mg/L		ND			12/08/06	E200.8
			Iron	mg/L		0.14			12/08/06	E200.7
			Lead	mg/L		ND			12/08/06	E200.8
			Manganese	mg/L		ND			12/08/06	E200.8
			Mercury	mg/L		ND			12/08/06	E200.8
			Molybdenum	mg/L		ND			12/08/06	E200.8
			Nickel	mg/L		ND			12/08/06	E200.8
			Selenium	mg/L		ND			12/08/06	E200.8
			Uranium	mg/L		0.0090			12/08/06	E200.8
			Vanadium	mg/L		ND			12/08/06	E200.8
			Zinc	mg/L		0.07			12/08/06	E200.8
			Metals - Total							
			Iron	mg/L		0.16			12/08/06	E200.7
			Manganese	mg/L		0.01			12/08/06	E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		7.9			12/17/06	E900.0
			Gross Alpha precision (±)	pCi/L		0.8			12/17/06	E900.0
			Gross Beta	pCi/L		8.6			12/17/06	E900.0
			Gross Beta precision (±)	pCi/L		1.5			12/17/06	E900.0
			Radium 226	pCi/L		ND			12/18/06	E903.0
			Radium 226 precision (±)	pCi/L					12/13/06	E903.0
			Radium 228	pCi/L		ND				RA-05
			Data Quality							
			A/C Balance (±5)	%		0.482			12/13/06	Calculation
			Anions	meq/L		11.0			12/13/06	Calculation
			Cations	meq/L		11.1			12/13/06	Calculation
			Solids, Total Dissolved Calculated	mg/L		747			12/13/06	Calculation
			TDS Balance (0.80-1.20)	dec. %		1.02			12/13/06	Calculation

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAF	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_ME
Hank	Brown WS	02/21/07	Conductivity	umhos/cm		1150	Energy Laboratories	C07020833-001	02/23/07	A2510 B
			pH	s.u.		6.34			02/23/07	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		750			02/23/07	A2540 C
			Major Ions							
			Carbonate as CO_3	mg/L		ND			02/28/07	A2320 B
			Bicarbonate as HCO_3	mg/L		95			02/28/07	A2320 B
			Calcium	mg/L		48.0			03/12/07	E200.7
			Chloride	mg/L		7			02/26/07	A4500-Cl B
			Fluoride	mg/L		0.3			02/28/07	A4500-F C
			Magnesium	mg/L		13.6			03/12/07	E200.7
			Nitrogen, Ammonia as N	mg/L		ND			03/02/07	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			02/23/07	E353.2
			Potassium	mg/L		5.1			03/12/07	E200.7
			Silica	mg/L		9.6			03/12/07	E200.7
			Sodium	mg/L		186			03/12/07	E200.7
			Sulfate	mg/L		488			02/26/07	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			02/26/07	E200.8
			Arsenic	mg/L		ND			02/26/07	E200.8
			Barium	mg/L		ND			02/26/07	E200.8
			Boron	mg/L		ND			03/12/07	E200.7
			Cadmium	mg/L		ND			02/26/07	E200.8
			Chromium	mg/L		ND			02/26/07	E200.8
			Copper	mg/L		ND			02/26/07	E200.8
			Iron	mg/L		0.16			03/12/07	E200.7
			Lead	mg/L		ND			02/26/07	E200.8
			Manganese	mg/L		ND			02/26/07	E200.8
			Mercury	mg/L		ND			02/26/07	E200.8
			Molybdenum	mg/L		ND			02/26/07	E200.8
			Nickel	mg/L		ND			02/26/07	E200.8
			Selenium	mg/L		ND			02/26/07	E200.8
			Uranium	mg/L		0.0096			02/26/07	E200.8
			Vanadium	mg/L		ND			02/26/07	E200.8
			Zinc	mg/L		0.12			02/26/07	E200.8
			Metals - Total							
			Iron	mg/L		0.16			03/06/07	E200.7
			Manganese	mg/L		0.01			03/06/07	E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		6.8			03/10/07	E900.0
			Gross Alpha precision (±)	pCi/L		0.7			03/10/07	E900.0
			Gross Beta	pCi/L		6.0			03/10/07	E900.0
			Gross Beta precision (±)	pCi/L		1.4			03/10/07	E900.0
			Radium 226	pCi/L		ND			03/05/07	E903.0
			Radium 226 precision (±)	pCi/L						E903.0
			Radium 228	pCi/L		ND			02/27/07	RA-05
			Radium 228 precision (±)	pCi/L						RA-05
			Data Quality							
			A/C Balance (±5)	%		-0.731			03/13/07	Calculation
			Anions	meq/L		11.9			03/13/07	Calculation
			Cations	meq/L		11.7			03/13/07	Calculation
			Solids, Total Dissolved Calculated	mg/L		804			03/13/07	Calculation
			TDS Balance (0.80-1.20)	dec. %		0.930			03/13/07	Calculation

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAR	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_ME
Hank	Brown WS	05/16/07	Conductivity	umhos/cm		1220	Energy Laboratories	C07050825-001	05/17/07	A2510 B
			pH	s.u.		8.23			05/17/07	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		750			05/17/07	A2540 C
			Major Ions							
			Carbonate as CO_3	mg/L		ND			05/17/07	A2320 B
			Bicarbonate as HCO_3	mg/L		96			05/17/07	A2320 B
			Calcium	mg/L		50			05/24/07	E200.7
			Chloride	mg/L		3			05/17/07	A4500-Cl B
			Fluoride	mg/L		0.3			05/17/07	A4500-F C
			Magnesium	mg/L		14			05/24/07	E200.7
			Nitrogen, Ammonia as N	mg/L		ND			05/21/07	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			05/17/07	E353.2
			Potassium	mg/L		6			05/24/07	E200.7
			Silica	mg/L		9.4			05/24/07	E200.7
			Sodium	mg/L		192			05/24/07	E200.7
			Sulfate	mg/L		488			05/17/07	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			05/21/07	E200.8
			Arsenic	mg/L		ND			05/21/07	E200.8
			Barium	mg/L		ND			05/21/07	E200.8
			Boron	mg/L		ND			05/24/07	E200.7
			Cadmium	mg/L		ND			05/21/07	E200.8
			Chromium	mg/L		ND			05/21/07	E200.8
			Copper	mg/L		ND			05/21/07	E200.8
			Iron	mg/L		0.16			05/24/07	E200.7
			Lead	mg/L		ND			05/21/07	E200.8
			Manganese	mg/L		ND			05/21/07	E200.8
			Mercury	mg/L		ND			05/21/07	E200.8
			Molybdenum	mg/L		ND			05/21/07	E200.8
			Nickel	mg/L		ND			05/21/07	E200.8
			Selenium	mg/L		ND			05/21/07	E200.8
			Uranium	mg/L		0.0092			05/21/07	E200.8
			Vanadium	mg/L		ND			05/21/07	E200.8
			Zinc	mg/L		0.06			05/21/07	E200.8
			Metals - Total							
			Iron	mg/L		0.16			05/24/07	E200.7
			Manganese	mg/L		0.01			05/24/07	E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		7.6			06/05/07	E900.0
			Gross Alpha precision (±)	pCi/L		0.8			06/05/07	E900.0
			Gross Beta	pCi/L		8.4			06/05/07	E900.0
			Gross Beta precision (±)	pCi/L		1.5			06/05/07	E900.0
			Radium 226	pCi/L		ND			05/31/07	E903.0
			Radium 226 precision (±)	pCi/L						E903.0
			Radium 228	pCi/L		ND			05/24/07	RA-05
			Radium 228 precision (±)	pCi/L						RA-05
			Data Quality							
			A/C Balance (±5)	%		1.14			05/29/07	Calculation
			Anions	meq/L		11.9			05/29/07	Calculation
			Cations	meq/L		12.2			05/29/07	Calculation
			Solids, Total Dissolved Calculated	mg/L		812			05/29/07	Calculation
			TDS Balance (0.80-1.20)	dec. %		0.92			05/29/07	Calculation

MINE	SAMP STATION NAME	SAMP DATE	PARAMETER NAME	Units	PAR	VALUE	LAB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL ME
Hank	Brown WS	9/7/2006	Conductivity	umhos/cm		1	Energy Laboratories	C06090278-001	09/11/06	A2510 B
			pH	s.u.		7.99			09/11/06	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		736			09/11/06	A2540 C
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L		78			09/11/06	A2320 B
			Carbonate as CO_3	mg/L		ND			09/11/06	A2320 B
			Bicarbonate as HCO_3	mg/L		95			09/11/06	A2320 B
			Calcium	mg/L		49.2			09/25/06	E200.7
			Chloride	mg/L		5			09/25/06	A4500-Cl B
			Fluoride	mg/L		0.2			09/12/06	A4500-F C
			Magnesium	mg/L		14.4			09/25/06	E200.7
			Nitrogen, Ammonia as N	mg/L		0.07			09/12/06	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			09/11/06	E353.2
			Nitrogen, Nitrite as N	mg/L		ND			09/08/06	A4500-NO2 B
			Potassium	mg/L		5.1			09/25/06	E200.7
			Silica	mg/L		10.6			09/25/06	E200.7
			Sodium	mg/L		183			09/25/06	E200.7
			Sulfate	mg/L		522			09/25/06	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			09/12/06	E200.8
			Arsenic	mg/L		ND			09/12/06	E200.8
			Barium	mg/L		ND			09/12/06	E200.8
			Boron	mg/L		ND			09/12/06	E200.7
			Cadmium	mg/L		ND			09/12/06	E200.8
			Chromium	mg/L		ND			09/12/06	E200.8
			Copper	mg/L		ND			09/12/06	E200.8
			Iron	mg/L		ND			09/12/06	E200.7
			Lead	mg/L		ND			09/12/06	E200.8
			Manganese	mg/L		ND			09/12/06	E200.8
			Mercury	mg/L		ND			09/12/06	E200.8
			Molybdenum	mg/L		ND			09/12/06	E200.8
			Nickel	mg/L		ND			09/12/06	E200.8
			Selenium	mg/L		ND			09/12/06	E200.8
			Uranium	mg/L		0.0103			09/12/06	E200.8
			Vanadium	mg/L		ND			09/12/06	E200.8
			Zinc	mg/L		0.02			09/12/06	E200.8
			Metals - Total							
			Iron	mg/L						E200.7
			Manganese	mg/L						E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		9			10/26/06	E900.0
			Gross Alpha precision (±)	pCi/L		0.7			10/26/06	E900.0
			Gross Beta	pCi/L		12.8			10/26/06	E900.0
			Gross Beta precision (±)	pCi/L		1.6			10/26/06	E900.0
			Radium 226	pCi/L		ND			09/25/06	E903.0
			Radium 226 precision (±)	pCi/L						E903.0
			Radium 228	pCi/L		ND			11/01/06	RA-05
			Data Quality							
			A/C Balance (±5)	%		-3.46			10/02/06	Calculation
			Anions	meq/L		12.6			10/02/06	Calculation
			Cations	meq/L		11.7			10/02/06	Calculation
			Solids, Total Dissolved Calculated	mg/L		835			10/02/06	Calculation
			TDS Balance (0.80-1.20)	dec. %		0.88			10/02/06	Calculation

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAI	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_ME
Hank	Brown WS	12/06/06	Conductivity	umhos/cm		1180	Energy Laboratories	C06120269-001	12/07/06	A2510 B
			pH	s.u.		8.1			12/07/06	A4500-H B
			Solids, Total Dissolved @ 180 °C	*mg/L*		*764*			*12/07/06*	*A2540 C*
			Major Ions							
			Carbonate as CO_3	mg/L		ND			12/08/06	A2320 B
			Bicarbonate as HCO_3	mg/L		94			12/08/06	A2320 B
			Calcium	mg/L		45.0			12/08/06	E200.7
			Chloride	mg/L		5			12/08/06	A4500-Cl B
			Fluoride	mg/L		0.2			12/07/06	A4500-F C
			Magnesium	mg/L		13.0			12/08/06	E200.7
			Nitrogen, Ammonia as N	*mg/L*		*ND*			*12/14/06*	*A4500-NH3 G*
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			12/08/06	E353.2
			Potassium	mg/L		5.0			12/08/06	E200.7
			Silica	mg/L		9.4			12/08/06	E200.7
			Sodium	mg/L		176			12/08/06	E200.7
			Sulfate	mg/L		447			12/12/06	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			12/08/06	E200.8
			Arsenic	mg/L		0.001			12/08/06	E200.8
			Barium	mg/L		ND			12/08/06	E200.8
			Boron	mg/L		ND			12/08/06	E200.7
			Cadmium	mg/L		ND			12/08/06	E200.8
			Chromium	mg/L		ND			12/08/06	E200.8
			Copper	mg/L		ND			12/08/06	E200.8
			Iron	mg/L		0.14			12/08/06	E200.7
			Lead	mg/L		ND			12/08/06	E200.8
			Manganese	mg/L		ND			12/08/06	E200.8
			Mercury	mg/L		ND			12/08/06	E200.8
			Molybdenum	mg/L		ND			12/08/06	E200.8
			Nickel	mg/L		ND			12/08/06	E200.8
			Selenium	mg/L		ND			12/08/06	E200.8
			Uranium	mg/L		0.0090			12/08/06	E200.8
			Vanadium	mg/L		ND			12/08/06	E200.8
			Zinc	mg/L		0.07			12/08/06	E200.8
			Metals - Total							
			Iron	mg/L		0.16			12/08/06	E200.7
			Manganese	mg/L		0.01			12/08/06	E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		7.9			12/17/06	E900.0
			Gross Alpha precision (+)	pCi/L		0.8			12/17/06	E900.0
			Gross Beta	pCi/L		8.6			12/17/06	E900.0
			Gross Beta precision (+)	pCi/L		1.5			12/17/06	E900.0
			Radium 226	pCi/L		ND			12/18/06	E903.0
			Radium 226 precision (+)	pCi/L					12/13/06	E903.0
			Radium 228	pCi/L		ND				RA-05
			Data Quality							
			A/C Balance (±5)	%		0.482			12/13/06	Calculation
			Anions	meq/L		11.0			12/13/06	Calculation
			Cations	meq/L		11.1			12/13/06	Calculation
			Solids, Total Dissolved Calculated	mg/L		747			12/13/06	Calculation
			TDS Balance (0.80-1.20)	dec. %		1.02			12/13/06	Calculation

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAR	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_MET
Hank	Brown WS	02/21/07	Conductivity	umhos/cm		1150	Energy Laboratories	C07020833-001	02/23/07	A2510 B
			pH	s.u.		6.34			02/23/07	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		750			02/23/07	A2540 C
			Major Ions							
			Carbonate as CO_3	mg/L		ND			02/28/07	A2320 B
			Bicarbonate as HCO_3	mg/L		95			02/28/07	A2320 B
			Calcium	mg/L		48.0			03/12/07	E200.7
			Chloride	mg/L		7			02/26/07	A4500-Cl B
			Fluoride	mg/L		0.3			02/28/07	A4500-F C
			Magnesium	mg/L		13.6			03/12/07	E200.7
			Nitrogen, Ammonia as N	mg/L		ND			03/02/07	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			02/23/07	E353.2
			Potassium	mg/L		5.1			03/12/07	E200.7
			Silica	mg/L		9.6			03/12/07	E200.7
			Sodium	mg/L		186			03/12/07	E200.7
			Sulfate	mg/L		488			02/26/07	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			02/26/07	E200.8
			Arsenic	mg/L		ND			02/26/07	E200.8
			Barium	mg/L		ND			02/26/07	E200.8
			Boron	mg/L		ND			03/12/07	E200.7
			Cadmium	mg/L		ND			02/26/07	E200.8
			Chromium	mg/L		ND			02/26/07	E200.8
			Copper	mg/L		ND			02/26/07	E200.8
			Iron	mg/L		0.16			03/12/07	E200.7
			Lead	mg/L		ND			02/26/07	E200.8
			Manganese	mg/L		ND			02/26/07	E200.8
			Mercury	mg/L		ND			02/26/07	E200.8
			Molybdenum	mg/L		ND			02/26/07	E200.8
			Nickel	mg/L		ND			02/26/07	E200.8
			Selenium	mg/L		ND			02/26/07	E200.8
			Uranium	mg/L		0.0096			02/26/07	E200.8
			Vanadium	mg/L		ND			02/26/07	E200.8
			Zinc	mg/L		0.12			02/26/07	E200.8
			Metals - Total							
			Iron	mg/L		0.16			03/06/07	E200.7
			Manganese	mg/L		0.01			03/06/07	E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		6.8			03/10/07	E900.0
			Gross Alpha precision (±)	pCi/L		0.7			03/10/07	E900.0
			Gross Beta	pCi/L		6.0			03/10/07	E900.0
			Gross Beta precision (±)	pCi/L		1.4			03/10/07	E900.0
			Radium 226	pCi/L		ND			03/05/07	E903.0
			Radium 226 precision (±)	pCi/L						E903.0
			Radium 228	pCi/L		ND			02/27/07	RA-05
			Radium 228 precision (±)	pCi/L						RA-05
			Data Quality							
			A/C Balance (±5)	%		-0.731			03/13/07	Calculation
			Anions	meq/L		11.9			03/13/07	Calculation
			Cations	meq/L		11.7			03/13/07	Calculation
			Solids, Total Dissolved Calculated	*mg/L*		*804*			03/13/07	*Calculation*
			TDS Balance (0.80-1.20)	dec. %		0.930			03/13/07	Calculation

MINE	SAMP_STATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PAR	VALUE	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_ME
Hank	Brown WS	05/16/07	Conductivity	umhos/cm		1220	Energy Laboratories	C07050825-001	05/17/07	A2510 B
			pH	s.u.		8.23			05/17/07	A4500-H B
			Solids, Total Dissolved @ 180 °C	mg/L		750			05/17/07	A2540 C
			Major Ions							
			Carbonate as CO_3	mg/L		ND			05/17/07	A2320 B
			Bicarbonate as HCO_3	mg/L		96			05/17/07	A2320 B
			Calcium	mg/L		50			05/24/07	E200.7
			Chloride	mg/L		3			05/17/07	A4500-Cl B
			Fluoride	mg/L		0.3			05/17/07	A4500-F C
			Magnesium	mg/L		14			05/24/07	E200.7
			Nitrogen, Ammonia as N	mg/L		ND			05/21/07	A4500-NH3 G
			Nitrogen, Nitrate+Nitrite as N	mg/L		ND			05/17/07	E353.2
			Potassium	mg/L		6			05/24/07	E200.7
			Silica	mg/L		9.4			05/24/07	E200.7
			Sodium	mg/L		192			05/24/07	E200.7
			Sulfate	mg/L		488			05/17/07	A4500-SO4 E
			Metals - Dissolved							
			Aluminum	mg/L		ND			05/21/07	E200.8
			Arsenic	mg/L		ND			05/21/07	E200.8
			Barium	mg/L		ND			05/21/07	E200.8
			Boron	mg/L		ND			05/24/07	E200.7
			Cadmium	mg/L		ND			05/21/07	E200.8
			Chromium	mg/L		ND			05/21/07	E200.8
			Copper	mg/L		ND			05/21/07	E200.8
			Iron	mg/L		0.16			05/24/07	E200.7
			Lead	mg/L		ND			05/21/07	E200.8
			Manganese	mg/L		ND			05/21/07	E200.8
			Mercury	mg/L		ND			05/21/07	E200.8
			Molybdenum	mg/L		ND			05/21/07	E200.8
			Nickel	mg/L		ND			05/21/07	E200.8
			Selenium	mg/L		ND			05/21/07	E200.8
			Uranium	mg/L		0.0092			05/21/07	E200.8
			Vanadium	mg/L		ND			05/21/07	E200.8
			Zinc	mg/L		0.06			05/21/07	E200.8
			Metals - Total							
			Iron	mg/L		0.16			05/24/07	E200.7
			Manganese	mg/L		0.01			05/24/07	E200.7
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L		7.6			06/05/07	E900.0
			Gross Alpha precision (±)	pCi/L		0.8			06/05/07	E900.0
			Gross Beta	pCi/L		8.4			06/05/07	E900.0
			Gross Beta precision (±)	pCi/L		1.5			06/05/07	E900.0
			Radium 226	pCi/L		ND			05/31/07	E903.0
			Radium 226 precision (±)	pCi/L						E903.0
			Radium 228	pCi/L		ND			05/24/07	RA-05
			Radium 228 precision (±)	pCi/L						RA-05
			Data Quality							
			A/C Balance (±5)	%		1.14			05/29/07	Calculation
			Anions	meq/L		11.9			05/29/07	Calculation
			Cations	meq/L		12.2			05/29/07	Calculation
			Solids, Total Dissolved Calculated	mg/L		812			05/29/07	Calculation
			TDS Balance (0.80-1.20)	dec. %		0.92			05/29/07	Calculation

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	[redacted]y Willow	3/22/2007	Conductivity	umhos/cm	1150	[redacted]ergy Laboratories	C07031077-001	03/23/07	A2510 B	
			pH	s.u.	8.12			03/23/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	718			03/23/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			03/24/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	144			03/24/07	A2320 B	
			Calcium	mg/L	70			04/02/07	E200.7	
			Chloride	mg/L	4			03/23/07	A4500-Cl B	
			Fluoride	mg/L	0.2			03/27/07	A4500-F C	
			Magnesium	mg/L	14			04/02/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/26/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/26/07	E353.2	
			Potassium	mg/L	6			04/02/07	E200.7	
			Silica	mg/L	11.1			04/02/07	E200.7	
			Sodium	mg/L	182			04/02/07	E200.7	
			Sulfate	mg/L	464			03/23/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			04/02/07	E200.8	
			Arsenic	mg/L	ND			04/02/07	E200.8	
			Barium	mg/L	ND			04/02/07	E200.8	
			Boron	mg/L	ND			04/02/07	E200.7	
			Cadmium	mg/L	ND			04/02/07	E200.8	
			Chromium	mg/L	ND			04/02/07	E200.8	
			Copper	mg/L	ND			04/02/07	E200.8	
			Iron	mg/L	0.09			04/02/07	E200.7	
			Lead	mg/L	ND			04/02/07	E200.8	
			Manganese	mg/L	0.03			04/02/07	E200.8	
			Mercury	mg/L	ND			04/02/07	E200.8	
			Molybdenum	mg/L	ND			04/02/07	E200.8	
			Nickel	mg/L	ND			04/02/07	E200.8	
			Selenium	mg/L	ND			04/02/07	E200.8	
			Uranium	mg/L	0.004			04/02/07	E200.8	
			Vanadium	mg/L	ND			04/02/07	E200.8	
			Zinc	mg/L	ND			04/02/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.09			04/02/07	E200.7	
			Manganese	mg/L	0.03			04/02/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	49.3			04/08/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.6			04/08/07	E900.0	
			Gross Beta	pCi/L	35.2			04/08/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.9			04/08/07	E900.0	
			Radium 226	pCi/L	44.4			04/09/07	E903.0	
			Radium 226 precision (±)	pCi/L	1.9			04/09/07	E903.0	
			Radium 228	pCi/L	ND			04/03/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	2.33			04/04/07	Calculation	
			Anions	meq/L	12.2			04/04/07	Calculation	
			Cations	meq/L	12.7			04/04/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	823			04/04/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.87			04/04/07	Calculation	

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VA[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	Dry Willow	05/02/07	Conductivity	umhos/cm	1210	Energy Laboratories	C07050200-002	05/04/07	A2510 B	
			pH	s.u.	8.1			05/04/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	798			05/06/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/04/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	150			05/04/07	A2320 B	
			Calcium	mg/L	64			05/14/07	E200.7	
			Chloride	mg/L	1			05/03/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/03/07	A4500-F C	
			Magnesium	mg/L	14			05/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/07/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/04/07	E353.2	
			Potassium	mg/L	6			05/14/07	E200.7	
			Silica	mg/L	10.7			05/14/07	E200.7	
			Sodium	mg/L	167			05/14/07	E200.7	
			Sulfate	mg/L	474			05/04/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/09/07	E200.8	
			Arsenic	mg/L	ND			05/09/07	E200.8	
			Barium	mg/L	ND			05/09/07	E200.8	
			Boron	mg/L	ND			05/14/07	E200.7	
			Cadmium	mg/L	ND			05/09/07	E200.8	
			Chromium	mg/L	ND			05/09/07	E200.8	
			Copper	mg/L	ND			05/09/07	E200.8	
			Iron	mg/L	ND			05/14/07	E200.7	
			Lead	mg/L	ND			05/09/07	E200.8	
			Manganese	mg/L	0.03			05/09/07	E200.8	
			Mercury	mg/L	ND			05/09/07	E200.8	
			Molybdenum	mg/L	ND			05/09/07	E200.8	
			Nickel	mg/L	ND			05/09/07	E200.8	
			Selenium	mg/L	ND			05/09/07	E200.8	
			Uranium	mg/L	0.0035			05/09/07	E200.8	
			Vanadium	mg/L	ND			05/09/07	E200.8	
			Zinc	mg/L	ND			05/09/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.12			05/14/07	E200.7	
			Manganese	mg/L	0.03			05/14/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	47.4			05/21/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.8			05/21/07	E900.0	
			Gross Beta	pCi/L	31.9			05/21/07	E900.0	
			Gross Beta precision (+)	pCi/L	1.9			05/21/07	E900.0	
			Radium 226	pCi/L	44.1			05/15/07	E903.0	
			Radium 226 precision (+)	pCi/L	2.1			05/15/07	E903.0	
			Radium 228	pCi/L	ND			05/09/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-2.42			05/21/07	Calculation	
			Anions	meq/L	12.3			05/21/07	Calculation	
			Cations	meq/L	11.7			05/21/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	809			05/21/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.99			05/21/07	Calculation	

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VA[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	Dry Willow	05/24/07	Conductivity	umhos/cm	994	Energy Laboratories	C07051264-001	05/25/07	A2510 B	
			pH	s.u.	7.93			05/25/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	804			05/29/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/29/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	159			05/29/07	A2320 B	
			Calcium	mg/L	60			06/08/07	E200.7	
			Chloride	mg/L	2			05/29/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/29/07	A4500-F C	
			Magnesium	mg/L	12			06/08/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			06/01/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/29/07	E353.2	
			Potassium	mg/L	6			06/08/07	E200.7	
			Silica	mg/L	10.4			06/08/07	E200.7	
			Sodium	mg/L	175			06/08/07	E200.7	
			Sulfate	mg/L	472			05/29/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			06/04/07	E200.8	
			Arsenic	mg/L	ND			06/01/07	E200.8	
			Barium	mg/L	ND			06/01/07	E200.8	
			Boron	mg/L	ND			06/08/07	E200.7	
			Cadmium	mg/L	ND			06/01/07	E200.8	
			Chromium	mg/L	ND			06/04/07	E200.8	
			Copper	mg/L	ND			06/01/07	E200.8	
			Iron	mg/L	ND			06/08/07	E200.7	
			Lead	mg/L	ND			06/01/07	E200.8	
			Manganese	mg/L	0.03			06/04/07	E200.8	
			Mercury	mg/L	ND			06/01/07	E200.8	
			Molybdenum	mg/L	ND			06/01/07	E200.8	
			Nickel	mg/L	ND			06/01/07	E200.8	
			Selenium	mg/L	ND			06/01/07	E200.8	
			Uranium	mg/L	0.0053			06/01/07	E200.8	
			Vanadium	mg/L	ND			06/04/07	E200.8	
			Zinc	mg/L	ND			06/01/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.12			06/08/07	E200.7	
			Manganese	mg/L	0.03			06/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	132			06/12/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2			06/12/07	E900.0	
			Gross Beta	pCi/L	50.1			06/12/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.1			06/12/07	E900.0	
			Radium 226	pCi/L	42.1			06/06/07	E903.0	
			Radium 226 precision (±)	pCi/L	2.1			06/06/07	E903.0	
			Radium 228	pCi/L	ND			06/01/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-3.23			06/11/07	Calculation	
			Anions	meq/L	12.5			06/11/07	Calculation	
			Cations	meq/L	11.7			06/11/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	815			06/11/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.99			06/11/07	Calculation	

MINE_NAME	SA[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_VA[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	Dry Willow	09/05/07	Conductivity	umhos/cm	1200	Energy Laboratories	C0709196-004	09/07/07	A2510 B	
			pH	s.u.	7.21			09/07/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	754			09/07/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			09/08/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	121			09/08/07	A2320 B	
			Calcium	mg/L	61			09/14/07	E200.7	
			Chloride	mg/L	3			09/07/07	A4500-Cl B	
			Fluoride	mg/L	0.2			09/12/07	A4500-F C	
			Magnesium	mg/L	12			09/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/07/07	E353.2	
			Potassium	mg/L	6			09/14/07	E200.7	
			Silica	mg/L	11.2			09/14/07	E200.7	
			Sodium	mg/L	169			09/14/07	E200.7	
			Sulfate	mg/L	418			09/14/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/18/07	E200.8	
			Arsenic	mg/L	ND			09/18/07	E200.8	
			Barium	mg/L	ND			09/18/07	E200.8	
			Boron	mg/L	ND			09/14/07	E200.7	
			Cadmium	mg/L	ND			09/18/07	E200.8	
			Chromium	mg/L	ND			09/18/07	E200.8	
			Copper	mg/L	ND			09/18/07	E200.8	
			Iron	mg/L	0.16			09/14/07	E200.7	
			Lead	mg/L	ND			09/18/07	E200.8	
			Manganese	mg/L	0.03			09/18/07	E200.8	
			Mercury	mg/L	ND			09/18/07	E200.8	
			Molybdenum	mg/L	ND			09/18/07	E200.8	
			Nickel	mg/L	ND			09/18/07	E200.8	
			Selenium	mg/L	ND			09/18/07	E200.8	
			Uranium	mg/L	0.0033			09/18/07	E200.8	
			Vanadium	mg/L	ND			09/18/07	E200.8	
			Zinc	mg/L	ND			09/18/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.15			09/14/07	E200.7	
			Manganese	mg/L	0.02			09/14/07	E200.7	
			Radionuclides - Dissolved					09/14/07		
			Gross Alpha	pCi/L	103			09/14/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2.3			09/14/07	E900.0	
			Gross Beta	pCi/L	46.8			09/14/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.4			09/20/07	E900.0	
			Radium 226	pCi/L	47.7			09/20/07	E903.0	
			Radium 226 precision (±)	pCi/L	2.5			09/17/07	E903.0	
			Radium 228	pCi/L	ND				RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	3.5			09/20/07	Calculation	
			Anions	meq/L	10.8			09/20/07	Calculation	
			Cations	meq/L	11.6			09/20/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	740			09/20/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.02			09/20/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CU[redacted]
Hank	[redacted]eans # 1	11/16/2006	Conductivity	umhos/cm	1680	[redacted]ergy Laboratories	C06110808-001	11/18/06	A2510 B	
			pH	s.u.	8.03			11/18/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1200			11/20/06	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			11/20/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	121			11/20/06	A2320 B	
			Calcium	mg/L	142			11/30/06	E200.7	
			Chloride	mg/L	3			11/20/06	A4500-Cl B	
			Fluoride	mg/L	0.1			11/20/06	A4500-F C	
			Magnesium	mg/L	28			11/30/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			11/20/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/20/06	E353.2	
			Potassium	mg/L	8			11/30/06	E200.7	
			Silica	mg/L	10.4			11/30/06	E200.7	
			Sodium	mg/L	181			11/30/06	E200.7	
			Sulfate	mg/L	671			11/21/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/20/06	E200.8	
			Arsenic	mg/L	ND			11/20/06	E200.8	
			Barium	mg/L	ND			11/20/06	E200.8	
			Boron	mg/L	ND			11/30/06	E200.7	
			Cadmium	mg/L	ND			11/20/06	E200.8	
			Chromium	mg/L	ND			11/20/06	E200.8	
			Copper	mg/L	ND			11/20/06	E200.8	
			Iron	mg/L	0.13			11/30/06	E200.7	
			Lead	mg/L	ND			11/20/06	E200.8	
			Manganese	mg/L	0.03			11/20/06	E200.8	
			Mercury	mg/L	ND			11/20/06	E200.8	
			Molybdenum	mg/L	ND			11/20/06	E200.8	
			Nickel	mg/L	ND			11/20/06	E200.8	
			Selenium	mg/L	ND			11/20/06	E200.8	
			Uranium	mg/L	0.0272			11/20/06	E200.8	
			Vanadium	mg/L	ND			11/20/06	E200.8	
			Zinc	mg/L	0.07			11/20/06	E200.8	
			Metals - Total							
			Iron	mg/L	2.21			11/30/06	E200.7	
			Manganese	mg/L	0.04			11/30/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	18.0			12/07/06	E900.0	
			Gross Alpha precision (±)	pCi/L	1.2			12/07/06	E900.0	
			Gross Beta	pCi/L	16.6			12/07/06	E900.0	
			Gross Beta precision (±)	pCi/L	2.3			12/07/06	E900.0	
			Radium 226	pCi/L	0.6			12/08/06	E903.0	
			Radium 226 precision (±)	pCi/L	0.04			12/08/06	E903.0	
			Radium 228	pCi/L	ND			12/04/06	RA-05	
			Radium 228 precision (±)	pCi/L	ND			12/04/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	4.14			12/04/06	Calculation	
			Anions	meq/L	16.1			12/04/06	Calculation	
			Cations	meq/L	17.4			12/04/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1100			12/04/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.090			12/04/06	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CU[redacted]S
Hank	Means # 1	03/12/07	Conductivity	umhos/cm	1630	Energy Laboratories	C07030643-001	03/15/07	A2510 B	
			pH	s.u.	7.87			03/15/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1110			03/15/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			03/15/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	120			03/15/07	A2320 B	
			Calcium	mg/L	145			03/21/07	E200.7	
			Chloride	mg/L	3			03/15/07	A4500-Cl B	
			Fluoride	mg/L	0.1			03/15/07	A4500-F C	
			Magnesium	mg/L	28			03/21/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/20/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/15/07	E353.2	
			Potassium	mg/L	8			03/21/07	E200.7	
			Silica	mg/L	10.8			03/21/07	E200.7	
			Sodium	mg/L	189			03/21/07	E200.7	
			Sulfate	mg/L	793			03/15/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/21/07	E200.8	
			Arsenic	mg/L	ND			03/28/07	E200.8	
			Barium	mg/L	ND			03/28/07	E200.8	
			Boron	mg/L	ND			03/21/07	E200.7	
			Cadmium	mg/L	ND			03/28/07	E200.8	
			Chromium	mg/L	ND			03/21/07	E200.8	
			Copper	mg/L	ND			03/21/07	E200.8	
			Iron	mg/L	ND			03/21/07	E200.7	
			Lead	mg/L	ND			03/28/07	E200.8	
			Manganese	mg/L	0.03			03/21/07	E200.8	
			Mercury	mg/L	ND			03/28/07	E200.8	
			Molybdenum	mg/L	ND			03/21/07	E200.8	
			Nickel	mg/L	ND			03/21/07	E200.8	
			Selenium	mg/L	0.003			03/28/07	E200.8	
			Uranium	mg/L	0.0214			03/28/07	E200.8	
			Vanadium	mg/L	ND			03/21/07	E200.8	
			Zinc	mg/L	0.06			03/28/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.22			03/21/07	E200.7	
			Manganese	mg/L	0.03			03/21/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	16.1			03/29/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.2			03/29/07	E900.0	
			Gross Beta	pCi/L	13.3			03/29/07	E900.0	
			Gross Beta precision (+)	pCi/L	2.2			03/29/07	E900.0	
			Radium 226	pCi/L	2.2			03/27/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.7			03/27/07	E903.0	
			Radium 228	pCi/L	ND			03/21/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-1.55			03/22/07	Calculation	
			Anions	meq/L	18.6			03/22/07	Calculation	
			Cations	meq/L	18.0			03/22/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1240			03/22/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.900			03/22/07	Calculation	

MINE_NAME	S[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]S
Hank	Means # 1	06/06/07	Conductivity	umhos/cm	1790	Energy Laboratories	C07060315-002	06/07/07	A2510 B	
			pH	s.u.	7.8			06/07/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1190			06/07/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			06/07/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	124			06/07/07	A2320 B	
			Calcium	mg/L	138			06/12/07	E200.7	
			Chloride	mg/L	6			06/07/07	A4500-Cl B	
			Fluoride	mg/L	0.1			06/07/07	A4500-F C	
			Magnesium	mg/L	25			06/12/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			06/08/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			06/07/07	E353.2	
			Potassium	mg/L	8			06/12/07	E200.7	
			Silica	mg/L	10.4			06/12/07	E200.7	
			Sodium	mg/L	188			06/12/07	E200.7	
			Sulfate	mg/L	790			06/07/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			06/09/07	E200.8	
			Arsenic	mg/L	ND			06/09/07	E200.8	
			Barium	mg/L	ND			06/09/07	E200.8	
			Boron	mg/L	ND			06/12/07	E200.7	
			Cadmium	mg/L	ND			06/09/07	E200.8	
			Chromium	mg/L	ND			06/09/07	E200.8	
			Copper	mg/L	ND			06/09/07	E200.8	
			Iron	mg/L	ND			06/12/07	E200.7	
			Lead	mg/L	ND			06/09/07	E200.8	
			Manganese	mg/L	0.07			06/09/07	E200.8	
			Mercury	mg/L	ND			06/09/07	E200.8	
			Molybdenum	mg/L	ND			06/09/07	E200.8	
			Nickel	mg/L	ND			06/09/07	E200.8	
			Selenium	mg/L	ND			06/09/07	E200.8	
			Uranium	mg/L	0.0253			06/09/07	E200.8	
			Vanadium	mg/L	ND			06/09/07	E200.8	
			Zinc	mg/L	0.09			06/09/07	E200.8	
			Metals - Total							
			Iron	mg/L	1.89			06/12/07	E200.7	
			Manganese	mg/L	0.1			06/12/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	20.6			06/18/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.5			06/18/07	E900.0	
			Gross Beta	pCi/L	8.9			06/18/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.8			06/18/07	E900.0	
			Radium 226	pCi/L	0.6			06/18/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.3			06/18/07	E903.0	
			Radium 228	pCi/L	3.6			06/12/07	RA-05	
			Radium 228 precision (±)	pCi/L	1			06/12/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-3.75			06/13/07	Calculation	
			Anions	meq/L	18.7			06/13/07	Calculation	
			Cations	meq/L	17.3			06/13/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1230			06/13/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.970			06/13/07	Calculation	

MINE NAME	[redacted]ATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER	[redacted]B COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted]C[redacted]S
Hank	Means # 1	09/05/07	Conductivity	umhos/cm	1670	Energy Laboratories	C07090196-003	09/07/07	A2510 B	
			pH	s.u.	7.25			09/07/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1100			09/07/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			09/08/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	125			09/08/07	A2320 B	
			Calcium	mg/L	125			09/14/07	E200.7	
			Chloride	mg/L	5			09/07/07	A4500-Cl B	
			Fluoride	mg/L	0.1			09/12/07	A4500-F C	
			Magnesium	mg/L	24			09/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/07/07	E353.2	
			Potassium	mg/L	8			09/14/07	E200.7	
			Silica	mg/L	10.8			09/14/07	E200.7	
			Sodium	mg/L	177			09/14/07	E200.7	
			Sulfate	mg/L	660			09/14/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/18/07	E200.8	
			Arsenic	mg/L	0.001			09/18/07	E200.8	
			Barium	mg/L	ND			09/18/07	E200.8	
			Boron	mg/L	ND			09/14/07	E200.7	
			Cadmium	mg/L	ND			09/18/07	E200.8	
			Chromium	mg/L	ND			09/18/07	E200.8	
			Copper	mg/L	ND			09/18/07	E200.8	
			Iron	mg/L	2.14			09/14/07	E200.7	
			Lead	mg/L	0.007			09/18/07	E200.8	
			Manganese	mg/L	0.12			09/18/07	E200.8	
			Mercury	mg/L	ND			09/18/07	E200.8	
			Molybdenum	mg/L	ND			09/18/07	E200.8	
			Nickel	mg/L	ND			09/18/07	E200.8	
			Selenium	mg/L	0.001			09/18/07	E200.8	
			Uranium	mg/L	0.0283			09/18/07	E200.8	
			Vanadium	mg/L	ND			09/18/07	E200.8	
			Zinc	mg/L	0.18			09/18/07	E200.8	
			Metals - Total							
			Iron	mg/L	2.48			09/14/07	E200.7	
			Manganese	mg/L	0.12			09/14/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	24.2			09/14/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.6			09/14/07	E900.0	
			Gross Beta	pCi/L	10.6			09/14/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.9			09/14/07	E900.0	
			Radium 226	pCi/L	0.7			09/20/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.4			09/20/07	E903.0	
			Radium 228	pCi/L	ND			09/17/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.01			09/20/07	Calculation	
			Anions	meq/L	15.9			09/20/07	Calculation	
			Cations	meq/L	16.2			09/20/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1070			09/20/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.03			09/20/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	C[redacted]S
Hank	[redacted]NBHW-13	11/28/2006	Conductivity	umhos/cm	1260	Energy Laboratories	C06111132-002	11/29/06	A2510 B	
			pH	s.u.	8.34			11/29/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	794			11/29/06	A2540 C	
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L					A2320 B	
			Carbonate as CO_3	mg/L	ND			11/29/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	105			11/29/06	A2320 B	
			Calcium	mg/L	44			12/06/06	E200.7	
			Chloride	mg/L	7			11/30/06	A4500-Cl B	
			Fluoride	mg/L	ND			11/29/06	A4500-F C	
			Magnesium	mg/L	11			12/06/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			12/06/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			11/30/06	E353.2	
			Nitrogen, Nitrite as N	mg/L					A4500-NO2 B	
			Potassium	mg/L	5			12/06/06	E200.7	
			Silica	mg/L	8.9			12/06/06	E200.7	
			Sodium	mg/L	210			12/06/06	E200.7	
			Sulfate	mg/L	473			11/30/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			11/30/06	E200.8	
			Arsenic	mg/L	ND			11/30/06	E200.8	
			Barium	mg/L	ND			11/30/06	E200.8	
			Boron	mg/L	ND			12/06/06	E200.7	
			Cadmium	mg/L	ND			11/30/06	E200.8	
			Chromium	mg/L	ND			11/30/06	E200.8	
			Copper	mg/L	ND			11/30/06	E200.8	
			Iron	mg/L	ND			12/06/06	E200.7	
			Lead	mg/L	ND			11/30/06	E200.8	
			Manganese	mg/L	0.02			11/30/06	E200.8	
			Mercury	mg/L	ND			11/30/06	E200.8	
			Molybdenum	mg/L	ND			11/30/06	E200.8	
			Nickel	mg/L	ND			11/30/06	E200.8	
			Selenium	mg/L	ND			11/30/06	E200.8	
			Uranium	mg/L	0.0167			11/30/06	E200.8	
			Vanadium	mg/L	ND			11/30/06	E200.8	
			Zinc	mg/L	ND			11/30/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			12/06/06	E200.7	
			Manganese	mg/L	0.01			12/06/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	185			12/13/06	E900.0	
			Gross Alpha precision (±)	pCi/L	2.5			12/13/06	E900.0	
			Gross Beta	pCi/L	109			12/13/06	E900.0	
			Gross Beta precision (±)	pCi/L	2.6			12/13/06	E900.0	
			Radium 226	pCi/L	55.3			12/13/06	E903.0	
			Radium 226 precision (±)	pCi/L	2.3			12/13/06	E903.0	
			Radium 228	pCi/L	2			12/07/06	RA-05	
			Radium 228 precision (±)	pCi/L	0.7			12/07/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	2.54			12/07/06	Calculation	
			Anions	meq/L	11.8			12/07/06	Calculation	
			Cations	meq/L	12.4			12/07/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	811			12/07/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.980			12/07/06	Calculation	

MINE_NAME	[redacted]	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]
Hank	NBHW-13	02/23/07	Conductivity	umhos/cm	1240	Energy Laboratories	C07020875-001	02/26/07	A2510 B	
			pH	s.u.	8.13			02/26/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	8.32			02/26/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			02/28/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	105			02/28/07	A2320 B	
			Calcium	mg/L	47			03/06/07	E200.7	
			Chloride	mg/L	5			02/26/07	A4500-Cl B	
			Fluoride	mg/L	0.1			02/28/07	A4500-F C	
			Magnesium	mg/L	12			03/06/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/02/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			02/28/07	E353.2	
			Potassium	mg/L	5			03/06/07	E200.7	
			Silica	mg/L	9.2			03/06/07	E200.7	
			Sodium	mg/L	226			03/06/07	E200.7	
			Sulfate	mg/L	537			02/26/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			02/26/07	E200.8	
			Arsenic	mg/L	ND			02/26/07	E200.8	
			Barium	mg/L	ND			02/26/07	E200.8	
			Boron	mg/L	ND			03/06/07	E200.7	
			Cadmium	mg/L	ND			02/26/07	E200.8	
			Chromium	mg/L	ND			02/26/07	E200.8	
			Copper	mg/L	ND			02/26/07	E200.8	
			Iron	mg/L	ND			03/06/07	E200.7	
			Lead	mg/L	ND			02/26/07	E200.8	
			Manganese	mg/L	0.01			02/26/07	E200.8	
			Mercury	mg/L	ND			02/26/07	E200.8	
			Molybdenum	mg/L	ND			02/26/07	E200.8	
			Nickel	mg/L	ND			02/26/07	E200.8	
			Selenium	mg/L	0.001			02/26/07	E200.8	
			Uranium	mg/L	0.0146			02/26/07	E200.8	
			Vanadium	mg/L	ND			02/26/07	E200.8	
			Zinc	mg/L	1.01			02/26/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			03/06/07	E200.7	
			Manganese	mg/L	0.01			03/06/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	305			03/10/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2.8			03/10/07	E900.0	
			Gross Beta	pCi/L	141			03/10/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.9			03/10/07	E900.0	
			Radium 226	pCi/L	99.5			03/13/07	E903.0	
			Radium 226 precision (+)	pCi/L	3.0			03/13/07	E903.0	
			Radium 228	pCi/L	ND			03/02/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.13			03/08/07	Calculation	
			Anions	meq/L	13.0			03/08/07	Calculation	
			Cations	meq/L	13.3			03/08/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	894			03/08/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.930			03/08/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CU[redacted]S
Hank	NBHW-13	05/16/07	Conductivity	umhos/cm	1350	Energy Laboratories	C07050826-002	05/17/07	A2510 B	
			pH	s.u.	8.2			05/17/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	842			05/17/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/17/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	107			05/17/07	A2320 B	
			Calcium	mg/L	48			05/24/07	E200.7	
			Chloride	mg/L	4			05/17/07	A4500-Cl B	
			Fluoride	mg/L	0.1			05/17/07	A4500-F C	
			Magnesium	mg/L	12			05/24/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			05/21/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/17/07	E353.2	
			Potassium	mg/L	5			05/24/07	E200.7	
			Silica	mg/L	8.7			05/24/07	E200.7	
			Sodium	mg/L	222			05/24/07	E200.7	
			Sulfate	mg/L	539			05/17/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/22/07	E200.8	
			Arsenic	mg/L	ND			05/22/07	E200.8	
			Barium	mg/L	ND			05/22/07	E200.8	
			Boron	mg/L	ND			05/24/07	E200.7	
			Cadmium	mg/L	ND			05/22/07	E200.8	
			Chromium	mg/L	ND			05/22/07	E200.8	
			Copper	mg/L	ND			05/22/07	E200.8	
			Iron	mg/L	ND			05/24/07	E200.7	
			Lead	mg/L	ND			05/22/07	E200.8	
			Manganese	mg/L	0.01			05/22/07	E200.8	
			Mercury	mg/L	ND			05/22/07	E200.8	
			Molybdenum	mg/L	ND			05/22/07	E200.8	
			Nickel	mg/L	ND			05/22/07	E200.8	
			Selenium	mg/L	ND			05/22/07	E200.8	
			Uranium	mg/L	0.0147			05/22/07	E200.8	
			Vanadium	mg/L	ND			05/22/07	E200.8	
			Zinc	mg/L	0.05			05/22/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/24/07	E200.7	
			Manganese	mg/L	0.01			05/24/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	404			06/06/07	E900.0	
			Gross Alpha precision (±)	pCi/L	3.3			06/06/07	E900.0	
			Gross Beta	pCi/L	169			06/06/07	E900.0	
			Gross Beta precision (±)	pCi/L	3.2			06/06/07	E900.0	
			Radium 226	pCi/L	99.8			05/31/07	E903.0	
			Radium 226 precision (±)	pCi/L	3.1			05/31/07	E903.0	
			Radium 228	pCi/L	ND			05/24/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.337			05/29/07	Calculation	
			Anions	meq/L	13.1			05/29/07	Calculation	
			Cations	meq/L	13.2			05/29/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	892			05/29/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.94			05/29/07	Calculation	

MINE NAME	[redacted]ATION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER [redacted]	B COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	CO[redacted]S
Hank	NBHW-13	07/25/07	Conductivity	umhos/cm	1290	Energy Laboratories	C07071220-001	07/27/07	A2510 B	
			pH	s.u.	8.2			07/27/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	850			07/27/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			07/28/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	103			07/28/07	A2320 B	
			Calcium	mg/L	44			08/08/07	E200.7	
			Chloride	mg/L	4			08/01/07	A4500-Cl B	
			Fluoride	mg/L	0.1			07/27/07	A4500-F C	
			Magnesium	mg/L	11			08/08/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			08/02/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			07/31/07	E353.2	
			Potassium	mg/L	5			08/08/07	E200.7	
			Silica	mg/L	9.7			08/08/07	E200.7	
			Sodium	mg/L	231			08/08/07	E200.7	
			Sulfate	mg/L	541			07/27/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			08/10/07	E200.8	
			Arsenic	mg/L	ND			08/10/07	E200.8	
			Barium	mg/L	ND			08/10/07	E200.8	
			Boron	mg/L	ND			08/08/07	E200.7	
			Cadmium	mg/L	ND			08/10/07	E200.8	
			Chromium	mg/L	ND			08/10/07	E200.8	
			Copper	mg/L	ND			08/10/07	E200.8	
			Iron	mg/L	ND			08/08/07	E200.7	
			Lead	mg/L	ND			08/10/07	E200.8	
			Manganese	mg/L	0.02			08/10/07	E200.8	
			Mercury	mg/L	ND			08/10/07	E200.8	
			Molybdenum	mg/L	ND			08/10/07	E200.8	
			Nickel	mg/L	ND			08/10/07	E200.8	
			Selenium	mg/L	ND			08/10/07	E200.8	
			Uranium	mg/L	0.0148			08/10/07	E200.8	
			Vanadium	mg/L	ND			08/10/07	E200.8	
			Zinc	mg/L	ND			08/10/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			08/08/07	E200.7	
			Manganese	mg/L	0.01			08/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	320			08/09/07	E900.0	
			Gross Alpha precision (+)	pCi/L	4.5			08/09/07	E900.0	
			Gross Beta	pCi/L	130			08/09/07	E900.0	
			Gross Beta precision (+)	pCi/L	3.6			08/09/07	E900.0	
			Radium 226	pCi/L	95.4			08/08/07	E903.0	
			Radium 226 precision (+)	pCi/L	2.9			08/08/07	E903.0	
			Radium 228	pCi/L	ND			08/03/07	RA-05	
			Radium 228 precision (+)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (+5)	%	0.953			08/10/07	Calculation	
			Anions	meq/L	13.1			08/10/07	Calculation	
			Cations	meq/L	13.3			08/10/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	897			08/10/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.95			08/10/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	C[redacted]S
Hank	[redacted]Paden #1	12/6/2006	Conductivity	umhos/cm	2250	[redacted]nergy Laboratories	C06120269-001	12/07/06	A2510 B	
			pH	s.u.	7.62			12/07/06	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1840			12/07/06	A2540 C	
			Major Ions							
			Alkalinity, Total as CaCO3	mg/L					A2320 B	
			Carbonate as CO_3	mg/L	ND			12/08/06	A2320 B	
			Bicarbonate as HCO_3	mg/L	156			12/08/06	A2320 B	
			Calcium	mg/L	234			12/08/06	E200.7	
			Chloride	mg/L	8			12/08/06	A4500-Cl B	
			Fluoride	mg/L	0.2			12/07/06	A4500-F C	
			Magnesium	mg/L	64			12/08/06	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.05			12/14/06	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	0.1			12/08/06	E353.2	
			Nitrogen, Nitrite as N	mg/L					A4500-NO2 B	
			Potassium	mg/L	10			12/08/06	E200.7	
			Silica	mg/L	8.9			12/08/06	E200.7	
			Sodium	mg/L	182			12/08/06	E200.7	
			Sulfate	mg/L	1120			12/12/06	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			12/08/06	E200.8	
			Arsenic	mg/L	ND			12/08/06	E200.8	
			Barium	mg/L	ND			12/08/06	E200.8	
			Boron	mg/L	ND			12/08/06	E200.7	
			Cadmium	mg/L	ND			12/08/06	E200.8	
			Chromium	mg/L	ND			12/08/06	E200.8	
			Copper	mg/L	ND			12/08/06	E200.8	
			Iron	mg/L	ND			12/08/06	E200.7	
			Lead	mg/L	ND			12/08/06	E200.8	
			Manganese	mg/L	ND			12/08/06	E200.8	
			Mercury	mg/L	ND			12/08/06	E200.8	
			Molybdenum	mg/L	ND			12/08/06	E200.8	
			Nickel	mg/L	ND			12/08/06	E200.8	
			Selenium	mg/L	0.032			12/08/06	E200.8	
			Uranium	mg/L	0.217			12/08/06	E200.8	
			Vanadium	mg/L	ND			12/08/06	E200.8	
			Zinc	mg/L	ND			12/08/06	E200.8	
			Metals - Total							
			Iron	mg/L	ND			12/08/06	E200.7	
			Manganese	mg/L	ND			12/08/06	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	180			12/17/06	E900.0	
			Gross Alpha precision (±)	pCi/L	3.1			12/17/06	E900.0	
			Gross Beta	pCi/L	54.8			12/17/06	E900.0	
			Gross Beta precision (±)	pCi/L	3.4			12/17/06	E900.0	
			Radium 226	pCi/L	3.7			12/20/06	E903.0	
			Radium 226 precision (±)	pCi/L	0.6			12/20/06	E903.0	
			Radium 228	pCi/L	3.3			12/15/06	RA-05	
			Radium 228 precision (±)	pCi/L	0.9			12/15/06	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.07			12/13/06	Calculation	
			Anions	meq/L	26.2			12/13/06	Calculation	
			Cations	meq/L	25.1			12/13/06	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1710			12/13/06	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.08			12/13/06	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	Paden #1	02/27/07	Conductivity	umhos/cm	2130	Energy Laboratories	C07021001-002	02/28/07	A2510 B	
			pH	s.u.	7.82			02/28/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1740			02/28/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			03/01/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	151			03/01/07	A2320 B	
			Calcium	mg/L	243			03/13/07	E200.7	
			Chloride	mg/L	8			03/01/07	A4500-Cl B	
			Fluoride	mg/L	0.2			03/01/07	A4500-F C	
			Magnesium	mg/L	64			03/13/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/02/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/01/07	E353.2	
			Potassium	mg/L	10			03/13/07	E200.7	
			Silica	mg/L	9.9			03/13/07	E200.7	
			Sodium	mg/L	202			03/13/07	E200.7	
			Sulfate	mg/L	1180			03/01/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/02/07	E200.8	
			Arsenic	mg/L	ND			03/02/07	E200.8	
			Barium	mg/L	ND			03/02/07	E200.8	
			Boron	mg/L	0.2			03/12/07	E200.7	
			Cadmium	mg/L	ND			03/02/07	E200.8	
			Chromium	mg/L	ND			03/02/07	E200.8	
			Copper	mg/L	ND			03/02/07	E200.8	
			Iron	mg/L	ND			03/13/07	E200.7	
			Lead	mg/L	ND			03/05/07	E200.8	
			Manganese	mg/L	ND			03/02/07	E200.8	
			Mercury	mg/L	ND			03/05/07	E200.8	
			Molybdenum	mg/L	ND			03/05/07	E200.8	
			Nickel	mg/L	ND			03/02/07	E200.8	
			Selenium	mg/L	0.029			03/02/07	E200.8	
			Uranium	mg/L	0.268			03/05/07	E200.8	
			Vanadium	mg/L	ND			03/02/07	E200.8	
			Zinc	mg/L	ND			03/02/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			03/13/07	E200.7	
			Manganese	mg/L	ND			03/13/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	193			03/17/07	E900.0	
			Gross Alpha precision (±)	pCi/L	6.7			03/17/07	E900.0	
			Gross Beta	pCi/L	64.1			03/17/07	E900.0	
			Gross Beta precision (±)	pCi/L	7.8			03/17/07	E900.0	
			Radium 226	pCi/L	3.6			03/17/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.8			03/17/07	E903.0	
			Radium 228	pCi/L	ND			03/12/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.62			03/14/07	Calculation	
			Anions	meq/L	27.3			03/14/07	Calculation	
			Cations	meq/L	26.5			03/14/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1790			03/14/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.970			03/14/07	Calculation	

MINE_NAME	[redacted] ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_A	[redacted] AB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted] C	[redacted] S
Hank	Paden #1	06/06/07	Conductivity	umhos/cm	2370	Energy Laboratories	C07060315-001	06/07/07	A2510 B		
			pH	s.u.	7.63			06/07/07	A4500-H B		
			Solids, Total Dissolved @ 180 °C	mg/L	1780			06/07/07	A2540 C		
			Major Ions								
			Carbonate as CO_3	mg/L	ND			06/07/07	A2320 B		
			Bicarbonate as HCO_3	mg/L	151			06/07/07	A2320 B		
			Calcium	mg/L	233			06/12/07	E200.7		
			Chloride	mg/L	8			06/07/07	A4500-Cl B		
			Fluoride	mg/L	0.2			06/07/07	A4500-F C		
			Magnesium	mg/L	60			06/12/07	E200.7		
			Nitrogen, Ammonia as N	mg/L	ND			06/08/07	A4500-NH3 G		
			Nitrogen, Nitrate+Nitrite as N	mg/L	1.1			06/07/07	E353.2		
			Potassium	mg/L	9			06/12/07	E200.7		
			Silica	mg/L	8.9			06/12/07	E200.7		
			Sodium	mg/L	189			06/12/07	E200.7		
			Sulfate	mg/L	1170			06/07/07	A4500-SO4 E		
			Metals - Dissolved								
			Aluminum	mg/L	ND			06/09/07	E200.8		
			Arsenic	mg/L	ND			06/09/07	E200.8		
			Barium	mg/L	ND			06/09/07	E200.8		
			Boron	mg/L	ND			06/12/07	E200.7		
			Cadmium	mg/L	ND			06/09/07	E200.8		
			Chromium	mg/L	ND			06/09/07	E200.8		
			Copper	mg/L	ND			06/09/07	E200.8		
			Iron	mg/L	ND			06/12/07	E200.7		
			Lead	mg/L	ND			06/09/07	E200.8		
			Manganese	mg/L	ND			06/09/07	E200.8		
			Mercury	mg/L	ND			06/09/07	E200.8		
			Molybdenum	mg/L	ND			06/09/07	E200.8		
			Nickel	mg/L	ND			06/09/07	E200.8		
			Selenium	mg/L	0.024			06/09/07	E200.8		
			Uranium	mg/L	0.285			06/09/07	E200.8		
			Vanadium	mg/L	ND			06/09/07	E200.8		
			Zinc	mg/L	ND			06/09/07	E200.8		
			Metals - Total								
			Iron	mg/L	ND			06/12/07	E200.7		
			Manganese	mg/L	ND			06/12/07	E200.7		
			Radionuclides - Dissolved								
			Gross Alpha	pCi/L	189			06/17/07	E900.0		
			Gross Alpha precision (+)	pCi/L	3.6			06/17/07	E900.0		
			Gross Beta	pCi/L	47.7			06/17/07	E900.0		
			Gross Beta precision (+)	pCi/L	4.1			06/17/07	E900.0		
			Radium 226	pCi/L	3.3			06/18/07	E903.0		
			Radium 226 precision (+)	pCi/L	0.6			06/18/07	E903.0		
			Radium 228	pCi/L	3.5			06/12/07	RA-05		
			Radium 228 precision (+)	pCi/L	1			06/12/07	RA-05		
			Data Quality								
			A/C Balance (±5)	%	-4.05			06/13/07	Calculation		
			Anions	meq/L	27.1			06/13/07	Calculation		
			Cations	meq/L	25			06/13/07	Calculation		
			Solids, Total Dissolved Calculated	mg/L	1750			06/13/07	Calculation		
			TDS Balance (0.80-1.20)	dec. %	1.02			06/13/07	Calculation		

MINE_NAME	[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	Paden # 1	09/05/07	Conductivity	umhos/cm	2270	Energy Laboratories	C07090196-002	09/07/07	A2510 B	
			pH	s.u.	7.67			09/07/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	1710			09/07/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			09/08/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	156			09/08/07	A2320 B	
			Calcium	mg/L	204			09/14/07	E200.7	
			Chloride	mg/L	9			09/07/07	A4500-Cl B	
			Fluoride	mg/L	0.2			09/12/07	A4500-F C	
			Magnesium	mg/L	55			09/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/07/07	E353.2	
			Potassium	mg/L	9			09/14/07	E200.7	
			Silica	mg/L	8.8			09/14/07	E200.7	
			Sodium	mg/L	172			09/14/07	E200.7	
			Sulfate	mg/L	965			09/14/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/18/07	E200.8	
			Arsenic	mg/L	ND			09/18/07	E200.8	
			Barium	mg/L	ND			09/18/07	E200.8	
			Boron	mg/L	ND			09/14/07	E200.7	
			Cadmium	mg/L	ND			09/18/07	E200.8	
			Chromium	mg/L	ND			09/18/07	E200.8	
			Copper	mg/L	ND			09/18/07	E200.8	
			Iron	mg/L	ND			09/14/07	E200.7	
			Lead	mg/L	0.005			09/18/07	E200.8	
			Manganese	mg/L	0.01			09/18/07	E200.8	
			Mercury	mg/L	ND			09/18/07	E200.8	
			Molybdenum	mg/L	ND			09/18/07	E200.8	
			Nickel	mg/L	ND			09/18/07	E200.8	
			Selenium	mg/L	0.017			09/18/07	E200.8	
			Uranium	mg/L	0.294			09/18/07	E200.8	
			Vanadium	mg/L	ND			09/18/07	E200.8	
			Zinc	mg/L	0.16			09/18/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.11			09/14/07	E200.7	
			Manganese	mg/L	ND			09/14/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	206			09/14/07	E900.0	
			Gross Alpha precision (±)	pCi/L	5.6			09/14/07	E900.0	
			Gross Beta	pCi/L	75.8			09/14/07	E900.0	
			Gross Beta precision (±)	pCi/L	6.6			09/14/07	E900.0	
			Radium 226	pCi/L	3.8			09/20/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.7			09/20/07	E903.0	
			Radium 228	pCi/L	ND			09/17/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.07			09/20/07	Calculation	
			Anions	meq/L	22.9			09/20/07	Calculation	
			Cations	meq/L	22.4			09/20/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	1500			09/20/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.14			09/20/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V.	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CC[redacted]
Hank	[redacted]ter Ranch	3/20/2007	Conductivity	umhos/cm	1120	[redacted]nergy Laboratories	C07030991-003	03/22/07	A2510 B	
			pH	s.u.	7.16			03/22/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	698			03/22/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			03/22/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	145			03/22/07	A2320 B	
			Calcium	mg/L	62			03/23/07	E200.7	
			Chloride	mg/L	4			03/22/07	A4500-Cl B	
			Fluoride	mg/L	0.1			03/23/07	A4500-F C	
			Magnesium	mg/L	13			03/23/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/26/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/22/07	E353.2	
			Potassium	mg/L	5			03/23/07	E200.7	
			Silica	mg/L	9.6			03/23/07	E200.7	
			Sodium	mg/L	158			03/23/07	E200.7	
			Sulfate	mg/L	439			03/22/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/29/07	E200.8	
			Arsenic	mg/L	ND			03/29/07	E200.8	
			Barium	mg/L	ND			03/29/07	E200.8	
			Boron	mg/L	ND			03/23/07	E200.7	
			Cadmium	mg/L	ND			03/29/07	E200.8	
			Chromium	mg/L	ND			03/29/07	E200.8	
			Copper	mg/L	ND			03/29/07	E200.8	
			Iron	mg/L	ND			03/23/07	E200.7	
			Lead	mg/L	ND			03/29/07	E200.8	
			Manganese	mg/L	0.04			03/29/07	E200.8	
			Mercury	mg/L	ND			03/29/07	E200.8	
			Molybdenum	mg/L	ND			03/29/07	E200.8	
			Nickel	mg/L	ND			03/29/07	E200.8	
			Selenium	mg/L	ND			03/29/07	E200.8	
			Uranium	mg/L	0.0163			03/29/07	E200.8	
			Vanadium	mg/L	ND			03/29/07	E200.8	
			Zinc	mg/L	3.19			03/29/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.10			03/23/07	E200.7	
			Manganese	mg/L	0.04			03/23/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	16.1			03/30/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1.2			03/30/07	E900.0	
			Gross Beta	pCi/L	18.1			03/30/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.7			03/30/07	E900.0	
			Radium 226	pCi/L	8.7			04/02/07	E903.0	
			Radium 226 precision (±)	pCi/L	1.2			04/02/07	E903.0	
			Radium 228	pCi/L	ND			03/30/07	RA-05	
			Radium 228 precision (±)	pCi/L	ND				RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.87			04/02/07	Calculation	
			Anions	meq/L	11.7			04/02/07	Calculation	
			Cations	meq/L	11.2			04/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	764			04/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.910			04/02/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CO[redacted]
Hank	Pfister Ranch	08/22/07	Conductivity	umhos/cm	1360	Energy Laboratories	C07081277-001	08/24/07	A2510 B	
			pH	s.u.	8			08/24/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	916			08/24/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			08/24/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	109			08/24/07	A2320 B	
			Calcium	mg/L	80			09/05/07	E200.7	
			Chloride	mg/L	3			08/24/07	A4500-Cl B	
			Fluoride	mg/L	0.1			08/24/07	A4500-F C	
			Magnesium	mg/L	17			09/05/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			08/27/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/24/07	E353.2	
			Potassium	mg/L	6			09/05/07	E200.7	
			Silica	mg/L	8.8			09/05/07	E200.7	
			Sodium	mg/L	178			09/05/07	E200.7	
			Sulfate	mg/L	609			08/24/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/06/07	E200.8	
			Arsenic	mg/L	ND			09/06/07	E200.8	
			Barium	mg/L	ND			09/06/07	E200.8	
			Boron	mg/L	ND			09/05/07	E200.7	
			Cadmium	mg/L	ND			09/06/07	E200.8	
			Chromium	mg/L	ND			09/06/07	E200.8	
			Copper	mg/L	ND			09/06/07	E200.8	
			Iron	mg/L	ND			09/05/07	E200.7	
			Lead	mg/L	ND			09/06/07	E200.8	
			Manganese	mg/L	0.04			09/06/07	E200.8	
			Mercury	mg/L	ND			09/06/07	E200.8	
			Molybdenum	mg/L	ND			09/06/07	E200.8	
			Nickel	mg/L	ND			09/06/07	E200.8	
			Selenium	mg/L	ND			09/06/07	E200.8	
			Uranium	mg/L	0.0139			09/06/07	E200.8	
			Vanadium	mg/L	ND			09/06/07	E200.8	
			Zinc	mg/L	0.04			09/06/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			09/06/07	E200.7	
			Manganese	mg/L	0.05			09/06/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	16.2			09/01/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.1			09/01/07	E900.0	
			Gross Beta	pCi/L	6.3			09/01/07	E900.0	
			Gross Beta precision (+)	pCi/L	2			09/01/07	E900.0	
			Radium 226	pCi/L	2.2			09/03/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.6			09/03/07	E903.0	
			Radium 228	pCi/L	ND			08/30/07	RA-05	
			Data Quality							
			A/C Balance (+5)	%	-4.59			09/06/07	Calculation	
			Anions	meq/L	14.6			09/06/07	Calculation	
			Cations	meq/L	13.3			09/06/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	956			09/06/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.96			09/06/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]
Hank	[redacted]d Windmill	3/12/2007	Conductivity	umhos/cm	1140	[redacted]nergy Laboratories	C07030643-002	03/15/07	A2510 B	
			pH	s.u.	8.03			03/15/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	722			03/15/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			03/15/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	171			03/15/07	A2320 B	
			Calcium	mg/L	83			03/21/07	E200.7	
			Chloride	mg/L	3			03/15/07	A4500-Cl B	
			Fluoride	mg/L	0.1			03/15/07	A4500-F C	
			Magnesium	mg/L	20			03/21/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.06			03/20/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/15/07	E353.2	
			Potassium	mg/L	6			03/21/07	E200.7	
			Silica	mg/L	9.5			03/21/07	E200.7	
			Sodium	mg/L	124			03/21/07	E200.7	
			Sulfate	mg/L	461			03/15/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/21/07	E200.8	
			Arsenic	mg/L	ND			03/28/07	E200.8	
			Barium	mg/L	ND			03/28/07	E200.8	
			Boron	mg/L	ND			03/21/07	E200.7	
			Cadmium	mg/L	ND			03/28/07	E200.8	
			Chromium	mg/L	ND			03/21/07	E200.8	
			Copper	mg/L	ND			03/21/07	E200.8	
			Iron	mg/L	ND			03/21/07	E200.7	
			Lead	mg/L	ND			03/28/07	E200.8	
			Manganese	mg/L	0.04			03/21/07	E200.8	
			Mercury	mg/L	ND			03/28/07	E200.8	
			Molybdenum	mg/L	ND			03/21/07	E200.8	
			Nickel	mg/L	ND			03/21/07	E200.8	
			Selenium	mg/L	ND			03/28/07	E200.8	
			Uranium	mg/L	ND			03/28/07	E200.8	
			Vanadium	mg/L	ND			03/21/07	E200.8	
			Zinc	mg/L	0.22			03/28/07	E200.8	
			Metals - Total							
			Iron	mg/L	1.40			03/21/07	E200.7	
			Manganese	mg/L	0.05			03/21/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	11.2			03/29/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.9			03/29/07	E900.0	
			Gross Beta	pCi/L	11.4			03/29/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.6			03/29/07	E900.0	
			Radium 226	pCi/L	6.3			03/27/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.8			03/27/07	E903.0	
			Radium 228	pCi/L	ND			03/21/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-4.72			03/22/07	Calculation	
			Anions	meq/L	12.5			03/22/07	Calculation	
			Cations	meq/L	11.4			03/22/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	792			03/22/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.910			03/22/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CO[redacted]S
Hank	[redacted]SS1-L	4/27/2007	Conductivity	umhos/cm	1360	[redacted]nergy Laboratories	C07041309-001	04/29/07	A2510 B	
			pH	s.u.	8.15			04/29/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	882			04/29/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			05/01/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	132			05/01/07	A2320 B	
			Calcium	mg/L	53			05/04/07	E200.7	
			Chloride	mg/L	4			04/30/07	A4500-Cl B	
			Fluoride	mg/L	0.2			05/01/07	A4500-F C	
			Magnesium	mg/L	14			05/04/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.09			05/01/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			05/02/07	E353.2	
			Potassium	mg/L	5			05/04/07	E200.7	
			Silica	mg/L	9			05/04/07	E200.7	
			Sodium	mg/L	227			05/04/07	E200.7	
			Sulfate	mg/L	528			04/30/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			05/01/07	E200.8	
			Arsenic	mg/L	ND			05/01/07	E200.8	
			Barium	mg/L	ND			05/01/07	E200.8	
			Boron	mg/L	ND			05/04/07	E200.7	
			Cadmium	mg/L	ND			05/01/07	E200.8	
			Chromium	mg/L	ND			05/01/07	E200.8	
			Copper	mg/L	ND			05/01/07	E200.8	
			Iron	mg/L	ND			05/04/07	E200.7	
			Lead	mg/L	ND			05/01/07	E200.8	
			Manganese	mg/L	ND			05/01/07	E200.8	
			Mercury	mg/L	0.01			05/01/07	E200.8	
			Molybdenum	mg/L	ND			05/01/07	E200.8	
			Nickel	mg/L	ND			05/01/07	E200.8	
			Selenium	mg/L	ND			05/01/07	E200.8	
			Uranium	mg/L	0.0146			05/01/07	E200.8	
			Vanadium	mg/L	ND			05/01/07	E200.8	
			Zinc	mg/L	ND			05/01/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			05/04/07	E200.7	
			Manganese	mg/L	0.01			05/04/07	E200.7	
								05/16/07		
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	662			05/16/07	E900.0	
			Gross Alpha precision (±)	pCi/L	4.1			05/16/07	E900.0	
			Gross Beta	pCi/L	393			05/16/07	E900.0	
			Gross Beta precision (±)	pCi/L	4.7			05/16/07	E900.0	
			Radium 226	pCi/L	148			05/14/07	E903.0	
			Radium 226 precision (±)	pCi/L	4			05/14/07	E903.0	
			Radium 228	pCi/L	1.8			05/08/07	RA-05	
			Radium 228 precision (±)	pCi/L	0.8			05/08/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	1.8			05/08/07	Calculation	
			Anions	meq/L	13.3			05/08/07	Calculation	
			Cations	meq/L	13.8			05/08/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	904			05/08/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.98			05/08/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]C[redacted]S
Hank	SS1-L	06/06/07	Conductivity	umhos/cm	1470	Energy Laboratories	C07060289-001	06/07/07	A2510 B	
			pH	s.u.	8.16			06/07/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	856			06/07/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			06/07/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	142			06/07/07	A2320 B	
			Calcium	mg/L	50			06/11/07	E200.7	
			Chloride	mg/L	4			06/06/07	A4500-Cl B	
			Fluoride	mg/L	0.1			06/07/07	A4500-F C	
			Magnesium	mg/L	13			06/11/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			06/08/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			06/07/07	E353.2	
			Potassium	mg/L	5			06/11/07	E200.7	
			Silica	mg/L	10.6			06/11/07	E200.7	
			Sodium	mg/L	231			06/11/07	E200.7	
			Sulfate	mg/L	536			06/06/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			06/09/07	E200.8	
			Arsenic	mg/L	ND			06/08/07	E200.8	
			Barium	mg/L	ND			06/08/07	E200.8	
			Boron	mg/L	ND			06/11/07	E200.7	
			Cadmium	mg/L	ND			06/08/07	E200.8	
			Chromium	mg/L	ND			06/09/07	E200.8	
			Copper	mg/L	ND			06/08/07	E200.8	
			Iron	mg/L	ND			06/11/07	E200.7	
			Lead	mg/L	ND			06/08/07	E200.8	
			Manganese	mg/L	0.01			06/09/07	E200.8	
			Mercury	mg/L	ND			06/08/07	E200.8	
			Molybdenum	mg/L	ND			06/08/07	E200.8	
			Nickel	mg/L	ND			06/08/07	E200.8	
			Selenium	mg/L	ND			06/08/07	E200.8	
			Uranium	mg/L	0.009			06/08/07	E200.8	
			Vanadium	mg/L	ND			06/08/07	E200.8	
			Zinc	mg/L	ND			06/08/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			06/11/07	E200.7	
			Manganese	mg/L	0.01			06/11/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	426			06/17/07	E900.0	
			Gross Alpha precision (±)	pCi/L	4.5			06/17/07	E900.0	
			Gross Beta	pCi/L	179			06/17/07	E900.0	
			Gross Beta precision (+)	pCi/L	3.7			06/17/07	E900.0	
			Radium 226	pCi/L	143			06/17/07	E903.0	
			Radium 226 precision (+)	pCi/L	5.1			06/17/07	E903.0	
			Radium 228	pCi/L	3.2			06/11/07	RA-05	
			Radium 228 precision (+)	pCi/L	1			06/11/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.334			06/12/07	Calculation	
			Anions	meq/L	13.6			06/12/07	Calculation	
			Cations	meq/L	13.7			06/12/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	918			06/12/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.93			06/12/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	SS1-L	07/25/07	Conductivity	umhos/cm	1350	Energy Laboratories	C07071220-002	07/27/07	A2510 B	
			pH	s.u.	8.14			07/27/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	884			07/27/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			07/28/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	137			07/28/07	A2320 B	
			Calcium	mg/L	50			08/08/07	E200.7	
			Chloride	mg/L	12			08/01/07	A4500-Cl B	
			Fluoride	mg/L	0.1			07/27/07	A4500-F C	
			Magnesium	mg/L	12			08/08/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.05			08/02/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			07/31/07	E353.2	
			Potassium	mg/L	5			08/08/07	E200.7	
			Silica	mg/L	9.6			08/08/07	E200.7	
			Sodium	mg/L	236			08/08/07	E200.7	
			Sulfate	mg/L	555			07/27/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			08/10/07	E200.8	
			Arsenic	mg/L	ND			08/10/07	E200.8	
			Barium	mg/L	ND			08/10/07	E200.8	
			Boron	mg/L	ND			08/08/07	E200.7	
			Cadmium	mg/L	ND			08/10/07	E200.8	
			Chromium	mg/L	ND			08/10/07	E200.8	
			Copper	mg/L	ND			08/10/07	E200.8	
			Iron	mg/L	ND			08/08/07	E200.7	
			Lead	mg/L	ND			08/10/07	E200.8	
			Manganese	mg/L	0.02			08/10/07	E200.8	
			Mercury	mg/L	ND			08/10/07	E200.8	
			Molybdenum	mg/L	ND			08/10/07	E200.8	
			Nickel	mg/L	ND			08/10/07	E200.8	
			Selenium	mg/L	ND			08/10/07	E200.8	
			Uranium	mg/L	0.0147			08/10/07	E200.8	
			Vanadium	mg/L	ND			08/10/07	E200.8	
			Zinc	mg/L	ND			08/10/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			08/08/07	E200.7	
			Manganese	mg/L	0.01			08/08/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	492			08/09/07	E900.0	
			Gross Alpha precision (±)	pCi/L	5.5			08/09/07	E900.0	
			Gross Beta	pCi/L	247			08/09/07	E900.0	
			Gross Beta precision (±)	pCi/L	4.6			08/09/07	E900.0	
			Radium 226	pCi/L	148			08/08/07	E903.0	
			Radium 226 precision (±)	pCi/L	3.6			08/08/07	E903.0	
			Radium 228	pCi/L	ND			08/03/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.09			08/10/07	Calculation	
			Anions	meq/L	14.2			08/10/07	Calculation	
			Cations	meq/L	13.9			08/10/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	947			08/10/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.93			08/10/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_A	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]C[redacted]S
Hank	-Chair E	3/20/2007	Conductivity	umhos/cm	516	nergy Laboratories	C07030991-002	03/22/07	A2510 B	
			pH	s.u.	8.34			03/22/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	298			03/22/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			03/22/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	153			03/22/07	A2320 B	
			Calcium	mg/L	12			03/23/07	E200.7	
			Chloride	mg/L	6			03/22/07	A4500-Cl B	
			Fluoride	mg/L	0.3			03/23/07	A4500-F C	
			Magnesium	mg/L	ND			03/23/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/26/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/22/07	E353.2	
			Potassium	mg/L	3			03/23/07	E200.7	
			Silica	mg/L	8.5			03/23/07	E200.7	
			Sodium	mg/L	100			03/23/07	E200.7	
			Sulfate	mg/L	109			03/22/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/29/07	E200.8	
			Arsenic	mg/L	ND			03/29/07	E200.8	
			Barium	mg/L	0.2			03/29/07	E200.8	
			Boron	mg/L	ND			03/23/07	E200.7	
			Cadmium	mg/L	ND			03/29/07	E200.8	
			Chromium	mg/L	ND			03/29/07	E200.8	
			Copper	mg/L	0.02			03/29/07	E200.8	
			Iron	mg/L	0.05			03/23/07	E200.7	
			Lead	mg/L	0.007			03/29/07	E200.8	
			Manganese	mg/L	0.02			03/29/07	E200.8	
			Mercury	mg/L	ND			03/29/07	E200.8	
			Molybdenum	mg/L	ND			03/29/07	E200.8	
			Nickel	mg/L	ND			03/29/07	E200.8	
			Selenium	mg/L	ND			03/29/07	E200.8	
			Uranium	mg/L	0.0003			03/29/07	E200.8	
			Vanadium	mg/L	ND			03/29/07	E200.8	
			Zinc	mg/L	ND			03/29/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.16			03/23/07	E200.7	
			Manganese	mg/L	ND			03/23/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	1.1			03/30/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.5			03/30/07	E900.0	
			Gross Beta	pCi/L	ND			03/30/07	E900.0	
			Gross Beta precision (±)	pCi/L	ND				E900.0	
			Radium 226	pCi/L	ND			04/02/07	E903.0	
			Radium 226 precision (±)	pCi/L	ND				E903.0	
			Radium 228	pCi/L	2			03/30/07	RA-05	
			Radium 228 precision (±)	pCi/L	1			03/30/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.871			04/02/07	Calculation	
			Anions	meq/L	5.02			04/02/07	Calculation	
			Cations	meq/L	5.11			04/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	317			04/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.940			04/02/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	T-Chair E	08/22/07	Conductivity	umhos/cm	477	Energy Laboratories	C07081277-002	08/24/07	A2510 B	
			pH	s.u.	8.12			08/24/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	292			08/24/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			08/24/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	158			08/24/07	A2320 B	
			Calcium	mg/L	10			09/05/07	E200.7	
			Chloride	mg/L	5			08/24/07	A4500-Cl B	
			Fluoride	mg/L	0.3			08/24/07	A4500-F C	
			Magnesium	mg/L	ND			09/05/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			08/27/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/24/07	E353.2	
			Potassium	mg/L	2			09/05/07	E200.7	
			Silica	mg/L	8.2			09/05/07	E200.7	
			Sodium	mg/L	96			09/05/07	E200.7	
			Sulfate	mg/L	110			08/24/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/06/07	E200.8	
			Arsenic	mg/L	ND			09/06/07	E200.8	
			Barium	mg/L	ND			09/06/07	E200.8	
			Boron	mg/L	ND			09/05/07	E200.7	
			Cadmium	mg/L	ND			09/06/07	E200.8	
			Chromium	mg/L	ND			09/06/07	E200.8	
			Copper	mg/L	ND			09/06/07	E200.8	
			Iron	mg/L	ND			09/05/07	E200.7	
			Lead	mg/L	ND			09/06/07	E200.8	
			Manganese	mg/L	ND			09/06/07	E200.8	
			Mercury	mg/L	ND			09/06/07	E200.8	
			Molybdenum	mg/L	ND			09/06/07	E200.8	
			Nickel	mg/L	ND			09/06/07	E200.8	
			Selenium	mg/L	ND			09/06/07	E200.8	
			Uranium	mg/L	ND			09/06/07	E200.8	
			Vanadium	mg/L	ND			09/06/07	E200.8	
			Zinc	mg/L	ND			09/06/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.1			09/06/07	E200.7	
			Manganese	mg/L	0.05			09/06/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	1.6			09/01/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.5			09/01/07	E900.0	
			Gross Beta	pCi/L	2.3			09/01/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.4			09/01/07	E900.0	
			Radium 226	pCi/L	1.3			09/03/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.5			09/03/07	E903.0	
			Radium 228	pCi/L	ND			08/30/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.09			09/06/07	Calculation	
			Anions	meq/L	5.02			09/06/07	Calculation	
			Cations	meq/L	4.82			09/06/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	310			09/06/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.94			09/06/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CO[redacted]S
Hank	[redacted]Chair W	3/20/2007	Conductivity	umhos/cm	582	[redacted]nergy Laboratories	C07030991-001	03/22/07	A2510 B	
			pH	*s.u.*	*8.47*			*03/22/07*	*A4500-H B*	
			Solids, Total Dissolved @ 180 °C	mg/L	362			03/22/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	2			03/22/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	140			03/22/07	A2320 B	
			Calcium	mg/L	15			03/23/07	E200.7	
			Chloride	mg/L	4			03/22/07	A4500-Cl B	
			Fluoride	mg/L	0.2			03/23/07	A4500-F C	
			Magnesium	mg/L	1			03/23/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			03/26/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			03/22/07	E353.2	
			Potassium	mg/L	3			03/23/07	E200.7	
			Silica	mg/L	8.3			03/23/07	E200.7	
			Sodium	mg/L	112			03/23/07	E200.7	
			Sulfate	mg/L	155			03/22/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			03/29/07	E200.8	
			Arsenic	mg/L	ND			03/29/07	E200.8	
			Barium	mg/L	ND			03/29/07	E200.8	
			Boron	mg/L	ND			03/23/07	E200.7	
			Cadmium	mg/L	ND			03/29/07	E200.8	
			Chromium	mg/L	ND			03/29/07	E200.8	
			Copper	mg/L	ND			03/29/07	E200.8	
			Iron	mg/L	0.1			03/23/07	E200.7	
			Lead	mg/L	ND			03/29/07	E200.8	
			Manganese	mg/L	0.02			03/29/07	E200.8	
			Mercury	mg/L	ND			03/29/07	E200.8	
			Molybdenum	mg/L	ND			03/29/07	E200.8	
			Nickel	mg/L	ND			03/29/07	E200.8	
			Selenium	mg/L	ND			03/29/07	E200.8	
			Uranium	mg/L	0.0113			03/29/07	E200.8	
			Vanadium	mg/L	ND			03/29/07	E200.8	
			Zinc	mg/L	ND			03/29/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.31			03/23/07	E200.7	
			Manganese	mg/L	0.02			03/23/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	6.8			03/30/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.8			03/30/07	E900.0	
			Gross Beta	pCi/L	2.7			03/30/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.4			03/30/07	E900.0	
			Radium 226	pCi/L	ND			04/02/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			03/30/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.593			04/02/07	Calculation	
			Anions	meq/L	5.71			04/02/07	Calculation	
			Cations	meq/L	5.77			04/02/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	369			04/02/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.980			04/02/07	Calculation	

MINE_NAME	[redacted]ATION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]C
Hank	T-Chair W	08/22/07	Conductivity	umhos/cm	576	Energy Laboratories	C07081277-003	08/24/07	A2510 B	
			pH	s.u.	8.31			08/24/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	350			08/24/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	1			08/24/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	145			08/24/07	A2320 B	
			Calcium	mg/L	14			09/05/07	E200.7	
			Chloride	mg/L	5			08/24/07	A4500-Cl B	
			Fluoride	mg/L	0.2			08/24/07	A4500-F C	
			Magnesium	mg/L	1			09/05/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.07			08/27/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/24/07	E353.2	
			Potassium	mg/L	2			09/05/07	E200.7	
			Silica	mg/L	7.8			09/05/07	E200.7	
			Sodium	mg/L	110			09/05/07	E200.7	
			Sulfate	mg/L	157			08/24/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/06/07	E200.8	
			Arsenic	mg/L	ND			09/06/07	E200.8	
			Barium	mg/L	ND			09/06/07	E200.8	
			Boron	mg/L	ND			09/05/07	E200.7	
			Cadmium	mg/L	ND			09/06/07	E200.8	
			Chromium	mg/L	ND			09/06/07	E200.8	
			Copper	mg/L	ND			09/06/07	E200.8	
			Iron	mg/L	0.14			09/05/07	E200.7	
			Lead	mg/L	ND			09/06/07	E200.8	
			Manganese	mg/L	0.02			09/06/07	E200.8	
			Mercury	mg/L	ND			09/06/07	E200.8	
			Molybdenum	mg/L	ND			09/06/07	E200.8	
			Nickel	mg/L	ND			09/06/07	E200.8	
			Selenium	mg/L	ND			09/06/07	E200.8	
			Uranium	mg/L	0.0088			09/06/07	E200.8	
			Vanadium	mg/L	ND			09/06/07	E200.8	
			Zinc	mg/L	ND			09/06/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.66			09/06/07	E200.7	
			Manganese	mg/L	0.03			09/06/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	8.6			09/01/07	E900.0	
			Gross Alpha precision (+)	pCi/L	0.7			09/01/07	E900.0	
			Gross Beta	pCi/L	ND			09/01/07	E900.0	
			Gross Beta precision (+)	pCi/L					E900.0	
			Radium 226	pCi/L	ND			09/03/07	E903.0	
			Radium 226 precision (+)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			08/30/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.43			09/06/07	Calculation	
			Anions	meq/L	5.82			09/06/07	Calculation	
			Cations	meq/L	5.66			09/06/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	369			09/06/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.95			09/06/07	Calculation	

MINE_NAME	[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]CO[redacted]
Hank	[redacted]RZHC-2	8/7/2007	Conductivity	umhos/cm	699	[redacted]ergy Laboratories	C07080507-004	08/09/07	A2510 B	
			pH	s.u.	9.53			08/09/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	410			08/09/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	4			08/09/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	26			08/09/07	A2320 B	
			Calcium	mg/L	11			08/20/07	E200.7	
			Chloride	mg/L	10			08/13/07	A4500-Cl B	
			Fluoride	mg/L	0.4			08/14/07	A4500-F C	
			Magnesium	mg/L	1			08/20/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			08/10/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/13/07	E353.2	
			Potassium	mg/L	6			08/20/07	E200.7	
			Silica	mg/L	6.1			08/20/07	E200.7	
			Sodium	mg/L	131			08/20/07	E200.7	
			Sulfate	mg/L	281			08/10/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			08/24/07	E200.8	
			Arsenic	mg/L	ND			08/24/07	E200.8	
			Barium	mg/L	ND			08/24/07	E200.8	
			Boron	mg/L	ND			08/20/07	E200.7	
			Cadmium	mg/L	ND			08/24/07	E200.8	
			Chromium	mg/L	ND			08/24/07	E200.8	
			Copper	mg/L	ND			08/24/07	E200.8	
			Iron	mg/L	ND			08/20/07	E200.7	
			Lead	mg/L	ND			08/24/07	E200.8	
			Manganese	mg/L	ND			08/24/07	E200.8	
			Mercury	mg/L	ND			08/24/07	E200.8	
			Molybdenum	mg/L	ND			08/24/07	E200.8	
			Nickel	mg/L	ND			08/24/07	E200.8	
			Selenium	mg/L	ND			08/24/07	E200.8	
			Uranium	mg/L	0.003			08/24/07	E200.8	
			Vanadium	mg/L	ND			08/24/07	E200.8	
			Zinc	mg/L	ND			08/24/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.12			08/20/07	E200.7	
			Manganese	mg/L	ND			08/20/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	12.2			08/23/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.9			08/23/07	E900.0	
			Gross Beta	pCi/L	10.4			08/23/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.5			08/23/07	E900.0	
			Radium 226	pCi/L	5.5			08/20/07	E903.0	
			Radium 226 precision (±)	pCi/L	0.7			08/20/07	E903.0	
			Radium 228	pCi/L	ND			08/14/07	RA-05	
			Radium 228 precision (±)	pCi/L					RA-05	
			Data Quality							
			A/C Balance (±5)	%	-1.59			08/24/07	Calculation	
			Anions	meq/L	6.73			08/24/07	Calculation	
			Cations	meq/L	6.52			08/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	464			08/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.880			08/24/07	Calculation	

MINE_NAME	S[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V[redacted]	COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank	URZHC-2	09/07/07	Conductivity	umhos/cm	724	Energy Laboratories	C07090302-001	09/10/07	A2510 B	
			pH	s.u.	9.45			09/10/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	440			09/10/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	*mg/L*	7			09/08/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	46			09/08/07	A2320 B	
			Calcium	mg/L	7			09/20/07	E200.7	
			Chloride	mg/L	11			09/10/07	A4500-Cl B	
			Fluoride	*mg/L*	0.4			09/12/07	A4500-F C	
			Magnesium	mg/L	1			09/20/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/11/07	E353.2	
			Potassium	mg/L	8			09/20/07	E200.7	
			Silica	mg/L	15			09/20/07	E200.7	
			Sodium	mg/L	135			09/20/07	E200.7	
			Sulfate	mg/L	271			09/10/07	A4500-SO4 E	
			Metals - Dissolved							
			Aluminum	mg/L	ND			09/20/07	E200.8	
			Arsenic	mg/L	0.002			09/20/07	E200.8	
			Barium	mg/L	ND			09/20/07	E200.8	
			Boron	mg/L	ND			09/20/07	E200.7	
			Cadmium	mg/L	ND			09/20/07	E200.8	
			Chromium	mg/L	ND			09/20/07	E200.8	
			Copper	mg/L	ND			09/20/07	E200.8	
			Iron	mg/L	0.04			09/20/07	E200.7	
			Lead	mg/L	ND			09/20/07	E200.8	
			Manganese	mg/L	ND			09/20/07	E200.8	
			Mercury	mg/L	ND			09/20/07	E200.8	
			Molybdenum	mg/L	ND			09/20/07	E200.8	
			Nickel	mg/L	ND			09/20/07	E200.8	
			Selenium	mg/L	0.003			09/20/07	E200.8	
			Uranium	mg/L	0.0008			09/20/07	E200.8	
			Vanadium	*mg/L*	*ND*			09/20/07	E200.8	
			Zinc	mg/L	ND			09/20/07	E200.8	
			Metals - Total							
			Iron	*mg/L*	0.18			09/20/07	E200.7	
			Manganese	mg/L	ND			09/20/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	1.6			09/18/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.5			09/18/07	E900.0	
			Gross Beta	pCi/L	4.7			09/18/07	E900.0	
			Gross Beta precision (±)	pCi/L	1.4			09/18/07	E900.0	
			Radium 226	pCi/L	ND			09/24/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	ND			09/18/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.91			09/24/07	Calculation	
			Anions	meq/L	6.97			09/24/07	Calculation	
			Cations	meq/L	6.58			09/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	479			09/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.920			09/24/07	Calculation	

MINE_NAME	S[redacted]	TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_V	[redacted]	B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	CO[redacted]
Hank		RZHF-1	7/27/2007	Conductivity	umhos/cm	1880		Energy Laboratories	C07071324-001	07/30/07	A2510 B	
				pH	*s.u.*	*8.5*				*07/30/07*	*A4500-H B*	
				Solids, Total Dissolved @ 180 °C	mg/L	1440				07/30/07	A2540 C	
				Major Ions								
				Carbonate as CO_3	mg/L	ND				07/30/07	A2320 B	
				Bicarbonate as HCO_3	mg/L	45				07/30/07	A2320 B	
				Calcium	mg/L	171				08/07/07	E200.7	
				Chloride	mg/L	ND				08/01/07	A4500-Cl B	
				Fluoride	mg/L	0.2				07/31/07	A4500-F C	
				Magnesium	mg/L	30				08/07/07	E200.7	
				Nitrogen, Ammonia as N	mg/L	ND				08/02/07	A4500-NH3 G	
				Nitrogen, Nitrate+Nitrite as N	mg/L	ND				07/31/07	E353.2	
				Potassium	mg/L	14				08/07/07	E200.7	
				Silica	mg/L	8.6				08/07/07	E200.7	
				Sodium	mg/L	204				08/07/07	E200.7	
				Sulfate	mg/L	981				07/30/07	A4500-SO4 E	
				Metals - Dissolved								
				Aluminum	mg/L	ND				08/10/07	E200.8	
				Arsenic	mg/L	0.005				08/10/07	E200.8	
				Barium	mg/L	ND				08/10/07	E200.8	
				Boron	mg/L	ND				08/07/07	E200.7	
				Cadmium	mg/L	ND				08/10/07	E200.8	
				Chromium	mg/L	ND				08/10/07	E200.8	
				Copper	mg/L	ND				08/10/07	E200.8	
				Iron	mg/L	ND				08/07/07	E200.7	
				Lead	mg/L	ND				08/10/07	E200.8	
				Manganese	mg/L	0.01				08/10/07	E200.8	
				Mercury	mg/L	ND				08/10/07	E200.8	
				Molybdenum	mg/L	ND				08/10/07	E200.8	
				Nickel	mg/L	ND				08/10/07	E200.8	
				Selenium	mg/L	0.574				08/10/07	E200.8	
				Uranium	mg/L	5.25				08/10/07	E200.8	
				Vanadium	mg/L	ND				08/10/07	E200.8	
				Zinc	mg/L	ND				08/10/07	E200.8	
				Metals - Total								
				Iron	mg/L	ND				08/07/07	E200.7	
				Manganese	mg/L	0.01				08/07/07	E200.7	
				Radionuclides - Dissolved								
				Gross Alpha	pCi/L	5090				08/10/07	E900.0	
				Gross Alpha precision (±)	pCi/L	23.3				*08/10/07*	E900.0	
				Gross Beta	pCi/L	1540				08/10/07	E900.0	
				Gross Beta precision (±)	pCi/L	14.1				08/10/07	E900.0	
				Radium 226	pCi/L	562				08/14/07	E903.0	
				Radium 226 precision (±)	pCi/L	7.2				08/14/07	E903.0	
				Radium 228	pCi/L	4				08/08/07	RA-05	
				Radium 228 precision (±)	pCi/L	1				08/08/07	RA-05	
				Data Quality								
				A/C Balance (±5)	%	-2.39				08/13/07	Calculation	
				Anions	meq/L	21.2				08/13/07	Calculation	
				Cations	meq/L	20.2				08/13/07	Calculation	
				Solids, Total Dissolved Calculated	mg/L	1430				08/13/07	Calculation	
				TDS Balance (0.80-1.20)	dec. %	1.010				08/13/07	Calculation	

MINE_NAME	[redacted]TION_NAME	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER_[redacted]	[redacted]B_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]ENTS
HANK	BROWN #5	9/5/2007	Conductivity	umhos/cm	1420	Energy Laboratories	C07090196-001	09/07/07	A2510 B	
			pH	s.u.	7.92			09/07/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	912			09/07/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			09/08/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	109			09/08/07	A2320 B	
			Calcium	mg/L	80			09/14/07	E200.7	
			Chloride	mg/L	5			09/07/07	A4500-Cl B	
			Fluoride	mg/L	0.1			09/12/07	A4500-F C	
			Magnesium	mg/L	13			09/14/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			09/11/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			09/07/07	E353.2	
			Potassium	mg/L	6			09/14/07	E200.7	
			Silica	mg/L	9.4			09/14/07	E200.7	
			Sodium	mg/L	164			09/14/07	E200.7	
			Sulfate	mg/L	495			09/14/07	A4500-SO4 E	
			Metals - Diissolved							
			Aluminum	mg/L	ND			09/18/07	E200.8	
			Arsenic	mg/L	ND			09/18/07	E200.8	
			Barium	mg/L	ND			09/18/07	E200.8	
			Boron	mg/L	ND			09/14/07	E200.7	
			Cadmium	mg/L	ND			09/18/07	E200.8	
			Chromium	mg/L	ND			09/18/07	E200.8	
			Copper	mg/L	ND			09/18/07	E200.8	
			Iron	mg/L	ND			09/14/07	E200.7	
			Lead	mg/L	0.001			09/18/07	E200.8	
			Manganese	mg/L	0.01			09/18/07	E200.8	
			Mercury	mg/L	ND			09/18/07	E200.8	
			Molybdenum	mg/L	ND			09/18/07	E200.8	
			Nickel	mg/L	ND			09/18/07	E200.8	
			Selenium	mg/L	ND			09/18/07	E200.8	
			Uranium	mg/L	0.0129			09/18/07	E200.8	
			Vanadium	mg/L	ND			09/18/07	E200.8	
			Zinc	mg/L	0.02			09/18/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			09/14/07	E200.7	
			Manganese	mg/L	0.01			09/14/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	14.7			09/14/07	E900.0	
			Gross Alpha precision (±)	pCi/L	1			09/14/07	E900.0	
			Gross Beta	pCi/L	ND			09/14/07	E900.0	
			Gross Beta precision (±)	pCi/L	ND			09/14/07	E900.0	
			Radium 226	pCi/L	ND			09/20/07	E903.0	
			Radium 226 precision (±)	pCi/L	ND			09/20/07	E903.0	
			Radium 228	pCi/L	ND			09/17/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	0.585			09/20/07	Calculation	
			Anions	meq/L	12.2			09/20/07	Calculation	
			Cations	meq/L	12.4			09/20/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	827			09/20/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	1.100			09/20/07	Calculation	

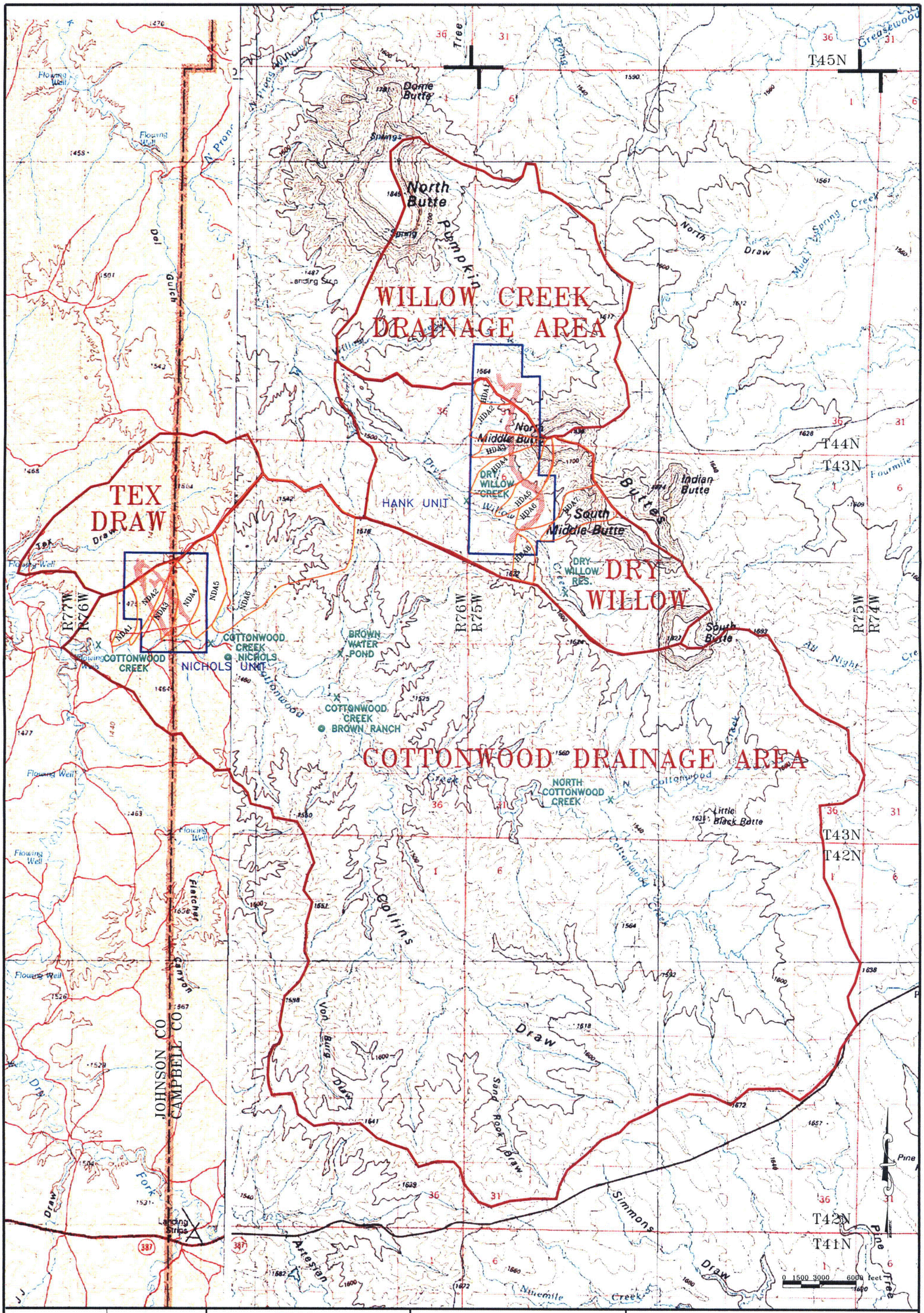
MINE_NAME	[redacted]	SAMP_DATE	PARAMETER_NAME	Units	PARAMETER	[redacted]	LAB_COMP_NAME	LAB_BOTTLE_ID	ANALYSIS_DATE	ANALYTICAL_METHOD	[redacted]
HANK	URZH B-6	8/28/2007	Conductivity	umhos/cm	1340		Energy Laboratories	C07081505-001	08/29/07	A2510 B	
			pH	s.u.	7.76				08/29/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	904				08/29/07	A2540 C	
			Major Ions								
			Carbonate as CO_3	mg/L	ND				08/31/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	120				08/31/07	A2320 B	
			Calcium	mg/L	103				09/11/07	E200.7	
			Chloride	mg/L	26				08/29/07	A4500-Cl B	
			Fluoride	mg/L	0.2				09/01/07	A4500-F C	
			Magnesium	mg/L	15				09/11/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND				09/04/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND				08/29/07	E353.2	
			Potassium	mg/L	8				09/11/07	E200.7	
			Silica	mg/L	10.8				09/11/07	E200.7	
			Sodium	mg/L	169				09/11/07	E200.7	
			Sulfate	mg/L	576				08/29/07	A4500-SO4 E	
			Metals - Dissolved								
			Aluminum	mg/L	ND				09/13/07	E200.8	
			Arsenic	mg/L	0.001				09/13/07	E200.8	
			Barium	mg/L	ND				09/13/07	E200.8	
			Boron	mg/L	ND				09/11/07	E200.7	
			Cadmium	mg/L	ND				09/13/07	E200.8	
			Chromium	mg/L	ND				09/13/07	E200.8	
			Copper	mg/L	ND				09/13/07	E200.8	
			Iron	mg/L	ND				09/11/07	E200.7	
			Lead	mg/L	ND				09/13/07	E200.8	
			Manganese	mg/L	ND				09/13/07	E200.8	
			Mercury	mg/L	ND				09/13/07	E200.8	
			Molybdenum	mg/L	ND				09/13/07	E200.8	
			Nickel	mg/L	ND				09/13/07	E200.8	
			Selenium	mg/L	ND				09/13/07	E200.8	
			Uranium	mg/L	0.0196				09/13/07	E200.8	
			Vanadium	mg/L	ND				09/13/07	E200.8	
			Zinc	mg/L	ND				09/13/07	E200.8	
			Metals - Total								
			Iron	mg/L	0.06				09/11/07	E200.7	
			Manganese	mg/L	0.04				09/11/07	E200.7	
			Radionuclides - Dissolved								
			Gross Alpha	pCi/L	16.9				09/07/07	E900.0	
			Gross Alpha precision (+)	pCi/L	1.1				09/07/07	E900.0	
			Gross Beta	pCi/L	10.2				09/07/07	E900.0	
			Gross Beta precision (+)	pCi/L	2				09/07/07	E900.0	
			Radium 226	pCi/L	1.3				09/07/07	E903.0	
			Radium 226 precision (+)	pCi/L	0.5				09/07/07	E903.0	
			Radium 228	pCi/L	ND				09/05/07	RA-05	
			Data Quality								
			A/C Balance (±5)	%	-2.68				09/13/07	Calculation	
			Anions	meq/L	14.7				09/13/07	Calculation	
			Cations	meq/L	13.9				09/13/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	966				09/13/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.940				09/13/07	Calculation	

MINE NAME	[redacted] TION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER [redacted]	AB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted] MENTS
HANK	URZHF-5	8/2/2007	Conductivity	umhos/cm	1140	Energy Laboratories	C07080180-001	08/03/07	A2510 B	
			pH	s.u.	7.49			08/03/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	710			08/03/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	4.3			08/06/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	91			08/06/07	A2320 B	
			Calcium	mg/L	44			08/17/07	E200.7	
			Chloride	mg/L	4			08/06/07	A4500-Cl B	
			Fluoride	mg/L	0.3			08/13/07	A4500-F C	
			Magnesium	mg/L	10			08/17/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	ND			08/09/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/06/07	E353.2	
			Potassium	mg/L	6			08/17/07	E200.7	
			Silica	mg/L	9.5			08/17/07	E200.7	
			Sodium	mg/L	181			08/17/07	E200.7	
			Sulfate	mg/L	468			08/06/07	A4500-SO4 E	
			Metals - Diissolved							
			Aluminum	mg/L	ND			08/20/07	E200.8	
			Arsenic	mg/L	0.001			08/20/07	E200.8	
			Barium	mg/L	ND			08/20/07	E200.8	
			Boron	mg/L	ND			08/17/07	E200.7	
			Cadmium	mg/L	ND			08/20/07	E200.8	
			Chromium	mg/L	ND			08/20/07	E200.8	
			Copper	mg/L	ND			08/20/07	E200.8	
			Iron	mg/L	ND			08/17/07	E200.7	
			Lead	mg/L	ND			08/20/07	E200.8	
			Manganese	mg/L	ND			08/20/07	E200.8	
			Mercury	mg/L	ND			08/21/07	E200.8	
			Molybdenum	mg/L	ND			08/20/07	E200.8	
			Nickel	mg/L	ND			08/20/07	E200.8	
			Selenium	mg/L	ND			08/20/07	E200.8	
			Uranium	mg/L	0.0051			08/20/07	E200.8	
			Vanadium	mg/L	ND			08/20/07	E200.8	
			Zinc	mg/L	ND			08/20/07	E200.8	
			Metals - Total							
			Iron	mg/L	ND			08/17/07	E200.7	
			Manganese	mg/L	ND			08/17/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	96.8			08/20/07	E900.0	
			Gross Alpha precision (±)	pCi/L	2			08/20/07	E900.0	
			Gross Beta	pCi/L	50.7			08/20/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.1			08/20/07	E900.0	
			Radium 226	pCi/L	40.3			08/18/07	E903.0	
			Radium 226 precision (±)	pCi/L	2.1			08/18/07	E903.0	
			Radium 228	pCi/L	ND			08/13/07	RA-05	
			Data Quality							
			A/C Balance (±5)	%	-2.16			08/20/07	Calculation	
			Anions	meq/L	11.5			08/20/07	Calculation	
			Cations	meq/L	11			08/20/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	772			08/20/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.920			08/20/07	Calculation	

MINE NAME	S[redacted]TION NAME	SAMP DATE	PARAMETER NAME	Units	PARAMETER V[redacted]	AB COMP NAME	LAB BOTTLE ID	ANALYSIS DATE	ANALYTICAL METHOD	[redacted]ENTS
HANK	[redacted]RZHQ-1	8/8/2007	Conductivity	umhos/cm	1380	Energy Laboratories	C07080607-002	08/10/07	A2510 B	
			pH	s.u.	7.83			08/10/07	A4500-H B	
			Solids, Total Dissolved @ 180 °C	mg/L	950			08/10/07	A2540 C	
			Major Ions							
			Carbonate as CO_3	mg/L	ND			08/10/07	A2320 B	
			Bicarbonate as HCO_3	mg/L	109			08/10/07	A2320 B	
			Calcium	mg/L	69			08/21/07	E200.7	
			Chloride	mg/L	5			08/13/07	A4500-Cl B	
			Fluoride	mg/L	0.1			08/14/07	A4500-F C	
			Magnesium	mg/L	12			08/21/07	E200.7	
			Nitrogen, Ammonia as N	mg/L	0.06			08/10/07	A4500-NH3 G	
			Nitrogen, Nitrate+Nitrite as N	mg/L	ND			08/14/07	E353.2	
			Potassium	mg/L	6			08/21/07	E200.7	
			Silica	mg/L	10.9			08/21/07	E200.7	
			Sodium	mg/L	208			08/21/07	E200.7	
			Sulfate	mg/L	612			08/13/07	A4500-SO4 E	
			Metals - Diissolved							
			Aluminum	mg/L	ND			08/24/07	E200.8	
			Arsenic	mg/L	ND			08/24/07	E200.8	
			Barium	mg/L	ND			08/24/07	E200.8	
			Boron	mg/L	ND			08/21/07	E200.7	
			Cadmium	mg/L	ND			08/24/07	E200.8	
			Chromium	mg/L	ND			08/24/07	E200.8	
			Copper	mg/L	ND			08/24/07	E200.8	
			Iron	mg/L	0.11			08/21/07	E200.7	
			Lead	mg/L	ND			08/24/07	E200.8	
			Manganese	mg/L	0.06			08/24/07	E200.8	
			Mercury	mg/L	ND			08/24/07	E200.8	
			Molybdenum	mg/L	ND			08/24/07	E200.8	
			Nickel	mg/L	ND			08/24/07	E200.8	
			Selenium	mg/L	ND			08/24/07	E200.8	
			Uranium	mg/L	0.0111			08/24/07	E200.8	
			Vanadium	mg/L	ND			08/24/07	E200.8	
			Zinc	mg/L	ND			08/24/07	E200.8	
			Metals - Total							
			Iron	mg/L	0.77			08/21/07	E200.7	
			Manganese	mg/L	0.08			08/21/07	E200.7	
			Radionuclides - Dissolved							
			Gross Alpha	pCi/L	8.7			08/24/07	E900.0	
			Gross Alpha precision (±)	pCi/L	0.9			08/24/07	E900.0	
			Gross Beta	pCi/L	9.2			08/24/07	E900.0	
			Gross Beta precision (±)	pCi/L	2.1			08/24/07	E900.0	
			Radium 226	pCi/L	ND			08/21/07	E903.0	
			Radium 226 precision (±)	pCi/L					E903.0	
			Radium 228	pCi/L	1.1			08/16/07	RA-05	
			Radium 228 precision (±)	pCi/L	0.8			08/16/07		
			Data Quality							
			A/C Balance (±5)	%	-3.85			08/24/07	Calculation	
			Anions	meq/L	14.7			08/24/07	Calculation	
			Cations	meq/L	13.6			08/24/07	Calculation	
			Solids, Total Dissolved Calculated	mg/L	977			08/24/07	Calculation	
			TDS Balance (0.80-1.20)	dec. %	0.970			08/24/07	Calculation	

STATUS	MINE_NAME	WELL_NAME	COMPLETION_DATE	GEO_UNIT_NAME	NORTHING	EASTING	Datum	SURFACE_ELEV	TOC_ELEV	WELL_DEPTH	CASING_MATERIAL	CASING_INNER_DIAMETER	DEPTH_PERF_INTERVAL_TOP	DEPTH_PERF_INTERVAL_BOTTOM	TOWNSHIP	RANGE	SECTION	FIRST_QUARTER	SECOND_QUARTER	COMMENTS
[redacted]N	Nichols Ranch	20-9	1/30/1981	Wasatch	1102911	275410	WYE 27	4664.08	4664.98	740	Plastic Yelomine	5	495	615	43	76	20	NE	NW	
[redacted]	Nichols Ranch	20-9	1/30/1981	Wasatch	1102911	275410	WYE 27	4664.08	4664.98	740	Plastic PVC	5	635	655	43	76	20	NE	NW	
[redacted]	Nichols Ranch	Calving # 1	11/28/1978	Wasatch	1100015	289109	WYE 27	4824	4625.6	560	Steel	5	390	420	43	76	23	SW	NW	
[redacted]	Nichols Ranch	Calving # 1	11/28/1978	Wasatch	1100015	289109	WYE 27	4824	4625.6	560	Steel	5	440	500	43	76	23	SW	NW	
GST	Nichols Ranch	Dry Fork # 3	12/31/1958	Wasatch	1100675	273123	WYE 27	4720	N/A	360	Steel				43	76	20	SW	NW	
GST	Nichols Ranch	RS #4 L	4/6/1983	Wasatch	1112331	276856	WYE 27	4969.73	4970.13	795	Yelomine	5	726	795	43	76	22	SE	NE	
GST	Nichols Ranch	RS #4 M	4/6/1983	Wasatch	1112331	276769	WYE 27	4970.17	4970.47	441	Yelomine	5	389	441	43	76	8	NE	SE	
GST	Nichols Ranch	RS #4 U	4/6/1983	Wasatch	1111406	276812	WYE 27	4966.75	4967.05	310	Yelomine	5	256	309	43	76	8	NE	SE	
GST	Nichols Ranch	Garden	8/27/2003	Wasatch				4662	4663.3	520	PVC	6	200	260	43	76	22	NE	SE	
GST	Nichols Ranch	Garden	8/27/2003	Wasatch				4662	4663.3	520	PVC	6	400	440	43	76	22	NE	SE	
GST	Nichols Ranch	MN-1	8/25/1980	Wasatch	1105710	273118	WYE 27	4715.14	4716.44	556	Yelomine	4.5	479	556	43	76	17	SW	NW	
GST	Nichols Ranch	MN-2	8/25/1980	Wasatch	1108147	273844	WYE 27	4771	4771.7	670	Yelomine	4.5	560	670	43	76	17	NW	NE	
GST	Nichols Ranch	MN-3	8/25/1980	Wasatch	1106960	275167	WYE 27	4764.64	4765.34	585	Yelomine	4.5	479	585	43	76	17	NE	SW	
GST	Nichols Ranch	MN-4	8/25/1980	Wasatch	1109835	272220	WYE 27	4800	4802.56	623	Centron Fiberglass	4.5	520	623	43	76	8	SW	SW	
GST	Nichols Ranch	MN-5	8/25/1980	Wasatch	1108755	272120	WYE 27	4883.28	4885.58	727	Yelomine	4.5	628	727	43	76	18	NE	NE	
GST	Nichols Ranch	MN-6	8/25/1980	Wasatch	1107478	272220	WYE 27	4761.18	4763.38	593	Centron Fiberglass	4.5	485	593	43	76	17	NW	SW	
GST	Nichols Ranch	N1,11894	4/23/1967	Wasatch	1102532	269925	WYE 27	4622.33		310	Steel	2	191	310	43	76	19	NE	NW	
GST	Nichols Ranch	Nichols # 1	6/15/1988	Wasatch	1107430	272265	WYE 27	4758.88	4760.08	620	PVC Sch 40	5	550	565	43	76	17	NW	SW	
GST	Nichols Ranch	Pats # 1	12/31/1934	Wasatch	1102872	279812	WYE 27	4690		405	Steel		375	405	43	76	21	NW	NE	
GST	Nichols Ranch	Pug # 1	12/31/1939	Wasatch	1102383	275338	WYE 27	4685		370	Steel		340	370	43	76	20	NE	SW	
GST	Nichols Ranch	Red Spring A#1	12/21/1976	Wasatch	1111694	269021	WYE 27	4710	4712.9	740	Steel	6			43	76	7	NE	SE	
UNA	Nichols Ranch	URZN1-2	8/2/2006	Wasatch	1105691	273081	WYE 27	4714.31	4715.41	645	PVC	4.5	600	645	43	76	17	SW	NW	
UNA	Nichols Ranch	URZNB-1	8/2/2006	Wasatch	1105725	273149	WYE 27	4716.36	4717.66	375	PVC	4.5	330	375	43	76	17	SW	NW	
	Nichols Ranch	URZNF-3	9/30/2007	Wasatch	1105992	273707	WYE 27	4728.87	4731.17	173	PVC	4	153	173						
	Nichols Ranch	URZNQ-4	9/30/2007	Wasatch	1103219	272397	WYE 27	4638.44	4639.94	35	PVC	4	15	35						
GST	Nichols Ranch	W. OF WW 1	2/10/1975	Wasatch	1116674	286130	WYE 27	5080	5082.3	720	Steel	6	340	370	43	76	3	SW	NE	
GST	Nichols Ranch	W. OF WW 1	2/10/1975	Wasatch	1116674	286130	WYE 27	5080	5082.3	720	Steel	6	540	720	43	76	3	SW	NE	

STATUS	MINE NAME	WELL NAME	COMPLETION DATE	GEO UNIT NAME	NORTHING	EASTING	Datum	SURFACE ELEV	TOC ELEV	WELL DEPTH	CASING MATERIAL	CASING INNER DIAMETER	DEPTH PERF INTERVAL TOP	DEPTH PERF INTERVAL BOTTOM	TOWNSHIP	RANGE	SECTION	FIRST QUARTER	SECOND QUARTER	COMMENTS
[redacted]	Hank	BR-B	10/29/1979	Wasatch	1129884	299194	WYE 27	5029.7	5031.2	300	PVC	5	200	280	44	75	30	NW	NW	
[redacted]	Hank	BR-F	10/29/1979	Wasatch	1128473	302583	WYE 27	5082.25	5083.85	160	PVC	5	60	100	44	75	30	NE	SW	
[redacted]	Hank	BR-G	10/29/1979	Wasatch	1125397	305568	WYE 27	5157.27	5158.87	320	PVC	5	240	320	44	75	29	SW	SW	
GST	Hank	BR-H	10/29/1979	Wasatch	1127077	293768	WYE 27	4957.56	4959.16	200	PVC	5	140	180	44	76	25	SW	NW	
GST	Hank	BR-I	10/29/1979	Wasatch	1128729	303971	WYE 27	5130.88	5132.58	80	Fiberglass	4	40	80	44	75	30	NW	SW	
GST	Hank	BR-K	10/29/1979	Wasatch	1129697	306515	WYE 27	5193	5194.7	124	Fiberglass	4	84	124	44	75	29	NW	NE	
PUW	Hank	Brown # 5	1/17/1977	Wasatch	1128252	301915	WYE 27	5061.76	5063.06	540	PVC	5	460	540	44	75	30	NE	SW	
PUW	Hank	Brown # 5	1/17/1977	Wasatch	1128252	301915	WYE 27	5061.76	5063.06	540	PVC	5	460	540	44	75	30	NE	SW	
GST	Hank	Brown-WS	6/21/1979	Wasatch	1125026	299713	WYE 27	5146	5147.2	702	Steel	6	340	380	44	75	31	NW	NW	
GST	Hank	Brown-WS	6/21/1979	Wasatch	1125026	299713	WYE 27	5146	5147.2	702	Steel	6	425	465	44	75	31	NW	NW	
GST	Hank	Brown-WS	6/21/1979	Wasatch	1125026	299713	WYE 27	5146	5147.2	702	Steel	6	540	620	44	75	31	NW	NW	
GST	Hank	BR-Q	10/29/1979	Wasatch	1125878	305553	WYE 27	5154.22	5155.32	600	PVC	5	500	600	44	75	29	SW	SW	
	Hank	BR-T		Wasatch	1131333	300699	WYE 27	5033		496	PVC	5	390	470						
	Hank	BR-U		Wasatch	1128876	300158	WYE 27	4983.18	4984.88	23	PVC	4	5	23						
GST	Hank	C # 1	4/6/1983	Wasatch	1100216	304090	WYE 27	5137	5138.1	232	Yelomine	5	146	232	43	75	20	SW	NW	
UNA	Hank	Dry Willow # 1	9/30/1975	Wasatch	1112155	304041	WYE 27	5154.19	5155.49	320	Steel	6	220	320	43	75	7	NE	SE	
	Hank	DRYMW 1		Wasatch	1121212	293031	WYE 27	4930	4930.3	19	Steel	3								
	Hank	DRYMW 1		Wasatch	1121635	292581	WYE 27	4920	4920.5	19	Steel	3								
GST	Hank	F. Brown # 1		Wasatch	1108650	288324	WYE 27	4890	4892.3	520	Steel	7	423	483						
PUW	Hank	Hank # 1	19/30/75	Wasatch	1122566	302568	WYE 27	5251.01	5252.81	440	Steel	6	354	440	44	75	31	SE	NW	
PUW	Hank	Means # 1	1/27/1977	Wasatch	1108983	301384	WYE 27	5259.86	5260.96	700	Steel	6	320	330	43	75	18	NE	NW	
PUW	Hank	Means # 1	1/27/1977	Wasatch	1108983	301384	WYE 27	5259.86	5260.96	700	Steel	6	640	650	43	75	18	NE	NW	
GST	Hank	NBHW-13	10/15/1996	Wasatch	1128356	295943	WYE 27	4969.86	4971.56	470	PVC	4.5	424	446	44	76	24	NW	SE	
GST	Hank	N.DryWillow 1	5/28/1999	Wasatch	1116100	303879	WYE 27	5205	5205.3	1132	Steel	6	250	280	43	75	6	SE	NE	
GST	Hank	N.DryWillow 1	5/28/1999	Wasatch	1116100	303879	WYE 27	5205	5205.3	1132	Steel	6	380	410	43	75	6	SE	NE	
GST	Hank	N.DryWillow 1	5/28/1999	Wasatch	1116100	303879	WYE 27	5205	5205.3	1132	Steel	6	540	570	43	75	6	SE	NE	
GST	Hank	N.DryWillow 1	5/28/1999	Wasatch	1116100	303879	WYE 27	5205	5205.3	1132	Steel	6	700	770	43	75	6	SE	NE	
GST	Hank	N.DryWillow 1	5/28/1999	Wasatch	1116100	303879	WYE 27	5205	5205.3	1132	Steel	6	990	1100	43	75	6	SE	NE	
GST	Hank	Old Maid # 1	9/20/1999	Wasatch	1115480	292878	WYE 27	5080	5082.3	300	Steel	6	250	300	43	76	2	SE	SE	
	Hank	OW43756		Wasatch	1115602	298221	WYE 27	5052	5054	251	Steel	6								
UNA	Hank	Paden # 1	9/19/1996	Wasatch	1115635	304361	WYE 27	5195.85	5197.65	650	SDR 17	5	400	440	43	75	5	SW	SW	
UNA	Hank	Paden # 1	9/19/1996	Wasatch	1115635	304361	WYE 27	5195.85	5197.65	650	SDR 17	5	570	630	43	75	5	SW	SW	
GST	Hank	SS1-F	8/25/1980	Wasatch	1129626	295559	WYE 27	4975	4976.1	185	PVC	4.5	145	185	44	76	25	NW	NE	
GST	Hank	SS1-PU	8/25/1980	Wasatch	1129700	295428	WYE 27	4976	4978.3	175	PVC	2			44	76	25	NW	NE	
GST	Hank	SS1-L	8/6/1980	Wasatch	1129551	295690	WYE 27	4974	4974.9	654	Yelomine	5	534	652	44	76	25	NW	NE	
GST	Hank	SS1-M	8/6/1980	Wasatch	1129546	295602	WYE 27	4974	4975.2	454	Yelomine	5	405	454	44	76	25	NW	NE	
GST	Hank	SS1-U	8/6/1980	Wasatch	1129619	295647	WYE 27	4975	4975.9	372	Yelomine	5	323	372	44	76	25	NW	NE	
UNA	Hank	URZHB-6	4/25/2007	Wasatch	1124299	302427	WYE 27	5213.78	5214.88	650	PVC	4.5	536	650	44	75	31	NE	NE	
[redacted]A	Hank	URZHC-2	8/2/2006	Wasatch	1118511	302629	WYE 27	5234.76	5236.06	485	PVC	4.5	440	485	43	75	6	NE	SW	
[redacted]	Hank	URZHF-1	8/2/2006	Wasatch	1118584	302588	WYE 27	5231.73	5232.63	440	PVC	4.5	369	440	43	75	6	NE	SW	
[redacted]	Hank	URZHF-5	4/25/2007	Wasatch	1124265	302426	WYE 27	5217.67	5218.37	410	PVC	4.5	369	386	44	75	31	NE	NE	
[redacted]A	Hank	URZHG-3	8/2/2006	Wasatch	1118491	302556	WYE 27	5228.82	5230.02	300	PVC	4.5	270	300	43	75	6	NE	SW	
UNA	Hank	URZHG-4	4/25/2007	Wasatch	1124257	302457	WYE 27	5215.78	5216.88	290	PVC	4.5	270	290	44	75	31	NE	NE	
NP	Hank	URZHH-7		Wasatch	1118639	301082	WYE 27	5169.37	5171.57	135	PVC	4	115	135						
NP	Hank	URZHH-7		Wasatch	1118639	301082	WYE 27	5169.37	5171.57	135	PVC	4	85	105						
GST	Hank	WC-MN1	8/25/1980	Wasatch	1121306	292653	WYE 27	4942	4944.5	210	Yelomine	5	150	210	44	76	35	SE	SW	



By: lgrh	Date: 10/16/07
Contour Interval	Rev. date: 07/08

DWG: C:\PROJECTS\2007-14\DRAINAGE AREA\DRAINAGE-LH

LEGEND:
- WELLFIELD
- Drainage area divide
- Permit Boundary
- Minor Drainage Area Divide

Land surface contours in meters

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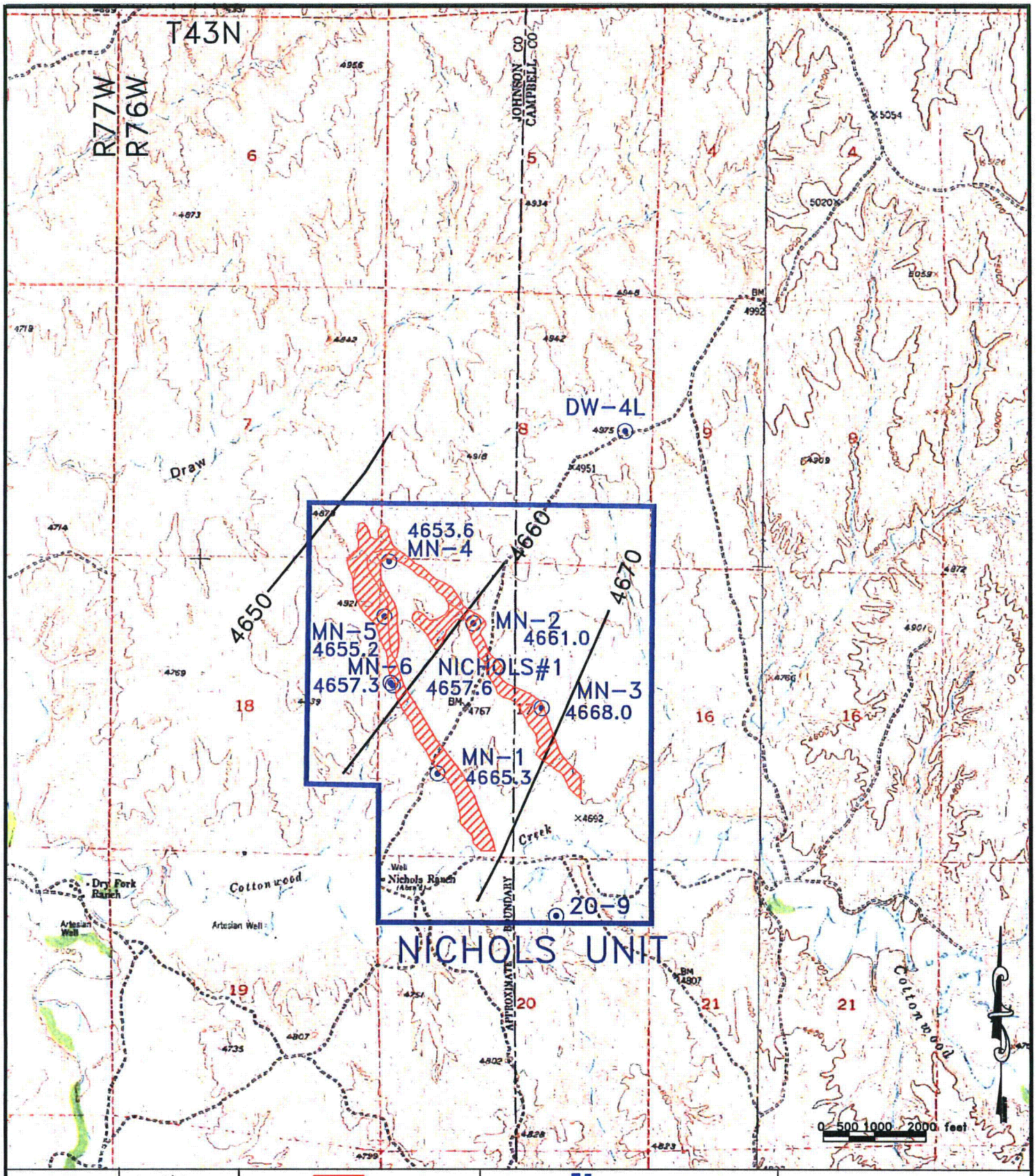
USA 82605-0850

FIGURE D6-1. SURFACE DRAINAGE AREAS



By: lgrh	Date: 3/08
Contour Interval:	Revision Date:
DWG: C:\PROJECTS\2007-14\SANDS lgrh	

LEGEND: WELLFIELD
MN-4 A SAND WELL

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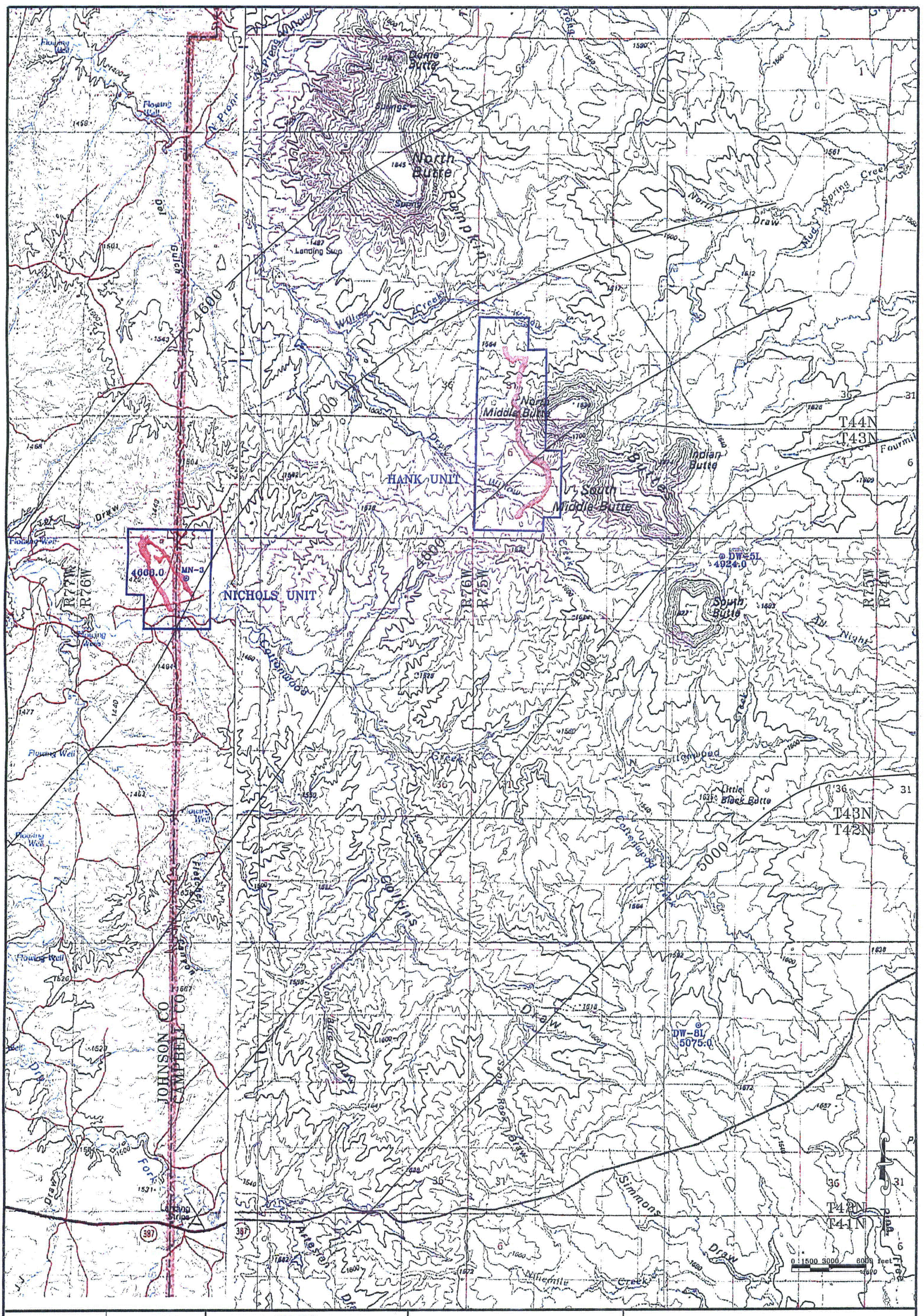
FIGURE D6-5. WATER-LEVEL ELEVATIONS FOR THE A SAND AQUIFER, 2007, FT-MSL



By: lgrh	Date: 03/29/08
Contour Interval	Rev. date: 3/08

DWG: C:\PROJECTS\2007-14\DRAINAGE AREA\DRAINAGE-LH

LEGEND: WELLFIELD
Drainage area divide
Permit Boundary

Land surface contours in meters

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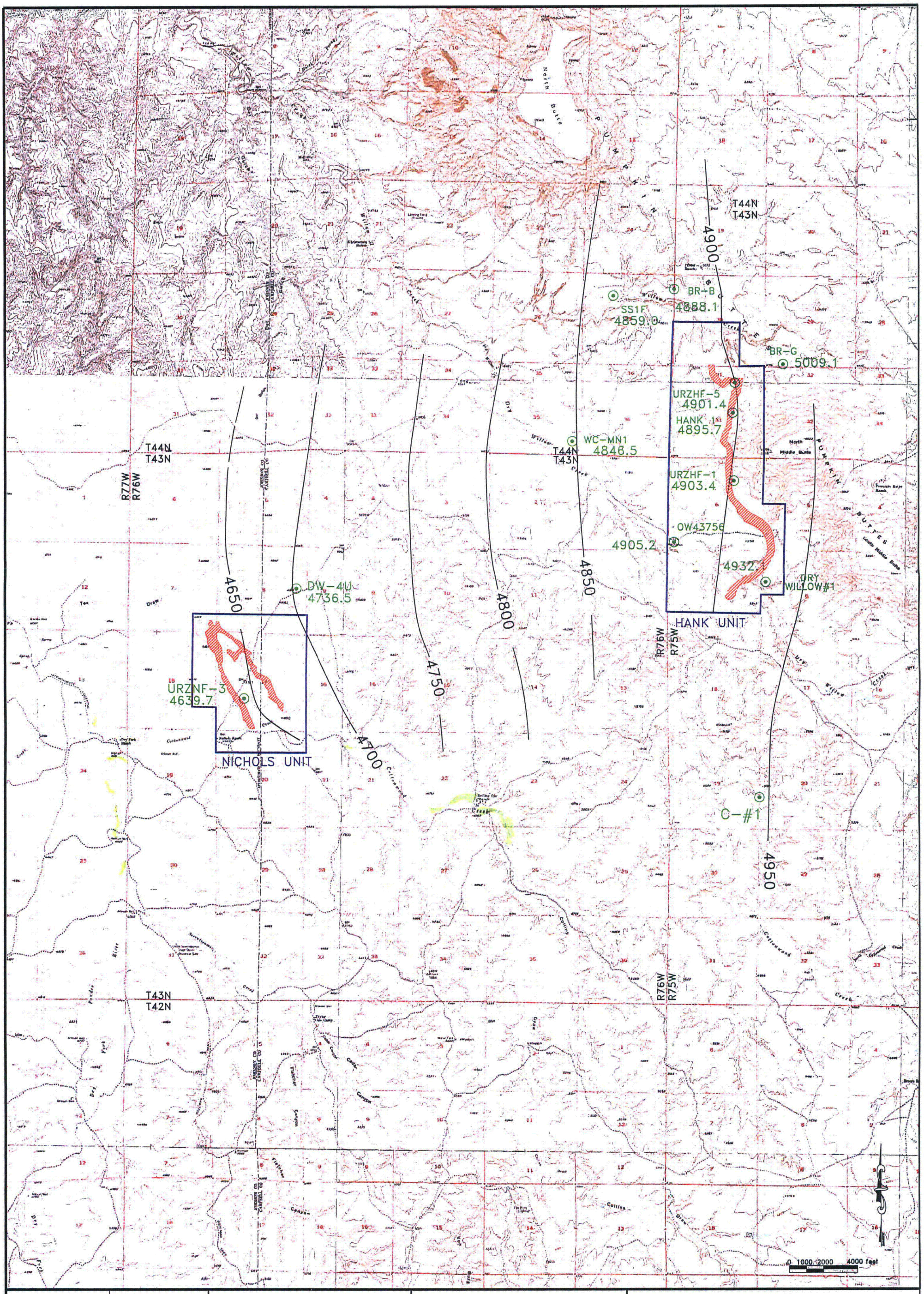
FIGURE D6-5a. REGIONAL WATER-LEVEL ELEVATION FOR THE A SAND AQUIFER, FT-MSL



By: lgrh	Date: 03/08
Contour Interval:	Revision Date:

DWG: C:\PROJECTS\2007-14\SANDS lgrh

LEGEND: WELLFIELD
URZNF-3 F SAND WELL

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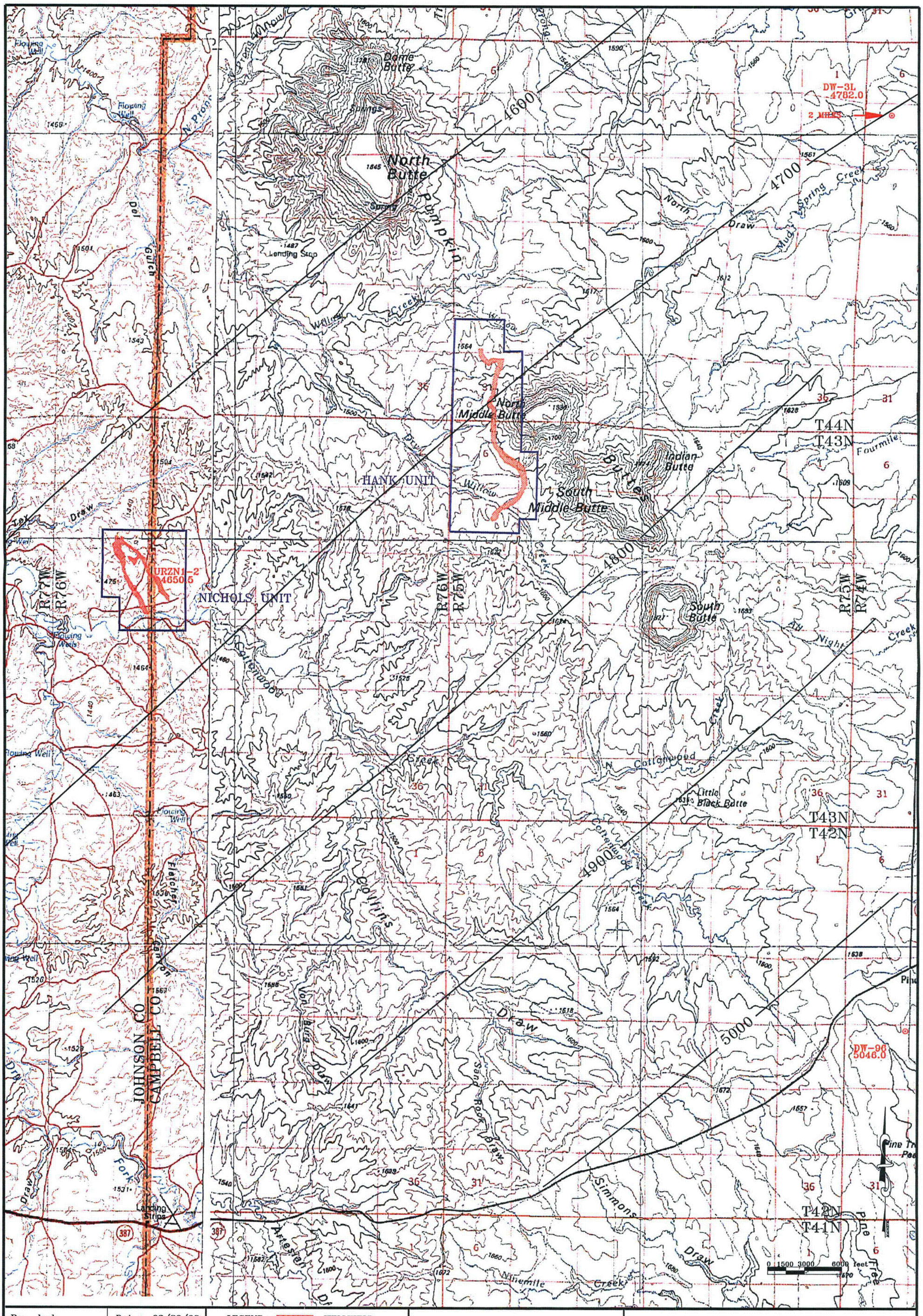
FIGURE D6-6. WATER-LEVEL ELEVATIONS FOR THE F SAND AQUIFER, 2007, FT-MSL



By: lgrh	Date: 03/29/08
Contour Interval	Rev. date: 3/08

DWG: C:\PROJECTS\2007-14\DRAINAGE AREA\DRAINAGE-LH

LEGEND:
- WELLFIELD
- Drainage area divide
- Permit Boundary

Land surface contours in meters

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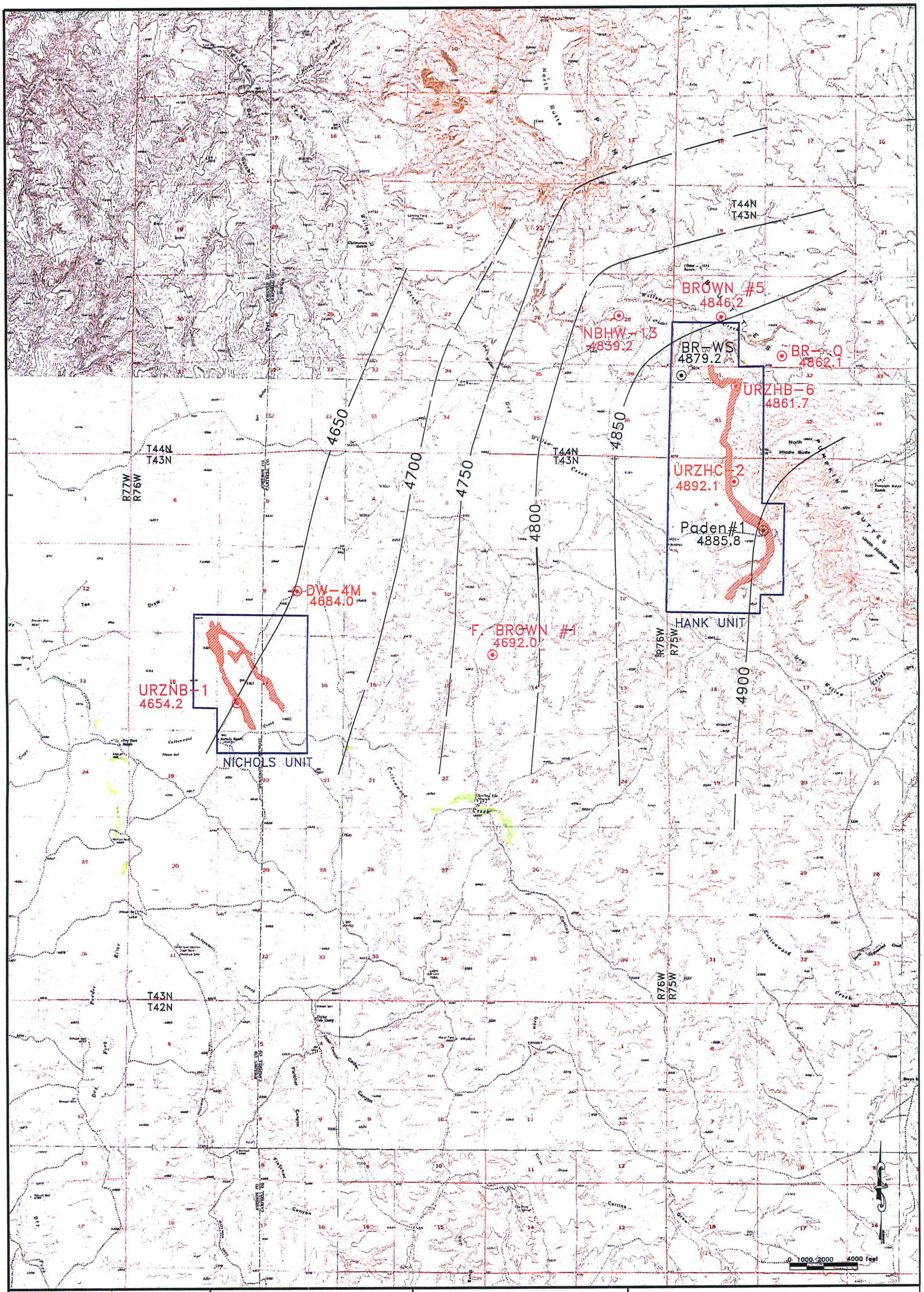
FIGURE D6-6a. REGIONAL WATER-LEVEL ELEVATION FOR THE 1 SAND AQUIFER, FT-MSL



By: lgrh	Date: 03/08
Contour Interval:	Revision Date:

DWG: C:\PROJECTS\2007-14\SANDS lgrh

LEGEND:
- WELLFIELD
- URZHC-2 — C SAND WELL
- BR-Q — B SAND WELL
- PADEN#1 — MULTI-AQUIFER, STOCK WELL

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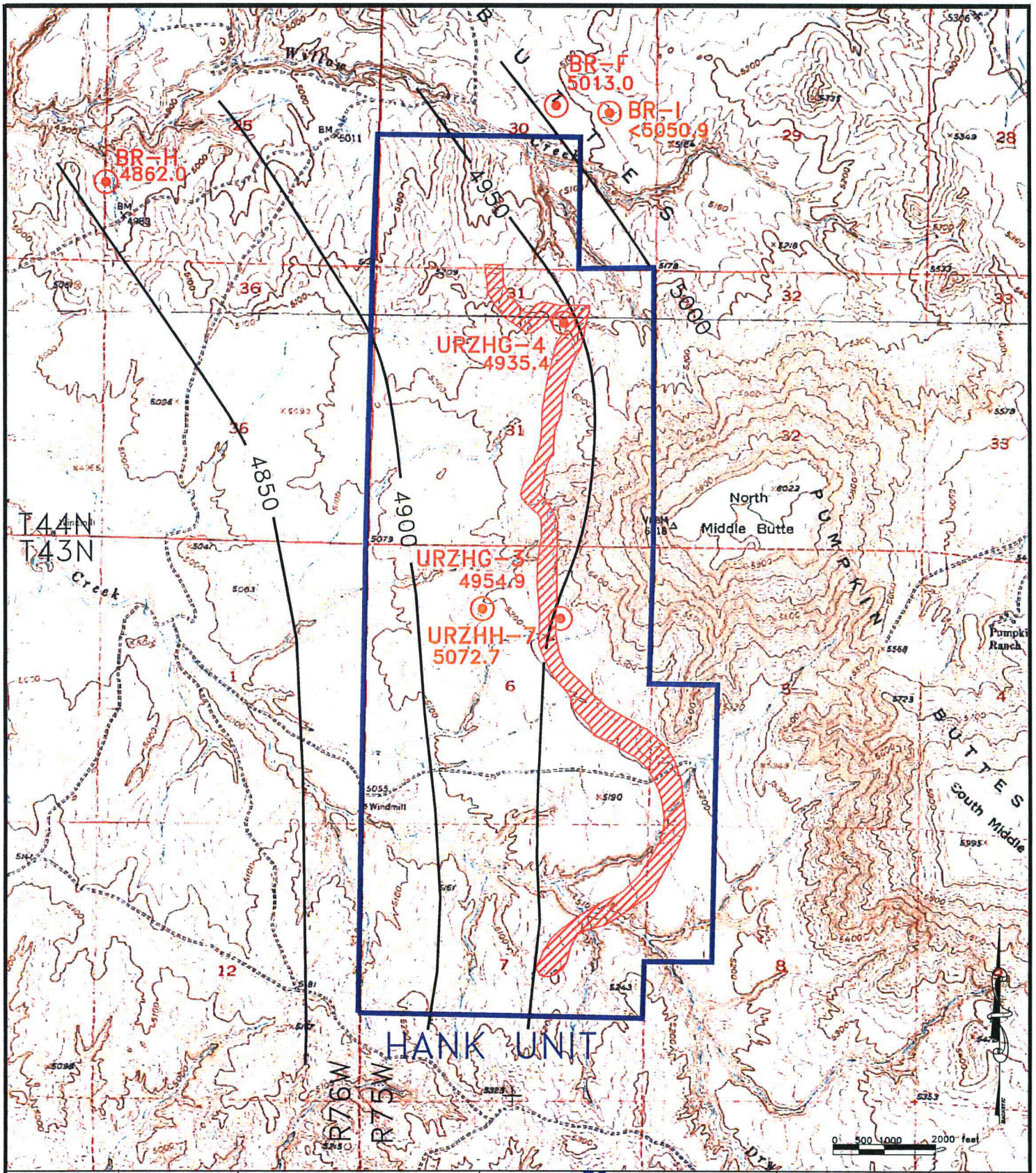
FIGURE D6-7. WATER-LEVEL ELEVATIONS FOR THE B & C SAND AQUIFERS, 2007, FT-MSL



By: lgrh	Date: 03/08
Contour Interval:	Revision Date:
DWG: C:\PROJECTS\2007-14\SANDS lgrh	

LEGEND:
- WELLFIELD
- BR-F G SAND WELL
- BR-I H SAND WELL

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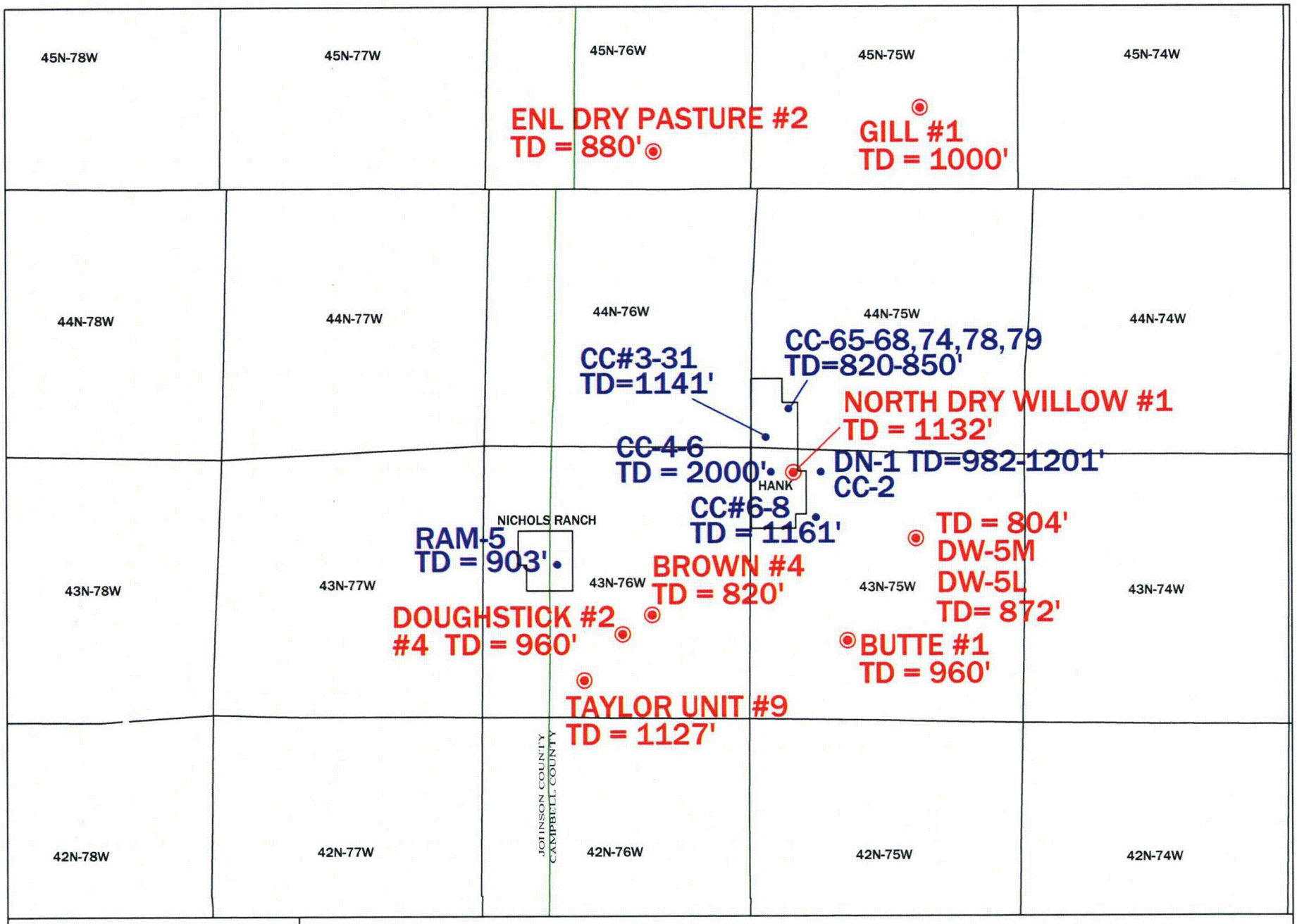
FIGURE D6-8. WATER-LEVEL ELEVATIONS FOR THE G & H SAND AQUIFERS, 2007, FT-MSL



LEGEND
- PERMITTED WELLS >800'
- DEEP DRILL HOLES >800'

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FIGURE D6-8a. DEEP WELLS & DRILL HOLES NEAR NICHOLS RANCH PERMIT

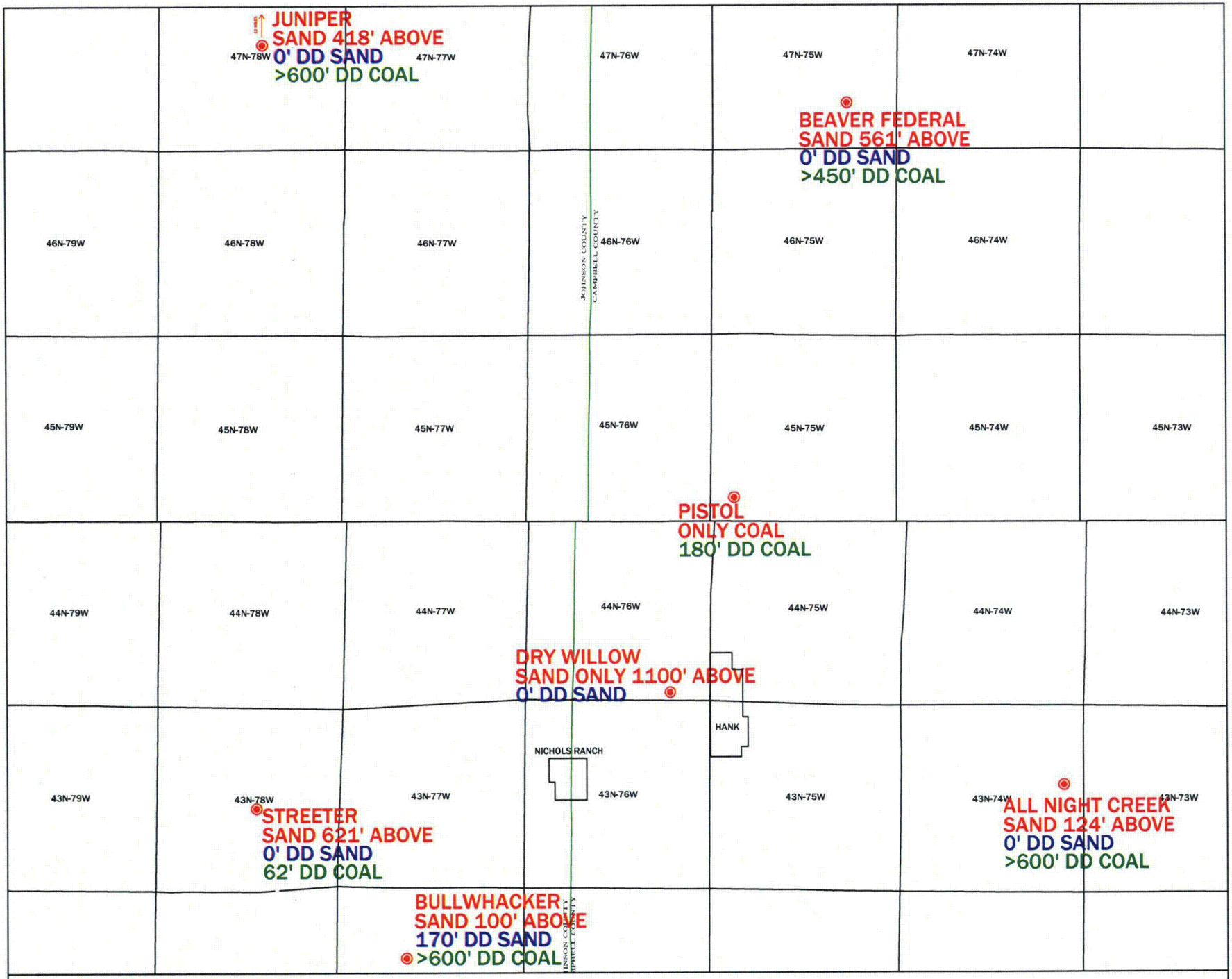

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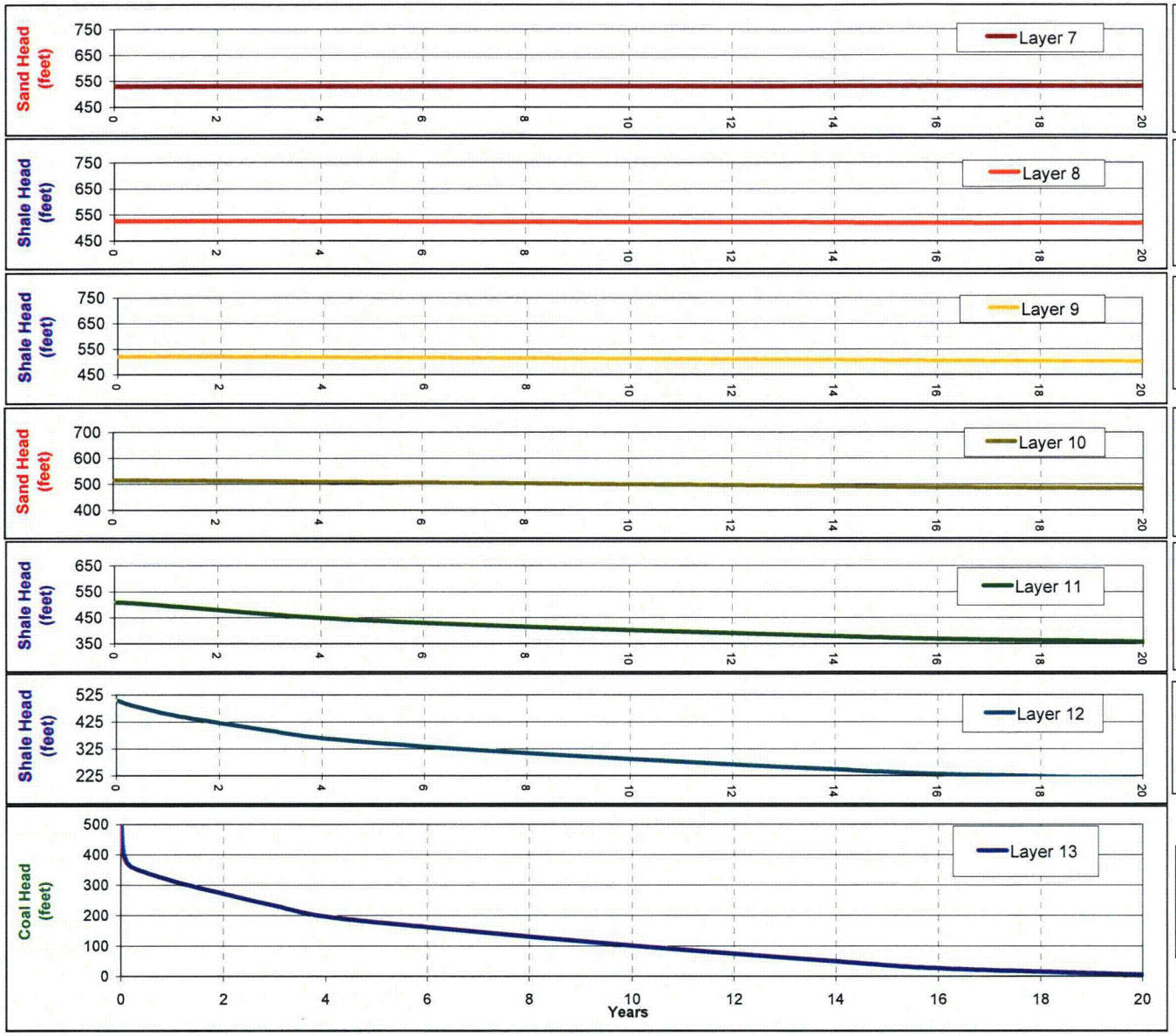
FIGURE D6-8b. LOCATION OF COAL BED MONITORING



40 foot thick sand
Transmissivity
= 424 gal/day/ft
Total drawdown = 0.1 feet

50 foot thick shale
Transmissivity
= 0.5 gal/day/ft
Total drawdown = 9.1 feet

50 foot thick shale
Transmissivity
= 0.5 gal/day/ft
Total drawdown = 19 feet

40 foot thick sand
Transmissivity
= 21 gal/day/ft
Total drawdown = 32 feet

20 foot thick shale
Transmissivity
= 0.5 gal/day/ft
Total drawdown = 154 feet

20 foot thick shale
Transmissivity
= 0.5 gal/day/ft
Total drawdown = 291 feet

40 foot thick coal
Transmissivity
= 21 gal/day/ft
Total drawdown = 493 feet

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Figure D6-8c. Predicted Water Level Changes In Coal and Overlying Layers