GeoSystems Analysis, Inc.
Innovations in Hydrology

January 7, 2010

Virgil Davis
Community Water Company of Green Valley
1501 S. La Canada Drive
Green Valley, Arizona 85622

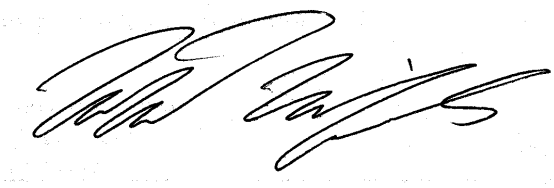
RE: Community Water Company Groundwater Recharge Project, Final Report

Dear Virgil,

Enclosed please find the final report for the Hydrogeologic Investigation on the Proposed Community Water Company Groundwater Recharge Project. The draft report was revised per comments received from ERO Resources Corp. on your behalf, and per comments received from Montgomery & Associates.

We appreciate the opportunity to assist Community Water Company with this project. If you have any questions, please do not hesitate to give us a call.

Sincerely,



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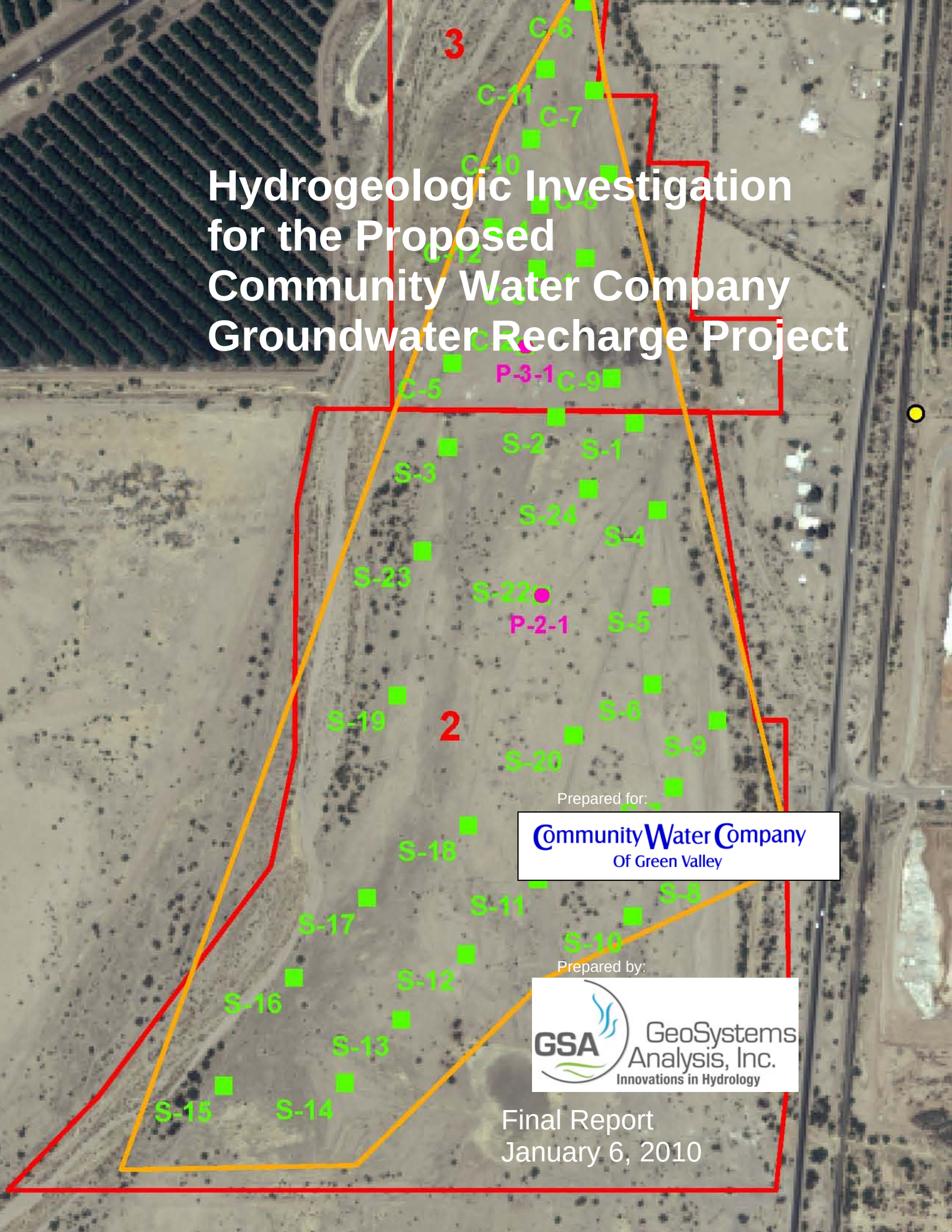

Hydrogeologic Investigation for the Proposed Community Water Company Groundwater Recharge Project

Prepared for:

Community Water Company
Of Green Valley

Prepared by:

GSA GeoSystems Analysis, Inc.
Innovations in Hydrology

Final Report
January 6, 2010

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EXECUTIVE SUMMARY

This hydrogeologic feasibility report has been prepared in support of the Environmental Assessment for the proposed 7,000 acre-feet per year Community Water Company (CWC) groundwater recharge facility located near Green Valley, Arizona. Two potential sites on adjacent land parcels (Parcels 2 and 3) near the proposed terminus of the Central Arizona Project pipeline have been selected for hydrogeologic feasibility investigation.

Hydrogeologic investigative efforts were focused on a two-mile radius around Parcels 2 and 3 (focused study area). A literature review was conducted to identify and summarize pertinent recharge related data on the surface, vadose zone, and the upper groundwater aquifer within the focused study area. Site-specific data collection focused on collecting soil samples and conducting in-situ hydraulic property testing to a depth of approximately 10 ft below ground surface (bgs), and drilling, coring, and geologic logging of two exploration boreholes to a depth of 100 ft (bgs). In addition, laboratory hydraulic testing was conducted on borehole samples as well as on several surface and near-surface grab samples.

Hydrogeologic strata within the focused study area include the Recent Alluvium, Fort Lowell formation and possibly the Upper Tinaja beds. The Recent Alluvium is considered to be highly permeable but generally shallow (0 to approximately 50 feet bgs) within the upper vadose zone; the exact contact with the Fort Lowell formation at parcels 2 and 3 is not known. The Fort Lowell formation underlies the Recent Alluvium to depths of several hundred feet bgs. It is the primary aquifer within the focused study area and where recharge water will be stored. The Upper Tinaja beds are generally finer-grained than strata within the Fort Lowell Formation and consequently are considered to be a less productive, though an important aquifer within the study area. Local aquifer test data indicate that the permeability of the underlying aquifer ranges from 40 to 740 gpd/ft^2, which is consistent with published literature on the Fort Lowell Formation and Upper Tinaja beds.

Groundwater elevation contours in the vicinity of parcels 2 and 3 generally show groundwater moving in a northwesterly direction. In the southern portion of Parcel 2 this trend is disrupted by a pumping well (in the Quail Creek area) located approximately 1.5 miles south of Parcel 2. Depth to groundwater beneath Parcels 2 and 3 is approximately 200 to 230 ft bgs. The estimated change in depth to groundwater within a six mile radius of the parcels in the ten years preceding 2005-2007 indicate that, of 55 wells, 44 showed declines between 2.4 and 66.5 ft (mean decline of 21.9 ft) and 11 showed recoveries between 2.8 and 68 ft (mean recovery of 27.9 ft). Wells showing water level increases over this time period are located adjacent to the Pima Mine Road Recharge Project (PMRRP).

Native groundwater within the study area typically contains less than 500 mg/L total dissolved solids (TDS), and is a calcium sodium bicarbonate type. Agricultural drainage, treated wastewater effluent recharge, and tailings leachate from local sources have increased the concentrations of TDS, sulfate and nitrate in several nearby wells. Seven wells with recent available groundwater quality data were identified within a 2-mile radius of Parcels 2 and 3. In general, EPA Primary and Secondary MCLs were met and only exceeded the primary standards for arsenic and nitrate and secondary standards for TDS on occasion in two wells. CAP water is sodium-sulfate dominated with generally higher TDS and sulfate concentrations than native groundwater. Groundwater recharge of CAP water should improve the local water quality for nitrate and arsenic, maintain current water quality conditions for other analytes and help reduce the impacts of groundwater inputs from local agricultural, mining and wastewater effluent sources.

Site specific investigations consisted of thirty six backhoe test pits excavated and geologically logged using visual-manual methods. A fine-grained surface soil extends across both sites to depths ranging from 1 to 3 ft bgs in Parcel 2, and 3 to 5 ft bgs in Parcel 3. This soil layer was underlain by coarse-grained sand and gravel extending at least to the bottom of the soil pits to depths ranging from 8 to 11 ft bgs. A significant portion of Parcel 3 contains fill material in the near-surface and above-ground stockpiles.

Cylinder infiltrometer tests, which yield effective field saturated hydraulic conductivity (K) values were conducted in surface soils adjacent to the backhoe pit locations and in varying subsurface soils on benches within soil pits. The geometric mean of K values for the fine-grained surface soil were generally low (approximately 1 ft/day) and indicate that these soils should be removed as part of recharge basin construction. The geometric mean of K values for the underlying coarse-grained sandy soils (approximately 6 to 8 ft/day) are very favorable for basin infiltration and should be targeted for the bottom of recharge basins.

Two CWC vadose zone borings (P-2-1 and P-3-1) were drilled, cored and geologically logged to approximately 100 ft bgs. Using the field geologic logs and laboratory test results, the subsurface sediments were classified into three hydrostratigraphic units based on the amount of silt and clay (fines) present. Unit 1 was defined as material with <10% fines, Unit 2 with 10 to 30% fines, and Unit 3 with >30% fines. Within Parcels 2 and 3, coarse-grained, high-permeability Unit 1 deposits are at least 50 ft thick and overlay a relatively thin (≤10 ft thick) fine-grained, low permeability, Unit 3 layer present at approximately 60 ft bgs in the vicinity of P-2-1 and P-3-1. Additional thin Unit 3 fine-grained layers are interbedded between coarse-grained Unit 1 layers from approximately 70 to 100 ft bgs.

Based on laboratory testing of drill core samples, Unit 1 material should have saturated hydraulic conductivity (Ksat) values equivalent to or exceeding the 6 to 8 feet/day observed in the coarse-grained surface soils; whereas, the Unit 3 material has Ksat values several orders of magnitude lower. Consequently, the Unit 3 layer(s) at 60 ft bgs have the potential to cause recharged water to perch and move laterally; however, the lateral extent of this layer(s) is currently unknown. Because this Unit 3 layer is relatively thin (< 10 ft) and the Unit 1 high permeability layer is thick, recharged water is expected to move laterally and then downward in a "stair-step" fashion as the thinner fine-grained Unit 3 layers "pinch out".

A review of other CAP recharge projects within the Santa Cruz River floodplain indicates that average recharge rates into coarse grained sediments underlying these sites range from 2 to 7 feet/day. Fine-grained layers within the upper vadose zone have been observed to cause recharge water perching and lateral movement, but have not impeded recharge operations if they are sufficiently deep (i.e. > 50 feet). In the case of the PMRRP, lateral perched water movement from their pilot basins toward an active gravel pit is controlled through monitoring and recharge operation management. Groundwater and perched water mounding that may occur from the proposed CWC recharge project is likely to be lower than that observed at the PMRRP because: 1) groundwater elevations are deeper (200 to 230 ft bgs); 2) there are fewer and thinner fine-grained units within the upper 100 ft bgs; and 3) recharge rates will be approximately half of the recharge rates at the PMRRP pilot project basins.

Initial estimates of the acreage needed to recharge 7,000 acre-feet/year assumes 270 days of inundation per year, which allows for 25% resting (drying) of the basins. This resting cycle period should be sufficient to dry out accumulated clogging layers and maintain high infiltration rates with only periodic (i.e. annual) cleaning of the basins. Assuming a very conservative infiltration rate of 2 feet/day, 13 acres would be required for 7,000 ac-ft/year. A higher infiltration rate of 3 feet/day, which is approximately 50% of the observed K values for the coarse-grained surface soils, would require only 9 acres of basins.

Upon selection of the final location of the proposed recharge project site, additional exploration boreholes are recommended to define the lateral extent of the Unit 1 and Unit 3 layer(s) below the site. In addition, groundwater monitoring wells, and if necessary a perched water piezometer(s), are recommended for compliance monitoring purposes.

1.0 INTRODUCTION

This report describes the methods and results of a two-phase hydrogeologic feasibility study conducted by GeoSystems Analysis, Inc. (GSA) for the proposed Community Water Company (CWC) recharge facility located near Green Valley, Arizona. Phase 1 of this study was a preliminary evaluation of the site for suitability for recharge of 7,000 acre-ft/year. The area under consideration consists of two adjacent parcels of land (Parcels 2 and 3) located near the planned terminus of the CAP pipeline as shown in Figure 1-1. Parcels 2 and 3 were selected for further evaluation in a preliminary site screening study as described in GSA (2009).

Phase 1 activities included summarizing existing recharge-related near-surface soils data and underlying subsurface hydrogeologic data in the vadose and groundwater zones under the two parcels. In addition, a field investigation was conducted in both parcels to determine potential infiltration rates at the near-surface (to approximately 10 ft bgs) and soil samples were collected for laboratory physical and hydraulic property testing.

Phase 2 activities included drilling, sampling, and geologic logging of two exploratory boreholes, both approximately 100-ft deep, one of which was drilled in Parcel 2 and the other in Parcel 3. In addition, laboratory hydraulic testing of core samples from each borehole was conducted to evaluate the permeability of major vadose zone textural layers below the upper several feet of soils to 100 ft bgs. These data, in turn, were used to evaluate the potential of the upper half of the vadose zone (e.g. several feet bgs to 100 ft bgs) to accept 7,000 acre-ft/year of recharge water without excessive mounding and lateral spreading.

This report includes much of the information and data required in an Underground Storage Facility Permit (USF) Report as described in ADWR (2006). The objectives of this report are to:

- Describe the recharge source water and assess the potential impacts to existing groundwater quality.
- Describe the geologic and hydrologic characteristics of the near-surface and shallow sub-surface vadose zone at the parcels of interest.

Sections in this present report include: Section 2 – Site Description, Section 3 – Source Water Description, Section 4 – Hydrogeology, Section 5 - Summary and Conclusions, and Section 6 – References.

2.0 SITE DESCRIPTION

The potential CWC groundwater recharge sites include an approximately 109- acre site owned and managed by Arizona State Land Department (Parcel 2, T17S R13E S36), and an approximately 33-acre site owned and managed by Pima County (Parcel 3, T17S R13E S25) (Figure 1-1). Both sites are located in Arizona in southern Pima County on the gently sloping (Figure 2-1) flood plain adjacent to the Santa Cruz River within the Upper Santa Cruz Basin and the Tucson Active Management Area. Figure 1-1 shows the site locations of Parcels 2 and 3, referred to in this report as the focused study area, and an approximately 2-mile radius about the midpoint of the east-west boundary between Parcels 2 and 3 that defines the expanded study area.

Since Parcels 2 and 3 and the surrounding area are within the Tucson Active Management Area, it is generally well characterized by the Tucson Basin hydrostratigraphy studies as described in depth by numerous researchers. Applicable portions of Tucson Basin technical reports will be cited in the following sections.

3.0 SOURCE WATER DESCRIPTION

Water for recharge will be supplied through the Central Arizona Project (CAP), which delivers Colorado River water stored in Lake Havasu and Lake Pleasant near the Arizona-California border through a system of conveyances to points in Maricopa, Pinal, and Pima counties (CAP 2009a). An extension of the CAP pipeline would run south from its present terminus at Tucson Water's Pima Mine Road Recharge Project (PMRRP) to a site near Parcels 2 and 3 as shown in Figure 1-1. The CAP Colorado River water allocation is approximately 1.5 million acre-ft/year (CAP 2009a). CAP water available to CWC for recharge will be 7,000 acre-ft/year.

CAP water quality is monitored through scheduled collection and commercial laboratory testing of grab samples at six sites along the system and by sensors installed at three locations to provide real-time water quality readings. The results of laboratory testing and sensor data are reported at the CAP website (CAP 2009b). The CAP sampling location nearest the proposed recharge site is at the San Xavier Pump Plant (CAP 2009b). Appendix 1 includes the 2008 water quality report for this site.

Repeated testing of CAP water has shown it to meet both U.S. Environmental Protection Agency (EPA) Safe Drinking Water Act (SDWA) standards and Arizona Department of Environmental Quality (ADEQ) aquifer water quality standards (AWQS). CAP water is sodium-sulfate dominated. The primary concern with chemical quality has been the total dissolved solids (TDS) concentrations, which are caused by high levels of calcium, magnesium, sodium, bicarbonate, and sulfate. EPA and ADEQ have not set enforceable regulatory thresholds for these constituents, although EPA has unenforceable secondary standards for TDS and sulfate (500 and 250 mg/L, respectively). The 2008 monthly values at the San Xavier Pump Plant slightly exceed these thresholds, with TDS measurements between 602 and 722 mg/L and sulfate values from 250 to 280 mg/L (Appendix 1).

4.0 HYDROGEOLOGY

The hydrogeologic assessment included a review of literature on near-surface soils and subsurface hydrogeology, as well as the creation of tables, maps, and hydrogeologic cross-sections showing subsurface geology, soil hydraulic characteristics, depth to bedrock, and depth to water.

Soils in the proposed recharge basin study area were evaluated for the presence of soil types that could limit infiltration and, ultimately, recharge. Surface geology descriptions from the literature and from geological mapping of the area were similarly evaluated. In addition, literature on the subsurface geology and hydrology of both the focused and expanded study area was reviewed for the purpose of identifying potentially recharge-limiting hydrostratigraphic units.

Finally, a series of backhoe test pits were excavated on Parcels 2 and 3 and two boreholes were drilled to evaluate the lithologic properties of the near-surface (10 ft bgs) and shallow vadose zones (0 to 100 ft bgs). Cylinder infiltrometer tests were performed adjacent to, and within the test pits to determined hydraulic conductivities of these near surface soils. Driven core samples from the test pit areas and boreholes were also tested for laboratory hydraulic conductivity to provide additional data on the hydraulic properties of the subsurface.

4.1 Geologic Conditions – Soil and Quaternary Surficial Deposit Data

4.1.1 Soil Map Units and Relevant Permeability and Texture Data

Figure 4-1 was created from soil maps and from soil phase permeability (saturated hydraulic conductivity) data extracted from Gelderman (1972) and summarized in Table 4-1 for the expanded (2-mile radius) study area. Figure 4-1 shows that approximately half the surface area in the focused study area (i.e. Parcels 2 and 3) is occupied by soil phases exhibiting high and medium permeability ranges. The remaining approximately half of the surface area in both parcels is occupied by lower permeability soil phases.

Table 4-1 also summarizes particle size distribution data for percent fines (silt plus clay) for different soil permeability categories in the expanded study area. Although there is overlap in the range of percent fines for different permeability categories, data in Table 4-1 suggest that there is, in general, an inverse relationship between percent fines and permeability. This has been observed by numerous investigators (Todd, 1980).

4.1.2 Surficial Deposit Map Units and Relevant Data

Figure 4-2 shows the quaternary surficial deposit map units observed in Parcels 2 and 3 as well as in the expanded study area as extracted from Pearthree and Youberg (2000). Table 4-2 summarizes a number of surficial geology factors related to soil permeability as described in detail in Pearthree and Youberg (2000). These factors include alluvial deposit age and related soil development, near-surface low-permeability horizons/layers, landform type, and topographic elevation. Surficial geologic data in Table 4-2 were used to define the qualitative permeability categories of surficial geologic map units as shown in Figure 4-2 (i.e. low, moderate to moderately high, and high permeability).

These categories generally support the permeability ranges of soil phases and series listed in Table 4-1. For example, the very young river deposits (Qycr, modern river deposit) and the adjacent young flood plains and terraces (Qyr, Holocene) completely cover Parcels 2 and 3 and are generally found to exhibit higher permeabilities than older fans and terraces, which are, in most cases, located at higher topographic elevations. The very young deposits (Qycr, less than 100 years old) correspond to Riverwash soil series deposits in Parcels 2 and 3; where as the slightly older flood plain and terrace deposits (Qyr, Holocene < 10,000 years) correspond to Arizo and Brazito soil series in Parcels 2 and 3.

In the expanded study area, surficial Holocene geologic unit Qy corresponds, in most cases, to the moderately-permeable Anthony soil series which are found on piedmont stream channel and terrace deposits at elevations above the river flood plain. Older surficial deposits include the relatively old, highly-eroded, and dissected fans (QTs, Early Pleistocene to Pliocene); and progressively younger and less dissected terrace and fan deposits (Qm, Middle Pleistocene; Ql, Late Pleistocene; and Qly, Holocene to Late Pleistocene). These older surficial deposits generally correspond to highly-developed (i.e. low permeability) Sonoita soil phases.

4.1.3 Surficial Deposits and Flood Hazards along the Santa Cruz River

Large floods in the historical record along the Santa Cruz River have inundated flood plain areas and some low-lying adjacent terraces (Qyr deposits) at locations where the Santa Cruz River channel (Qycr) is not deeply entrenched (Pearthree and Youberg, 2000). This inundation has likely occurred along the river channel in the vicinity of Parcel 2 and to a lesser extent in Parcel 3 where the Santa Cruz River is slightly more entrenched. Consequently, along the western boundaries of Parcels 2 and 3, flood control barriers (berms) would be required to protect future recharge basins. Excavation and removal of 1 to 5 ft of relatively fine-grained surface soils from recharge basin foot prints (See Section 4.3.1.4)

could potentially yield enough soil material for berm construction. However, engineering assessments regarding the suitability of excavated soils for berm construction and berm design are outside the scope of this report.

In addition to flooding of the low-lying flood plain and adjacent terraces, a small amount of bank erosion is observable in the slightly entrenched Santa Cruz River channel that parallels most of the western boundary of Parcel 3. Santa Cruz River channel entrenchment and associated bank erosion is not evident in the braided channel that dissects Parcel 2.

4.2 Geologic Conditions – Subsurface Geology

4.2.1 Depth to Bedrock

Oppenheimer and Sumner's (1980) depth-to-bedrock map was used to approximate depth to bedrock beneath the focused and expanded study areas. Figure 4-3, extracted from Oppenheimer and Sumner (1980), shows that Parcels 2 and 3 lie on the west side of a deep and steeply-dipping basin with the depth of bedrock approximately 1,400 ft bgs. The depth to bedrock in the expanded study area ranges from approximately 4,000 ft bgs to the east to approximately 900 ft bgs to the west. The basin fill deposits will be described briefly in the following hydrostratigraphy section.

4.2.2 Hydrostratigraphy

The permeability of geologic layers overlying and within the aquifer determines the potential rate of recharge and water storage capacity beneath a recharge facility. Literature on the hydrogeology of the southern central Tucson Basin was reviewed with particular attention to the vadose zone and uppermost aquifer units. Hydrostratigraphic information pertinent to the focused study area (Parcels 2 and 3), and to the expanded 2-mile radius study area, is described below. More detailed vadose zone hydrostratigraphic data and discussion, based on parcel specific field investigations and several nearby wells, are presented in Section 4.3.2.

An interpretation of Tucson Basin stratigraphy was developed by Davidson (1973) based on examination of geologic data from numerous water supply and test wells, and was later revised by Anderson (1987). In general, Davidson and Anderson identify four major hydrostratigraphic units: surficial alluvial deposits, the Fort Lowell formation, the Tinaja beds, and the Pantano formation. The Fort Lowell formation and the Tinaja beds are considered to be the primary aquifer.

Figure 4-4 shows a map locating hydrostratigraphic cross-sections to be discussed in the following sections of this report. Cross-section I–I', created by Davidson (1973), is oriented approximately 50 degrees east of N, covers approximately 7.2 miles, and is presented in Figure 4-5. Logs showing percent coarse deposits (sand plus gravel) estimated by Davidson are presented in cross-section I-I' (Figure 4-5).

Well (D17-14)30aca is the southernmost well in cross-section I-I' and is located approximately 1 mile NE of exploratory boreholes P-2-1 and P-3-1 in Parcels 2 and 3 and also approximately 1 mile in the N 30 degrees E direction from the Staker Parsons gravel pit well (583888) (Figure 4-4). Based on the observed presence of all four hydrostratigraphic units identified by Davidson (1973) in well (D17-14)30aca, and the fact that all four units are also present in three other Davidson's (1973) cross sections that pass beneath the Santa Cruz River north of Parcels 2 and 3, suggest that the four Davidson/Anderson hydrostratigraphic units likely exist beneath Parcels 2 and 3.

Groundwater elevation data from the study area indicate that the upper aquifer generally is within the lower portion of the Fort Lowell formation, and the vadose zone likely consists of surficial alluvium underlain by the upper part of the Fort Lowell formation. Unfortunately the thickness and infiltration related properties of the surficial alluvium and the upper portion of the Fort Lowell formation are not clearly distinguishable in the vicinity of Parcel 2 and 3 as described below in Section 4.2.2.2. As a result, geologic logs and driller's logs were used to assign three hydrogeologic units, based on estimated percent fines (silt plus clay) in drill cuttings, to depth intervals in each well/borehole shown in cross-section A-A' (Figure 4-6). Cross-section A-A' extends approximately 2.3 miles in an approximately NE direction, and passes through Parcels 2 and 3. Logs for wells included in cross-section A-A' are reproduced in Appendix 2. These logs were used to define the following three hydrogeologic units :

- Unit 1: High Permeability - less than 10% fines
- Unit 2: Moderate Permeability - 10% to 30% fines
- Unit 3: Low Permeability - greater than 30% fines

4.2.2.1 Surficial Deposits

The following description of surficial deposits includes the total thickness of the alluvial deposits penetrated by wells/boreholes. This description differs from that of Pearthree and Youberg (2000), which was based on aerial photo interpretation and shallow soil pits and

road and stream cut exposures, and therefore does not consider the entire thickness of the surficial alluvium.

Within the focused study area (Parcels 2 and 3), relatively thick coarse-grained high-permeability sand and gravel, surficial Holocene river channel and flood plain (Unit 1) deposits are at least approximately 50 ft thick as shown in geologic logs from exploratory boreholes P-2-1 and P-2-3 and presented in Figure 4-6 and Appendix 2. Figure 4-6 also shows that these upper, relatively thick, coarse-grained Unit 1 deposits appear to extend from boreholes P-3-1 and P-2-1 to the east through the Gravel Pit well, and to the southwest towards the GV-01 (509603) well.

In each of the above-mentioned wells, a finer-grained, lower-permeability Unit 3 or Unit 2 potential perching layer underlies the upper, thick, coarser-grained, high-permeability Unit 1 layer. The fine-grained layers observed in P-2-1 and P-3-1 are thinner than the comparable fine-grained layer in wells GV-01, Gravel Pit. Consequently, infiltrating water from recharge basins in Parcels 2 and 3 may be able to move downward in a "stair-step" fashion as these thinner, finer-grained layers "pinch out". Potential flow pathways in the upper approximately 100 ft of the vadose zone will be discussed further in Section 4.3.2.

Within the expanded 2-mile radius study area, to the west and east of Parcels 2 and 3, older and higher-elevation terrace and alluvial fan stream deposits on the Sierrita and Santa Rita piedmonts are generally more compacted and cemented than are younger and lower elevation river related deposits (Davidson, 1973). These older, higher-elevation deposits may not be favorable for groundwater recharge in basins.

4.2.2.2 Contact between Surficial Deposits and the Fort Lowell Formation

Well GV-01 in cross-section A-A' (Figure 4-6), well GV-02 (509604) located approximately 1,000 ft NW of well GV-01, and the southern most well in cross-section I-I' (well (D17-14)30aca) (Figure 4-5), show that it is not possible to clearly distinguish between surficial alluvium and Fort Lowell formation deposits in the logs for wells in the vicinity of cross-section A-A' (Figure 4-6). The geologic log produced by Davidson (1973) for end member well (D17-14)30aca in cross-section I-I' (Figure 4-5) shows the Fort Lowell formation to be approximately 200 ft thick and overlain by approximately 50 ft of surficial alluvium.

Wells GV-01 and GV-02 have detailed field geologic logs that include colors, predominant minerals in gravel clasts, and estimated percentages of fine (silt and clay) and coarse (sand and gravel) particle size fractions (Appendix 2). Since Davidson (1973) considered light and dark reddish-brown deposits to be typical of the Fort Lowell formation, an attempt was made

to use the color of drill cuttings described in geologic logs for GV-01 and GV-02 to identify the location of the contact between surficial alluvium and the underlying Fort Lowell formation. Reddish-brown gravel layers were first observed to occur between 17 and 20 ft bgs in GV-01 and between 25 and 45 ft bgs in GV-02. Extensive reddish-brown clay layers were observed to first occur between 220 ft bgs and total depth at 230 ft bgs in GV-01 and to occur between 145 and 75 ft bgs in GV-02. Assuming the first appearance of red drill cuttings are the surficial alluvium/Fort Lowell formation contact, this contact ranges from 17 to 25 ft bgs in wells GV-01 and GV-02. This contact depth range is significantly shallower than estimated by Davidson (1973) for well (D17-14)30aca).

4.2.2.3 Fort Lowell Formation/Upper Tinaja Beds

The Fort Lowell Formation is a productive water-bearing unit in which the water table is most often located (Davidson, 1973). Its depth and thickness beneath a potential basin site will influence the storage potential and infiltration rate for that basin. The Fort Lowell Formation is a locally-derived sedimentary deposit unconformably overlain by younger surficial deposits and unconformably overlying the older Tinaja Beds in most of the Tucson Basin (Davidson 1973, Anderson 1987). The thickness of the Fort Lowell deposits ranges from approximately 200 to 275 ft along cross-section I–I' (Figure 4-5). The water table shown in Figure 4-5 along transect I–I', which is based on pre-1973 data plotted by Davidson (1973), is approximately 100 ft higher than its present day level. Present day water levels (approximately 200 ft bgs – See Section 4.5.1) are located in the lower portion of the Fort Lowell Formation within approximately 70 ft of the Upper Tinaja beds in the southernmost well of cross-section I-I'.

It is not possible to distinguish between the Fort Lowell Formation and the Tinaja beds in cross section A–A' (Figure 4-6). However, in cross section I–I' (Figure 4-5), the depth of the Fort Lowell/Tinaja beds contact is estimated to range from approximately 250 to 325 ft bgs. It should be noted that, in well (D17-14)30aca (Figure 4-5), all but approximately 50 ft of the Tinaja beds has been eroded as a result of being located on the up-thrown side of the Santa Cruz fault. The original thickness of the Tinaja beds in this well prior to the Santa Cruz fault is estimated in to be more than 1,600 ft (Figure 4-5). If the Tinaja beds extend beneath Parcels 2 and 3, it expected that a similar truncation of the Tinaja beds has occurred in this focused study area.

According to Davidson (1973), the particle size distribution in the Upper Tinaja beds is often similar to the Fort Lowell Formation; however, overall the Fort Lowell typically contains coarser material than the Tinaja beds. Figure 4-5 shows that this is the case for the lower portion of the Fort Lowell formation in well (D17-14)30aca, but not the case for the upper

portion of the Fort Lowell in this well. The upper approximately 100 ft of the Fort Lowell in well (D17-14)30aca shows that the percentage of coarse-grained material ranges from 10 to 20% and the percentage of fines ranges from 80 to 90%. The lower approximately 100 ft of the Fort Lowell exhibits a percentage of fines that ranges roughly from 60 to 70%.

It should be noted that the actual percentage of coarse deposits (sand and gravel) may be under-estimated by Davidson (1973) and the percentages of fine deposits (silt plus clay), determined by subtraction, over-estimated. Based on GSA experience (GSA 2000) mostly near the upslope margin of the basin, the percent fines material may have been over-estimated by Davidson (1973) by as much as 30 to 40%. However, as mentioned above, Davidson (1973) postulated that the percent fines fraction are expected to increase in Fort Lowell deposits towards the center of the basin and to decrease towards the upslope margin of the basin. Although the actual percentage may or may not be in error, the relative change in percentages with depth is likely representative of subsurface deposits.

4.3 Hydrologic Characteristics – Vadose Zone

Site-specific investigations were conducted to determine both near-surface and shallow vadose zone characteristics.

4.3.1 Surficial Soil Field Testing and Discussion

Methods of excavation, sampling, and geologic logging of soil test pits, and of cylinder infiltrometer testing and data analysis are described below. Geologic logs recorded for test pits are in Appendix 3. The actual total acreage of the portion of each parcel that was characterized by soil pits and cylinder infiltrometer testing is 80 and 18 acres for Parcels 2 and 3, respectively. This acreage is defined by the orange boundaries around test pits in Parcels 2 and 3 (Area of Interest) in Figure 4-7.

4.3.1.1 Subsurface Lithology Observed in Backhoe Test Pits

A total of 24 pits were excavated with a backhoe in Parcel 2 and 12 pits excavated in Parcel 3 between September 8 and 12, 2009 (Figure 4-7). The depths of the pits were 6 to 12 ft bgs and usually between 8 and 11 ft bgs. In most cases, digging was stopped before 10 ft bgs when the walls of the pit became unstable and caved in. Composite grab samples from pits were collected at 1 to 2 ft intervals for geologic logging. Geologic logs of all test pits are found in Appendix 3. Field classification of soils was performed at each test pit location from the ground surface to the bottom of the pit using visual-manual methods (ASTM D-2488). Samples of representative soils were collected for laboratory analyses.

The backhoe test pits revealed relatively consistent soil profiles. In Parcel 2, the upper 1 to 4 ft bgs was generally either a fine sandy silt or silty sand. Underlying the surface material was higher permeability sand and sandy gravel to approximately 10 ft bgs. The same profile was observed in Parcel 3, but the finer silty material was generally thicker ranging between 2 and 5 ft bgs. The depth to the higher permeability sand is shown in Figure 4-8 for both parcels. A large portion of Parcel 3 has fill material (Figure 4-8) and in some areas, also has a considerable amount of stockpiled fill material (above the ground surface) on site.

Figures 4-9 through 4-12 show photographs of various components of the test pit investigation, including cylinder infiltrometer tests, as described below.

4.3.1.2 Surface Soil Hydraulic Conductivity Observed from Cylinder Infiltrometer Tests

The cylinder (single-ring) infiltrometer method (Bouwer et al., 1999) provides an intermediate-scale measurement of the effective saturated hydraulic conductivity (K) in the tested material. K values provide a good estimate of the potential infiltration rate in the absence of surface clogging or restricted/compacted layers present deeper in the soil profile. A detailed discussion of the method and procedures is provided in Appendix 4. Cylinder infiltrometer tests were conducted in surface soils adjacent to the backhoe pit locations and in varying depths in subsurface soils on benches within the pits. A total of 23 tests were conducted in Parcel 2 with seven at the surface and 16 at depths between 1.7 and 3.3 ft bgs. A total of 13 tests were conducted at Parcel 3 with six at the surface and seven between 2.5 and 5 ft bgs.

The estimated K,from the cylinder infiltrometer measurements are presented in Table 4-3. Because hydraulic properties usually have log-normal distribution, the geometric mean was used to determine average K values. The K values of the finer-grained surface soils averaged 1.3 and 1.0 ft/day for Parcels 2 and 3, respectively (Table 4-3). The K values of the deeper sandy material averaged 8.6 and 6.2 ft/day for Parcel 2 and 3, respectively (Table 4-3). One test for Parcel 3 (location C-2) had three inches of the finer silty soil on top of the coarser sand. Removing this test from the calculated Parcel 3 average increases the K to 8.4 ft/day, which is very similar to the Parcel 2 average K value for the underlying sand material.

4.3.1.3 Estimated Surface Infiltration Rates and Required Basin Acreage Based on Surface Testing Results

Both parcels are capable of high recharge rates if the finer and lower-permeability surface soil is removed and the more permeable, coarser underlying sand material is targeted for the bottom of recharge basins. Exploratory boreholes P-2-1 and P-3-1, 100 ft deep and described

in Section 4.3.2, also indicate that thick fine-grained layers within the shallow vadose zone that could cause perching and impede recharge rates in Parcels 2 and 3 are not present.

The acreage needed to recharge 7,000 acre-ft/year is shown in Table 4-4 for different infiltration rates and assuming 270 days of inundation per year, which allows for 25% resting (drying) of the basins. GSA believes that the 25% resting with CAP water should be sufficient to maintain long-term infiltration rates. Assuming a very conservative infiltration rate of 2 ft/day, 13 acres would be required for 7.000 ac-ft/year total if the basins are operated, on average, 270 days/year, likewise a 3 ft/day average infiltration rate will require 9 acres of basins. A conservative estimate of 3 ft/day is approximately 50% lower than the cylinder infiltrometer measured rates 6 to 8 feet per day, and should allow for reduced infiltration rates from surface clogging of recharge basin floors, entrapped air and potential recharge rate restrictions to limit mounding above any fine-grained layers in the shallow vadose zone.

4.3.1.4 Preliminary Estimates of Required Excavation Depths

It is assumed that removal of the upper 1 to 5 feet of finer-grained surface soils will be necessary to access the underlying coarse-grained, high hydraulic conductivity, soils. Inspection of Figure 4-8 indicates that 23 of 24 test pits showed 2 feet or less, with the majority of test-pits with less than 1 foot, of fine-grained soils that will need to be excavated. Test pits with greatest surface soil depths were located on the northern and eastern boundaries of Parcel 2. Consequently, excavation of 2 ft or less of the fine-grained surface soil should remove unacceptable material from almost all of Parcel 2. Parcel 3 showed 6 out of 12 test pits with 3 feet or more of fine-grained soil or fill material, with only one test pit showing less than 2 feet of fine-grained material. Consequently, a 3 to 5 ft depth of excavation would be needed remove the fine-grained surface materials from in Parcel 3.

A similar analysis should be made once preliminary basin designs are selected for further evaluation. Actual areas occupied by basins may be considerably less than the entire portion of Parcels 2 and 3 that were characterized by test pits in this study. Once preliminary basin designs are developed, a cost-benefit analysis should be performed to select depth of excavation that is most beneficial to CWC.

4.3.2 Shallow Vadose Zone Borehole Drilling and Discussion

Figure 4-7 shows the focused study area including Parcels 2 and 3, and the location of two exploratory boreholes, P-2-1 and P-3-1.

4.3.2.1 Borehole Drilling, Coring, and Geologic Logging

Two vadose zone borings (P-2-1 and P-3-1) were drilled to approximately 100-ft bgs by Geomechanics Southwest, Inc. (Tucson, AZ) using a percussion-hammer casing-advance drilling system (TUBEX, 5.5-inch O.D. by 5-inch I.D. drill casing). Composite drill cuttings samples were collected over 5-ft intervals and approximately 1.5-ft long split spoon drive-core samples were attempted every 10 ft. Recovery of drive-core samples in approximately the upper 40 ft bgs in borehole P-3-1 was not successful due to the coarse texture (sands and gravels) and low water content of alluvial material penetrated.

Both drill cuttings and drive-core samples were geologically logged by GSA personnel using visual-manual methods (ASTM D 2488). Field estimates of plasticity were used to distinguish clay from silt in fine-grained soils. Field geologic log sheets for P-2-1 and P-3-1 are included in Appendix 2.

The split-spoon cores were contained in 2-inch diameter by 6-inch long metal sleeves and material from the exposed ends of each sleeve were geologically logged. Following geological logging, the ends of split-spoon samples were sealed with plastic end caps and duct tape to minimize water evaporation from the core.

4.3.2.2 Shallow Hydrostratigraphy

As presented in Section 4.2.2, hydrostratigraphic units were defined as Unit 1: High Permeability with <10% fines, Unit 2: Moderate Permeability with 10 to 30% fines, and Unit 3: Low Permeability with > 30% fines. Hydrostratigraphic units in exploratory boreholes P-2-1 and P-3-1 and well GV-01 as shown in the cross-section in Figure 4-6, were defined on the basis of the percent of fines estimated in drill cuttings and core samples in geologist's logs. Geologist's logs were not available from the remaining wells in the Figure 4-6 cross-section (Gravel Pit well, well 588039, and well 588121). For these wells, the percentage of fines in drilled depth intervals were qualitatively estimated from descriptions in driller's logs. Where no silt, clay, or cementation were mentioned, material in an interval was assumed to be Unit 1; intervals described as having "some" or "little" silt/clay/fines were assumed to be Unit 2; and those in which silt or clay were prominent were assigned to Unit 3.

Figure 4-6 shows that a thick (approximately 55 ft) interval of coarse-grained hydrostratigraphic Unit 1 is present in the upper 57 ft of P-2-1. A similar 52 ft Unit 1 layer is observed in P-3-1, except for the presence of a thin 2 ft layer of Unit 3 from 28 to 30 ft bgs. The thick Unit 1 coarse-grained, high-permeability layer in both these boreholes is underlain by 10 and 6 ft of Unit 3 fine-grained, low- permeability material in P-2-1 and P-3-1, respectively. The remaining portion of each borehole is composed mainly of Unit 1 layers interbedded with thinner Unit 3 layers in P-3-1 and thinner Unit 2 and 3 layers in P-2-1,

Assuming that the thin Unit 3 fine-grained low-permeability surface soil layers (2 ft and 5 ft thick) in P-2-1 and P-3-1, respectively, will be removed when constructing recharge basins, the underlying thick (greater than 50 ft) coarse-grained, high-permeability Unit 1 layers shown for P-2-1 and P-3-1 in Figure 4-6 will facilitate vertical infiltration as well as lateral movement above underlying fine-grained low-permeability Unit 3 perching layers.

Because of the relatively large distance between P-3-1 and P-2-1 to GV-01 and the Gravel Pit wells, the lateral extent of the coarse grained Unit 1 and the finer-grained Units 2 and 3 between these well points, are inferred by dashed lines in Figure 4-6. Complicating factors with extending these units include the likelihood that the Santa Cruz River channel, at some time in relatively recent history, was located between P-2-1 and the gravel pit. If the historic channel was significantly incised, it may have affected hydrostratigraphy to significant depths. For example, the river channel may have deposited numerous layers of Unit 1, 2, and 3 material in the upper approximately 50 to 100 ft bgs.

Walther's Law assumes that the length of a stratigraphic layer is positively correlated to the vertical thickness of that layer by a ratio that depends upon the energy of the depositional environment (Miall, 1984). Detailed mapping of hydrostratigraphic units in other sedimentary basin fill deposits in the southwestern United States has indicated that length-to-thickness ratios range from 40:1 to 100:1 for sand, silty sand, and silt layers (GSA, 1999). If similar length-to-thickness ratios exist at the CWC site, the calculated lateral distance across a 10 ft thick layer (i.e. the Unit 3 layer that underlies P-2-1 and P-3-1) would range from 400 to 1,000 ft. The higher value of 1,000 ft calculated from Walther Law is approximately half the distance between borehole P-2-1 and the Gravel Pit well (Figure 4-6), which suggests that this fine grained layer probably pinches out before reaching the gravel pit area. The lateral extent of the fine-grained layers observed in P-2-1 and P-3-1 should be confirmed with additional drill holes in Parcels 2 and 3.

It should also be noted that thick, very coarse continuous layers, such as the 50 plus feet of coarse-grained sediment observed in P-2-1 and P-3-1 will facilitate lateral movement of any perched water above a fine-grained layer in the down-dip direction. This lateral movement will reduce the height of any perched water mound beneath infiltration basins resulting from the fine-grained intervals. Moreover, if perched water moves far enough down-dip or cross-dip to encounter regions where the fine-textured layers "pinch out", the perched water will move or step downward through coarser-grained vadose zone material. Monitoring at various groundwater recharge sites (i.e. Milczarek et al.,2007) indicates that the inter-layered coarse- and fine-grained intervals typically found in alluvial sedimentary basins cause water to move downward in a "stair-step" fashion until it reaches the water table.

4.3.3 Hydrology-Related Laboratory Test Results

Results of the laboratory-measured hydraulic parameters (i.e. flow-related parameters) are presented in Appendix 5 and summarized in Tables 4-5, 4-6, 4-7, and 4-8. Standard laboratory test methods are referenced in Appendix 6.

4.3.3.1 Percent Fines and Hydrostratigraphic Unit Classification in Boreholes

The laboratory wet-sieve-measured particle size distribution results for percent fines (percent passing the #200 sieve) confirmed that field estimates of percent fines were reasonable approximations. The coefficient of determination (R^2 value) for linear regression of the field estimates versus laboratory measured values for 20 representative test pit grab samples, drill cuttings grab samples, and core samples is 0.89, as shown in Figure 4-13. Percent fines, sand, and gravel measured by wet sieve methods and hydrometer methods are presented in Table 4-5.

Wet-sieve laboratory test data for percent fines were also used to classify the 20 representative samples into hydrostratigraphic units. The hydrostratigraphic classifications based on laboratory measurements of percent fines compared very favorably with classifications based on field estimates (Table 4-5). Overall, hydrostratigraphic unit classifications based on field estimates were correct (i.e. matched laboratory classifications) in 16 out of 20 samples, or in 80 percent of sample pairs compared. Because of this high correlation between field estimates and laboratory test results, no attempt was made to adjust field estimates using the regression equation in Figure 4-13.

4.3.3.2 Water Content and Porosity

Table 4-6 shows results of laboratory testing on borehole cores for water content, bulk density, water-saturated porosity, and air-filled porosity. Gravimetric and volumetric water data determined for core samples from borehole P-2-1 show a slight overall trend of increasing value with depth below ground surface (Figure 4-14). No discernable trend in volumetric water content is observed for cores from borehole P-3-1; instead water contents vary significantly with depth (Figure 4-14). This is likely due to the presence of finer-textured layers interbedded with coarser-textured layers in the lower 50 ft of each borehole and not being present in the overlying 50 ft interval, and the fact that these coarse and fine layers were sampled more completely in P-3-1 than in P-2-1.

Saturated porosity was calculated for each sample in Figure 4-14 from dry bulk density data and an assumed particle density of 2.65 g/cm^3 as presented in Table 4-6. Both volumetric water content and saturated porosity are plotted for core samples from P-2-1 and P-3-1 in

Figures 4-15 and 4-16, respectively. The difference between water-saturated porosity and volumetric water content is equal to air-filled porosity (Table 4-6). Figure 4-15 shows that air porosity values ranged from 0.11 to 0.26 cm^3/cm^3 in core from borehole P-2-1. Similar trends were observed for core from borehole P-3-1, with the exception of the sample from 60 to 61 ft bgs where the volumetric water content was essentially equal to the saturated porosity. This near equivalence indicates that water in the fine-textured layer extending from 58 to 64 ft bgs in P-3-1 is nearly water saturated, and likely will cause perched water conditions from recharge basins above this layer. The average air porosity for seven finer-grained Unit 2 and Unit 3 core samples was 0.11 cm^3/cm^3, compared to an average air porosity for the six coarser-grained Unit 1 core samples of 0.26 cm^3/cm^3 (Table 4-6). These differences in average air porosity values are mainly related to percent fines whereby water drains readily from the coarse-grained samples, but does not drain readily from the finer-grained samples. These data also indicate that recharge water will flow readily through the coarser grained samples while being retained by the finer grained material.

4.3.3.3 Laboratory Saturated Hydraulic Conductivity (Ksat)

Table 4-7 shows laboratory Ksat results for core and repacked samples assigned to different hydrostratigraphic units. Unit 1 samples show the highest mean Ksat; Unit 3 samples show the lowest mean Ksat. The Unit 2 sample is grouped with Unit 3 samples, due to similar low Ksat values.

The mean of Unit 1 samples is nearly four orders of magnitude greater than the mean of Unit 2 and 3 samples (Table 4-7). Reasons for this very large difference includes the large difference in fines content in Unit 1 vs. Unit 2/3 samples (Table 4-5). That is, Unit 1 samples generally have a very small amount of fines (i.e. mostly clean sand and gravel; whereas, the Unit 3 samples generally have a very large amount of fines. This observed relationship of Ksat values being inversely related to the amount of fines is consistent with Todd's (1980) observation.

The laboratory Ksat value (2.8 ft/day) for fine-grained sample P-3-1-80-80.5 was relatively higher compared to other fine-grained samples (Table 4-7), and the laboratory measured coarse-grained Ksat values were also several times greater than the cylinder infiltrometer measured K values for the similar coarse-grained surface soils in Parcels 2 and 3 (Section 4.3.1.2). Factors affecting laboratory core Ksat values include: the disturbance of samples resulting from the drive-coring process and the scale of the samples being tested. Drive-coring through silty or clayey material often over-compacts samples, thereby decreasing sample porosity and related Ksat values. Under compaction, or wall effects created by gravel

in the core sample can also occur, which results in increasing the sample porosity and related Ksat values. Consequently, it is likely that the laboratory measured Ksat values may overestimate the bulk hydraulic conductivity of the coarse-grained material and underestimate the finer-grained layer hydraulic conductivity. Nonetheless, both the laboratory and field measured hydraulic conductivity values indicate that the coarse-grained Unit 1 material is very permeable compared to the fine-grained layers and that recharge water will move preferentially through the coarse grained layers.

4.4 Hydrologic Characteristics – Upper Aquifer

The Fort Lowell Formation and the Tinaja beds are considered to be the primary aquifer in the Tucson Basin. Despite the prevalence of finer-textured sediments (silty sand and clayey silt), the Fort Lowell Formation is a highly-permeable unit and supplies a significant amount of water (Davidson, 1973). Well test data indicates that Fort Lowell permeability ranges from 150 to at least 700 gallons per day/ft^2 (gpd/ft^2), water supply wells commonly yield 500 to 1,500 gallons per minute (gpm), and specific capacities range from 10 to 100 gpm/ft of drawdown (Davidson, 1973). The Fort Lowell exhibits these favorable productivity values despite often being unsaturated over 60 to 70 percent of its thickness at many locations in the Tucson Basin

The Upper Tinaja beds, which also contain lower-permeability facies, are another major producing aquifer in the Tucson Basin (Davidson, 1973). Parameters related to the water-producing capability of the Upper Tinaja beds are expected to be slightly less favorable than those for the Fort Lowell Formation. Since the Upper beds are more permeable than the underlying beds, it is expected that Upper bed parameters are near the upper end of the parameter ranges given by Davidson (1973). These ranges are as follows: permeability: 10 to 400 gpd/ft^2; transmissivity: 10,000 to 150,000 gpd/ft; and specific capacities: 1 to 40 gpm /ft drawdown.

Aquifer transmissivity data collected by Montgomery and Associates (2008) in and near the expanded study area are presented in Figure 4-17 and Table 4-8. This table also presents aquifer thickness and saturated hydraulic conductivity data. These aquifer properties are consistent with those presented in the preceding paragraphs (Davidson, 1973) for the Fort Lowell Formation and the Upper Tinaja beds.

4.5 Baseline Groundwater Conditions

4.5.1 Groundwater Occurrence, Movement, and Level Changes

Groundwater elevation contour mapping (Figure 18) was provided by Montgomery and Associates (Montgomery) and was generated with a triangulated irregular network model based on 69 water level measurements taken in 2005 from wells within a six-mile radius of Parcels 2 and 3 and recorded in the Groundwater Site Inventory database (GWSI, ADWR, 2009). The wells are listed in Appendix 7.

Groundwater elevation contours in the immediate vicinity of the northern portion of Parcel 2 and entire area of Parcel 3 generally show groundwater moving in a northwesterly direction. In the southern portion of Parcel 2 this trend is disrupted by a pumping well (Quail Creek Development) located approximately 1-mile south of Parcel 2 (Figure 4-18). This well creates drawdown and a "cone of depression" in the water table contours. Two wells with elevated groundwater levels are an Arizona State Lands Department well near the southwest corner of Parcel 2 and the Staker Parsons Gravel Pit well approximately 0.5 miles due east of Parcel 2. The reasons for higher groundwater levels in these areas are unknown. The water level measurement for the Gravel Pit well, taken in early 2005, may not represent current conditions, and it is recommended that CWC request a more current measurement from Staker Parsons to assess any potential impact of recharge on that property.

Depth to groundwater contours shown in Figure 4-19 were generated by subtracting the groundwater elevation contours shown in Figure 18 from ground surface elevation contours generated for the same area by Montgomery. These contours indicate that the depth to groundwater ranges from approximately 170 ft bgs to 220 ft bgs beneath Parcels 2 and 3.

It should be noted that to the south of Parcel 2, shallow perched water was observed in 1988 at depths ranging from approximately 24 to 48 ft bgs in wells 521887 through 521894, drilled to total depths ranging from 30 to 60 ft bgs. The location of these closely spaced wells is shown as a pink dot in Figure 4-4. The exact purpose of these wells and the source of the perched water that was observed is unknown. However, they do show that perched water has occurred to the south of Parcel 2 above fine-grained low- permeability-layers at depths ranging from 38 to 54 ft bgs as recorded in drillers' logs. Finally, it is important to note that neither perched water or high moisture contents were observed in exploratory borehole P-2-1 when it was drilled in late September 2009. The potential for perching above the layer in the vicinity of P-2-1 may be less than in P-3-1 where a nearly-saturated conditions were observed in the fine-grained Unit 3 layer at approximately 61 ft bgs as shown in Figure 4-16 and discussed in Section 4.3.3.2.

Figure 4-20 shows the estimated change in depth to groundwater between 1995 to 1997 and 2005 to 2007 using water level data from 55 GWSI wells within a 6-mile radius of Parcels 2 and 3 (Appendix 8). Of the 55 wells, 44 showed declines between 2.4 and 66.5 ft with a mean decline of 21.9 ft (Appendix 8) and 11 showed recoveries between 2.8 and 68 ft (mean recovery of 27.9 ft) (Figure 4-20). The wells showing water level increases over this time period are located to the north of the expanded study area, immediately south of the Pima Mine Road Recharge Project. The four wells nearest to Parcels 2 and 3 show declines of between 11.5 and 29.4 ft (Figure 4-20).

4.5.2 Native Groundwater Quality

Groundwater within the Tucson Basin typically contains less than 500 mg/L dissolved solids, is a calcium sodium bicarbonate type, is moderately hard to hard, and is well-suited for public supply (Davidson, 1973). The proposed recharge site is in an area of active groundwater withdrawal and inputs from agricultural, mining and treated wastewater effluent recharge. Groundwater sampling in the late 1990's identified TDS, sulfates, and nitrate/nitrite in high concentrations in wells near the proposed recharge site (Coes et al., 2002). Agriculture and mining were developed in the Sahuarita-Green Valley area in the first half of the 20th century (PAG 1983). High nitrate/nitrite concentrations are likely due to long-term recharge from agricultural irrigation (Coes et al., 2002) and tailings leachate has been identified as a source for high sulfate and TDS concentrations in the area (PAG 1983, Coes et al., 2002).

Figure 4-21 shows the locations of wells with recent available water quality data within the 2-mile extended study area. The wells include three wells north of Parcels 2 and 3 with measurements taken for the Arizona Department of Environmental Quality (ADEQ), two wells at Pima County's Green Valley Waste Water Treatment Plant (GVWWTP) southwest of the focused study area, and two CWC monitoring wells, one west and another northeast of the two parcels. Copies of available water quality reports are included in Appendix 9.

In general, water quality in these wells had a circum-neutral pH, with medium to high concentrations of calcium, sodium and sulfate and relatively high levels of total dissolved solids (TDS). Reported values for analytes were below EPA Primary and Secondary SDWA MCLs and Arizona Aquifer Water Quality Standards or were below the method detection limits (MDLs). Exceptions were as follows:

- GV-02 exceeded the 10 µg/L (0.01 mg/L) primary MCL for arsenic in April 2008, with a reported value of 13.59 µg/L (Appendix 9).

- CWC Well #11 exceeded the 0.01 mg/L primary MCL for arsenic, in July 2009 of 0.0186 mg/L (Appendix 9).
- GV-01 and GV-02 exceeded the 500 mg/L secondary standard for TDS between August 2006 and April 2009, with values between 746 and 1114 mg/L (Appendix 9). Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects in drinking water (Appendix 9).

Based on the local observed water quality, it is expected that groundwater recharge operations using CAP water will improve the local water quality for certain analytes (i.e. nitrate and arsenic) and maintain current water quality conditions for other analytes.

5.0 PERFORMANCE OF OTHER RECHARGE FACILITIES IN THE SANTA CRUZ RIVER FLOODPLAIN

A review of groundwater recharge projects located along the Santa Cruz River floodplain was conducted to assess the performance of these operations, and in particular, mounding and lateral movement of groundwater and any effects on nearby gravel pit operations. Although there are a number of recharge projects in the Basin, discussion will be limited here to three projects that use Central Arizona Project (CAP) water.

These projects are: Avra Valley Recharge Project (AVRP), Lower Santa Cruz Recharge Project (LSCRP), and Pima Mine Road Recharge Project (PMRRP), all managed by CAP and located in or near the Santa Cruz River floodplain. The AVRP and LSCRP are located north of the City of Tucson. The PMRRP is located about six miles north of the proposed CWC project. A brief review will be given for the AVRP and LSCRP; a more detailed discussion will be provided for PMRRP.

5.1 Avra Valley Recharge Project

The AVRP is located in the northwest portion of the Tucson Active Management Area, near the Marana Airport, west of the Tangerine Road exit off I-10. CAP constructed and began operating AVRP in July 1996 as a 2-year pilot project and subsequently permitted the facility as a full-scale project in March 1998.

The facility is divided into four basins ranging from 1.8 to 3.5 acres in size and totaling 10.8 acres. The permitted capacity is 11,000 acre-ft/year. CAP water is pumped into an open irrigation supply canal and conveyed approximately 1 mile from the CAP canal before being diverted into the project. Inflow monitoring at each basin is recorded every 15 minutes using a separate concrete distribution box containing a v-notch weir and stilling well. Pressure transducers are also installed in each basin to measure change in water levels to ensure the basins do not overfill. All the information collected at the project is recorded at a central SCADA system via remote data acquisition units powered by solar energy.

With only 10.8 acres of basins, rotating the basins is not practical; so when the project is operational, all the basins are receiving water. Infiltration rates at Basins 1, 2 and 3 average between 2.1 to 3.5 ft/day with Basin 4 averaging < 1 ft/day. Basin 4 has a subsurface clay layer that impedes infiltration. In 2008, 5,443 acre-ft of water were recharged at AVRP. A total of 71,478 acre-ft have been recharged since the project started.

The maintenance schedule is dictated by observed basin infiltration rates. As infiltration rates decrease, methods used to rejuvenate the basins vary. Drying is used to allow the fine-grained clogging material to form desiccation (mud) cracks. Spring-tooth harrows are also used to break up the clogging layer. Finally, when the clogging layer becomes too thick, the basins are scraped to physically remove sediment using a 30-yard belly scraper.

CAP water does not carry a heavy sediment load. Basin clogging material has been observed to be primarily diatoms, blue-green algae, unicellular green algae , and wind blown dust. Use of chemicals to control the algae is avoided in order to maintain the quality of the recharged water. The control of weeds is also important at AVRP to reduce habitat for birds due to the proximity of the Marana Northwest Regional Airport.

5.2 Lower Santa Cruz Recharge Project

The LSCRP was developed as a partnership between CAP and Pima County Department of Transportation and Flood Control District. The facility was constructed in 1999-2000 in conjunction with a flood control levee along the Santa Cruz River and is located near the Marana Airport and close to the AVRP. Approximately 750,000 cubic yards of material were excavated from the LSCRP site and used to stabilize the bank of the Santa Cruz River to protect the Town of Marana from flooding. Following excavation of the material for the flood control district, CAP completed the recharge project with construction of the basins and the water delivery infrastructure.

The facility consists of three basins ranging from 7.4 to 11.0 acres, totaling approximately 30 acres. The permitted recharge capacity is 50,000 acre-ft/year. Water is delivered to the site via an open channel irrigation canal with inflow into the facility measured using a Parshall Flume. Flows into the individual basins are not measured. Pressure transducers are installed in each basin to measure change in the water levels to ensure the basins do not overfill. All the information collected at the project is recorded at a central SCADA system via remote data acquisition units powered by solar energy.

The infiltration rate at LSCRP has been exceptional, exceeding 7 ft per day. Only two of the basins are needed at one time to store deliveries of over 60 cfs (119 acre-ft/day), allowing the third basin to be in a drying cycle. The facility was originally permitted for 30,000 acre-ft/year but, due to the high infiltration rates, the project was shut down in 2001 and 2002 when the maximum annual storage volume allowed under the permit was reached. In 2003, CAP filed a permit modification with Arizona Department of Water Resources (ADWR) to increase the annual amount to 50,000 acre-ft/year and the modification was approved in

2003. In 2008, 39,666 acre-ft were recharged. A total of 305,046 acre-ft have been recharged since the project started.

5.3 Pima Mine Road Recharge Project

The PMRRP is located approximately 15 miles south of Tucson and was developed cooperatively by the City of Tucson and CAP. The PMRRP has two operational components: the original pilot facility (pilot basins), which consists of a 2-mile delivery pipeline and two 7-acre spreading basins; and the expansion facility consisting of a 5,500 ft pipeline and three new spreading basins totaling 23 acres (Figure 5-1). The total facility has 37 acres of spreading basins.

The pilot facility has six acoustic flowmeters: one at the CAP turnout to the PMRRP pipeline, four at the pilot basins (one at each turnout), and one for the expansion basins. The pilot basins consist of two 7-acre basins separated by a rip-rapped berm. Both pilot basins are excavated 13 ft bgs into the Santa Cruz River floodplain deposits. Deep basin excavation was necessary to intersect deeper, coarse-grained alluvium for optimum infiltration rates. Each sub-basin has 3-ft high perimeter and internal divider berms. Both are covered with rip-rap material to protect them from erosion by waves and surface water runoff.

The expansion facility consists of three basins located north of the original pilot basins. The expansion basins were positioned where favorable coarse-grained deposits occur close to land surface. Basins were aligned north to south to comply with floodplain requirements. Expansion basins 1, 2, and 3 were not excavated as deeply as the pilot basin in order to reduce excavation costs. Basin 1 was excavated 6 ft, and Basins 2 and 3 were excavated 10 ft to just above coarse-grained, high-infiltration rate alluvium. The perimeter of each basin is lined with 6 ft of rip-rap to protect the basin edges from erosion by wave action and surface runoff. Recharge at the three expansion basins began in December 2001.

Pilot testing was conducted in the pilot facility from March 1997 to March 1999, during which 20,000 acre-ft of CAP water was recharged. Full-scale operations into the pilot basins began in September, 2000 with the expansion facility constructed between May and December 2001. The entire facility provides a maximum permitted annual recharge capacity of 30,000 acre-feet. Between 2000 and 2008, annual recharge rates varied between 7,408 and 24,708 acre-ft, with a total volume of 172,367 acre-ft recharged during this period. Due to higher infiltration rates, recharge into the pilot basins typically was about 65% of the total (11,000 to 15,000 acre-ft/annum), although they comprise only 38 % of the total basin area.

Recharge operations at the pilot basins have consisted of either basin rotation or continuous recharge using both pilot basins, depending on delivery constraints, infiltration rates and planned delivery outages. Infiltration rates at the pilot basins typically range from 1.9 to 5.8 ft/day, but are much higher after maintenance is conducted. Rotating between the two pilot basins has allowed relative continuous operations with minimum loss in infiltration rates. The duration of basin rotation duration has ranged from one week to several months depending on the infiltration rates. Both sub-basins are used when maximum recharge volumes are needed prior to a planned delivery outage or scheduled basin maintenance.

Because the expansion basins were not excavated as deeply as the pilot basin, infiltration rates are substantially lower and range from 0.7 to 4.2 ft/day. Lower infiltration rates at the expansion basins usually require continuous operations to meet management recharge goals; thus no basin rotations or wet/dry cycling are conducted.

Maintenance typically consists of basin scraping and ripping to increase infiltration after wet/dry cycling becomes ineffective. Annual basin scraping, followed by ripping to ensure maximum infiltration rates are maintained, is performed on each basin.

5.3.1 Groundwater Mounding and Effect on Gravel Pit Operations

A gravel pit is located about 2,500 feet east of the pilot basins (Figure 5-1). PMRRP is required to conduct groundwater and perched water (piezometer) monitoring, and restrict groundwater operations if necessary, to prevent adverse effects on the gravel pit operation. The location of groundwater monitor wells and piezometers are also shown in Figure 5-1.

Depth to water levels from 2000 to 2008 for monitor wells MW-5, RA-1 and R4 and perched water piezometer PZ-22 are shown in Figure 5-2. These wells are within one mile of the PMRRP pilot basins: MW-5 is a groundwater monitor well and PZ-22 was completed above an approximately 30 foot thick fine-grained layer between the pilot basins and the gravel pit; RA-1 is in the gravel pit; R4 is to the east of the gravel pit. The pre-recharge groundwater level in MW-5 was 140 ft bgs. Groundwater levels in MW-5 rose to 110 ft bgs after the first two years (1997-1999) of pilot basin recharge and since that time have risen to about 70 ft bgs after of all basins were put into service (Figure 5-2). Overall since 2000, groundwater elevations have risen approximately 40 to 45 feet in all of these wells, whereas increases in perched water levels have remained relatively stable at between 20 and 30 feet.

A critical alert level was established for PZ-22. When the water level becomes higher than 39 ft bgs, recharge at the PMRRP must cease until the level drops. According to CAP (Tim

Gorey, personal communication 2009), the critical alert level was only exceeded on a few occasions early in the 10 years of recharge and has not been reached in the past five years.

The perched water and groundwater levels are sensitive to the recharge rates. For example, monthly recharge rates for the PMRRP pilot basins and all basins (total), along with corresponding groundwater levels in PZ-22 and MW-5, are shown in Figure 5-3 for 2003 and 2004. Groundwater and perched water elevations typically drop or rise 5 to 10 ft in response to changes in recharge rates and drop up to 25 feet after the cessation of recharge. Of note, perched water elevations rise more slowly after restoration of recharge than groundwater elevations (Figure 5-3) indicating that the thick fine-grained unit below the pilot basins are not a significant impediment to groundwater recharge reaching the aquifer.

5.4 Conclusions for the Proposed CWC Recharge Project

The average infiltration rates in the three recharge projects range from 2 to 7 ft/day. The surface soil and sub-surface sediment hydraulic properties are believed to be very similar to those found in Parcels 2 and 3 in the current study. The 14 acres of the PMRRP pilot basins recharge about 13,000 acre-ft annually, the 10.8 acres at AVRP recharge over 5,000 acre-ft, and the 30 acres in the LSCRP close to 40,000 acre-ft. Consequently, an average infiltration rate of 2 ft/day used to calculate the basin acreage needed for 7,000 acre feet/year of recharge (Table 4-4) is very conservative; site-specific investigations (Section 4.3) indicate 3 ft/day may be readily achievable.

Groundwater and perched water mounding that may occur from the proposed CWC recharge project is likely to be lower than that observed at the PMRRP pilot basin area due to the following factors:

- Recharge rates at the proposed CWC project will be approximately half of the recharge rates at the PMRRP pilot project basins.
- Groundwater elevations are deeper (200 to 230 ft bgs) at the proposed CWC project area than the PMRRP area.
- There are fewer and thinner fine-grained units within the upper 100 ft bgs in Parcels 2 and 3 compared to the PMRRP area

6.0 CONCLUSIONS

The initial hydrogeologic feasibility investigation within a two mile radius around Parcels 2 and 3 indicates that both properties have favorable characteristics for the proposed CWC 7,000 acre-ft/year CAP water recharge project. The parcels are located within the Santa Cruz River floodplain. Unsaturated hydrogeologic strata underlying the parcels, through which recharge water will travel and be stored, consist of Recent Alluvium and the Fort Lowell Formation. Both formations are recognized as being highly permeable and productive aquifers within the Tucson basin. Depth to groundwater beneath Parcels 2 and 3 is approximately 200 to 230 ft bgs, groundwater flow trends in a southeastern to northwestern direction. Based on groundwater quality data proximal to the parcels, it is anticipated that the proposed CWC recharge project will improve water quality for nitrate and arsenic while maintaining or improving water quality for other drinking water parameters.

Site specific investigations show that finer-grained lower-permeability surface soils extend to a depth of 1 to 2 ft bgs in Parcel 2 and 3 to 5 ft bgs in Parcel 3. Coarser-grained soils underlie the fine-grained surface soils to minimum depths of 10 ft bgs. These sandy soils show effective hydraulic conductivity rates of 6 to 8 feet/day The depth of recharge basin excavation required to intersect deeper, coarser-grained higher-permeability soils for optimum infiltration rates should not exceed 5 ft bgs. This excavation depth is significantly less than the excavation depths (10 to 13 ft bgs) required for basins at the Pima Mine Road Recharge Project located approximately 6 miles north of Parcels 2 and 3.

Two approximately 100 ft exploration boreholes in Parcels 2 and 3 indicate that coarse-grained high-permeability alluvial soils extend at least 50 ft below the finer-grained surface soils. These coarse-grained sand and gravel soils overlay a relatively thin (10 ft thick or less) fine-grained low-permeability layer at approximately 60 ft bgs. Additional thin fine-grained layers are interbedded between thicker coarse-grained layers between 70 and 99 ft bgs. The thick sand and gravel alluvial layers will facilitate downward vertical percolation of water from the proposed recharge basins; the fine-grained layer at approximately 60 ft bgs is expected to cause some perching of recharge water as well as lateral movement above the fine-grained layer in the coarse-grained alluvium. Based on the observed borehole data and operational characteristics of other CAP recharge facilities in the Santa Cruz River floodplain, the recharge water is expected to move laterally and then downward through the vadose zone in a stair-step fashion. Nonetheless, additional characterization should be performed (See Section 7.0) to assess the potential migration of recharge water in the vadose zone towards the nearby gravel pit.

Assuming recharge operations of 270 days per year, which allows for 25% resting (drying) of the basins, and a very conservative infiltration rate of 2 feet/day, 13 acres of spreading basins would be required to recharge 7,000 ac-ft/year A higher infiltration rate of 3 feet/day, which is approximately 50% of the observed K values for the coarse-grained surface soils, would require only 9 acres of basins. A 25% resting cycle period should be sufficient to dry out accumulated clogging layers and maintain high infiltration rates with only periodic (i.e. annual) cleaning of the basins.

7.0 RECOMMENDATIONS

If Parcel 2 is selected as the final location of the proposed CWC recharge project, narrow recharge basins should be located along the western portion of the site, adjacent to the river in the most permeable areas shown from the site investigations. Based on the limited acreage available in Parcel 3, groundwater recharge basins will need to be located throughout the western portion of the site.

Upon selection of the final parcel location of the proposed CWC recharge project site, we recommend additional subsurface characterization to reduce uncertainty regarding the site performance and to better characterize the potential for lateral movement of recharge water in the vadose zone.

Exploration Boreholes

Drill, core, and geologically log four vadose zone exploration boreholes at depths ranging between 100 to 200 ft bgs to define the thickness and lateral extent of major textural layers in the vicinity of the selected site.

- If the selected site is Parcel 2, one borehole should be placed along the eastern boundary of the site (near test pit S-5) in an approximately west-east trending transect to connect existing exploratory borehole P-2-1 and the Gravel Pit well; two boreholes located in a southwestern trend from P-2-1, one near test pit S-18 and one near test pit S-16 to provide spatial data along the western edge of the site; with a final boreholes drilled/cored in the northwestern corner (near test pit S-3) of the site.
- If the selected site is in Parcel 3, one borehole should drilled/cored in each of the southwestern and southeastern corners along an approximately northwest-southeast trending transect connecting existing exploratory borehole P-3-1 and the Gravel Pit well; and two additional boreholes will be drilled/cored approximately in the center of

planned basins located approximately 500 ft (near test pit C-8) and 1,000 ft (near test pit C-6) to the north of P-3-1.

If the fine-grained layer observed at approximately 60 ft bgs in P-2-1 and P-3-1 is also observed in other exploration boreholes, one of the exploration holes should be instrumented above and below the fine-grained layer to permit conducting large-scale permeability measurements in both coarse- and fine-grained layers (hydrogeologic units). These large-scale measurements will reduce uncertainty in predicting infiltration/percolation rates through the layer and potential lateral movement above the layer.

Monitor Well and Optional Perched Water Piezometer

An approximately 250 ft deep groundwater monitoring well should be installed at the down-gradient edge of the parcel selected for CWC recharge operations. Since groundwater flow is from southeast to northwest across the parcels, this well should be located at the northwestern boundary of Parcel 2 (i.e. near test pit S-3) or the northern boundary of Parcel 3 (near test pit C-6). For either parcel, the most northwestern exploration borehole could be deepened and completed as a monitor well. The upper 20 ft of the uppermost groundwater aquifer should be screened and sand packed in the monitor well to support groundwater quality and elevation monitoring. The well should be developed, sampled, and analyzed for primary and secondary MCL inorganic parameters on a quarterly basis prior to the recharge operations to establish baseline groundwater quality.

If the fine-grained layer observed at approximately 60 ft bgs in P-2-1 and P-3-1 is also observed in the other exploration boreholes:

- Install air and water piezometers in a single monitor well above, within, and below the major fine-grained layer as well as other major fine-grained layers present.
- A vadose zone monitoring piezometer should be located along one of the transects between the Gravel Pit Well and either P-2-1 or P-3-1.

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Table 4-1. Soil Phase Map Units Grouped by Permeability

Map Color	Relative Permeability	Range of Permeabilities[1] (inches/hr)	Soil Series	Soil Phase Symbol	Soil Phase Name	USCS Group	% Fines
Blue	High	2 to > 20	Arizo	AZ	Arizo gravelly sandy loam	SM, GP-GM	5 to 15
			Brazito	Br	Brazito loamy sand	SM, SP	5 to 35, 0 to 10
			Cowan	CsA	Cowan loamy sand	SM	15 to 35
				CvB	Cowan-Valencia complex, 0 to 5 percent slopes		
			Riverwash	Ru	Riverwash	SP	0 to 5
Light Blue	Moderate	2.0 to 6.3	Anthony	AhA	Anthony sandy loam, 0 to 1 percent slopes	SM	20 to 40
				AhB	Anthony sandy loam, 1 to 3 percent slopes		
				AnA	Anthony gravelly sandy loam, 0 to 1 percent slopes		
				AnB	Anthony gravelly sandy loam, 1 to 3 percent slopes		
				ApB	Anthony soils, 0 to 3 percent slopes		
			Comoro	Co	Comoro loam	SM	20 to 40
				Cm	Comoro sandy loam		
Base Map Color	Low	0.2 to 2.0	Grabe	Gh	Grabe loam	SM, ML	40 to 60
				Gm	Grabe silty clay loam		
			Gila	GbA	Gila loam, 0 to 1 percent slopes	ML or CL	65 to 85
				GbB	Gila loam, 1 to 3 percent slopes		
			Laveen	LmB	Laveen complex, 0 to 5 percent slopes	SM, ML, CL	40 to 75
				LrB	Laveen Rillito complex, 0 to 3 percent slopes		
			Mohave	MdA	Mohave sandy loam, 0 to 1 percent slopes	ML, CL	65 to 90
				MdB	Mohave sandy loam, 1 to 3 percent slopes		
				MhB	Mohave loam, 1 to 3 percent slopes		
				Mo	Mohave clay loam		
			Rillito	ReC	Rillito gravelly sandy loam, 0 to 8 percent slopes	SM, GM	35 to 50
			Sonoita	SmB	Sonoita sandy loam, 1 to 3 percent slopes	SC, ML	35 to 60
				StB	Sonoita Tubac complex, 1 to 3 percent slopes		
				Sr	Sonoita silty clay loam		
			Tubac	TtB	Tubac sandy clay loam, 1 to 3 percent slopes	SM, ML, CL, CH	25 to 85

[1]Permeability and saturated hydraulic conductivity in this study are equivalent

Table 4-2. Surficial Geologic Map Units Grouped by Permeability

Map Unit Color	Relative Permeability of Surficial Geologic Units	Alluvium Surficial Geologic Units	Age		Soil Horizons (Near Surface)	Landform	Dissection	Comments
Light Brown	Low	QTs	Early Pliestocene to Pliocene	1 - 5 Ma	Indurated-cemented calcic horizons	Highly eroded fans	Deeply dissected	
Pink		QM	Middle Pliestocene	130 - 750 ka	Clay layers, strong soil development	Fans and terraces	Moderately highly dissected	
Gray Green		Ql	Late Pliestocene	~10 - 130 ka	Clay loam to clay laygers	Relict fans & terraces	Slightly to moderately dissected	
Hatched Green		Qly	Holocene to late Pliestocene	0 - 130 ka	Thin veneer of Holocene fine-grained alluvium	Broadly rounded fan surfaces	Active channels ~1 m below fan surface	
Light Orange	Moderate	Qy	Holocene undifferentiated	0 ~ 10 ka	Mostly sand, silt,and some cobbles	Channels	NA	Channels separated by mostly Qm and lesser amounts of QTs, Ql, and Qly. Qy corresponds to AhA, AhB, and ApB soil phases.
Light yellow	Moderate to High	Qyr	Holocene	< 10 ka	Weakly to unconsolidated sand, silt, & clay	Flood plain and terraces	?	Soils are weakly developed. Most flood plain areas may be inundated in large floods if channel(s) is not deeply entrenched.
Bright Yellow	High	Qycr	Modern river deposits	< 100 years	Primarily sand and gravel	River deposits	NA	Santa Cruz river channel is typically entrenched several feet below adjacent young terraces.

Table 4-3. Cylinder Infiltrometer Results

Location	UTM	Depth Below Ground Surface		% Fines	Unit1	Soil Type	K	K	Water Entry	Fillable Porosity
		cm	ft				m/day	ft/day	cm	
Parcel 3										
C-1	12 R 503479 3531332	0	0	70	3	Silt	0.22	0.72	-30	0.12
C-5	12 R 503508 3530943	0	0	60	3	Sandy Silt	0.68	2.23	-10	0.16
C-10	12 R 503440 3531262	0	0	70	3	Silt	0.16	0.52	-20	0.09
C-11	12 R 503344 3530959	0	0	60	3	Sandy Silt	0.13	0.42	-10	0.15
C-12	12 R 503386 3531099	0	0	45	3	Silty Sand	0.19	0.62	-30	0.15
C-13	12 R 503408 3530917	0	0	50	3	Silty Sand	1.21	3.98	-20	0.12
Average depth below ground surface		**0**	**0**			**Geometric mean**	**0.30**	**0.98**		
C-1	12 R 503479 3531332	120	3.9	10	1	Medium sand with gravel	2.43	8.03	-10	0.12
C-2	12 R 503490 3531240	80	2.6	40	2	Sandy Silt, 3" above sand	0.36	1.19	-20	0.16
C-3	12 R 503505 3531154	135	4.4	0	1	Sand with gravel	1.82	6.01	-10	0.12
C-5	12 R 503508 3530943	100	3.3	0	1	Medium Sand with gravel	2.69	8.89	-10	0.12
C-8	12 R 503434 3531122	150	4.9	0	1	Sand with gravel	2.07	6.84	-10	0.08
C-9	12 R 503425 3531190	90	3.0	5	1	Sand with gravel	2.69	8.88	-10	0.12
C-10	12 R 503440 3531262	75	2.5	0	1	Fine sand	4.26	14.07	-10	0.09
Average depth below ground surface		**107**	**3.5**			**Geometric mean**	**1.94**	**6.16**		
Parcel 2										
S-3	12 R 503339 3530872	0	0	10	2	Sand with silt	0.30	1.00	-20	0.12
S-6	12 R 503550 3530627	0	0	75	3	Silt	0.08	0.27	-30	0.12
S-11	12 R 503432 3530426	0	0	20	2	Silty Sand	0.30	1.00	-30	0.09
S-14	12 R 503233 3530216	0	0	70	3	Silt	0.32	1.04	-30	0.13
S-16	12 R 503180 3530325	0	0	5	1	Fine Sand	1.11	3.67	-10	0.11
S-17	12 R 503256 3530407	0	0	20	2	Sand with silt	1.37	4.52	-10	0.12
S-23	12 R 503313 3530765	0	0	15	2	Silty Sand	0.31	1.03	-30	0.16
Average depth below ground surface		**0**	**0**			**Geometric mean**	**0.38**	**1.30**		
S-1	12 R 503532 3530897	76	2.5	5	1	Coarse sand	3.21	10.59	-10	0.12
S-2	12 R 503451 3530903	91	3.0	5	1	Sand with gravel	1.88	6.20	-20	0.11
S-4	12 R 503555 3530807	76	2.5	5	1	Sand with gravel	0.41	1.36	-20	0.12
S-5	12 R 503559 3530718	61	2.0	0	1	Sand	4.85	16.02	-10	0.12
S-7	12 R 503572 3530521	102	3.3	0	1	Fine Sand	3.64	12.01	-10	0.12
S-8	12 R 503612 3530439	76	2.5	5	1	Silty Sand	1.19	3.91	-10	0.08
S-9	12 R 503617 3530590	76	2.5	0	1	Sand with gravel	3.38	11.17	-10	0.07
S-10	12 R 503530 3530388	61	2.0	5	1	Fine Sand	1.12	3.71	-10	0.10
S-12	12 R 503358 3530349	51	1.7	20	2	Silty Sand	5.81	19.18	-10	0.10
S-13	12 R 503291 3530281	76	2.5	5	1	Fine sand	2.19	7.24	-10	0.10
S-15	12 R 503108 3530213	91	3.0	5	1	Fine Sand	1.22	4.04	-10	0.07
S-19	12 R 503287 3530616	61	2.0	5	1	Sand with silt	1.12	3.70	-10	0.12
S-20	12 R 503469 3530575	76	2.5	0	1	Sand	3.42	11.28	-10	0.13
S-21	12 R 503510 3530482	76	2.5	5	1	Sand	1.77	5.85	-10	0.12
S-22	12 R 503436 3530719	102	3.3	0	1	Sand	5.89	19.43	-10	0.12
S-24	12 R 503484 3530829	76	2.5	0	1	Sand with gravel	6.56	21.65	-10	0.12
Average depth below ground surface		**77**	**2.5**			**Geometric mean**	**2.34**	**8.63**		

[1] Hydrostratigraphic units: 1 <10% fines; 2 10-30% fines, 3 >30% fines

Table 4-4. Acreage needed for 7,000 acre-ft/year Infiltration

Area Needed Acres	Infiltration Rate ft/day	Infiltration Days/Year days	Total Infiltration acre-ft/year
26	1	270	7,000
17	1.5	270	7,000
13	2	270	7,000
10	2.5	270	7,000
9	3	270	7,000

Table 4-5. Major Particle Size Fractions from Coarse- and Fine-Grained Hydrostratigraphic Units

Sample	Hydrostratigraphic Unit[1]		Major Particle Size Fractions			
Coarse-Grained Hydrostratigraphic Units						
Number	**Lab**	**Field**	**%Gravel**	**%Sand**	**%Fines**	
C-3-2-7-8	1	1	21	73	6	
C-3-12-10	2	1	18	71	11	
P2-S2-10	2	1	13	77	11	
P2-S1-4-7	1	1	20	78	2	
P-3-1-10-20	1	1	27	65	8	
P-3-1-30-31	2	1	45	42	13	
P-3-1-35-40	1	1	17	74	8	
P-2-1-41-50	1	1	11	84	5	
P-3-1-71-77	1	1	11	84	5	
P3-1-91-97	1	1	16	79	5	
P-2-1-91-99	1	1	1	89	10	
Fine-Grained Hydrostratigraphic Units						
Number	**Lab**	**Field**	**%Gravel**	**%Sand**	**%Silt**	**%Clay**
S-18-0-1	3	3	1	9	48	69
C-3-2-1-2	3	3	1	41	58	
P3-1-58-60	3	3	6	7	42	45
P2-1-60-61	3	3	0	6	46	48
P3-1-77-80	3	3	1	6	69	24
P2-1-80-81	3	3	2	43	45	11
P3-1-80.5-81	3	3	5	50	41	4
P2-1-90-91	3	2	3	52	42	3
P3-1-99-100	2	3	1	71	27	2

[1] Hydrostratigraphic units: 1 <10% fines; 2 10-30% fines, 3 >30% fines

Table 4-6. Core Water Content, Bulk Density, Water Saturated Porosity, and Air-Filled Porosity

Sample ID	Hydrostratigraphic Unit[1]	Gravimetric Water Content (g/g)	Soil Bulk Density (g/cm^3)	Volumetric Water Content (cm^3/cm^3)	Calculated Saturated Porosity[2] (cm^3/cm^3)	Calculated Air-Filled Porosity (cm^3/cm^3)
P2-1-20-21	1	0.035	1.84	0.065	0.31	0.24
P2-1-30-31	1	0.039	1.82	0.071	0.31	0.24
P2-1-50-51	1	0.049	1.82	0.090	0.31	0.22
P-2-1-99-100	1	0.063	1.68	0.106	0.37	0.26
P3-1-50-50.5	1	0.070	1.57	0.109	0.41	0.30
P3-1-70-71	1	0.052	1.73	0.090	0.35	0.26
P3-1-90-91	1	0.062	1.60	0.100	0.39	0.29
	Mean	**0.05**	**1.72**	**0.09**	**0.35**	**0.26**
P-2-1-90-91	2	0.191	1.55	0.295	0.42	0.12
P-2-1-70.5-71	2	0.178	1.59	0.283	0.40	0.12
P-2-1-70.-70.5	2	0.188	1.57	0.297	0.41	0.11
P-3-1-80.5-81	3	0.166	1.60	0.265	0.40	0.13
P2-1-61-61.5	3	0.211	1.46	0.307	0.45	0.14
P-3-1-80-80.5	3	0.166	1.54	0.255	0.42	0.17
P3-1-60-61	3	0.422	1.24	0.525	0.53	0.01
	Mean	**0.22**	**1.51**	**0.32**	**0.43**	**0.11**

[1] Hydrostratigraphic units: 1 <10% fines; 2 10-30% fines, 3 >30% fines
[2] Assumed particle density of 2.65 g/cm^3

Table 4-7. Laboratory Ksat by Hydrostratigraphic Unit

Sample ID	Hydrostratigraphic Unit[1]	Saturated Hydraulic Conductivity (cm/s)	Saturated Hydraulic Conductivity (ft/day)
P-2-1-30-31	1	2.2E-02	62.4
P-2-1-99-100	1	4.1E-03	11.6
P-3-1-10-11[2]	1	3.0E-02	85.0
P-3-1-90-91	1	9.2E-03	26.1
	Geometric Mean	**1.3E-02**	**35.6**
P-2-1-61-61.5	3	8.6E-07	0.002
P-2-1-70-70.5	2	1.8E-07	0.001
P-3-1-60-61	3	2.4E-08	0.0001
P-3-1-80-80.5	3	1.0E-03	2.8
	Geometric Mean	**1.4E-06**	**0.004**

[1] Hydrostratigraphic units: 1 <10% fines; 2 10-30% fines, 3 >30% fines
[2] Sample repacked to bulk density of ~1.5 g/cm3

Table 4-8. Aquifer Test Parameters in Expanded Study Area

Cadastral Location	ADWR Registry ID	Well Identifier	Test Date	Transmissivity (ft^2/d) [1]	Transmissivity (gpd/ft) [2]	Aquifer Thickness (ft)	K (ft/d) [3]	UTM X [4]	UTM Y [4]	Data Source
(D-17-13) 25CCD	608518	AN-1	05/21/1905	15,400	115,000	1,885	8.2	502389.3	3531020	Malcolm Pirnie and Montgomery & Associates, 1998
(D-17-13) 27DCC	504946	RT-1	01/13/1981	9,360	70,000	500	18.7	499782.1	3531034	
(D-17-14) 17BDD	214277	E-1	---	2,670	20,000	---	---			Montgomery & Associates, 2007
(D-18-13) 01AAB	608521	AN-4	---	6,150	46,000	852	7.2	503399.6	3529189	Malcolm Pirnie and Montgomery & Associates, 1998
(D-18-13) 01CBC	608519	AN-2	---	5,750	43,000	1,194	4.8	502195.8	3528190	
(D-18-13) 03DCB	502546	CW-7	07/06/1982	53,500	400,000	540	99	499789.2	3527993	
(D-18-13) 11ADA	623106	ESP-5	02/26/1970	16,000	120,000	800	20	502002.1	3527171	

[1] ft^2/d = feet squared per day
[2] gpd/ft = gallons per day per foot
[3] ft/d = feet per day
[4] NAD 83 12N HARN
--- = no data available

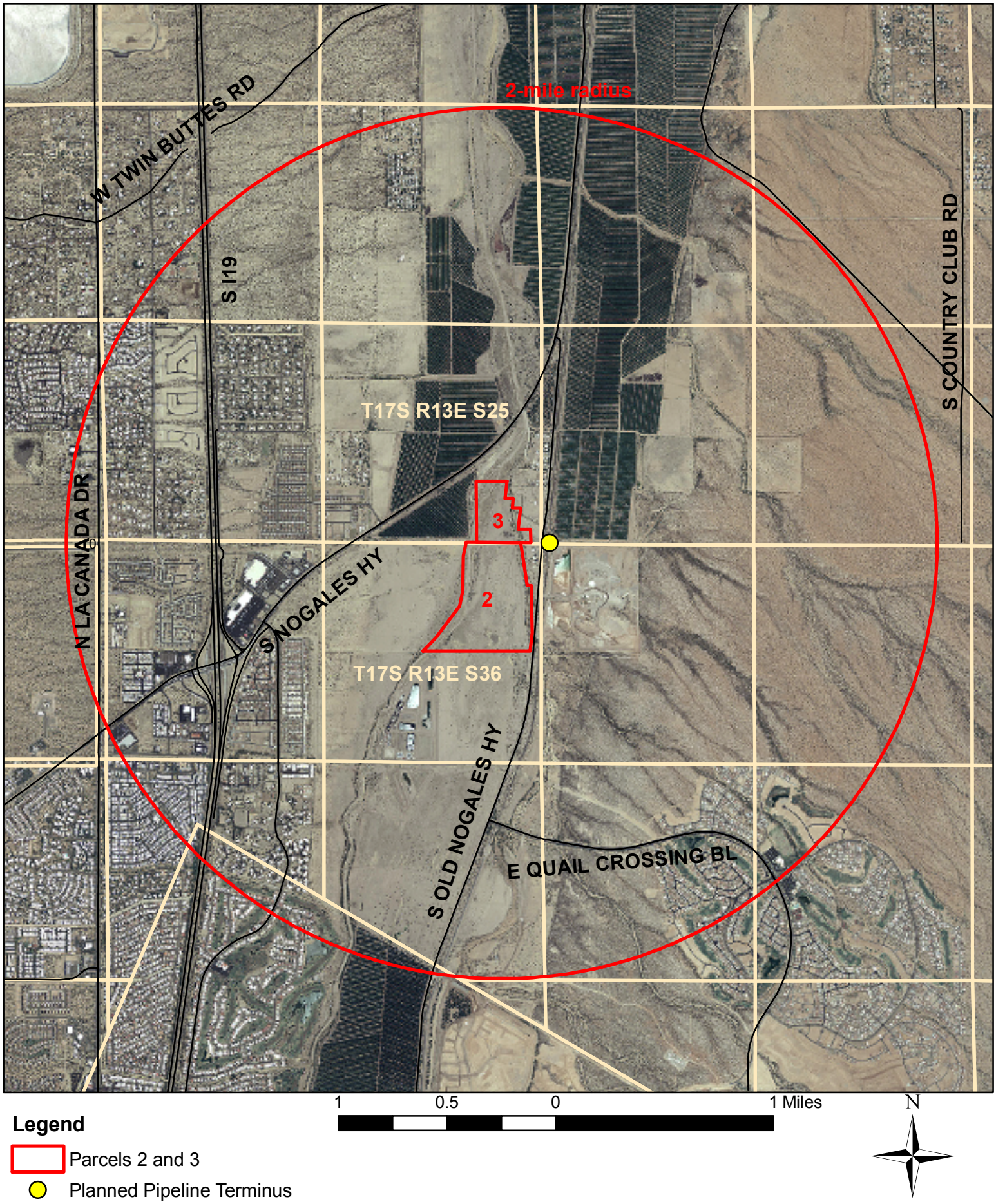
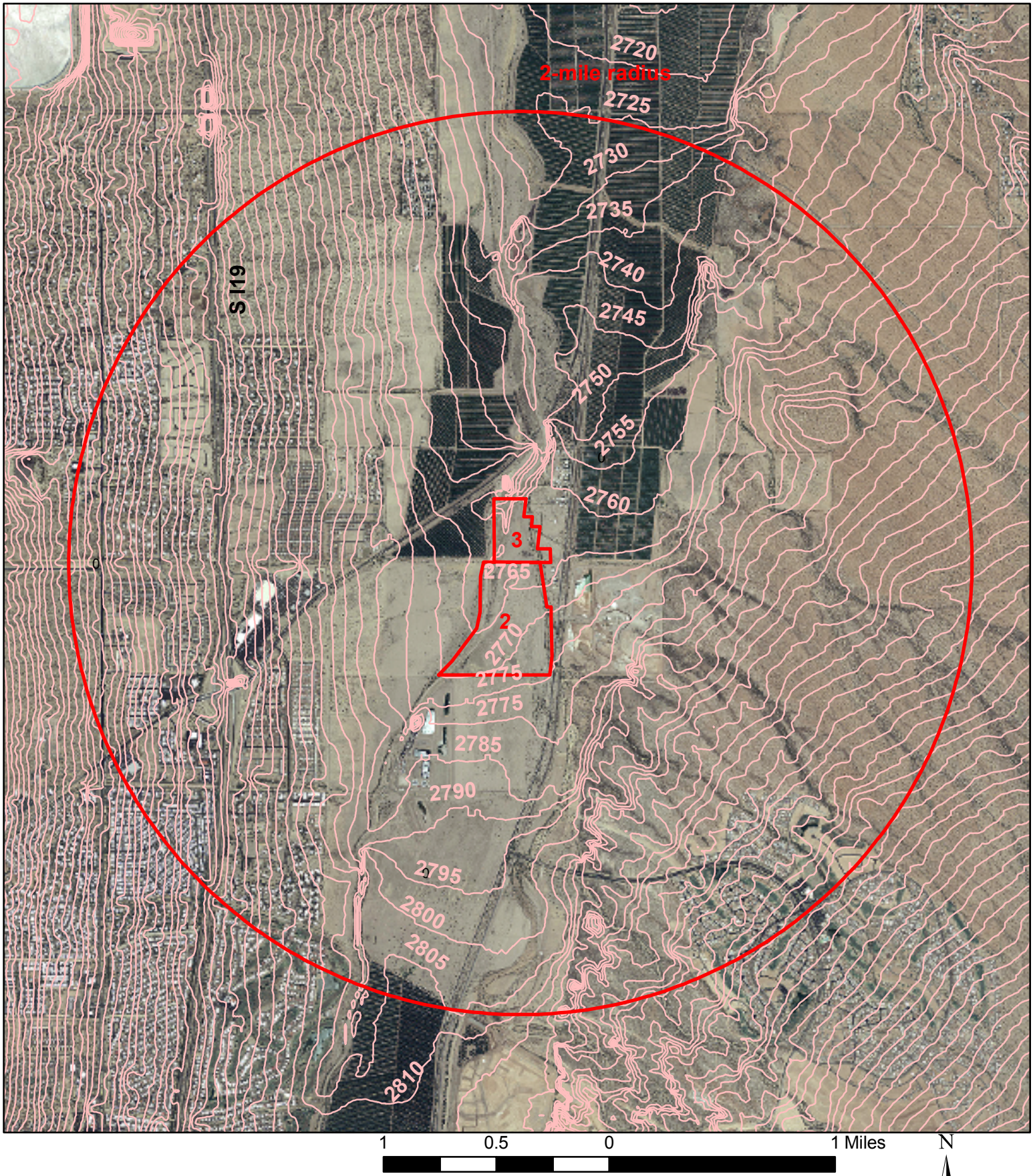


Figure 1-1. Focused Study Area (Parcels 2 and 3) and Expanded Study Area (2-mile radius from Parcels 2 and 3)



Legend

- Parcels 2 and 3
- Planned Pipeline Terminus
- 5-ft Surface Elevation Contours (ft amsl)

Figure 2-1. Ground Surface Elevation

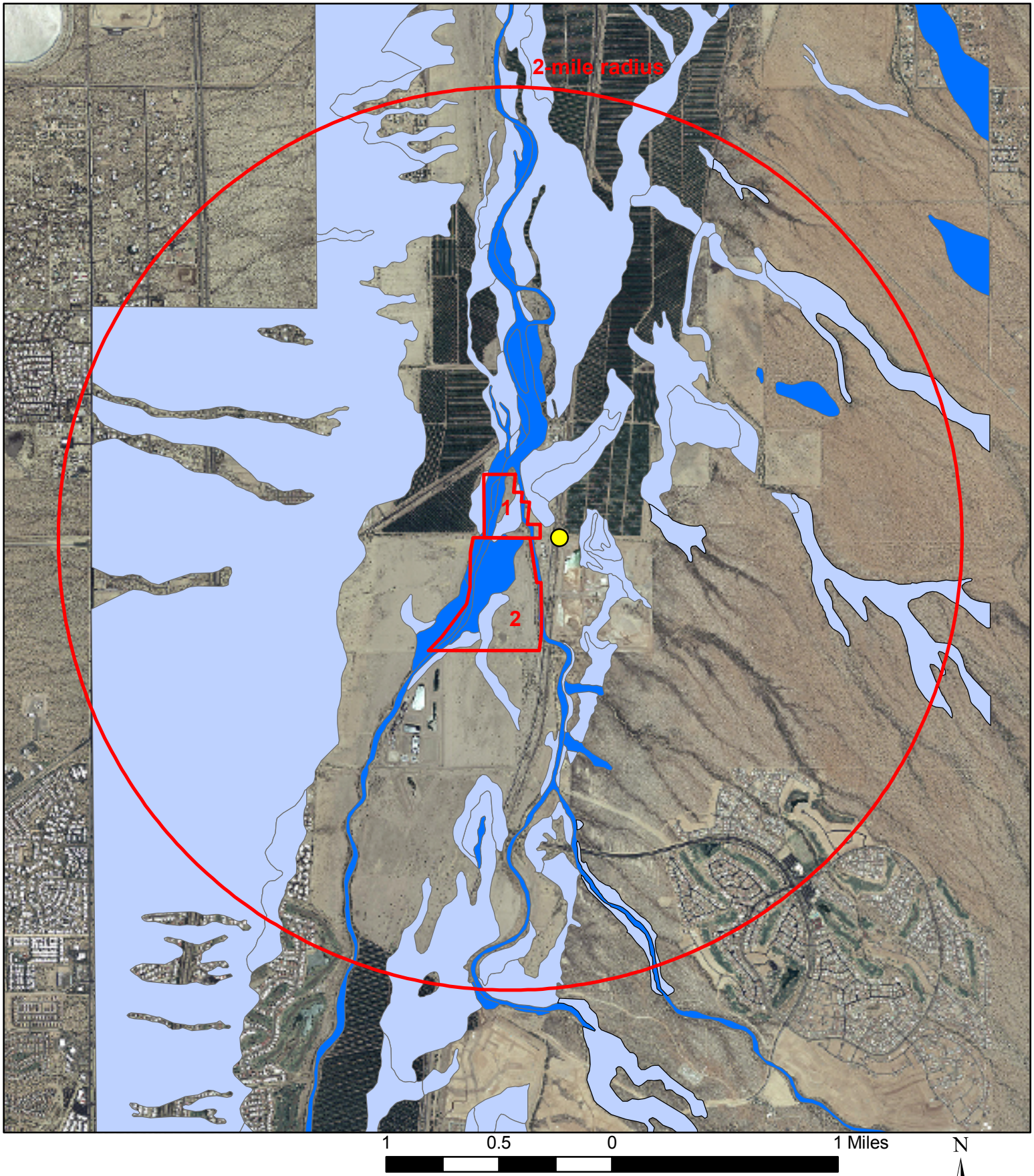
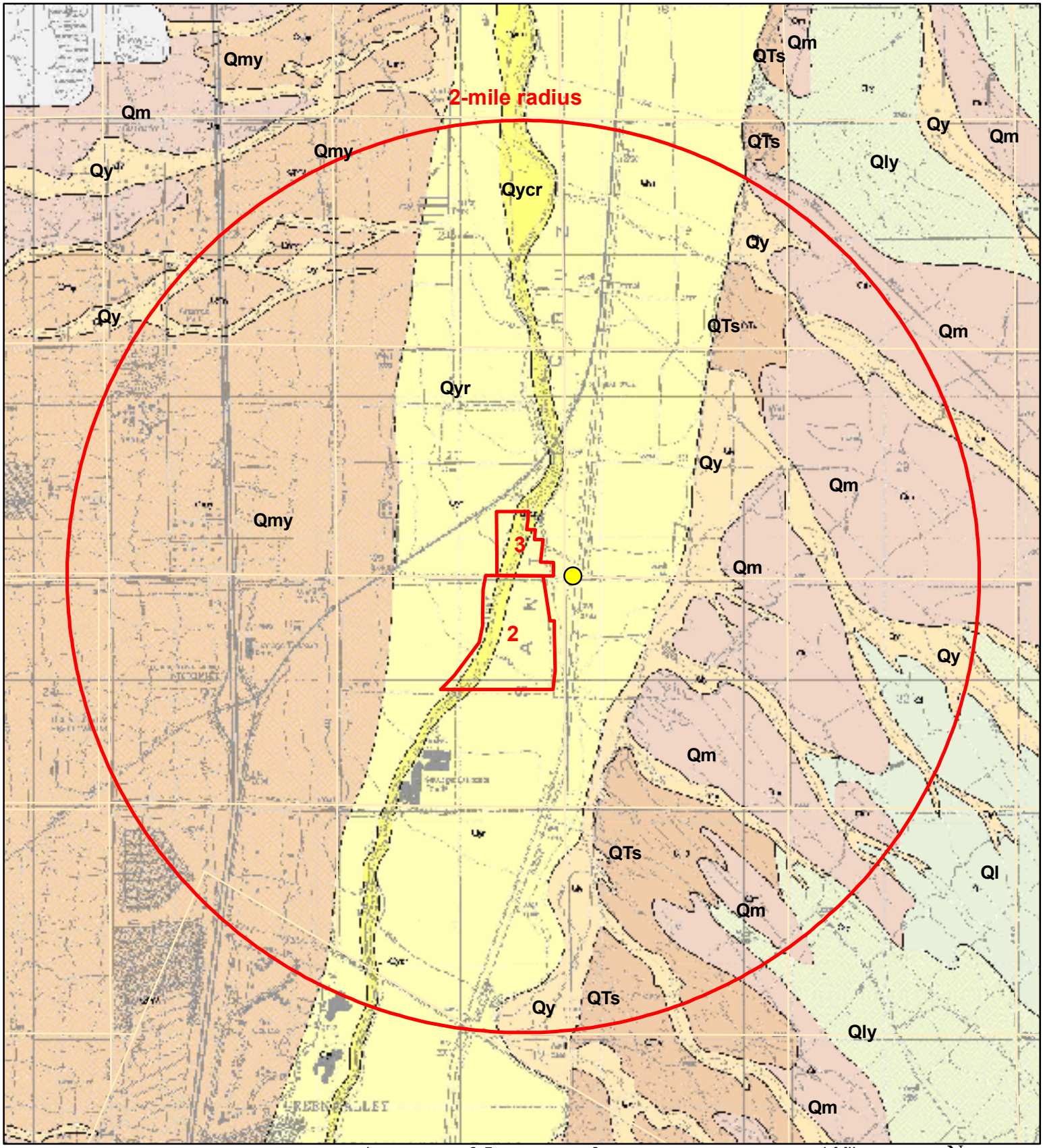
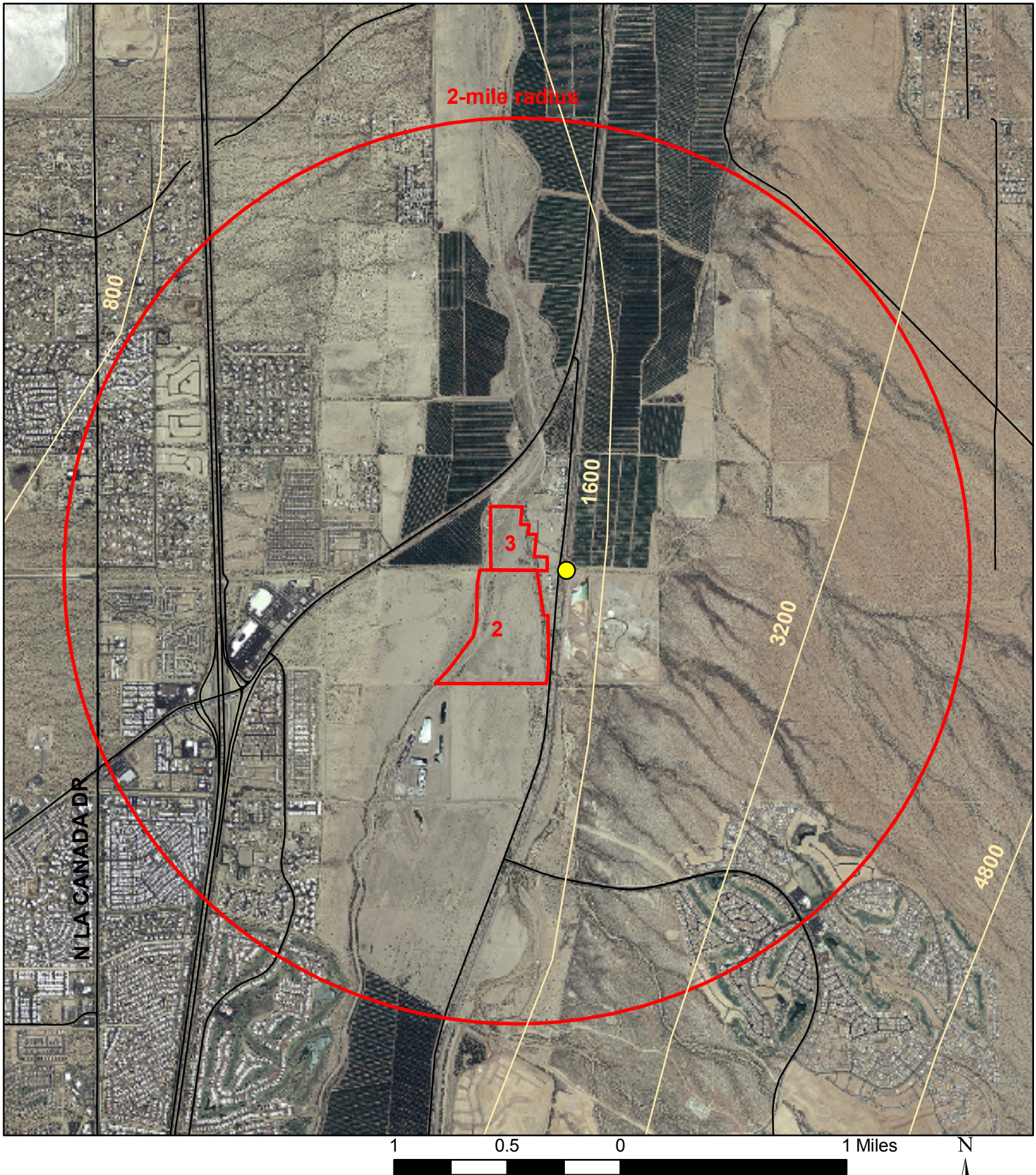


Figure 4-1. Soil Permeability



Basemap from: Pearthree, P.A. and A. Youberg, 2000. Surficial Geologic Map and Geologic Hazards of the Green Valley – Sahuarita Area, Pima County, Arizona. Arizona Geological Survey Open-File Report 00-13. Plate 1

Figure 4-2. Surficial Geology



Legend

- Planned Pipeline Terminus
- Parcels 2 and 3
- Estimated depth to bedrock (ft bgs)

Contour mapping based on: Oppenheimer, J.M. and J.S. Sumner, 1980. Depth-to-Bedrock Map, Basin and Range Province, Arizona. University of Arizona Geophysics Laboratory.

Figure 4-3. Estimated Depth to Bedrock

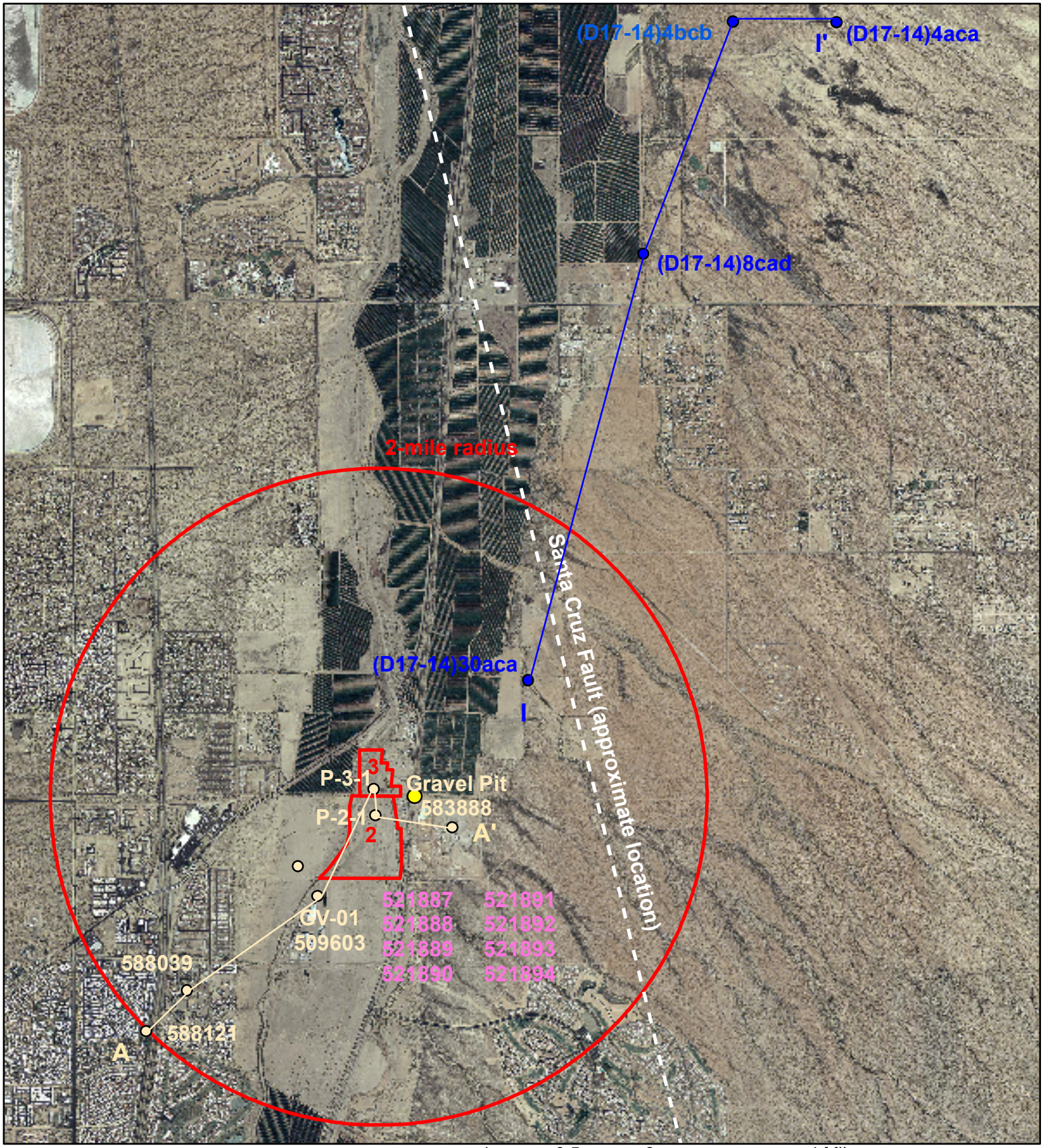
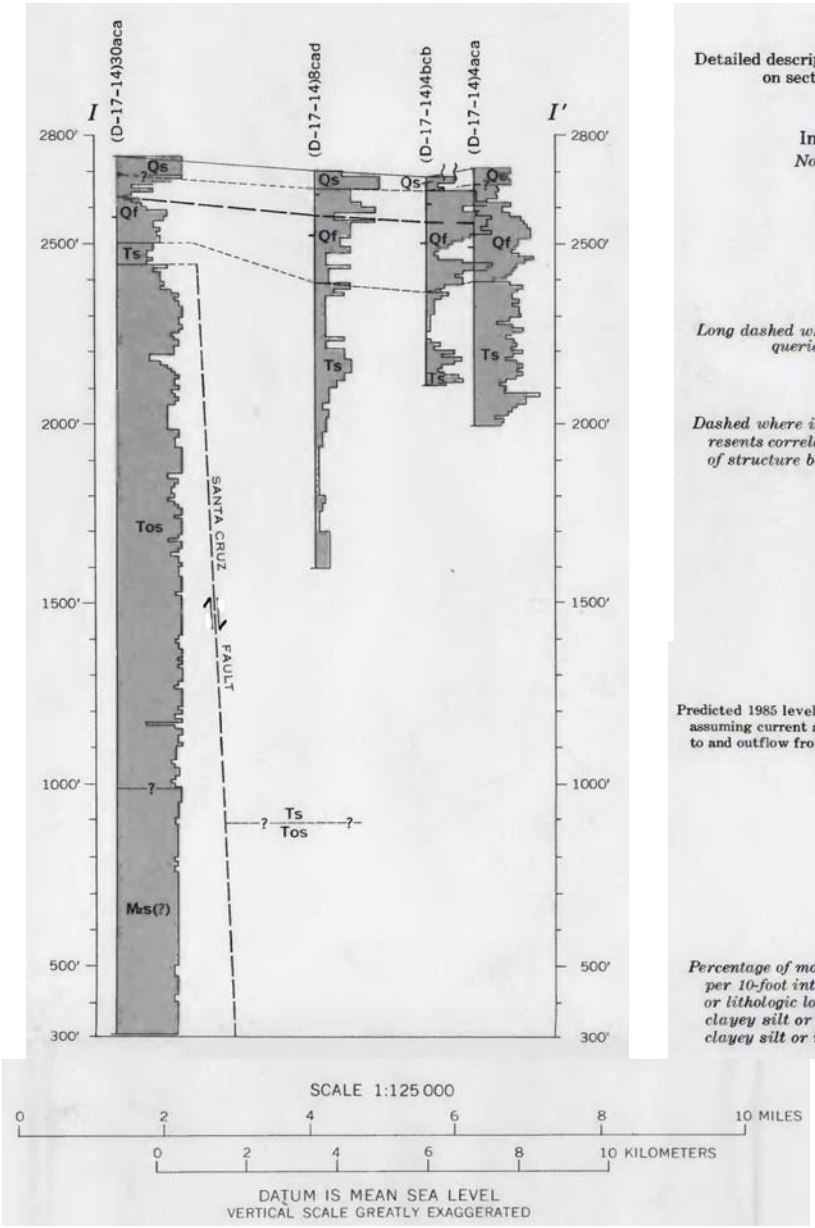
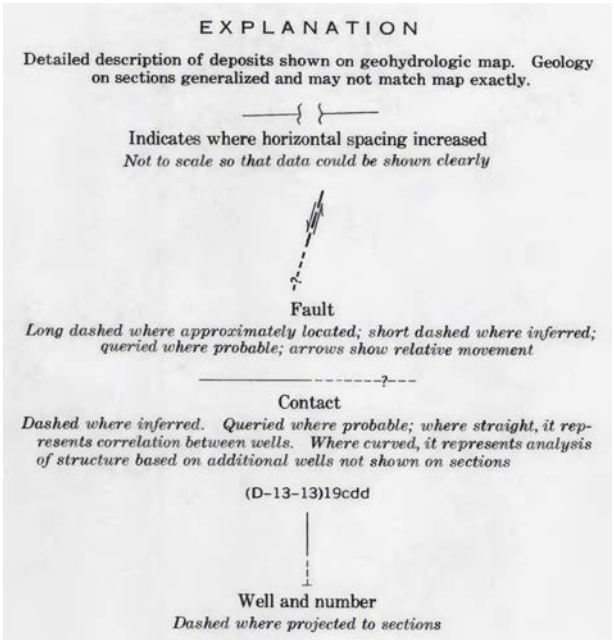
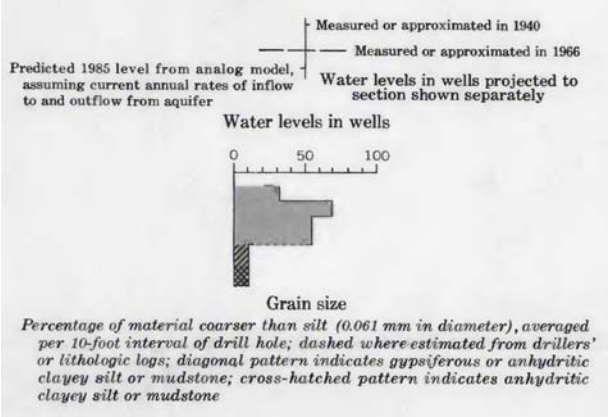


Figure 4-4. Wells included in Cross-sections A-A' and I-I' (Figures 4-5 and 4-6)







Qs - Undifferentiated Alluvial Deposits
Qf - Fort Lowell Formation
Ts - Tinaja Beds
Tos – Pantano Formation

See Report Section 4.2

Figure 4-5. Hydrostratigraphic Cross-section I-I'

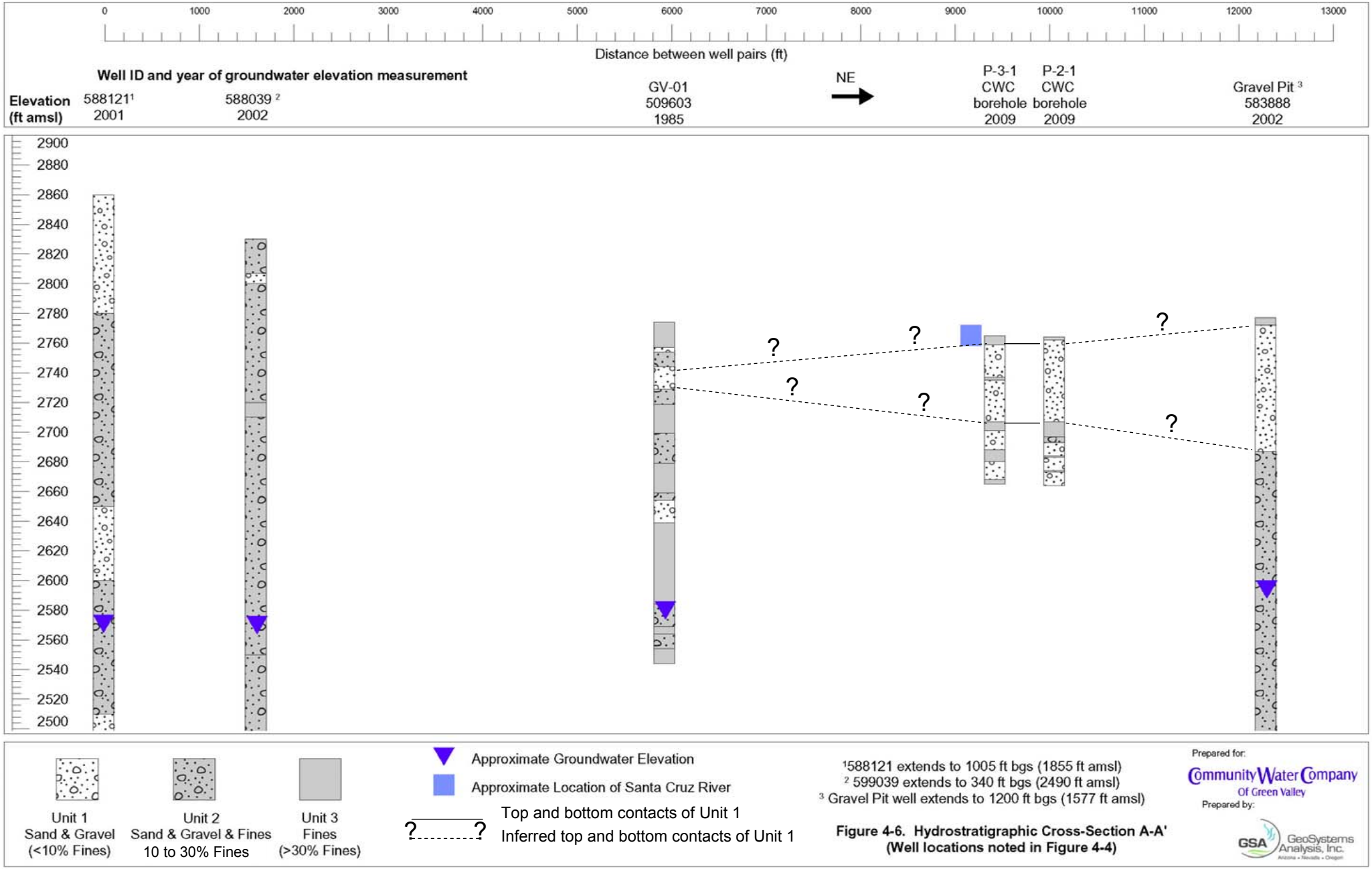


Figure 4-6. Hydrostratigraphic Cross-Section A-A'
(Well locations noted in Figure 4-4)

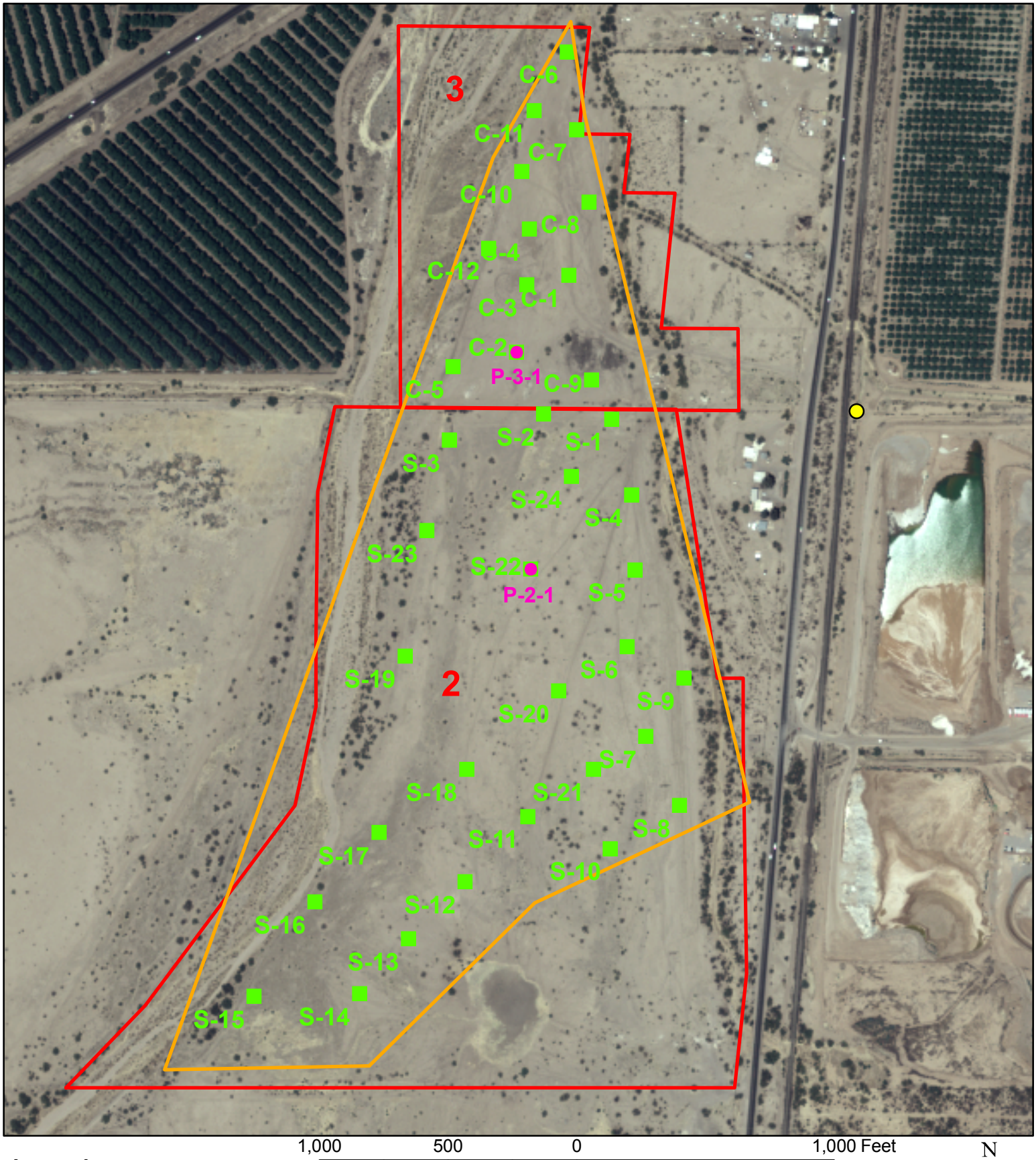


Figure 4-7. Test Pit and Borehole Locations

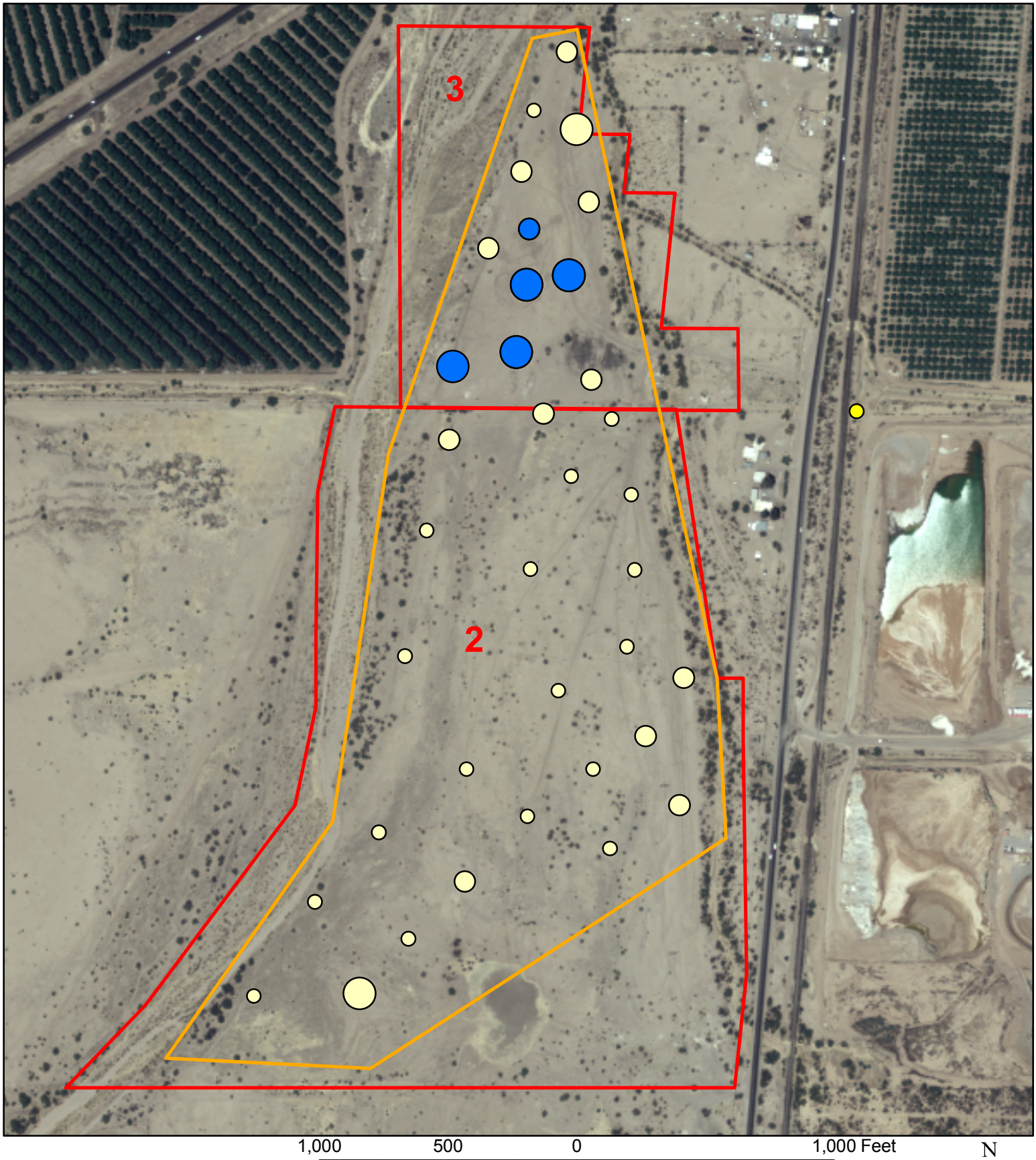


Figure 4-8. Depth to High Permeability Sand

Figure 4-9. Parcel 2

Figure 4-10. Backhoe Test Pit

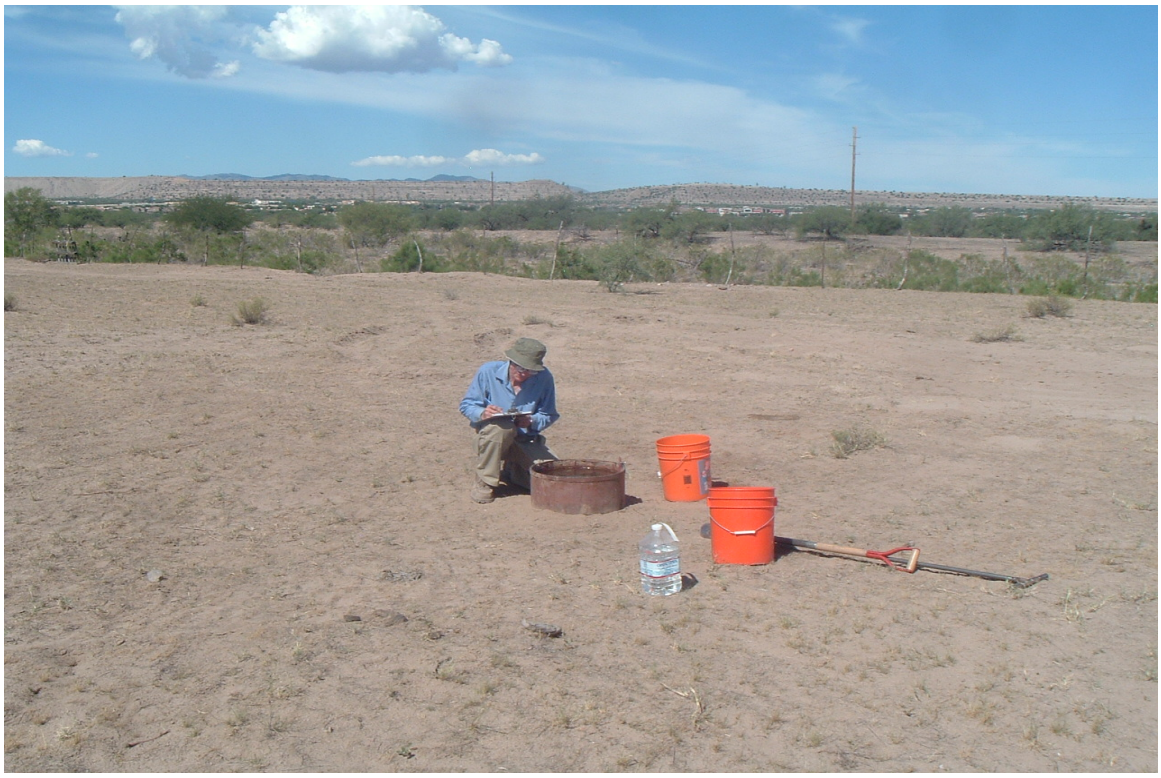


Figure 4-11. Surface Cylinder Infiltrometer Test on Parcel 2

Figure 4-12. Cylinder Infiltrometer Test at Depth

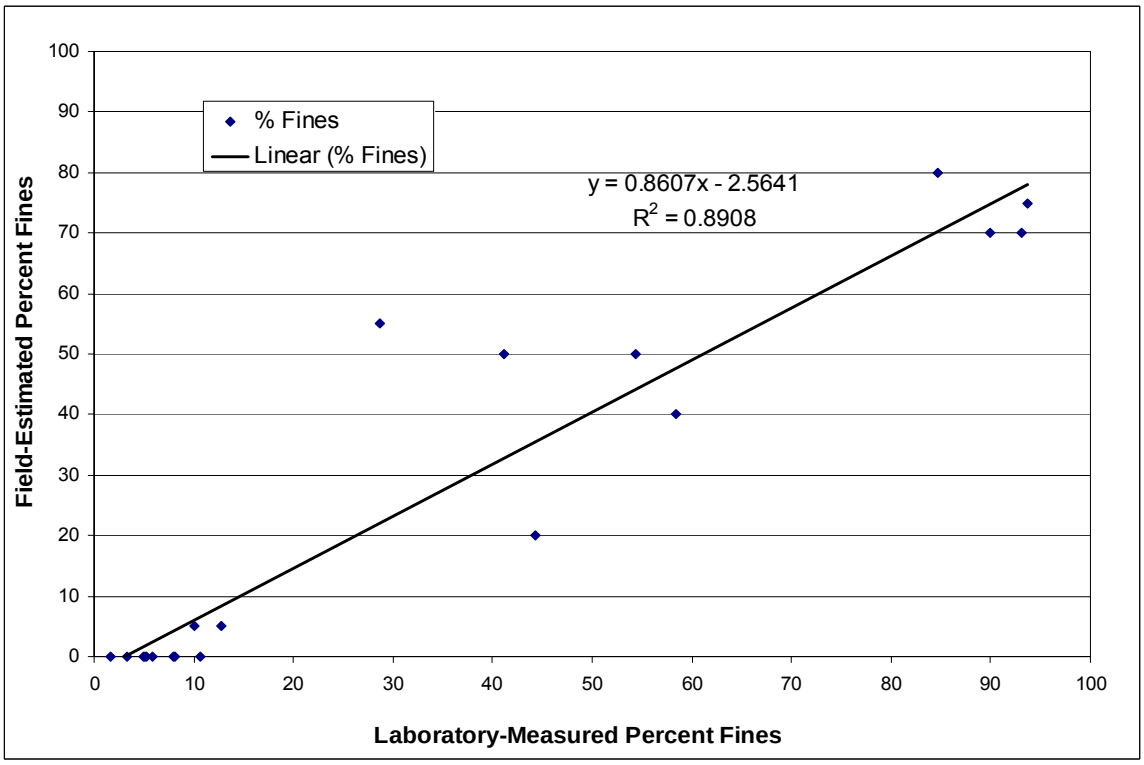


Figure 4-13 Field-Estimated versus Laboratory-Measured Percent Fines

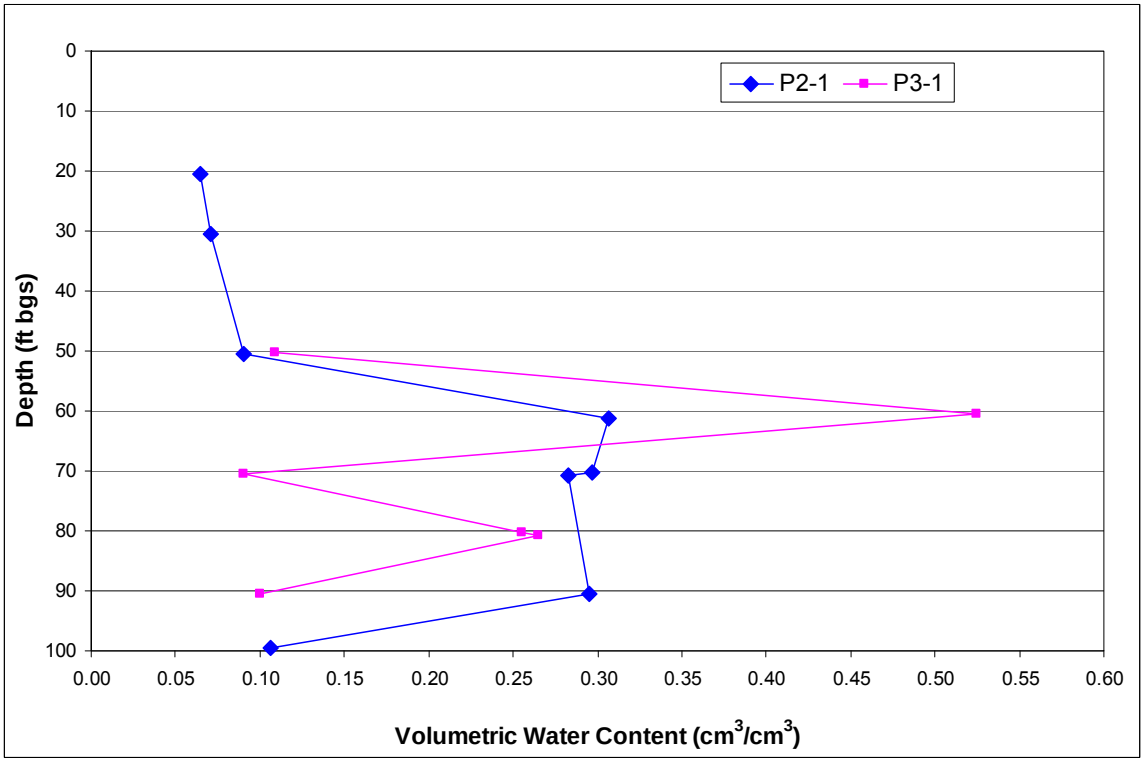


Figure 4-14. Core Volumetric Water Content versus Depth for Boreholes P-2-1 and P-3-1

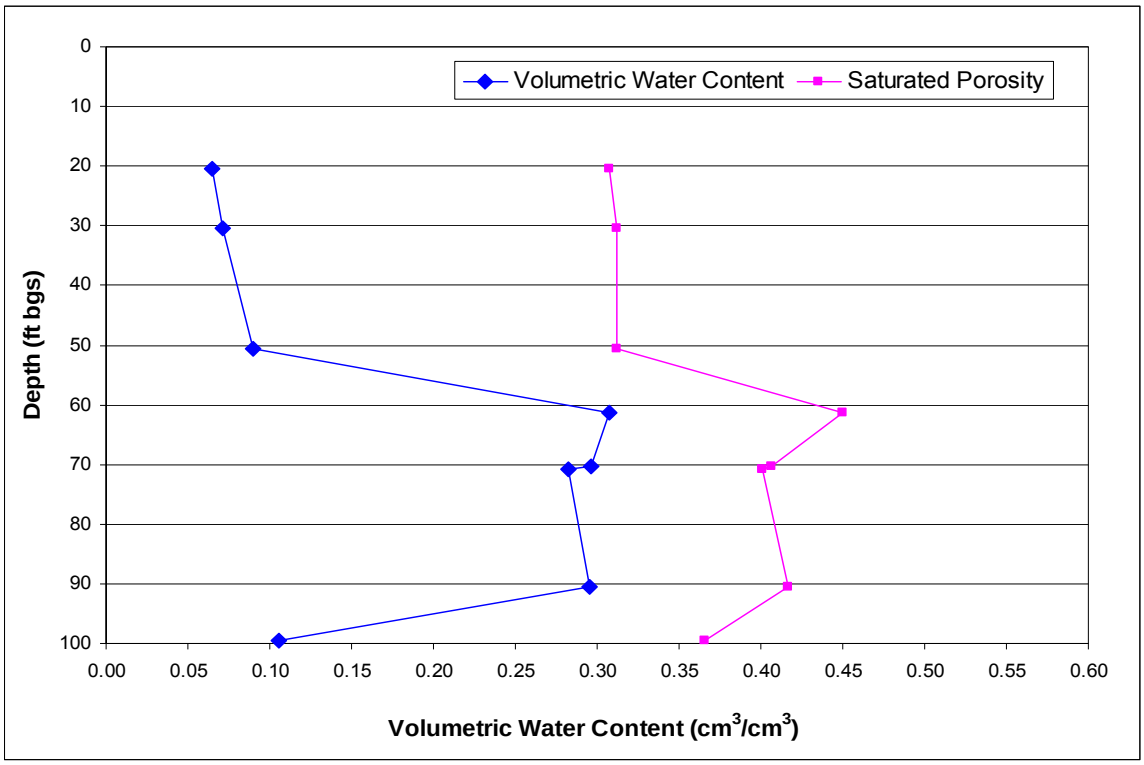


Figure 4-15. Core Volumetric Water Content and Saturated Porosity versus Depth for Borehole P-2-1

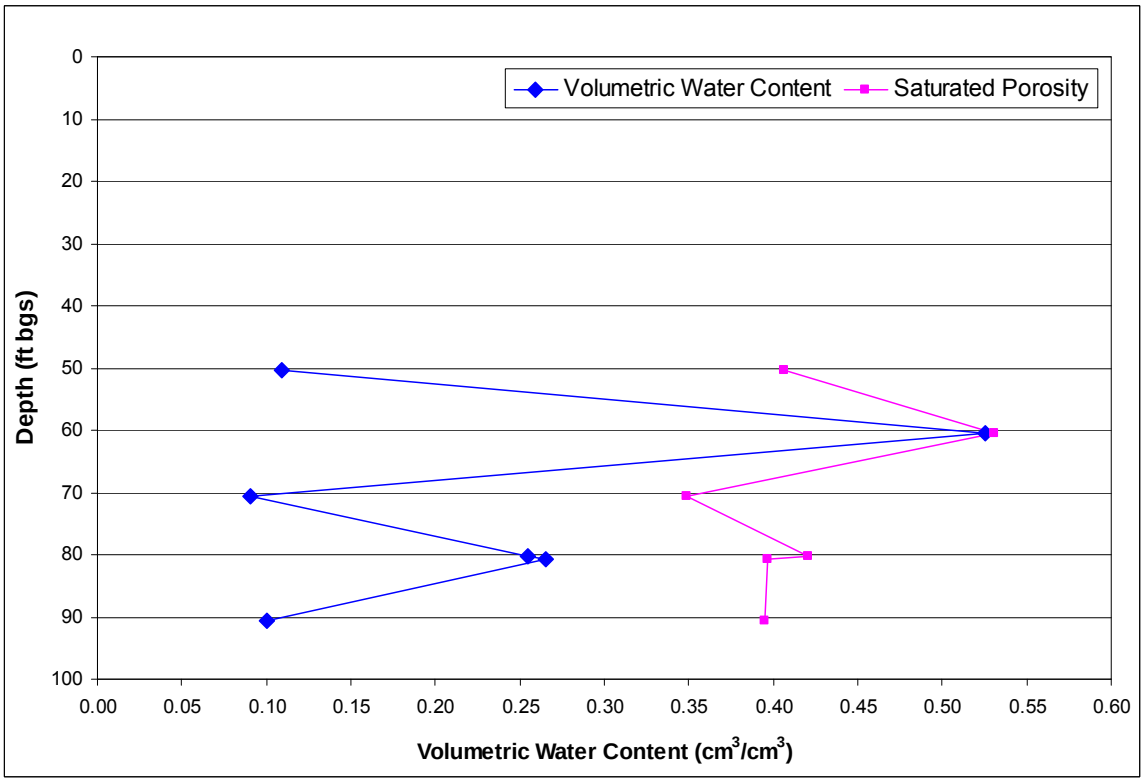


Figure 4-16. Core Volumetric Water Content and Saturated Porosity versus depth for Borehole P-3-1

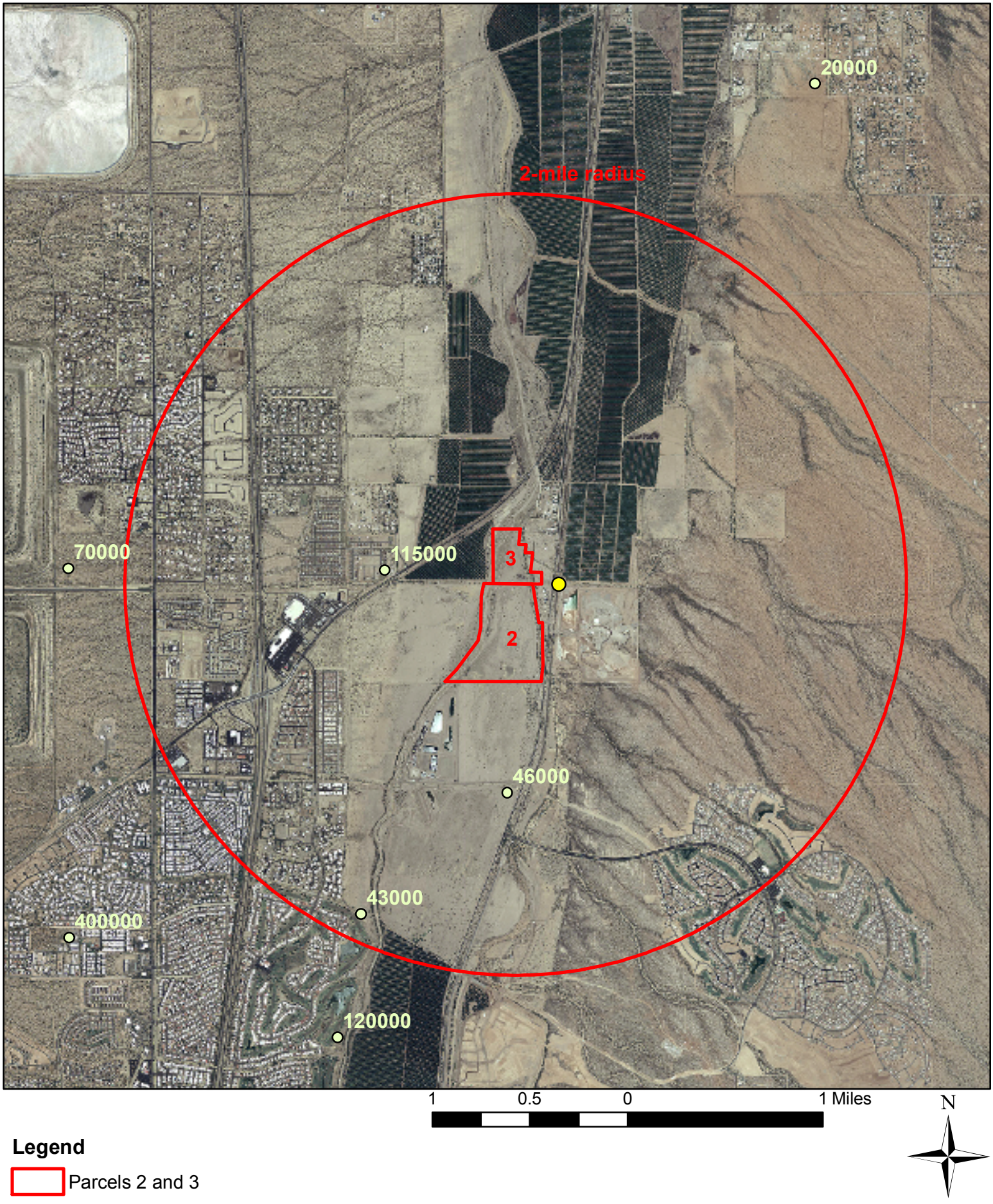


Figure 4-17. Aquifer Transmissivity Data in the Expanded Study Area

Figure 4-18. Estimated Groundwater Elevation

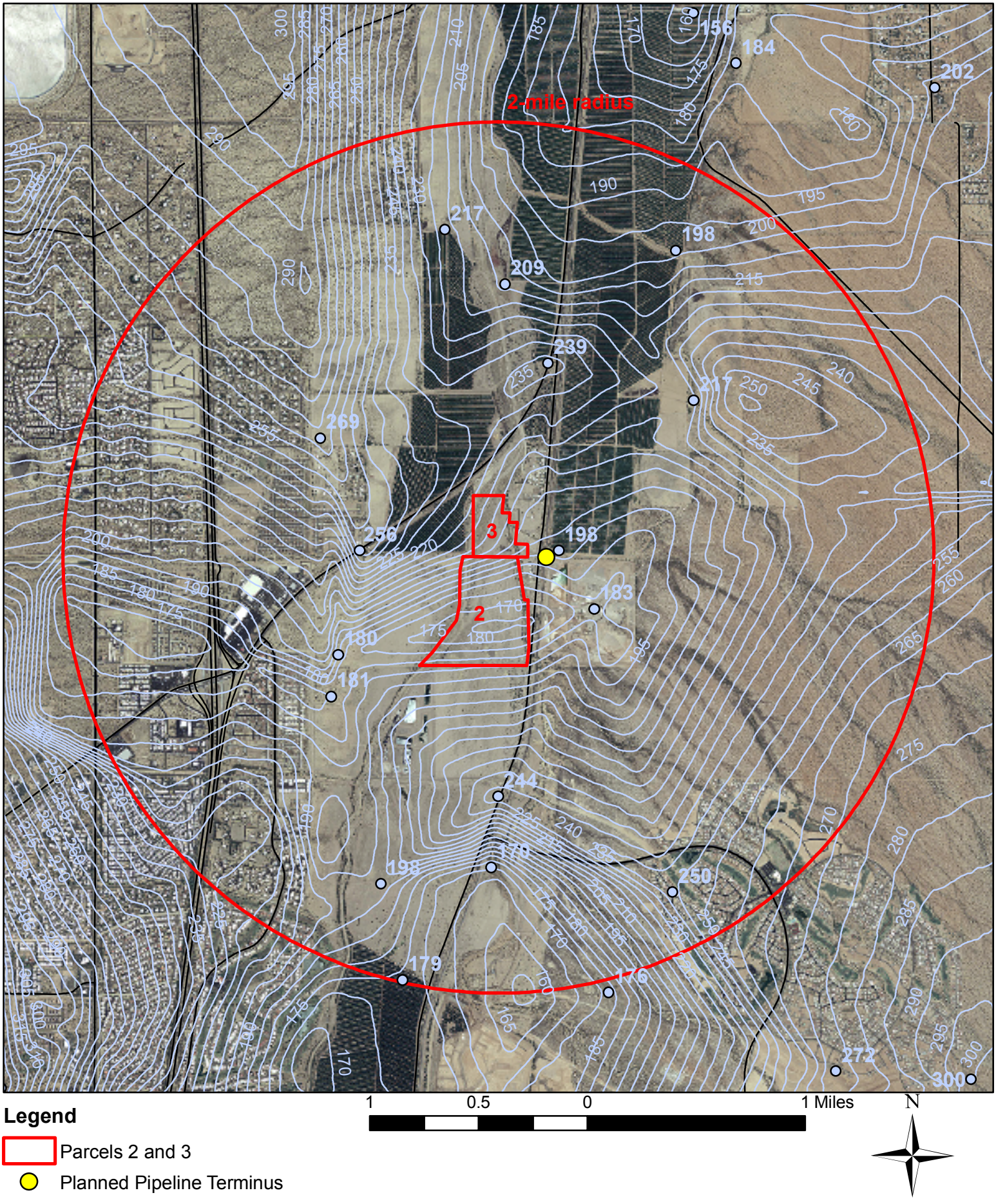


Figure 4-19. Estimated Depth to Groundwater

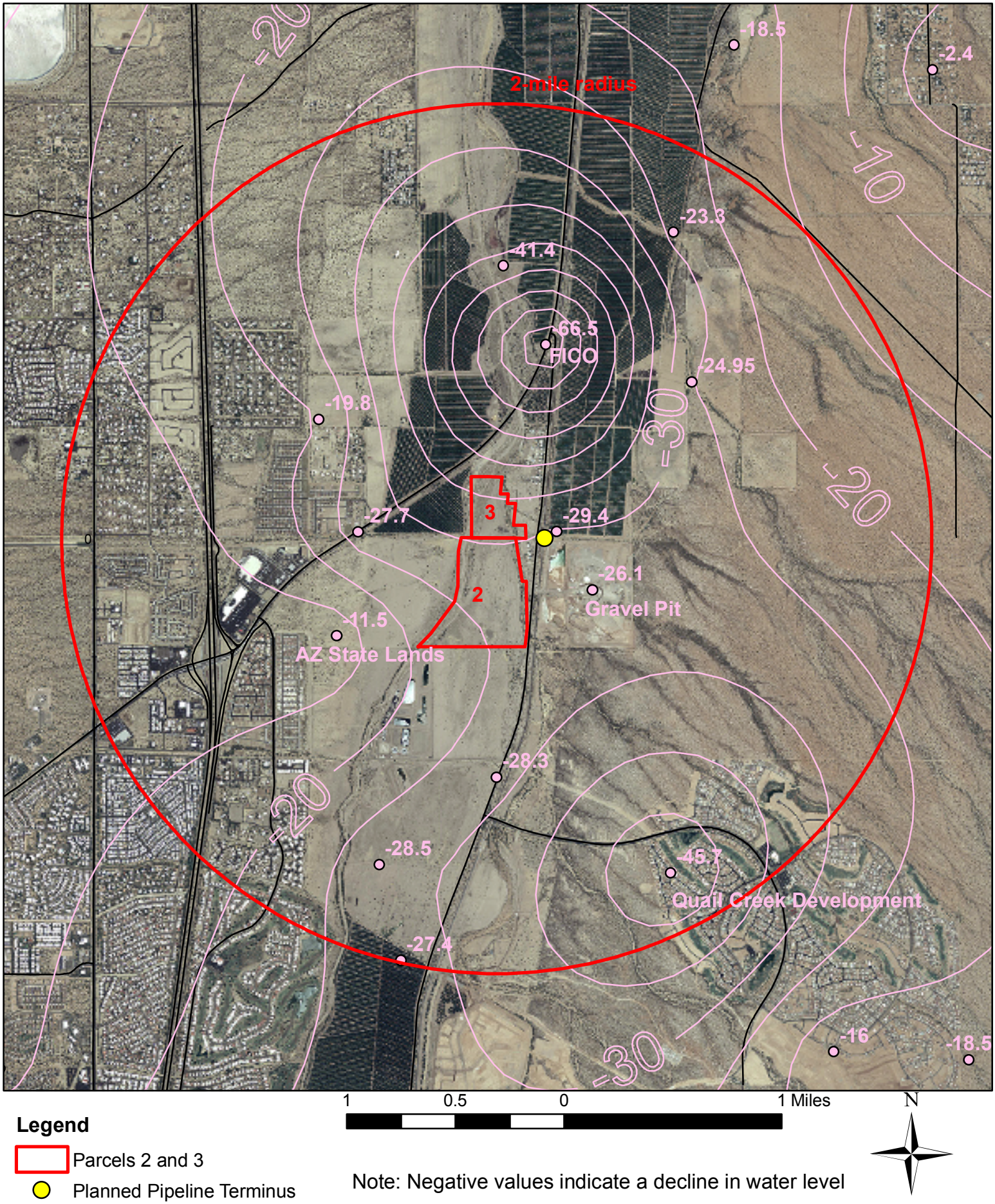
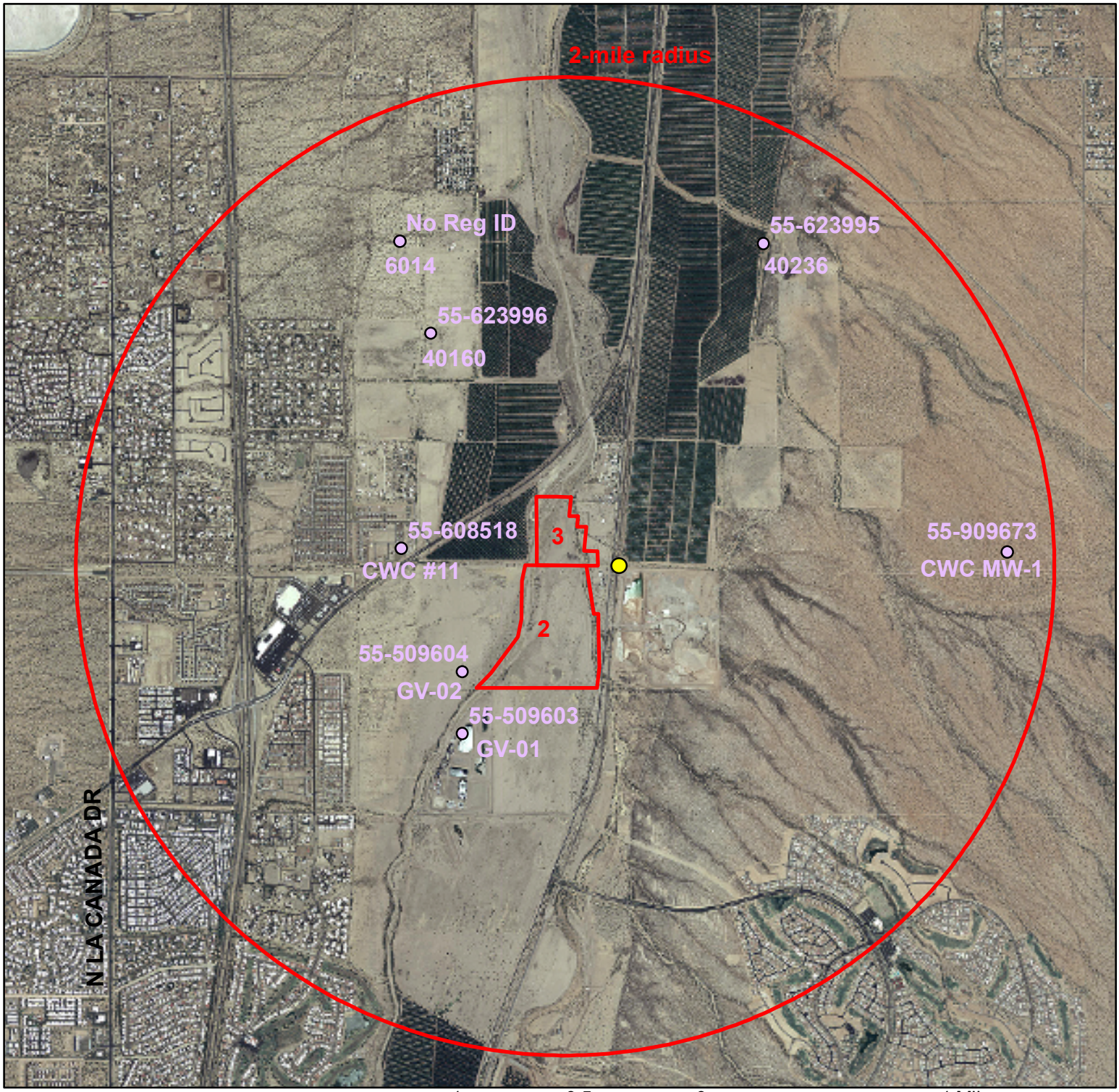


Figure 4-20. Estimated Change in Groundwater Levels 1995-7 to 2005-7



Well ID	ADWR Reg ID	Test Year	Owner	Well Depth (ft)	As (mg/L)	NO2+ NO3-N (mg/L)	TDS (mg/L)
6014	No Reg ID	1992	HELEN YEAST WELL #1	605	0.005	11.9	855
40236	55-623995	1992	FARMERS INVESTMENT	2000	0.016	1.21	376
40160	55-623996	1992	FARMERS INVESTMENT	1615	0.021	0.88	ND
GV-01	55-509603	2009	Pima County	230	0.005	5.00	868
GV-02	55-509604	2009	Pima County	230	0.005	4.40	970
CWC #11	55-608518	2007-8	Community Water Co.	2786	0.0098	ND	297
CWC MW-1	55-909673	2008	Community Water Co.	232	ND	6.57	430

ND -below detectable limit for test method

Figure 4-21. Wells with Water Quality Data

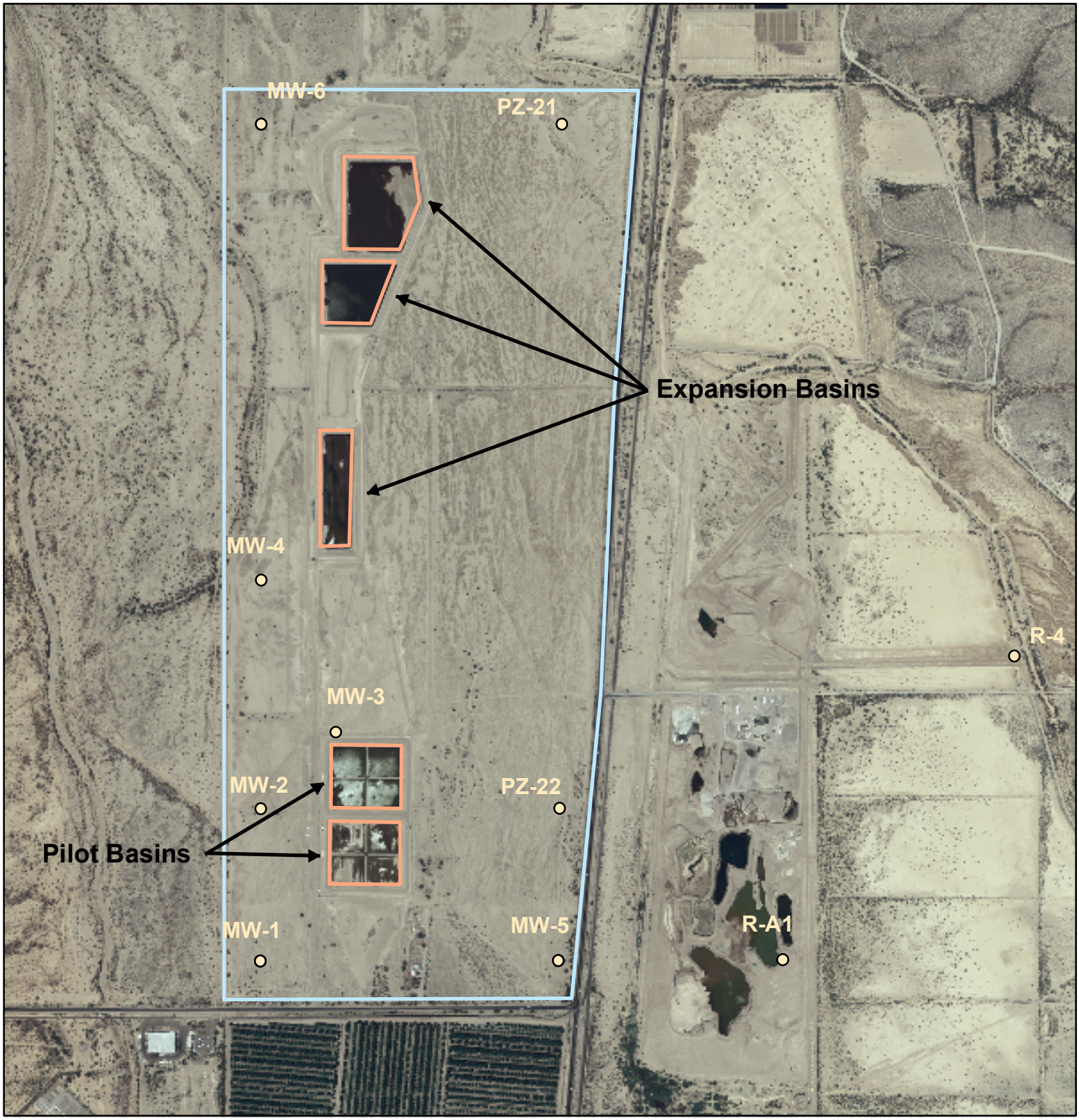


Figure 5-1. Pima Mine Road Recharge Project (PMMRP) Monitoring and Piezometer Wells

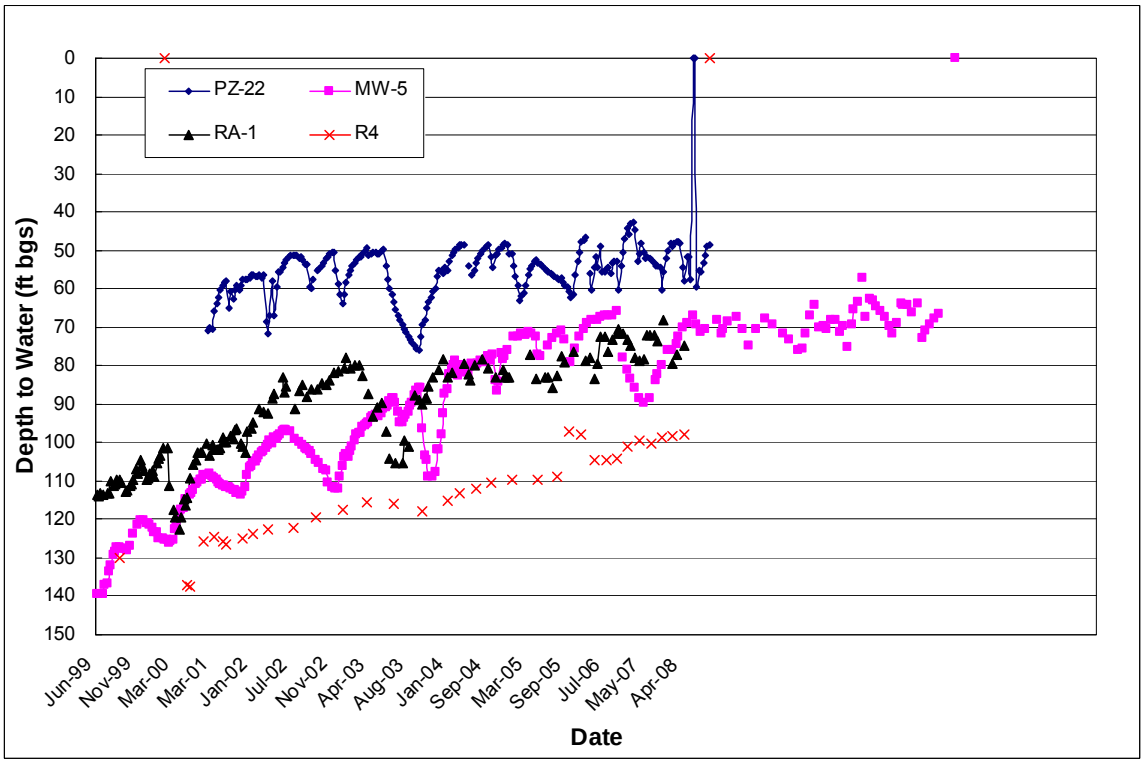


Figure 5-2. PMRRP Monitor Well and Piezometer Depth to Groundwater Levels

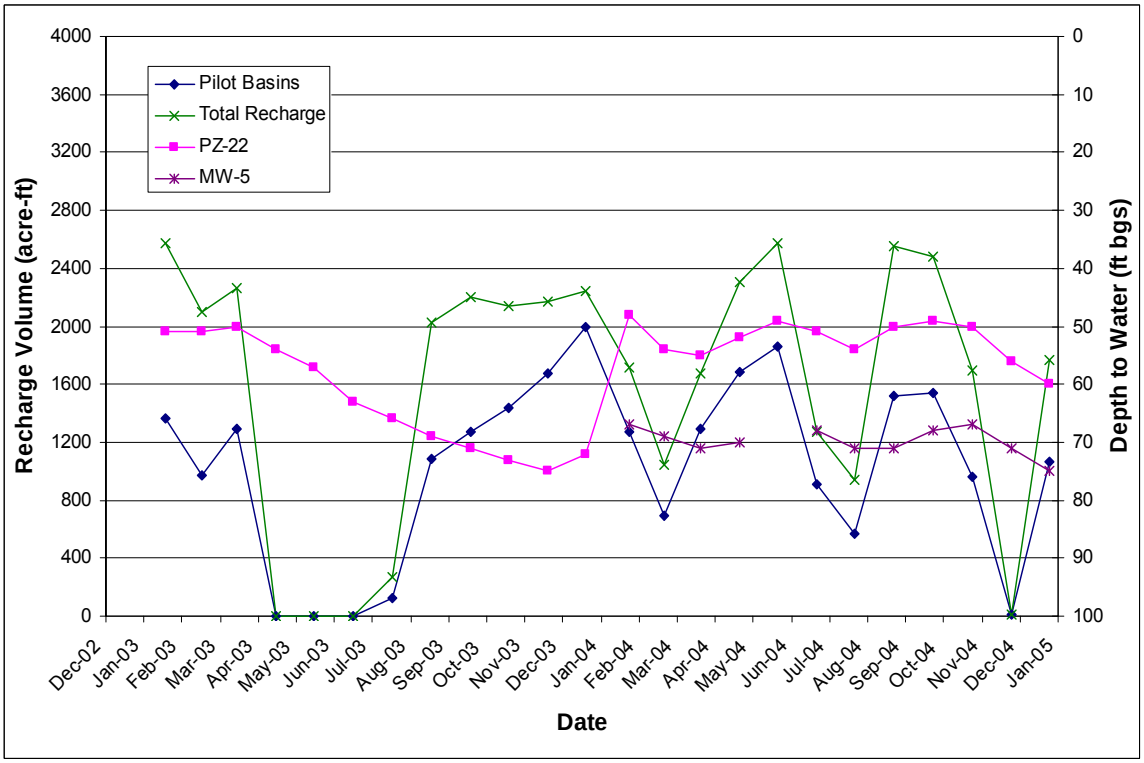


Figure 5-3. PMRRP Monthly Infiltration and Piezometer Water Levels, 2003-2004

Appendix 1.
CAP San Xavier Pumping Station: 2008 Water Quality Report

Table 7 San Xavier Grab Sample Results

San Xavier Pumping Plant 2008

General Chemistry Analytes	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature	°F	53.0	51.3	66.8	66.6	70.2	82.2	82.2	83.9	80.0	72.6	65.4	58.3
pH		8.2	7.8	8.3	8.1	8.3	8.1	8.3	7.7	7.9	8.7	7.8	8.2
Dissolved Oxygen	mg/L	11.0	10.6	9.6	9.5	9.2	9.3	8.9	9.1	8.1	9.0	7.9	9.4
Field Conductivity	uS/cm	971	978	987	1058	1040	120	1015	988	988	1034	1041	1013
Alkalinity in CaCO3 units	mg/L	93	123	80	125	128	170	124	148	131	111	146	108
Ammonia Nitrogen	mg/L	ND	0.06	ND	ND	ND	0.05	0.06	0.08	ND	0.05	0.08	ND
Barium, Total, ICAP/MS	ug/L	140	150	163	160	160	140	140	140	150	130	160	150
Bromide	ug/L	89	94	92	96	101	91	98	95	107	92	95	90
Calcium, Total, ICAP	mg/L	72	72	73	78	76	68	72	70	68	72	70	71
Chloride	mg/L	97	97	96	100	96	93	97	92	37	98	95	93
Copper, Total, ICAP/MS	ug/L	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	2.1
Dissolved Organic Carbon	mg/L	3.3	NA	2.8	3.0	3.0	3.2	3.4	3.4	3.6	3	NA	2.8
Iron, Dissolved, ICAP	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron, Total, ICAP	mg/L	0.068	0.061	0.078	0.130	0.110	0.033	0.040	0.026	0.043	ND	0.054	0.034
Magnesium, Total, ICAP	mg/L	31	29	29	30	31	29	31	29	29	30	30	29
Manganese, Total, ICAP/MS	ug/L	4.0	3.3	6.7	6.6	6.4	4.8	5.6	4.7	9.3	4.1	5.2	3.7
Nitrate as Nitrogen by IC	mg/L	ND	ND	0.68	ND	0.29	0.10	ND	ND	ND	ND	ND	ND
Orthophosphate as P	mg/L	ND	ND	ND	ND	ND	0.012	0.020	ND	ND	ND	ND	ND
Potassium, Total, ICAP	mg/L	5.1	5.2	5.1	5.3	5.3	5.0	5.5	4.9	4.9	5.2	5.3	5.2
Silica	mg/L	5.2	5.4	6.9	7.3	6.7	6.8	7.9	8.7	8.1	7.4	7.3	6.5
Sodium, Total, ICAP	mg/L	100	98	97	100	97	95	99	94	93	100	100	100
Specific Conductance	uS/cm	1040	1070	1060	1090	1060	1030	1010	1010	1000	1080	1060	1000
Strontium, ICAP	mg/L	1.2	1.1	1.3	1.2	1.3	1.2	1.1	1.1	1.1	1.2	1.2	1.2
Sulfate	mg/L	270	260	270	270	270	280	270	250	100	270	258	260
Total Dissolved Solid (TDS)	mg/L	678	650	682	722	NA	632	602	606	644	642	656	670
Total phosphorus as P	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Suspended Solids (TSS)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.0
Turbidity	NTU	2.9	2.3	4.3	5.0	3.1	1.9	2.0	1.8	2.9	0.9	2.0	2.2
Quarterly Analytes Detected	**These Results are the Priority Pollutants that are Reported by Exception as Detected by the Quarterly Samples**												
2,4-D	ug/L		0.17			ND			ND			0.10	
Arsenic, Total, ICAP/MS	ug/L		1.8			2.6			2.7			2.5	

Data Recovered with Hydrolab in Field **General Chemistry Data Sampled Monthly** **Priority Pollutants Sampled Quarterly**

NA = Analyte not Sampled **ND = Analyte not Detected** **EQ = Equipment Problem**

Appendix 2.
Geologic Logs used for Cross-Section A-A’

LOG OF WELL

588121

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	
0	80	Medium-Course Sand, Small Gravel.
80	210	Silty Sand, Small Trace of Clay, Small Gravel.
210	260	Pourly Graded Sand, W/ Fine Gravel.
260	350	Silty Sand, W/Trace of Clay, Course Gravel.
350	425	Pourly Graded Sand W/Gravel.
425	515	Well Graded Sand, W/Gravel, Small Silts.
515	575	Silty Sand W/Medium Course Sand.
575	1005	Well Graded Sand, Mostly Medium to Course Sand W/Small
		Amounts of Silts.

I hereby certify that this well was drilled by me (or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Drilling Firm: Arizona Beeman Drilling (490) 983-2542

Signature of Qualifying Party: Nate Beeman 02/21/02
Date

1341 E. Old West Hwy
Street

Apache Junction, Arizona 85219
City State Zip

DWR 55-55 (Rev 1/99)

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 588039

588039

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Description Describe material, grain size, color, etc.	Check (✓) every interval where water was encountered (if known)
0	1	Top Soil	
1	23	coarse white sand some tan clay	
23	30	rocky coarse gravel	
30	110	cobbles, gravel, some Tan clay	
110	120	silty Tan clay	
120	280	cobbles, coarse gravel, little Tan clay	✓
280	340	coarse white sand, gravel, very little clay	✓

LOG OF WELL

509604 GV-02

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	2'	Clay loam (70% clay) (30% sand)
2'	17'	Sandy loam (60% sand) (40% clay) Sandy well sorted and subang.
17'	25'	Fine gravel (2-5mm) subang and well sorted. Reddish brown clay (10%)
25'	45'	Gravel (50%) which is fine to med. (2-10mm) sub angular to angular, well sorted red volcanics, some epidote; clay (35%); Sand 15%
45'	50'	Mostly clay (65%) with fine gravel and medium sand, well sorted
50'	60'	Conglomerate of fine to med (4-10mm) gravel, clay 35%, and poorly sorted medium sand (20%)
60'	70'	Fine to med subang. to ang. gravel incl. epidote and red volanics 70%
70'	90'	Mixture of clay (60%), poorly sorted, angular fine (2-4mm) gravel 30% and fine sands cemented by clay.
90'	115'	Mostly fine to med. subang. to angular poorly sorted (55%) gravel inc. red volcanics and quartz; coarse and med poorly sorted sand (25%
115'	135'	Fine gravel (2-4mm) subang. to angular and poorly sorted; and coarse and very coarse sand subang to subangular and well sorted.
135'	137'	Clay(60%) and subangular poorly sorted gravel (30%)
137'	145'	Clay (35%) and subangular well sorted 3-6mm gravel (50%)
145'	175'	clay (60%); and subrounded to subangular well sorted medium to fine sands (25%); and angular poorly sorted medium (2-8mm) gravel Clay is reddish brown. Epidote and quartz in gravel with red volcanic
175'	180'	Equal mix of sand and gravel (80%) with some clay
180'	190'	Mostly med. to coarse well sorted subrounded to subang. sand (70%) and pea size gravel (4-10mm) (20%)
190'	207'	Medium and fine (8-20mm) subang. poorly sorted gravel (60%) and med to coarse well sorted subang. sand (35%)
207'	215	Light reddish brown clay (65%) and pebble size (5-20mm) angular poorly sorted gravel (30%)
215'	230'	Reddish brown clay (70%) cementing equal amounts of subangular poorly sorted gravel, and med. to fine well sorted sands. Clay very sticky as Kaolinite. Large clay particles (4-20mm) resembling weathered gravel feldspars.

I hereby certify that this well was drilled by me (or under my supervison), and that each and all of the statements herein contained are true to the best of my knowledge and belief.

Driller Harmon Drilling Co
J. B. Harmon
Name

Address

City State Zip

Date 2/28/85

LOG OF WELL

509603 GV-01 p.1

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	5'	Dark brown poorly sorted clay-loam.
5'	10'	Dark brown poorly sorted clay-loam.
10'	15'	Dark brown poorly sorted clay-loam.
15'	17'	Dark brown poorly sorted silt-clay-loam.
17'	20'	Medium dark reddish browm, medium subrounded sand.
20'	30'	Brown, well sorted, subrounded coarse sands (80%).
30'	35'	Dark reddish gray brown, well sorted, subangular very course sand
35'	40'	Dark reddish gray, poorly sorted, subangular very coarse sands and
		fine gravels.
40'	45'	Medium to course gravel. Mostly volcanics, subangular, tuffs,
		epidote, quartz.
45'	55'	Sand (45%) and Gravel (35%). Red volcanics, feldspars, quartz
		subround-subangular.
55'	60'	30% clay, sand and gravel (40%) poorly sorted. Gravel rich in
		volcanic fragments; subangular.
60'	65'	Clay mostly with subangular volcanic gravels (5-10mm).
65'	75'	Clay with streaks of gravel of volcanic subangular. Chert, epidote.
75'	85'	Clay and gravel with streaks of sand. Subangular gravels,
		subrounded sands.
85'	95'	Clay, 15% gravel well sorted. Clay in gravel size masses.
95'	97'	Clay and equal amounts of sand and subangular gravels.
97'	105'	Gravel and clay. Well sorted gravel angular to subangular.
105'	115'	Sand and clay. Sand fine to very coarse and poorly sorted.
115'	120'	Mostly gravel and sands. Some clay. Gravels angular to subangular.
120'	130'	Volcanic angular gravels and coarse to medium well sorted sands.
130'	135'	Very coarse poorly sorted subangular Sands, and fine angular
		gravels.
135'	150'	Medium to coarse, well sorted, subangular, sands, and clay and
		silt cementation (40% clay, 55% sand).
150'	155'	Medium (10mm) poorly sorted subangular gravel, and clay.
155'	165'	Mostly Clay (60%) and medium poorly sorted angular gravels (35%).
165'	180'	Clay (55%) and fine angular to subangular gravels (30%), and
		medium to fine well sorted sands (15%).
180'	185'	Clay (55%) and subrounded to subangular, well sorted medium sand
		(35%)

I hereby certify that this well was drilled by me (or under my supervison), and that each and all of the statements herein contained are true to the best of my knowledge and belief.

Driller Hansen Drilling Co
J. B. Hansen
Name

Address

City State Zip

Date 2/28/85

LOG OF WELL

509603 GV-01 p.2

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
185'	190'	Clay (45%) and Subangular pea size (4-10mm), poorly sorted gravel (45%).
190'	200'	Mostly coarse to very coarse subangular, well sorted sand (75%).
200'	205'	Conglomerate of mostly medium to coarse sand and medium gravel. Clay 25%.
205'	210'	Clay (65%) and coarse gravel (5-20mm) (25%) poorly sorted angular.
210'	220'	Coarse poorly sorted subangular sands (50%) and coarse poorly sorted gravel (30%).
220'	230'	Reddish brown clay and silt (80%), and fine sands cemented by clay.

I hereby certify that this well was drilled by me (or under my supervison), and that each and all of the statements herein contained are true to the best of my knowledge and belief.

RECEIVED MAR 13 1985 DEPT OF WATER RESOURCES

Driller Harmon Drilling
J. B. Harmon
Name

Address

City State Zip

Date

Geologic Log Sheet

Client	**Community Water Company**	**Logged by**	R. Rice		
Project	0913	**Drilling Co.**	Geomechanics Southwest	**Operator**	Ramon
Borehole	**P-3-1**	**Location**	12 R 503419 3530976		

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol	HCL Reaction				USCS Group Name	Hydrostratigraphic Unit*
	From	To	g= grab c= core	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong		
9/29/2009	0	3		x					30	55	15	W	x				x			ML		x			Fill	3
	3	6		x					30	50	20	W						x		ML	x				Silty clay	3
	6	10	g	x				20	75	5		W		x		x				SW	x				Sand with gravel	1
	10	11	g	x				15	85			W		x						SW	x				Sand with gravel	1
	11	20		x				20	80			W			x	x				SW	x				Coarse sand with gravel	1
	20	21	g	x				20	80			W			x	x				SW	x				Coarse sand with gravel	1
	21	28	g	x				40	60			W			x	x				SW	x				Coarse sand with gravel	1
	28	30	g		x				40	50	10	W	x				x			ML	x				Silt	3
	30	31	g		x			50	45	5		W		x		x				SW	x				Sand with gravel	1
	31	40	g		x			5	95			W		x		x				SW	x				Medium sand	1
	40	41	g		x			50	50			W		x	x	x				SW	x				Sand with gravel	1
	41	50			x			50	50			W		x	x	x				SW	x				Sand with gravel	1
	50	50.5	c		x			50	50			W		x	x	x				SW	x				Sand with gravel	1
	50.5	51	c		x			50	50			W		x	x	x				SW	x				Sand with gravel	1
	51	58	g		x			50	50			W		x	x	x				SW	x				Sand with gravel	1
	58	60	g			x			20	50	30	W	x						x	CL	x				(Silty) Lean clay with sand	3
	60	61	c,c			x			20	50	30	W	x						x	CL	x				(Silty) Lean clay with sand	3
	61	64	g			x			20	50	30	W	x						x	CL	x				(Silty) Lean clay with sand	3
	64	70	g		x				95	5		W	x	x		x				SW	x				Sand	1
	70	71	c,g		x			20	80			W		x	x	x				SW	x				Sand with gravel	1
	71	77	g		x			20	80			W		x	x	x				SW	x				Sand with gravel	1
	77	80	g			x			30	55	15	W	x					x		ML	x				Sandy silt	3
	80	81	c,c		x				50	40	10	W	x				x			ML	x				Sandy silt	3
	81	85	g		x				50	40	10	W	x				x			ML	x				Sandy silt	3
	85	90	g		x			5	95			W		x		x				SW	x				Medium sand	1
	90	91	c		x			5	95			W		x		x				SW	x				Medium sand	1
	91	97	g		x			5	95			W		x		x				SW	x				Medium sand	1
	97	99	g		x				60	30	10	W		x		x				SM	x				Silty sand	3
	99	99.5	c		x				60	30	10	W		x		x				SM	x				Silty sand	3
	99.5	100	c		x				45	40	15	W	x					x		ML	x				Sandy silt, more clay	3

* Unit 1 <10% Fines, Unit 2 10 to 30% Fines, Unit 3 >30% Fines

Geologic Log Sheet																											
Client	**Community Water Company**							**Logged by**	R. Rice																		
Project	0913							**Drilling Co.**	Geomechanics Southwest														**Operator**	Ramon			
Borehole	**P-2-1**											**Location**	12 R 503436 3530719														
Date Logged	**Depth Interval (ft)**		**Sample**	**Moisture Content**				**Particle Size Distribution**				**Grading**	**Sand Fraction**			**Plasticity**				**USCS Group Symbol**	**HCL Reaction**				**USCS Group Name**	**Hydrostratigraphic Unit***	
	From	**To**	**g= grab c= core**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**			
9/30/2009	0	2							40	50	10	W	x					x		ML	x				Sandy Silt	3	
	2	10	g	x				15	85			W		x		x				SW	x				Sand with gravel	1	
	10	11	c,g	x				60	40			W		x	x	x				GW	x				Gravel with sand	1	
	11	20	g	x				40	60			W			x	x				SW	x				Sand with gravel	1	
	20	21	c,g	x				40	60			W		x	x	x				SW	x				Sand with gravel	1	
	21	25	g	x				40	60			W		x	x	x				SW	x				Sand with gravel	1	
	25	30	g	x				20	80			W		x		x				SW	x				Medium sand	1	
	30	31	c	x				20	80			W		x		x				SW	x				Medium sand	1	
	31	40	g	x				30	70			W		x		x				SW	x				Sand with gravel	1	
	40	41	c	x				30	70			W		x		x				SW	x				Sand with gravel	1	
	41	50	g	x				40	60			W		x	x	x				SW	x				Medium sand with gravel	1	
	50	51	c	x				40	60			W		x	x	x				SW	x				Medium sand with gravel	1	
	51	57			x			30	70			W		x		x				SW	x				Medium sand with gravel	11	
	57	60	g			x			30	50	20	W	x						x	CL	x				(Silty) Lean clay with sand	3	
	60	61	c			x			25	50	25	W	x						x	CL	x				(Silty) Lean clay with sand	3	
	61	61.5	c			x			40	40	20	W	x					x		ML	x				Sandy silt	3	
	61.5	67				x			40	40	20	W	x					x		ML	x				Sandy silt	3	
	67	70	g		x				85	15		W		x		x				SM	x				Silty sand	2	
	70	71	c,c		x				75	25		W	x	x		x				SM	x				Silty sand, more silt	2	
	71	80	g		x				95	5		W	x	x		x				SW	x				Sand	1	
	80	81	c		x				50	40	10	W	x				x			ML	x				Sandy silt	3	
	81	90	g		x				95	5		W		x		x				SW	x				Medium sand	1	
	90	91	c		x				80	20		W	x			x				SM	x				Silty sand	2	
	91	99	g		x				95	5		W		x		x				SW	x				Medium sand	1	
	99	100	c		x			10	90			W		x		x				SW	x				Medium sand with gravel	1	

* Unit 1 <10% Fines, Unit 2 10 to 30% Fines, Unit 3 >30% Fines

LOG OF WELL

583888 Gravel Pit

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	
0	5	Back-filled abc
5	80	Sand & rock
80	90	Sand & gravel first water
90	220	Cemented sand & gravel
220	280	conglomerate (small amount of clay)
280	300	Cemented sand & gravel (possible aquifer)
300	740	Conglomerate - varying size gravel - very abrasive
740	780	Best sign of aquifer - mostly gravel - uncemented
780	940	conglomerate
940	960	Slight break in material - large gravel - possible water
960	1100	Very abrasive conglomerate - cemented mud/gravel
1100	1200	Becoming much harder/more abrasive - granite gravel

I hereby certify that this well was drilled by me (or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller's Name (Qualifying Party): John Hoover John Hoover

P.O. Box 927
Street

Stanfield, Arizona 85272
City State Zip

(520) 424-3739 3-17-02
Phone Number Date

DWR 55-55 (Rev 5/96)

Appendix 3.
Geologic Logs for Test Pits

Geologic Log Sheets for Test Pits S1 through S-24 (Parcel 2)

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-1**	**Location:**	12 R 503532 3530897

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					30	50	20	W	x					x		CL		x			Lean clay with sand
	1	2		x					70	25	5	W x				x				SM	x				Silty Sand
	2	4		x					95	5		W x				x				SW	x				Sand
	4	7		x				15	85			W	x	x		x				SW	x				Sand with gravel
	7	9		x				40	90			W		x	x					SW	x				Sand with gravel, gravel to 6"

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-2**	**Location:**	12 R 503451 3530903

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					30	50	20	W	x					x		CL	x				Lean clay with sand
	1	2.5		x					50	40	10	W x					x			ML	x				Silty Sand
	2.5	4		x					95	5		W	x			x				SW	x				Sand with gravel
	4	6		x				5	90	5		W		x		x				SW	x				Sand with gravel
	6	10		x				10	90			W			x					SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-3**	**Location:**	12 R 503339 3530872

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					90	10		W	x			x				SW-SM	x				Sand with silt
	1	2		x					55	40	5	W x				x				SM	x				Sandy Silt
	2	4		x					85	15		W x				x				SM	x				Silty Sand
	4	7		x				15	85			W		x		x				SW	x				Sand with gravel
	7	11		x				15	85			W		x		x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-4**	**Location:**	12 R 503555 3530807

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					60	30	10	W x						x		SM	x				Silty sand
	1	3		x					95	5		W	x			x				SW	x				Sand with gravel
	3	4		x				5	95			W		x	x	x				SW	x				Sand with gravel
	4	10		x				15	85			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheets for Test Pits S1 through S-24 (Parcel 2)

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-5	Location:	12 R 503532 3530897

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					30	50	20	W	x					x		CL		x			Lean clay with sand
	1	2		x					70	25	5	W x				x				SM	x				Silty Sand
	2	4		x					95	5		W x				x				SW	x				Sand
	4	7		x				15	85			W	x	x		x				SW	x				Sand with gravel
	7	9		x				40	90			W		x	x					SW	x				Sand with gravel, gravel to 6"

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-6	Location:	12 R 503550 3530627

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					25	50	25	W x							x	CL	x				Silt
	1	2		x					75	20	5	W x					x			SM	x				Silty Sand
	2	4		x					95	5		W x				x				SW	x				Sand
	4	8		x				5	95			W			x	x				SW	x				Sand with gravel
	8	11		x				20	80			W			x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-7	Location:	12 R 503572 3530521

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					50	40	10	W x						x		ML	x				Sandy Silt
	1	2.5		x					25	50	25	W	x						x	CL	x				Lean clay with sand
	2.5	6		x					100			W x				x				SW	x				Fine Sand
	6	8		x				20	80			W		x	x	x				SW	x				Sand with gravel
	8	10		x				20	80			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-8	Location:	12 R 503612 3530439

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	2		x					30	55	15	W x					x			ML	x				Sandy Silt
	2	3		x					70	30		W x				x				SM	x				Silty Sand
	3	4		x					70	30		W x				x				SM	x				Silty Sand
	4	6		x					95	5		W x		x		x				SW	x				Silty Sand
	6	10		x				60	40			W		x	x	x				GW	x				Gravel with sand

Geologic Log Sheets for Test Pits S1 through S-24 (Parcel 2)

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-9	Location:	12 R 503617 3530590

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/10/2009	0	1		x					60	40	10	W x						x		SM	x				Silty sand
	1	2		x					75	25		W x					x			SM	x				Silty sand
	2	4		x				10	90			W		x		x				SW	x				Sand with gravel
	4	10		x				20	80			W		x		x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-10	Location:	12 R 503530 3530388

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/10/2009	0	1.5		x					80	20		W x				x				SM	x				Silty Sand
	1.5	4		x					95	5		W x				x				SW	x				Fine Sand
	4	6		x				20	80			W		x	x	x				SW	x				Sand with gravel
	6	10		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-11	Location:	12 R 503432 3530426

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/10/2009	0	1		x					80	20		W x				x				SM	x				Silty Sand
	1	2		x				10	85	5		W	x			x				SW	x				Sand with gravel
	2	4		x				10	90			W		x	x	x				SW	x				Sand with gravel
	4	6		x				5	95			W		x		x				SW	x				Sand with gravel
	6	10		x				10	90			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-12	Location:	12 R 503358 3530349

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/10/2009	0	1.5		x					70	25	5	W x					x			SM	x				Silty Sand
	1.5	3		x					80	15	5	W x					x			SM	x				Silty Sand
	3	4		x					90	10		W	x			x				SW-SM	x				Sand with silt
	4	6		x				5	95			W		x		x				SW	x				Sand with gravel
	6	8			x			10	90			W		x	x	x				SW	x				Sand with gravel
	8	11			x			30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheets for Test Pits S1 through S-24 (Parcel 2)

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice	
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.	Operator:
Pit:	S-13	Location:	12 R 503291 3530281	

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/10/2009	0	1		x					70	30		W x				x				SM	x				Silty Sand
	1	2		x					85	15		W	x			x				SW-SM	x				Sand with silt
	2	4		x					95	5		W x				x				SW	x				Fine sand
	4	8		x				20	80			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice	
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.	Operator:
Pit:	S-14	Location:	12 R 503233 3530216	

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
######	0	2		x					30	60	10	W x					x			ML	x				Silt
	2	4.5		x					30	60	10	W x					x			ML	x				Silt
	4.5	9		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice	
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.	Operator:
Pit:	S-15	Location:	12 R 503108 3530213	

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/10/2009	0	2.5		x					30	60	10	W x					x			ML	x				Sandy Silt
	2.5	4		x					95	5		W x				x				SW	x				Fine Sand
	4	5		x				10	90			W		x	x	x				SW	x				Sand with gravel
	5	8		x				20	80			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice	
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.	Operator:
Pit:	S-16	Location:	12 R 503180 3530325	

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/10/2009	0	1		x					95	5		W x				x				SW	x				Fine Sand
	1	2		x					90	10		W	x			x				SW-SM	x				Find Silty Sand
	2	4		x					100			W x				x				SW	x				Fine Sand
	4	5		x					40	50	10	W x					x			ML	x				Sandy Silt
	5	6		x				10	90			W	x	x		x				SW	x				Sand with gravel
	6	9		x				20	80			W		x		x				SW	x				Sand with gravel

Geologic Log Sheets for Test Pits S1 through S-24 (Parcel 2)

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-17**	**Location:**	12 R 503256 3530407

	Depth Interval (ft)		**Sample**	**Moisture Content**				**Particle Size Distribution**				**Grading**	**Sand Fraction**			**Plasticity**				**USCS Group Symbol/Name**	**HCL Reaction**				**Comments**
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/10/2009	0	1		x					80	20		W	x			x				SW-SM	x				Sand with silt
	1	2		x					90	10		W	x			x				SW-SM	x				Sand with silt
	2	4		x					95	5		W x				x				SW	x				Fine Sand
	4	6		x					20	70	10	W x					x			SM	x				Silt
	6	8		x					20	70	10	W x					x			SM	x				Silt
	8	10		x					95	5		W x				x				SW	x				Coarse Sand

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-18**	**Location:**	12 R 503360 3530482

	Depth Interval (ft)		**Sample**	**Moisture Content**				**Particle Size Distribution**				**Grading**	**Sand Fraction**			**Plasticity**				**USCS Group Symbol/Name**	**HCL Reaction**				**Comments**
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/10/2009	0	1		x					30	50	20	W	x					x		CL	x				Lean clay with sand
	1	2		x					60	30	10	W x					x			SM	x				Sandy Silt
	2	3		x					95	5		W x				x				SW	x				Sand
	3	4		x					80	20		W x				x				SW-SM	x				Silty Sand
	4	6		x				20	80			W		x	x	x				SW	x				Sand with gravel
	6	12			x			20	80			W		x	x	x				SW	x				Sand with gravel, damp

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-19**	**Location:**	12 R 503287 3530616

	Depth Interval (ft)		**Sample**	**Moisture Content**				**Particle Size Distribution**				**Grading**	**Sand Fraction**			**Plasticity**				**USCS Group Symbol/Name**	**HCL Reaction**				**Comments**
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/10/2009	0	1		x					80	20		W	x			x				SW-SM	x				Sand with silt
	1	2		x					80	20		W	x			x				SW-SM	x				Sand with silt
	2	4		x					95	5		W x								SW	x				Sand
	4	6		x				5	95			W x				x				SW	x				Sand
	6	8		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**S-20**	**Location:**	12 R 503469 3530575

	Depth Interval (ft)		**Sample**	**Moisture Content**				**Particle Size Distribution**				**Grading**	**Sand Fraction**			**Plasticity**				**USCS Group Symbol/Name**	**HCL Reaction**				**Comments**
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/10/2009	0	1		x					85	15		W x				x				SM	x				Silty Sand
	1	2		x					90	10		W	x			x				SW-SM	x				Sand with silt
	2	4		x					100			W x				x				SW	x				Clean Sand
	4	11		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheets for Test Pits S1 through S-24 (Parcel 2)

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-21	Location:	12 R 503510 3530482

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					60	35	5	W x				x				SM	x				Silty Sand
	1	2		x					80	20		W x				x				SM	x				Silty Sand
	2	4		x					95	5		W x				x				SW	x				Sand
	4	10		x				10	85	5		W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-22	Location:	12 R 503436 3530719

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					40	50	10	W x						x		ML	x				Sandy Silt
	1	2		x					75	20	5	W x				x				SM	x				Silty Sand
	2	4		x					90	10		W x				x				SW	x				Sand
	4	6		x				10	90			W		x		x				SW	x				Sand with gravel
	6	9		x				10	90			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-23	Location:	12 R 503313 3530765

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1		x					85	15		W x				x				SM	x				Silty Sand
	1	2		x					85	15		W x				x				SM	x				Silty Sand
	2	4		x					100			W x		x		x				SW	x				Clean Sand
	4	6		x					30	55	15	W x						x		ML	x				Sandy silt
	6	7		x					90	10		W x				x				SW-SM	x				Silty Sand
	7	10		x				40	55	5		W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	Community Water Co.	Logged:	R. Rice
Project:	0913	Backhoe Co.:	Lamb Excavating, Inc.
Pit:	S-24	Location:	12 R 503484 3530829

Date Logged	Depth Interval (ft) From	To	Sample g= grab	Moisture Content Dry	Slightly Moist	Moist	Wet	Particle Size Distribution % Gravel	% Sand	% Silt	% Clay	Grading W= Well, P= Poor	Sand Fraction Fine	Medium	Coarse	Plasticity None	Low	Medium	High	USCS Group Symbol/Name	HCL Reaction None	Weak	Moderate	Strong	Comments
9/9/2009	0	1.5		x					60	30	10	W x						x		SM	x				Sandy Silt
	1.5	3		x					90	10		W x				x				SW	x				Fine Sand
	3	4		x				20	80			W		x	x	x				SW	x				Sand with gravel
	4	10		x				20	80			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheets for Test Pits C1 through C-12 (Parcel 3)

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**		
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.**	**Operator:**	
Pit:	**C-1**	**Location:**	12 R 503479 3531332		

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/8/2009	0	1		x					30	60	10	W	x				x			ML		x			Silt
	1	2		x					30	60	10	W	x				x			ML		x			Silt
	2	3		x					50	45	5	W	x			x				ML	x				Silt, more sand
	3	4		x					30	60	10	W					x			ML	x				Silt
	4	5		x				10	85	5		W		x	x	x				SW	x				Medium sand with gravel
	5	7		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-2**	**Location:**	12 R 503490 3531240

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/8/2009	0	1		x					60	30	10	W	x				x			SM		x			Silty sand
	1	2		x					60	30	10	W	x				x			SM		x			Silty sand
	2	3		x					60	30	10	W	x				x			SM	x				Silty sand
	3	4		x					30	60	10	W	x			x				ML	x				Sandy Silt
	4	6		x					30	60	10	W	x			x				ML	x				Sandy Silt
	6	7		x				10	90			W		x		x				SW	x				Sand with gravel
	7	10		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-3**	**Location:**	12 R 503505 3531154

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/8/2009	0	1		x					30	55	15	W	x					x		ML		x			Sandy Silt
	1	2		x					60	35	5	W	x					x		SM		x			Silty Sand
	2	3.5		x					50	35	15	W	x					x		ML	x				Sandy Silt
	3.5	5		x				20	80			W		x	x	x				SW	x				Sand with gravel
	5	8		x				30	70			W		x	x	x				SW	x				Sand with gravel, boulders to 6"
																									Belling out

Geologic Log Sheets for Test Pits C1 through C-12 (Parcel 3)

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**		
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.**	**Operator:**	
Pit:	**C-4**	**Location:**	12 R 503481 3531067		

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/8/2009	0	1		x					65	25	10	W	x					x		SM		x			Fill
	1	2		x					40	50	10	W	x					x		ML		x			Silt
	2	4		x					30	60	10	W	x					x		ML	x				Silt
	4	5		x					60	30	10	W	x			x				SM	x				Silty Sand
	5	8		x				20	80			W		x	x	x				SW	x				Sand with gravel
	8	11		x				30	70			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-5**	**Location:**	12 R 503508 3530943

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
######	0	1		x					40	40	20	W	x					x		ML		x			Sandy Silt
	1	2.5		x					40	40	20	W	x					x		ML		x			Sandy Silt
	2.5	8		x				10	90			W		x		x				SW	x				Medium Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-6**	**Location:**	12 R 503419 3530976

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/8/2009	0	2		x				10	50	30	10	W		x			x					x			Fill
	2	3		x					30	55	15	W	x				x			ML		x			Sandy Silt (fill also?)
	3	6		x					30	50	20	W						x		ML	x				Silt (possible topsoil)
	6	7		x				20	75	5		W		x		x				SW	x				Sand with gravel
	7	10		x				10	90			W		x	x					SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-7**	**Location:**	

Date Logged	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
9/8/2009	0	4		x				10	50	25	15	W						x		ML		x			Fill
	4	5		x					70	25	5	W	x				x			SM		x			Sandy Silt
	5	6		x					100			W	x			x				SW	x				Fine Sand
	6	7		x					95	5		W	x			x				SW	x				Sand with gravel
	7	9		x				10	85	5		W	x	x		x				SW	x				Sand with gravel

Geologic Log Sheets for Test Pits C1 through C-12 (Parcel 3)

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-8**	**Location:**	12 R 503434 3531122

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/8/2009	0	2		x					25	65	10	W	x				x			ML		x			Silt
	2	3		x																	x				Asphalt Fill
	3	6		x				20	80			W		x		x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-9**	**Location:**	12 R 503425 3531190

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/8/2009	0	1		x					70	25	5	W	x			x				SM	x				Silty Sand
	1	2		x					20	60	20	W	x				x			ML	x				Silt
	2	3		x					70	25	5	W	x	x		x				SM	x				Silty Sand
	3	4		x				5	90	5		W		x		x				SW	x				Sand with gravel
	4	6		x				20	80			W		x	x	x				SW	x				Sand with gravel
	6	8		x				40	60			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-10**	**Location:**	12 R 503440 3531262

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/8/2009	0	2		x					30	60	10	W	x				x			ML		x			Silt
	2	4		x				5	95			W		x		x				SW	x				Sand
	4	9		x				20	80			W		x	x	x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-11**	**Location:**	12 R 503344 3530959

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	**From**	**To**	**g= grab**	**Dry**	**Slightly Moist**	**Moist**	**Wet**	**% Gravel**	**% Sand**	**% Silt**	**% Clay**	**W= Well, P= Poor**	**Fine**	**Medium**	**Coarse**	**None**	**Low**	**Medium**	**High**		**None**	**Weak**	**Moderate**	**Strong**	
9/8/2009	0	1.5		x				10	30	40	20	W	x					x		ML		x			Sandy Silt, fill
	1.5	3		x					30	60	10	W	x					x		ML		x			Sandy Silt
	3	4		x					60	35	5	W	x			x				SM	x				Silty Sand
	4	5		x					85	10	5	W	x	x		x				SM	x				Silty Sand
	5	10		x				20	75	5		W		x		x				SW	x				Sand with gravel

Geologic Log Sheet

Client:	**Community Water Co.**	**Logged:**	**R. Rice**
Project:	**0913**	**Backhoe Co.:**	**Lamb Excavating, Inc.** **Operator:**
Pit:	**C-12**	**Location:**	12 R 503386 3531099

	Depth Interval (ft)		Sample	Moisture Content				Particle Size Distribution				Grading	Sand Fraction			Plasticity				USCS Group Symbol/Name	HCL Reaction				Comments
Date Logged	From	To	g= grab	Dry	Slightly Moist	Moist	Wet	% Gravel	% Sand	% Silt	% Clay	W= Well, P= Poor	Fine	Medium	Coarse	None	Low	Medium	High		None	Weak	Moderate	Strong	
######	0	2		x					55	35	10	W	x					x		SM		x			Silty Sand
	2	4		x					15	60	15	W	x						x	CL					Lean clay with sand
	4	5		x				10	80	10		W		x		x				SW	x				Sand with gravel
	5	10		x				30	70			W		x	x	x				SW	x				Sand with gravel

Appendix 4.
Cylinder Infiltrometer Method

APPENDIX 2 - CYLINDER INFILTROMETER METHOD

The cylinder infiltrometer method used for this study is described in detail in Bouwer et al. (1999). Briefly, this method is a short-term, single-ring infiltration test. The cylinders are 20 inches in diameter and 12 inches tall. Each cylinder was driven approximately one to four inches into the ground using a driver. The soil against the inside and outside of the ring was lightly compacted to minimize preferential flow at the ring-soil contact. Following installation, the cylinders were filled with water to the top, and monitoring of the decline in water level (y) was initiated. After the water had fallen about two inches, the time (Δt) and exact decrease in water level (y_n) were recorded, and the cylinder was refilled to the top. This process was continued until either 15 inches of water had infiltrated, or four hours had elapsed. A shovel was then used to dig outside of the cylinder to determine the distance (x) of lateral divergence. The depth of wetting was determined by augering to dryness when possible. When the wetting depth could not be determined by augering, the depth of wetting was estimated from cumulative infiltration.

Calculation of Effective Saturated Hydraulic Conductivity

In order to calculate the effective saturated hydraulic conductivity (K), the downward flow rate, i_w, must first be corrected for the effect of lateral divergence, based on the radius of the observed wetting front:

1) $$i_w = \frac{i_n \pi r^2}{\pi (r + x)^2}$$

where
i_n = infiltration rate during the last water drop ($y_n/\Delta t_n$),
r = radius of the cylinder,
x = lateral divergence from the cylinder, and
Δt_n = time of last water drop.

When the depth of the wetting front at the end of the test, L, is difficult to measure, such as in soil that is already moist, it can be calculated from the cumulative infiltration (y_t) as:

2) $$L = \frac{y_t \pi r^2}{n \pi (r + x)^2}$$

where n is the estimated fillable porosity of the soil, based on the field description of soil texture and initial moisture content. When the depth of the wetting front was directly measured in the field, Equation 2 was solved for n to more accurately estimate fillable porosity.

Applying Darcy's equation to the downward flow i_w (Equation 1) and assuming vertical flow in the wetted zone yields:

3) $$i_w = K \frac{z + L - h_{we}}{L}$$

where:
K = effective saturated hydraulic conductivity of the wetted zone,
z = average depth of water in the cylinder during the last water drop y_n, and
h_{we} = water entry value of the soil (estimate of soil suction, from Bouwer et al., 1999).

Material property estimates made in the field were used to assign the water entry value for each sample.

Equation 3 was rearranged to solve for K:

4) $$K = \frac{i_w L}{(z + L - h_{we})}$$

This calculated value is an estimate of K, and may be less than the true hydraulic conductivity due to air entrapment within the pores. Nonetheless, because of scale effects, cylinder infiltrometers provide a more accurate estimation of saturated hydraulic conductivity than smaller-scale laboratory measurements.

References

Bouwer, H., Back, J.T., Oliver, J.M., 1999. Predicting Infiltration and Ground Water Mounds for Artificial Recharge, J Hydro Eng, ASCE, (4) pp. 350-357

Appendix 5.
Laboratory Physical and Hydraulic Property Results

GeoSystems Analysis, Inc.
Arizona • Nevada • Oregon

2015 N. Forbes Blvd. Suite 105
Tucson, AZ 85745
520-628-9330
Fax: 520-628-1122
www.gsanalysis.com

DATE: November 12, 2009 **JOB NO:** 90913

TO: **Community Water Company**

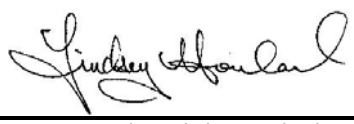
RE: **Report: Laboratory Testing**

Enclosed are results for: Samples Received - August 20th, 2009

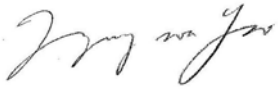
Test	*Method*	*Qty*
Saturated Hydraulic Conductivity - Constant and Falling Head	ASTM 2434 - 68 / MOSA Part 4, Method 3.4.2.2	8
Particle Size Analysis with Hydrometer	ASTM D 422 - 63 / ASTM C136	8
Particle Size Analysis - Wet Sieve	ASTM D 1140	12
Gravimetric Moisture Content	ASTM D 2216 - 98	14
Bulk Density	ASTM D 2937 - 00	14
Atterberg Limits	ASTM D 4318 - 00	8

Thank you for choosing GeoSystems Analysis for your material testing needs. We look forward to working with you again. If you have any questions or require additional information, please contact us at 1-520-628-9300

Sincerely,



Prepared By: Lindsey Hovland



Reviewed By: Mike Yao

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Laboratory Test Results - Saturated Hydraulic Conductivity

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

Sample ID	Saturated Hydraulic Conductivity (cm/s)
P-2-1-30-31	2.2E-02
P-2-1-61-61.5	8.6E-07
P-2-1-70-70.5	1.8E-07
P-2-1-99-100	4.1E-03
P-3-1-60-61	2.4E-08
P-3-1-80-80.5	1.0E-03
P-3-1-90-91	9.2E-03
P-3-1-10-11*	3.0E-02

* Sample repacked to bulk density of ~1.5 g/cm^3
P = borehole sample
S = state land soil pit sample from parcel P2

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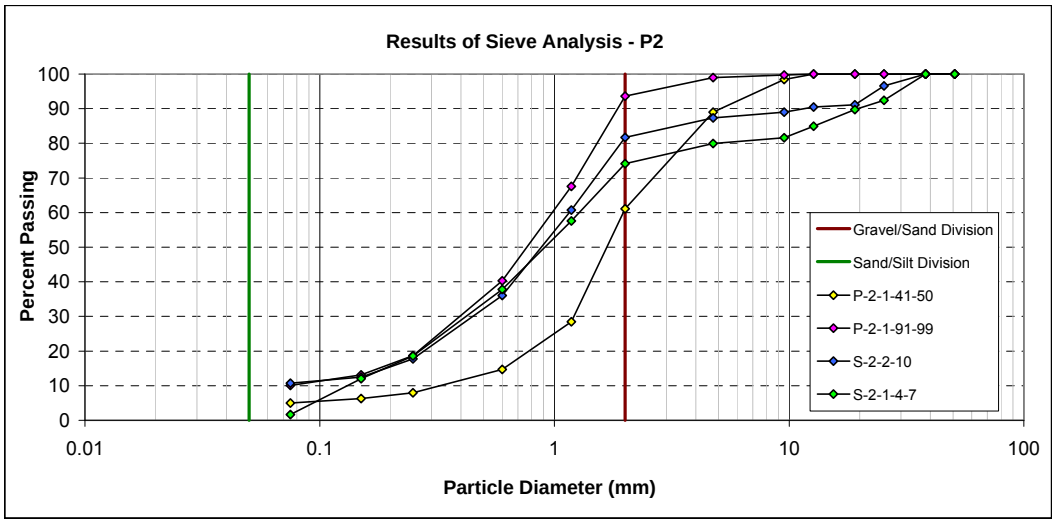
Laboratory Test Results - Particle Size Sieve Analysis

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

		Sample ID			
		P-2-1-41-50	P-2-1-91-99	S-2-2-10	S-2-1-4-7
(mm)	Sieve	Percent Passing			
50.8	2"	100	100	100	100
38.1	1.5"	100	100	100	100
25.4	1"	100	100	97	92
19.05	3/4"	100	100	91	90
12.7	1/2"	100	100	91	85
9.525	3/8"	98	100	89	82
4.75	4	89	99	87	80
2	10	61	94	82	74
1.18	16	29	68	61	58
0.6	30	15	40	36	38
0.25	60	8	19	18	19
0.15	100	6	13	13	12
0.075	200	5	10	11	2



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Laboratory Test Results - Particle Size Sieve Analysis

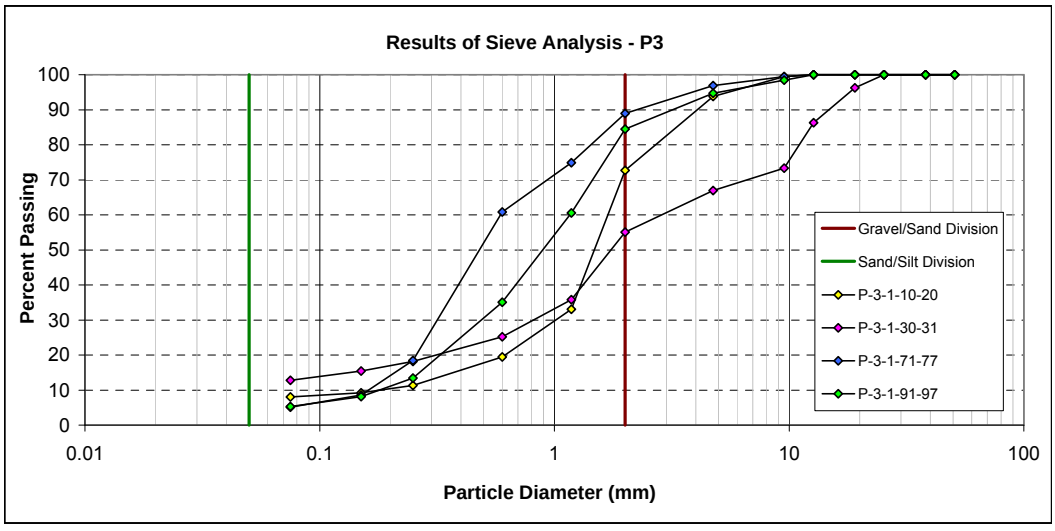
form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

		Sample ID			
		P-3-1-10-20	P-3-1-30-31	P-3-1-71-77	P-3-1-91-97
Mesh (mm)	Sieve	Percent Passing			
50.8	2"	100	100	100	100
38.1	1.5"	100	100	100	100
25.4	1"	100	100	100	100
19.05	3/4"	100	96	100	100
12.7	1/2"	100	86	100	100
9.525	3/8"	99	73	99	98
4.75	4	94	67	97	95
2	10	73	55	89	84
1.18	16	33	36	75	61
0.6	30	19	25	61	35
0.25	60	11	18	18	13
0.15	100	9	15	9	8
0.075	200	8	13	5	5

27	‖	45
64.67	‖	42.33



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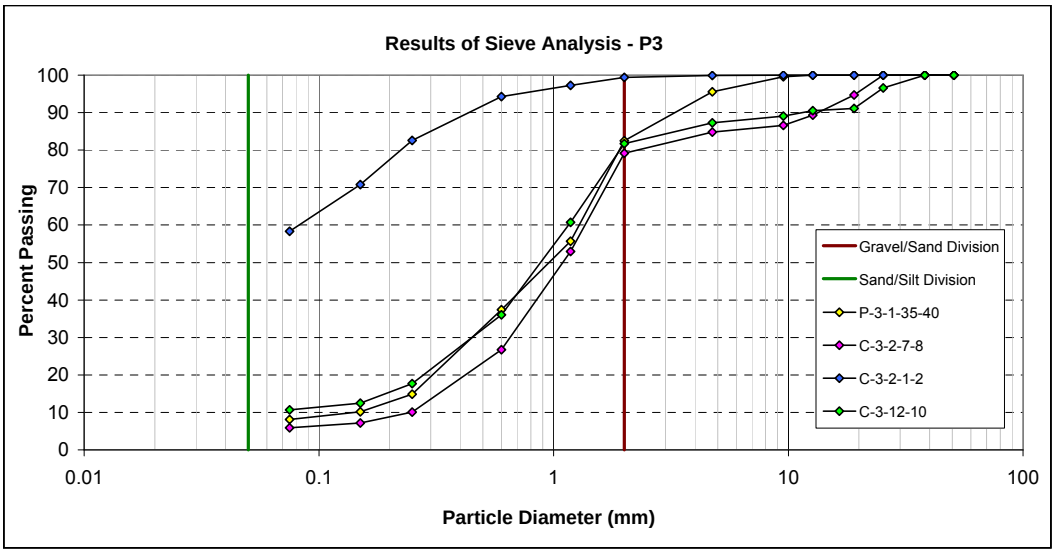
Laboratory Test Results - Particle Size Sieve Analysis

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

		Sample ID			
		P-3-1-35-40	C-3-2-7-8	C-3-2-1-2	C-3-12-10
Mesh (mm)	Sieve	Percent Passing			
50.8	2"	100	100	100	100
38.1	1.5"	100	100	100	100
25.4	1"	100	100	100	97
19.05	3/4"	100	95	100	91
12.7	1/2"	100	89	100	91
9.525	3/8"	100	87	100	89
4.75	4	96	85	100	87
2	10	83	79	99	82
1.18	16	56	53	97	61
0.6	30	37	27	94	36
0.25	60	15	10	83	18
0.15	100	10	7	71	13
0.075	200	8	6	58	11



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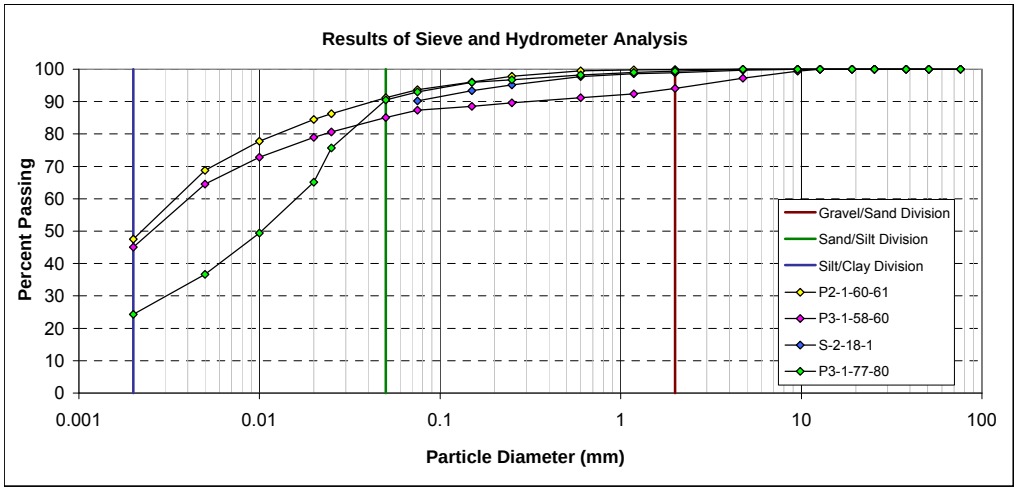
Laboratory Test Results - Particle Size Sieve Analysis

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

		Sample ID			
		P2-1-60-61	P3-1-58-60	S-2-18-1	P3-1-77-80
(mm)	Sieve	Percent Passing			
76.2	3"	100	100	100	100
50.8	2"	100	100	100	100
38.1	1.5"	100	100	100	100
25.4	1"	100	100	100	100
19.05	3/4"	100	100	100	100
12.7	1/2"	100	100	100	100
9.525	3/8"	100	99	100	100
4.75	4	100	97	100	100
2	10	100	94	99	99
1.18	16	100	92	99	99
0.6	30	99	91	98	98
0.25	60	98	90	95	97
0.15	100	96	89	93	96
0.075	200	94	87	90	93
0.05	Hydrometer	91.2	85.1	89.9	90.5
0.025		86.3	80.6	86.5	75.7
0.02		84.4	78.9	84.6	65.1
0.01		77.8	72.8	76.2	49.4
0.005		68.8	64.5	64.0	36.6
0.002		47.5	45.0	42.3	24.3



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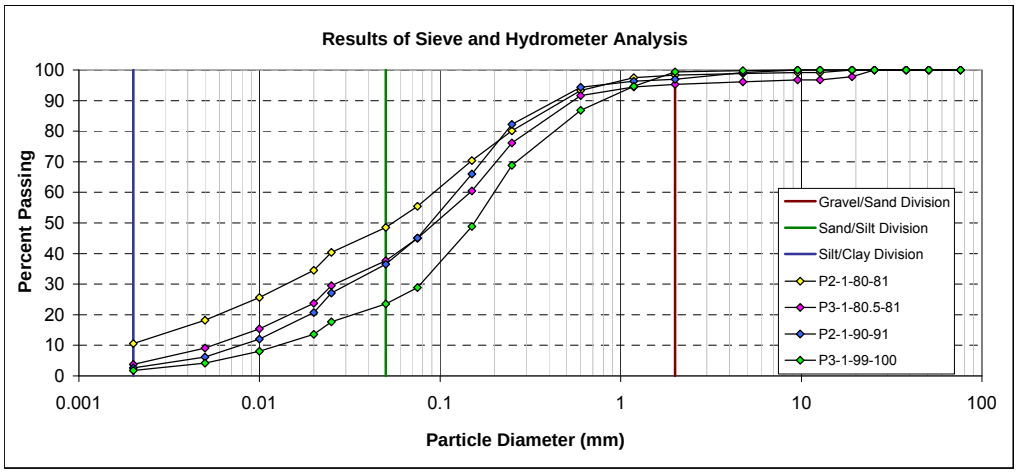
Laboratory Test Results - Particle Size Sieve Analysis

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

		Sample ID			
		P2-1-80-81	P3-1-80.5-81	P2-1-90-91	P3-1-99-100
Mesh (mm)	Sieve	Percent Passing			
76.2	3"	100	100	100	100
50.8	2"	100	100	100	100
38.1	1.5"	100	100	100	100
25.4	1"	100	100	100	100
19.05	3/4"	100	98	100	100
12.7	1/2"	99	97	100	100
9.525	3/8"	99	97	100	100
4.75	4	99	96	99	100
2	10	98	95	97	99
1.18	16	98	94	96	95
0.6	30	93	92	94	87
0.25	60	80	76	82	69
0.15	100	70	60	66	49
0.075	200	55	45	45	29
0.05	Hydrometer	48.5	37.7	36.5	23.5
0.025		40.4	29.5	27.1	17.6
0.02		34.5	23.7	20.8	13.6
0.01		25.7	15.4	12.1	8.0
0.005		18.2	9.1	6.1	4.2
0.002		10.6	3.7	2.6	1.7



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Laboratory Test Results - Soil Water Content and Bulk Density

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

Sample ID	Gravimetric Water Content (g/g)	Volumetric Water Content (g/cm^3)	Soil Bulk Density (g/cm^3)
P-2-1-90-91	0.191	0.295	1.55
P-3-1-80.5-81	0.166	0.265	1.60
P-2-1-70.5-71	0.178	0.283	1.59
P2-1-20-21	0.035	0.065	1.84
P2-1-30-31	0.039	0.071	1.82
P2-1-50-51	0.049	0.090	1.82
P2-1-61-61.5	0.211	0.307	1.46
P-2-1-99-100	0.063	0.106	1.68
P-2-1-70.-70.5	0.188	0.297	1.57
P3-1-50-50.5	0.070	0.109	1.57
P3-1-70-71	0.052	0.090	1.73
P3-1-90-91	0.062	0.100	1.60
P-3-1-80-80.5	0.166	0.255	1.54
P3-1-60-61	0.422	0.525	1.24

P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

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Laboratory Test Results - Atterberg Limits

form revised 9/6/01

Date: November 12, 2009
Job No: **90913**
Job Name: **CWC**
Job Description: Soil Physical and Hydraulic Property Testing
Company: Community Water Company
Contracting Contact:
Report Address:

Sample ID	LL (Liquid Limit)	PL (Plastic Limit)	PI (Plasticity Index)
P-2-1-60-61	54	28	26
P-2-1-70.5-71	26	17	9
P-3-1-80.5-81	26	19	7
P-3-1-58-60	50	23	27
S-2-18-1	35	24	11
S-2-23-0-2	NV	NP	NP
C-3-9-2-3	22	18	4
C-3-12-1.5-3	24	24	0

NV = Liquid limit not measurable
NP = Not Plastic
P = borehole sample
S = state land soil pit sample from parcel P2
C = county land soil pit sample from parcel P3

Appendix 6.
Standard Laboratory Test Methods

Appendix 6. Standard Laboratory Test Methods

Test	Method
Saturated Hydraulic Conductivity (Ksat)	ASTM 2434 - 68 / MOSA Part 4, Method 3.4.2.2
Soil Moisture Retention Curve (MRC)	ASTM 6836 - 02 / MOSA, Part 4, Method 3.3.2
Water Content	ASTM D 2216 - 98
Bulk Density	ASTM D 2937 - 00
Particle Size Analysis	ASTM D 422 - 63 / ASTM C136 / ASTM D 1140
Atterberg Limits[1]	ASTM D 4318 - 00

Appendix 7.
GWSI Wells with 2005-7 Water Level Measurements

Appendix 7. GWSI wells with 2005 water level measurements

ADWR Registry ID	GWSI Well ID	Site Well Elevation (ft amsl)	Cadastral Location	UTM E[1]	UTM N[1]	Date	Depth to Water (ft bgs)	Groundwater Elevation (ft amsl)
617254	315912110573801	2670	D-17-13 01AAA	503726.357	3538770.897	2/3/2005	85.2	2584.8
611144	315822110581301	2715	D-17-13 01CDD	502808.312	3537231.179	1/31/2005	270.7	2444.3
605342	315742110583701	2778	D-17-13 11DAD	502178.672	3535999.49	2/3/2005	308.9	2469.1
605344	315738110585101	2805	D-17-13 11DDB	501811.207	3535876.264	2/3/2005	334.1	2470.9
605345	315742110583601	2776	D-17-13 12CBC	502204.922	3535999.495	2/3/2005	305.3	2470.7
624000	315728110580701	2718	D-17-13 13ABB	502940.028	3535537.854	2/23/2005	235.9	2482.1
	315720111031801	3323	D-17-13 18BAA	494802.341	3535323.234	1/25/2005	78.9	3244.1
	315550111033601	3421	D-17-13 19CCB1	494328.274	3532521.75	1/25/2005	235.1	3185.9
634338	315547111031001	3350	D-17-13 19DCC	495010.952	3532459.818	1/26/2005	210	3140
623985	315610110580301	2741	D-17-13 24ACC2	503072	3533136.405	2/23/2005	216.9	2524.1
624002	315552110574901	2739	D-17-13 24DAC	503518.497	3532736.301	2/23/2005	208.8	2530.2
624004	315518110583801	2800	D-17-13 25BCC	502153.349	3531596.759	2/23/2005	269.2	2530.8
608518	315452110582701	2780	D-17-13 25CCD	502442.412	3530765.544	1/31/2005	256.2	2523.8
507741	315522111034101	3435	D-17-13 30BCC	494196.513	3531690.542	1/25/2005	138.8	3296.2
616158	315427110584301	2800	D-17-13 36BCC	502285.008	3529995.804	2/4/2005	179.8	2620.2
608583	315417110583501	2789	D-17-13 36CBC2	502232.546	3529687.911	2/4/2005	181.2	2607.8
619904	315909110520701	2831	D-17-14 01BAA	512543.696	3538747.128	1/18/2005	250.2	2580.8
619903	395909110530701	2782	D-17-14 02BAA	510916.688	3538745.26	12/23/2004	254.3	2527.7
619898	315857110545501	2725	D-17-14 04ACA	508004.158	3538311.524	12/23/2004	183.3	2541.7
619897	315855110553101	2708	D-17-14 04BCB	507059.447	3538249.251	12/23/2004	167.2	2540.8
623987	315823110560801	2696	D-17-14 05CDA2	506062.695	3537417.322	2/18/2005	161	2535
623999	315913110565301	2670	D-17-14 06AAB	504881.003	3538771.383	2/18/2005	127	2543
623998	315849110570001	2675	D-17-14 06ACD	504881.386	3537970.882	2/18/2005	139.9	2535.1
623997	315812110565301	2690	D-17-14 07ADB	504881.974	3536739.344	2/18/2005	128.2	2561.8
624001	315728110570301	2703	D-17-14 07DCD	504646.281	3535569.275	2/23/2005	160.7	2542.3
623981	315728110563901	2704	D-17-14 07DDD	505381.302	3535538.847	2/18/2005	153.3	2550.7
634865	315643110554501	2778	D-17-14 17DDB	506694.701	3534184.935	2/3/2005	201.5	2576.5
623991	315702110565001	2718	D-17-14 18ADC	504909.181	3534738.113	2/18/2005	156.4	2561.6
624005	315651110564201	2721	D-17-14 18DAD	505224.398	3534368.809	2/23/2005	183.7	2537.3
623995	315604110565401	2740	D-17-14 19DBD	504778.739	3532983.118	2/18/2005	198.2	2541.8
	315511110545201	2800	D-17-14 21ACD	508088.386	3531353.42	2/4/2005	211.5	2588.5
623982	315526110565501	2750	D-17-14 30ACA	504910.554	3531874.804	2/17/2005	216.9	2533.1
623988	315536110573601	2745	D-17-14 30BBB	503833.805	3532151.438	2/23/2005	238.5	2506.5
623994	315453110572901	2760	D-17-14 30CCC	503913.111	3530766	2/17/2005	197.8	2562.2
617271	315438110572101	2771	D-17-14 31BAC	504175.912	3530335.069	2/1/2005	182.8	2588.2
608521	315353110574801	2780	D-18-13 01AAB	503467.263	3528949.34	1/31/2005	244.1	2535.9
608595	315336110575001	2797	D-18-13 01ADC	503414.903	3528425.926	2/1/2005	169.9	2627.1
608588	315332110582101	2796	D-18-13 01BDC2	502600.611	3528302.535	2/1/2005	198.1	2597.9
605200	315309110531501	2800	D-18-13 01CDD	502758.414	3527594.451	2/1/2005	178.6	2621.4
623103	315243111000801	2971	D-18-13 10ADC	499789.819	3526793.595	2/1/2005	326.2	2644.8
623105	315215110595801	2955	D-18-13 10DCD	499973.725	3525931.53	3/2/2005	335.4	2619.6
624019	315224110575601	2821	D-18-13 12DCA2UNSURV	503257.986	3526239.927	2/17/2005	176	2645
624020	315200110574901	2839	D-18-13 13AAC UNSURV	503415.887	3525470.279	2/17/2005	178.9	2660.1
624014	315159110575201	2840	D-18-13 13ABC UNSURV	503231.955	3525470.22	2/17/2005	168	2672
624013	315142110582501	2840	D-18-13 13CBA UNSURV	502470.075	3524946.614	2/17/2005	174.1	2665.9
624010	315149110584801	2840	D-18-13 14ADC UNSURV	501813.097	3525192.78	2/17/2005	175.6	2664.4
543600	315151111000401	2963	D-18-13 15ACC2	499894.894	3525284.984	2/16/2005	323.8	2639.2
803629	315209111013601	3174.3	D-18-13 16BBB	497425.001	3525685.55	3/2/2005	434.4	2739.9
	315149111013001	3145	D-18-13 16BCD	497529.955	3525069.766	3/2/2005	418.3	2726.7
803638	315143111004501	3050	D-18-13 16DAA	498817.525	3525007.961	3/2/2005	406.5	2643.5
803637	315118111004201	3030	D-18-13 21AAA	498817.439	3524269.052	3/2/2005	355	2675
627483	315102110595401	2940	D-18-13 22ACA	500105.123	3523622.439	2/16/2005	239.9	2700.1
624024	315110110591301	2849	D-18-13 23BAD UNSURV	501340.28	3523930.405	2/17/2005	165	2684
624012	315117110583501	2851	D-18-13 24BBB2UNSURV	502233.759	3524115.287	2/17/2005	164.9	2686.1
624011	315106110583401	2860	D-18-13 24BCB2UNSURV	502233.846	3523715.045	2/17/2005	172.2	2687.8
624016	314934110591901	2884	D-18-13 26CCD UNSURV	500920.056	3521067.095	2/17/2005	123.1	2760.9
624023	314958110585801	2879	D-18-13 26DBA UNSURV	501655.997	3521713.729	2/17/2005	133.9	2745.1
624026	314958110593801	2897	D-18-13 27ADA2UNSURV	500578.271	3521959.914	2/17/2005	143.9	2753.1
803633	315024111013301	3133.3	D-18-13 28BBB2	497503.072	3522575.957	3/2/2005	357.1	2776.2
803636	314931111024801	3210	D-18-13 31AAA	495767.742	3521067.924	3/2/2005	346.5	2863.5
	314930111021401	3165	D-18-13 32BAA	496503.787	3521067.648	3/3/2005	349.9	2815.1
624025	314858110595701	2899	D-18-13 34DBC UNSURV	500026.29	3519897.121	2/17/2005	122.5	2776.5
624018	314859111003601	2895	D-18-13 35CBB2UNSURV	500788.69	3520143.453	2/17/2005	119.3	2775.7
635387	314913110583401	2977	D-18-13 36BCC	502260.885	3520266.822	2/24/2005	187.1	2789.9
608599	315306110571701	2858	D-18-14 06CDC	504282.149	3527502.61	2/1/2005	175.6	2682.4
608522	315330110565901	2860	D-18-14 06DBA	504754.682	3528241.731	1/31/2005	249.5	2610.5
608598	315245110554101	2985	D-18-14 08ADD	506962.215	3526857.531	2/4/2005	299.5	2685.5
608597	315247110561501	2936	D-18-14 08BDB	505963.823	3526918.478	2/1/2005	271.5	2664.5
638581	315031110572201	3010	D-18-14 19CCD1	504152.737	3522699.644	2/23/2005	274.6	2735.4

[1] UTM NAD83, 12N

[2] U - Unused, W - Withdrawal, O - Observation-water level

[3] H - Domestic, I - Irrigation, K - Mining, N - Industrial, P - Public Supply, S - Stock , U - Unused

Appendix 8.
GWSI Wells with 1995-7 and 2005-7 Water Level Measurements

Appendix 8. GWSI wells with 1995-7 and 2005-7 Water Level Measurements

GWSI Well ID	ADWR Registry ID	UTM E[1]	UTM N[1]	Date 1995-7	Date 2005-7	DTW[2] 1995-7 (ft bgs)	DTW[2] 2005-7 (ft bgs)	Change (ft)	Well Owner	Site Use[3]	Water Use[4]
320004110572601	607797	504040.627	3540372.020	1/19/1995	2/15/2005	126.0	58.0	68.0	ASARCO	U	U
320007110570601	607795	504565.340	3540464.600	1/19/1995	2/15/2005	124.1	68.5	55.6	ASARCO	U	U
315958110595201	607785	500209.907	3540186.492	11/5/1997	1/19/2007	399.9	351.8	48.1	ASARCO	W	N
320002110590501	607789	501443.090	3540309.746	1/16/1995	2/15/2005	340.1	304.4	35.7	ASARCO	U	U
315912110573801	617254	503726.357	3538770.897	1/10/1995	2/3/2005	119.5	85.2	34.3	CYPRUS PIMA	U	U
315940110580201	624199	503096.289	3539632.765	1/10/1995	2/3/2005	264.8	245.5	19.3	ASARCO	U	U
315913110565301	623999	504881.003	3538771.383	1/10/1995	2/18/2005	138.9	127.0	11.9	FICO	U	U
315955110555801	617261	506349.730	3540096.098	1/24/1995	2/2/2005	137.7	127.8	9.9	CYPRUS PIMA	W	S
315912110573901	611146	503700.115	3538770.887	1/10/1995	2/3/2005	232.9	225.4	7.5	EC GARCIA & CO	U	U
315940110560801		506087.620	3539634.110	1/24/1995	2/2/2005	119.1	114.3	4.8	AR LEVIS	U	U
315849110570001	623998	504881.386	3537970.882	1/10/1995	2/18/2005	142.7	139.9	2.8	FICO	W	I
315643110554501	634865	506694.701	3534184.935	1/13/1995	2/3/2005	199.1	201.5	-2.4	KIBBE	W	H
315812110565301	623997	504881.974	3536739.344	1/10/1995	2/18/2005	124.2	128.2	-4.0	FICO	W	I
315857110545501	619898	508004.158	3538311.524	1/9/1995	12/16/2005	176.9	181.1	-4.2	CITY OF TUCSON	W	P
315855110553101	619897	507059.447	3538249.251	1/9/1995	12/16/2005	155.3	161.1	-5.8	CITY OF TUCSON	W	P
315547111031001	634338	495010.952	3532459.818	1/18/1995	1/26/2005	203.7	210.0	-6.3	PARK COMPANY	W	S
315550111033601		494328.274	3532521.750	1/16/1995	1/25/2005	228.5	235.1	-6.6	ANAMAX MINING CO	O	U
315522111034101	507741	494196.513	3531690.542	1/13/1995	1/25/2005	131.1	138.8	-7.7	CALVIN WOLFSWINKEL	O	U
315427110584301	616158	502285.008	3529995.804	1/11/1995	2/4/2005	168.3	179.8	-11.5	AZ STATE LAND DEPT	U	U
315728110570301	624001	504646.281	3535569.275	1/10/1995	2/23/2005	146.9	160.7	-13.8	FICO	W	I
315243111000801	623103	499789.819	3526793.595	1/24/1995	2/1/2005	312.3	326.2	-13.9	CYPRUS SIERRITA	W	N
315822110581301	611144	502808.312	3537231.179	1/10/1995	1/31/2005	255.5	270.7	-15.2	EC GARCIA & CO	W	P
315742110583701	605342	502178.672	3535999.490	1/10/1995	2/3/2005	293.4	308.9	-15.5	SAHUARITA SCHOOL DIST. NO. 30	W	P
315247110561501	608597	505963.823	3526918.478	1/12/1995	2/1/2005	255.5	271.5	-16.0	ANAMAX	U	U
315738110585101	605344	501811.207	3535876.264	1/10/1995	2/3/2005	317.9	334.1	-16.2	SAHUARITA SCHOOL DIST. NO. 30	U	U
315702110565001	623991	504909.181	3534738.113	1/10/1995	2/18/2005	140.2	156.4	-16.2	FICO	W	I
315728110563901	623981	505381.302	3535538.847	1/10/1995	2/18/2005	136.9	153.3	-16.4	FICO	W	I
315742110583601	605345	502204.922	3535999.495	1/10/1995	2/3/2005	288.5	305.3	-16.8	SAHUARITA SCHOOL DIST. NO. 30	U	U
315728110580701	624000	502940.028	3535537.854	1/10/1995	2/23/2005	218.1	235.9	-17.8	FICO	W	I
315215110595801	623105	499973.725	3525931.530	1/10/1995	3/2/2005	317.0	335.4	-18.4	CYPRUS SIERRITA	W	N
315245110554101	608598	506962.215	3526857.531	11/5/1997	1/16/2007	291.5	310.0	-18.5	ANAMAX MINING CO	U	U
315651110564201	624005	505224.398	3534368.809	1/11/1995	2/23/2005	165.2	183.7	-18.5	FICO	W	I
315518110583801	624004	502153.349	3531596.759	1/11/1995	2/23/2005	249.4	269.2	-19.8	FICO	W	I
315031110572201	638581	504152.737	3522699.644	1/9/1995	2/23/2005	252.2	274.6	-22.4	CONTINENTAL SCHOOL DISTRICT	W	P
315143111004501	803638	498817.525	3525007.961	1/10/1995	3/2/2005	384.1	406.5	-22.4	DUVAL MINING CORP.	O	U
315604110565401	623995	504778.739	3532983.118	1/10/1995	2/18/2005	174.9	198.2	-23.3	FICO	W	I
315159110575201	624014	503231.955	3525470.220	1/11/1995	2/17/2005	143.4	168.0	-24.6	FICO	W	I
315526110565501	623982	504910.554	3531874.804	1/10/1995	2/17/2005	192.0	216.9	-25.0	FICO	W	I
315438110572101	617271	504175.912	3530335.069	1/13/1995	2/1/2005	156.7	182.8	-26.1	PETER KIEWIT	W	N
315309110531501	605200	502758.414	3527594.451	1/11/1995	2/1/2005	151.2	178.6	-27.4	PIMA COUNTY	U	U
315452110582701	608518	502442.412	3530765.544	1/12/1995	1/31/2005	228.5	256.2	-27.7	ANAMAX MINING CO	W	N
315200110574901	624020	503415.887	3525470.279	1/11/1995	2/17/2005	150.7	178.9	-28.2	FICO	W	I
315353110574801	608521	503467.263	3528949.340	1/12/1995	1/31/2005	215.8	244.1	-28.3	ANAMAX MINING CO	W	K
315224110575601	624019	503257.986	3526239.927	1/11/1995	2/17/2005	147.5	176.0	-28.5	FICO	W	I
315332110582101	608588	502600.611	3528302.535	1/11/1995	2/1/2005	169.6	198.1	-28.5	JB BULL	U	U
315453110572901	623994	503913.111	3530766.000	1/10/1995	2/17/2005	168.4	197.8	-29.4	FICO	W	I
315149110584801	624010	501813.097	3525192.780	1/11/1995	2/17/2005	145.7	175.6	-29.9	FICO	W	I
315142110582501	624013	502470.075	3524946.614	1/11/1995	2/17/2005	143.7	174.1	-30.4	FICO	W	I
315106110583401	624011	502233.846	3523715.045	1/10/1995	2/17/2005	141.7	172.2	-30.5	FICO	W	I
315117110583501	624012	502233.759	3524115.287	1/10/1995	2/17/2005	133.1	164.9	-31.8	FICO	W	H
315110110591301	624024	501340.280	3523930.405	1/11/1995	2/17/2005	132.6	165.0	-32.4	FICO	W	I
315102110595401	627483	500105.123	3523622.439	1/9/1995	2/16/2005	206.5	239.9	-33.4	COMMUNITY WATER CO	W	P
315552110574901	624002	503518.497	3532736.301	1/11/1995	2/23/2005	167.4	208.8	-41.4	FICO	W	I
315330110565901	608522	504754.682	3528241.731	1/12/1995	1/31/2005	203.8	249.5	-45.7	QUAIL CREEK DEVELOPMENT	U	U
315536110573601	623988	503833.805	3532151.438	1/11/1995	2/23/2005	172.0	238.5	-66.5	FICO	W	I
							Mean	**-12.1**			
						Mean Decline		**-21.9**			
						Mean Recovery		**27.1**			

[1] UTM NAD83 12N

[2] DTW - Depth to water

[3] U - Unused, W - Withdrawal, O - Observation-water level

[4] H - Domestic, I - Irrigation, K - Mining, N - Industrial, P - Public Supply, S - Stock , U - Unused

Appendix 9.
Water Quality Reports

ADEQ Water Quality Data for Well 40160

SITECODE	VARCODE	GROUP	DESCRIPTION	VALUE	UNITS	DETECTION_LIMIT	DETECTION_LIMIT_UNITS	UNITS DESCRIPTION	SAMPLE DATE	ANALYSIS DATE	COLLECTING AGENCY	REPORTING_AGENCY	SAMPLING_PROGRAM	SAMPLE_TIME	LAB_METHOD_CODE	LAB_NOTATION
40160	406	Water Quality	PH, FIELD, STANDARD UNITS SU	7.98	SU		SU	STANDARD UNITS	07/22/1992	07/22/1992 10:29:00	ADEQ	ADEQ	PEST	1029	FIELD	
40160	615	Water Quality	NITRITE NITROGEN, TOTAL (AS N)	0.2	MG/L	0.2	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/27/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	620	Water Quality	NITRATE NITROGEN, TOTAL (AS N)	0.88	MG/L		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/27/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 353.2	
40160	630	Water Quality	NITRITE PLUS NITRATE, TOTAL 1 DET. (AS N)	0.88	MG/L		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/27/1992 10:31:00	ADEQ	ADEQ	PEST	1031		
40160	650	Water Quality	PHOSPHATE, TOTAL (AS PO4)	0.5	MG/L	0.5	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/24/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	1002	Water Quality	ARSENIC, TOTAL (AS AS)	0.021	MG/L		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/30/1992 10:31:00	ADEQ	ADEQ	PEST	1031		
40160	1042	Water Quality	COPPER, TOTAL (AS CU)	0.004	MG/L	0.004	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/30/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 200.7	LT
40160	4101	Water Quality	FENARIMOL, TOTAL RECOVERABLE, WATER	0						08/17/1992 10:40:00						
40160	22416	Water Quality	SETHOXYDIM (POAST), DISSOLVED, WATER	0						08/17/1992 10:40:00						
40160	30254	Water Quality	CYCLOATE, WATER, WHOLE, RECOVERABLE	0						08/17/1992 10:40:00						
40160	30264	Water Quality	HEXAZINONE, WATER, WHOLE, RECOVERABLE	0						08/17/1992 10:40:00						
40160	30311	Water Quality	TERBACIL, WATER, WHOLE, RECOVERABLE	0						08/17/1992 10:40:00						
40160	30324	Water Quality	VERNOLATE, WATER, WHOLE, RECOVERABLE	0						08/17/1992 10:40:00						
40160	32101	Water Quality	BROMODICHLOROMETHANE,WHOLE WATER	0.0007	MG/L	0.0007	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	32102	Water Quality	CARBON TETRACHLORIDE,WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	32104	Water Quality	BROMOFORM, WHOLE WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	32105	Water Quality	DIBROMOCHLOROMETHANE, WHOLE WATER	0.002	MG/L	0.002	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	32106	Water Quality	CHLOROFORM, WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34010	Water Quality	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34020	Water Quality	XYLENES IN WTR SMPLE GC-MS, HEXADECONE EXTR.	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34030	Water Quality	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34301	Water Quality	CHLOROBENZENE, TOTAL WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34311	Water Quality	CHLOROETHANE, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34371	Water Quality	ETHYLBENZENE, TOTAL WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34418	Water Quality	METHYL CHLORIDE (CHLOROMETHANE), TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34423	Water Quality	METHYLENE CHLORIDE (DICHLOROMETHANE), TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34475	Water Quality	TETRACHLOROETHYLENE (TETRACHLOROETHENE) (PCE) TOT	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34488	Water Quality	TRICHLOROFLUOROMETHANE, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34496	Water Quality	1,1-DICHLOROETHANE, TOTAL WATER	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34506	Water Quality	1,1,1-TRICHLOROETHANE (TCA), TOTAL WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34511	Water Quality	1,1,2-TRICHLOROETHANE, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34516	Water Quality	1,1,2,2-TETRACHLOROETHANE TOTAL/WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34531	Water Quality	1,2-DICHLOROETHANE, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34536	Water Quality	1,2-DICHLOROBENZENE, TOTAL WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34541	Water Quality	1,2-DICHLOROPROPANE, TOTAL WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34546	Water Quality	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34566	Water Quality	1,3-DICHLOROBENZENE, TOTAL WATER	0.003	MG/L	0.003	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34571	Water Quality	1,4-DICHLOROBENZENE, TOTAL WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34576	Water Quality	2-CHLOROETHYL VINYL ETHER, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34668	Water Quality	DICHLORODIFLUOROMETHANE, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34696	Water Quality	NAPHTHALENE, TOTAL WATER	0.0007	MG/L	0.0007	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	34699	Water Quality	TRANS-1,3-DICHLOROPROPENE, TOTAL IN WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	34704	Water Quality	CIS-1,3-DICHLOROPROPENE, TOTAL IN WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	38401	Water Quality	AMETRYN, WATER, DISSOLVED	0						08/17/1992 10:40:00						
40160	38437	Water Quality	DIBROMOCHLOROPROPANE (DBCP), TOTAL WATER	0.025	UG/L	0.025	UG/L	MICROGRAMS PER LITER	07/22/1992	07/29/1992 10:40:00	ADEQ	ADEQ	PEST	1040	VARIAN MODIFIC.	LT
40160	38437	Water Quality	DIBROMOCHLOROPROPANE (DBCP), TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	38446	Water Quality	DICHLORAN, TOTAL WATER	0						08/17/1992 10:40:00						
40160	38477	Water Quality	LINURON, TOTAL WATER	0						08/17/1992 10:40:00						
40160	38500	Water Quality	METHIOCARB, TOTAL WATER	0						08/04/1992 10:40:00						
40160	38680	Water Quality	CHLOROTOLUENE,2-, TOTAL WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	38715	Water Quality	BOLSTAR, TOTAL WATER (SULPROFOS)	0						08/17/1992 10:40:00						
40160	38810	Water Quality	FLUOMETURON, TOTAL WATER	0						08/17/1992 10:40:00						
40160	38865	Water Quality	OXAMYL, TOTAL WATER	0						08/04/1992 10:40:00						
40160	38892	Water Quality	TRIADIMEFON, TOTAL WATER	0						08/17/1992 10:40:00						
40160	38929	Water Quality	FENAMIPHOS(NEMACUR), WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39033	Water Quality	ATRAZINE IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39051	Water Quality	METHOMYL IN WHOLE WATER	0						08/04/1992 10:40:00						
40160	39053	Water Quality	ALDICARB IN WHOLE WATER	0						08/04/1992 10:40:00						
40160	39055	Water Quality	SIMAZINE IN WHOLE WATER	0						08/17/1992 10:40:00						
40160	39056	Water Quality	PROMETONE IN WHOLE WATER (PROMETON)	0						08/17/1992 10:40:00						
40160	39057	Water Quality	PROMETRYNE IN WHOLE WATER (PROMETRYN)	0						08/17/1992 10:40:00						
40160	39080	Water Quality	PRONAMIDE IN WATER, TOTAL WATER	0						08/17/1992 10:40:00						
40160	39175	Water Quality	VINYL CHLORIDE, WHOLE WATER SAMPLE	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	39180	Water Quality	TRICHLOROETHYLENE (TCE) (TRICHLOROETHENE)WHOLE WTR	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	39340	Water Quality	GAMMA-BHC(LINDANE), WHOLE WATER	0						08/17/1992 10:40:00						
40160	39356	Water Quality	METOLACHLOR(DUAL) IN WHOLE WATER	0						08/17/1992 10:40:00						
40160	39388	Water Quality	ENDOSULFAN IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39540	Water Quality	PARATHION IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39570	Water Quality	DIAZINON IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39580	Water Quality	GUTHION IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39600	Water Quality	METHYL PARATHION IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39610	Water Quality	PHOSDRIN IN WHOLE WATER SAMPLE (MEVINPHOS)	0						08/17/1992 10:40:00						
40160	39640	Water Quality	CAPTAN IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39650	Water Quality	DIURON IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						

ADEQ Water Quality Data for Well 40160

SITECODE	VARCODE	GROUP	DESCRIPTION	VALUE	UNITS	DETECTION_LIMIT	DETECTION_LIMIT_UNITS	UNITS DESCRIPTION	SAMPLE DATE	ANALYSIS DATE	COLLECTING AGENCY	REPORTING_AGENCY	SAMPLING_PROGRAM	SAMPLE_TIME	LAB_METHOD_CODE	LAB_NOTATION
40160	39730	Water Quality	2,4-D IN WHOLE WATER SAMPLE	0.15	UG/L	0.15	UG/L	MICROGRAMS PER LITER	07/22/1992	08/07/1992 10:40:00	ADEQ	ADEQ	PEST	1040	GWPL HERBICIDE	LT
40160	39770	Water Quality	DACTHAL (DCPA) IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	39800	Water Quality	IMIDAN IN WHOLE WATER SAMPLE (PHOSMET)	0						08/17/1992 10:40:00						
40160	45606	Water Quality	NORTRON (ETHOFUMESATE, TRAMAT), WATER, WHOLE	0						08/17/1992 10:40:00						
40160	45607	Water Quality	TEBUTHIURON (GRASLAN, SPIKE), WATER WHOLE	0						08/17/1992 10:40:00						
40160	45609	Water Quality	PYRAMIN (PYRAZON, CHLORIDAZON), WATER, WHOLE	0						08/17/1992 10:40:00						
40160	45624	Water Quality	DICHLOROETHENE, TRANS 2,2- , WATER, WHOLE	0.002	MG/L	0.002	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	46314	Water Quality	DIMETHOATE IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	49547	Water Quality	BROMOMETHANE, TOTAL WATER	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031	EPA 601	LT
40160	49609	Water Quality	VINCLOZOLIN (RONILAN) TOTAL	0						08/17/1992 10:40:00						
40160	50369	Water Quality	THIDIAZURON TOTAL	0						08/17/1992 10:40:00						
40160	70314	Water Quality	DACONIL(C8CL4N2) IN WATER (CHLOROTHALONIL)	0						08/17/1992 10:40:00						
40160	70978	Water Quality	CARBOXIN, WHOLE WATER	0						08/17/1992 10:40:00						
40160	73509	Water Quality	1H-1,2,4-TRIAZOL-3-AMINE, TOTAL WATER	0						08/17/1992 10:40:00						
40160	73637	Water Quality	4(1H)PYRIMIDINONE, 2,3-DIHYDRO6PROP2THIOXO,TOT WTR	0						08/17/1992 10:40:00						
40160	77036	Water Quality	GLYCINE WHOLE WATER	0						08/17/1992 10:40:00						
40160	77093	Water Quality	CIS-1,2-DICHLOROETHYLENE WHOLE WATER	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77128	Water Quality	STYRENE WHOLE WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77173	Water Quality	1,3-DICHLOROPROPANE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77222	Water Quality	1,2,4-TRIMETHYLBENZENE WHOLE WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77223	Water Quality	ISOPROPYLBENZENE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77224	Water Quality	N-PROPYLBENZENE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77247	Water Quality	BENZOIC ACID WHOLE WATER	0						08/17/1992 10:40:00						
40160	77277	Water Quality	1-METHYL-4-CHLOROBENZENE(4-CHLOROTOLUENE)WHOLE WTR	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77297	Water Quality	CHLOROBROMOMETHANE WHOLE WATER	0.0006	MG/L	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77342	Water Quality	N-BUTYLBENZENE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77350	Water Quality	SEC-BUTYLBENZENE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77353	Water Quality	TERT-BUTYLBENZENE WHOLE WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77385	Water Quality	PHENYLACETIC ACID WHOLE WATER	0						08/17/1992 10:40:00						
40160	77562	Water Quality	1,1,1,2-TETRACHLOROETHANE WHOLE WATER	0.0005	MG/L	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77596	Water Quality	METHYLENE BROMIDE (DIBROMOMETHANE) WHOLE WATER	0.0009	MG/L	0.0009	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77700	Water Quality	CARBARYL WHOLE WATER	0						08/04/1992 10:40:00						
40160	77733	Water Quality	1,2,3,5-TETRACHLOROBENZENE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77779	Water Quality	DIBROMODICHLOROMETHANE WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	77825	Water Quality	ALACHLOR WHOLE WATER	0						08/17/1992 10:40:00						
40160	78004	Water Quality	DIPHENAMID IN WATER	0						08/17/1992 10:40:00						
40160	78064	Water Quality	NORFLURAZON IN WATER	0						08/17/1992 10:40:00						
40160	78881	Water Quality	PHOSPHAMIDON (I) (DIMECRON), WHOLE WATER	0						08/17/1992 10:40:00						
40160	79191	Water Quality	PERMETHRIN (I) IN WHOLE WATER	0						08/17/1992 10:40:00						
40160	79192	Water Quality	PEBULATE, WATER, WHOLE	0						08/17/1992 10:40:00						
40160	79195	Water Quality	NAPROPAMIDE, WATER, WHOLE	0						08/17/1992 10:40:00						
40160	80350	Water Quality	PROPANOIC ACID, 2-HYDROXY-,BUTYL ESTER,WHOLE WATER	0						08/17/1992 10:40:00						
40160	81405	Water Quality	CARBOFURAN (EURADAN) WHOLE WATER SAMPLE	0						08/04/1992 10:40:00						
40160	81410	Water Quality	BUTYLATE, WHOLE WATER	0						08/17/1992 10:40:00						
40160	81522	Water Quality	DIBROMOETHANE (EDB) (ETHYLENE DIBROMIDE)WHLWTR TOT	0.033	UG/L	0.033	UG/L	MICROGRAMS PER LITER	07/22/1992	07/29/1992 10:40:00	ADEQ	ADEQ	PEST	1040	VARIAN MODIFIC.	LT
40160	81611	Water Quality	TRICHLOROTRIFLUOROETHANE WHOLE WATER SAMPLE	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT
40160	81757	Water Quality	CYANAZINE IN THE WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	81758	Water Quality	ETHOPROP IN THE WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	81894	Water Quality	EPTC (EPTAM) IN WHOLE WATER SAMPLE	0						08/17/1992 10:40:00						
40160	82052	Water Quality	DICAMBA (BANVEL) TOTAL, WHOLE WATER	0						08/07/1992 10:40:00						
40160	82088	Water Quality	TERBUFOS (COUNTER) TOTAL, WHOLE WATER	0						08/17/1992 10:40:00						
40160	82198	Water Quality	BROMACIL (HYVAR) IN WATER	0						08/17/1992 10:40:00						
40160	82611	Water Quality	METRIBUZIN, WHOLE WATER, TOTAL RECOVERABLE	0						08/17/1992 10:40:00						
40160	99904	Water Quality	IMAZALIL	0						08/17/1992 10:40:00						
40160	99905	Water Quality	ALANINE (NO MERCK)	0						08/17/1992 10:40:00						
40160	99907	Water Quality	MYCLOBUTANIL	0						08/17/1992 10:40:00						
40160	99952	Water Quality	CHLORONAPHTHALENE, TOTAL IN WHOLE WATER	0.001	MG/L	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/31/1992 10:31:00	ADEQ	ADEQ	PEST	1031		LT

ADEQ Water Quality Data for Well 6014

SITECODE	VARCODE	GROUP	DESCRIPTION	VALUE	DETECTION_ LIMIT	UNITS	UNITS DESCRIPTION	SAMPLE DATE	ANALYSIS DATE	COLLECTING AGENCY	REPORTING_ AGENCY	SAMPLING_ PROGRAM	SAMPLE_ TIME	LAB_METHOD_ CODE	LAB_ NOTATION
6014	10	Water Quality	CENTIGRADE TEMPERATURE (DEGREES)	25.5		DEG C	DEGREES CENTIGRADE	07/21/1992	07/21/1992 11:59:0	ADEQ	ADEQ	PEST	1159	FIELD	
6014	94	Water Quality	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	1336		UMHOS/CM	MICRO-MHOS PER CENTMETER	07/21/1992	07/21/1992 11:59:0	ADEQ	ADEQ	PEST	1159	FIELD	
6014	406	Water Quality	PH, FIELD, STANDARD UNITS SU	7.18		SU	STANDARD UNITS	07/21/1992	07/21/1992 11:59:0	ADEQ	ADEQ	PEST	1159	FIELD	
6014	615	Water Quality	NITRITE NITROGEN, TOTAL (AS N)	0.2	0.2	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/27/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	620	Water Quality	NITRATE NITROGEN, TOTAL (AS N)	11.9		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/27/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 353.2	
6014	630	Water Quality	NITRITE PLUS NITRATE, TOTAL 1 DET. (AS N)	11.9		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/27/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 353.2	
6014	650	Water Quality	PHOSPHATE, TOTAL (AS PO4)	0.05	0.05	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/24/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	916	Water Quality	CALCIUM, TOTAL (AS CA)	184		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	927	Water Quality	MAGNESIUM, TOTAL (AS MG)	25		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	929	Water Quality	SODIUM, TOTAL (AS NA)	69.2		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/28/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	1002	Water Quality	ARSENIC, TOTAL (AS AS)	0.005		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	1007	Water Quality	BARIUM, TOTAL (AS BA)	0.045		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	1027	Water Quality	CADMIUM, TOTAL (AS CD)	0.0007	0.0007	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	1034	Water Quality	CHROMIUM, TOTAL (AS CR)	0.003	0.003	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 200.7	LT
6014	1042	Water Quality	COPPER, TOTAL (AS CU)	0.005		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	1045	Water Quality	IRON, TOTAL (AS FE)	0.048		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	1051	Water Quality	LEAD, TOTAL (AS PB)	0.02	0.02	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	1055	Water Quality	MANGANESE, TOTAL (AS MN)	0.002		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		
6014	1077	Water Quality	SILVER, TOTAL (AS AG)	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 200.7	LT
6014	1092	Water Quality	ZINC, TOTAL (AS ZN)	0.008		MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 200.7	
6014	1147	Water Quality	SELENIUM, TOTAL (AS SE)	0.005	0.005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/30/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	4100	Water Quality	FLURIDONE, TOTAL RECOVERABLE, WATER	0					08/17/1992 13:00:0						
6014	4101	Water Quality	FENARIMOL, TOTAL RECOVERABLE, WATER	0					08/17/1992 13:00:0						
6014	4254	Water Quality	METALAXYL, TOTAL, WATER	0					08/17/1992 13:00:0						
6014	22416	Water Quality	SETHOXYDIM (POAST), DISSOLVED, WATER	0					08/17/1992 13:00:0						
6014	32101	Water Quality	BROMODICHLOROMETHANE,WHOLE WATER	0.0007	0.0007	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	32102	Water Quality	CARBON TETRACHLORIDE,WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	32104	Water Quality	BROMOFORM, WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	32105	Water Quality	DIBROMOCHLOROMETHANE, WHOLE WATER	0.0007	0.0007	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	32106	Water Quality	CHLOROFORM, WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34010	Water Quality	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34020	Water Quality	XYLENES IN WTR SMPLE GC-MS, HEXADECONE EXTR.	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34030	Water Quality	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34301	Water Quality	CHLOROBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34311	Water Quality	CHLOROETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34371	Water Quality	ETHYLBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34418	Water Quality	METHYL CHLORIDE (CHLOROMETHANE), TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34423	Water Quality	METHYLENE CHLORIDE (DICHLOROMETHANE), TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34475	Water Quality	TETRACHLOROETHYLENE (TETRACHLOROETHENE) (PCE) TOT	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34488	Water Quality	TRICHLOROFLUOROMETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34496	Water Quality	1,1-DICHLOROETHANE, TOTAL WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34506	Water Quality	1,1,1-TRICHLOROETHANE (TCA), TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34511	Water Quality	1,1,2-TRICHLOROETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34516	Water Quality	1,1,2,2-TETRACHLOROETHANE TOTAL/WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34531	Water Quality	1,2-DICHLOROETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34536	Water Quality	1,2-DICHLOROBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34541	Water Quality	1,2-DICHLOROPROPANE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34546	Water Quality	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34566	Water Quality	1,3-DICHLOROBENZENE, TOTAL WATER	0.003	0.003	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34571	Water Quality	1,4-DICHLOROBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34576	Water Quality	2-CHLOROETHYL VINYL ETHER, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34668	Water Quality	DICHLORODIFLUOROMETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34696	Water Quality	NAPHTHALENE, TOTAL WATER	0.0007	0.0007	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	34699	Water Quality	TRANS-1,3-DICHLOROPROPENE, TOTAL IN WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	34704	Water Quality	CIS-1,3-DICHLOROPROPENE, TOTAL IN WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	38437	Water Quality	DIBROMOCHLOROPROPANE (DBCP), TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	38437	Water Quality	DIBROMOCHLOROPROPANE (DBCP), TOTAL WATER	0					07/29/1992 13:00:0						
6014	38446	Water Quality	DICHLORAN, TOTAL WATER	0					08/17/1992 13:00:0						
6014	38477	Water Quality	LINURON, TOTAL WATER	0					08/17/1992 13:00:0						
6014	38500	Water Quality	METHIOCARB, TOTAL WATER	0					07/30/1992 13:00:0						
6014	38680	Water Quality	CHLOROTOLUENE,2-, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	38715	Water Quality	BOLSTAR, TOTAL WATER (SULPROFOS)	0					08/17/1992 13:00:0						
6014	38810	Water Quality	FLUOMETURON, TOTAL WATER	0					08/17/1992 13:00:0						
6014	38815	Water Quality	HEXAZINONE, TOTAL WATER	0					08/17/1992 13:00:0						
6014	38865	Water Quality	OXAMYL, TOTAL WATER	0					07/30/1992 13:00:0						
6014	38882	Water Quality	TERBACIL WATER	0					08/17/1992 13:00:0						
6014	38892	Water Quality	TRIADIMEFON, TOTAL WATER	0					08/17/1992 13:00:0						
6014	38929	Water Quality	FENAMIPHOS(NEMACUR), WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39033	Water Quality	ATRAZINE IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39051	Water Quality	METHOMYL IN WHOLE WATER	0					07/30/1992 13:00:0						
6014	39053	Water Quality	ALDICARB IN WHOLE WATER	0					07/30/1992 13:00:0						
6014	39055	Water Quality	SIMAZINE IN WHOLE WATER	0					08/17/1992 13:00:0						
6014	39056	Water Quality	PROMETONE IN WHOLE WATER (PROMETON)	0					08/17/1992 13:00:0						
6014	39057	Water Quality	PROMETRYNE IN WHOLE WATER (PROMETRYN)	0					08/17/1992 13:00:0						
6014	39080	Water Quality	PRONAMIDE IN WATER, TOTAL WATER	0					08/17/1992 13:00:0						
6014	39175	Water Quality	VINYL CHLORIDE, WHOLE WATER SAMPLE	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT

ADEQ Water Quality Data for Well 6014

SITECODE	VARCODE	GROUP	DESCRIPTION	VALUE	DETECTION_ LIMIT	UNITS	UNITS DESCRIPTION	SAMPLE DATE	ANALYSIS DATE	COLLECTING AGENCY	REPORTING_ AGENCY	SAMPLING_ PROGRAM	SAMPLE_ TIME	LAB_METHOD_ CODE	LAB_ NOTATION
6014	39180	Water Quality	TRICHLOROETHYLENE (TCE) (TRICHLOROETHENE)WHOLE WTR	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	39340	Water Quality	GAMMA-BHC(LINDANE), WHOLE WATER	0					08/17/1992 13:00:0						
6014	39356	Water Quality	METOLACHLOR(DUAL) IN WHOLE WATER	0					08/17/1992 13:00:0						
6014	39388	Water Quality	ENDOSULFAN IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39540	Water Quality	PARATHION IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39570	Water Quality	DIAZINON IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39580	Water Quality	GUTHION IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39600	Water Quality	METHYL PARATHION IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39610	Water Quality	PHOSDRIN IN WHOLE WATER SAMPLE (MEVINPHOS)	0					08/17/1992 13:00:0						
6014	39640	Water Quality	CAPTAN IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39650	Water Quality	DIURON IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39730	Water Quality	2,4-D IN WHOLE WATER SAMPLE	0					08/27/1992 13:00:0						
6014	39770	Water Quality	DACTHAL (DCPA) IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	39800	Water Quality	IMIDAN IN WHOLE WATER SAMPLE (PHOSMET)	0					08/17/1992 13:00:0						
6014	45606	Water Quality	NORTRON (ETHOFUMESATE, TRAMAT), WATER, WHOLE	0					08/17/1992 13:00:0						
6014	45607	Water Quality	TEBUTHIURON (GRASLAN, SPIKE), WATER WHOLE	0					08/17/1992 13:00:0						
6014	45609	Water Quality	PYRAMIN (PYRAZON, CHLORIDAZON), WATER, WHOLE	0					08/17/1992 13:00:0						
6014	45624	Water Quality	DICHLOROETHENE, TRANS 2,2- , WATER, WHOLE	0.002	0.002	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	46314	Water Quality	DIMETHOATE IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	49547	Water Quality	BROMOMETHANE, TOTAL WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 601	LT
6014	49609	Water Quality	VINCLOZOLIN (RONILAN) TOTAL	0					08/17/1992 13:00:0						
6014	50337	Water Quality	SULFOMETURON METHYL	0					08/17/1992 13:00:0						
6014	50369	Water Quality	THIDIAZURON TOTAL	0					08/17/1992 13:00:0						
6014	70314	Water Quality	DACONIL(C8CL4N2) IN WATER (CHLOROTHALONIL)	0					08/17/1992 13:00:0						
6014	70978	Water Quality	CARBOXIN, WHOLE WATER	0					08/17/1992 13:00:0						
6014	71900	Water Quality	MERCURY, TOTAL (AS HG)	0.0002	0.0002	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/29/1992 12:30:0	ADEQ	ADEQ	PEST	1230	EPA 245.1	LT
6014	77036	Water Quality	GLYCINE WHOLE WATER	0					08/17/1992 13:00:0						
6014	77093	Water Quality	CIS-1,2-DICHLOROETHYLENE WHOLE WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77128	Water Quality	STYRENE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77173	Water Quality	1,3-DICHLOROPROPANE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77222	Water Quality	1,2,4-TRIMETHYLBENZENE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77223	Water Quality	ISOPROPYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77224	Water Quality	N-PROPYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77277	Water Quality	1-METHYL-4-CHLOROBENZENE(4-CHLOROTOLUENE)WHOLE WTR	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77297	Water Quality	CHLOROBROMOMETHANE WHOLE WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77342	Water Quality	N-BUTYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77350	Water Quality	SEC-BUTYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77562	Water Quality	1,1,1,2-TETRACHLOROETHANE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77596	Water Quality	METHYLENE BROMIDE (DIBROMOMETHANE) WHOLE WATER	0.0009	0.0009	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77700	Water Quality	CARBARYL WHOLE WATER	0					07/30/1992 13:00:0						
6014	77733	Water Quality	1,2,3,5-TETRACHLOROBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77779	Water Quality	DIBROMODICHLOROMETHANE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	77825	Water Quality	ALACHLOR WHOLE WATER	0					08/17/1992 13:00:0						
6014	78004	Water Quality	DIPHENAMID IN WATER	0					08/17/1992 13:00:0						
6014	78064	Water Quality	NORFLURAZON IN WATER	0					08/17/1992 13:00:0						
6014	78881	Water Quality	PHOSPHAMIDON (I) (DIMECRON), WHOLE WATER	0					08/17/1992 13:00:0						
6014	79191	Water Quality	PERMETHRIN (I) IN WHOLE WATER	0					08/17/1992 13:00:0						
6014	79192	Water Quality	PEBULATE, WATER, WHOLE	0					08/17/1992 13:00:0						
6014	79195	Water Quality	NAPROPAMIDE, WATER, WHOLE	0					08/17/1992 13:00:0						
6014	81405	Water Quality	CARBOFURAN (EURADAN) WHOLE WATER SAMPLE	0					07/30/1992 13:00:0						
6014	81410	Water Quality	BUTYLATE, WHOLE WATER	0					08/17/1992 13:00:0						
6014	81522	Water Quality	DIBROMOETHANE (EDB) (ETHYLENE DIBROMIDE)WHLWTR TOT	0					07/29/1992 13:00:0						
6014	81611	Water Quality	TRICHLOROTRIFLUOROETHANE WHOLE WATER SAMPLE	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT
6014	81757	Water Quality	CYANAZINE IN THE WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	81758	Water Quality	ETHOPROP IN THE WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	81892	Water Quality	CYCLOATE (RONEET) IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	81894	Water Quality	EPTC (EPTAM) IN WHOLE WATER SAMPLE	0					08/17/1992 13:00:0						
6014	82052	Water Quality	DICAMBA (BANVEL) TOTAL, WHOLE WATER	0					08/27/1992 13:00:0						
6014	82088	Water Quality	TERBUFOS (COUNTER) TOTAL, WHOLE WATER	0					08/17/1992 13:00:0						
6014	82184	Water Quality	AMETRYNE (GESAPAX OR EVIK) TOTAL	0					08/17/1992 13:00:0						
6014	82198	Water Quality	BROMACIL (HYVAR) IN WATER	0					08/17/1992 13:00:0						
6014	82200	Water Quality	VERNAM (S-PROPYLDIPROPYLTHIOCARBAMATE) IN WATER	0					08/17/1992 13:00:0						
6014	82611	Water Quality	METRIBUZIN, WHOLE WATER, TOTAL RECOVERABLE	0					08/17/1992 13:00:0						
6014	99903	Water Quality	FLUCYTHRINATE (I)	0					08/17/1992 13:00:0						
6014	99904	Water Quality	IMAZALIL	0					08/17/1992 13:00:0						
6014	99907	Water Quality	MYCLOBUTANIL	0					08/17/1992 13:00:0						
6014	99910	Water Quality	FLUAZIFOP-P-BUTYL	0					08/17/1992 13:00:0						
6014	99912	Water Quality	ISAZOPHOS	0					08/17/1992 13:00:0						
6014	99952	Water Quality	CHLORONAPHTHALENE, TOTAL IN WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/21/1992	07/31/1992 12:30:0	ADEQ	ADEQ	PEST	1230		LT

ADEQ Water Quality Data for Well 40236

SITECODE	VARCODE	GROUP	DESCRIPTION	VALUE	DETECTION_LIMIT	UNITS	UNITS DESCRIPTION	SAMPLE DATE	ANALYSIS DATE	COLLECTING AGENCY	REPORTING_AGENCY	SAMPLING_PROGRAM	SAMPLE_TIME	LAB_METHOD_CODE	LAB_NOTATION
40236	10	Water Quality	CENTIGRADE TEMPERATURE (DEGREES)	35		DEG C	DEGREES CENTIGRADE	07/22/1992	07/22/1992 08:59:0(	ADEQ	ADEQ	PEST	859	FIELD	
40236	94	Water Quality	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	588		UMHOS/CM	MICRO-MHOS PER CENTMETER	07/22/1992	07/22/1992 08:59:0(	ADEQ	ADEQ	PEST	859	FIELD	
40236	406	Water Quality	PH, FIELD, STANDARD UNITS SU	8.47		SU	STANDARD UNITS	07/22/1992	07/22/1992 08:59:0(	ADEQ	ADEQ	PEST	859	FIELD	
40236	615	Water Quality	NITRITE NITROGEN, TOTAL (AS N)	0.2	0.2	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/27/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 354.1	LT
40236	620	Water Quality	NITRATE NITROGEN, TOTAL (AS N)	1.21		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/27/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 353.2	
40236	630	Water Quality	NITRITE PLUS NITRATE, TOTAL 1 DET. (AS N)	1.21		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/27/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 353.2T	
40236	650	Water Quality	PHOSPHATE, TOTAL (AS PO4)	0.073		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/24/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 365.2A	
40236	1002	Water Quality	ARSENIC, TOTAL (AS AS)	0.016		MG/L	MILLIGRAMS PER LITER	07/22/1992	07/30/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 206.3	
40236	1042	Water Quality	COPPER, TOTAL (AS CU)	0.004	0.004	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/30/1992 09:01:0(	ADEQ	ADEQ	PEST	901	CU200.7	LT
40236	4100	Water Quality	FLURIDONE, TOTAL RECOVERABLE, WATER	0					08/17/1992 09:00:0(						
40236	4101	Water Quality	FENARIMOL, TOTAL RECOVERABLE, WATER	0					08/17/1992 09:00:0(						
40236	4254	Water Quality	METALAXYL, TOTAL, WATER	0					08/17/1992 09:00:0(						
40236	22416	Water Quality	SETHOXYDIM (POAST), DISSOLVED, WATER	0					08/17/1992 09:00:0(						
40236	30201	Water Quality	CHLOROMETHANE, WATER, WHOLE, RECOVERABLE	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	32101	Water Quality	BROMODICHLOROMETHANE,WHOLE WATER	0.0007	0.0007	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	32102	Water Quality	CARBON TETRACHLORIDE,WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	32104	Water Quality	BROMOFORM, WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	32105	Water Quality	DIBROMOCHLOROMETHANE, WHOLE WATER	0.002	0.002	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	32106	Water Quality	CHLOROFORM, WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34301	Water Quality	CHLOROBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	34311	Water Quality	CHLOROETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34371	Water Quality	ETHYLBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	34413	Water Quality	METHYL BROMIDE (BROMOMETHANE), TOTAL WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34423	Water Quality	METHYLENE CHLORIDE (DICHLOROMETHANE), TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34475	Water Quality	TETRACHLOROETHYLENE (TETRACHLOROETHENE) (PCE) TOT	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34488	Water Quality	TRICHLOROFLUOROMETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34496	Water Quality	1,1-DICHLOROETHANE, TOTAL WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34501	Water Quality	1,1-DICHLOROETHYLENE(1,1-DICHLOROETHENE)TOTALWATER	0.002	0.002	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34506	Water Quality	1,1,1-TRICHLOROETHANE (TCA), TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34511	Water Quality	1,1,2-TRICHLOROETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34516	Water Quality	1,1,2,2-TETRACHLOROETHANE TOTAL/WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34531	Water Quality	1,2-DICHLOROETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34536	Water Quality	1,2-DICHLOROBENZENE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34536	Water Quality	1,2-DICHLOROBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	34541	Water Quality	1,2-DICHLOROPROPANE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34546	Water Quality	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34566	Water Quality	1,3-DICHLOROBENZENE, TOTAL WATER	0.0009	0.0009	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34566	Water Quality	1,3-DICHLOROBENZENE, TOTAL WATER	0.003	0.003	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	34571	Water Quality	1,4-DICHLOROBENZENE, TOTAL WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	34576	Water Quality	2-CHLOROETHYL VINYL ETHER, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34668	Water Quality	DICHLORODIFLUOROMETHANE, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34696	Water Quality	NAPHTHALENE, TOTAL WATER	0.0007	0.0007	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	34699	Water Quality	TRANS-1,3-DICHLOROPROPENE, TOTAL IN WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	34704	Water Quality	CIS-1,3-DICHLOROPROPENE, TOTAL IN WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	38437	Water Quality	DIBROMOCHLOROPROPANE (DBCP), TOTAL WATER	0.025	0.025	UG/L	MICROGRAMS PER LITER	07/22/1992	07/29/1992 09:00:0(	ADEQ	ADEQ	PEST	900	VARIAN MODIFIC.	LT
40236	38446	Water Quality	DICHLORAN, TOTAL WATER	0					08/17/1992 09:00:0(						
40236	38477	Water Quality	LINURON, TOTAL WATER	0					08/17/1992 09:00:0(						
40236	38500	Water Quality	METHIOCARB, TOTAL WATER	0					08/04/1992 09:00:0(						
40236	38680	Water Quality	CHLOROTOLUENE,2-, TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	38715	Water Quality	BOLSTAR, TOTAL WATER (SULPROFOS)	0					08/17/1992 09:00:0(						
40236	38810	Water Quality	FLUOMETURON, TOTAL WATER	0					08/17/1992 09:00:0(						
40236	38815	Water Quality	HEXAZINONE, TOTAL WATER	0					08/17/1992 09:00:0(						
40236	38865	Water Quality	OXAMYL, TOTAL WATER	0					08/04/1992 09:00:0(						
40236	38882	Water Quality	TERBACIL WATER	0					08/17/1992 09:00:0(						
40236	38892	Water Quality	TRIADIMEFON, TOTAL WATER	0					08/17/1992 09:00:0(						
40236	38929	Water Quality	FENAMIPHOS(NEMACUR), WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39033	Water Quality	ATRAZINE IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39051	Water Quality	METHOMYL IN WHOLE WATER	0					08/04/1992 09:00:0(						
40236	39053	Water Quality	ALDICARB IN WHOLE WATER	0					08/04/1992 09:00:0(						
40236	39055	Water Quality	SIMAZINE IN WHOLE WATER	0					08/17/1992 09:00:0(						
40236	39056	Water Quality	PROMETONE IN WHOLE WATER (PROMETON)	0					08/17/1992 09:00:0(						
40236	39057	Water Quality	PROMETRYNE IN WHOLE WATER (PROMETRYN)	0					08/17/1992 09:00:0(						
40236	39080	Water Quality	PRONAMIDE IN WATER, TOTAL WATER	0					08/17/1992 09:00:0(						
40236	39175	Water Quality	VINYL CHLORIDE, WHOLE WATER SAMPLE	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	39180	Water Quality	TRICHLOROETHYLENE (TCE) (TRICHLOROETHENE)WHOLE WTR	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	39340	Water Quality	GAMMA-BHC(LINDANE), WHOLE WATER	0					08/17/1992 09:00:0(						
40236	39356	Water Quality	METOLACHLOR(DUAL) IN WHOLE WATER	0					08/17/1992 09:00:0(						
40236	39388	Water Quality	ENDOSULFAN IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39540	Water Quality	PARATHION IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39570	Water Quality	DIAZINON IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39580	Water Quality	GUTHION IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39600	Water Quality	METHYL PARATHION IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39610	Water Quality	PHOSDRIN IN WHOLE WATER SAMPLE (MEVINPHOS)	0					08/17/1992 09:00:0(						
40236	39640	Water Quality	CAPTAN IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39650	Water Quality	DIURON IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						

ADEQ Water Quality Data for Well 40236

SITECODE	VARCODE	GROUP	DESCRIPTION	VALUE	DETECTION_LIMIT	UNITS	UNITS DESCRIPTION	SAMPLE DATE	ANALYSIS DATE	COLLECTING AGENCY	REPORTING_AGENCY	SAMPLING_PROGRAM	SAMPLE_TIME	LAB_METHOD_CODE	LAB_NOTATION
40236	39730	Water Quality	2,4-D IN WHOLE WATER SAMPLE	0.15	0.15	UG/L	MICROGRAMS PER LITER	07/22/1992	08/07/1992 09:00:0(	ADEQ	ADEQ	PEST	900	CUSTOM GC/MS	LT
40236	39770	Water Quality	DACTHAL (DCPA) IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	39800	Water Quality	IMIDAN IN WHOLE WATER SAMPLE (PHOSMET)	0					08/17/1992 09:00:0(						
40236	45606	Water Quality	NORTRON (ETHOFUMESATE, TRAMAT), WATER, WHOLE	0					08/17/1992 09:00:0(						
40236	45607	Water Quality	TEBUTHIURON (GRASLAN, SPIKE), WATER WHOLE	0					08/17/1992 09:00:0(						
40236	45609	Water Quality	PYRAMIN (PYRAZON, CHLORIDAZON), WATER, WHOLE	0					08/17/1992 09:00:0(						
40236	46314	Water Quality	DIMETHOATE IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	49146	Water Quality	DIBROMO-3-CHLOROPROPANE, 1,2- TOTAL WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	49609	Water Quality	VINCLOZOLIN (RONILAN) TOTAL	0					08/17/1992 09:00:0(						
40236	50337	Water Quality	SULFOMETURON METHYL	0					08/17/1992 09:00:0(						
40236	50369	Water Quality	THIDIAZURON TOTAL	0					08/17/1992 09:00:0(						
40236	70314	Water Quality	DACONIL(C8CL4N2) IN WATER (CHLOROTHALONIL)	0					08/17/1992 09:00:0(						
40236	70978	Water Quality	CARBOXIN, WHOLE WATER	0					08/17/1992 09:00:0(						
40236	73085	Water Quality	CHLOROBROMOMETHANE (BROMOCHLOROMETHANE) TOT	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77036	Water Quality	GLYCINE WHOLE WATER	0					08/17/1992 09:00:0(						
40236	77093	Water Quality	CIS-1,2-DICHLOROETHYLENE WHOLE WATER	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77128	Water Quality	STYRENE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77173	Water Quality	1,3-DICHLOROPROPANE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77223	Water Quality	ISOPROPYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77224	Water Quality	N-PROPYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77226	Water Quality	1,3,5-TRIMETHYLBENZENE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77277	Water Quality	1-METHYL-4-CHLOROBENZENE(4-CHLOROTOLUENE)WHOLE WTR	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77342	Water Quality	N-BUTYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77350	Water Quality	SEC-BUTYLBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77353	Water Quality	TERT-BUTYLBENZENE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	77562	Water Quality	1,1,1,2-TETRACHLOROETHANE WHOLE WATER	0.0005	0.0005	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77596	Water Quality	METHYLENE BROMIDE (DIBROMOMETHANE) WHOLE WATER	0.0009	0.0009	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77700	Water Quality	CARBARYL WHOLE WATER	0					08/04/1992 09:00:0(						
40236	77733	Water Quality	1,2,3,5-TETRACHLOROBENZENE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77779	Water Quality	DIBROMODICHLOROMETHANE WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	77825	Water Quality	ALACHLOR WHOLE WATER	0					08/17/1992 09:00:0(						
40236	78004	Water Quality	DIPHENAMID IN WATER	0					08/17/1992 09:00:0(						
40236	78064	Water Quality	NORFLURAZON IN WATER	0					08/17/1992 09:00:0(						
40236	78124	Water Quality	BENZENE IN WATER (VOLATILE ANALYSIS)	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	78131	Water Quality	TOLUENE IN WHOLE WATER (VOLATILE ANALYSIS)	0.0006	0.0006	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	78881	Water Quality	PHOSPHAMIDON (I) (DIMECRON), WHOLE WATER	0					08/17/1992 09:00:0(						
40236	79191	Water Quality	PERMETHRIN (I) IN WHOLE WATER	0					08/17/1992 09:00:0(						
40236	79192	Water Quality	PEBULATE, WATER, WHOLE	0					08/17/1992 09:00:0(						
40236	79195	Water Quality	NAPROPAMIDE, WATER, WHOLE	0					08/17/1992 09:00:0(						
40236	81405	Water Quality	CARBOFURAN (EURADAN) WHOLE WATER SAMPLE	0					08/04/1992 09:00:0(						
40236	81410	Water Quality	BUTYLATE, WHOLE WATER	0					08/17/1992 09:00:0(						
40236	81522	Water Quality	DIBROMOETHANE (EDB) (ETHYLENE DIBROMIDE)WHLWTR TOT	0.033	0.033	UG/L	MICROGRAMS PER LITER	07/22/1992	07/29/1992 09:00:0(	ADEQ	ADEQ	PEST	900	VARIAN MODIFIC.	LT
40236	81551	Water Quality	TOTAL XYLENES WHOLE WATER SAMPLE	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 602	LT
40236	81611	Water Quality	TRICHLOROTRIFLUOROETHANE WHOLE WATER SAMPLE	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT
40236	81757	Water Quality	CYANAZINE IN THE WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	81758	Water Quality	ETHOPROP IN THE WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	81892	Water Quality	CYCLOATE (RONEET) IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	81894	Water Quality	EPTC (EPTAM) IN WHOLE WATER SAMPLE	0					08/17/1992 09:00:0(						
40236	82052	Water Quality	DICAMBA (BANVEL) TOTAL, WHOLE WATER	0					08/07/1992 09:00:0(						
40236	82088	Water Quality	TERBUFOS (COUNTER) TOTAL, WHOLE WATER	0					08/17/1992 09:00:0(						
40236	82184	Water Quality	AMETRYNE (GESAPAX OR EVIK) TOTAL	0					08/17/1992 09:00:0(						
40236	82198	Water Quality	BROMACIL (HYVAR) IN WATER	0					08/17/1992 09:00:0(						
40236	82200	Water Quality	VERNAM (S-PROPYLDIPROPYLTHIOCARBAMATE) IN WATER	0					08/17/1992 09:00:0(						
40236	82611	Water Quality	METRIBUZIN, WHOLE WATER, TOTAL RECOVERABLE	0					08/17/1992 09:00:0(						
40236	99903	Water Quality	FLUCYTHRINATE (I)	0					08/17/1992 09:00:0(						
40236	99904	Water Quality	IMAZALIL	0					08/17/1992 09:00:0(						
40236	99907	Water Quality	MYCLOBUTANIL	0					08/17/1992 09:00:0(						
40236	99910	Water Quality	FLUAZIFOP-P-BUTYL	0					08/17/1992 09:00:0(						
40236	99912	Water Quality	ISAZOPHOS	0					08/17/1992 09:00:0(						
40236	99952	Water Quality	CHLORONAPHTHALENE, TOTAL IN WHOLE WATER	0.001	0.001	MG/L	MILLIGRAMS PER LITER	07/22/1992	07/22/1992 09:01:0(	ADEQ	ADEQ	PEST	901	EPA 601	LT

Fax Transmittal Form

Community Water Company of Green Valley

Office: 1501 S. La Cañada
Green Valley, AZ 85622-1600

Office Phone: (520) 625-8409
Fax: (520) 625-1951

Date: 9/1/09

Time: 1550

ATTN: Meg Buchanan

Fax No: 628-1122

Company: GeoSystem Analysis

Regarding: CWC Well #11 Sampling results

From:

Arturo Gabaldón	Norris West	Pierre Hanhart
Pat Carlstad	Murray Bolesta	Kat Chapdelain
Kathy Teso	Rhonda Caruso	Sue Dyvig
Lonny Grant	John Meyer	Mark Wyland
Marc Levesque	Jack Walls	

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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT

*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

10-004 _____
System ID — System Name

11/25/2008 9:45 (24 hr clock)
Sample date — Sample time

John Meyer
Owner / Contact Person Name

(520) 625-1951
Owner / Contact Fax Number

520-349-0479
Owner / Contact Person Phone Number

Sample Type
☐ Compliance Monitoring

Sample Collection Point
☐ Point of Entry# _____

CWC #11 Well (007 55-608518)
Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

INORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 200.8	0.01	0.01	Arsenic	1005	12/03/2008 20:1[illegible]	0.0044	☐	☐

8111753-04
SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments: _____

Authorized Signature: Andrea Horney

Date Public Water System Notified: _____

* Unregulated Contaminants

All units must be reported in milligrams per liter (mg/L)

DWAR 2IN: Revised 2003

LEGEND
Technical Services, Inc.
www.legend-group.com

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ADHS#000

John Meyer
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85622-1600

Project: Quarterly
Project Number: 04-10-004

Reported:
03/25/09 12:21

Analyte

CWC Well #6 (EPDS#002 55-627485) (9030801-01) Drinking Water (Grab) Sampled: 03/11/09 09:30 Received: 03/11/09 13:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.0053	0.0010	mg/L	1	B9C0474	03/16/09 10:20	03/16/09 18:42	EPA 200.8	

CWC Well #9 (EPDS#005 55-588121) (9030801-02) Drinking Water (Grab) Sampled: 03/11/09 09:55 Received: 03/11/09 13:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.0051	0.0010	mg/L	1	B9C0474	03/16/09 10:20	03/16/09 18:46	EPA 200.8	

CWC Well #10 (EPDS#006 55-207982) (9030801-03) Drinking Water (Grab) Sampled: 03/11/09 10:40 Received: 03/11/09 13:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.0048	0.0010	mg/L	1	B9C0474	03/16/09 10:20	03/16/09 18:49	EPA 200.8	

CWC Well #11 (EPDS#007 55-608518) (9030801-04) Drinking Water (Grab) Sampled: 03/11/09 10:15 Received: 03/11/09 13:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.0083	0.0010	mg/L	1	B9C0474	03/16/09 10:20	03/16/09 19:00	EPA 200.8	

#2 Reservior (9030801-05) Drinking Water (Grab) Sampled: 03/11/09 11:00 Received: 03/11/09 13:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services, Inc. #AZ0557									
GC ANALYSIS									
Dibromoacetic Acid	<0.0020	0.0020	mg/L	1	B9C1306	03/16/09 08:56	03/17/09 15:53	EPA 552.2	
Dichloroacetic Acid	<0.0020	0.0020	mg/L	1	B9C1306	03/16/09 08:56	03/17/09 15:53	EPA 552.2	
HAA5	<0.0020	0.0020	mg/L	1	B9C1306	03/16/09 08:56	03/17/09 15:53	EPA 552.2	
Monobromoacetic Acid	<0.0020	0.0020	mg/L	1	B9C1306	03/16/09 08:56	03/17/09 15:53	EPA 552.2	
Monochloroacetic Acid	<0.0020	0.0020	mg/L	1	B9C1306	03/16/09 08:56	03/17/09 15:53	EPA 552.2	
Trichloroacetic Acid	<0.0020	0.0020	mg/L	1	B9C1306	03/16/09 08:56	03/17/09 15:53	EPA 552.2	
Surrogate: 2,3-Dibromopropionic acid		*115 %*	*70-130*		*B9C1306*	*03/16/09 08:56*	*03/17/09 15:53*	*EPA 552.2*	
Legend Technical Services of Arizona, Inc.									
Volatile Organic Compounds									
Bromodichloromethane	<0.0005	0.0005	mg/L	1	B9C0413	03/13/09 08:00	03/13/09 12:48	EPA 524.2	
Bromoform	0.0005	0.0005	mg/L	1	B9C0413	03/13/09 08:00	03/13/09 12:48	EPA 524.2	
Chloroform	<0.0005	0.0005	mg/L	1	B9C0413	03/13/09 08:00	03/13/09 12:48	EPA 524.2	

Legend Technical Services of Arizona, Inc.

Andrea Honey

Tucson Analyst

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT

*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

PWS ID#: 10-004 PWS Name: Community Water Co.

04/27/2009 9:30 (24 hr clock)
Sample date Sample time

Norris West
Owner / Contact Person Name

(520) 625-1951
Owner / Contact Fax Number

520-625-8409
Owner / Contact Person Phone Number

Sample Type
☐ Compliance Monitoring

Sample Collection Point
☐ EPDS# 007

CWC #11 Well (007 55-608518)
Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

INORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 200.8	0.01	0.01	Arsenic	1005	05/05/2009 12:02	0.0098	☐	☐
Calculation	10	5	Nitrate (as N)	1040	05/05/2009 13:23	0.58	☐	☐
SM 4500 NO2 B	1	0.5	Nitrite (as N)	1041	04/28/2009 17:00	<0.10	☐	☐

>>>>> LABORATORY INFORMATION <<<<<

To be filled out by laboratory personnel

Lab ID Number: AZ0004

SPECIMEN NUMBER 9041839-04

Name: Legend Technical Services of Arizona

Printed Name and Phone Number of Lab Contact: Andrea Horney (602)324-6100

Authorized Signature: Andrea Horney

Date Public Water System Notified:

Comments:

All units must be reported in milligrams per liter (mg/L)
* Unregulated Contaminants
DWAR 21N: Revised 8/2008

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT

*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

10-004 Community Water Co of Green Valley
System ID System Name

10/08/2008 9:30 (24 hr clock)
Sample date Sample time

Norris West
Owner / Contact Person Name

(520) 625-1951
Owner / Contact Fax Number

520-625-8409
Owner / Contact Person Phone Number

Sample Type
☒ Compliance Monitoring

Sample Collection Point
☒ Point of Entry# 007

CWC #11 Well (007 55-608518)
Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

INORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
Calculation	10	5	Nitrate (as N)	1040	10/20/2008 14:2'	0.63	☐	☐
SM 4500 NO2 B	1	0.5	Nitrite (as N)	1041	10/09/2008 17:0(	<0.10	☐	☐

8100574-04
SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments: _____

Authorized Signature: Andrea Horney

Date Public Water System Notified: _____

* Unregulated Contaminants

All units must be reported in milligrams per liter (mg/L)

DWAR 2IN: Revised 2003

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT
*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

10-004 — System ID
Community Water Co. — System Name
06/26/2008 — Sample date
10:02 (24 hr clock) — Sample time
(520) 625-1951 — Owner / Contact Fax Number
John Meyer — Owner / Contact Person Name
520-349-0479 — Owner / Contact Person Phone Number

Sample Type
☑ Compliance Monitoring

Sample Collection Point
☑ Point of Entry# 007

CWC #11 Well (007 55-608518) — Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

INORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 200.9	0.01	0.01	Arsenic	1005	06/30/2008 23:59	0.006	☐	☐

8061920-04
SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments:

Authorized Signature: [signature]

Date Public Water System Notified:

* Unregulated Contaminants

All units must be reported in milligrams per liter (mg/L)

DWAR 2IN: Revised 2003

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ADHS#0004

John Meyer
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Drinking Water Analysis
Project Number: 04-10-004

Reported:
07/11/08 08:38

CWC #8 Well (002 55-627485) (8061920-01) Drinking Water () Sampled: 06/26/08 08:20 Received: 06/26/08 14:25

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.002	0.002	mg/L	1	B8F0831	06/30/08 11:49	06/30/08 23:59	EPA 200.9	

CWC #9 Well (005 55-588121) (8061920-02) Drinking Water () Sampled: 06/26/08 08:55 Received: 06/26/08 14:25

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.003	0.002	mg/L	1	B8G0124	07/06/08 19:30	07/07/08 13:47	EPA 200.9	

CWC #10 Well (006 55-207982) (8061920-03) Drinking Water () Sampled: 06/26/08 09:30 Received: 06/26/08 14:25

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.003	0.002	mg/L	1	B8F0831	06/30/08 11:49	06/30/08 23:59	EPA 200.9	

CWC #11 Well (007 55-608518) (8061920-04) Drinking Water () Sampled: 06/26/08 10:02 Received: 06/26/08 14:25

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.006	0.002	mg/L	1	B8F0831	06/30/08 11:49	06/30/08 23:59	EPA 200.9	

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.
QA/QC Criteria: All analyses met method requirements unless otherwise qualified
Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.

Notes and Definitions

Legend Technical Services of Arizona, Inc.

Andrea Harvey

Tucson Laboratory Supervisor

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ADHS#0004

John Meyer
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Colliert Analysis
Project Number: 04-10-004

Reported:
04/30/08 08:38

CWC #6 (002 55-627455) (8040070.01) Drinking Water (Grab) Sampled: 03/31/08 14:39 Received: 04/01/08 12:56

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.009	0.002	mg/L	1	B8D0363	04/13/08 20:00	04/13/08 22:49	EPA 200.9	

CWC #9 (005 55-588121) (8040070.02) Drinking Water (Grab) Sampled: 03/31/08 15:02 Received: 04/01/08 12:56

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.010	0.002	mg/L	1	B8D0363	04/13/08 20:00	04/13/08 22:49	EPA 200.9	

CWC #10 (006 55-207982) (8040070.03) Drinking Water (Grab) Sampled: 03/31/08 16:30 Received: 04/01/08 12:56

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Arsenic	0.009	0.002	mg/L	1	B8D0363	04/13/08 20:00	04/13/08 22:49	EPA 200.9	

CWC #11 (007 55-608518) (8040070.04) Drinking Water (Grab) Sampled: 03/31/08 14:20 Received: 04/01/08 12:56

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Transwest Geochem #AZ0133									
EPA 300									
Sulfate	50	3.0	mg/L	10	N/A	04/10/08 00:00	04/10/08 00:00	EPA 300	D1
Legend Technical Services of Arizona, Inc.									
Total Metals									
Antimony	<0.004	0.004	mg/L	1	B8D0125	04/03/08 09:32	04/11/08 23:39	EPA 200.8	
Arsenic	0.009	0.002	mg/L	1	B8D0363	04/13/08 20:00	04/13/08 22:49	EPA 200.9	
Barium	<0.01	0.01	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Beryllium	<0.002	0.002	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Cadmium	<0.0002	0.0002	mg/L	1	B8D0249	04/07/08 16:15	04/07/08 16:18	EPA 200.8	
Calcium	31	1	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Chromium	<0.005	0.005	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Copper	<0.010	0.010	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Lead	0.003	0.002	mg/L	1	B8D0249	04/07/08 16:15	04/07/08 16:18	EPA 200.8	
Magnesium	2	1	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Mercury	<0.0002	0.0002	mg/L	1	B8D0240	04/08/08 08:55	04/08/08 14:50	EPA 245.1	
Nickel	<0.02	0.02	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Selenium	<0.002	0.002	mg/L	1	B8D0213	04/07/08 12:00	04/07/08 13:28	EPA 200.8	
Sodium	51	1	mg/L	1	B8D0134	04/04/08 13:00	04/04/08 14:38	EPA 200.7	
Thallium	<0.001	0.001	mg/L	1	B8D0466	04/15/08 09:55	04/15/08 08:57	EPA 200.8	
Calcium Hardness	77	2	mg/L	1	[CALC]	04/04/08 13:00	04/04/08 14:38	SM 2340B	
Magnesium Hardness	8	4	mg/L	1	[CALC]	04/04/08 13:00	04/04/08 14:38	SM 2340B	

Legend Technical Services of Arizona, Inc.

Andrea Horney

Tucson Laboratory Supervisor

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Norris West
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Drinking Water Analysis
Project Number: 04-10-004 (12/12/07)

Reported:
01/31/08 16:36

#10 Well (7120738-05) Drinking Water (Grab) Sampled: 12/12/07 10:00 Received: 12/12/07 12:10

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds									
o-Xylene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
Styrene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
Bromoform [Tribromomethane]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
Total THMs	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
1,4-Dichlorobenzene [para-Dichlorobenzene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
1,2-Dichlorobenzene [ortho-Dichlorobenzene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
1,2,4-Trichlorobenzene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
Xylenes (total)	<0.0015	0.0015	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 19:53	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4		*110 %*		*70-130*	*B7L0348*	*12/13/07 08:00*	*12/13/07 19:53*	*EPA 524.2*	
Surrogate: 4-Bromofluorobenzene		*102 %*		*70-130*	*B7L0348*	*12/13/07 08:00*	*12/13/07 19:53*	*EPA 524.2*	
Surrogate: Pentafluorobenzene		*104 %*		*70-130*	*B7L0348*	*12/13/07 08:00*	*12/13/07 19:53*	*EPA 524.2*	

#11 Well (7120738-06) Drinking Water (Grab) Sampled: 12/12/07 11:35 Received: 12/12/07 12:10

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			UL#AZ0432						
EPA 504.1									
1,2-Dibromo-3-chloropropane (DBCP)	<0.00002	0.00002	mg/L	1.014	111232	12/18/07 00:00	12/18/07 00:00	EPA 504.1	
1,2-Dibromoethane (EDB)	<0.00001	0.00001	mg/L	1.014	111232	12/18/07 00:00	12/18/07 00:00	EPA 504.1	
EPA 515.3									
2,4-D	<0.0001	0.0001	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
Dalapon	<0.001	0.001	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
Dicamba	<0.0001	0.0001	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
Dinoseb	<0.0002	0.0002	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
Pentachlorophenol	<0.00004	0.00004	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
Picloram	<0.0001	0.0001	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
2,4,5-TP (Silvex)	<0.0002	0.0002	mg/L	1	111280	12/17/07 00:00	12/19/07 00:00	EPA 515.3	
Surrogate: SS-2,4-Dichlorophenylacetic acid		*82 %*		*70-130*	*111280*	*12/17/07 00:00*	*12/19/07 00:00*	*EPA 515.3*	
EPA 525.2									
Alachlor	<0.0002	0.0002	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Aldrin	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Atrazine	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Benzo[a]pyrene	<0.00002	0.00002	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
gamma-BHC (Lindane)	<0.00002	0.00002	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Butachlor	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Dieldrin	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Di(2-ethylhexyl)adipate	<0.0006	0.0006	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Di(2-ethylhexyl)phthalate	<0.0006	0.0006	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Endrin	<0.00001	0.00001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Heptachlor	<0.00004	0.00004	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Hexachlorobenzene	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Hexachlorocyclopentadiene	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Methoxychlor	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Metolachlor	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Metribuzin	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Propachlor	<0.0001	0.0001	mg/L	0.987	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Norris West
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Drinking Water Analysis
Project Number: 04-10-004 (12/12/07)

Reported:
01/31/08 16:36

#T1 Well (7120736-06) Drinking Water (Grab) Sampled: 12/12/07 11:25 Received: 12/12/07 12:10

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals									
Arsenic	0.015	0.002	mg/L	1	B7L0421	12/17/07 16:00	12/17/07 23:59	EPA 200.9	
Volatile Organic Compounds									
Vinyl chloride [Chloroethane]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Dichloromethane [Methylene chloride]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
trans-1,2-Dichloroethene [trans-1,2-Dichloroethylene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
cis-1,2-Dichloroethylene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Chloroform [Trichloromethane]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,1,1-Trichloroethane	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Carbon tetrachloride [Tetrachloromethane]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,2-Dichloroethene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Benzene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Trichloroethene [Trichloroethylene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,2-Dichloropropane	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Bromodichloromethane [Dichlorobromomethane]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Toluene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,1,2-Trichloroethane	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Tetrachloroethene [Tetrachloroethylene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Dibromochloromethane	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Chlorobenzene [Monochlorobenzene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Ethylbenzene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
m,p-Xylene	<0.0010	0.0010	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
o-Xylene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Styrene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Bromoform [Tribromomethane]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Total THMs	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,4-Dichlorobenzene [para-Dichlorobenzene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,2-Dichlorobenzene [ortho-Dichlorobenzene]	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
1,2,4-Trichlorobenzene	<0.0005	0.0005	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Xylenes (total)	<0.0015	0.0015	mg/L	1	B7L0348	12/13/07 08:00	12/13/07 20:27	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4		*110 %*	*70-130*		*B7L0348*	*12/13/07 08:00*	*12/13/07 20:27*	*EPA 524.2*	
Surrogate: 4-Bromofluorobenzene		*102 %*	*70-130*		*B7L0348*	*12/13/07 08:00*	*12/13/07 20:27*	*EPA 524.2*	
Surrogate: Pentafluorobenzene		*100 %*	*70-130*		*B7L0348*	*12/13/07 08:00*	*12/13/07 20:27*	*EPA 524.2*	

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.
QA/QC Criteria: All analyses met method requirements unless otherwise qualified.
Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.

Community Water Co. 1501 S. La Canada Dr. Green Valley, AZ 85614-1600	Project: Drinking Water Analysis Project Number: 04-10-004 Project Manager: Norris West	Reported: 10/25/07 10:17

#10 Well (7091353-03) Drinking Water (Grab) Sampled: 09/24/07 11:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds									
Surrogate: Pentafluorobenzene	*96.0 %*	*70-130*			*B7I0779*	*09/26/07*	*09/26/07*	*EPA 524.2*	
Miscellaneous									
Langlier Index	-0.397	-5.00	N/A	1	B7J0283	10/09/07 15:01	10/09/07 15:07	Miscellaneous	
Fiberquant Analytical Services #AZ0633									
EPA 100.1									
Asbestos	<0.2	0.2	MFL	1	N/A	09/25/07 00:00	10/01/07 00:00	EPA 100.1	

#11 Well (7091353-04) Drinking Water (Grab) Sampled: 09/24/07 10:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
UL#AZ0432									
EPA 504.1									
1,2-Dibromo-3-chloropropane (DBCP)	<0.00002	0.00002	mg/L	1.012	107999	09/28/07 00:00	09/28/07 00:00	EPA 504.1	
1,2-Dibromoethane (EDB)	<0.00001	0.00001	mg/L	1.012	107999	09/28/07 00:00	09/28/07 00:00	EPA 504.1	
EPA 515.3									
2,4-D	<0.0001	0.0001	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
Dalapon	<0.001	0.001	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
Dicamba	<0.0001	0.0001	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
Dinoseb	<0.0002	0.0002	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
Pentachlorophenol	<0.00004	0.00004	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
Picloram	<0.0001	0.0001	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
2,4,5-TP (Silvex)	<0.0002	0.0002	mg/L	1	108067	09/27/07 00:00	10/02/07 00:00	EPA 515.3	
Surrogate: SS-2,4-Dichlorophenylacetic acid	*91 %*	*70-130*			*108067*	*09/27/07*	*10/02/07*	*EPA 515.3*	
EPA 525.2									
Hexachlorocyclopentadiene	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Methoxychlor	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Metolachlor	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Alachlor	<0.0002	0.0002	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Metribuzin	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Aldrin	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Propachlor	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Atrazine	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Simazine	<0.00007	0.00007	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Benzo[a]pyrene	<0.00002	0.00002	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
gamma-BHC (Lindane)	<0.00002	0.00002	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Butachlor	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Dieldrin	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Di(2-ethylhexyl)adipate	<0.0006	0.0006	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Di(2-ethylhexyl)phthalate	<0.0006	0.0006	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Endrin	<0.00001	0.00001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Heptachlor	<0.00004	0.00004	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Heptachlor epoxide	<0.00002	0.00002	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Hexachlorobenzene	<0.0001	0.0001	mg/L	0.961	107972	09/27/07 00:00	09/28/07 00:00	EPA 525.2	
Surrogate: SS-4,4'-Dichlorobiphenyl	*114 %*	*70-130*			*107972*	*09/27/07*	*09/28/07*	*EPA 525.2*	

Community Water Co. 1501 S. La Canada Dr. Green Valley, AZ 85614-1600	Project: Drinking Water Analysis Project Number: 04-10-004 Project Manager: Norris West	Reported: 10/25/07 10:17

#1 Well (7D9135-04) Drinking Water (Grab) Sampled: 09/24/07 10:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
UL#AZ0432									
EPA 525.2									
Surrogate: SS-2,4,5,6-Tetrachloro-m-xylene	*106 %*	*70-130*			*107972*	*09/27/07*	*09/28/07*	*EPA 525.2*	
Surrogate: SS-Triphenylphosphate	*91 %*	*70-130*			*107972*	*09/27/07*	*09/28/07*	*EPA 525.2*	
EPA 531.1									
Aldicarb	<0.0005	0.0005	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
Methomyl	<0.0005	0.0005	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
Aldicarb sulfone	<0.0008	0.0008	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
Oxamyl	<0.002	0.002	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
Aldicarb sulfoxide	<0.0005	0.0005	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
Carbaryl	<0.0005	0.0005	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
Carbofuran	<0.0009	0.0009	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
3-Hydroxycarbofuran	<0.0005	0.0005	mg/L	1	108099	10/01/07 00:00	10/02/07 00:00	EPA 531.1	
EPA 548.1									
Endothall	<0.009	0.009	mg/L	1	108013	09/27/07 00:00	09/28/07 00:00	EPA 548.1	
Surrogate: SS-2,4-Dichlorophenylacetic acid	*96 %*	*70-130*			*108013*	*09/27/07*	*09/28/07*	*EPA 548.1*	
EPA 549.2									
Diquat	<0.0004	0.0004	mg/L	1	107977	09/27/07 00:00	09/28/07 00:00	EPA 549.2	
Transwest Geochem #AZ0133									
EPA 300									
Sulfate	65	30	mg/L	10	N/A	10/02/07 00:00	10/02/07 00:00	EPA 300	
Radiation Safety Engineering #AZ0462									
Calculation									
Combined Radium	<0.4		pCi/L	1	NA		09/27/07 00:00	Calculation	

Community Water Co. 1501 S La Canada Dr. Green Valley, AZ 85614-1600	Project: Drinking Water Analysis Project Number: 04-10-004 Project Manager: Norris West	Reported: 10/25/07 10:17

#11 Well (7091353-04) Drinking Water (Grab) Sampled: 09/24/07 10:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Radiation Safety Engineering #AZ0462									
EPA 00-07									
Total Uranium Content	5.3 +/- 1.0		ug/L	1	NA		10/02/07 00:00	EPA 00-07	
Uranium 234 Content	0.00052 +/- 0.00007		ug/L	1	NA		10/02/07 00:00	EPA 00-07	
Uranium 235 Content	0.039 +/-0.001		ug/L	1	NA		10/02/07 00:00	EPA 00-07	
Uranium 238 Content	5.3 +/- 1.0		ug/L	1	NA		10/02/07 00:00	EPA 00-07	
EPA 600/00-02									
Adjusted Gross Alpha	<1.0		pCi/L	1	NA		10/02/07 00:00	EPA 600/00-02	
Gross Alpha Activity	5.5 +/-1.1		pCi/L	1	NA		09/26/07 00:00	EPA 600/00-02	
EPA 903.1									
Radium 226 Activity	<0.4		pCi/L	1	NA		09/27/07 00:00	EPA 903.1	
EPA 904.0									
Radium 228 Activity	<0.3		pCi/L	1	NA		09/27/07 00:00	EPA 904.0	
Legend Technical Services, Inc.									
PESTICIDES/PCBS-505									
Aroclor 1016	<0.000080	0.000080	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Aroclor 1221	<0.020	0.020	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Aroclor 1232	<0.00060	0.00060	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Aroclor 1242	<0.00030	0.00030	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Aroclor 1248	<0.00010	0.00010	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Aroclor 1254	<0.00010	0.00010	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Aroclor 1260	<0.00020	0.00020	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Toxaphene	<0.0010	0.0010	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Chlordane	<0.00020	0.00020	mg/L	1	B7J0414	10/04/07 11:47	10/05/07 03:29	EPA 505	
Surrogate: Decachlorobiphenyl		*105 %*		*66.7-179*	*B7J0414*	*10/04/07*	*10/05/07*	*EPA 505*	

Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ 85614-1600

Project: Drinking Water Analysis
Project Number: 04-10-004
Project Manager: Norris West

Reported:
10/25/07 10:17

GW Well (09-355-01) Drinking Water (Grab) Sampled: 09/24/07 10:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals									
Antimony	<0.004	0.004	mg/L	1	B7I0782	09/27/07 10:03	10/11/07 16:56	EPA 200.9	
Arsenic	0.009	0.002	mg/L	1	B7J0332	10/10/07 14:36	10/10/07 23:10	EPA 200.9	
Barium	<0.01	0.01	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Beryllium	<0.002	0.002	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Cadmium	<0.0002	0.0002	mg/L	1	B7J0332	10/10/07 14:36	10/10/07 23:10	EPA 200.9	
Calcium	25	1	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Chromium	<0.005	0.005	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Copper	<0.010	0.010	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Lead	<0.002	0.002	mg/L	1	B7J0332	10/10/07 14:36	10/10/07 23:10	EPA 200.9	
Magnesium	1	1	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Mercury	<0.0002	0.0002	mg/L	1	B7J0120	10/03/07 16:37	10/03/07 17:03	EPA 245.1	
Nickel	<0.02	0.02	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Selenium	<0.002	0.002	mg/L	1	B7J0332	10/10/07 14:36	10/17/07 12:23	EPA 200.9	
Silver	<0.0100	0.0100	mg/L	1	B7J0281	10/09/07 10:13	10/10/07 11:00	EPA 200.7	
Sodium	72	1	mg/L	1	B7J0281	10/09/07 10:13	10/09/07 11:44	EPA 200.7	
Thallium	<0.001	0.001	mg/L	1	B7J0222	10/07/07 09:50	10/07/07 11:19	EPA 200.9	
Calcium Hardness	62	2	mg/L	1	[CALC]	10/09/07 10:13	10/09/07 11:44	SM 2340B	
Magnesium Hardness	4	4	mg/L	1	[CALC]	10/09/07 10:13	10/09/07 11:44	SM 2340B	
Total Hardness	67	7	mg/L	1	[CALC]	10/09/07 10:13	10/09/07 11:44	SM 2340B	
Inorganic Chemistry									
Total Alkalinity [(as CaCO3)]	133	10	mg/L	1	B7J0095	10/02/07 13:00	10/02/07 13:00	SM 2320 B	
Cyanide, Total	<0.010	0.010	mg/L	1	B7J0078	10/02/07 11:00	10/02/07 11:30	SM 4500 CN E M2	
Fluoride	1.70	0.10	mg/L	1	B7I0842	09/27/07 13:00	09/27/07 13:00	SM 4500 F C	
Nitrate as N	<1.00	1.00	mg/L	1	[CALC]	10/22/07 14:43	10/22/07 16:18	Calculation	
Nitrate + Nitrite	<1.00	1.00	mg/L	1	B7J0652	10/22/07 14:43	10/22/07 16:18	SM 4500 NO3 F M2	
Nitrite as N	<0.10	0.10	mg/L	1	B7I0751	09/25/07 16:00	09/25/07 16:00	SM 4500 NO2 B M2	
pH	7.9		pH Units	1	B7I0743	09/25/07 12:00	09/25/07 12:00	SM 4500H B	H3
Temperature	13.6		°C	1	B7I0743	09/25/07 12:00	09/25/07 12:00	pH Temperature	H3
Total Dissolved Solids	297	10	mg/L	1	B7J0045	09/29/07 12:00	09/29/07 12:00	SM 2540 C	

Community Water Co. 1501 S. La Canada Dr. Green Valley, AZ 85614-1600	Project: Drinking Water Analysis Project Number: 04-10-004 Project Manager: Norris West	Reported: 10/25/07 10:17

#11 Well (7091353.04) Drinking Water (Grab) Sampled: 09/24/07 10:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds MCL									
Vinyl chloride [Chloroethene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Dichloromethane [Methylene chloride]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
trans-1,2-Dichloroethene [trans-1,2-Dichloroethylene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
cis-1,2-Dichloroethylene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Chloroform [Trichloromethane] 0.005	0.0013	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,1,1-Trichloroethane	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Carbon tetrachloride [Tetrachloromethane]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,2-Dichloroethane	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Benzene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Trichloroethene [Trichloroethylene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,2-Dichloropropane	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Bromodichloromethane [Dichlorobromomethane]	0.0006	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Toluene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,1,2-Trichloroethane	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Tetrachloroethene [Tetrachloroethylene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Dibromochloromethane	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Chlorobenzene (Monochlorobenzene)	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Ethylbenzene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
m,p-Xylene	<0.0010	0.0010	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
o-Xylene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Styrene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Bromoform [Tribromomethane]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Total THMs 0.08	0.0019	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,4-Dichlorobenzene [para-Dichlorobenzene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,2-Dichlorobenzene [ortho-Dichlorobenzene]	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
1,2,4-Trichlorobenzene	<0.0005	0.0005	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Xylenes (total)	<0.0015	0.0015	mg/L	1	B710779	09/26/07 20:00	09/26/07 23:44	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4		*92.5 %*		*70-130*	*B710779*	*09/26/07*	*09/26/07*	*EPA 524.2*	
Surrogate: 4-Bromofluorobenzene		*96.5 %*		*70-130*	*B710779*	*09/26/07*	*09/26/07*	*EPA 524.2*	
Surrogate: Pentafluorobenzene		*96.5 %*		*70-130*	*B710779*	*09/26/07*	*09/26/07*	*EPA 524.2*	

Community Water Co. 1501 S. La Canada Dr. Green Valley, AZ 85614-1600	Project: Drinking Water Analysis Project Number: 04-10-004 Project Manager: Norris West	Reported: 10/25/07 10:17

#11 Well (7091353-04) Drinking Water (Grab) Sampled: 09/24/07 10:30 Received: 09/25/07 07:35

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Miscellaneous									
Langlier Index	-0.311	-5.00	N/A	1	B7J0268	10/08/07 15:01	10/24/07 16:07	Miscellaneous	
Fiberquant Analytical Services #AZ0633									
EPA 100.1									
Asbestos	<0.2	0.2	MFL	1	N/A	09/25/07 00:00	10/01/07 00:00	EPA 100.1	

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER SYNTHETIC ORGANIC CHEMICAL ANALYSIS REPORT
***** SAMPLES TO BE TAKEN AT P.O.E. ONLY*****

10-004 — System ID
Community Water Co. — System Name

12/12/2007 — Sample date
11:25 (24 hr clock) — Sample time

(520) 625-1951 — Owner / Contact Fax Number

Norris West — Owner / Contact Person Name

520-625-8409 — Owner / Contact Person Phone Number

Sample Type
☒ Compliance Monitoring

Sample Collection Point
☒ Point of Entry# 007

#11 Well — Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

SYNTHETIC ORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 515.3	0.07	0.0001	2,4-D	2105	12/19/2007 0:00	<0.0001	☐	☐
EPA 515.3	0.05	0.0002	2,4,5-TP (Silvex)	2110	12/19/2007 0:00	<0.0002	☐	☐
EPA 505	0.003	0.001	Toxaphene	2020	12/18/2007 15:37	<0.0010	☐	☐
EPA 525.2	0.002	0.0002	Alachlor	2051	12/19/2007 0:00	<0.0002	☐	☐
EPA 525.2	0.003	0.0001	Atrazine	2050	12/19/2007 0:00	<0.0001	☐	☐
EPA 531.1	0.04	0.0009	Carbofuran	2046	12/18/2007 0:00	<0.0009	☐	☐
EPA 515.3	0.001	0.00004	Pentachlorophenol	2326	12/19/2007 0:00	<0.00004	☐	☐
EPA 505	0.002	0.0002	Chlordane	2959	12/18/2007 15:37	<0.00020	☐	☐
EPA 504.1	0.0002	0.00002	Dibromochloropropane (DBCP)	2931	12/18/2007 0:00	<0.00002	☐	☐
EPA 504.1	0.00005	0.00001	Ethylene Dibromide (EDB)	2946	12/18/2007 0:00	<0.00001	☐	☐
EPA 525.2	0.0004	0.00004	Heptachlor	2065	12/19/2007 0:00	<0.00004	☐	☐
EPA 525.2	0.0002	0.00002	Lindane	2010	12/19/2007 0:00	<0.00002	☐	☐
EPA 525.2	0.0002	0.00002	Benzo (a) Pyrene	2306	12/19/2007 0:00	<0.00002	☐	☐
EPA 515.3	0.2	0.001	Dalapon	2031	12/19/2007 0:00	<0.001	☐	☐
EPA 525.2	0.006	0.0006	Di(2-ethylhexyl)phthalate	2039	12/19/2007 0:00	<0.0006	☐	☐

7120738-06 — SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments:

Authorized Signature: [signature]

Date Public Water System Notified:

All units must be reported in milligrams per liter (mg/L)

Methods 504, 505, 515, 525, 531, 548 and 549 analyzed by ERL, South Bend IN, #AZ0432.
Method 1613 (Dioxin) performed by Pace Analytical Services, Minn, MN #AZ0014

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER SYNTHETIC ORGANIC CHEMICAL ANALYSIS REPORT
*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

16-004 — System ID
Community Water Co. — System Name

12/12/2007 — Sample date
11:25 (24 hr clock) — Sample time

(520) 625-1951 — Owner / Contact Fax Number

Norris West — Owner / Contact Person Name

520-625-8409 — Owner / Contact Person Phone Number

Sample Type
☑ Compliance Monitoring

Sample Collection Point
☐ Point of Entry# 007

#11 Well — Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

SYNTHETIC ORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date		Result	Exceeds MCL	Exceeds Reporting Limit
EPA 525.2	0.4	0.0006	Di(2-ethylhexyl)adipate	2036	12/19/2007	0:00	<0.0006	☐	☐
EPA 515.3	0.007	0.0002	Dinoseb	2041	12/19/2007	0:00	<0.0002	☐	☐
EPA 549.2	0.02	0.0004	Diquat	2032	12/18/2007	0:00	<0.0004	☐	☐
EPA 548.1	0.1	0.009	Endothall	2033	12/18/2007	0:00	<0.009	☐	☐
EPA 525.2	0.002	0.00001	Endrin	2005	12/19/2007	0:00	<0.00001	☐	☐
EPA 525.2	0.001	0.0001	Hexachlorobenzene	2274	12/19/2007	0:00	<0.0001	☐	☐
EPA 525.2	0.05	0.0001	Hexachlorocyclopentadiene	2042	12/19/2007	0:00	<0.0001	☐	☐
EPA 531.1	0.2	0.002	Oxamyl	2036	12/18/2007	0:00	<0.002	☐	☐
EPA 515.3	0.5	0.0001	Picloram	2040	12/19/2007	0:00	<0.0001	☐	☐
EPA 525.2	0.004	0.00007	Simazine	2037	12/19/2007	0:00	<0.00007	☐	☐
EPA 525.2	0.04	0.0001	Methoxychlor	2015	12/19/2007	0:00	<0.0001	☐	☐

7120738-06
SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments:

Authorized Signature: D Sutherland

Date Public Water System Notified:

All units must be reported in milligrams per liter (mg/L)

Methods 504, 505, 515, 525, 531, 548 and 549 analyzed by EHL, South Bend IN, #AZ0432.
Method 1613 (Dioxin) performed by Pace Analytical Services, Minn. MN #AZ0014

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER VOLATILE ORGANIC CHEMICAL ANALYSIS REPORT
*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

10-004 — System ID
Community Water Co. — System Name

12/12/2007 — Sample date
11:25 (24 hr clock) — Sample time

Norris West — Owner / Contact Person Name

(520) 625-1951 — Owner / Contact Fax Number

520-625-8409 — Owner / Contact Person Phone Number

Sample Type
☒ Compliance Monitoring

Sample Collection Point
☒ Point of Entry# 007

#1 Well — Sampling Site ID

For MCL or Composite Level Exceedance
Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

VOLATILE ORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 524.2	0.007	0.0005	1,1-Dichloroethylene	2977	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.2	0.0005	1,1,1-Trichloroethane	2981	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	1,1,2-Trichloroethane	2985	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	1,2-Dichloroethane	2980	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	1,2-Dichloropropane	2983	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	Benzene	2990	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	Carbon Tetrachloride	2982	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.07	0.0005	cis-1,2-Dichloroethylene	2380	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.7	0.0005	Ethylbenzene	2992	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.1	0.0005	(mono)chlorobenzene	2989	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.6	0.0005	o-Dichlorobenzene	2968	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.075	0.0005	para-Dichlorobenzene	2969	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.1	0.0005	Styrene	2996	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	Tetrachloroethylene	2987	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	1	0.0005	Toluene	2991	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.1	0.0005	Trans-1,2-Dichloroethylene	2979	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	Trichloroethylene	2984	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.002	0.0005	Vinyl Chloride	2976	12/13/2007 20:27	<0.0005	☐	☐

7120738-03 — SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 — Name: Legend Technical Services of Arizona

Comments:

Authorized Signature: [signature]

Date Public Water System Notified:

All units must be reported in milligrams per liter (mg/L)

DWAR 4: Revised 2003 (New Total Xylenes)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER VOLATILE ORGANIC CHEMICAL ANALYSIS REPORT
*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

10-004 — System ID
Community Water Co. — System Name

12/12/2007 — Sample date
11:25 (24 hr clock) — Sample time

Norris West — Owner / Contact Person Name

(520) 625-1951 — Owner / Contact Fax Number

520-625-8409 — Owner / Contact Person Phone Number

Sample Type
☒ Compliance Monitoring

Sample Collection Point
☐ Point of Entry# 007

#11 Well — Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

VOLATILE ORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 524.2	10	0.0015	Xylenes, total	2955	12/13/2007 20:27	<0.0015	☐	☐
EPA 524.2	0.07	0.0005	1,2,4-Trichlorobenzene	2378	12/13/2007 20:27	<0.0005	☐	☐
EPA 524.2	0.005	0.0005	Dichloromethane	2964	12/13/2007 20:27	<0.0005	☐	☐

7120738-06 — SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments:

Authorized Signature: [signature]

Date Public Water System Notified:

All units must be reported in milligrams per liter (mg/L)

DWAR 4: Revised 2003 (New Total Xylenes)

LEGEND Technical Services, Inc.
www.legend-group.com

17631 N. 25th Avenue • Phoenix, AZ 85023
P (602) 324-6100 • F (602) 324-6101
4585 S. Palo Verde Rd., Ste. 423 • Tucson, AZ 85714
P (520) 327-1234 • F (520) 327-0518
ADHS#0004

Norris West
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Drinking Water Analysis
Project Number: 04-10-004

Reported:
01/16/08 15:41

#10 Well (7121580-01) Drinking Water (Grab) Sampled: 12/28/07 10:30 Received: 12/28/07 11:30

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			UL#AZ0432						
EPA 525.2									
Alachlor	<0.0002	0.0002	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Aldrin	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Atrazine	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Benzo[a]pyrene	<0.00002	0.00002	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
gamma-BHC (Lindane)	<0.00002	0.00002	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Butachlor	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Dieldrin	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Di(2-ethylhexyl)adipate	<0.0006	0.0006	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Di(2-ethylhexyl)phthalate	<0.0006	0.0006	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Endrin	<0.00001	0.00001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Heptachlor	<0.00004	0.00004	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Heptachlor epoxide	<0.00002	0.00002	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Hexachlorobenzene	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Hexachlorocyclopentadiene	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Methoxychlor	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Metolachlor	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Metribuzin	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Propachlor	<0.0001	0.0001	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Simazine	<0.00007	0.00007	mg/L	0.979	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Surrogate: SS-4,4'-Dichlorobiphenyl		*103 %*		*70-130*	*111863*	*01/07/08 00:00*	*01/08/08 00:00*	*EPA 525.2*	
Surrogate: SS-2,4,5,6-Tetrachloro-m-xylene		*102 %*		*70-130*	*111863*	*01/07/08 00:00*	*01/08/08 00:00*	*EPA 525.2*	
Surrogate: SS-Triphenylphosphate		*100 %*		*70-130*	*111863*	*01/07/08 00:00*	*01/08/08 00:00*	*EPA 525.2*	

#11 Well (7121580-02) Drinking Water (Grab) Sampled: 12/28/07 10:00 Received: 12/28/07 11:30

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			UL#AZ0432						
EPA 525.2									
Alachlor	<0.0002	0.0002	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Aldrin	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Atrazine	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Benzo[a]pyrene	<0.00002	0.00002	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
gamma-BHC (Lindane)	<0.00002	0.00002	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Butachlor	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Dieldrin	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Di(2-ethylhexyl)adipate	<0.0006	0.0006	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Di(2-ethylhexyl)phthalate	<0.0006	0.0006	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Endrin	<0.00001	0.00001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Heptachlor	<0.00004	0.00004	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Heptachlor epoxide	<0.00002	0.00002	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Hexachlorobenzene	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	

Legend Technical Services of Arizona, Inc.

Tucson Laboratory Supervisor

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Norris West	Project: Drinking Water Analysis
Community Water Co.	Project Number: 04-10-004
1501 S. La Canada Dr.	Reported:
Green Valley, AZ85614-1600	01/16/08 15:41

#11 Well (7121580-02) Drinking Water (Grab) Sampled: 12/28/07 10:00 Received: 12/28/07 11:30

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			UL#AZ0432						
EPA 525.2									
Hexachlorocyclopentadiene	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Methoxychlor	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Metolachlor	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Metribuzin	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Propachlor	<0.0001	0.0001	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Simazine	<0.00007	0.00007	mg/L	0.973	111863	01/07/08 00:00	01/08/08 00:00	EPA 525.2	
Surrogate: SS-4,4'-Dichlorobiphenyl		*102 %*	*70-130*		*111863*	*01/07/08 00:00*	*01/08/08 00:00*	*EPA 525.2*	
Surrogate: SS-2,4,5,6-Tetrachloro-m-xylene		*105 %*	*70-130*		*111863*	*01/07/08 00:00*	*01/08/08 00:00*	*EPA 525.2*	
Surrogate: SS-Triphenylphosphate		*103 %*	*70-130*		*111863*	*01/07/08 00:00*	*01/08/08 00:00*	*EPA 525.2*	

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.
QA/QC Criteria: All analyses met method requirements unless otherwise qualified.
Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.

Notes and Definitions

LEGEND
Technical Services, Inc.
www.legend-group.com

17631 N. 25th Avenue • Phoenix, AZ 8502
P (602) 324-6100 • F (602) 324-610
4585 S. Palo Verde Rd., Ste. 423 • Tucson, AZ 8571
P (520) 327-1234 • F (520) 327-051
ADHS#000

Norris West
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85622-1600

Project: Drinking Water Analysis
Project Number: Non-Compliance

Reported:
07/24/09 13:08

Analyte

#11 Well Influent (9071125-01) Drinking Water (Grab) Sampled: 07/16/09 10:40 Received: 07/16/09 12:26

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals					Legend Technical Services of Arizona, Inc.				
Arsenic	0.0185	0.0010	mg/L	1	B9G0569	07/21/09 11:00	07/21/09 14:30	EPA 200.8	

#11 Well Effluent (9071125-02) Drinking Water (Grab) Sampled: 07/16/09 10:43 Received: 07/16/09 12:26

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals					Legend Technical Services of Arizona, Inc.				
Arsenic	0.0078	0.0010	mg/L	1	B9G0569	07/21/09 11:00	07/21/09 14:33	EPA 200.8	

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.
QA/QC Criteria: All analyses met method requirements unless otherwise qualified.
Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.

Notes and Definitions

Legend Technical Services of Arizona, Inc.
Andrea Horney
Client Services Representative

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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT

*** SAMPLES TO BE TAKEN AT P.O.E. ONLY***

Community Water Co.
System ID — System Name

09/23/2008 13:45 (24 hr clock)
Sample date — Sample time

John Meyer
Owner / Contact Person Name

(520) 625-1951
Owner / Contact Fax Number

520-349-0479
Owner / Contact Person Phone Number

Sample Type
☐ Compliance Monitoring

Sample Collection Point
☐ Point of Entry# _____

CWC #11 Well (007 55-608518)
Sampling Site ID

For MCL or Composite Level Exceedance
_____ Original Violation Specimen Number
Sample Type
☐ Confirmation
☐ Confirmation Composite

INORGANIC CHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
EPA 200.9	0.01	0.01	Arsenic	1005	10/08/2008 14:04	0.003	☐	☐

8091713-04
SPECIMEN NUMBER

>>>>> LABORATORY INFORMATION <<<<<
To be filled out by laboratory personnel

ID Number AZ0004 Name: Legend Technical Services of Arizona

Comments:

Authorized Signature: [signature]

Date Public Water System Notified:

* Unregulated Contaminants

All units must be reported in milligrams per liter (mg/L)

DWAR 2IN: Revised 2003

John Meyer
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Colilert Analysis
Project Number: 04-10-004

Reported:
04/30/08 08:36

CWC #1 (007-55-608516) (8040870-04) Drinking Water (Grab) Sampled: 03/31/08 14:20 Received: 04/01/08 12:56

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Legend Technical Services of Arizona, Inc.									
Total Metals									
Total Hardness	86	7	mg/L	1	[CALC]	04/04/08 13:00	04/04/08 14:39	SM 2340B	
Inorganic Chemistry									
Total Alkalinity [(as CaCO3)]	122	10	mg/L	1	B8D0162	04/07/08 08:00	04/07/08 08:00	SM 2320 B	M2
Cyanide, Total	<0.010	0.010	mg/L	1	B8D0216	04/08/08 08:00	04/08/08 08:00	SM 4500 CN E	
Fluoride	0.95	0.10	mg/L	1	B8D0082	04/02/08 15:00	04/02/08 15:00	SM 4500 F C	
Nitrate as N	0.43	0.20	mg/L	1	[CALC]	04/02/08 16:43	04/03/08 08:39	Calculation	
Nitrate + Nitrite	0.43	0.20	mg/L	1	B8D0080	04/02/08 16:43	04/03/08 08:39	SM 4500 NO3 F	
Nitrite as N	<0.10	0.10	mg/L	1	B8D0085	04/02/08 13:00	04/02/08 13:00	SM 4500 NO2 B	
pH	7.3		pH Units	1	B8D0087	04/02/08 15:00	04/02/08 15:00	SM 4500H B	H5
Temperature	18.4		°C	1	B8D0087	04/02/08 15:00	04/02/08 15:00	pH Temperature	H5
Total Dissolved Solids	232		mg/L	1	B8D0129	04/03/08 14:30	04/03/08 14:30	SM 2540 C	
Miscellaneous									
Langlier Index	-0.255	-5.00	N/A	1	B8D0453	04/16/08 16:50	04/16/08 16:51	Miscellaneous	
Fiberquant Analytical Services #AZ0633									
EPA 100.1									
Asbestos	<0.2	0.2	MFL	1	N/A	04/07/08 00:00	04/07/08 00:00	EPA 100.1	

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.
QA/QC Criteria: All analyses met method requirements unless otherwise qualified.
Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.

Notes and Definitions

M2 Matrix spike recovery was low; the method control sample recovery was acceptable.
H5 This test is specified to be performed in the field within 15 minutes of sampling, sample was received and analyzed past the regulatory holding time
D1 Sample required dilution due to matrix

Norris West
Community Water Co.
1501 S. La Canada Dr.
Green Valley, AZ85614-1600

Project: Drinking Water Analysis
Project Number: 04-10-004 (12/12/07)

Reported:
01/31/08 16:36

#11 Well (7120738.06) Drinking Water (Grab) Sampled: 12/12/07 11:25 Received: 12/12/07 12:10

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
UL#AZ0432									
EPA 525.2									
Simazine	<0.00007	0.00007	mg/L	0.967	111255	12/18/07 00:00	12/19/07 00:00	EPA 525.2	
Surrogate: SS-4,4'-Dichlorobiphenyl		*92 %*		*70-130*	*111255*	*12/18/07 00:00*	*12/19/07 00:00*	*EPA 525.2*	
Surrogate: SS-2,4,5,6-Tetrachloro-m-xylene		*79 %*		*70-130*	*111255*	*12/18/07 00:00*	*12/19/07 00:00*	*EPA 525.2*	
Surrogate: SS-Triphenylphosphate		*94 %*		*70-130*	*111255*	*12/18/07 00:00*	*12/19/07 00:00*	*EPA 525.2*	
EPA 531.1									
Aldicarb	<0.0005	0.0005	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
Aldicarb sulfone	<0.0008	0.0008	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
Aldicarb sulfoxide	<0.0005	0.0005	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
Carbaryl	<0.0005	0.0005	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
Carbofuran	<0.0009	0.0009	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
3-Hydroxycarbofuran	<0.0005	0.0005	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
Methomyl	<0.0005	0.0005	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
Oxamyl	<0.002	0.002	mg/L	1	111199	12/17/07 00:00	12/18/07 00:00	EPA 531.1	
EPA 548.1									
Endothall	<0.009	0.009	mg/L	1	111209	12/17/07 00:00	12/18/07 00:00	EPA 548.1	
Surrogate: SS-2,4-Dichlorophenylacetic acid		*82 %*		*70-130*	*111209*	*12/17/07 00:00*	*12/18/07 00:00*	*EPA 548.1*	
EPA 549.2									
Diquat	<0.0004	0.0004	mg/L	1.002	111237	12/18/07 00:00	12/18/07 00:00	EPA 549.2	
Radiation Safety Engineering #AZ0462									
Calculation									
Combined Radium	<0.3		pCi/L	1	NA		01/03/08 00:00	Calculation	

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Multiple Samples Report

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
25000-1500 Green Valley										
	2007110072	1,1,1-Trichloroethane	11/1/2007	D	ND	ug/l	11/10/2007	0.17	0.5	
	2008070081	1,1,1-Trichloroethane	7/1/2008	D	ND	ug/l	Pending	0.05	1	
	2009021447	1,1,1-Trichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	.24	0.5	
	2007110072	1,1,2,2-Tetrachloroethane	11/1/2007	D	ND	ug/l	11/10/2007	0.11	0.5	
	2008070081	1,1,2,2-Tetrachloroethane	7/1/2008	D	ND	ug/l	Pending	0.10	1	
	2009021447	1,1,2,2-Tetrachloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.04	1	
	2007110072	1,1,2-Trichloroethane	11/1/2007	D	ND	ug/l	11/10/2007	0.08	0.5	
	2008070081	1,1,2-Trichloroethane	7/1/2008	D	ND	ug/l	Pending	0.10	0.5	
	2009021447	1,1,2-Trichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.05	0.5	
	2007110072	1,1-Dichloroethane	11/1/2007	D	ND	ug/l	11/10/2007	0.13	0.5	
	2008070081	1,1-Dichloroethane	7/1/2008	D	ND	ug/l	Pending	0.13	0.5	
	2009021447	1,1-Dichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.27	0.5	
	2007110072	1,1-Dichloroethene	11/1/2007	D	ND	ug/l	11/10/2007	0.14	0.5	
	2008070081	1,1-Dichloroethene	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021447	1,1-Dichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.31	0.5	
	2007110072	1,2,4-Trichlorobenzene	11/1/2007	D	ND	ug/l	11/11/2007	0.25	1	
	2008070081	1,2,4-Trichlorobenzene	7/1/2008	D	0.63	ug/l	Pending	0.27	0.5	
	2009021447	1,2,4-Trichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.35	1	
	2008070081	1,2-Dibromo-3-	7/1/2008	D	ND	ug/l	Pending	0.45	2.5	
	2009021447	1,2-Dibromo-3-	2/26/2009	D	ND	ug/l	2/26/2009	0.14	2.5	
	2008070081	1,2-Dibromoethane	7/1/2008	D	ND	ug/l	Pending	0.11	0.5	
	2009021447	1,2-Dibromoethane	2/26/2009	D	ND	ug/l	2/26/2009	0.05	0.5	
	2007110072	1,2-Dichlorobenzene	11/1/2007	D	ND	ug/l	11/10/2007	0.17	0.5	
	2008070081	1,2-Dichlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.16	0.5	
	2009021447	1,2-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.10	0.5	
	2007110072	1,2-Dichloroethane	11/1/2007	D	ND	ug/l	11/10/2007	0.07	2.5	
	2008070081	1,2-Dichloroethane	7/1/2008	D	ND	ug/l	Pending	0.11	0.5	
	2009021447	1,2-Dichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.08	0.5	
	2007110072	1,2-Dichloropropane	11/1/2007	D	ND	ug/l	11/10/2007	0.11	0.5	
	2008070081	1,2-Dichloropropane	7/1/2008	D	ND	ug/l	Pending	0.12	0.5	
	2009021447	1,2-Dichloropropane	2/26/2009	D	ND	ug/l	2/26/2009	0.12	0.5	
	2007110072	1,3-Dichlorobenzene	11/1/2007	D	ND	ug/l	11/10/2007	0.14	1	
	2008070081	1,3-Dichlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.08	0.5	
	2009021447	1,3-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.09	0.5	
	2007110072	1,4-Dichlorobenzene	11/1/2007	D	ND	ug/l	11/10/2007	0.14	2.0	
	2008070081	1,4-Dichlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021447	1,4-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.11	0.5	
	2007110072	2-Chloroethyl vinyl ether	11/1/2007	D	ND	ug/l	11/10/2007	0.14	1.0	
	2008070081	2-Chloroethyl vinyl ether	7/1/2008	D	ND	ug/l	Pending	0.30	1	
	2009021447	2-Chloroethyl vinyl ether	2/26/2009	D	ND	ug/l	2/26/2009	0.13	1	
	2006080330	Alkalinity, Bicarbonate	8/4/2006	D	218	mg/l	8/7/2006	2	20	
	2006101821	Alkalinity, Bicarbonate	10/31/2006	D	259	mg/l	11/1/2006	2	20	
	2007011064	Alkalinity, Bicarbonate	1/18/2007	D	253	mg/l	1/19/2007	2	20	
	2007050409	Alkalinity, Bicarbonate	5/7/2007	D	250	mg/l	5/7/2007	2	20	
	2007070482	Alkalinity, Bicarbonate	7/9/2007	D	241	mg/l	7/10/2007	2	20	
	2007110072	Alkalinity, Bicarbonate	11/1/2007	D	245	mg/l	11/2/2007	2	20	
	2008011106	Alkalinity, Bicarbonate	1/15/2008	D	245	mg/l	1/16/2008	2	20	
	2008042438	Alkalinity, Bicarbonate	4/29/2008	D	256	mg/l	4/30/2008	2	20	
	2008070081	Alkalinity, Bicarbonate	7/1/2008	D	245	mg/l	7/2/2008	2	20	
	2008111384	Alkalinity, Bicarbonate	11/25/2008	D	240	mg/l	11/26/2008	2	20	
	2009021447	Alkalinity, Bicarbonate	2/26/2009	D	241	mg/l	2/27/2009	2	20	
	2009040126	Alkalinity, Bicarbonate	4/2/2009	D	241	mg/l	4/3/2009	2	20	
	2006080330	Alkalinity, Carbonate	8/4/2006	D	ND	mg/l	8/7/2006	2	20	
	2006101821	Alkalinity, Carbonate	10/31/2006	D	ND	mg/l	11/1/2006	2	20	
	2007011064	Alkalinity, Carbonate	1/18/2007	D	ND	mg/l	1/19/2007	2	20	
	2007050409	Alkalinity, Carbonate	5/7/2007	D	ND	mg/l	5/7/2007	2	20	
	2007070482	Alkalinity, Carbonate	7/9/2007	D	ND	mg/l	7/10/2007	2	20	
	2007110072	Alkalinity, Carbonate	11/1/2007	D	ND	mg/l	11/2/2007	2	20	
	2008011106	Alkalinity, Carbonate	1/15/2008	D	ND	mg/l	1/16/2008	2	20	
	2008042438	Alkalinity, Carbonate	4/29/2008	D	ND	mg/l	4/30/2008	2	20	
	2008070081	Alkalinity, Carbonate	7/1/2008	D	ND	mg/l	7/2/2008	2	20	
	2008111384	Alkalinity, Carbonate	11/25/2008	D	ND	mg/l	11/26/2008	2	20	
	2009021447	Alkalinity, Carbonate	2/26/2009	D	ND	mg/l	2/27/2009	2	20	
	2009040126	Alkalinity, Carbonate	4/2/2009	D	ND	mg/l	4/3/2009	2	20	
	2009021447	Alkalinity, Total	2/26/2009	D	241	mg/l	2/27/2009	20	20	
	2009040126	Alkalinity, Total	4/2/2009	D	241	mg/l	4/3/2009	20	20	
	2006080330	Ammonia	8/4/2006	D	ND	mg/l	8/7/2006	0.22	1.0	
	2006101821	Ammonia	10/31/2006	D	ND	mg/l	11/2/2006	0.22	1.0	
	2007011064	Ammonia	1/18/2007	D	ND	mg/l	1/26/2007	0.22	1.0	
	2007050409	Ammonia	5/7/2007	D	ND	mg/l	5/8/2007	0.22	1.0	
	2007070482	Ammonia	7/9/2007	D	ND	mg/l	7/16/2007	.05	.5	
	2007110072	Ammonia	11/1/2007	D	ND	mg/l	11/5/2007	0.05	0.5	
	2008011106	Ammonia	1/15/2008	D	ND	mg/l	1/22/2008	0.05	0.5	
	2008042438	Ammonia	4/29/2008	D	Trace	mg/l	5/2/2008	0.05	0.5	
	2008070081	Ammonia	7/1/2008	D	ND	mg/l	7/3/2008	0.05	0.5	
	2008111384	Ammonia	11/25/2008	D	ND	mg/l	12/2/2008	0.05	0.5	
	2009021447	Ammonia	2/26/2009	D	ND	mg/l	3/3/2009	0.05	0.5	
	2009040126	Ammonia	4/2/2009	D	ND	mg/l	4/6/2009	0.05	0.5	
	2006080330	Antimony	8/4/2006	D	ND	ug/l	8/15/2006	0.28	1.45	
	2006101821	Antimony	10/31/2006	D	ND	ug/l	11/7/2006	0.28	1.45	
	2007011064	Antimony	1/18/2007	D	ND	ug/l	1/25/2007	0.28	1.45	
	2007050409	Antimony	5/7/2007	D	ND	ug/l	5/16/2007	0.28	1.45	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2007070482	Antimony	7/9/2007	D	ND	ug/l	8/7/2007	0.28	1.45	
	2007110072	Antimony	11/1/2007	D	ND	ug/l	11/6/2007	0.28	1.45	
	2008011106	Antimony	1/15/2008	D	ND	ug/l	1/22/2008	.108	1.0	
	2008042438	Antimony	4/29/2008	D	ND	ug/l	5/5/2008	.108	1.0	
	2008070081	Antimony	7/1/2008	D	ND	ug/l	7/9/2008	.108	1.0	
	2008111384	Antimony	11/25/2008	D	ND	ug/l	12/9/2008	.108	1.0	
	2009021447	Antimony	2/26/2009	D	ND	ug/l	3/9/2009	.108	1.0	
	2009040126	Antimony	4/2/2009	D	ND	ug/l	4/30/2009	.108	1.0	
	2006080330	Arsenic	8/4/2006	D	5.66	ug/l	8/15/2006	0.24	2.00	
	2006101821	Arsenic	10/31/2006	D	7.15	ug/l	11/7/2006	0.24	2.00	
	2007011064	Arsenic	1/18/2007	D	6.78	ug/l	1/25/2007	0.24	2.00	
	2007050409	Arsenic	5/7/2007	D	5.90	ug/l	5/16/2007	0.24	2.00	
	2007070482	Arsenic	7/9/2007	D	5.35	ug/l	8/7/2007	0.24	2.00	
	2007110072	Arsenic	11/1/2007	D	6.28	ug/l	11/6/2007	0.24	2.00	
	2008011106	Arsenic	1/15/2008	D	6.57	ug/l	1/22/2008	.33	2.5	
	2008042438	Arsenic	4/29/2008	D	13.59	ug/l	5/5/2008	.33	2.5	
	2008070081	Arsenic	7/1/2008	D	5.13	ug/l	7/9/2008	.33	2.5	
	2008111384	Arsenic	11/25/2008	D	6.53	ug/l	12/9/2008	.33	2.5	
	2009021447	Arsenic	2/26/2009	D	6.08	ug/l	3/9/2009	.33	2.5	
	2009040126	Arsenic	4/2/2009	D	4.72	ug/l	4/30/2009	.33	2.5	
	2006080330	Barium	8/4/2006	D	145.9	ug/l	8/15/2006	0.16	1.2	
	2006101821	Barium	10/31/2006	D	147.2	ug/l	11/7/2006	0.16	1.2	
	2007011064	Barium	1/18/2007	D	142.5	ug/l	1/25/2007	0.16	1.2	
	2007050409	Barium	5/7/2007	D	158.3	ug/l	5/17/2007	0.16	1.2	
	2007070482	Barium	7/9/2007	D	155.5	ug/l	8/7/2007	0.16	1.2	
	2007110072	Barium	11/1/2007	D	155.0	ug/l	11/6/2007	0.16	1.2	
	2008011106	Barium	1/15/2008	D	154.7	ug/l	1/22/2008	.21	1.6	
	2008042438	Barium	4/29/2008	D	154.2	ug/l	5/5/2008	.21	1.6	
	2008070081	Barium	7/1/2008	D	158.50	ug/l	7/10/2008	.21	1.6	
	2008111384	Barium	11/25/2008	D	147.60	ug/l	12/10/2008	.21	1.6	
	2009021447	Barium	2/26/2009	D	143.10	ug/l	3/9/2009	.21	1.6	
	2009040126	Barium	4/2/2009	D	146.00	ug/l	4/30/2009	.21	1.6	
	2007110072	Benzene	11/1/2007	D	ND	ug/l	11/10/2007	0.07	0.5	
	2008070081	Benzene	7/1/2008	D	ND	ug/l	Pending	0.09	1	
	2009021447	Benzene	2/26/2009	D	ND	ug/l	2/26/2009	0.20	1	
	2006080330	Beryllium	8/4/2006	D	ND	ug/l	8/15/2006	0.21	1.9	
	2006101821	Beryllium	10/31/2006	D	ND	ug/l	11/7/2006	0.21	1.9	
	2007011064	Beryllium	1/18/2007	D	ND	ug/l	1/25/2007	0.21	1.9	
	2007050409	Beryllium	5/7/2007	D	ND	ug/l	5/16/2007	0.21	1.9	
	2007070482	Beryllium	7/9/2007	D	ND	ug/l	8/7/2007	0.21	1.9	
	2007110072	Beryllium	11/1/2007	D	ND	ug/l	11/6/2007	0.21	1.9	
	2008011106	Beryllium	1/15/2008	D	ND	ug/l	1/22/2008	.01	1.0	
	2008042438	Beryllium	4/29/2008	D	Trace	ug/l	5/5/2008	.01	1.0	
	2008070081	Beryllium	7/1/2008	D	ND	ug/l	7/10/2008	.01	1.0	
	2008111384	Beryllium	11/25/2008	D	ND	ug/l	12/9/2008	.01	1.0	
	2009021447	Beryllium	2/26/2009	D	ND	ug/l	3/9/2009	.01	1.0	
	2009040126	Beryllium	4/2/2009	D	ND	ug/l	4/30/2009	.01	1.0	
	2007110072	Bromodichloromethane	11/1/2007	D	ND	ug/l	11/10/2007	0.07	0.5	
	2008070081	Bromodichloromethane	7/1/2008	D	1.10	ug/l	Pending	0.09	0.5	
	2009021447	Bromodichloromethane	2/26/2009	D	2.87	ug/l	2/26/2009	0.12	0.5	
	2007110072	Bromoform	11/1/2007	D	ND	ug/l	11/10/2007	0.13	0.5	
	2008070081	Bromoform	7/1/2008	D	ND	ug/l	Pending	0.08	0.5	
	2009021447	Bromoform	2/26/2009	D	ND	ug/l	2/26/2009	0.03	0.5	
	2007110072	Bromomethane	11/1/2007	D	ND	ug/l	11/10/2007	0.12	0.5	
	2008070081	Bromomethane	7/1/2008	D	ND	ug/l	Pending	0.70	5	
	2009021447	Bromomethane	2/26/2009	D	ND	ug/l	2/26/2009	1.64	2.5	
	2006080330	Cadmium	8/4/2006	D	ND	ug/l	8/15/2006	0.13	1.25	
	2006101821	Cadmium	10/31/2006	D	ND	ug/l	11/7/2006	0.13	1.25	
	2007011064	Cadmium	1/18/2007	D	ND	ug/l	1/25/2007	0.13	1.25	
	2007050409	Cadmium	5/7/2007	D	ND	ug/l	5/16/2007	0.13	1.25	
	2007070482	Cadmium	7/9/2007	D	ND	ug/l	8/7/2007	0.13	1.25	
	2007110072	Cadmium	11/1/2007	D	ND	ug/l	11/6/2007	0.13	1.25	
	2008011106	Cadmium	1/15/2008	D	ND	ug/l	1/22/2008	.22	1.9	
	2008042438	Cadmium	4/29/2008	D	ND	ug/l	5/5/2008	.22	1.9	
	2008070081	Cadmium	7/1/2008	D	ND	ug/l	7/9/2008	.22	1.9	
	2008111384	Cadmium	11/25/2008	D	ND	ug/l	12/9/2008	.22	1.9	
	2009021447	Cadmium	2/26/2009	D	ND	ug/l	3/9/2009	.22	1.9	
	2009040126	Cadmium	4/2/2009	D	ND	ug/l	4/30/2009	.22	1.9	
	2006080330	Calcium	8/4/2006	D	178.0	mg/l	8/11/2006	0.055	20.0	
	2006101821	Calcium	10/31/2006	D	185.0	mg/l	11/6/2006	0.055	20.0	
	2007011064	Calcium	1/18/2007	D	182.0	mg/l	1/26/2007	0.023	20.0	
	2007050409	Calcium	5/7/2007	D	195.0	mg/l	5/9/2007	0.023	20.0	
	2007070482	Calcium	7/9/2007	D	188.0	mg/l	7/12/2007	0.023	20.0	
	2007110072	Calcium	11/1/2007	D	194.0	mg/l	11/8/2007	0.023	20.0	
	2008011106	Calcium	1/15/2008	D	185.0	mg/l	1/23/2008	0.023	20.0	
	2008042438	Calcium	4/29/2008	D	190.0	mg/l	5/8/2008	.015	20.0	
	2008070081	Calcium	7/1/2008	D	184.0	mg/l	7/9/2008	.015	20.0	
	2008111384	Calcium	11/25/2008	D	191.0	mg/l	12/10/2008	.015	20.0	
	2009021447	Calcium	2/26/2009	D	201.0	mg/l	3/9/2009	.015	20.0	
	2009040126	Calcium	4/2/2009	D	187.7	mg/l	4/10/2009	.015	20.0	
	2007110072	Carbon tetrachloride	11/1/2007	D	ND	ug/l	11/10/2007	0.15	0.5	
	2008070081	Carbon tetrachloride	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021447	Carbon tetrachloride	2/26/2009	D	ND	ug/l	2/26/2009	0.15	0.5	
	2006080330	Chloride	8/4/2006	D	208.00	mg/l	8/7/2006	0.71	4.00	
	2006101821	Chloride	10/31/2006	D	219.00	mg/l	11/17/2006	0.71	4.00	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2007011064	Chloride	1/18/2007	D	226.00	mg/l	1/22/2007	0.71	4.00	
	2007050409	Chloride	5/7/2007	D	219.00	mg/l	5/9/2007	0.71	4.00	
	2007070482	Chloride	7/9/2007	D	240.00	mg/l	7/24/2007	0.71	4.00	
	2007110072	Chloride	11/1/2007	D	234.00	mg/l	11/2/2007	0.71	4.00	
	2008011106	Chloride	1/15/2008	D	237.00	mg/l	1/30/2008	0.71	4.00	
	2008042438	Chloride	4/29/2008	D	231.00	mg/l	5/5/2008	0.71	4.00	
	2008070081	Chloride	7/1/2008	D	249.00	mg/l	7/11/2008	0.71	4.00	
	2008111384	Chloride	11/25/2008	D	252.00	mg/l	12/9/2008	0.71	4.00	
	2009021447	Chloride	2/26/2009	D	252.00	mg/l	3/5/2009	0.71	4.00	
	2009040126	Chloride	4/2/2009	D	251.00	mg/l	4/8/2009	0.71	4.00	
	2007110072	Chlorobenzene	11/1/2007	D	ND	ug/l	11/10/2007	0.10	0.5	
	2008070081	Chlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.07	0.5	
	2009021447	Chlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.09	0.5	
	2007110072	Chloroethane	11/1/2007	D	ND	ug/l	11/10/2007	0.23	0.5	
	2008070081	Chloroethane	7/1/2008	D	ND	ug/l	Pending	2.01	2.5	
	2009021447	Chloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.55	1	
	2007110072	Chloroform	11/1/2007	D	11.23	ug/l	11/10/2007	0.10	0.5	
	2008070081	Chloroform	7/1/2008	D	3.52	ug/l	Pending	0.07	0.5	
	2009021447	Chloroform	2/26/2009	D	11.82	ug/l	2/26/2009	0.18	0.5	
	2007110072	Chloromethane	11/1/2007	D	ND	ug/l	11/10/2007	0.12	0.5	
	2008070081	Chloromethane	7/1/2008	D	ND	ug/l	Pending	1.04	2.5	
	2009021447	Chloromethane	2/26/2009	D	ND	ug/l	2/26/2009	0.28	1	
	2006080330	Chromium	8/4/2006	D	Trace	ug/l	8/15/2006	0.1	1.0	
	2006101821	Chromium	10/31/2006	D	Trace	ug/l	11/7/2006	0.1	1.0	
	2007011064	Chromium	1/18/2007	D	ND	ug/l	1/25/2007	0.1	1.0	
	2007050409	Chromium	5/7/2007	D	ND	ug/l	5/16/2007	0.1	1.0	
	2007070482	Chromium	7/9/2007	D	ND	ug/l	8/7/2007	0.1	1.0	
	2007110072	Chromium	11/1/2007	D	Trace	ug/l	11/6/2007	0.1	1.0	
	2008011106	Chromium	1/15/2008	D	Trace	ug/l	1/22/2008	.21	1.8	
	2008042438	Chromium	4/29/2008	D	Trace	ug/l	5/5/2008	.21	1.8	
	2008070081	Chromium	7/1/2008	D	Trace	ug/l	7/9/2008	.21	1.8	
	2008111384	Chromium	11/25/2008	D	ND	ug/l	12/9/2008	.21	1.8	
	2009021447	Chromium	2/26/2009	D	Trace	ug/l	3/9/2009	.21	1.8	
	2009040126	Chromium	4/2/2009	D	Trace	ug/l	4/30/2009	.21	1.8	
	2007110072	cis-1,2-Dichloroethene	11/1/2007	D	ND	ug/l	11/11/2007	0.24	0.5	
	2008070081	cis-1,2-Dichloroethene	7/1/2008	D	ND	ug/l	Pending	0.12	5	
	2009021447	cis-1,2-Dichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.20	0.5	
	2007110072	cis-1,3-Dichloropropene	11/1/2007	D	ND	ug/l	11/10/2007	0.07	0.5	
	2008070081	cis-1,3-Dichloropropene	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021447	cis-1,3-Dichloropropene	2/26/2009	D	ND	ug/l	2/26/2009	0.09	0.5	
	2009021447	Coliform Presence Absence	2/26/2009	D	Absence	MPN/100ml	2/27/2009			
	2009040126	Coliform Presence Absence	4/2/2009	D	Absence	MPN/100ml	4/3/2009			
	2006080330	Coliform, Fecal	8/4/2006	D	<1.1	MPN/100ml	8/6/2006	1.1	1.1	
	2006101821	Coliform, Fecal	10/31/2006	D	<1.1	MPN/100ml	11/2/2006	1.1	1.1	
	2007011064	Coliform, Fecal	1/18/2007	D	<1.1	MPN/100ml	1/20/2007	1.1	1.1	
	2007050409	Coliform, Fecal	5/7/2007	D	<1.1	MPN/100ml	5/9/2007	1.1	1.1	
	2007070482	Coliform, Fecal	7/9/2007	D	<1.1	MPN/100ml	7/11/2007	1.1	1.1	
	2007110072	Coliform, Fecal	11/1/2007	D	<1.1	MPN/100ml	11/3/2007	1.1	1.1	
	2008011106	Coliform, Fecal	1/15/2008	D	<1.1	MPN/100ml	1/17/2008	1.1	1.1	
	2008042438	Coliform, Fecal	4/29/2008	D	<1.1	MPN/100ml	5/1/2008	1.1	1.1	
	2006080330	Coliform, Total	8/4/2006	D	<1.1	MPN/100ml	8/6/2006	1.1	1.1	
	2006101821	Coliform, Total	10/31/2006	D	<1.1	MPN/100ml	Pending	1.1	1.1	
	2007011064	Coliform, Total	1/18/2007	D	<1.1	MPN/100ml	1/20/2007	1.1	1.1	
	2007050409	Coliform, Total	5/7/2007	D	<1.1	MPN/100ml	5/9/2007	1.1	1.1	
	2007070482	Coliform, Total	7/9/2007	D	<1.1	MPN/100ml	7/11/2007	1.1	1.1	
	2007110072	Coliform, Total	11/1/2007	D	<1.1	MPN/100ml	11/3/2007	1.1	1.1	
	2008011106	Coliform, Total	1/15/2008	D	<1.1	MPN/100ml	1/17/2008	1.1	1.1	
	2008042438	Coliform, Total	4/29/2008	D	<1.1	MPN/100ml	5/1/2008	1.1	1.1	
	2008070081	Coliform, Total	7/1/2008	D	Absence	MPN/100ml	7/2/2008			
	2008111384	Coliform, Total	11/25/2008	D	Absence	MPN/100ml	11/26/2008			
	2006080330	Conductivity (Field)	8/4/2006	D	1424	umhos/cm	8/4/2006		72.0	
	2006101821	Conductivity (Field)	10/31/2006	D	1434	umhos/cm	10/31/2006		72.0	
	2007011064	Conductivity (Field)	1/18/2007	D	1501	umhos/cm	1/18/2007		72.0	
	2007050409	Conductivity (Field)	5/7/2007	D	1429	umhos/cm	5/7/2007		72.0	
	2007070482	Conductivity (Field)	7/9/2007	D	1487	umhos/cm	7/9/2007		72.0	
	2007110072	Conductivity (Field)	11/1/2007	D	1489	umhos/cm	11/1/2007		72.0	
	2008011106	Conductivity (Field)	1/15/2008	D	1498	umhos/cm	1/15/2008		72.0	
	2008042438	Conductivity (Field)	4/29/2008	D	1432	umhos/cm	4/29/2008		72.0	
	2008070081	Conductivity (Field)	7/1/2008	D	1519	umhos/cm	7/1/2008		72.0	
	2008111384	Conductivity (Field)	11/25/2008	D	1429	umhos/cm	11/25/2008		72.0	
	2009021447	Conductivity (Field)	2/26/2009	D	1430	umhos/cm	2/26/2009		72.0	
	2009040126	Conductivity (Field)	4/2/2009	D	1443	umhos/cm	4/2/2009		72.0	
	2006080330	Copper	8/4/2006	D	10.68	ug/l	8/15/2006	0.33	1.25	
	2006101821	Copper	10/31/2006	D	3.16	ug/l	11/7/2006	0.33	1.25	
	2007011064	Copper	1/18/2007	D	2.17	ug/l	1/25/2007	0.33	1.25	
	2007050409	Copper	5/7/2007	D	1.85	ug/l	5/17/2007	0.33	1.25	
	2007070482	Copper	7/9/2007	D	Trace	ug/l	8/7/2007	0.33	1.25	
	2007110072	Copper	11/1/2007	D	Trace	ug/l	11/6/2007	0.33	1.25	
	2008011106	Copper	1/15/2008	D	ND	ug/l	1/22/2008	.29	2.5	
	2008042438	Copper	4/29/2008	D	Trace	ug/l	5/5/2008	.29	2.5	
	2008070081	Copper	7/1/2008	D	ND	ug/l	7/9/2008	.29	2.5	
	2008111384	Copper	11/25/2008	D	ND	ug/l	12/9/2008	.29	2.5	
	2009021447	Copper	2/26/2009	D	ND	ug/l	3/9/2009	.29	2.5	
	2009040126	Copper	4/2/2009	D	ND	ug/l	4/30/2009	.29	2.5	
	2006080330	Cyanide, Amenable to	8/4/2006	D	ND	ug/l	8/9/2006	1.25	5.0	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2006101821	Cyanide, Amenable to	10/31/2006	D	ND	ug/l	11/3/2006	1.25	5.0	
	2007011064	Cyanide, Amenable to	1/18/2007	D	ND	ug/l	1/24/2007	1.25	5.0	
	2007050409	Cyanide, Amenable to	5/7/2007	D	ND	ug/l	5/15/2007	1.25	5.0	
	2007070482	Cyanide, Amenable to	7/9/2007	D	ND	ug/l	7/13/2007	1.25	5.0	
	2007110072	Cyanide, Amenable to	11/1/2007	D	ND	ug/l	11/6/2007	1.25	5.0	
	2008011106	Cyanide, Amenable to	1/15/2008	D	ND	ug/l	1/24/2008	1.25	5.0	
	2008042438	Cyanide, Amenable to	4/29/2008	D	ND	ug/l	5/6/2008	1.25	5.0	
	2008070081	Cyanide, Amenable to	7/1/2008	D	ND	ug/l	7/7/2008	0.786	5.0	
	2008111384	Cyanide, Amenable to	11/25/2008	D	ND	ug/l	12/2/2008	0.786	5.0	
	2009021447	Cyanide, Amenable to	2/26/2009	D	ND	ug/l	3/4/2009	0.786	5.0	
	2009040126	Cyanide, Amenable to	4/2/2009	D	ND	ug/l	4/7/2009	1.1	5.0	
	2007110072	Dibromochloromethane	11/1/2007	D	0.62	ug/l	11/10/2007	0.14	0.5	
	2008070081	Dibromochloromethane	7/1/2008	D	ND	ug/l	Pending	0.06	0.5	
	2009021447	Dibromochloromethane	2/26/2009	D	Trace	ug/l	2/26/2009	0.03	0.5	
	2007110072	Ethyl benzene	11/1/2007	D	ND	ug/l	11/10/2007	0.09	0.5	
	2008070081	Ethyl benzene	7/1/2008	D	ND	ug/l	Pending	0.10	0.5	
	2009021447	Ethyl benzene	2/26/2009	D	ND	ug/l	2/26/2009	0.11	0.5	
	2006080330	Fluoride	8/4/2006	D	0.299	mg/l	8/10/2006	0.008	0.020	
	2006101821	Fluoride	10/31/2006	D	0.274	mg/l	11/20/2006	0.002	0.020	
	2007011064	Fluoride	1/18/2007	D	0.286	mg/l	1/23/2007	0.002	0.020	
	2007050409	Fluoride	5/7/2007	D	0.250	mg/l	5/14/2007	0.002	0.020	
	2007070482	Fluoride	7/9/2007	D	0.264	mg/l	7/18/2007	0.002	0.020	
	2007110072	Fluoride	11/1/2007	D	0.262	mg/l	11/6/2007	0.002	0.020	
	2008011106	Fluoride	1/15/2008	D	0.265	mg/l	2/1/2008	0.002	0.020	
	2008042438	Fluoride	4/29/2008	D	0.245	mg/l	5/9/2008	0.002	0.020	
	2008070081	Fluoride	7/1/2008	D	0.268	mg/l	7/7/2008	0.002	0.020	
	2008111384	Fluoride	11/25/2008	D	0.257	mg/l	12/2/2008	0.002	0.020	
	2009021447	Fluoride	2/26/2009	D	0.269	mg/l	3/4/2009	0.002	0.020	
	2009040126	Fluoride	4/2/2009	D	0.245	mg/l	4/7/2009	0.002	0.020	
	2006080330	Hardness (Calculated)	8/4/2006	D	546	mg/l	8/11/2006		1.00	
	2006101821	Hardness (Calculated)	10/31/2006	D	571	mg/l	11/6/2006		1.00	
	2007011064	Hardness (Calculated)	1/18/2007	D	561	mg/l	1/26/2007		1.00	
	2007050409	Hardness (Calculated)	5/7/2007	D	599	mg/l	5/9/2007		1.00	
	2007070482	Hardness (Calculated)	7/9/2007	D	582	mg/l	7/12/2007		1.00	
	2007110072	Hardness (Calculated)	11/1/2007	D	597	mg/l	11/8/2007		1.00	
	2008011106	Hardness (Calculated)	1/15/2008	D	571	mg/l	1/23/2008		1.00	
	2008042438	Hardness (Calculated)	4/29/2008	D	584	mg/l	5/8/2008		1.00	
	2008070081	Hardness (Calculated)	7/1/2008	D	572	mg/l	7/9/2008		1.00	
	2008111384	Hardness (Calculated)	11/25/2008	D	584	mg/l	12/10/2008		1.00	
	2009021447	Hardness (Calculated)	2/26/2009	D	619	mg/l	3/9/2009		1.00	
	2009040126	Hardness (Calculated)	4/2/2009	D	582	mg/l	4/10/2009		1.00	
	2006080330	Lead	8/4/2006	D	Trace	ug/l	8/15/2006	0.02	1.0	
	2006101821	Lead	10/31/2006	D	Trace	ug/l	11/7/2006	0.02	1.0	
	2007011064	Lead	1/18/2007	D	Trace	ug/l	1/25/2007	0.02	1.0	
	2007050409	Lead	5/7/2007	D	Trace	ug/l	5/16/2007	0.02	1.0	
	2007070482	Lead	7/9/2007	D	ND	ug/l	8/7/2007	0.02	1.0	
	2007110072	Lead	11/1/2007	D	Trace	ug/l	11/6/2007	0.02	1.0	
	2008011106	Lead	1/15/2008	D	Trace	ug/l	1/22/2008	.02	1.0	
	2008042438	Lead	4/29/2008	D	5.31	ug/l	5/5/2008	.02	1.0	
	2008070081	Lead	7/1/2008	D	Trace	ug/l	7/9/2008	.02	1.0	
	2008111384	Lead	11/25/2008	D	Trace	ug/l	12/9/2008	.02	1.0	
	2009021447	Lead	2/26/2009	D	Trace	ug/l	3/9/2009	.02	1.0	
	2009040126	Lead	4/2/2009	D	ND	ug/l	4/30/2009	.02	1.0	
	2006080330	Magnesium	8/4/2006	D	24.7	mg/l	8/11/2006	0.012	10.0	
	2006101821	Magnesium	10/31/2006	D	26.5	mg/l	11/6/2006	0.012	10.0	
	2007011064	Magnesium	1/18/2007	D	25.8	mg/l	1/26/2007	0.012	10.0	
	2007050409	Magnesium	5/7/2007	D	27.3	mg/l	5/9/2007	0.012	10.0	
	2007070482	Magnesium	7/9/2007	D	27.4	mg/l	7/12/2007	0.012	10.0	
	2007110072	Magnesium	11/1/2007	D	27.4	mg/l	11/8/2007	0.012	10.0	
	2008011106	Magnesium	1/15/2008	D	26.4	mg/l	1/23/2008	0.012	10.0	
	2008042438	Magnesium	4/29/2008	D	26.6	mg/l	5/8/2008	.014	10.0	
	2008070081	Magnesium	7/1/2008	D	27.3	mg/l	7/9/2008	.014	10.0	
	2008111384	Magnesium	11/25/2008	D	26.1	mg/l	12/10/2008	.014	10.0	
	2009021447	Magnesium	2/26/2009	D	28.5	mg/l	3/9/2009	.014	10.0	
	2009040126	Magnesium	4/2/2009	D	27.6	mg/l	4/10/2009	.014	10.0	
	2006080330	Mercury	8/4/2006	D	Trace	ug/l	8/15/2006	0.016	0.20	
	2006101821	Mercury	10/31/2006	D	ND	ug/l	11/20/2006	0.016	0.20	
	2007011064	Mercury	1/18/2007	D	ND	ug/l	1/23/2007	0.016	0.20	
	2007050409	Mercury	5/7/2007	D	ND	ug/l	5/11/2007	0.016	0.20	
	2007070482	Mercury	7/9/2007	D	ND	ug/l	7/17/2007	0.146	0.20	
	2007110072	Mercury	11/1/2007	D	ND	ug/l	11/23/2007	0.146	0.20	
	2008011106	Mercury	1/15/2008	D	ND	ug/l	2/1/2008	0.146	0.20	
	2008042438	Mercury	4/29/2008	D	ND	ug/l	5/5/2008	0.146	0.20	
	2008070081	Mercury	7/1/2008	D	ND	ug/l	7/10/2008	0.146	0.20	
	2008111384	Mercury	11/25/2008	D	ND	ug/l	12/16/2008	0.146	0.20	
	2009021447	Mercury	2/26/2009	D	ND	ug/l	3/10/2009	0.146	0.20	
	2009040126	Mercury	4/2/2009	D	ND	ug/l	4/15/2009	0.146	0.20	
	2007110072	Methylene chloride	11/1/2007	D	0.61	ug/l	11/10/2007	0.15	0.5	
	2008070081	Methylene chloride	7/1/2008	D	ND	ug/l	Pending	0.11	1	
	2009021447	Methylene chloride	2/26/2009	D	ND	ug/l	2/26/2009	0.20	1	
	2006080330	Nickel	8/4/2006	D	4.81	ug/l	8/15/2006	0.14	1.15	
	2006101821	Nickel	10/31/2006	D	4.43	ug/l	11/7/2006	0.14	1.15	
	2007011064	Nickel	1/18/2007	D	9.77	ug/l	1/25/2007	0.14	1.15	
	2007050409	Nickel	5/7/2007	D	15.64	ug/l	5/16/2007	0.14	1.15	
	2007070482	Nickel	7/9/2007	D	5.89	ug/l	8/7/2007	0.14	1.15	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2007110072	Nickel	11/1/2007	D	7.68	ug/l	11/6/2007	0.14	1.15	
	2008011106	Nickel	1/15/2008	D	5.98	ug/l	1/22/2008	.15	1.05	
	2008042438	Nickel	4/29/2008	D	5.38	ug/l	5/5/2008	.15	1.05	
	2008070081	Nickel	7/1/2008	D	13.00	ug/l	7/9/2008	.15	1.05	
	2008111384	Nickel	11/25/2008	D	5.24	ug/l	12/9/2008	.15	1.05	
	2009021447	Nickel	2/26/2009	D	4.41	ug/l	3/9/2009	.15	1.05	
	2009040126	Nickel	4/2/2009	D	2.93	ug/l	4/30/2009	.15	1.05	
	2006080330	Nitrate/Nitrite	8/4/2006	D	6.5	mg/l	8/11/2006	0.02	0.5	
	2006101821	Nitrate/Nitrite	10/31/2006	D	6.5	mg/l	11/1/2006	0.02	0.5	
	2007011064	Nitrate/Nitrite	1/18/2007	D	6.3	mg/l	1/19/2007	0.02	0.5	
	2007050409	Nitrate/Nitrite	5/7/2007	D	5.7	mg/l	5/10/2007	0.04	0.5	
	2007070482	Nitrate/Nitrite	7/9/2007	D	5.6	mg/l	7/12/2007	0.02	0.2	
	2007110072	Nitrate/Nitrite	11/1/2007	D	4.8	mg/l	11/1/2007	0.02	0.2	
	2008011106	Nitrate/Nitrite	1/15/2008	D	4.9	mg/l	1/17/2008	0.02	0.2	
	2008042438	Nitrate/Nitrite	4/29/2008	D	4.3	mg/l	5/1/2008	0.02	0.2	
	2008070081	Nitrate/Nitrite	7/1/2008	D	4.5	mg/l	7/2/2008	0.02	0.2	
	2008111384	Nitrate/Nitrite	11/25/2008	D	4.2	mg/l	12/4/2008	0.02	0.2	
	2009021447	Nitrate/Nitrite	2/26/2009	D	4.4	mg/l	3/2/2009	0.02	0.2	
	2009040126	Nitrate/Nitrite	4/2/2009	D	4.2	mg/l	4/7/2009	0.02	0.2	
	2006080330	Nitrogen, Total	8/4/2006	D	6.5	mg/l	8/15/2006	.08	0.5	
	2006101821	Nitrogen, Total	10/31/2006	D	6.5	mg/l	11/2/2006	.08	0.5	
	2007011064	Nitrogen, Total	1/18/2007	D	6.3	mg/l	1/26/2007	.08	0.5	
	2007050409	Nitrogen, Total	5/7/2007	D	6.0	mg/l	5/10/2007	.08	0.5	
	2007070482	Nitrogen, Total	7/9/2007	D	5.6	mg/l	7/20/2007	.08	0.5	
	2007110072	Nitrogen, Total	11/1/2007	D	4.8	mg/l	11/21/2007	.08	0.5	
	2008011106	Nitrogen, Total	1/15/2008	D	4.9	mg/l	1/18/2008	.08	0.5	
	2008042438	Nitrogen, Total	4/29/2008	D	4.3	mg/l	5/1/2008	.08	0.5	
	2008070081	Nitrogen, Total	7/1/2008	D	4.5	mg/l	7/8/2008	.08	0.5	
	2008111384	Nitrogen, Total	11/25/2008	D	4.2	mg/l	12/10/2008	.08	0.5	
	2009021447	Nitrogen, Total	2/26/2009	D	4.4	mg/l	3/9/2009	.08	0.5	
	2009040126	Nitrogen, Total	4/2/2009	D	4.2	mg/l	4/13/2009	.08	0.5	
	2006080330	Nitrogen, Total Kjeldahl	8/4/2006	D	ND	mg/l	8/15/2006	0.44	0.8	
	2006101821	Nitrogen, Total Kjeldahl	10/31/2006	D	ND	mg/l	11/2/2006	0.44	0.8	
	2007011064	Nitrogen, Total Kjeldahl	1/18/2007	D	ND	mg/l	1/26/2007	0.44	0.8	
	2007050409	Nitrogen, Total Kjeldahl	5/7/2007	D	ND	mg/l	5/10/2007	0.44	0.8	
	2007070482	Nitrogen, Total Kjeldahl	7/9/2007	D	ND	mg/l	7/20/2007	0.44	0.8	
	2007110072	Nitrogen, Total Kjeldahl	11/1/2007	D	ND	mg/l	11/21/2007	0.44	0.8	
	2008011106	Nitrogen, Total Kjeldahl	1/15/2008	D	ND	mg/l	1/18/2008	0.44	0.8	
	2008042438	Nitrogen, Total Kjeldahl	4/29/2008	D	ND	mg/l	5/1/2008	0.44	0.8	
	2008070081	Nitrogen, Total Kjeldahl	7/1/2008	D	ND	mg/l	7/8/2008	0.44	0.8	
	2008111384	Nitrogen, Total Kjeldahl	11/25/2008	D	ND	mg/l	12/9/2008	0.45	0.8	
	2009021447	Nitrogen, Total Kjeldahl	2/26/2009	D	ND	mg/l	3/6/2009	0.45	0.8	
	2009040126	Nitrogen, Total Kjeldahl	4/2/2009	D	ND	mg/l	4/10/2009	0.45	0.8	
	2006080330	pH (Field)	8/4/2006	D	7.0	SU	8/4/2006			
	2006101821	pH (Field)	10/31/2006	D	6.9	SU	10/31/2006			
	2007011064	pH (Field)	1/18/2007	D	6.9	SU	1/18/2007			
	2007050409	pH (Field)	5/7/2007	D	6.9	SU	5/7/2007			
	2007070482	pH (Field)	7/9/2007	D	6.9	SU	7/9/2007			
	2007110072	pH (Field)	11/1/2007	D	6.7	SU	11/1/2007			
	2008011106	pH (Field)	1/15/2008	D	6.8	SU	1/15/2008			
	2008042438	pH (Field)	4/29/2008	D	7.1	SU	4/29/2008			
	2008070081	pH (Field)	7/1/2008	D	6.9	SU	7/1/2008			
	2008111384	pH (Field)	11/25/2008	D	7.0	SU	11/25/2008			
	2009021447	pH (Field)	2/26/2009	D	6.7	SU	2/26/2009			
	2009040126	pH (Field)	4/2/2009	D	7.0	SU	4/2/2009			
	2006080330	Potassium	8/4/2006	D	Trace	mg/l	8/11/2006	0.05	10.0	
	2006101821	Potassium	10/31/2006	D	Trace	mg/l	11/6/2006	0.05	10.0	
	2007011064	Potassium	1/18/2007	D	Trace	mg/l	1/26/2007	0.03	10.0	
	2007050409	Potassium	5/7/2007	D	Trace	mg/l	5/9/2007	0.03	10.0	
	2007070482	Potassium	7/9/2007	D	Trace	mg/l	7/12/2007	0.03	10.0	
	2007110072	Potassium	11/1/2007	D	Trace	mg/l	11/8/2007	0.03	10.0	
	2008011106	Potassium	1/15/2008	D	Trace	mg/l	1/23/2008	0.03	10.0	
	2008042438	Potassium	4/29/2008	D	Trace	mg/l	5/8/2008	.062	10.0	
	2008070081	Potassium	7/1/2008	D	Trace	mg/l	7/9/2008	.062	10.0	
	2008111384	Potassium	11/25/2008	D	Trace	mg/l	12/10/2008	.062	10.0	
	2009021447	Potassium	2/26/2009	D	Trace	mg/l	3/9/2009	.062	10.0	
	2009040126	Potassium	4/2/2009	D	Trace	mg/l	4/10/2009	.062	10.0	
	2006080330	Selenium	8/4/2006	D	ND	ug/l	8/15/2006	0.27	2.0	
	2006101821	Selenium	10/31/2006	D	ND	ug/l	11/7/2006	0.27	2.0	
	2007011064	Selenium	1/18/2007	D	ND	ug/l	1/25/2007	0.27	2.0	
	2007050409	Selenium	5/7/2007	D	ND	ug/l	5/16/2007	0.27	2.0	
	2007070482	Selenium	7/9/2007	D	ND	ug/l	8/7/2007	0.27	2.0	
	2007110072	Selenium	11/1/2007	D	ND	ug/l	11/6/2007	0.27	2.0	
	2008011106	Selenium	1/15/2008	D	ND	ug/l	1/22/2008	.22	2.0	
	2008042438	Selenium	4/29/2008	D	ND	ug/l	5/5/2008	.22	2.0	
	2008070081	Selenium	7/1/2008	D	ND	ug/l	7/9/2008	.22	2.0	
	2008111384	Selenium	11/25/2008	D	ND	ug/l	12/9/2008	.22	2.0	
	2009021447	Selenium	2/26/2009	D	ND	ug/l	3/9/2009	.22	2.0	
	2009040126	Selenium	4/2/2009	D	ND	ug/l	4/30/2009	.22	2.0	
	2006080330	Silver	8/4/2006	D	ND	ug/l	8/15/2006	0.05	1.0	
	2006101821	Silver	10/31/2006	D	ND	ug/l	11/7/2006	0.05	1.0	
	2007011064	Silver	1/18/2007	D	ND	ug/l	1/25/2007	0.05	1.0	
	2007050409	Silver	5/7/2007	D	ND	ug/l	5/16/2007	0.05	1.0	
	2007070482	Silver	7/9/2007	D	ND	ug/l	8/7/2007	0.05	1.0	
	2007110072	Silver	11/1/2007	D	ND	ug/l	11/6/2007	0.05	1.0	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2008011106	Silver	1/15/2008	D	ND	ug/l	1/22/2008	.02	1.0	
	2008042438	Silver	4/29/2008	D	Trace	ug/l	5/5/2008	.02	1.0	
	2008070081	Silver	7/1/2008	D	Trace	ug/l	7/9/2008	.02	1.0	
	2008111384	Silver	11/25/2008	D	ND	ug/l	12/9/2008	.02	1.0	
	2009021447	Silver	2/26/2009	D	ND	ug/l	3/9/2009	.02	1.0	
	2009040126	Silver	4/2/2009	D	ND	ug/l	4/30/2009	.02	1.0	
	2006080330	Sodium	8/4/2006	D	61.70	mg/l	8/11/2006	0.008	20.0	
	2006101821	Sodium	10/31/2006	D	69.40	mg/l	11/6/2006	0.008	20.0	
	2007011064	Sodium	1/18/2007	D	61.10	mg/l	1/26/2007	0.038	20.0	
	2007050409	Sodium	5/7/2007	D	71.90	mg/l	5/9/2007	0.038	20.0	
	2007070482	Sodium	7/9/2007	D	70.00	mg/l	7/12/2007	0.038	20.0	
	2007110072	Sodium	11/1/2007	D	70.00	mg/l	11/8/2007	0.038	20.0	
	2008011106	Sodium	1/15/2008	D	64.20	mg/l	1/23/2008	0.038	20.0	
	2008042438	Sodium	4/29/2008	D	65.20	mg/l	5/8/2008	.046	20.0	
	2008070081	Sodium	7/1/2008	D	66.30	mg/l	7/9/2008	.046	20.0	
	2008111384	Sodium	11/25/2008	D	64.20	mg/l	12/10/2008	.046	20.0	
	2009021447	Sodium	2/26/2009	D	71.07	mg/l	3/9/2009	.046	20.0	
	2009040126	Sodium	4/2/2009	D	70.79	mg/l	4/10/2009	.046	20.0	
	2006080330	Solids, Total Dissolved	8/4/2006	D	746	mg/l	8/9/2006	10	10	
	2006101821	Solids, Total Dissolved	10/31/2006	D	947	mg/l	11/1/2006	10	10	
	2007011064	Solids, Total Dissolved	1/18/2007	D	1056	mg/l	1/20/2007	10	10	
	2007050409	Solids, Total Dissolved	5/7/2007	D	1011	mg/l	5/7/2007	10	10	
	2007070482	Solids, Total Dissolved	7/9/2007	D	1032	mg/l	7/10/2007	10	10	
	2007110072	Solids, Total Dissolved	11/1/2007	D	1013	mg/l	11/2/2007	10	10	
	2008011106	Solids, Total Dissolved	1/15/2008	D	958	mg/l	1/17/2008	10	10	
	2008042438	Solids, Total Dissolved	4/29/2008	D	954	mg/l	4/29/2008	10	10	
	2008070081	Solids, Total Dissolved	7/1/2008	D	1086	mg/l	7/4/2008	10	10	
	2008111384	Solids, Total Dissolved	11/25/2008	D	1072	mg/l	11/26/2008	10	10	
	2009021447	Solids, Total Dissolved	2/26/2009	D	1000	mg/l	3/2/2009	10	10	
	2009040126	Solids, Total Dissolved	4/2/2009	D	970	mg/l	4/6/2009	10	10	
	2007110072	Styrene	11/1/2007	D	ND	ug/l	11/11/2007	0.08	0.5	
	2008070081	Styrene	7/1/2008	D	ND	ug/l	Pending	0.09	0.5	
	2009021447	Styrene	2/26/2009	D	ND	ug/l	2/26/2009	0.03	0.5	
	2006080330	Sulfate	8/4/2006	D	135	mg/l	8/8/2006	11.1	50.0	
	2006101821	Sulfate	10/31/2006	D	149	mg/l	11/6/2006	11.1	50.0	
	2007011064	Sulfate	1/18/2007	D	143	mg/l	1/25/2007	11.1	50.0	
	2007050409	Sulfate	5/7/2007	D	149	mg/l	5/16/2007	11.1	50.0	
	2007070482	Sulfate	7/9/2007	D	158	mg/l	7/19/2007	11.1	50.0	
	2007110072	Sulfate	11/1/2007	D	152	mg/l	11/7/2007	11.1	50.0	
	2008011106	Sulfate	1/15/2008	D	143	mg/l	1/15/2008	2.7	10	
	2008042438	Sulfate	4/29/2008	D	150	mg/l	5/5/2008	11.1	50.0	
	2008070081	Sulfate	7/1/2008	D	149	mg/l	7/3/2008	3.9429	50.0	
	2008111384	Sulfate	11/25/2008	D	140	mg/l	12/3/2008	3.9429	50.0	
	2009021447	Sulfate	2/26/2009	D	135	mg/l	3/2/2009	3.9429	50.0	
	2009040126	Sulfate	4/2/2009	D	138	mg/l	4/21/2009	3.9429	50.0	
	2006080330	Temperature (Field)	8/4/2006	D	20.0	o C	8/4/2006			
	2006101821	Temperature (Field)	10/31/2006	D	19.9	o C	10/31/2006			
	2007011064	Temperature (Field)	1/18/2007	D	20.1	o C	1/18/2007			
	2007050409	Temperature (Field)	5/7/2007	D	20.1	o C	5/7/2007			
	2007070482	Temperature (Field)	7/9/2007	D	20.0	o C	7/9/2007			
	2007110072	Temperature (Field)	11/1/2007	D	20.2	o C	11/1/2007			
	2008011106	Temperature (Field)	1/15/2008	D	19.8	o C	1/15/2008			
	2008042438	Temperature (Field)	4/29/2008	D	20.4	o C	4/29/2008			
	2008070081	Temperature (Field)	7/1/2008	D	20.4	o C	7/1/2008			
	2008111384	Temperature (Field)	11/25/2008	D	20.1	o C	11/25/2008			
	2009021447	Temperature (Field)	2/26/2009	D	20.3	o C	2/26/2009			
	2009040126	Temperature (Field)	4/2/2009	D	20.3	o C	4/2/2009			
	2007110072	Tetrachloroethene	11/1/2007	D	ND	ug/l	11/10/2007	0.09	0.5	
	2008070081	Tetrachloroethene	7/1/2008	D	ND	ug/l	Pending	0.14	1	
	2009021447	Tetrachloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.22	1	
	2006080330	Thallium	8/4/2006	D	ND	ug/l	8/15/2006	0.01	1.0	
	2006101821	Thallium	10/31/2006	D	ND	ug/l	11/7/2006	0.01	1.0	
	2007011064	Thallium	1/18/2007	D	ND	ug/l	1/25/2007	0.01	1.0	
	2007050409	Thallium	5/7/2007	D	ND	ug/l	5/16/2007	0.01	1.0	
	2007070482	Thallium	7/9/2007	D	ND	ug/l	8/7/2007	0.01	1.0	
	2007110072	Thallium	11/1/2007	D	ND	ug/l	11/6/2007	0.01	1.0	
	2008011106	Thallium	1/15/2008	D	Trace	ug/l	1/22/2008	.09	1.0	
	2008042438	Thallium	4/29/2008	D	Trace	ug/l	5/5/2008	.09	1.0	
	2008070081	Thallium	7/1/2008	D	Trace	ug/l	7/9/2008	.09	1.0	
	2008111384	Thallium	11/25/2008	D	ND	ug/l	12/9/2008	.09	1.0	
	2009021447	Thallium	2/26/2009	D	Trace	ug/l	3/9/2009	.09	1.0	
	2009040126	Thallium	4/2/2009	D	ND	ug/l	4/30/2009	.09	1.0	
	2007110072	Toluene	11/1/2007	D	ND	ug/l	11/10/2007	0.10	0.5	
	2008070081	Toluene	7/1/2008	D	ND	ug/l	Pending	0.09	0.5	
	2009021447	Toluene	2/26/2009	D	ND	ug/l	2/26/2009	0.17	0.5	
	2007110072	trans-1,2-Dichloroethene	11/1/2007	D	ND	ug/l	11/10/2007	0.15	0.5	
	2008070081	trans-1,2-Dichloroethene	7/1/2008	D	ND	ug/l	Pending	0.10	0.5	
	2009021447	trans-1,2-Dichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.23	0.5	
	2007110072	trans-1,3-Dichloropropene	11/1/2007	D	ND	ug/l	11/10/2007	0.05	0.5	
	2008070081	trans-1,3-Dichloropropene	7/1/2008	D	ND	ug/l	Pending	0.11	1	
	2009021447	trans-1,3-Dichloropropene	2/26/2009	D	ND	ug/l	2/26/2009	0.12	1	
	2007110072	Trichloroethene	11/1/2007	D	ND	ug/l	11/10/2007	0.19	0.5	
	2008070081	Trichloroethene	7/1/2008	D	ND	ug/l	Pending	0.11	0.5	
	2009021447	Trichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	.20	0.5	
	2007110072	Trichlorofluoromethane	11/1/2007	D	ND	ug/l	11/10/2007	0.11	0.5	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2008070081	Trichlorofluoromethane	7/1/2008	D	ND	ug/l	Pending	0.80	1	
	2009021447	Trichlorofluoromethane	2/26/2009	D	ND	ug/l	2/26/2009	0.06	.5	
	2007110072	Trihalomethane, Total	11/1/2007	D	11.85	ug/l	11/10/2007	0.14	2.0	
	2008070081	Trihalomethane, Total	7/1/2008	D	4.62	ug/l	Pending	0.30	2.0	
	2009021447	Trihalomethane, Total	2/26/2009	D	14.99	ug/l	2/26/2009	.24	2.0	
	2007110072	Vinyl chloride	11/1/2007	D	ND	ug/l	11/10/2007	0.08	0.5	
	2008070081	Vinyl chloride	7/1/2008	D	ND	ug/l	Pending	0.88	1	
	2009021447	Vinyl chloride	2/26/2009	D	ND	ug/l	2/26/2009	0.15	.5	
	2007110072	Xylene, m- + p-	11/1/2007	D	ND	ug/l	11/11/2007	0.16	1.0	
	2008070081	Xylene, m- + p-	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021447	Xylene, m- + p-	2/26/2009	D	ND	ug/l	2/26/2009	0.15	0.5	
	2007110072	Xylene, o-	11/1/2007	D	ND	ug/l	11/11/2007	0.07	0.5	
	2008070081	Xylene, o-	7/1/2008	D	ND	ug/l	Pending	0.08	0.5	
	2009021447	Xylene, o-	2/26/2009	D	ND	ug/l	2/26/2009	0.08	0.5	
	2007110072	Xylene, Total	11/1/2007	D	ND	ug/l	11/11/2007	0.16	1.5	
	2008070081	Xylene, Total	7/1/2008	D	ND	ug/l	Pending	0.22	1.0	
	2009021447	Xylene, Total	2/26/2009	D	ND	ug/l	2/26/2009	0.23	1.0	
	2006080330	Zinc	8/4/2006	D	133.50	ug/l	8/15/2006	0.24	1.9	
	2006101821	Zinc	10/31/2006	D	101.70	ug/l	11/7/2006	0.24	1.9	
	2007011064	Zinc	1/18/2007	D	121.50	ug/l	1/25/2007	0.24	1.9	
	2007050409	Zinc	5/7/2007	D	104.30	ug/l	5/17/2007	0.24	1.9	
	2007070482	Zinc	7/9/2007	D	100.40	ug/l	8/7/2007	0.24	1.9	
	2007110072	Zinc	11/1/2007	D	112.00	ug/l	11/6/2007	0.24	1.9	
	2008011106	Zinc	1/15/2008	D	112.00	ug/l	1/22/2008	.19	1.7	
	2008042438	Zinc	4/29/2008	D	106.50	ug/l	5/5/2008	.19	1.7	
	2008070081	Zinc	7/1/2008	D	109.10	ug/l	7/10/2008	.19	1.7	
	2008111384	Zinc	11/25/2008	D	129.20	ug/l	12/10/2008	.19	1.7	
	2009021447	Zinc	2/26/2009	D	122.30	ug/l	3/9/2009	.19	1.7	
	2009040126	Zinc	4/2/2009	D	104.50	ug/l	4/30/2009	.19	1.7	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
25000-1400 Green Valley										
	2007110073	1,1,1-Trichloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.17	0.5	
	2008070082	1,1,1-Trichloroethane	7/1/2008	D	ND	ug/l	Pending	0.05	1	
	2009021448	1,1,1-Trichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	.24	0.5	
	2007110073	1,1,2,2-Tetrachloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.11	0.5	
	2008070082	1,1,2,2-Tetrachloroethane	7/1/2008	D	ND	ug/l	Pending	0.10	1	
	2009021448	1,1,2,2-Tetrachloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.04	1	
	2007110073	1,1,2-Trichloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.08	0.5	
	2008070082	1,1,2-Trichloroethane	7/1/2008	D	ND	ug/l	Pending	0.10	0.5	
	2009021448	1,1,2-Trichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.05	0.5	
	2007110073	1,1-Dichloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.13	0.5	
	2008070082	1,1-Dichloroethane	7/1/2008	D	ND	ug/l	Pending	0.13	0.5	
	2009021448	1,1-Dichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.27	0.5	
	2007110073	1,1-Dichloroethene	11/1/2007	D	ND	ug/l	11/11/2007	0.14	0.5	
	2008070082	1,1-Dichloroethene	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021448	1,1-Dichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.31	0.5	
	2007110073	1,2,4-Trichlorobenzene	11/1/2007	D	ND	ug/l	11/11/2007	0.25	1.0	
	2008070082	1,2,4-Trichlorobenzene	7/1/2008	D	Trace	ug/l	Pending	0.27	0.5	
	2009021448	1,2,4-Trichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.35	1	
	2008070082	1,2-Dibromo-3-	7/1/2008	D	ND	ug/l	Pending	0.45	2.5	
	2009021448	1,2-Dibromo-3-	2/26/2009	D	ND	ug/l	2/26/2009	0.14	2.5	
	2008070082	1,2-Dibromoethane	7/1/2008	D	ND	ug/l	Pending	0.11	0.5	
	2009021448	1,2-Dibromoethane	2/26/2009	D	ND	ug/l	2/26/2009	0.05	0.5	
	2007110073	1,2-Dichlorobenzene	11/1/2007	D	ND	ug/l	11/11/2007	0.17	0.5	
	2008070082	1,2-Dichlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.16	0.5	
	2009021448	1,2-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.10	0.5	
	2007110073	1,2-Dichloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.07	2.5	
	2009021448	1,2-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.10	0.5	
	2007110073	1,2-Dichloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.07	2.5	
	2008070082	1,2-Dichloroethane	7/1/2008	D	ND	ug/l	Pending	0.11	0.5	
	2009021448	1,2-Dichloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.08	0.5	
	2007110073	1,2-Dichloropropane	11/1/2007	D	ND	ug/l	11/11/2007	0.11	0.5	
	2008070082	1,2-Dichloropropane	7/1/2008	D	ND	ug/l	Pending	0.12	0.5	
	2009021448	1,2-Dichloropropane	2/26/2009	D	ND	ug/l	2/26/2009	0.12	0.5	
	2007110073	1,3-Dichlorobenzene	11/1/2007	D	ND	ug/l	11/11/2007	0.14	0.5	
	2008070082	1,3-Dichlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.08	0.5	
	2009021448	1,3-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.09	0.5	
	2007110073	1,4-Dichlorobenzene	11/1/2007	D	ND	ug/l	11/11/2007	0.14	0.5	
	2008070082	1,4-Dichlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021448	1,4-Dichlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.11	0.5	
	2007110073	2-Chloroethyl vinyl ether	11/1/2007	D	ND	ug/l	11/11/2007	0.14	1.0	
	2008070082	2-Chloroethyl vinyl ether	7/1/2008	D	ND	ug/l	Pending	0.30	1	
	2009021448	2-Chloroethyl vinyl ether	2/26/2009	D	ND	ug/l	2/26/2009	0.13	1	
	2006080331	Alkalinity, Bicarbonate	8/4/2006	D	255	mg/l	8/7/2006	2	20	
	2006101819	Alkalinity, Bicarbonate	10/31/2006	D	218	mg/l	1/1/1900	2	20	
	2007011063	Alkalinity, Bicarbonate	1/18/2007	D	213	mg/l	1/19/2007	2	20	
	2007050408	Alkalinity, Bicarbonate	5/7/2007	D	159	mg/l	5/7/2007	2	20	
	2007070481	Alkalinity, Bicarbonate	7/9/2007	D	210	mg/l	7/10/2007	2	20	
	2007110073	Alkalinity, Bicarbonate	11/1/2007	D	214	mg/l	11/2/2007	2	20	
	2008011105	Alkalinity, Bicarbonate	1/15/2008	D	213	mg/l	1/16/2008	2	20	
	2008042439	Alkalinity, Bicarbonate	4/29/2008	D	219	mg/l	4/30/2008	2	20	
	2008070082	Alkalinity, Bicarbonate	7/1/2008	D	220	mg/l	7/2/2008	2	20	
	2008111383	Alkalinity, Bicarbonate	11/25/2008	D	218	mg/l	11/26/2008	2	20	
	2009021448	Alkalinity, Bicarbonate	2/26/2009	D	217	mg/l	2/27/2009	2	20	
	2009040127	Alkalinity, Bicarbonate	4/2/2009	D	216	mg/l	4/3/2009	2	20	
	2006080331	Alkalinity, Carbonate	8/4/2006	D	ND	mg/l	8/7/2006	2	20	
	2006101819	Alkalinity, Carbonate	10/31/2006	D	ND	mg/l	11/1/2006	2	20	
	2007011063	Alkalinity, Carbonate	1/18/2007	D	ND	mg/l	1/19/2007	2	20	
	2007050408	Alkalinity, Carbonate	5/7/2007	D	ND	mg/l	5/7/2007	2	20	
	2007070481	Alkalinity, Carbonate	7/9/2007	D	ND	mg/l	7/10/2007	2	20	
	2007110073	Alkalinity, Carbonate	11/1/2007	D	ND	mg/l	11/2/2007	2	20	
	2008011105	Alkalinity, Carbonate	1/15/2008	D	ND	mg/l	1/16/2008	2	20	
	2008042439	Alkalinity, Carbonate	4/29/2008	D	ND	mg/l	4/30/2008	2	20	
	2008070082	Alkalinity, Carbonate	7/1/2008	D	ND	mg/l	7/2/2008	2	20	
	2008111383	Alkalinity, Carbonate	11/25/2008	D	ND	mg/l	11/26/2008	2	20	
	2009021448	Alkalinity, Carbonate	2/26/2009	D	ND	mg/l	2/27/2009	2	20	
	2009040127	Alkalinity, Carbonate	4/2/2009	D	ND	mg/l	4/3/2009	2	20	
	2009021448	Alkalinity, Total	2/26/2009	D	217	mg/l	2/27/2009	20	20	
	2009040127	Alkalinity, Total	4/2/2009	D	216	mg/l	4/3/2009	20	20	
	2006080331	Ammonia	8/4/2006	D	ND	mg/l	8/7/2006	0.22	1.0	
	2006101819	Ammonia	10/31/2006	D	ND	mg/l	11/2/2006	0.22	1.0	
	2007011063	Ammonia	1/18/2007	D	ND	mg/l	1/26/2007	0.22	1.0	
	2007050408	Ammonia	5/7/2007	D	ND	mg/l	5/8/2007	0.22	1.0	
	2007070481	Ammonia	7/9/2007	D	Trace	mg/l	7/8/2007	.05	.5	NO SAMPLE
	2007110073	Ammonia	11/1/2007	D	ND	mg/l	11/5/2007	0.05	0.5	
	2008011105	Ammonia	1/15/2008	D	ND	mg/l	1/22/2008	0.05	0.5	
	2008042439	Ammonia	4/29/2008	D	ND	mg/l	5/2/2008	0.05	0.5	
	2008070082	Ammonia	7/1/2008	D	ND	mg/l	7/3/2008	0.05	0.5	
	2008111383	Ammonia	11/25/2008	D	ND	mg/l	12/2/2008	0.05	0.5	
	2009021448	Ammonia	2/26/2009	D	ND	mg/l	3/3/2009	0.05	0.5	
	2009040127	Ammonia	4/2/2009	D	ND	mg/l	4/6/2009	0.05	0.5	
	2006080331	Antimony	8/4/2006	D	ND	ug/l	8/15/2006	0.28	1.45	
	2006101819	Antimony	10/31/2006	D	ND	ug/l	11/7/2006	0.28	1.45	
	2007011063	Antimony	1/18/2007	D	ND	ug/l	1/25/2007	0.28	1.45	
	2007050408	Antimony	5/7/2007	D	ND	ug/l	5/16/2007	0.28	1.45	
	2007070481	Antimony	7/9/2007	D	ND	ug/l	8/1/2007	0.28	1.45	
	2007110073	Antimony	11/1/2007	D	ND	ug/l	11/6/2007	0.28	1.45	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2008011105	Antimony	1/15/2008	D	ND	ug/l	1/22/2008	.108	1.0	
	2008042439	Antimony	4/29/2008	D	ND	ug/l	5/5/2008	.108	1.0	
	2008070082	Antimony	7/1/2008	D	ND	ug/l	7/9/2008	.108	1.0	
	2008111383	Antimony	11/25/2008	D	ND	ug/l	12/9/2008	.108	1.0	
	2009021448	Antimony	2/26/2009	D	ND	ug/l	3/9/2009	.108	1.0	
	2009040127	Antimony	4/2/2009	D	ND	ug/l	4/30/2009	.108	1.0	
	2006080331	Arsenic	8/4/2006	D	4.23	ug/l	8/15/2006	0.24	2.00	
	2006101819	Arsenic	10/31/2006	D	6.02	ug/l	11/7/2006	0.24	2.00	
	2007011063	Arsenic	1/18/2007	D	7.34	ug/l	1/25/2007	0.24	2.00	
	2007050408	Arsenic	5/7/2007	D	6.47	ug/l	5/16/2007	0.24	2.00	
	2007070481	Arsenic	7/9/2007	D	4.52	ug/l	8/1/2007	0.24	2.00	
	2007110073	Arsenic	11/1/2007	D	6.11	ug/l	11/6/2007	0.24	2.00	
	2008011105	Arsenic	1/15/2008	D	4.49	ug/l	1/22/2008	.33	2.5	
	2008042439	Arsenic	4/29/2008	D	5.37	ug/l	5/5/2008	.33	2.5	
	2008070082	Arsenic	7/1/2008	D	5.21	ug/l	7/9/2008	.33	2.5	
	2008111383	Arsenic	11/25/2008	D	4.27	ug/l	12/9/2008	.33	2.5	
	2009021448	Arsenic	2/26/2009	D	6.41	ug/l	3/9/2009	.33	2.5	
	2009040127	Arsenic	4/2/2009	D	5.21	ug/l	4/30/2009	.33	2.5	
	2006080331	Barium	8/4/2006	D	114.9	ug/l	8/15/2006	0.16	1.2	
	2006101819	Barium	10/31/2006	D	117.0	ug/l	11/7/2006	0.16	1.2	
	2007011063	Barium	1/18/2007	D	118.2	ug/l	1/25/2007	0.16	1.2	
	2007050408	Barium	5/7/2007	D	135.6	ug/l	5/17/2007	0.16	1.2	
	2007070481	Barium	7/9/2007	D	136.6	ug/l	8/1/2007	0.16	1.2	
	2007110073	Barium	11/1/2007	D	138.3	ug/l	11/6/2007	0.16	1.2	
	2008011105	Barium	1/15/2008	D	135.7	ug/l	1/22/2008	.21	1.6	
	2008042439	Barium	4/29/2008	D	142.0	ug/l	5/5/2008	.21	1.6	
	2008070082	Barium	7/1/2008	D	144.30	ug/l	7/10/2008	.21	1.6	
	2008111383	Barium	11/25/2008	D	139.80	ug/l	12/10/2008	.21	1.6	
	2009021448	Barium	2/26/2009	D	138.40	ug/l	3/9/2009	.21	1.6	
	2009040127	Barium	4/2/2009	D	140.70	ug/l	4/30/2009	.21	1.6	
	2007110073	Benzene	11/1/2007	D	ND	ug/l	11/11/2007	0.07	0.5	
	2008070082	Benzene	7/1/2008	D	ND	ug/l	Pending	0.09	1	
	2009021448	Benzene	2/26/2009	D	ND	ug/l	2/26/2009	0.20	1	
	2006080331	Beryllium	8/4/2006	D	ND	ug/l	8/15/2006	0.21	1.9	
	2006101819	Beryllium	10/31/2006	D	ND	ug/l	11/7/2006	0.21	1.9	
	2007011063	Beryllium	1/18/2007	D	ND	ug/l	1/25/2007	0.21	1.9	
	2007050408	Beryllium	5/7/2007	D	ND	ug/l	5/16/2007	0.21	1.9	
	2007070481	Beryllium	7/9/2007	D	ND	ug/l	8/1/2007	0.21	1.9	
	2007110073	Beryllium	11/1/2007	D	ND	ug/l	11/6/2007	0.21	1.9	
	2008011105	Beryllium	1/15/2008	D	ND	ug/l	1/22/2008	.01	1.0	
	2008042439	Beryllium	4/29/2008	D	Trace	ug/l	5/5/2008	.01	1.0	
	2008070082	Beryllium	7/1/2008	D	ND	ug/l	7/10/2008	.01	1.0	
	2008111383	Beryllium	11/25/2008	D	ND	ug/l	12/9/2008	.01	1.0	
	2009021448	Beryllium	2/26/2009	D	ND	ug/l	3/9/2009	.01	1.0	
	2009040127	Beryllium	4/2/2009	D	ND	ug/l	4/30/2009	.01	1.0	
	2007110073	Bromodichloromethane	11/1/2007	D	ND	ug/l	11/11/2007	0.07	0.5	
	2008070082	Bromodichloromethane	7/1/2008	D	3.88	ug/l	Pending	0.09	0.5	
	2009021448	Bromodichloromethane	2/26/2009	D	3.97	ug/l	2/26/2009	0.12	0.5	
	2007110073	Bromoform	11/1/2007	D	ND	ug/l	11/11/2007	0.13	0.5	
	2008070082	Bromoform	7/1/2008	D	ND	ug/l	Pending	0.08	0.5	
	2009021448	Bromoform	2/26/2009	D	ND	ug/l	2/26/2009	0.03	0.5	
	2007110073	Bromomethane	11/1/2007	D	ND	ug/l	11/11/2007	0.12	0.5	
	2008070082	Bromomethane	7/1/2008	D	ND	ug/l	Pending	0.70	5	
	2009021448	Bromomethane	2/26/2009	D	ND	ug/l	2/26/2009	1.64	2.5	
	2006080331	Cadmium	8/4/2006	D	ND	ug/l	8/15/2006	0.13	1.25	
	2006101819	Cadmium	10/31/2006	D	ND	ug/l	11/7/2006	0.13	1.25	
	2007011063	Cadmium	1/18/2007	D	ND	ug/l	1/25/2007	0.13	1.25	
	2007050408	Cadmium	5/7/2007	D	ND	ug/l	5/16/2007	0.13	1.25	
	2007070481	Cadmium	7/9/2007	D	ND	ug/l	8/1/2007	0.13	1.25	
	2007110073	Cadmium	11/1/2007	D	ND	ug/l	11/6/2007	0.13	1.25	
	2008011105	Cadmium	1/15/2008	D	ND	ug/l	1/22/2008	.22	1.9	
	2008042439	Cadmium	4/29/2008	D	ND	ug/l	5/5/2008	.22	1.9	
	2008070082	Cadmium	7/1/2008	D	ND	ug/l	7/9/2008	.22	1.9	
	2008111383	Cadmium	11/25/2008	D	ND	ug/l	12/9/2008	.22	1.9	
	2009021448	Cadmium	2/26/2009	D	ND	ug/l	3/9/2009	.22	1.9	
	2009040127	Cadmium	4/2/2009	D	ND	ug/l	4/30/2009	.22	1.9	
	2006080331	Calcium	8/4/2006	D	122.0	mg/l	8/11/2006	0.055	20.0	
	2006101819	Calcium	10/31/2006	D	126.0	mg/l	11/6/2006	0.055	20.0	
	2007011063	Calcium	1/18/2007	D	128.0	mg/l	1/26/2007	0.023	20.0	
	2007050408	Calcium	5/7/2007	D	145.0	mg/l	5/9/2007	0.023	20.0	
	2007070481	Calcium	7/9/2007	D	142.0	mg/l	7/12/2007	0.023	20.0	
	2007110073	Calcium	11/1/2007	D	154.0	mg/l	11/8/2007	0.023	20.0	
	2008011105	Calcium	1/15/2008	D	148.0	mg/l	1/23/2008	0.023	20.0	
	2008042439	Calcium	4/29/2008	D	162.0	mg/l	5/8/2008	.015	20.0	
	2008070082	Calcium	7/1/2008	D	158.0	mg/l	7/9/2008	.015	20.0	
	2008111383	Calcium	11/25/2008	D	171.0	mg/l	12/10/2008	.015	20.0	
	2009021448	Calcium	2/26/2009	D	158.3	mg/l	3/12/2009	.015	20.0	
	2009040127	Calcium	4/2/2009	D	166.0	mg/l	4/10/2009	.015	20.0	
	2007110073	Carbon tetrachloride	11/1/2007	D	ND	ug/l	11/11/2007	0.15	0.5	
	2008070082	Carbon tetrachloride	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021448	Carbon tetrachloride	2/26/2009	D	ND	ug/l	2/26/2009	0.15	0.5	
	2006080331	Chloride	8/4/2006	D	114.00	mg/l	8/7/2006	0.71	4.00	
	2006101819	Chloride	10/31/2006	D	121.00	mg/l	11/17/2006	0.71	4.00	
	2007011063	Chloride	1/18/2007	D	131.00	mg/l	1/22/2007	0.71	4.00	
	2007050408	Chloride	5/7/2007	D	144.00	mg/l	5/9/2007	0.71	4.00	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2007070481	Chloride	7/9/2007	D	157.00	mg/l	7/24/2007	0.71	4.00	
	2007110073	Chloride	11/1/2007	D	172.00	mg/l	11/2/2007	0.71	4.00	
	2008011105	Chloride	1/15/2008	D	180.00	mg/l	1/30/2008	0.71	4.00	
	2008042439	Chloride	4/29/2008	D	188.00	mg/l	5/5/2008	0.71	4.00	
	2008070082	Chloride	7/1/2008	D	206.00	mg/l	7/11/2008	0.71	4.00	
	2008111383	Chloride	11/25/2008	D	222.00	mg/l	12/9/2008	0.71	4.00	
	2009021448	Chloride	2/26/2009	D	225.00	mg/l	3/5/2009	0.71	4.00	
	2009040127	Chloride	4/2/2009	D	228.00	mg/l	4/8/2009	0.71	4.00	
	2007110073	Chlorobenzene	11/1/2007	D	ND	ug/l	11/11/2007	0.10	0.5	
	2008070082	Chlorobenzene	7/1/2008	D	ND	ug/l	Pending	0.07	0.5	
	2009021448	Chlorobenzene	2/26/2009	D	ND	ug/l	2/26/2009	0.09	0.5	
	2007110073	Chloroethane	11/1/2007	D	ND	ug/l	11/11/2007	0.23	0.5	
	2008070082	Chloroethane	7/1/2008	D	ND	ug/l	Pending	2.01	2.5	
	2009021448	Chloroethane	2/26/2009	D	ND	ug/l	2/26/2009	0.55	1	
	2007110073	Chloroform	11/1/2007	D	10.07	ug/l	11/11/2007	0.10	0.5	
	2008070082	Chloroform	7/1/2008	D	11.07	ug/l	Pending	0.07	0.5	
	2009021448	Chloroform	2/26/2009	D	15.02	ug/l	2/26/2009	0.18	0.5	
	2007110073	Chloromethane	11/1/2007	D	ND	ug/l	11/11/2007	0.12	0.5	
	2008070082	Chloromethane	7/1/2008	D	ND	ug/l	Pending	1.04	2.5	
	2009021448	Chloromethane	2/26/2009	D	ND	ug/l	2/26/2009	0.28	1	
	2006080331	Chromium	8/4/2006	D	ND	ug/l	8/15/2006	0.1	1.0	
	2006101819	Chromium	10/31/2006	D	Trace	ug/l	11/7/2006	0.1	1.0	
	2007011063	Chromium	1/18/2007	D	ND	ug/l	1/25/2007	0.1	1.0	
	2007050408	Chromium	5/7/2007	D	Trace	ug/l	5/16/2007	0.1	1.0	
	2007070481	Chromium	7/9/2007	D	1.24	ug/l	8/1/2007	0.1	1.0	
	2007110073	Chromium	11/1/2007	D	Trace	ug/l	11/6/2007	0.1	1.0	
	2008011105	Chromium	1/15/2008	D	Trace	ug/l	1/22/2008	.21	1.8	
	2008042439	Chromium	4/29/2008	D	Trace	ug/l	5/5/2008	.21	1.8	
	2008070082	Chromium	7/1/2008	D	Trace	ug/l	7/9/2008	.21	1.8	
	2008111383	Chromium	11/25/2008	D	Trace	ug/l	12/9/2008	.21	1.8	
	2009021448	Chromium	2/26/2009	D	Trace	ug/l	3/9/2009	.21	1.8	
	2009040127	Chromium	4/2/2009	D	Trace	ug/l	4/30/2009	.21	1.8	
	2007110073	cis-1,2-Dichloroethene	11/1/2007	D	ND	ug/l	11/11/2007	0.24	0.5	
	2008070082	cis-1,2-Dichloroethene	7/1/2008	D	ND	ug/l	Pending	0.12	5	
	2009021448	cis-1,2-Dichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.20	0.5	
	2007110073	cis-1,3-Dichloropropene	11/1/2007	D	ND	ug/l	11/11/2007	0.07	0.5	
	2008070082	cis-1,3-Dichloropropene	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021448	cis-1,3-Dichloropropene	2/26/2009	D	ND	ug/l	2/26/2009	0.09	0.5	
	2009021448	Coliform Presence Absence	2/26/2009	D	Absence	MPN/100ml	2/27/2009			
	2009040127	Coliform Presence Absence	4/2/2009	D	Absence	MPN/100ml	4/3/2009			
	2006080331	Coliform, Fecal	8/4/2006	D	<1.1	MPN/100ml	8/6/2006	1.1	1.1	
	2006101819	Coliform, Fecal	10/31/2006	D	<1.1	MPN/100ml	11/2/2006	1.1	1.1	
	2007011063	Coliform, Fecal	1/18/2007	D	<1.1	MPN/100ml	1/20/2007	1.1	1.1	
	2007050408	Coliform, Fecal	5/7/2007	D	<1.1	MPN/100ml	5/9/2007	1.1	1.1	
	2007070481	Coliform, Fecal	7/9/2007	D	<1.1	MPN/100ml	7/11/2007	1.1	1.1	
	2007110073	Coliform, Fecal	11/1/2007	D	<1.1	MPN/100ml	11/3/2007	1.1	1.1	
	2008011105	Coliform, Fecal	1/15/2008	D	<1.1	MPN/100ml	1/17/2008	1.1	1.1	
	2008042439	Coliform, Fecal	4/29/2008	D	<1.1	MPN/100ml	5/1/2008	1.1	1.1	
	2006080331	Coliform, Total	8/4/2006	D	<1.1	MPN/100ml	8/6/2006	1.1	1.1	
	2006101819	Coliform, Total	10/31/2006	D	<1.1	MPN/100ml	11/2/2006	1.1	1.1	
	2007011063	Coliform, Total	1/18/2007	D	<1.1	MPN/100ml	1/20/2007	1.1	1.1	
	2007050408	Coliform, Total	5/7/2007	D	<1.1	MPN/100ml	5/9/2007	1.1	1.1	
	2007070481	Coliform, Total	7/9/2007	D	<1.1	MPN/100ml	7/11/2007	1.1	1.1	
	2007110073	Coliform, Total	11/1/2007	D	<1.1	MPN/100ml	11/3/2007	1.1	1.1	
	2008011105	Coliform, Total	1/15/2008	D	<1.1	MPN/100ml	1/17/2008	1.1	1.1	
	2008042439	Coliform, Total	4/29/2008	D	<1.1	MPN/100ml	5/1/2008	1.1	1.1	
	2008070082	Coliform, Total	7/1/2008	D	Absence	MPN/100ml	7/2/2008			
	2008111383	Coliform, Total	11/25/2008	D	Absence	MPN/100ml	11/26/2008			
	2006080331	Conductivity (Field)	8/4/2006	D	1094	umhos/cm	8/4/2006		72.0	
	2006101819	Conductivity (Field)	10/31/2006	D	1091	umhos/cm	10/31/2006		72.0	
	2007011063	Conductivity (Field)	1/18/2007	D	1056	umhos/cm	1/18/2007		72.0	
	2007050408	Conductivity (Field)	5/7/2007	D	1160	umhos/cm	5/7/2007		72.0	
	2007070481	Conductivity (Field)	7/9/2007	D	1217	umhos/cm	7/9/2007		72.0	
	2007110073	Conductivity (Field)	11/1/2007	D	1273	umhos/cm	11/1/2007		72.0	
	2008011105	Conductivity (Field)	1/15/2008	D	1278	umhos/cm	1/15/2008		72.0	
	2008042439	Conductivity (Field)	4/29/2008	D	1283	umhos/cm	4/29/2008		72.0	
	2008070082	Conductivity (Field)	7/1/2008	D	1338	umhos/cm	7/1/2008		72.0	
	2008111383	Conductivity (Field)	11/25/2008	D	1191	umhos/cm	11/25/2008		72.0	
	2009021448	Conductivity (Field)	2/26/2009	D	1267	umhos/cm	2/26/2009		72.0	
	2009040127	Conductivity (Field)	4/2/2009	D	1317	umhos/cm	4/2/2009		72.0	
	2006080331	Copper	8/4/2006	D	Trace	ug/l	8/15/2006	0.33	1.25	
	2006101819	Copper	10/31/2006	D	Trace	ug/l	11/7/2006	0.33	1.25	
	2007011063	Copper	1/18/2007	D	Trace	ug/l	1/25/2007	0.33	1.25	
	2007050408	Copper	5/7/2007	D	Trace	ug/l	5/17/2007	0.33	1.25	
	2007070481	Copper	7/9/2007	D	Trace	ug/l	8/1/2007	0.33	1.25	
	2007110073	Copper	11/1/2007	D	Trace	ug/l	11/6/2007	0.33	1.25	
	2008011105	Copper	1/15/2008	D	Trace	ug/l	1/22/2008	.29	2.5	
	2008042439	Copper	4/29/2008	D	Trace	ug/l	5/5/2008	.29	2.5	
	2008070082	Copper	7/1/2008	D	Trace	ug/l	7/9/2008	.29	2.5	
	2008111383	Copper	11/25/2008	D	3.25	ug/l	12/9/2008	.29	2.5	
	2009021448	Copper	2/26/2009	D	7.22	ug/l	3/9/2009	.29	2.5	
	2009040127	Copper	4/2/2009	D	ND	ug/l	4/30/2009	.29	2.5	
	2006080331	Cyanide, Amenable to	8/4/2006	D	ND	ug/l	8/9/2006	1.25	5.0	
	2006101819	Cyanide, Amenable to	10/31/2006	D	ND	ug/l	11/3/2006	1.25	5.0	
	2007011063	Cyanide, Amenable to	1/18/2007	D	ND	ug/l	1/24/2007	1.25	5.0	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2007050408	Cyanide, Amenable to	5/7/2007	D	ND	ug/l	5/15/2007	1.25	5.0	
	2007070481	Cyanide, Amenable to	7/9/2007	D	ND	ug/l	7/13/2007	1.25	5.0	
	2007110073	Cyanide, Amenable to	11/1/2007	D	ND	ug/l	11/6/2007	1.25	5.0	
	2008011105	Cyanide, Amenable to	1/15/2008	D	ND	ug/l	1/24/2008	1.25	5.0	
	2008042439	Cyanide, Amenable to	4/29/2008	D	ND	ug/l	5/6/2008	1.25	5.0	
	2008070082	Cyanide, Amenable to	7/1/2008	D	ND	ug/l	7/7/2008	0.786	5.0	
	2008111383	Cyanide, Amenable to	11/25/2008	D	ND	ug/l	12/2/2008	0.786	5.0	
	2009021448	Cyanide, Amenable to	2/26/2009	D	ND	ug/l	3/4/2009	0.786	5.0	
	2009040127	Cyanide, Amenable to	4/2/2009	D	ND	ug/l	4/7/2009	1.1	5.0	
	2007110073	Dibromochloromethane	11/1/2007	D	0.65	ug/l	11/11/2007	0.14	0.5	
	2008070082	Dibromochloromethane	7/1/2008	D	ND	ug/l	Pending	0.06	0.5	
	2009021448	Dibromochloromethane	2/26/2009	D	Trace	ug/l	2/26/2009	0.03	0.5	
	2007110073	Ethyl benzene	11/1/2007	D	ND	ug/l	11/11/2007	0.09	0.5	
	2008070082	Ethyl benzene	7/1/2008	D	ND	ug/l	Pending	0.10	0.5	
	2009021448	Ethyl benzene	2/26/2009	D	ND	ug/l	2/26/2009	0.11	0.5	
	2006080331	Fluoride	8/4/2006	D	0.349	mg/l	8/10/2006	0.008	0.020	
	2006101819	Fluoride	10/31/2006	D	0.324	mg/l	11/20/2006	0.002	0.020	
	2007011063	Fluoride	1/18/2007	D	0.343	mg/l	1/23/2007	0.002	0.020	
	2007050408	Fluoride	5/7/2007	D	0.314	mg/l	5/14/2007	0.002	0.020	
	2007070481	Fluoride	7/9/2007	D	0.327	mg/l	7/18/2007	0.002	0.020	
	2007110073	Fluoride	11/1/2007	D	0.332	mg/l	11/6/2007	0.002	0.020	
	2008011105	Fluoride	1/15/2008	D	0.328	mg/l	2/1/2008	0.002	0.020	
	2008042439	Fluoride	4/29/2008	D	0.314	mg/l	5/9/2008	0.002	0.020	
	2008070082	Fluoride	7/1/2008	D	0.340	mg/l	7/7/2008	0.002	0.020	
	2008111383	Fluoride	11/25/2008	D	0.340	mg/l	12/2/2008	0.002	0.020	
	2009021448	Fluoride	2/26/2009	D	0.350	mg/l	3/4/2009	0.002	0.020	
	2009040127	Fluoride	4/2/2009	D	0.314	mg/l	4/7/2009	0.002	0.020	
	2006080331	Hardness (Calculated)	8/4/2006	D	380	mg/l	8/11/2006		1.00	
	2006101819	Hardness (Calculated)	10/31/2006	D	394	mg/l	11/6/2006		1.00	
	2007011063	Hardness (Calculated)	1/18/2007	D	398	mg/l	1/26/2007		1.00	
	2007050408	Hardness (Calculated)	5/7/2007	D	449	mg/l	5/9/2007		1.00	
	2007070481	Hardness (Calculated)	7/9/2007	D	444	mg/l	7/12/2007		1.00	
	2007110073	Hardness (Calculated)	11/1/2007	D	478	mg/l	11/8/2007		1.00	
	2008011105	Hardness (Calculated)	1/15/2008	D	463	mg/l	1/23/2008		1.00	
	2008042439	Hardness (Calculated)	4/29/2008	D	502	mg/l	5/8/2008		1.00	
	2008070082	Hardness (Calculated)	7/1/2008	D	495	mg/l	7/9/2008		1.00	
	2008111383	Hardness (Calculated)	11/25/2008	D	528	mg/l	12/10/2008		1.00	
	2009021448	Hardness (Calculated)	2/26/2009	D	496	mg/l	3/12/2009		1.00	
	2009040127	Hardness (Calculated)	4/2/2009	D	520	mg/l	4/10/2009		1.00	
	2006080331	Lead	8/4/2006	D	1.46	ug/l	8/15/2006	0.02	1.0	
	2006101819	Lead	10/31/2006	D	2.06	ug/l	11/7/2006	0.02	1.0	
	2007011063	Lead	1/18/2007	D	2.19	ug/l	1/25/2007	0.02	1.0	
	2007050408	Lead	5/7/2007	D	3.12	ug/l	5/16/2007	0.02	1.0	
	2007070481	Lead	7/9/2007	D	3.05	ug/l	8/1/2007	0.02	1.0	
	2007110073	Lead	11/1/2007	D	1.85	ug/l	11/6/2007	0.02	1.0	
	2008011105	Lead	1/15/2008	D	1.42	ug/l	1/22/2008	.02	1.0	
	2008042439	Lead	4/29/2008	D	1.74	ug/l	5/5/2008	.02	1.0	
	2008070082	Lead	7/1/2008	D	1.43	ug/l	7/9/2008	.02	1.0	
	2008111383	Lead	11/25/2008	D	1.08	ug/l	12/9/2008	.02	1.0	
	2009021448	Lead	2/26/2009	D	2.89	ug/l	3/9/2009	.02	1.0	
	2009040127	Lead	4/2/2009	D	Trace	ug/l	4/30/2009	.02	1.0	
	2006080331	Magnesium	8/4/2006	D	18.2	mg/l	8/11/2006	0.012	10.0	
	2006101819	Magnesium	10/31/2006	D	19.2	mg/l	11/6/2006	0.012	10.0	
	2007011063	Magnesium	1/18/2007	D	19.0	mg/l	1/26/2007	0.012	10.0	
	2007050408	Magnesium	5/7/2007	D	21.0	mg/l	5/9/2007	0.012	10.0	
	2007070481	Magnesium	7/9/2007	D	21.6	mg/l	7/12/2007	0.012	10.0	
	2007110073	Magnesium	11/1/2007	D	22.6	mg/l	11/8/2007	0.012	10.0	
	2008011105	Magnesium	1/15/2008	D	22.6	mg/l	1/23/2008	0.012	10.0	
	2008042439	Magnesium	4/29/2008	D	23.7	mg/l	5/8/2008	.014	10.0	
	2008070082	Magnesium	7/1/2008	D	24.4	mg/l	7/9/2008	.014	10.0	
	2008111383	Magnesium	11/25/2008	D	24.6	mg/l	12/10/2008	.014	10.0	
	2009021448	Magnesium	2/26/2009	D	24.5	mg/l	3/12/2009	.014	10.0	
	2009040127	Magnesium	4/2/2009	D	25.6	mg/l	4/10/2009	.014	10.0	
	2006080331	Mercury	8/4/2006	D	ND	ug/l	8/15/2006	0.016	0.20	
	2006101819	Mercury	10/31/2006	D	ND	ug/l	11/20/2006	0.016	0.20	
	2007011063	Mercury	1/18/2007	D	Trace	ug/l	1/23/2007	0.016	0.20	
	2007050408	Mercury	5/7/2007	D	ND	ug/l	5/11/2007	0.016	0.20	
	2007070481	Mercury	7/9/2007	D	ND	ug/l	7/17/2007	0.146	0.20	
	2007110073	Mercury	11/1/2007	D	ND	ug/l	11/23/2007	0.146	0.20	
	2008011105	Mercury	1/15/2008	D	ND	ug/l	2/1/2008	0.146	0.20	
	2008042439	Mercury	4/29/2008	D	ND	ug/l	5/5/2008	0.146	0.20	
	2008070082	Mercury	7/1/2008	D	ND	ug/l	7/10/2008	0.146	0.20	
	2008111383	Mercury	11/25/2008	D	ND	ug/l	12/16/2008	0.146	0.20	
	2009021448	Mercury	2/26/2009	D	ND	ug/l	3/10/2009	0.146	0.20	
	2009040127	Mercury	4/2/2009	D	ND	ug/l	4/15/2009	0.146	0.20	
	2007110073	Methylene chloride	11/1/2007	D	Trace	ug/l	11/11/2007	0.15	0.5	
	2008070082	Methylene chloride	7/1/2008	D	ND	ug/l	Pending	0.11	1	
	2009021448	Methylene chloride	2/26/2009	D	ND	ug/l	2/26/2009	0.20	1	
	2006080331	Nickel	8/4/2006	D	2.88	ug/l	8/15/2006	0.14	1.15	
	2006101819	Nickel	10/31/2006	D	2.81	ug/l	11/7/2006	0.14	1.15	
	2007011063	Nickel	1/18/2007	D	6.90	ug/l	1/25/2007	0.14	1.15	
	2007050408	Nickel	5/7/2007	D	11.71	ug/l	5/16/2007	0.14	1.15	
	2007070481	Nickel	7/9/2007	D	4.53	ug/l	8/1/2007	0.14	1.15	
	2007110073	Nickel	11/1/2007	D	5.30	ug/l	11/6/2007	0.14	1.15	
	2008011105	Nickel	1/15/2008	D	4.22	ug/l	1/22/2008	.15	1.05	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2008042439	Nickel	4/29/2008	D	3.87	ug/l	5/5/2008	.15	1.05	
	2008070082	Nickel	7/1/2008	D	10.70	ug/l	7/9/2008	.15	1.05	
	2008111383	Nickel	11/25/2008	D	4.63	ug/l	12/9/2008	.15	1.05	
	2009021448	Nickel	2/26/2009	D	3.35	ug/l	3/9/2009	.15	1.05	
	2009040127	Nickel	4/2/2009	D	2.13	ug/l	4/30/2009	.15	1.05	
	2006080331	Nitrate/Nitrite	8/4/2006	D	9.8	mg/l	8/11/2006	0.02	0.5	
	2006101819	Nitrate/Nitrite	10/31/2006	D	11.2	mg/l	11/1/2006	0.02	0.5	
	2007011063	Nitrate/Nitrite	1/18/2007	D	11.8	mg/l	1/19/2007	0.02	0.5	
	2007050408	Nitrate/Nitrite	5/7/2007	D	11.4	mg/l	5/10/2007	0.04	0.5	
	2007070481	Nitrate/Nitrite	7/9/2007	D	11.1	mg/l	7/12/2007	0.02	0.2	
	2007110073	Nitrate/Nitrite	11/1/2007	D	9.1	mg/l	11/1/2007	0.02	0.2	
	2008011105	Nitrate/Nitrite	1/15/2008	D	9.0	mg/l	1/17/2008	0.02	0.2	
	2008042439	Nitrate/Nitrite	4/29/2008	D	7.4	mg/l	5/1/2008	0.02	0.2	
	2008070082	Nitrate/Nitrite	7/1/2008	D	7.5	mg/l	7/2/2008	0.02	0.2	
	2008111383	Nitrate/Nitrite	11/25/2008	D	6.4	mg/l	12/4/2008	0.02	0.2	
	2009021448	Nitrate/Nitrite	2/26/2009	D	6.3	mg/l	3/2/2009	0.02	0.2	
	2009040127	Nitrate/Nitrite	4/2/2009	D	5.9	mg/l	4/7/2009	0.02	0.2	
	2006080331	Nitrogen, Total	8/4/2006	D	9.8	mg/l	8/15/2006	.08	0.5	
	2006101819	Nitrogen, Total	10/31/2006	D	11.2	mg/l	11/2/2006	.08	0.5	
	2007011063	Nitrogen, Total	1/18/2007	D	11.8	mg/l	1/26/2007	.08	0.5	
	2007050408	Nitrogen, Total	5/7/2007	D	11.4	mg/l	5/18/2007	.08	0.5	
	2007070481	Nitrogen, Total	7/9/2007	D	11.1	mg/l	7/20/2007	.08	0.5	
	2007110073	Nitrogen, Total	11/1/2007	D	9.1	mg/l	11/21/2007	.08	0.5	
	2008011105	Nitrogen, Total	1/15/2008	D	9.0	mg/l	1/18/2008	.08	0.5	
	2008042439	Nitrogen, Total	4/29/2008	D	7.4	mg/l	5/1/2008	.08	0.5	
	2008070082	Nitrogen, Total	7/1/2008	D	7.5	mg/l	7/8/2008	.08	0.5	
	2008111383	Nitrogen, Total	11/25/2008	D	6.4	mg/l	12/10/2008	.08	0.5	
	2009021448	Nitrogen, Total	2/26/2009	D	6.3	mg/l	3/9/2009	.08	0.5	
	2009040127	Nitrogen, Total	4/2/2009	D	5.9	mg/l	4/13/2009	.08	0.5	
	2006080331	Nitrogen, Total Kjeldahl	8/4/2006	D	ND	mg/l	8/15/2006	0.44	0.8	
	2006101819	Nitrogen, Total Kjeldahl	10/31/2006	D	ND	mg/l	11/2/2006	0.44	0.8	
	2007011063	Nitrogen, Total Kjeldahl	1/18/2007	D	ND	mg/l	1/26/2007	0.44	0.8	
	2007050408	Nitrogen, Total Kjeldahl	5/7/2007	D	ND	mg/l	5/18/2007	0.44	0.8	
	2007070481	Nitrogen, Total Kjeldahl	7/9/2007	D	ND	mg/l	7/20/2007	0.44	0.8	
	2007110073	Nitrogen, Total Kjeldahl	11/1/2007	D	ND	mg/l	11/21/2007	0.44	0.8	
	2008011105	Nitrogen, Total Kjeldahl	1/15/2008	D	ND	mg/l	1/18/2008	0.44	0.8	
	2008042439	Nitrogen, Total Kjeldahl	4/29/2008	D	ND	mg/l	5/1/2008	0.44	0.8	
	2008070082	Nitrogen, Total Kjeldahl	7/1/2008	D	ND	mg/l	7/8/2008	0.44	0.8	
	2008111383	Nitrogen, Total Kjeldahl	11/25/2008	D	ND	mg/l	12/9/2008	0.45	0.8	
	2009021448	Nitrogen, Total Kjeldahl	2/26/2009	D	ND	mg/l	3/6/2009	0.45	0.8	
	2009040127	Nitrogen, Total Kjeldahl	4/2/2009	D	ND	mg/l	4/10/2009	0.45	0.8	
	2006080331	pH (Field)	8/4/2006	D	7.1	SU	8/4/2006			
	2006101819	pH (Field)	10/31/2006	D	7.0	SU	10/31/2006			
	2007011063	pH (Field)	1/18/2007	D	7.1	SU	1/18/2007			
	2007050408	pH (Field)	5/7/2007	D	7.0	SU	5/7/2007			
	2007070481	pH (Field)	7/9/2007	D	6.9	SU	7/9/2007			
	2007110073	pH (Field)	11/1/2007	D	6.9	SU	11/1/2007			
	2008011105	pH (Field)	1/15/2008	D	6.9	SU	1/15/2008			
	2008042439	pH (Field)	4/29/2008	D	7.2	SU	4/29/2008			
	2008070082	pH (Field)	7/1/2008	D	7.1	SU	7/1/2008			
	2008111383	pH (Field)	11/25/2008	D	7.2	SU	11/25/2008			
	2009021448	pH (Field)	2/26/2009	D	7.1	SU	2/26/2009			
	2009040127	pH (Field)	4/2/2009	D	7.1	SU	4/2/2009			
	2006080331	Potassium	8/4/2006	D	Trace	mg/l	8/11/2006	0.05	10.0	
	2006101819	Potassium	10/31/2006	D	Trace	mg/l	11/6/2006	0.05	10.0	
	2007011063	Potassium	1/18/2007	D	Trace	mg/l	1/26/2007	0.03	10.0	
	2007050408	Potassium	5/7/2007	D	Trace	mg/l	5/9/2007	0.03	10.0	
	2007070481	Potassium	7/9/2007	D	Trace	mg/l	7/12/2007	0.03	10.0	
	2007110073	Potassium	11/1/2007	D	Trace	mg/l	11/8/2007	0.03	10.0	
	2008011105	Potassium	1/15/2008	D	Trace	mg/l	1/23/2008	0.03	10.0	
	2008042439	Potassium	4/29/2008	D	Trace	mg/l	5/8/2008	.062	10.0	
	2008070082	Potassium	7/1/2008	D	Trace	mg/l	7/9/2008	.062	10.0	
	2008111383	Potassium	11/25/2008	D	Trace	mg/l	12/10/2008	.062	10.0	
	2009021448	Potassium	2/26/2009	D	Trace	mg/l	3/12/2009	.062	10.0	
	2009040127	Potassium	4/2/2009	D	Trace	mg/l	4/10/2009	.062	10.0	
	2006080331	Selenium	8/4/2006	D	ND	ug/l	8/15/2006	0.27	2.0	
	2006101819	Selenium	10/31/2006	D	Trace	ug/l	11/7/2006	0.27	2.0	
	2007011063	Selenium	1/18/2007	D	Trace	ug/l	1/25/2007	0.27	2.0	
	2007050408	Selenium	5/7/2007	D	Trace	ug/l	5/16/2007	0.27	2.0	
	2007070481	Selenium	7/9/2007	D	Trace	ug/l	8/1/2007	0.27	2.0	
	2007110073	Selenium	11/1/2007	D	Trace	ug/l	11/6/2007	0.27	2.0	
	2008011105	Selenium	1/15/2008	D	Trace	ug/l	1/22/2008	.22	2.0	
	2008042439	Selenium	4/29/2008	D	Trace	ug/l	5/5/2008	.22	2.0	
	2008070082	Selenium	7/1/2008	D	ND	ug/l	7/9/2008	.22	2.0	
	2008111383	Selenium	11/25/2008	D	ND	ug/l	12/9/2008	.22	2.0	
	2009021448	Selenium	2/26/2009	D	ND	ug/l	3/9/2009	.22	2.0	
	2009040127	Selenium	4/2/2009	D	ND	ug/l	4/30/2009	.22	2.0	
	2006080331	Silver	8/4/2006	D	ND	ug/l	8/15/2006	0.05	1.0	
	2006101819	Silver	10/31/2006	D	ND	ug/l	11/7/2006	0.05	1.0	
	2007011063	Silver	1/18/2007	D	ND	ug/l	1/25/2007	0.05	1.0	
	2007050408	Silver	5/7/2007	D	ND	ug/l	5/16/2007	0.05	1.0	
	2007070481	Silver	7/9/2007	D	Trace	ug/l	8/1/2007	0.05	1.0	
	2007110073	Silver	11/1/2007	D	ND	ug/l	11/6/2007	0.05	1.0	
	2008011105	Silver	1/15/2008	D	ND	ug/l	1/22/2008	.02	1.0	
	2008042439	Silver	4/29/2008	D	Trace	ug/l	5/5/2008	.02	1.0	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2008070082	Silver	7/1/2008	D	Trace	ug/l	7/9/2008	.02	1.0	
	2008111383	Silver	11/25/2008	D	ND	ug/l	12/9/2008	.02	1.0	
	2009021448	Silver	2/26/2009	D	ND	ug/l	3/9/2009	.02	1.0	
	2009040127	Silver	4/2/2009	D	Trace	ug/l	4/30/2009	.02	1.0	
	2006080331	Sodium	8/4/2006	D	62.60	mg/l	8/11/2006	0.008	20.0	
	2006101819	Sodium	10/31/2006	D	69.70	mg/l	11/6/2006	0.008	20.0	
	2007011063	Sodium	1/18/2007	D	65.10	mg/l	1/26/2007	0.038	20.0	
	2007050408	Sodium	5/7/2007	D	75.40	mg/l	5/9/2007	0.038	20.0	
	2007070481	Sodium	7/9/2007	D	72.90	mg/l	7/12/2007	0.038	20.0	
	2007110073	Sodium	11/1/2007	D	73.90	mg/l	11/8/2007	0.038	20.0	
	2008011105	Sodium	1/15/2008	D	67.30	mg/l	1/23/2008	0.038	20.0	
	2008042439	Sodium	4/29/2008	D	68.90	mg/l	5/8/2008	.046	20.0	
	2008070082	Sodium	7/1/2008	D	66.10	mg/l	7/9/2008	.046	20.0	
	2008111383	Sodium	11/25/2008	D	66.30	mg/l	12/10/2008	.046	20.0	
	2009021448	Sodium	2/26/2009	D	63.66	mg/l	3/12/2009	.046	20.0	
	2009040127	Sodium	4/2/2009	D	68.87	mg/l	4/10/2009	.046	20.0	
	2006080331	Solids, Total Dissolved	8/4/2006	D	1114	mg/l	8/9/2006	10	10	
	2006101819	Solids, Total Dissolved	10/31/2006	D	698	mg/l	11/1/2006	10	10	
	2007011063	Solids, Total Dissolved	1/18/2007	D	712	mg/l	1/20/2007	10	10	
	2007050408	Solids, Total Dissolved	5/7/2007	D	784	mg/l	5/7/2007	10	10	
	2007070481	Solids, Total Dissolved	7/9/2007	D	810	mg/l	7/10/2007	10	10	
	2007110073	Solids, Total Dissolved	11/1/2007	D	868	mg/l	11/8/2007	10	10	
	2008011105	Solids, Total Dissolved	1/15/2008	D	806	mg/l	1/17/2008	10	10	
	2008042439	Solids, Total Dissolved	4/29/2008	D	524	mg/l	4/29/2008	10	10	
	2008070082	Solids, Total Dissolved	7/1/2008	D	946	mg/l	7/4/2008	10	10	
	2008111383	Solids, Total Dissolved	11/25/2008	D	946	mg/l	11/26/2008	10	10	
	2009021448	Solids, Total Dissolved	2/26/2009	D	906	mg/l	3/2/2009	10	10	
	2009040127	Solids, Total Dissolved	4/2/2009	D	868	mg/l	4/6/2009	10	10	
	2007110073	Styrene	11/1/2007	D	ND	ug/l	11/11/2007	0.08	0.5	
	2008070082	Styrene	7/1/2008	D	ND	ug/l	Pending	0.09	0.5	
	2009021448	Styrene	2/26/2009	D	ND	ug/l	2/26/2009	0.03	0.5	
	2006080331	Sulfate	8/4/2006	D	132	mg/l	8/8/2006	11.1	50.0	
	2006101819	Sulfate	10/31/2006	D	137	mg/l	11/6/2006	11.1	50.0	
	2007011063	Sulfate	1/18/2007	D	128	mg/l	1/25/2007	11.1	50.0	
	2007050408	Sulfate	5/7/2007	D	136	mg/l	5/16/2007	11.1	50.0	
	2007070481	Sulfate	7/9/2007	D	149	mg/l	7/19/2007	11.1	50.0	
	2007110073	Sulfate	11/1/2007	D	142	mg/l	11/7/2007	11.1	50.0	
	2008011105	Sulfate	1/15/2008	D	128	mg/l	1/15/2008	2.7	10	
	2008042439	Sulfate	4/29/2008	D	134	mg/l	5/5/2008	11.1	50.0	
	2008070082	Sulfate	7/1/2008	D	135	mg/l	7/3/2008	3.9429	50.0	
	2008111383	Sulfate	11/25/2008	D	126	mg/l	12/3/2008	3.9429	50.0	
	2009021448	Sulfate	2/26/2009	D	120	mg/l	3/2/2009	3.9429	50.0	
	2009040127	Sulfate	4/2/2009	D	122	mg/l	4/21/2009	3.9429	50.0	
	2006080331	Temperature (Field)	8/4/2006	D	20.4	o C	8/4/2006			
	2006101819	Temperature (Field)	10/31/2006	D	20.3	o C	10/31/2006			
	2007011063	Temperature (Field)	1/18/2007	D	23.1	o C	1/18/2007			
	2007050408	Temperature (Field)	5/7/2007	D	20.8	o C	5/7/2007			
	2007070481	Temperature (Field)	7/9/2007	D	20.8	o C	7/9/2007			
	2007110073	Temperature (Field)	11/1/2007	D	20.8	o C	11/1/2007			
	2008011105	Temperature (Field)	1/15/2008	D	20.5	o C	1/15/2008			
	2008042439	Temperature (Field)	4/29/2008	D	21.2	o C	4/29/2008			
	2008070082	Temperature (Field)	7/1/2008	D	21.3	o C	7/1/2008			
	2008111383	Temperature (Field)	11/25/2008	D	21.0	o C	11/25/2008			
	2009021448	Temperature (Field)	2/26/2009	D	21.2	o C	2/26/2009			
	2009040127	Temperature (Field)	4/2/2009	D	21.2	o C	4/2/2009			
	2007110073	Tetrachloroethene	11/1/2007	D	ND	ug/l	11/11/2007	0.09	0.5	
	2008070082	Tetrachloroethene	7/1/2008	D	ND	ug/l	Pending	0.14	1	
	2009021448	Tetrachloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.22	1	
	2006080331	Thallium	8/4/2006	D	ND	ug/l	8/15/2006	0.01	1.0	
	2006101819	Thallium	10/31/2006	D	ND	ug/l	11/7/2006	0.01	1.0	
	2007011063	Thallium	1/18/2007	D	ND	ug/l	1/25/2007	0.01	1.0	
	2007050408	Thallium	5/7/2007	D	Trace	ug/l	5/16/2007	0.01	1.0	
	2007070481	Thallium	7/9/2007	D	ND	ug/l	8/1/2007	0.01	1.0	
	2007110073	Thallium	11/1/2007	D	ND	ug/l	11/6/2007	0.01	1.0	
	2008011105	Thallium	1/15/2008	D	Trace	ug/l	1/22/2008	.09	1.0	
	2008042439	Thallium	4/29/2008	D	ND	ug/l	5/5/2008	.09	1.0	
	2008070082	Thallium	7/1/2008	D	ND	ug/l	7/9/2008	.09	1.0	
	2008111383	Thallium	11/25/2008	D	ND	ug/l	12/9/2008	.09	1.0	
	2009021448	Thallium	2/26/2009	D	ND	ug/l	3/9/2009	.09	1.0	
	2009040127	Thallium	4/2/2009	D	ND	ug/l	4/30/2009	.09	1.0	
	2007110073	Toluene	11/1/2007	D	ND	ug/l	11/11/2007	0.10	0.5	
	2008070082	Toluene	7/1/2008	D	ND	ug/l	Pending	0.09	0.5	
	2009021448	Toluene	2/26/2009	D	ND	ug/l	2/26/2009	0.17	0.5	
	2007110073	trans-1,2-Dichloroethene	11/1/2007	D	ND	ug/l	11/11/2007	0.15	0.5	
	2008070082	trans-1,2-Dichloroethene	7/1/2008	D	ND	ug/l	Pending	0.10	0.5	
	2009021448	trans-1,2-Dichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	0.23	0.5	
	2007110073	trans-1,3-Dichloropropene	11/1/2007	D	ND	ug/l	11/11/2007	0.05	0.5	
	2008070082	trans-1,3-Dichloropropene	7/1/2008	D	ND	ug/l	Pending	0.11	1	
	2009021448	trans-1,3-Dichloropropene	2/26/2009	D	ND	ug/l	2/26/2009	0.12	1	
	2007110073	Trichloroethene	11/1/2007	D	ND	ug/l	11/11/2007	0.19	0.5	
	2008070082	Trichloroethene	7/1/2008	D	ND	ug/l	Pending	0.11	0.5	
	2009021448	Trichloroethene	2/26/2009	D	ND	ug/l	2/26/2009	.20	0.5	
	2007110073	Trichlorofluoromethane	11/1/2007	D	ND	ug/l	11/11/2007	0.11	0.5	
	2008070082	Trichlorofluoromethane	7/1/2008	D	ND	ug/l	Pending	0.80	1	
	2009021448	Trichlorofluoromethane	2/26/2009	D	ND	ug/l	2/26/2009	0.06	.5	

Permit Location ID	Sample ID	Parameter	Sample Date	Type	Value	Units	Analysis Date	MDL	PQL	NOTES
	2007110073	Trihalomethane, Total	11/1/2007	D	10.72	ug/l	11/11/2007	0.14	2.0	
	2008070082	Trihalomethane, Total	7/1/2008	D	14.95	ug/l	Pending	0.30	2.0	
	2009021448	Trihalomethane, Total	2/26/2009	D	19.31	ug/l	2/26/2009	.24	2.0	
	2007110073	Vinyl chloride	11/1/2007	D	ND	ug/l	11/11/2007	0.08	0.5	
	2008070082	Vinyl chloride	7/1/2008	D	ND	ug/l	Pending	0.88	1	
	2009021448	Vinyl chloride	2/26/2009	D	ND	ug/l	2/26/2009	0.15	.5	
	2007110073	Xylene, m- + p-	11/1/2007	D	ND	ug/l	11/11/2007	0.16	1.0	
	2008070082	Xylene, m- + p-	7/1/2008	D	ND	ug/l	Pending	0.14	0.5	
	2009021448	Xylene, m- + p-	2/26/2009	D	ND	ug/l	2/26/2009	0.15	0.5	
	2007110073	Xylene, o-	11/1/2007	D	ND	ug/l	11/11/2007	0.07	0.5	
	2008070082	Xylene, o-	7/1/2008	D	ND	ug/l	Pending	0.08	0.5	
	2009021448	Xylene, o-	2/26/2009	D	ND	ug/l	2/26/2009	0.08	0.5	
	2007110073	Xylene, Total	11/1/2007	D	ND	ug/l	11/11/2007	0.16	1.5	
	2008070082	Xylene, Total	7/1/2008	D	ND	ug/l	Pending	0.22	1.0	
	2009021448	Xylene, Total	2/26/2009	D	ND	ug/l	2/26/2009	0.23	1.0	
	2006080331	Zinc	8/4/2006	D	212.30	ug/l	8/15/2006	0.24	1.9	
	2006101819	Zinc	10/31/2006	D	210.10	ug/l	11/7/2006	0.24	1.9	
	2007011063	Zinc	1/18/2007	D	236.60	ug/l	1/25/2007	0.24	1.9	
	2007050408	Zinc	5/7/2007	D	240.60	ug/l	5/17/2007	0.24	1.9	
	2007070481	Zinc	7/9/2007	D	337.60	ug/l	8/1/2007	0.24	1.9	
	2007110073	Zinc	11/1/2007	D	275.50	ug/l	11/6/2007	0.24	1.9	
	2008011105	Zinc	1/15/2008	D	217.90	ug/l	1/22/2008	.19	1.7	
	2008042439	Zinc	4/29/2008	D	282.90	ug/l	5/5/2008	.19	1.7	
	2008070082	Zinc	7/1/2008	D	217.30	ug/l	7/10/2008	.19	1.7	
	2008111383	Zinc	11/25/2008	D	213.50	ug/l	12/10/2008	.19	1.7	
	2009021448	Zinc	2/26/2009	D	239.30	ug/l	3/9/2009	.19	1.7	
	2009040127	Zinc	4/2/2009	D	293.30	ug/l	4/30/2009	.19	1.7	

Green Valley WRF APP Well Sampling Data 2006-2009

GV-01 - APP (25000-1400)											
DATE	SWL	PWL	Q	Q/s	SAMPLE	SAMPLE	SAMPLE	NITRATE	NITROGEN	TOTAL	Coliform
01/05/06	175.67	178.70	31	10.1	20.5	6.9	1251	9.2	ND	9.2	
01/10/06	175.45	178.50	33	10.7	20.4	7.1	1242	9.1	ND	9.1	< 1.1
01/20/06	175.35	178.35	32	10.7	20.4	7.0	1218	6.0	ND	6.0	
01/24/06	175.28	178.35	32	10.4	20.3	6.8	1214	9.4	ND	9.4	
02/02/06	175.15	178.24	33	10.5	20.5	7.2	1194	9.2	ND	9.2	<1.1
02/09/06	175.05	178.13	32	10.4	20.3	7.6	1178	9.2	ND	9.2	
02/14/06	175.00	178.10	32	10.4	20.0	7.2	1168	9.4	ND	9.4	
02/21/06	175.03	178.23	32	10.1	20.2	7.1	1148	9.5	ND	9.5	
02/27/06	No Data	No Data	32	No Data	20.1	7.6	1152	9.5	ND	9.5	
03/06/06	175.20	178.50	33	10.0	20.3	7.1	1148	9.4	ND	9.4	<1.1
03/13/06	No Data	No Data	No	No Data	20.2	7.2	1137	9.3	ND	9.3	
03/20/06	No Data	No Data	No	No Data	20.0	7.4	1133	9.5	ND	9.5	
03/27/06	176.15	178.38	33	14.6	20.5	7.0	1125	9.4	ND	9.4	
04/04/06	No Data	No Data	33	No Data	20.5	7.2	1115	9.3	ND	9.3	
04/11/06	175.10	178.40	33	9.8	20.4	7.1	1095	9.4	ND	9.4	<1.1
04/17/06	175.12	178.39	33	10.0	20.2	6.8	No Data	9.3	ND	9.3	
05/10/06	175.15	178.50	32	9.6	20.4	7.1	1078	9.4	ND	9.4	<1.1
08/04/06	175.27	178.66	30	8.8	20.4	7.1	1094	9.8	ND	9.8	<1.1
10/31/06	174.69	177.97	29	8.8	20.3	7.0	1091	11.2	ND	11.2	<1.1
01/18/07	174.11	177.49	29	8.5	23.1	7.1	1056	11.8	ND	11.8	<1.1
05/07/07	173.87	177.08	29	8.9	20.8	7.0	1160	11.4	ND	11.4	<1.1
07/09/07	173.94	177.42	29	8.3	20.8	6.9	1217	11.1	ND	11.1	<1.1
11/01/07	173.98	177.23	28	8.6	20.8	6.9	1273	9.1	ND	9.1	<1.1
01/15/08	173.45	176.80	29	8.7	20.5	6.9	1136	9.0	ND	9.0	<1.1
04/29/08	173.68	177.36	29	7.9	21.2	7.2	1283	7.4	ND	7.4	<1.1
07/01/08	173.85	177.42	28	7.9	21.3	7.1	1338	7.5	ND	7.5	Absence
11/25/08	173.65	177.25	28	7.8	21.0	7.2	1191	6.4	ND	6.4	Absence
02/26/09	173.02	176.78	30	8.0	21.2	7.1	1267	6.3	ND	6.3	Absence
04/02/09	172.92	176.52	31	8.6	21.2	7.1	1317	5.9	ND	5.9	Absence
08/04/09	172.99	176.38	29	8.4	21.5	7.0	1356	5.0	ND	5.2	Absence

Green Valley WRF APP Well Sampling Data 2006-2009

GV-02 - APP (25000-1500)

DATE	SWL	PWL	Q	Q/s	SAMPLE	SAMPLE	SAMPLE	NITRATE	NITROGEN	TOTAL	Coliform
01/05/06	164.34	166.90	30	11.6	20.4	7.1	1367	7.0	ND	7.0	<1.1
02/02/06	163.80	166.60	36	12.9	20.0	7.1	1401	6.8	ND	6.8	<1.1
03/06/06	163.85	166.60	25	9.1	20.1	7.2	1401	6.7	ND	6.7	<1.1
04/11/06	163.85	169.00	30	5.7	20.1	7.1	1390	6.7	ND	6.7	<1.1
05/10/06	163.85	167.60	29	7.8	20.1	7.0	1394	6.6	ND	6.6	<1.1
08/04/06	163.82	166.73	29	10.0	20.0	7.0	1424	6.5	ND	6.5	<1.1
10/31/06	163.20	166.19	29	9.7	19.9	6.9	1434	6.5	ND	6.5	<1.1
01/18/07	162.76	165.93	31	9.9	20.1	6.9	1501	6.3	ND	6.3	<1.1
05/07/07	162.34	165.41	31	10.1	20.1	6.9	1429	5.7	ND	6.0	<1.1
07/09/07	162.48	165.48	31	10.2	20.0	6.9	1487	5.6	ND	5.6	<1.1
11/01/07	162.35	165.40	30	10.0	20.2	6.7	1489	4.8	ND	4.8	<1.1
01/15/08	161.87	164.81	31	10.5	19.8	6.8	1498	4.9	ND	4.9	<1.1
04/29/08	161.93	164.42	25	10.0	20.4	7.1	1432	4.3	ND	4.3	<1.1
07/01/08	162.05	164.93	30	10.3	20.4	6.9	1519	4.5	ND	4.5	Absence
11/25/08	161.84	164.82	29	9.8	20.1	7.0	1429	4.2	ND	4.2	Absence
02/26/09	161.32	164.40	32	10.3	20.3	6.7	1430	4.4	ND	4.4	Absence
04/02/09	161.08	164.13	31	10.1	20.3	7.0	1443	4.2	ND	4.2	Absence
08/04/09	161.24	164.18	30	10.0	20.5	6.8	1481	4.4	ND	4.6	Absence

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

November 25, 2008

Report to:
Meg Buchanan
GeoSystems Analysis
2015 North Forbes Blvd Suite 105
Tucson, AZ 85745

Bill to:
Accounts Payable
GeoSystems Analysis
2015 North Forbes Blvd Suite 105
Tucson, AZ 85745

Project ID: 0814
ACZ Project ID: L72921

Meg Buchanan:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 07, 2008. This project has been assigned to ACZ's project number, L72921. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 12.0. The enclosed results relate only to the samples received under L72921. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after December 25, 2008. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed
and approved this report.

GeoSystems Analysis

November 25, 2008

Project ID: 0814
ACZ Project ID: L72921

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 ground water samples from GeoSystems Analysis on November 7, 2008. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L72921. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

Any analyses not performed within EPA recommended holding times have been qualified with an "H" flag.

Sample Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. The Acetone results have been qualified with the N1 flag. The chemist noted that it recovered in the sample at less than the reporting limit. The control sample was high in Acetone at 136% due to prep lab contribution. No significant impact would be expected.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							11/13/08 11:52	jjg
Total Recoverable Digestion	M200.2 ICP							11/10/08 12:53	jws
Total Recoverable Digestion	M200.2 ICP-MS			*				11/11/08 17:04	jws

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.7 ICP	0.28			mg/L	0.03	0.2	11/11/08 16:33	ear/aeh
Antimony, total recoverable	M200.8 ICP-MS		U		mg/L	0.002	0.01	11/12/08 23:33	rac
Arsenic, total recoverable	M200.8 ICP-MS		U		mg/L	0.003	0.01	11/12/08 23:33	rac
Barium, total recoverable	M200.8 ICP-MS	0.1210		*	mg/L	0.0005	0.003	11/12/08 23:33	rac
Beryllium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/12/08 23:33	rac
Cadmium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/12/08 23:33	rac
Chromium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/14/08 1:47	rac
Copper, total recoverable	M200.8 ICP-MS		U		mg/L	0.003	0.01	11/12/08 23:33	rac
Iron, total recoverable	M200.7 ICP	0.22			mg/L	0.02	0.05	11/11/08 16:33	ear/aeh
Lead, total recoverable	M200.8 ICP-MS		U	*	mg/L	0.0005	0.003	11/12/08 23:33	rac
Manganese, total recoverable	M200.7 ICP		U		mg/L	0.005	0.03	11/11/08 16:33	ear/aeh
Mercury, total	M245.1 CVAA		U		mg/L	0.0002	0.001	11/17/08 16:54	pmc
Nickel, total recoverable	M200.8 ICP-MS	0.003	B		mg/L	0.003	0.02	11/12/08 23:33	rac
Selenium, total recoverable	M200.8 ICP-MS	0.0014	B		mg/L	0.0005	0.003	11/12/08 23:33	rac
Silver, total recoverable	M200.8 ICP-MS		U		mg/L	0.0003	0.001	11/12/08 23:33	rac
Sodium, total recoverable	M200.7 ICP	37.3			mg/L	0.3	2	11/11/08 16:33	ear/aeh
Thallium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/12/08 23:33	rac
Zinc, total recoverable	M200.7 ICP		U		mg/L	0.01	0.05	11/11/08 16:33	ear/aeh

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride	SM4500Cl-E	35		*	mg/L	1	5	11/14/08 15:30	aml
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	11/14/08 14:17	neb
Fluoride	SM4500F-C	0.2	B	*	mg/L	0.1	0.5	11/18/08 17:22	gkj
Lab Filtration	SM 3030 B			*				11/07/08 15:32	kah
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	6.57			mg/L	0.06	0.3	11/24/08 9:49	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	6.57	H	*	mg/L	0.06	0.3	11/08/08 17:34	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		UH	*	mg/L	0.01	0.05	11/08/08 16:47	pjb
pH (lab)	SM4500H+ B								
pH		7.8	H		units	0.1	0.1	11/13/08 0:00	gkj
pH measured at		23.0			C	0.1	0.1	11/13/08 0:00	gkj
Residue, Filterable (TDS) @180C	SM2540C	430			mg/L	10	20	11/12/08 13:36	abm
Sulfate	375.4 - Turbidimetric	96		*	mg/L	5	30	11/14/08 12:31	aml

Arizona license number: AZ0102

GeoSystems Analysis
Project ID: 0814
Sample ID: TB110308-1

ACZ Sample ID: ***L72921-02***
Date Sampled: *11/06/08 00:00*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							11/13/08 12:25	jjg

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	11/14/08 14:19	neb

Arizona license number: AZ0102

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.

GeoSystems Analysis ACZ Project ID: ***L72921***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72921-01	WG255503	Total Recoverable Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG255618	Barium, total recoverable	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
		Lead, total recoverable	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG255759	Chloride	SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255774	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255906	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255399	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255757	Sulfate	375.4 - Turbidimetric	M4	The spiked sample required a dilution such that the spike recovery calculation does not provide useful information. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72921-02	WG255774	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Base Neutral Acid Extractables by GC/MS

Analysis Method: **M8270C GC/MS**
Extract Method: **M3520C**

Workgroup: WG256126
Analyst: djt
Extract Date: 11/12/08 10:30
Analysis Date: 11/18/08 18:15

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,2,4-Trichlorobenzene	120-82-1		U	0.94	*	ug/L	2	9
1,2-Dichlorobenzene	95-50-1		U	0.94	*	ug/L	2	9
1,3-Dichlorobenzene	541-73-1		U	0.94	*	ug/L	2	9
1,4-Dichlorobenzene	106-46-7		U	0.94	*	ug/L	2	9
2,4,5-Trichlorophenol	95-95-4		U	0.94	*	ug/L	9	50
2,4,6-Trichlorophenol	88-06-2		U	0.94	*	ug/L	2	9
2,4-Dichlorophenol	120-83-2		U	0.94	*	ug/L	2	9
2,4-Dimethylphenol	105-67-9		U	0.94	*	ug/L	4	20
2,4-Dinitrophenol	51-28-5		U	0.94	*	ug/L	20	50
2,4-Dinitrotoluene	121-14-2		U	0.94	*	ug/L	2	9
2,6-Dinitrotoluene	606-20-8		U	0.94	*	ug/L	9	50
2-Chloronaphthalene	91-58-7		U	0.94	*	ug/L	2	9
2-Chlorophenol	95-57-8		U	0.94	*	ug/L	2	9
2-Methylnaphthalene	91-57-6		U	0.94	*	ug/L	2	9
2-Methylphenol	95-48-7		U	0.94	*	ug/L	2	9
2-Nitroaniline	88-74-4		U	0.94	*	ug/L	9	50
2-Nitrophenol	88-75-5		U	0.94	*	ug/L	4	20
3- & 4-Methylphenol	1319-77-3		U	0.94	*	ug/L	4	20
3,3-Dichlorobenzidine	91-94-1		U	0.94	*	ug/L	4	20
3-Nitroaniline	99-09-2		U	0.94	*	ug/L	9	50
4,6-Dinitro-2-methylphenol	534-52-1		U	0.94	*	ug/L	9	50
4-Bromophenyl phenyl ether	101-55-3		U	0.94	*	ug/L	2	9
4-Chloro-3-methylphenol	59-50-7		U	0.94	*	ug/L	2	9
4-Chloroaniline	106-47-8		U	0.94	*	ug/L	2	9
4-Chlorophenyl phenyl ether	7005-72-3		U	0.94	*	ug/L	2	9
4-Nitroaniline	100-01-6		U	0.94	*	ug/L	9	50
4-Nitrophenol	100-02-07		U	0.94	*	ug/L	9	50
Acenaphthene	83-32-9		U	0.94	*	ug/L	2	9
Acenaphthylene	208-96-8		U	0.94	*	ug/L	2	9
Aniline			U	0.94	*	ug/L	4	20
Anthracene	120-12-7		U	0.94	*	ug/L	2	9
Azobenzene	103-33-3		U	0.94	*	ug/L	9	50
Benzo(a)anthracene	56-55-3		U	0.94	*	ug/L	2	9
Benzo(a)pyrene	50-32-8		U	0.94	*	ug/L	2	9
Benzo(b)fluoranthene	205-99-2		U	0.94	*	ug/L	2	9
Benzo(g,h,i)perylene	191-24-2		U	0.94	*	ug/L	2	9
Benzo(k)fluoranthene	207-08-9		U	0.94	*	ug/L	2	9
Benzoic acid	65-85-0		U	0.94	*	ug/L	9	50
Benzyl alcohol	100-51-6		U	0.94	*	ug/L	2	9

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Bis(2-chloroethoxy)methane	111-91-1		U	0.94	*	ug/L	2	9
Bis(2-chloroethyl) ether	111-44-4		U	0.94	*	ug/L	2	9
Bis(2-chloroisopropyl) ether	108-60-1		U	0.94	*	ug/L	2	9
Bis(2-ethylhexyl) phthalate	117-81-7		U	0.94	*	ug/L	4	20
Butyl benzyl phthalate	85-68-7		U	0.94	*	ug/L	2	9
Chrysene	218-01-9		U	0.94	*	ug/L	2	9
Dibenzo(a,h)anthracene	53-70-3		U	0.94	*	ug/L	2	9
Dibenzofuran	132-64-9		U	0.94	*	ug/L	2	9
Diethylphthalate	84-66-2		U	0.94	*	ug/L	2	9
Dimethyl phthalate	131-11-3		U	0.94	*	ug/L	2	9
Di-n-butyl phthalate	84-74-2	7	J	0.94	*	ug/L	2	9
Di-n-octyl phthalate	117-84-0		U	0.94	*	ug/L	2	9
Fluoranthene	206-44-0		U	0.94	*	ug/L	2	9
Fluorene	86-73-7		U	0.94	*	ug/L	2	9
Hexachlorobenzene	118-74-1		U	0.94	*	ug/L	2	9
Hexachlorobutadiene	87-68-3		U	0.94	*	ug/L	2	9
Hexachlorocyclopentadiene	77-47-4		U	0.94	*	ug/L	2	9
Hexachloroethane	67-72-1		U	0.94	*	ug/L	2	9
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.94	*	ug/L	2	9
Isophorone	78-59-1		U	0.94	*	ug/L	2	9
Naphthalene	91-20-3		U	0.94	*	ug/L	2	9
Nitrobenzene	98-95-3		U	0.94	*	ug/L	2	9
N-Nitrosodimethylamine	62-75-9		U	0.94	*	ug/L	9	50
N-Nitrosodi-n-propylamine	621-64-7		U	0.94	*	ug/L	2	9
N-Nitrosodiphenylamine	86-30-6		U	0.94	*	ug/L	2	9
Pentachlorophenol	87-86-5		U	0.94	*	ug/L	9	50
Phenanthrene	85-01-8		U	0.94	*	ug/L	2	9
Phenol	108-95-2		U	0.94	*	ug/L	4	20
Pyrene	129-00-0		U	0.94	*	ug/L	2	9

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
2,4,6-Tribromophenol	118-79-6	78.6	0.94	*	%	45	111
2-Fluorobiphenyl	321-60-8	78	0.94	*	%	35	121
2-Fluorophenol	367-12-4	90.1	0.94	*	%	21	100
Nitrobenzene-d5	4165-60-0	76.6	0.94	*	%	36	117
Phenol-d6	13127-88-3	84.9	0.94	*	%	0	135
Terphenyl-d14	1718-51-0	109.9	0.94	*	%	10	151

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B GC/MS**
Extract Method:

Workgroup: WG255500
Analyst: jjr
Extract Date:
Analysis Date: 11/11/08 12:29

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,1,1,2-Tetrachloroethane	630-20-6		U	1	*	ug/L	4	10
1,1,1-Trichloroethane	71-55-6		U	1	*	ug/L	10	30
1,1,2,2-Tetrachloroethane	79-34-5		U	1	*	ug/L	3	10
1,1,2-Trichloroethane	79-00-5		U	1	*	ug/L	4	10
1,1-Dichloroethane	75-34-3		U	1	*	ug/L	4	10
1,1-Dichloroethene	75-35-4		U	1	*	ug/L	4	10
1,1-Dichloropropene	563-58-6		U	1	*	ug/L	4	10
1,2,3-Trichlorobenzene	87-61-6		U	1	*	ug/L	4	10
1,2,3-Trichloropropane	96-18-4		U	1	*	ug/L	4	10
1,2,4-Trichlorobenzene	120-82-1		U	1	*	ug/L	3	10
1,2,4-Trimethylbenzene	95-63-6		U	1	*	ug/L	4	10
1,2-Dibromo-3-chloropropane	96-12-8		U	1	*	ug/L	4	10
1,2-Dibromoethane	106-93-4		U	1	*	ug/L	4	10
1,2-Dichlorobenzene	95-50-1		U	1	*	ug/L	4	10
1,2-Dichloroethane	107-06-2		U	1	*	ug/L	4	10
1,2-Dichloropropane	78-87-5		U	1	*	ug/L	4	10
1,3,5-Trimethylbenzene	108-67-8		U	1	*	ug/L	4	10
1,3-Dichlorobenzene	541-73-1		U	1	*	ug/L	4	10
1,3-Dichloropropane	142-28-9		U	1	*	ug/L	4	10
1,4-Dichlorobenzene	106-46-7		U	1	*	ug/L	4	10
2,2-Dichloropropane	594-20-7		U	1	*	ug/L	4	10
2-Butanone	78-93-3		U	1	*	ug/L	10	30
2-Chloroethyl vinyl ether	110-75-8		U	1	*	ug/L	5	30
2-Chlorotoluene	95-49-8		U	1	*	ug/L	4	10
2-Hexanone	591-78-6		U	1	*	ug/L	10	30
4-Chlorotoluene	106-43-4		U	1	*	ug/L	4	10
4-Isopropyltoluene	99-87-6		U	1	*	ug/L	4	10
4-Methyl-2-Pentanone	108-10-1		U	1	*	ug/L	10	50
Acetone	67-64-1	20	J	1	*	ug/L	10	30
Acrylonitrile	107-13-1		U	1	*	ug/L	20	40
Benzene	71-43-2		U	1	*	ug/L	4	10
Bromobenzene	108-86-1		U	1	*	ug/L	4	10
Bromochloromethane	74-97-5		U	1	*	ug/L	4	10
Bromodichloromethane	75-27-4		U	1	*	ug/L	4	10
Bromoform	75-25-2		U	1	*	ug/L	4	10
Bromomethane	74-83-9		U	1	*	ug/L	4	10
Carbon Disulfide	75-15-0		U	1	*	ug/L	4	10
Carbon Tetrachloride	56-23-5		U	1	*	ug/L	10	30
Chlorobenzene	108-90-7		U	1	*	ug/L	4	10

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Chloroethane	75-00-3		U	1	*	ug/L	4	10
Chloroform	67-66-3		U	1	*	ug/L	4	10
Chloromethane	74-87-3		U	1	*	ug/L	4	10
cis-1,2-Dichloroethene	156-59-2		U	1	*	ug/L	4	10
cis-1,3-Dichloropropene	10061-01-5		U	1	*	ug/L	4	10
Dibromochloromethane	124-48-1		U	1	*	ug/L	4	10
Dibromomethane	74-95-3		U	1	*	ug/L	4	10
Dichlorodifluoromethane	75-71-8		U	1	*	ug/L	5	20
Ethylbenzene	100-41-4		U	1	*	ug/L	4	10
Hexachlorobutadiene	87-68-3		U	1	*	ug/L	4	10
Isopropylbenzene	98-82-8		U	1	*	ug/L	4	10
m p Xylene	1330-20-7		U	1	*	ug/L	10	30
Methyl Tert Butyl Ether	1634-04-4		U	1	*	ug/L	4	10
Methylene Chloride	75-09-2		U	1	*	ug/L	4	10
Naphthalene	91-20-3		U	1	*	ug/L	3	10
n-Butylbenzene	104-51-8		U	1	*	ug/L	4	10
n-Propylbenzene	103-65-1		U	1	*	ug/L	4	10
o Xylene	95-47- 6		U	1	*	ug/L	4	10
sec-Butylbenzene	135-98-8		U	1	*	ug/L	4	10
Styrene	100-42-5		U	1	*	ug/L	4	10
tert-Butylbenzene	98-06-6		U	1	*	ug/L	4	10
Tetrachloroethene	127-18-4		U	1	*	ug/L	4	10
Toluene	108-88-3		U	1	*	ug/L	4	10
trans-1,2-Dichloroethene	156-60-5		U	1	*	ug/L	4	10
trans-1,3-Dichloropropene	10061-02-6		U	1	*	ug/L	3	10
Trichloroethene	79-01-6		U	1	*	ug/L	5	20
Trichlorofluoromethane	75-69-4		U	1	*	ug/L	4	10
Vinyl Acetate	108-05-4		U	1	*	ug/L	4	10
Vinyl Chloride	75-01-4		U	1	*	ug/L	4	10

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	99.8	1	*	%	70	130
Dibromofluoromethane	1868-53-7	104.9	1	*	%	70	130
Toluene-d8	2037-26-5	101.3	1	*	%	70	130

GeoSystems Analysis
Project ID: 0814
Sample ID: TB110308-2

ACZ Sample ID: ***L72921-03***
Date Sampled: *11/06/08 0:00*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B GC/MS**
Extract Method:

Workgroup: WG255500
Analyst: jjr
Extract Date:
Analysis Date: 11/11/08 12:02

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,1,1,2-Tetrachloroethane	630-20-6		U	1	*	ug/L	4	10
1,1,1-Trichloroethane	71-55-6		U	1	*	ug/L	10	30
1,1,2,2-Tetrachloroethane	79-34-5		U	1	*	ug/L	3	10
1,1,2-Trichloroethane	79-00-5		U	1	*	ug/L	4	10
1,1-Dichloroethane	75-34-3		U	1	*	ug/L	4	10
1,1-Dichloroethene	75-35-4		U	1	*	ug/L	4	10
1,1-Dichloropropene	563-58-6		U	1	*	ug/L	4	10
1,2,3-Trichlorobenzene	87-61-6		U	1	*	ug/L	4	10
1,2,3-Trichloropropane	96-18-4		U	1	*	ug/L	4	10
1,2,4-Trichlorobenzene	120-82-1		U	1	*	ug/L	3	10
1,2,4-Trimethylbenzene	95-63-6		U	1	*	ug/L	4	10
1,2-Dibromo-3-chloropropane	96-12-8		U	1	*	ug/L	4	10
1,2-Dibromoethane	106-93-4		U	1	*	ug/L	4	10
1,2-Dichlorobenzene	95-50-1		U	1	*	ug/L	4	10
1,2-Dichloroethane	107-06-2		U	1	*	ug/L	4	10
1,2-Dichloropropane	78-87-5		U	1	*	ug/L	4	10
1,3,5-Trimethylbenzene	108-67-8		U	1	*	ug/L	4	10
1,3-Dichlorobenzene	541-73-1		U	1	*	ug/L	4	10
1,3-Dichloropropane	142-28-9		U	1	*	ug/L	4	10
1,4-Dichlorobenzene	106-46-7		U	1	*	ug/L	4	10
2,2-Dichloropropane	594-20-7		U	1	*	ug/L	4	10
2-Butanone	78-93-3		U	1	*	ug/L	10	30
2-Chloroethyl vinyl ether	110-75-8		U	1	*	ug/L	5	30
2-Chlorotoluene	95-49-8		U	1	*	ug/L	4	10
2-Hexanone	591-78-6		U	1	*	ug/L	10	30
4-Chlorotoluene	106-43-4		U	1	*	ug/L	4	10
4-Isopropyltoluene	99-87-6		U	1	*	ug/L	4	10
4-Methyl-2-Pentanone	108-10-1		U	1	*	ug/L	10	50
Acetone	67-64-1	20	J	1	*	ug/L	10	30
Acrylonitrile	107-13-1		U	1	*	ug/L	20	40
Benzene	71-43-2		U	1	*	ug/L	4	10
Bromobenzene	108-86-1		U	1	*	ug/L	4	10
Bromochloromethane	74-97-5		U	1	*	ug/L	4	10
Bromodichloromethane	75-27-4		U	1	*	ug/L	4	10
Bromoform	75-25-2		U	1	*	ug/L	4	10
Bromomethane	74-83-9		U	1	*	ug/L	4	10
Carbon Disulfide	75-15-0		U	1	*	ug/L	4	10
Carbon Tetrachloride	56-23-5		U	1	*	ug/L	10	30
Chlorobenzene	108-90-7		U	1	*	ug/L	4	10

GeoSystems Analysis
Project ID: 0814
Sample ID: TB110308-2

ACZ Sample ID: ***L72921-03***
Date Sampled: *11/06/08 0:00*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Chloroethane	75-00-3		U	1	*	ug/L	4	10
Chloroform	67-66-3		U	1	*	ug/L	4	10
Chloromethane	74-87-3		U	1	*	ug/L	4	10
cis-1,2-Dichloroethene	156-59-2		U	1	*	ug/L	4	10
cis-1,3-Dichloropropene	10061-01-5		U	1	*	ug/L	4	10
Dibromochloromethane	124-48-1		U	1	*	ug/L	4	10
Dibromomethane	74-95-3		U	1	*	ug/L	4	10
Dichlorodifluoromethane	75-71-8		U	1	*	ug/L	5	20
Ethylbenzene	100-41-4		U	1	*	ug/L	4	10
Hexachlorobutadiene	87-68-3		U	1	*	ug/L	4	10
Isopropylbenzene	98-82-8		U	1	*	ug/L	4	10
m p Xylene	1330-20-7		U	1	*	ug/L	10	30
Methyl Tert Butyl Ether	1634-04-4		U	1	*	ug/L	4	10
Methylene Chloride	75-09-2		U	1	*	ug/L	4	10
Naphthalene	91-20-3		U	1	*	ug/L	3	10
n-Butylbenzene	104-51-8		U	1	*	ug/L	4	10
n-Propylbenzene	103-65-1		U	1	*	ug/L	4	10
o Xylene	95-47- 6		U	1	*	ug/L	4	10
sec-Butylbenzene	135-98-8		U	1	*	ug/L	4	10
Styrene	100-42-5		U	1	*	ug/L	4	10
tert-Butylbenzene	98-06-6		U	1	*	ug/L	4	10
Tetrachloroethene	127-18-4		U	1	*	ug/L	4	10
Toluene	108-88-3		U	1	*	ug/L	4	10
trans-1,2-Dichloroethene	156-60-5		U	1	*	ug/L	4	10
trans-1,3-Dichloropropene	10061-02-6		U	1	*	ug/L	3	10
Trichloroethene	79-01-6		U	1	*	ug/L	5	20
Trichlorofluoromethane	75-69-4		U	1	*	ug/L	4	10
Vinyl Acetate	108-05-4		U	1	*	ug/L	4	10
Vinyl Chloride	75-01-4		U	1	*	ug/L	4	10

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	100.2	1	*	%	70	130
Dibromofluoromethane	1868-53-7	100.6	1	*	%	70	130
Toluene-d8	2037-26-5	101.6	1	*	%	70	130

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	LFM	Laboratory Fortified Matrix
INTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil
LFB	Laboratory Fortified Blank	PBW	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte detected in daily blank
H	Analysis exceeded method hold time.
J	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality contreol sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
P	Analyte concentration differs from second detector by more than 40%.
E	Analyte concentration is estimated due to result exceeding calibration range.
M	Analyte concentration is estimated due to matrix interferences.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December, 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Organic analyses are reported on an "as received" basis.

GeoSystems Analysis ACZ Project ID: ***L72921***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72921-01	WG256126	*All Compounds*	M8270C GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Benzo(g,h,i)perylene	M8270C GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Bis(2-chloroisopropyl) ether	M8270C GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Indeno(1,2,3-cd)pyrene	M8270C GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
	WG255500	*All Compounds*	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		2-Chloroethyl vinyl ether	M8260B GC/MS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
		Acetone	M8260B GC/MS	N1	See Case Narrative.
		Bromomethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Trichlorofluoromethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
L72921-03	WG255500	*All Compounds*	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		2-Chloroethyl vinyl ether	M8260B GC/MS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
		Acetone	M8260B GC/MS	N1	See Case Narrative.
		Bromomethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Trichlorofluoromethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.

Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.	
Sulfate	375.4 - Turbidimetric
The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.	
Lab Filtration	SM 3030 B

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GeoSystems Analysis
0814

ACZ Project ID: L72921
Date Received: 11/7/2008
Received By:
Date Printed: 11/7/2008

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?	X		
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Is the trip blank for Cyanide present?	X		
12) Is the trip blank for VOA present?	X		
13) Are samples requiring no headspace, headspace free?		X	
14) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

Sample 1 had 2 of 3 vials with Headspace.

Contact (For any discrepancies, the client must be contacted)

The client was not contacted.

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
2433	6	15

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GeoSystems Analysis
0814

ACZ Project ID: L72921
Date Received: 11/7/2008
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L72921-01	MW-1	Y										
L72921-02	TB110308-1									X		
L72921-03	TB110308-2									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

ACZ Laboratories, Inc. L72921

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Meg Buchanan	Address: 2015 N Forbes Blvd Suite 105
Company: Geo Systems Analysis	
E-mail: meg@gsanalysis.com	Telephone: 520-628-9330

Copy of Report to:

Name: SAME AS	E-mail: SAME AS
Company: ABOVE	Telephone: ABOVE

Invoice to:

Name: Leslie Martinez	Address: 2015 N Forbes Blvd Suite 105
Company: Geo Systems Analysis	
E-mail: leslie@gsanalysis.com	Telephone: 520-628-9330

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

PROJECT INFORMATION

Quote #: PHASE 2-5 NUTRIENTS

Project/PO #: 0814

Reporting state for compliance testing: N/A

Sampler's Name: Bob Rice

Are any samples NRC licensable material? NO

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	PHASE 2-5	NUTRIENTS
MW-1	11/6/08 12:45	GW	9	PHASE 2-5	
MW-1-51-65	9/3/08	SO	1		NUTRIENTS
MW-1-65-75	"	SO	1		
MW-1-75-100	"	SO	1		
MW-1-101-120	"	SO	1		
MW-1_121-140	"	SO	1		
MW-1_141-160	"	SO	1		
MW-1-161-185	"	SO	1		
MW-1-185-250	"	SO	1		
TP-12-0-3	7/31/08	SO	1		

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other

REMARKS/ SAMPLE DISCLOSURES

The 250 ml wet chemistry sample for MW-1 was not filtered

Nitrite testing needed ASAP

PAGE 1 of 1

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Bob Rice	11-6-08 14pm		11-7-08 10:01

FRMAD050.03.05.02 White - Return with sample. Yellow - Retain for your records.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

November 25, 2008

Report to:
Meg Buchanan
GeoSystems Analysis
2015 North Forbes Blvd Suite 105
Tucson, AZ 85745

Bill to:
Accounts Payable
GeoSystems Analysis
2015 North Forbes Blvd Suite 105
Tucson, AZ 85745

Project ID: 0814
ACZ Project ID: L72921

Meg Buchanan:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 07, 2008. This project has been assigned to ACZ's project number, L72921. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 12.0. The enclosed results relate only to the samples received under L72921. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after December 25, 2008. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed
and approved this report.

GeoSystems Analysis

November 25, 2008

Project ID: 0814
ACZ Project ID: L72921

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 ground water samples from GeoSystems Analysis on November 7, 2008. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L72921. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

Any analyses not performed within EPA recommended holding times have been qualified with an "H" flag.

Sample Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. The Acetone results have been qualified with the N1 flag. The chemist noted that it recovered in the sample at less than the reporting limit. The control sample was high in Acetone at 136% due to prep lab contribution. No significant impact would be expected.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							11/13/08 11:52	jjg
Total Recoverable Digestion	M200.2 ICP							11/10/08 12:53	jws
Total Recoverable Digestion	M200.2 ICP-MS			*				11/11/08 17:04	jws

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.7 ICP	0.28			mg/L	0.03	0.2	11/11/08 16:33	ear/aeh
Antimony, total recoverable	M200.8 ICP-MS		U		mg/L	0.002	0.01	11/12/08 23:33	rac
Arsenic, total recoverable	M200.8 ICP-MS		U		mg/L	0.003	0.01	11/12/08 23:33	rac
Barium, total recoverable	M200.8 ICP-MS	0.1210		*	mg/L	0.0005	0.003	11/12/08 23:33	rac
Beryllium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/12/08 23:33	rac
Cadmium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/12/08 23:33	rac
Chromium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/14/08 1:47	rac
Copper, total recoverable	M200.8 ICP-MS		U		mg/L	0.003	0.01	11/12/08 23:33	rac
Iron, total recoverable	M200.7 ICP	0.22			mg/L	0.02	0.05	11/11/08 16:33	ear/aeh
Lead, total recoverable	M200.8 ICP-MS		U	*	mg/L	0.0005	0.003	11/12/08 23:33	rac
Manganese, total recoverable	M200.7 ICP		U		mg/L	0.005	0.03	11/11/08 16:33	ear/aeh
Mercury, total	M245.1 CVAA		U		mg/L	0.0002	0.001	11/17/08 16:54	pmc
Nickel, total recoverable	M200.8 ICP-MS	0.003	B		mg/L	0.003	0.02	11/12/08 23:33	rac
Selenium, total recoverable	M200.8 ICP-MS	0.0014	B		mg/L	0.0005	0.003	11/12/08 23:33	rac
Silver, total recoverable	M200.8 ICP-MS		U		mg/L	0.0003	0.001	11/12/08 23:33	rac
Sodium, total recoverable	M200.7 ICP	37.3			mg/L	0.3	2	11/11/08 16:33	ear/aeh
Thallium, total recoverable	M200.8 ICP-MS		U		mg/L	0.0005	0.003	11/12/08 23:33	rac
Zinc, total recoverable	M200.7 ICP		U		mg/L	0.01	0.05	11/11/08 16:33	ear/aeh

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride	SM4500Cl-E	35		*	mg/L	1	5	11/14/08 15:30	aml
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	11/14/08 14:17	neb
Fluoride	SM4500F-C	0.2	B	*	mg/L	0.1	0.5	11/18/08 17:22	gkj
Lab Filtration	SM 3030 B			*				11/07/08 15:32	kah
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	6.57			mg/L	0.06	0.3	11/24/08 9:49	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	6.57	H	*	mg/L	0.06	0.3	11/08/08 17:34	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		UH	*	mg/L	0.01	0.05	11/08/08 16:47	pjb
pH (lab)	SM4500H+ B								
pH		7.8	H		units	0.1	0.1	11/13/08 0:00	gkj
pH measured at		23.0			C	0.1	0.1	11/13/08 0:00	gkj
Residue, Filterable (TDS) @180C	SM2540C	430			mg/L	10	20	11/12/08 13:36	abm
Sulfate	375.4 - Turbidimetric	96		*	mg/L	5	30	11/14/08 12:31	aml

Arizona license number: AZ0102

GeoSystems Analysis
Project ID: 0814
Sample ID: TB110308-1

ACZ Sample ID: ***L72921-02***
Date Sampled: *11/06/08 00:00*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							11/13/08 12:25	jjg

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	11/14/08 14:19	neb

Arizona license number: AZ0102

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.

GeoSystems Analysis ACZ Project ID: ***L72921***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72921-01	WG255503	Total Recoverable Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG255618	Barium, total recoverable	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
		Lead, total recoverable	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG255759	Chloride	SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255774	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255906	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255399	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG255757	Sulfate	375.4 - Turbidimetric	M4	The spiked sample required a dilution such that the spike recovery calculation does not provide useful information. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72921-02	WG255774	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Base Neutral Acid Extractables by GC/MS

Analysis Method: **M8270C GC/MS**
Extract Method: **M3520C**

Workgroup: WG256126
Analyst: djt
Extract Date: 11/12/08 10:30
Analysis Date: 11/18/08 18:15

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,2,4-Trichlorobenzene	120-82-1		U	0.94	*	ug/L	2	9
1,2-Dichlorobenzene	95-50-1		U	0.94	*	ug/L	2	9
1,3-Dichlorobenzene	541-73-1		U	0.94	*	ug/L	2	9
1,4-Dichlorobenzene	106-46-7		U	0.94	*	ug/L	2	9
2,4,5-Trichlorophenol	95-95-4		U	0.94	*	ug/L	9	50
2,4,6-Trichlorophenol	88-06-2		U	0.94	*	ug/L	2	9
2,4-Dichlorophenol	120-83-2		U	0.94	*	ug/L	2	9
2,4-Dimethylphenol	105-67-9		U	0.94	*	ug/L	4	20
2,4-Dinitrophenol	51-28-5		U	0.94	*	ug/L	20	50
2,4-Dinitrotoluene	121-14-2		U	0.94	*	ug/L	2	9
2,6-Dinitrotoluene	606-20-8		U	0.94	*	ug/L	9	50
2-Chloronaphthalene	91-58-7		U	0.94	*	ug/L	2	9
2-Chlorophenol	95-57-8		U	0.94	*	ug/L	2	9
2-Methylnaphthalene	91-57-6		U	0.94	*	ug/L	2	9
2-Methylphenol	95-48-7		U	0.94	*	ug/L	2	9
2-Nitroaniline	88-74-4		U	0.94	*	ug/L	9	50
2-Nitrophenol	88-75-5		U	0.94	*	ug/L	4	20
3- & 4-Methylphenol	1319-77-3		U	0.94	*	ug/L	4	20
3,3-Dichlorobenzidine	91-94-1		U	0.94	*	ug/L	4	20
3-Nitroaniline	99-09-2		U	0.94	*	ug/L	9	50
4,6-Dinitro-2-methylphenol	534-52-1		U	0.94	*	ug/L	9	50
4-Bromophenyl phenyl ether	101-55-3		U	0.94	*	ug/L	2	9
4-Chloro-3-methylphenol	59-50-7		U	0.94	*	ug/L	2	9
4-Chloroaniline	106-47-8		U	0.94	*	ug/L	2	9
4-Chlorophenyl phenyl ether	7005-72-3		U	0.94	*	ug/L	2	9
4-Nitroaniline	100-01-6		U	0.94	*	ug/L	9	50
4-Nitrophenol	100-02-07		U	0.94	*	ug/L	9	50
Acenaphthene	83-32-9		U	0.94	*	ug/L	2	9
Acenaphthylene	208-96-8		U	0.94	*	ug/L	2	9
Aniline			U	0.94	*	ug/L	4	20
Anthracene	120-12-7		U	0.94	*	ug/L	2	9
Azobenzene	103-33-3		U	0.94	*	ug/L	9	50
Benzo(a)anthracene	56-55-3		U	0.94	*	ug/L	2	9
Benzo(a)pyrene	50-32-8		U	0.94	*	ug/L	2	9
Benzo(b)fluoranthene	205-99-2		U	0.94	*	ug/L	2	9
Benzo(g,h,i)perylene	191-24-2		U	0.94	*	ug/L	2	9
Benzo(k)fluoranthene	207-08-9		U	0.94	*	ug/L	2	9
Benzoic acid	65-85-0		U	0.94	*	ug/L	9	50
Benzyl alcohol	100-51-6		U	0.94	*	ug/L	2	9

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Bis(2-chloroethoxy)methane	111-91-1		U	0.94	*	ug/L	2	9
Bis(2-chloroethyl) ether	111-44-4		U	0.94	*	ug/L	2	9
Bis(2-chloroisopropyl) ether	108-60-1		U	0.94	*	ug/L	2	9
Bis(2-ethylhexyl) phthalate	117-81-7		U	0.94	*	ug/L	4	20
Butyl benzyl phthalate	85-68-7		U	0.94	*	ug/L	2	9
Chrysene	218-01-9		U	0.94	*	ug/L	2	9
Dibenzo(a,h)anthracene	53-70-3		U	0.94	*	ug/L	2	9
Dibenzofuran	132-64-9		U	0.94	*	ug/L	2	9
Diethylphthalate	84-66-2		U	0.94	*	ug/L	2	9
Dimethyl phthalate	131-11-3		U	0.94	*	ug/L	2	9
Di-n-butyl phthalate	84-74-2	7	J	0.94	*	ug/L	2	9
Di-n-octyl phthalate	117-84-0		U	0.94	*	ug/L	2	9
Fluoranthene	206-44-0		U	0.94	*	ug/L	2	9
Fluorene	86-73-7		U	0.94	*	ug/L	2	9
Hexachlorobenzene	118-74-1		U	0.94	*	ug/L	2	9
Hexachlorobutadiene	87-68-3		U	0.94	*	ug/L	2	9
Hexachlorocyclopentadiene	77-47-4		U	0.94	*	ug/L	2	9
Hexachloroethane	67-72-1		U	0.94	*	ug/L	2	9
Indeno(1,2,3-cd)pyrene	193-39-5		U	0.94	*	ug/L	2	9
Isophorone	78-59-1		U	0.94	*	ug/L	2	9
Naphthalene	91-20-3		U	0.94	*	ug/L	2	9
Nitrobenzene	98-95-3		U	0.94	*	ug/L	2	9
N-Nitrosodimethylamine	62-75-9		U	0.94	*	ug/L	9	50
N-Nitrosodi-n-propylamine	621-64-7		U	0.94	*	ug/L	2	9
N-Nitrosodiphenylamine	86-30-6		U	0.94	*	ug/L	2	9
Pentachlorophenol	87-86-5		U	0.94	*	ug/L	9	50
Phenanthrene	85-01-8		U	0.94	*	ug/L	2	9
Phenol	108-95-2		U	0.94	*	ug/L	4	20
Pyrene	129-00-0		U	0.94	*	ug/L	2	9

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
2,4,6-Tribromophenol	118-79-6	78.6	0.94	*	%	45	111
2-Fluorobiphenyl	321-60-8	78	0.94	*	%	35	121
2-Fluorophenol	367-12-4	90.1	0.94	*	%	21	100
Nitrobenzene-d5	4165-60-0	76.6	0.94	*	%	36	117
Phenol-d6	13127-88-3	84.9	0.94	*	%	0	135
Terphenyl-d14	1718-51-0	109.9	0.94	*	%	10	151

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B GC/MS**
Extract Method:

Workgroup: WG255500
Analyst: jjr
Extract Date:
Analysis Date: 11/11/08 12:29

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,1,1,2-Tetrachloroethane	630-20-6		U	1	*	ug/L	4	10
1,1,1-Trichloroethane	71-55-6		U	1	*	ug/L	10	30
1,1,2,2-Tetrachloroethane	79-34-5		U	1	*	ug/L	3	10
1,1,2-Trichloroethane	79-00-5		U	1	*	ug/L	4	10
1,1-Dichloroethane	75-34-3		U	1	*	ug/L	4	10
1,1-Dichloroethene	75-35-4		U	1	*	ug/L	4	10
1,1-Dichloropropene	563-58-6		U	1	*	ug/L	4	10
1,2,3-Trichlorobenzene	87-61-6		U	1	*	ug/L	4	10
1,2,3-Trichloropropane	96-18-4		U	1	*	ug/L	4	10
1,2,4-Trichlorobenzene	120-82-1		U	1	*	ug/L	3	10
1,2,4-Trimethylbenzene	95-63-6		U	1	*	ug/L	4	10
1,2-Dibromo-3-chloropropane	96-12-8		U	1	*	ug/L	4	10
1,2-Dibromoethane	106-93-4		U	1	*	ug/L	4	10
1,2-Dichlorobenzene	95-50-1		U	1	*	ug/L	4	10
1,2-Dichloroethane	107-06-2		U	1	*	ug/L	4	10
1,2-Dichloropropane	78-87-5		U	1	*	ug/L	4	10
1,3,5-Trimethylbenzene	108-67-8		U	1	*	ug/L	4	10
1,3-Dichlorobenzene	541-73-1		U	1	*	ug/L	4	10
1,3-Dichloropropane	142-28-9		U	1	*	ug/L	4	10
1,4-Dichlorobenzene	106-46-7		U	1	*	ug/L	4	10
2,2-Dichloropropane	594-20-7		U	1	*	ug/L	4	10
2-Butanone	78-93-3		U	1	*	ug/L	10	30
2-Chloroethyl vinyl ether	110-75-8		U	1	*	ug/L	5	30
2-Chlorotoluene	95-49-8		U	1	*	ug/L	4	10
2-Hexanone	591-78-6		U	1	*	ug/L	10	30
4-Chlorotoluene	106-43-4		U	1	*	ug/L	4	10
4-Isopropyltoluene	99-87-6		U	1	*	ug/L	4	10
4-Methyl-2-Pentanone	108-10-1		U	1	*	ug/L	10	50
Acetone	67-64-1	20	J	1	*	ug/L	10	30
Acrylonitrile	107-13-1		U	1	*	ug/L	20	40
Benzene	71-43-2		U	1	*	ug/L	4	10
Bromobenzene	108-86-1		U	1	*	ug/L	4	10
Bromochloromethane	74-97-5		U	1	*	ug/L	4	10
Bromodichloromethane	75-27-4		U	1	*	ug/L	4	10
Bromoform	75-25-2		U	1	*	ug/L	4	10
Bromomethane	74-83-9		U	1	*	ug/L	4	10
Carbon Disulfide	75-15-0		U	1	*	ug/L	4	10
Carbon Tetrachloride	56-23-5		U	1	*	ug/L	10	30
Chlorobenzene	108-90-7		U	1	*	ug/L	4	10

GeoSystems Analysis
Project ID: 0814
Sample ID: MW-1

ACZ Sample ID: ***L72921-01***
Date Sampled: *11/06/08 12:45*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Chloroethane	75-00-3		U	1	*	ug/L	4	10
Chloroform	67-66-3		U	1	*	ug/L	4	10
Chloromethane	74-87-3		U	1	*	ug/L	4	10
cis-1,2-Dichloroethene	156-59-2		U	1	*	ug/L	4	10
cis-1,3-Dichloropropene	10061-01-5		U	1	*	ug/L	4	10
Dibromochloromethane	124-48-1		U	1	*	ug/L	4	10
Dibromomethane	74-95-3		U	1	*	ug/L	4	10
Dichlorodifluoromethane	75-71-8		U	1	*	ug/L	5	20
Ethylbenzene	100-41-4		U	1	*	ug/L	4	10
Hexachlorobutadiene	87-68-3		U	1	*	ug/L	4	10
Isopropylbenzene	98-82-8		U	1	*	ug/L	4	10
m p Xylene	1330-20-7		U	1	*	ug/L	10	30
Methyl Tert Butyl Ether	1634-04-4		U	1	*	ug/L	4	10
Methylene Chloride	75-09-2		U	1	*	ug/L	4	10
Naphthalene	91-20-3		U	1	*	ug/L	3	10
n-Butylbenzene	104-51-8		U	1	*	ug/L	4	10
n-Propylbenzene	103-65-1		U	1	*	ug/L	4	10
o Xylene	95-47- 6		U	1	*	ug/L	4	10
sec-Butylbenzene	135-98-8		U	1	*	ug/L	4	10
Styrene	100-42-5		U	1	*	ug/L	4	10
tert-Butylbenzene	98-06-6		U	1	*	ug/L	4	10
Tetrachloroethene	127-18-4		U	1	*	ug/L	4	10
Toluene	108-88-3		U	1	*	ug/L	4	10
trans-1,2-Dichloroethene	156-60-5		U	1	*	ug/L	4	10
trans-1,3-Dichloropropene	10061-02-6		U	1	*	ug/L	3	10
Trichloroethene	79-01-6		U	1	*	ug/L	5	20
Trichlorofluoromethane	75-69-4		U	1	*	ug/L	4	10
Vinyl Acetate	108-05-4		U	1	*	ug/L	4	10
Vinyl Chloride	75-01-4		U	1	*	ug/L	4	10

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	99.8	1	*	%	70	130
Dibromofluoromethane	1868-53-7	104.9	1	*	%	70	130
Toluene-d8	2037-26-5	101.3	1	*	%	70	130

GeoSystems Analysis
Project ID: 0814
Sample ID: TB110308-2

ACZ Sample ID: ***L72921-03***
Date Sampled: *11/06/08 0:00*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B GC/MS**
Extract Method:

Workgroup: WG255500
Analyst: jjr
Extract Date:
Analysis Date: 11/11/08 12:02

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
1,1,1,2-Tetrachloroethane	630-20-6		U	1	*	ug/L	4	10
1,1,1-Trichloroethane	71-55-6		U	1	*	ug/L	10	30
1,1,2,2-Tetrachloroethane	79-34-5		U	1	*	ug/L	3	10
1,1,2-Trichloroethane	79-00-5		U	1	*	ug/L	4	10
1,1-Dichloroethane	75-34-3		U	1	*	ug/L	4	10
1,1-Dichloroethene	75-35-4		U	1	*	ug/L	4	10
1,1-Dichloropropene	563-58-6		U	1	*	ug/L	4	10
1,2,3-Trichlorobenzene	87-61-6		U	1	*	ug/L	4	10
1,2,3-Trichloropropane	96-18-4		U	1	*	ug/L	4	10
1,2,4-Trichlorobenzene	120-82-1		U	1	*	ug/L	3	10
1,2,4-Trimethylbenzene	95-63-6		U	1	*	ug/L	4	10
1,2-Dibromo-3-chloropropane	96-12-8		U	1	*	ug/L	4	10
1,2-Dibromoethane	106-93-4		U	1	*	ug/L	4	10
1,2-Dichlorobenzene	95-50-1		U	1	*	ug/L	4	10
1,2-Dichloroethane	107-06-2		U	1	*	ug/L	4	10
1,2-Dichloropropane	78-87-5		U	1	*	ug/L	4	10
1,3,5-Trimethylbenzene	108-67-8		U	1	*	ug/L	4	10
1,3-Dichlorobenzene	541-73-1		U	1	*	ug/L	4	10
1,3-Dichloropropane	142-28-9		U	1	*	ug/L	4	10
1,4-Dichlorobenzene	106-46-7		U	1	*	ug/L	4	10
2,2-Dichloropropane	594-20-7		U	1	*	ug/L	4	10
2-Butanone	78-93-3		U	1	*	ug/L	10	30
2-Chloroethyl vinyl ether	110-75-8		U	1	*	ug/L	5	30
2-Chlorotoluene	95-49-8		U	1	*	ug/L	4	10
2-Hexanone	591-78-6		U	1	*	ug/L	10	30
4-Chlorotoluene	106-43-4		U	1	*	ug/L	4	10
4-Isopropyltoluene	99-87-6		U	1	*	ug/L	4	10
4-Methyl-2-Pentanone	108-10-1		U	1	*	ug/L	10	50
Acetone	67-64-1	20	J	1	*	ug/L	10	30
Acrylonitrile	107-13-1		U	1	*	ug/L	20	40
Benzene	71-43-2		U	1	*	ug/L	4	10
Bromobenzene	108-86-1		U	1	*	ug/L	4	10
Bromochloromethane	74-97-5		U	1	*	ug/L	4	10
Bromodichloromethane	75-27-4		U	1	*	ug/L	4	10
Bromoform	75-25-2		U	1	*	ug/L	4	10
Bromomethane	74-83-9		U	1	*	ug/L	4	10
Carbon Disulfide	75-15-0		U	1	*	ug/L	4	10
Carbon Tetrachloride	56-23-5		U	1	*	ug/L	10	30
Chlorobenzene	108-90-7		U	1	*	ug/L	4	10

GeoSystems Analysis
Project ID: 0814
Sample ID: TB110308-2

ACZ Sample ID: ***L72921-03***
Date Sampled: *11/06/08 0:00*
Date Received: *11/07/08*
Sample Matrix: *Ground Water*

Chloroethane	75-00-3		U	1	*	ug/L	4	10
Chloroform	67-66-3		U	1	*	ug/L	4	10
Chloromethane	74-87-3		U	1	*	ug/L	4	10
cis-1,2-Dichloroethene	156-59-2		U	1	*	ug/L	4	10
cis-1,3-Dichloropropene	10061-01-5		U	1	*	ug/L	4	10
Dibromochloromethane	124-48-1		U	1	*	ug/L	4	10
Dibromomethane	74-95-3		U	1	*	ug/L	4	10
Dichlorodifluoromethane	75-71-8		U	1	*	ug/L	5	20
Ethylbenzene	100-41-4		U	1	*	ug/L	4	10
Hexachlorobutadiene	87-68-3		U	1	*	ug/L	4	10
Isopropylbenzene	98-82-8		U	1	*	ug/L	4	10
m p Xylene	1330-20-7		U	1	*	ug/L	10	30
Methyl Tert Butyl Ether	1634-04-4		U	1	*	ug/L	4	10
Methylene Chloride	75-09-2		U	1	*	ug/L	4	10
Naphthalene	91-20-3		U	1	*	ug/L	3	10
n-Butylbenzene	104-51-8		U	1	*	ug/L	4	10
n-Propylbenzene	103-65-1		U	1	*	ug/L	4	10
o Xylene	95-47- 6		U	1	*	ug/L	4	10
sec-Butylbenzene	135-98-8		U	1	*	ug/L	4	10
Styrene	100-42-5		U	1	*	ug/L	4	10
tert-Butylbenzene	98-06-6		U	1	*	ug/L	4	10
Tetrachloroethene	127-18-4		U	1	*	ug/L	4	10
Toluene	108-88-3		U	1	*	ug/L	4	10
trans-1,2-Dichloroethene	156-60-5		U	1	*	ug/L	4	10
trans-1,3-Dichloropropene	10061-02-6		U	1	*	ug/L	3	10
Trichloroethene	79-01-6		U	1	*	ug/L	5	20
Trichlorofluoromethane	75-69-4		U	1	*	ug/L	4	10
Vinyl Acetate	108-05-4		U	1	*	ug/L	4	10
Vinyl Chloride	75-01-4		U	1	*	ug/L	4	10

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	100.2	1	*	%	70	130
Dibromofluoromethane	1868-53-7	100.6	1	*	%	70	130
Toluene-d8	2037-26-5	101.6	1	*	%	70	130

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	LFM	Laboratory Fortified Matrix
INTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil
LFB	Laboratory Fortified Blank	PBW	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte detected in daily blank
H	Analysis exceeded method hold time.
J	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality contreol sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
P	Analyte concentration differs from second detector by more than 40%.
E	Analyte concentration is estimated due to result exceeding calibration range.
M	Analyte concentration is estimated due to matrix interferences.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December, 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Organic analyses are reported on an "as received" basis.

GeoSystems Analysis ACZ Project ID: ***L72921***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72921-01	WG256126	*All Compounds*	M8270C GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Benzo(g,h,i)perylene	M8270C GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Bis(2-chloroisopropyl) ether	M8270C GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Indeno(1,2,3-cd)pyrene	M8270C GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
	WG255500	*All Compounds*	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		2-Chloroethyl vinyl ether	M8260B GC/MS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
		Acetone	M8260B GC/MS	N1	See Case Narrative.
		Bromomethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Trichlorofluoromethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
L72921-03	WG255500	*All Compounds*	M8260B GC/MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		2-Chloroethyl vinyl ether	M8260B GC/MS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
		Acetone	M8260B GC/MS	N1	See Case Narrative.
		Bromomethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.
		Trichlorofluoromethane	M8260B GC/MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M8260B GC/MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
			M8260B GC/MS	VD	CCV recovery was outside of the acceptance limits. CCC and SPCC compounds met the method acceptance criteria.

Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.	
Sulfate	375.4 - Turbidimetric
The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.	
Lab Filtration	SM 3030 B

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GeoSystems Analysis
0814

ACZ Project ID: L72921
Date Received: 11/7/2008
Received By:
Date Printed: 11/7/2008

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?	X		
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Is the trip blank for Cyanide present?	X		
12) Is the trip blank for VOA present?	X		
13) Are samples requiring no headspace, headspace free?		X	
14) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

Sample 1 had 2 of 3 vials with Headspace.

Contact (For any discrepancies, the client must be contacted)

The client was not contacted.

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
2433	6	15

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

GeoSystems Analysis
0814

ACZ Project ID: L72921
Date Received: 11/7/2008
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L72921-01	MW-1	Y										
L72921-02	TB110308-1									X		
L72921-03	TB110308-2									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

ACZ Laboratories, Inc. L72921

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Meg Buchanan	Address: 2015 N Forbes Blvd Suite 105
Company: Geo Systems Analysis	
E-mail: meg@gsanalysis.com	Telephone: 520-628-9330

Copy of Report to:

Name: SAME AS	E-mail: SAME AS
Company: ABOVE	Telephone: ABOVE

Invoice to:

Name: Leslie Martinez	Address: 2015 N Forbes Blvd Suite 105
Company: Geo Systems Analysis	
E-mail: leslie@gsanalysis.com	Telephone: 520-628-9330

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

PROJECT INFORMATION

Quote #: PHASE 2-5 NUTRIENTS

Project/PO #: 0814

Reporting state for compliance testing: N/A

Sampler's Name: Bob Rice

Are any samples NRC licensable material? NO

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	PHASE 2-5	NUTRIENTS
MW-1	11/6/08 12:45	GW	9	PHASE 2-5	
MW-1-51-65	9/3/08	SO	1		NUTRIENTS
MW-1-65-75	"	SO	1		
MW-1-75-100	"	SO	1		
MW-1-101-120	"	SO	1		
MW-1_121-140	"	SO	1		
MW-1_141-160	"	SO	1		
MW-1-161-185	"	SO	1		
MW-1-185-250	"	SO	1		
TP-12-0-3	7/31/08	SO	1		

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other

REMARKS/ SAMPLE DISCLOSURES

The 250 ml wet chemistry sample for MW-1 was not filtered

Nitrite testing needed ASAP

PAGE 1 of 1

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Bob Rice	11-6-08 14pm		11-7-08 10:01

FRMAD050.03.05.02 White - Return with sample. Yellow - Retain for your records.