REPORT
March 15, 2012

Prepared for: Resolution Copper Mining

Results of Hydrochemical Characterization of Groundwater Upper Queen Creek/Devils Canyon Study Area

Resolution Copper Mining LLC, Pinal County, AZ

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RESULTS OF HYDROCHEMICAL CHARACTERIZATION OF GROUNDWATER UPPER QUEEN CREEK/DEVILS CANYON STUDY AREA RESOLUTION COPPER MINING LLC, PINAL COUNTY, ARIZONA

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RESULTS OF HYDROCHEMICAL CHARACTERIZATION UPPER QUEEN CREEK/DEVILS CANYON STUDY AREA RESOLUTION COPPER MINING LLC, PINAL COUNTY, ARIZONA

1.0 EXECUTIVE SUMMARY

1. Hydrochemical sampling of groundwater started with characterization samples collected as monitor wells were drilled, completed, and tested beginning in 2004. This level of well-by-well sampling is on-going and all new wells are sampled both for screening during construction and development, and for characterization once a pumping test is conducted.

2. In addition to the well-by-well hydrochemical sampling, six consecutive quarterly sampling rounds were conducted in 2008 and the first half of 2009. In the third quarter of 2008 and the first two quarters of 2009, coordinated groundwater/surface water sampling rounds were conducted in collaboration with Golder Associates.

3. Samples were collected for a full hydrochemical and isotopic suite including:
    - Routine parameters and common constituents
    - Trace constituents
    - Radiological constituents
    - Deuterium and oxygen-18 in water
    - Sulfur-34 and oxygen-18 in dissolved sulfate
    - Carbon-13
    - Carbon-14
    - Tritium
    - Strontium concentration and $^{87}Sr/^{86}Sr$ ratio
    - Uranium concentration and isotopes (^{234}U, ^{235}U, ^{238}U)

4. In February 2010 Montgomery & Associates (M&A) published a report entitled "Interim Results of Groundwater Monitoring, Upper Queen Creek and Devils Canyon Watersheds" (M&A 2010) which reported all hydrochemical and isotopic data available through the second quarter of 2009. Discussion presented in that report was based on all

available hydrochemical data but only incorporated interpretation of isotopic data from the first coordinated surface water/groundwater round in the third quarter of 2008.

5. The current report presents hydrochemical and isotopic data collected since M&A (2010) was published and interpretations based on analysis of data available through December 2011.

1.1 CONCLUSIONS

In this section a brief synopsis of current understanding is presented for each aquifer or groundwater system and any revisions to conclusions presented in M&A (2010) are highlighted.

Shallow Groundwater System

1. Incorporation of new data support current understanding of the shallow groundwater system:

   a. For the constituents measured, shallow groundwater meets the United States Environmental Protection Agency (U.S. EPA) National Primary Drinking Water Regulations (NPDWR), and the State of Arizona Numeric Aquifer Water Quality Standards (AWQS) with the exception of two samples taken from JI Ranch Corral Well that exceed the NPDWR for nitrogen (NO_3 + NO_2 as N).

   b. Shallow groundwater meets the majority of the U.S. EPA National Secondary Drinking Water Regulations (NSDWR) with the exception of several samples that are out of compliance with the NSDWR for sulfate, total dissolved solids, pH, iron, and manganese.

   c. Impacts to shallow groundwater at JI Ranch are likely due to local agriculture, regional mineralization, and/or historical mining and mineral processing activities in the region.

   d. The shallow groundwater system is currently recharged by local rainfall runoff with some degree of evaporation occurring during recharge.

   e. Mean groundwater residence times are short in the Hackberry Canyon alluvium, on the order of less than 5 to perhaps as much as 10 years. Residence times are longer at JI Ranch, perhaps as long as 700 years in the deeper part of the shallow aquifer hosted in the upper weathered portion of the Apache Leap Tuff (Tal).

f. It does not appear that substantial amounts of water move vertically to the Apache Leap Tuff (ALT) aquifer from the alluvial deposits that host shallow groundwater at JI Ranch.

2. Seasonal variability in hydrochemical composition of shallow groundwater is small at Hackberry Windmill but more substantial at JI Ranch. Variability in water quality at the JI Ranch wells is likely due to local agricultural and residential inputs, and historical mining and mineral processing activities in the region.

Apache Leap Tuff Aquifer

1. Incorporation of new hydrochemical data largely confirmed current understanding of occurrence and movement of groundwater in the ALT aquifer. New data from the Mineral Creek watershed have broadened understanding of the ALT aquifer. The current conceptual model contains the following elements:

   a. For the constituents measured, groundwater sampled from the ALT aquifer in Resolution Project area meets U.S. EPA NPDWR and State of Arizona AWQS. A substantial number of groundwater samples collected from the ALT aquifer are out of compliance with U.S. EPA NSDWR with the main constituents of concern being manganese, iron, and pH.

   b. The ALT aquifer is recharged by infiltration of precipitation and of precipitation-driven runoff. Recharge to the aquifer results from fast-path infiltration along principal drainage ways.

   c. Residence times in the central ALT aquifer (Oak Flat and east Devils Canyon areas) appear to be on the order of 3,000 to 5,000 years; groundwater with shorter residence times (on the order of 1,000 to 2,000 years) occurs in the ALT aquifer along Queen Creek and Iron Canyon.

   d. The ALT aquifer discharges at springs and along stream channels associated with the perennial reaches of Devils Canyon and Mineral Creek.

2. Additions to the conceptual model of groundwater flow and recharge/discharge relationships within the ALT aquifer include:

   a. Recharge to the ALT aquifer occurs along Lyon's Fork of Mineral Creek. Water entering the ALT along Lyon's Fork appears to have interacted with the Precambrian and Younger Precambrian geologic units of the upper Mineral Creek watershed.

   b. Groundwater sampled at HRES-10 and CT Well along Lyon's Fork is modern in age consistent with active recharge of recent precipitation-driven runoff to the ALT aquifer in this area.

c. Precipitation that lands on the ALT outcrop belt enters one of two infiltration domains: (1) a shallow circulation system in which water enters near-surface fractures where it is subject to evaporation and transpiration, and from which it may discharge to the surface over the days and weeks following a precipitation event; and, (2) deep infiltration through fast preferential flow paths that results in recharge to the ALT aquifer.

d. Analysis of temporal variability indicates that the major-ion chemistry of the ALT aquifer at six wells exhibits negligible seasonal or annual variability.

Deep Groundwater System

1. Since M&A (2010) was published the extent of the deep groundwater system as defined for the Resolution Project area has been enlarged to include several groundwater domains that encompass a variety of geologic units. The system consists of:

   - *Deep groundwater within the Resolution Graben.* The Resolution Graben hosts the Resolution ore body; a series of regional faults offsets the rocks within the graben from those units that are located outside the graben. Within the Resolution Graben the deep groundwater system is hydraulically connected to existing mine workings and a clear hydraulic response to ongoing dewatering of the mine workings is observed.
   - *Deep groundwater east of the Concentrator Fault but outside the Resolution Graben.* Graben-bounding faults appear to limit hydraulic communication between the deep groundwater system outside the graben and the deep groundwater system within the graben. Water levels are substantially higher outside the graben and no response to dewatering of the existing mine workings has been observed to date.
   - *Deep groundwater system west of the Concentrator Fault.* This system is hosted in low permeability Tertiary basin-fill deposits and fractured Tertiary volcanic rocks that occur west of the Concentrator Fault. Hydraulic connection between the deep groundwater system west of the Concentrator Fault and the deep groundwater system east of the Concentrator Fault appears to be limited; to date no response to dewatering of the existing mine workings has been observed in wells west of the Concentrator Fault.

2. Several samples from the deep groundwater system are out of compliance with U.S. EPA NPDWR and State of Arizona AWQS for the radiological constituents: gross alpha, gross beta, and/or radium (Ra-226 + Ra-228). In addition, exceedances of the NPDWR and/or AWQS for antimony, arsenic, chromium, copper, fluoride, and lead are occasionally observed in samples from the deep groundwater system.

3. A substantial proportion of deep groundwater samples are out of compliance with U.S. EPA NSDWR with the main constituents of concern being manganese, iron, aluminum, fluoride, sulfate, and total dissolved solids

4. Common ion composition of groundwater sampled from the deep groundwater system varies depending on the geologic units present at each sampling location.

5. The deep groundwater system is recharged by infiltration of meteoric water.

6. There is no evidence of active recharge to the deep groundwater system from the surface at any of the deep groundwater sampling locations with the exception of well DHRES-09. Groundwater sampled from Younger Precambrian Dripping Spring Quartzite and Diabase east of the Concentrator Fault and west of the Main Fault (well DHRES-09) yields an estimated mean residence time on the order of 1000 to 2000 years and appears to contain a component of recent recharge. Estimated mean groundwater residence times for the other deep groundwater domains are as follows:

    - Groundwater collected from Cretaceous volcaniclastic rocks within the Resolution Graben yields estimated mean residence times on the order of 6,000 to 12,000 years (wells DHRES-01, DHRES-02, RES-009)
    - Groundwater collected from Paleozoic carbonate rocks east of the Concentrator Fault yields an estimated mean residence time on the order of 15,000 years (well DHRES-06)
    - Groundwater collected from Tertiary volcanic rocks west of the Concentrator Fault yields an estimated mean residence time on the order of 14,000 years (well DHRES-04)
    - Groundwater collected from younger Precambrian Dripping Spring Quartzite, Mescal Limestone, and Diabase east of the Concentrator Fault and northeast of the Resolution Graben yields an estimated residence time on the order of 19,000 years (well DHRES-11)
    - Groundwater collected from younger Precambrian Dripping Spring Quartzite, Pioneer Shale, and Diabase and Older Precambrian Pinal Schist to the east of the Concentrator fault but southwest of the Resolution Graben yields an estimated residence time on the order of 7,000 years (well DHRES-13)

1.2 RECOMMENDATIONS

Based on review and analysis of the results of the 2004-2011 RCM groundwater hydrochemical monitoring program, M&A has the following recommendations:

1. One comprehensive sampling round of all ALT aquifer wells equipped with pumping assemblies should be conducted. This comprehensive round should be coordinated

with sampling of surface water and spring locations. Ideally this effort should occur during May or June in order for surface water data to represent baseflow conditions.

2. Subsequently all ALT aquifer wells drilled in 2010 and 2011 should be sampled for three additional consecutive quarters (i.e. for four consecutive quarters including the initial comprehensive round).

3. Where practicable, additional chemistry samples should be collected from wells completed in the deep groundwater system in order to confirm findings that are currently based on a single sample from each deep groundwater system well (except DHRES-02 where data from four samples are available).

4. Samples from ALT aquifer wells drilled in 2010 and 2011 collected during both the comprehensive round and the quarterly sampling should be analyzed for the full hydrochemical and isotopic suite defined as:

    - Routine parameters and common constituents
    - Trace constituents including total and dissolved metals, cyanide, and sulfide
    - Radiological constituents
    - Deuterium and oxygen-18 in water
    - Sulfur-34 and oxygen-18 in dissolved sulfate
    - Carbon-13 in dissolved inorganic carbon
    - Carbon-14 in dissolved inorganic carbon
    - Tritium
    - Strontium concentration and $^{87}Sr/^{86}Sr$ ratio
    - Uranium concentration and isotopes (^{234}U, ^{235}U, ^{238}U)

Based on the results of this sampling (specifically whether there is any indication of substantial temporal variability) further baseline sampling may be recommended.

5. Surface water samples and samples collected from ALT aquifer wells that have previously been sampled for six consecutive quarters (HRES-04, HRES-05, HRES-06, HRES-07, A-06, and MJ-11) should be analyzed for the suite defined in Item (4) above with the exception of radiological constituents and uranium concentration and isotopes.

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2.0 INTRODUCTION

At the request of Mr. Greg Ghidotti, Resolution Copper Mining LLC (RCM), Montgomery & Associates (M&A) has prepared this report as an addendum to an earlier report entitled "Interim Results of Groundwater Monitoring, Upper Queen Creek and Devils Canyon Watersheds" published February 17, 2010 (M&A, 2010). The objectives of this report are to:

1. Report all groundwater hydrochemical data generated through December 2011 by the ongoing hydrogeologic characterization program
2. Report all surface water hydrochemical data generated through December 2011 during baseline studies and by the ongoing hydrogeologic characterization program
3. Update plots and graphs provided in M&A (2010) with current data
4. Present time-series plots of common ion data for groundwater and surface water sampling locations
5. Assess new data in light of the current hydrogeologic conceptual model and highlight any changes made in consideration of new data

Hydrochemical sampling was undertaken by RCM in order to refine the conceptual hydrogeologic model for the Apache Leap Tuff (ALT) aquifer and adjacent aquifers. The principal goals of the hydrochemical characterization program include: (1) establish groundwater quality baseline for the ALT aquifer and adjacent aquifers in the vicinity of proposed block-cave mining operations; (2) identify principal sources of groundwater recharge and pathways for groundwater discharge to/from the ALT aquifer and adjacent groundwater systems; and (3) define the connectivity between the shallow groundwater system, the ALT aquifer, and the deep groundwater system.

Groundwater and surface water sampling locations are shown on **Figure 1** and summarized in **Tables 1 and 2**. A geologic map of the study area is provided on **Figure 2**. Samples were collected for common and trace constituents, routine parameters, radiological constituents, stable isotopes, and radioactive/radiogenic isotopes. The complete groundwater and surface water analytical suites are summarized in **Table 3**. Analytical results for groundwater and surface water samples are provided in **Appendices A and B**.

This report is organized by aquifer/groundwater system. For each system hydrochemical characterization is discussed including: (1) water quality and type, (2) seasonal variability where temporal data are available, and (3) recharge/discharge relationships. For details regarding hydrochemical sampling and the associated water level monitoring program, and for explanation of isotopic analyses and interpretation see M&A (2010).

The current report does not address surface water hydrochemistry in detail. Surface water data are reported in full but only addressed as they pertain to understanding surface water/groundwater interaction, recharge/discharge relationships and groundwater movement.

2.1 HYDROGEOLOGIC CONTEXT

Based on results of hydrogeologic characterization conducted by M&A on behalf of RCM (M&A, 2001, 2005, 2008, 2010) three principal groundwater systems have been identified in the study area including: the shallow groundwater system, the ALT aquifer, and the deep groundwater system. Salient observations regarding each groundwater system are summarized below.

2.1.1 Shallow Groundwater System

The shallow groundwater system consists of several shallow perched aquifers of limited areal extent hosted in alluvial deposits and the uppermost weathered part of the Apache Leap Tuff (Tal) (**Figure 2**).

2.1.2 Apache Leap Tuff Aquifer

The ALT aquifer is a fractured-rock aquifer hosted in the Tal outcrop belt that extends throughout much of the Upper Queen Creek and Devils Canyon drainages, and a portion of the Mineral Creek drainage (**Figure 2**). The Tal is separated from the deep groundwater system by a thick sequence of Tertiary basin fill sediments (Whitetail Conglomerate (Tw)). For the majority of its central and southern extent the Tal is underlain by the low-permeability Tw, although there are local areas along the western margin of the Tal outcrop belt where Tal directly overlies Paleozoic carbonates. In the northern area of the Tal outcrop belt early Tertiary volcanics and sediments (Tev and Tes) lie between the Tw and the Tal; however, the Tw still separates the ALT aquifer from the deep groundwater system. No response to dewatering of existing mine workings has been observed in any well completed in the ALT aquifer.

2.1.3 Deep Groundwater System

The deep groundwater system, as defined for the Resolution Project area, includes several groundwater domains that encompass a variety of geologic units. These groundwater domains are currently defined as follows:

- *Deep groundwater within the Resolution Graben.* The Resolution Graben hosts the Resolution ore body; a series of regional faults offsets the rocks within the graben from those units that are located outside the graben. Within the Resolution Graben the deep groundwater system is hydraulically connected to existing mine workings and a clear hydraulic response to ongoing dewatering of the mine workings is observed.
- *Deep groundwater east of the Concentrator Fault but outside the Resolution Graben.* Graben-bounding faults appear to limit hydraulic communication between the deep groundwater system outside the graben and the deep groundwater system within the graben. Water levels are substantially higher outside the graben and no response to dewatering of the existing mine workings has been observed to date.
- *Deep groundwater system west of the Concentrator Fault.* This system is hosted in low-permeability Tertiary basin-fill deposits and fractured Tertiary volcanic rocks that occur west of the Concentrator Fault. Hydraulic connection between the deep groundwater system west of the Concentrator Fault and the deep groundwater system east of the Concentrator Fault appears to be limited; to date no response to dewatering of the existing mine workings has been observed in wells west of the Concentrator Fault.

2.2 GROUNDWATER QUALITY STANDARDS

Hydrochemical data from groundwater samples have been compared with the United States Environmental Protection Agency (U.S. EPA) National Primary Drinking Water Regulations (NPDWR), the U.S. EPA National Secondary Drinking Water Regulations (NSDWR), and the State of Arizona Numeric Aquifer Water Quality Standards (AWQS). The goal of comparing hydrochemistry with respect to these federal and state standards is to provide a general assessment of water quality in the ALT aquifer and the shallow and deep groundwater systems. This comparison is not intended to be comprehensive, nor is it intended to establish any groundwater in the study area as a drinking water source.

Hydrochemical data and the numerical NPDWR, NPSWR, and AWQS values for groundwater and surface water are tabulated in **Appendices A and B**, respectively. Water quality is discussed below with respect to each principal groundwater system in the study area.

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3.0 SHALLOW GROUNDWATER SYSTEM

The shallow groundwater system in the study area consists of several shallow aquifers of limited areal extent. Shallow groundwater has been sampled at three locations in the Devils Canyon Watershed (**Table 1**; **Figure 1**):

- JI Ranch Corral Well: completed in alluvium and upper, weathered Tal
- JI Ranch Middle Well: completed in alluvium and upper, weathered Tal
- Hackberry Windmill Well: completion unknown but likely completed in alluvium and upper, weathered Tal

3.1 CHEMICAL COMPOSITION

Major ion chemistry of shallow groundwater is plotted on a trilinear diagram on **Figure 3**. Shallow groundwater types range from calcium-bicarbonate type at Hackberry Windmill to calcium-bicarbonate-sulfate type at the JI Ranch Middle well and calcium-sulfate type at the JI Ranch Corral Well.

For the constituents measured, shallow groundwater meets U.S. EPA NPDWR and State of Arizona AWQS with the exception of two samples taken from JI Ranch Corral Well that exceed the NPDWR for nitrogen (NO_3 + NO_2 as N). Shallow groundwater meets the majority of the U.S. EPA NSDWR with the exception of several samples that are out of compliance with the NSDWR for sulfate, total dissolved solids, pH, iron, and manganese (for details see **Tables A-1, A-2 and A-3; Appendix A**).

3.2 SEASONAL VARIABILITY

Figure 4 shows major ion time-series data for Hackberry Windmill, JI Ranch Corral Well, and JI Ranch Middle Well. Inspection of these plots shows that there is little seasonal variation in hydrochemical composition of shallow groundwater sampled at Hackberry Windmill. Water quality at the JI Ranch wells is more variable although there does not appear to be a systematic seasonal variation. Variability in water quality at the JI Ranch wells (and water quality degradation where it occurs) is likely due to local agricultural and residential inputs, and historical mining and mineral processing activities in the region.

3.3 RECHARGE

Analysis of stable isotopes of oxygen and hydrogen ($\partial^{2}H$ and $\partial^{18}O$) indicates that the shallow groundwater system is recharged by local precipitation with some degree of evaporation occurring during recharge (**Table A-4**; **Figure 5**). Strontium-87/strontium-86 ratios ($^{87}Sr/^{86}Sr$) in shallow groundwater from Devils Canyon watershed (JI Ranch wells and Hackberry Windmill well) also indicate that the shallow groundwater is locally recharged (i.e., that the $^{87}Sr/^{86}Sr$ is largely controlled by interaction with the alluvium and ALT (M&A, 2010)) (**Figure 6**). Relatively high sulfur contents and depleted $\partial^{34}S$ values suggest that shallow groundwaters have interacted with dryfall sulfur particles deposited on the surface by smelter operations that occurred in Superior between 1924 and 1971 (Bassett et al., 1994) or by other historical smelter operations in the area (**Figure 7**). This indicates that shallow groundwaters have a substantial recent recharge component, which is also supported by the carbon-14 (^{14}C) and tritium (^{3}H) data presented on **Figure 8**. Carbon-14 and tritium data indicate that shallow groundwaters have short mean residence times ranging from modern (recharged within <5 to 10 years) at Hackberry Windmill to a mixture of submodern waters (with mean residence times perhaps as long as 700 years) and recent recharge at the JI Ranch wells.

3.4 DISCHARGE

Discharge from the shallow groundwater system is likely to be largely controlled by evapotranspiration although only groundwater from Hackberry Windmill well shows an evaporation signal in the deuterium and oxygen-18 data (**Figure 5**). The lack of an evaporation signal in the groundwater sampled from the JI Ranch wells suggests that transpiration is the dominant process (transpiration is a purely advective process and does not result in isotope fractionation). Water likely also leaves the shallow groundwater system via direct discharge to local drainages where near-surface bedrock forces groundwater flow to the surface.

It does not appear that substantial amounts of groundwater move vertically to the ALT aquifer from the alluvial deposits that host shallow groundwater at JI Ranch. If recharge to the ALT in this area were mediated by the shallow groundwater system we would expect to observe a depleted $\partial^{34}S$ signature in the ALT groundwater at well HRES-06. However, $\partial^{34}S$ values from well HRES-06 are on the order of 5‰, similar to those observed in the majority of the ALT aquifer, and considerably enriched compared to values from the shallow groundwater system at JI Ranch (**Figure 7**).

4.0 APACHE LEAP TUFF AQUIFER

The ALT aquifer is a fractured-rock aquifer hosted in dacite tuff that extends throughout much of the upper Queen Creek and Devils Canyon drainages, and a portion of the Mineral Creek drainage. The major focus of hydrogeologic investigations, including hydrochemistry, has been to understand recharge to, and discharge from, the ALT aquifer along with the degree of connection between the ALT aquifer and adjacent groundwater systems and surface water features. ALT groundwater has been sampled at 19 locations in the Devils Canyon, Upper Queen Creek and Mineral Creek watersheds. This count includes CT Well for which construction details are unknown and which may be completed only in the Tal or may be screened through both the Tal and the Gila Conglomerate (QTg) (**Table 1**; **Figure 1**). For six of these wells (HRES-04, HRES-05, HRES-06, HRES-07, A-06, and MJ-ll) six consecutive quarterly samples were collected in 2008 and 2009. These locations were chosen for quarterly sampling because, of the wells currently drilled in 2008/2009, these were best situated to provide hydrochemical baseline data for the central ALT aquifer on both sides of Devils Canyon and to the north in the JI Ranch area. Three of the quarterly rounds were coordinated with surface water sampling in third quarter 2008, first quarter 2009, and second quarter 2009.

4.1 CHEMICAL COMPOSITION

Major ion chemistry for the ALT aquifer is plotted on a trilinear diagram on **Figure 3**. Groundwater from the majority of the ALT aquifer is generally calcium-sodium-bicarbonate type with approximately equal cation weighting of calcium and sodium. Groundwater sampled from three wells screened in the deeper part of the ALT aquifer (HRES-01, HRES-02, and HRES-03d) is sodium-bicarbonate type. An exception to this pattern is

observed at HRES-10 and CT Well along Lyon's Fork of Mineral Creek where groundwater is generally calcium-bicarbonate-sulfate type.

For the constituents measured, groundwater from the ALT aquifer in the Resolution Project area meets U.S. EPA NPDWR and State of Arizona AWQS. A substantial number of groundwater samples collected from the ALT aquifer are out of compliance with U.S. EPA NSDWR with the main constituents of concern being manganese, iron, and pH (for details see **Tables A-1, A-2 and A-3; Appendix A**).

4.2 SEASONAL VARIABILITY

Figure 9 shows major ion time-series data for all the ALT wells for which temporally distributed data are available. Inspection of these time-series plots shows that the major-ion chemistry of the ALT aquifer at six wells exhibits negligible seasonal variability. Data are presented in **Table A1, Appendix A**.

4.3 RECHARGE

Stable isotope (∂^2H and ∂^{18}O) results show that the ALT aquifer is recharged by infiltration of precipitation or of precipitation-driven runoff. Samples plot close to the global meteoric water line which indicates that groundwater in the ALT aquifer is composed of precipitation with limited evaporation (**Figure 5**). The limited evaporation signature in the stable isotope data is consistent with recharge to the ALT aquifer occurring largely as focused recharge along principal surface drainage ways. Precipitation that lands on the ALT outcrop belt is thought to enter one of two infiltration domains: (1) a shallow circulation system in which water enters near-surface fractures where it is subject to evaporation and transpiration, and from which it may discharge to the surface over the days and weeks

following a precipitation event; and, (2) deep infiltration through fast preferential flow paths that results in recharge to the ALT aquifer. The fact that stable isotope data from ALT groundwater show little if any evaporation signature is indicative of fast, preferential flow with little interaction with the near-surface circulation system. This type of dual infiltration regime, and the resulting lack of an evaporation signal in the regional aquifer, is well documented in arid and semi-arid environments (e.g., Mathieu and Bariac, 1996; Clark and Fritz, 1997).

Active recharge to the ALT aquifer via fast preferential flow from the surface is evident in the tritium data. Tritium is measured in tritium units (TU); one TU = 1 atom ^{3}H per 10^{18} atoms of hydrogen. Detectable tritium in groundwater is a direct indicator of the degree to which a groundwater sample represents modern recharge as follows (Clark and Fritz, 1997):

- 5 to 15 TU indicates modern recharge (<5 to 10 years)
- 0.8 to ~4 TU indicates a mixture of submodern and recent recharge
- <0.8 TU indicates submodern recharge (i.e. groundwater recharged prior to 1952)

Tritium levels in samples from the ALT aquifer vary from below the detection limit (indicating groundwater recharged prior to 1952) to as high as 3.3 TU (**Figure 8; Table A-4**) consistent with modern recharge mixing with older water. Detectable tritium in samples with ^{14}C activities that indicate the waters are several thousand years old (and tritium should have decayed to below detection limits) is evidence of the mixing between older waters and recent recharge within the ALT aquifer.

While tritium data provide information regarding the presence or absence of modern-day recharge, carbon-14 (^{14}C) activities may be used to estimate mean groundwater residence times in the ALT aquifer. Estimates of mean groundwater residence time are necessarily approximate as many processes within the aquifer can potentially affect the ^{14}C activity (see

Appendix E, M&A (2010) for detailed explanation of calculation of groundwater ages from ^{14}C activities and associated uncertainties). However, despite the limitations of the method, valuable qualitative information may be gained regarding the approximate residence time distribution of groundwater in the ALT aquifer as well as identification of areas of active recharge.

Carbon-14 activities within the ALT aquifer range from 55.3 to 104.6 pmC (**Figure 8**). Higher ^{14}C activities (i.e., larger pmC values) indicate groundwaters with smaller residence times; residence time estimates range from approximately 5,000 years to modern recharge (water recharged since 1952). For the most part, ^{14}C activities in the ALT aquifer are on the order of 50-70 pmC and represent mean residence times of approximately 3,000 to 5,000 years. However, groundwater with smaller residence times is observed along Iron Canyon at well HRES-06 and the JI Ranch House Well (data suggest residence times on the order of 1,000 to 2,000 years), along Queen Creek at well HRES-12 (calculated residence time also on the order of 1,000 to 2,000 years) and along Lyon's Fork of Mineral Creek (groundwater sampled at well HRES-10 and CT Well is modern). Smaller residence times, coupled with the presence of detectable tritium, indicate that these principal drainages are areas of active recharge to the ALT aquifer.

Although groundwater residence time estimates are provided based on the ^{14}C activity in a given sample it must be recognized that these are average values. Averaging occurs when samples are collected from wells that are screened over large intervals of the aquifer or have multiple small screened intervals across the aquifer so that deeper and shallower waters contribute to each sample. This effect is intensified in fractured rock aquifers by the fact that a well may receive water from any depth depending on the distribution of the productive fractures that the well intersects. If the fractures are shallow, they likely will provide younger water, and, conversely, if a well only intersects fractures deep in the aquifer the water will likely be older.

Tritium and ^{14}C data provide a qualitative tool for assessing the relative residence time of groundwater sampled from the ALT aquifer. It is not possible to quantitatively calculate the mean groundwater residence time of water in the ALT aquifer; however, it is possible, with reasonable confidence, to conclude:

- that the ALT aquifer is actively being recharged by precipitation particularly along the principal drainage ways; and,
- that mean groundwater residence time in the ALT aquifer is on the order of 3,000-5,000 years.

Other potential sources of recharge to the ALT aquifer (besides local precipitation and precipitation-driven runoff) are groundwater underflow and surface water run-on from the east. Cretaceous-Tertiary intrusive rocks, Younger Precambrian sedimentary and intrusive rocks, and Precambrian Pinal Schist occur in the Mineral Creek watershed to the east of the Tal outcrop belt. In addition, Cretaceous-Tertiary intrusive rocks occur in a small area in the northeast part of the Devils Canyon watershed (**Figure 2**). Due to differences in mineralogy and bulk chemistry between these units and the Tal, water recharging the ALT aquifer from the east may be expected to have elevated uranium concentrations and $^{87}Sr/^{86}Sr$ ratios (Faure, 1986). In the majority of the ALT aquifer sampled to date, uranium concentrations are low (typically less than 0.002 mg/L); however, in CT Well and well HRES-10 (located along Lyon's fork in the Mineral Creek watershed) uranium concentrations are considerably higher (0.009 and 0.0134 mg/L, respectively). In addition, strontium ratios, which are relatively homogenous in the majority of the ALT aquifer sampled to date, are substantially elevated in the CT Well and HRES-10 samples (**Figure 6**). Higher uranium concentrations, together with elevated $^{87}Sr/^{86}Sr$ ratios suggest that along Lyon's Fork the ALT aquifer is recharged by water that has interacted with older geologic units of the upper Mineral Creek watershed. Post-modern ^{14}C activities and detectable ^{3}H observed at HRES-10 and CT Well (**Figure 8**) indicate that water recharging the ALT aquifer is likely rainfall runoff rather than groundwater underflow which would be expected

to have had a longer residence time and thus a lower ^{14}C activity and likely no detectable ^{3}H. Elevated sulfur content and depleted $\delta^{34}S$ values consistent with interaction with dryfall sulfur particles in surficial materials also indicate that groundwater sampled at HRES-10 and CT Well contains a substantial component of rainfall runoff (see **Section 3.3** for further details regarding dryfall sulfur).

Strontium and uranium data from new hydrogeologic characterization wells completed to the east of Devils Canyon as part of the 2011 drilling program (HRES-15 through HRES-18) will provide further opportunity to evaluate potential inflow to the ALT aquifer from the east; these data are not yet available and will be presented in a future report.

4.4 DISCHARGE

Hydrochemical data indicate that the ALT aquifer discharges naturally at springs and along stream channels associated with the perennial reaches of Devils Canyon and Mineral Creek. In addition to natural discharge points, water from the ALT aquifer drains to the Never Sweat Tunnel (NST) at Shaft No. 9 where it is either collected in a sump and pumped to the surface at Shaft No. 9 or discharged to the RCM water treatment plant via the NST. The portion of ALT discharge to Shaft No. 9 that is not collected in the NST drains into the shaft and collects in the mine workings. Hydrochemical data supporting identification of natural ALT discharge locations are discussed below.

4.4.1 Devils Canyon Watershed

All available common ion data from spring and surface water samples collected in the Resolution Project area are plotted on a trilinear diagram on **Figure 10**. Also included on **Figure 10** is a field that shows where the samples from the ALT aquifer lie. This figure shows that, although the majority of the surface and spring waters in the project area are

chemically distinct from the ALT aquifer groundwater, there are data that plot within the ALT aquifer field. In order to present these data more clearly, Stiff diagrams of selected ALT aquifer data (from locations in the vicinity of the perennial reach of Devils Canyon) and selected spring and surface water data are shown on a map of the study area in **Figure 11**. The shape of the central element in each Stiff plot indicates the relative concentrations of the major ion groups and the size of this element is representative of the TDS concentration. Thus, samples represented by Stiff diagrams with similar shapes and sizes have similar chemical compositions and TDS concentrations.

Common ion data from Devils Canyon drainage indicate that the ALT aquifer discharges both directly to the stream channel and from springs slightly elevated above the stream channel. Inspection of **Figure 11** shows that two surface water samples (DC8.1C and DC6.14C) have chemical compositions very similar to groundwater from the ALT aquifer indicating that, within the perennial reach, discharge from the ALT aquifer contributes a substantial proportion of flow to Devils Canyon. Further north in the Devils Canyon watershed, where the surface waters are ephemeral, waters are more dilute (lower TDS) and have a higher sulfate content (relative to the other common anions bicarbonate and chloride) because they are composed of runoff from precipitation events (see sample locations DC13.5C, DC14.7C, and DC15.5C on **Figure 11**). Stiff diagrams on **Figure 11** also show that the chemical composition and TDS concentration of water from four springs that issue along Devils Canyon (DC8.2W, DC6.6W, DC6.1E, and DC 4.1E) are very similar to the chemical composition and TDS concentration of the ALT aquifer. This indicates that these springs represent discharge points of the ALT aquifer to Devils Canyon.

Figures 12 through 17 summarize $\partial^{2}H$ and $\partial^{18}O$ (for 2008, 2009, 2010, and 2011), $\partial^{34}S$ and strontium data from surface water and spring locations in the study area. On each figure the field occupied by data collected from the ALT is delineated for reference. Inspection of these figures indicates that isotope values from surface waters (DC8.1C and DC6.14C) and springs (DC8.2W and DC 6.1E) in the Devils Canyon drainage are very

similar to those observed in groundwater from the ALT aquifer. All data are consistent with these locations being discharge points for the ALT aquifer.

Carbon-14 data and tritium data indicate that water discharging from spring DC8.2W has a radiometric age consistent with mean residence times observed in the bulk of the ALT aquifer samples (**Figure 8**). Radiocarbon data are not available for other spring and surface water locations in the Devils Canyon watershed.

4.4.2 Mineral Creek Watershed

Both hydrochemical and isotopic data suggest that Wet Leg Spring (MC3.4W), which issues along the west bank of Mineral Creek, is supported by discharge from the ALT aquifer. This is illustrated on **Figures 10 through 17** which show that the majority of common ion, $\partial^{2}H$, $\partial^{18}O$, $\partial^{34}S$ and $^{87}Sr/^{86}Sr$ values from samples collected at Wet Leg Spring (MC3.4W) are very similar to those observed in the bulk of the ALT aquifer.

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5.0 DEEP GROUNDWATER SYSTEM

The deep groundwater system, as defined for the Resolution Project area, includes several groundwater domains that encompass a variety of geologic units. These groundwater domains are currently defined as follows: groundwater within the Resolution Graben, groundwater outside the Resolution Graben east of the Concentrator Fault, and groundwater outside the Resolution Graben west of the Concentrator Fault (see **Section 2.1.3** for details).

Deep groundwater has been sampled at nine locations in the Resolution Project area (**Table 1; Figure 1**):

- DHRES-01, DHRES-02, and RES-009: Completed in Cretaceous volcaniclastic rocks within the Resolution Graben
- DHRES-04: Completed in Tertiary volcanic rocks west of the Concentrator Fault
- DHRES-06: Completed in Paleozoic carbonate rocks east of the Concentrator Fault and south of the Resolution Graben
- DHRES-09: Completed in the younger Precambrian Dripping Spring Quartzite and Diabase to the east of the Concentrator Fault and west of the Main fault.
- DHRES-10: Completed primarily in younger Precambrian Diabase. DHRES-10 is located at the West Plant site; this well intercepted fractures at depth that are likely connected to underground mine workings. The only sample available for DHRES-10 is a screening sample collected at the end of an 11-hour airlift test. As such, these data are provisional and further sampling is required to confirm results.
- DHRES-11: Completed in the younger Precambrian Dripping Spring Quartzite, Mescal Limestone, and Diabase east of the Concentrator Fault and northeast of the Resolution Graben.

- DHRES-13: Completed in the younger Precambrian Dripping Spring Quartzite, Pioneer Shale, and Diabase, and older Precambrian Pinal Schist to the east of the Concentrator Fault and southwest of the Resolution Graben.

Approximate depth to water, groundwater level elevations and elevations of perforated zones at each of the above locations are summarized in the table below.

WELL ID	DATE	WATER LEVEL ELEVATION (meters amsl)[a]	ELEVATION OF PERFORATED ZONES (meters amsl)
DHRES-01	08 Nov 2011	492	-219.2 to -275.6 -374.9 to -431.4 -463.5 to -469.8 -530.6 to -567.6
DHRES-02	16 Nov 2011	454	142.8 to 73.9 -588.1 to -619.8 -748.5 to -779.9
RES-009*	27 Aug 2010	583	-469 to -852
DHRES-04	16 Nov 2011	800	380.8 to 213.6
DHRES-06	14 Nov 2011	990	733.7 to 425.0
DHRES-09	16 Nov 2011	908	817.8 to 671.5 459.0 to 439.8 348.4 to 317.9
DHRES-11	16 Nov 2011	1003	-226.7 to -765.9
DHRES-13	16 Nov 2011	846	509.9 to 349.2 300.0 to -27.1

* Water level elevation and elevation of test interval in borehole RES-009 from Golder (2007)
[a]meters amsl = meters above mean sea level

5.1 CHEMICAL COMPOSITION

Major ion chemistry of deep groundwater samples is plotted on a trilinear diagram on **Figure 18**. Chemical composition of groundwater sampled from the deep groundwater

system varies considerably depending on the geologic units present at each sampling location. The predominant groundwater types identified to date within the deep groundwater system include:

- Sodium-bicarbonate-sulfate type: groundwater sampled from Cretaceous volcaniclastic rocks within the Resolution Graben at wells DHRES-01 and RES-009. Groundwater from the Tertiary volcanic rocks west of the Concentrator Fault (well DHRES-04) is also sodium-bicarbonate-sulfate type but has substantially higher sodium content than the deep groundwater within the Resolution Graben.
- Calcium-sodium-sulfate type: groundwater sampled from Cretaceous volcaniclastic rocks within the Resolution Graben at well DHRES-02. This composition is substantially different from the composition of groundwater from the Cretaceous volcaniclastic rocks as represented by wells DHRES-01 and RES-009. In addition to the difference in chemical composition the total dissolved solids concentration is higher at DHRES-02 (1400 mg/L) compared with DHRES-01 and RES-009 (500 and 859 mg/L, respectively).
- Mixed cation-bicarbonate type: groundwater sampled from Paleozoic carbonate rocks east of the Concentrator Fault and south of the Resolution Graben (well DHRES-06). This sample contains roughly equal proportions of cations with Ca>Mg>(Na + K).
- Calcium-magnesium-bicarbonate-sulfate type: groundwater sampled from younger Precambrian Dripping Spring Quartzite and Diabase between the Concentrator Fault and the Main fault (well DHRES-09).
- Calcium-magnesium-sulfate type: groundwater sampled from DHRES-10; this groundwater composition is consistent with the composition of groundwater sampled from the underground mine workings at Shaft No. 9 (**Figure 19**) and is likely not representative of the natural composition of the deep groundwater system at this location.

In general, the chemical composition of groundwater sampled from a specific location within the deep groundwater system appears to reflect the composition of the geologic units at that location. This suggests that the deep groundwater system is compartmentalized and that there is not substantial mixing of groundwater within the system.

The difference between the common ion chemistry of groundwater sampled at well DHRES-02 and that sampled at DHRES-01 and RES-009 may reflect heterogeneities within the Cretaceous volcaniclastic rocks. Although the composition of groundwater from DHRES-02 is intermediate between the composition at DHRES-01 and the composition of water resident in the mine workings (**Figure 19**) it does not appear that the chemistry at DHRES-02 is the result of mixing or exchange between the mine workings and the adjacent aquifer. Stable isotopes in dissolved sulfate ($\delta^{34}S$ and $\delta^{18}O$) are substantially different between the mine workings and the groundwater sampled at DHRES-02 (**Figure 20**). Further sampling of groundwater resident in the Cretaceous volcaniclastic rocks within the Resolution Graben would be required to investigate the distribution of different water types within these units.

Several samples from the deep groundwater system are out of compliance with U.S. EPA NPDWR and State of Arizona AWQS for the radiological constituents: gross alpha, gross beta, and/or radium (Ra-226 + Ra-228). In addition, exceedances of the NPDWR and/or AWQS for antimony, arsenic, chromium, copper, fluoride, and lead are occasionally observed in samples from the deep groundwater system. A substantial proportion of deep groundwater samples are out of compliance with U.S. EPA NSDWR with the main constituents of concern being manganese, iron, aluminum, fluoride, sulfate, and total dissolved solids (for details see **Tables A-1, A-2 and A-3; Appendix A**).

5.2 RECHARGE

Stable isotope (∂^2H and ∂^{18}O) results show that the deep groundwater system is recharged by infiltration of meteoric water. Samples plot close to the meteoric water line which indicates that deep groundwater has undergone little evaporation during recharge (**Figure 5**). Stable isotope compositions (∂^2H and ∂^{18}O) of deep groundwater sampled at wells DHRES-01, DHRES-02, DHRES-04, and DHRES-06 are lighter than stable isotope compositions in groundwater from the ALT aquifer (**Figure 5**). As was noted in M&A (2010) this is consistent with recharge under a cooler, wetter climate regime (e.g., late Pleistocene which occurred more than 10,000 years ago). Stable isotope data from wells DHRES-09 and DHRES-13 lie within the field occupied by stable isotope data from the ALT aquifer and the shallow groundwater system. This suggests that groundwater sampled from the deep groundwater system at these locations integrates compositions of more recent meteoric water (i.e., precipitation that has fallen within the current climate regime). This is consistent with the shorter residence time estimates yielded for these groundwaters by ^{14}C and ^{3}H data discussed below.

Carbon-14 (^{14}C) activities have been used to estimate mean groundwater residence times in the deep groundwater system. Residence times were calculated from ^{14}C activities corrected using the Fontes and Garnier method and soil gas δ^{13}C data from Bassett et al. (1994). See Appendix E, M&A (2010) for explanation of residence time calculations. It should be noted that, with the exception of DHRES-02, each well in the deep groundwater system has been sampled only once. Analytical results and interpretation should be considered provisional until data are confirmed through further sampling.

Carbon-14 data indicate that groundwater sampled from the Cretaceous volcaniclastic rocks within the Resolution Graben (at wells DHRES-01, DHRES-02, and RES-009) has a mean residence time on the order of 6,000 to 12,000 years (**Figure 8**). Tritium was not detected at DHRES-02 or RES-009 which suggests that groundwater sampled from this

region of the deep groundwater system is submodern and that there is no fast-path recharge to the system from the surface at this location. Note that a tritium value of 1.9 TU has been reported by the laboratory for well DHRES-1 but qualified due to uncertainty regarding sample processing. Additional data are required to confirm tritium level at DHRES-01.

Carbon-14 data from groundwater sampled from Tertiary volcanic rocks west of the Concentrator Fault (well DHRES-04) gives an estimated mean residence time on the order of 14,000 years. Groundwater sampled from Paleozoic carbonate rocks east of the Concentrator Fault and south of the Resolution Graben (well DHRES-06) yields an estimated mean residence time on the order of 15,000 years (**Figure 8**). Absence of detectable tritium at either location provides further evidence that residence times are long and that recharge to the deep groundwater system at these locations is submodern.

Carbon-14 data from groundwater sampled from the younger Precambrian Dripping Spring Quartzite, Mescal Limestone, and Diabase east of the Concentrator Fault and northeast of the Resolution Graben (well DHRES-11) yields an estimated residence time on the order of 19,000 years. Long residence times are supported by the lack of detectable tritium in this sample. Groundwater collected from younger Precambrian Dripping Spring Quartzite, Pioneer Shale, and Diabase and Older Precambrian Pinal Schist to the east of the Concentrator fault but southwest of the Resolution Graben (at well DHRES-13) is also submodern based on the absence of detectable tritium but yields a considerably shorter mean residence time estimate on the order of 7,000 years (**Figure 8**). This shorter residence time estimate is consistent with the current conceptual model that identifies a potential recharge source through the fractured Paleozoic and younger Precambrian rocks west of the Apache Leap escarpment to the deep groundwater system.

In contrast to the older waters observed in other parts of the deep groundwater system, groundwater sampled from the younger Precambrian Dripping Spring Quartzite and Diabase between the Concentrator Fault and the Main Fault (well DHRES-09) yields an

estimated mean residence time on the order of 1,000 to 2,000 years (**Figure 8**). Tritium was detected in this sample at a concentration of 1.5 TU which indicates that the groundwater is a mixture of modern and submodern recharge. This sample is relatively enriched in $\partial^{2}H$ and $\partial^{18}O$ compared to samples from other locations within the deep groundwater system (**Figure 5**). This suggests that the groundwater sampled at DHRES-09 integrates values from relatively modern precipitation (based on comparison with ALT aquifer values) with limited evaporation. The $\partial^{2}H$ and $\partial^{18}O$ data, together with the ^{14}C and ^{3}H data, indicate that groundwater in this area has been recharged more recently than groundwater sampled from other parts of the deep system. Evidence of active recharge in the vicinity of well DHRES-09 is consistent with the current conceptual model which identifies the fractured Paleozoic and younger Precambrian rocks west of the Apache Leap as a recharge area for the deep groundwater system.

5.3 DISCHARGE

No active natural discharges from the deep groundwater system have been identified. However, deep groundwater is assumed to discharge to the existing mine workings. Groundwater discharge to the mine workings can be estimated from historical mine dewatering rates (25 to 40 L/s); the proportion of this discharge attributable to inflow from the deep groundwater system is currently being evaluated.

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6.0 RECOMMENDATIONS

Based on review and analysis of the results of the 2004-2011 RCM groundwater hydrochemical monitoring program, M&A has the following recommendations:

1. One comprehensive sampling round of all ALT aquifer wells equipped with pumping assemblies should be conducted. This comprehensive round should be coordinated with sampling of surface water and spring locations. Ideally this effort should occur during May or June in order for surface water data to represent baseflow conditions.

2. Subsequently all ALT aquifer wells drilled in 2010 and 2011 should be sampled for three additional consecutive quarters (i.e. for four consecutive quarters including the initial comprehensive round).

3. Where practicable, additional chemistry samples should be collected from wells completed in the deep groundwater system in order to confirm findings that are currently based on a single sample from each deep groundwater system well (except DHRES-02 where data from four samples are available).

6. Samples from ALT aquifer wells drilled in 2010 and 2011 collected during both the comprehensive round and the quarterly sampling should be analyzed for the full hydrochemical and isotopic suite defined as:

    - Routine parameters and common constituents
    - Trace constituents including total and dissolved metals, cyanide, and sulfide
    - Radiological constituents
    - Deuterium and oxygen-18 in water
    - Sulfur-34 and oxygen-18 in dissolved sulfate
    - Carbon-13 in dissolved inorganic carbon
    - Carbon-14 in dissolved inorganic carbon
    - Tritium
    - Strontium concentration and $^{87}Sr/^{86}Sr$ ratio
    - Uranium concentration and isotopes (^{234}U, ^{235}U, ^{238}U)

Based on the results of this sampling (specifically whether there is any indication of substantial temporal variability) further baseline sampling may be recommended.

7. Surface water samples and samples collected from ALT aquifer wells that have previously been sampled for six consecutive quarters (HRES-04, HRES-05, HRES-06, HRES-07, A-06, and MJ-11) should be analyzed for the suite defined in Item (4) above with the exception of radiological constituents and uranium concentration and isotopes.

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7.0 REFERENCES

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TABLE 1. GROUNDWATER SAMPLING LOCATIONS
UPPER QUEEN CREEK/DEVILS CANYON STUDY AREA
RESOLUTION COPPER MINING LLC
PINAL COUNTY, ARIZONA

WELL IDENTIFIER	HYDROCHEMICAL SAMPLE COLLECTED	QUARTERLY HYDROCHEMICAL SAMPLING (2008-2009)
SHALLOW GROUNDWATER SYSTEM		
Corral Well (JI Ranch)	X	X
Hackberry Windmill	X	X
Middle Well (JI Ranch)	X	X
APACHE LEAP TUFF AQUIFER		
A-06	X	X
CT Windmill	X	
HRES-01	X	
HRES-02	X	
HRES-03	X	
HRES-04	X	X
HRES-05	X	X
HRES-06	X	X
HRES-07	X	X
HRES-08	X	
HRES-09	X	
HRES-10	X	
HRES-11	X	
HRES-12	X	
HRES-13	X	
HRES-14	X	
JI Ranch House Well	X	
MJ-11	X	X
Oak Flat Well	X	
DEEP GROUNDWATER SYSTEM		
DHRES-01	X	
DHRES-02	X	
DHRES-03		
DHRES-04	X	
DHRES-05		
DHRES-06	X	
DHRES-07		
DHRES-08		
DHRES-09	X	
DHRES-10	X	
DHRES-11	X	
DHRES-13	X	
DHRES-14		
RES-09	X[a]	

[a] Data reported in Golder (2007)

TABLE 2. SURFACE WATER AND SPRING SAMPLING LOCATIONS
RESOLUTION COPPER MINING LLC
PINAL COUNTY, ARIZONA

STATION IDENTIFIER	UTM COORDINATES[a] EASTING (meters)	NORTHING (meters)	APPROXIMATE ELEVATION (meters, amsl)[b]	TYPE	LOCATION
DEVILS CANYON WATERSHED					
DC 15.5 C	497181	3688022	1,244	Reach	Channel - bedrock with pools immediatlely above confluence with Iron Canyon
IC 1.0 C (Iron Canyon)	497860	3688383	1,280	Reach	Small bedrock nick point. Drainage on northside of US 60 ~ 30 meters upstream of small parking area on south side of highway
DC 14.7 C /US 60 Bridge	497035	3687263	1,219	Reach	Devils Canyon at US 60 Bridge
DC 13.5 C	496860	3686136	1,189	Reach	Channel
RR 1.5 C	496066	3682698	1,183	Reach	Approximately 100 meters downstream from parking area (that's just beyond breached stock tank)
H 0.1 C	497410	3681438	1,097	Reach	Approximately 20 meters upsteam of large pool ("hackberry pool")
DC 8.2 W	497540	3681190	1,079	Spring	~ 1 meter above main channel on west bank
DC 8.1 C	497565	3681168	1,073	Reach	Pool approximately 75 meters downstream of DC8.2W - Nice outcrop on eastbank (river left) to mount sonde
DC 6.6 W	497458	3679879	3,520	Spring	~200 meters above main stem of Devils Canyon
DC 6.14 C	497932	3679581	1,000	pool/reach	First Crater Tank
DC 6.1 E	498130	3679540	963	Spring	Hanging Garden emanating from Apache Leap
DC 4.1 E	499273	3678440	2,720	Spring	Hanging Garden emanating from Apache Leap
QUEEN CREEK WATERSHED					
Pump Station	494104	3688819	1,338	Spring	Channel
QC 27.3 C (Upper QC)	494970	3686239	1,204	Reach	Intermittent channel - slot/incised portion of canyon
Oak Flat	494590	3685490	1,172	Reach	Sandy bottom reach with bedrock coming down to creek on southside (river left) (~75 meters above confluence with QC)
Number Nine	494248	3685326	1,146	Reach	Bedrock pool drops visible from US 60 (~50 meter above confluence with QC)
Boulder Hole	492297	3684549	933	Seep	Channel
QC 22.6 E (Karst Spring)	491722	3684033	896	Spring	Solution void in limestone on east bank of creek (~3 meters from channel) - immediately upstream of old highway bridge
QC 21.7 C (Magma Avenue)	491204	3683540	867	Reach	Approximately 100 meters upstream of Magma Avenue Bridge. Approximately 30 meters downstream from large boulder on river left and 10 meters upstream of powerlines crossing channel
QC 19.7 C (Queen above Magma Wash)	489674	3682567	817	Reach	Along high cut bank on river left
Bored Spring	491192	3680961	878	Spring	Small drainage immediately east of AZ highway 177, down from rock quarry - sample from pipe disharging into cement trough
Hidden Spring	491312	3679413	927	Spring	Discharges from Paleozoic carbonates west of the Apache Leap Tuff outcrop belt.
Kane Spring	493099	3678202	963	Spring	Discharges from Paleozoic carbonates west of the Apache Leap Tuff outcrop belt.
Blue Spring	491980	3676333	899	Spring	Discharges from shallow alluvium overlying detached block of Apache Leap Tuff in Arnett Creek channel.

TABLE 2. SURFACE WATER AND SPRING SAMPLING LOCATIONS
RESOLUTION COPPER MINING LLC
PINAL COUNTY, ARIZONA

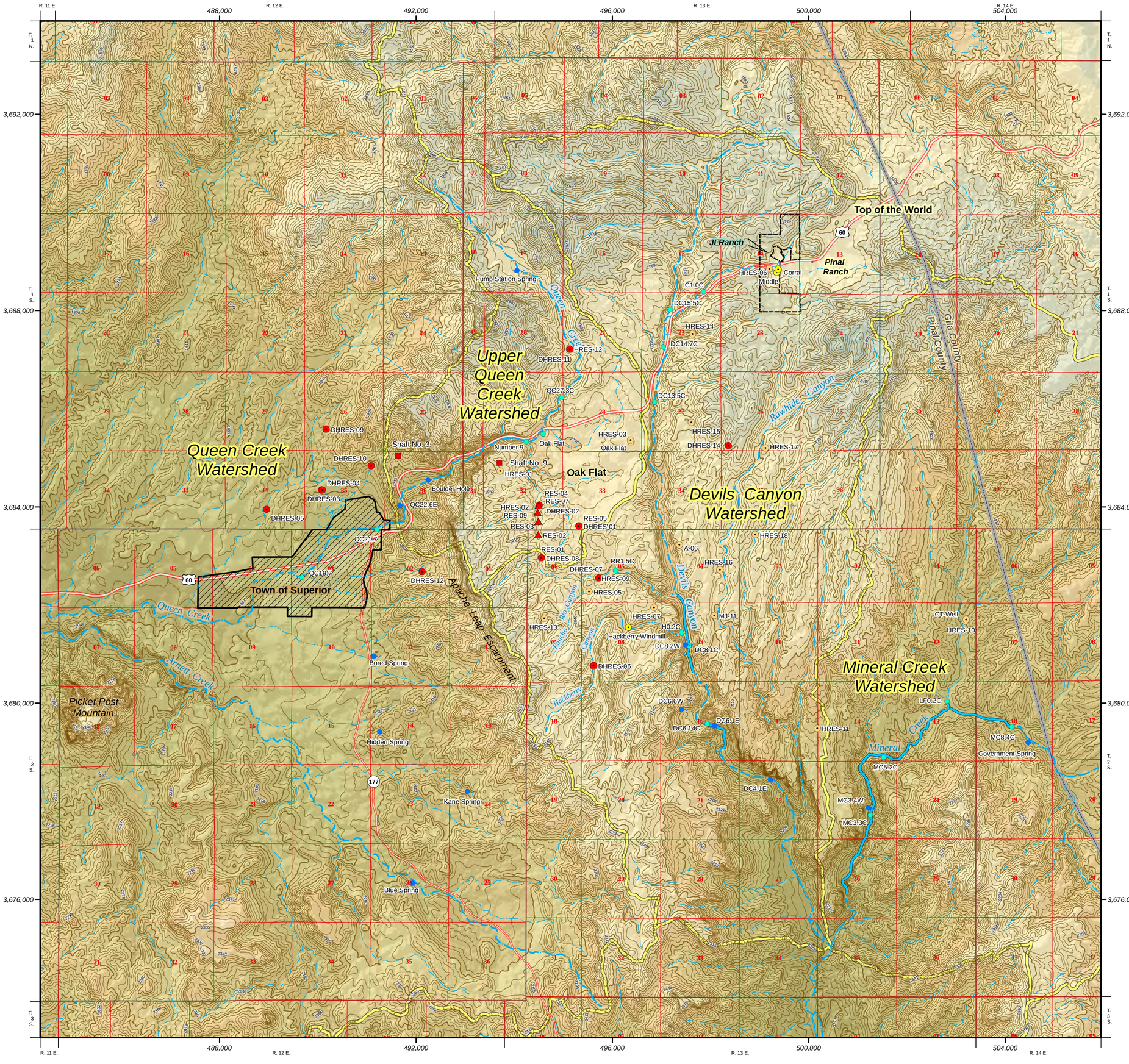
STATION IDENTIFIER	UTM COORDINATES[a] EASTING (meters)	UTM COORDINATES[a] NORTHING (meters)	APPROXIMATE ELEVATION (meters, amsl)[b]	TYPE	LOCATION
MINERAL CREEK WATERSHED					
Government Springs	504525	3679199	NA	Spring	Largest spring emanating from concrete vault behind ranch house; discharges from a brecciated zone of the Apache Leap Tuff
MC 8.4 C (Ranch Fork Headwater Spring)	504135	3679521	878	Spring	First Apache Leap pinch point along drainage with Government Ranch (Mineral Creek)
LF 0.2 C (Lyons Fork Headwater Spring)	502820	3680039	859	Spring	Lyons Fork Spring - Approximately 100 meters above confluence with Mineral Creek
MC 5.2 C	501528	3678898	840	Reach	Approximately 1/2 way down perennial reach below end of currently defined gaining reach. Preliminary GPS location approximate.
MC 3.4 W (Wet Leg Spring)	501266	3677866	810	Spring	Largest spring emanating from river right; discharges from shallow colluvium overlying Apache Leap Tuff
MC 3.3 C	501254	3677715	766	Reach	Approximately 3/4 of way down perennial reach - in bedrock channel immediately upstream of first outcrop of vitrophere
Patterson Spring	506877	3685954	NA	Spring	Spring emanating from mine adit in Pinal Schist; upper Mineral Creek watershed

REFERENCE: Golder Associates Inc., 2009, **Third and fourth quarters 2008 - surface water monitoring results:** Prepared for Resolution Copper Mining LLC, March 12, 2009

[a] Universal Transverse Mercator 1927 North American Datum Zone 12 North
[b] amsl = above mean sea level

TABLE 3. SUMMARY OF ANALYTICAL SUITE FOR GROUNDWATER AND SURFACE WATER SAMPLING, RESOLUTION COPPER MINING LLC PINAL COUNTY, ARIZONA

Routine Parameters		
pH	Temperature	
Electrical Conductivity (EC)	Total Dissolved Solids (TDS)	
Common Constituents		
Calcium (Ca)	Sulfate (SO_4)	
Magnesium (Mg)	Silica (SiO_2)	
Sodium (Na)	Bromide (Br)	
Potassium (K)	Fluoride (F)	
Chloride (Cl)	Nitrate (NO_3)	
Carbonate (CO_3)	Nitrite (NO_2)	
Bicarbonate (HCO_3)		
Trace Constituents		
Aluminum (Al)	Cobalt (Co)	Manganese (Mn)
Antimony (Sb)	Copper (Cu)	Nickel (Ni)
Arsenic (As)	Cyanide (CN)	Selenium (Se)
Barium (Ba)	Iron (Fe)	Silver (Ag)
Beryllium (Be)	Lead (Pb)	Sulfide (S)
Boron (B)	Mercury (Hg)	Thallium (Tl)
Cadmium (Cd)	Molybdenum (Mo)	Zinc (Zn)
Chromium (Cr)		
Radiological Consituents		
Gross Alpha	Radium-226 (^{226}Ra)	Uranium (U)
Gross Beta	Radium-228 (^{228}Ra)	
Stable Isotopes		
Oxygen-18 ($\delta^{18}O$) in water	Carbon-13 ($\delta^{13}C$) in dissolved inorganic carbon	Oxygen-18 in dissolved sulfate ($\delta 18O_{SO4}$)
Deuterium ($\delta^{2}H$) in water	Sulfur-34 ($\delta^{34}S$) in dissolved sulfate	
Radioisotopes		
Tritium (^{3}H)	Strontium (Sr)	Uranium-234 (^{234}U)
Carbon-14 (^{14}C)	Strontium-87/Strontium-86 ($^{87}Sr/^{86}Sr$)	Uranium-235 (^{235}U)
		Uranium-238 (^{238}U)



EXPLANATION

Watershed Boundary

Groundwater Monitoring Sites

- Corral Well — Shallow Groundwater System Monitor Well and Identifier
- A-06 — Apache Leap Tuff Aquifer Monitor Well and Identifier
- DHRES-01 — Deep Groundwater System Monitor Well and Identifier
- RES-01 — Exploration Borehole and Identifier
- Shaft No. 9 — Shaft and Identifier

Surface Water Monitoring Sites (Selected)

- MC3.4W — Spring and Identifier
- DC14.7C — Surface Water Sample and Identifier
- Perennial Reach

Elevation Range
(meters above mean sea level)

- 1,600 - 1,800
- 1,400 - 1,600
- 1,200 - 1,400
- 1,000 - 1,200
- 800 - 1,000
- 600 - 800

N

0 2,000 4,000 6,000 8,000
Feet

0 950 1,900 2,850 3,800
Meters

Topographic contour interval : 20 meters

Resolution Copper Mining

HYDROLOGIC MONITORING LOCATIONS

UPPER QUEEN CREEK / DEVILS CANYON STUDY AREA

2012

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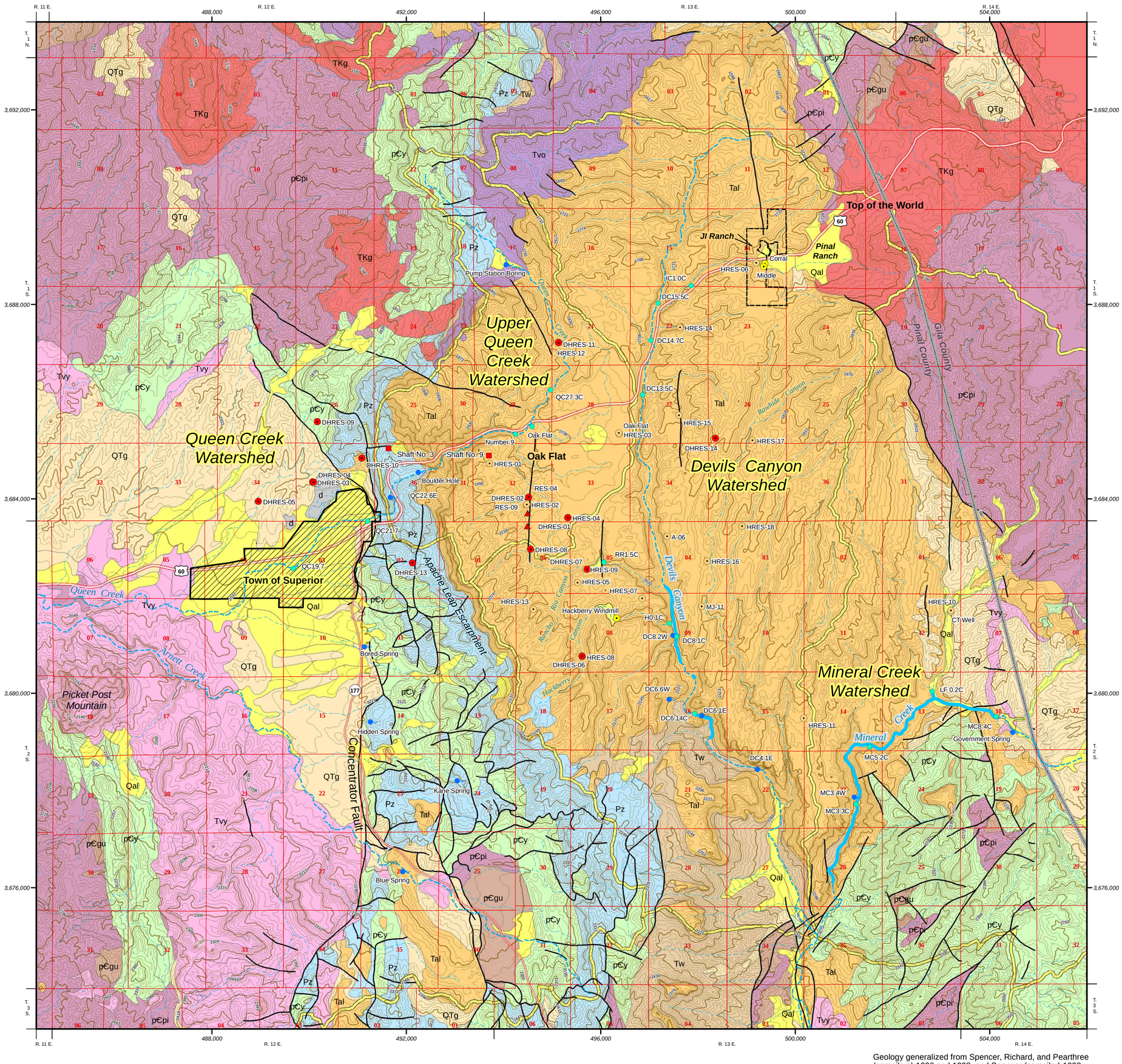
FIGURE 1

\GIS-Tuc\Projects\605\605.5\HydroTechMemo\\SiteLocation_Jan2012\08Mar2012



EXPLANATION

Watershed Boundary

Groundwater Monitoring Sites

- Corral Well — Shallow Groundwater System Monitor Well and Identifier
- A-06 — Apache Leap Tuff Aquifer Monitor Well and Identifier
- DHRES-01 — Deep Groundwater System Monitor Well and Identifier
- RES-01 — Exploration Borehole and Identifier
- Shaft No. 9 — Shaft and Identifier

Surface Water Monitoring Sites (Selected)

- MC3.4W — Spring and Identifier
- DC14.7C — Surface Water Sample and Identifier
- Perennial Reach

Geologic Units

- d — Disturbed Surficial Deposits
- Qal — Quaternary Alluvial Deposits
- QTg — Quaternary-Tertiary Basin-Fill Deposits
- Tvy — Tertiary Younger Volcanic Rocks
- Tal — Tertiary Apache Leap Tuff
- Tvo — Tertiary Older Volcanic Rocks
- Tw — Tertiary Whitetail Conglomerate
- TKg — Cretaceous-Tertiary Intrusive Rocks
- Pz — Paleozoic Sedimentary Rocks
- pC̄y — Younger Precambrian Sedimentary, Volcanic, and Intrusives Rocks
- pC̄gu — Precambrian Granite, Undifferentiated
- pC̄pi — Older Precambrian Pinal Schist
- Geologic Fault

0 2,000 4,000 6,000 8,000 Feet

0 940 1,880 2,820 3,760 Meters

Topographic contour interval : 20 meters

Resolution Copper Mining

GEOLOGIC UNITS

UPPER QUEEN CREEK / DEVILS CANYON STUDY AREA

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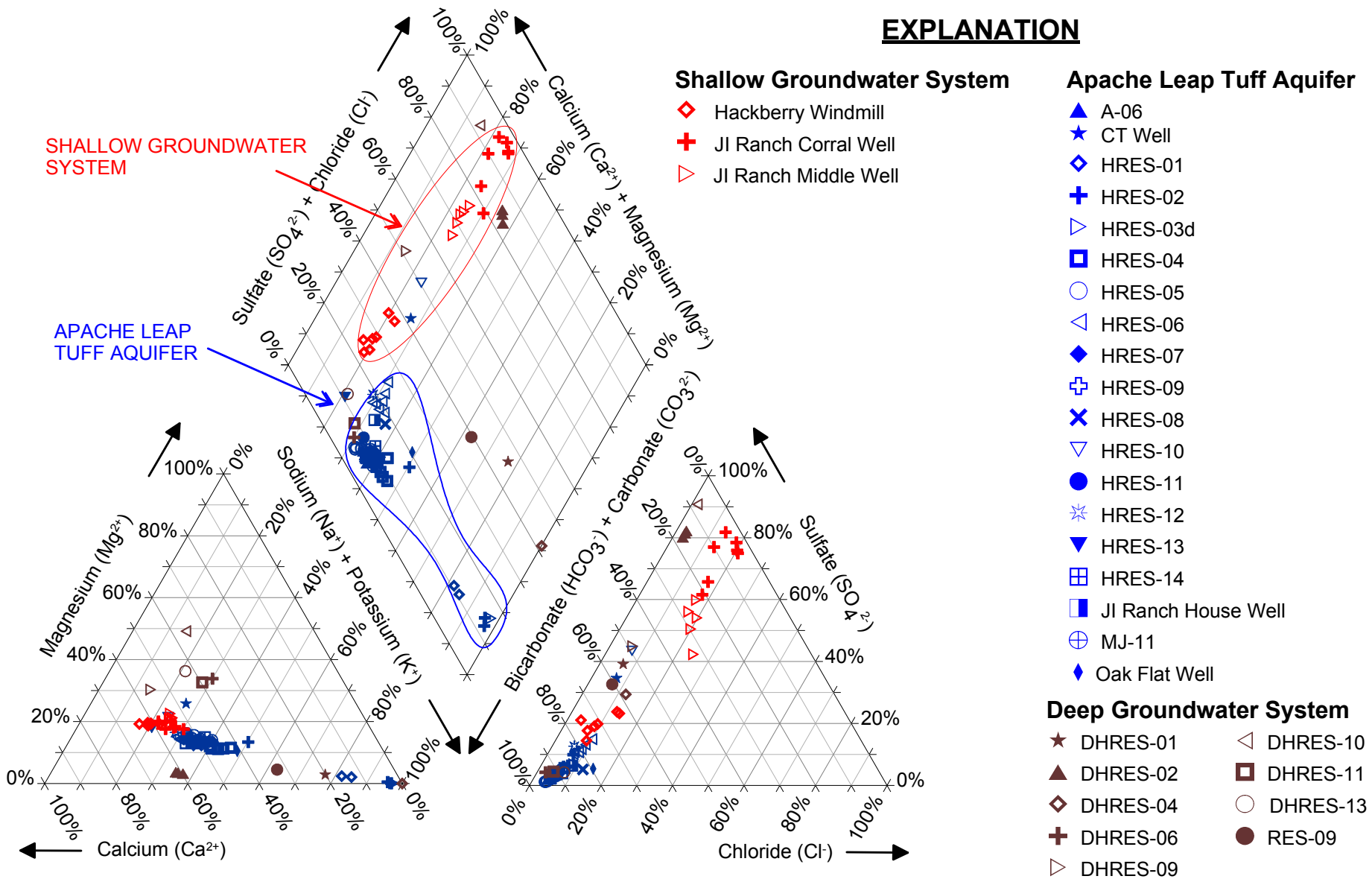
FIGURE 2

Geology generalized from Spencer, Richard, and Pearthree (compilers) 1996 and 1998, and Spencer (compiler) 1998.

\GIS-Tuc\Projects\605\605.5\HydroTechMemo\GeologyMap_Jan2012.mxd\08March2012



EXPLANATION

Shallow Groundwater System

- Hackberry Windmill
- JI Ranch Corral Well
- JI Ranch Middle Well

Apache Leap Tuff Aquifer

- A-06
- CT Well
- HRES-01
- HRES-02
- HRES-03d
- HRES-04
- HRES-05
- HRES-06
- HRES-07
- HRES-09
- HRES-08
- HRES-10
- HRES-11
- HRES-12
- HRES-13
- HRES-14
- JI Ranch House Well
- MJ-11
- Oak Flat Well

Deep Groundwater System

- DHRES-01
- DHRES-02
- DHRES-04
- DHRES-06
- DHRES-09
- DHRES-10
- DHRES-11
- DHRES-13
- RES-09

FIGURE 3. TRILINEAR DIAGRAM SHOWING COMMON ION COMPOSITIONS OF GROUNDWATER, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

605.5\TechMemo\UpdateReportJan2012\Figures\Fig3_Piper_GroundWater_Dec2011_g8.grf

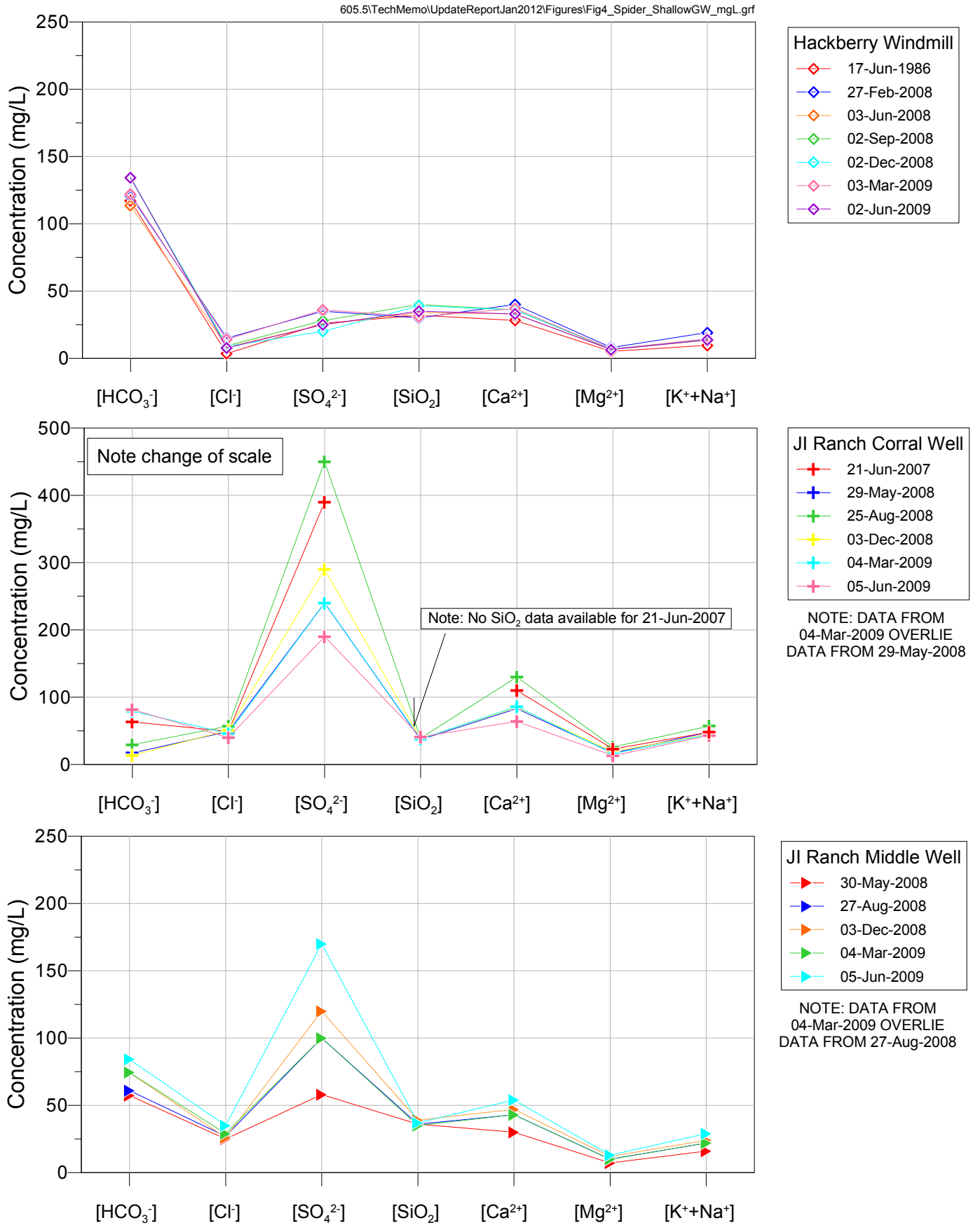
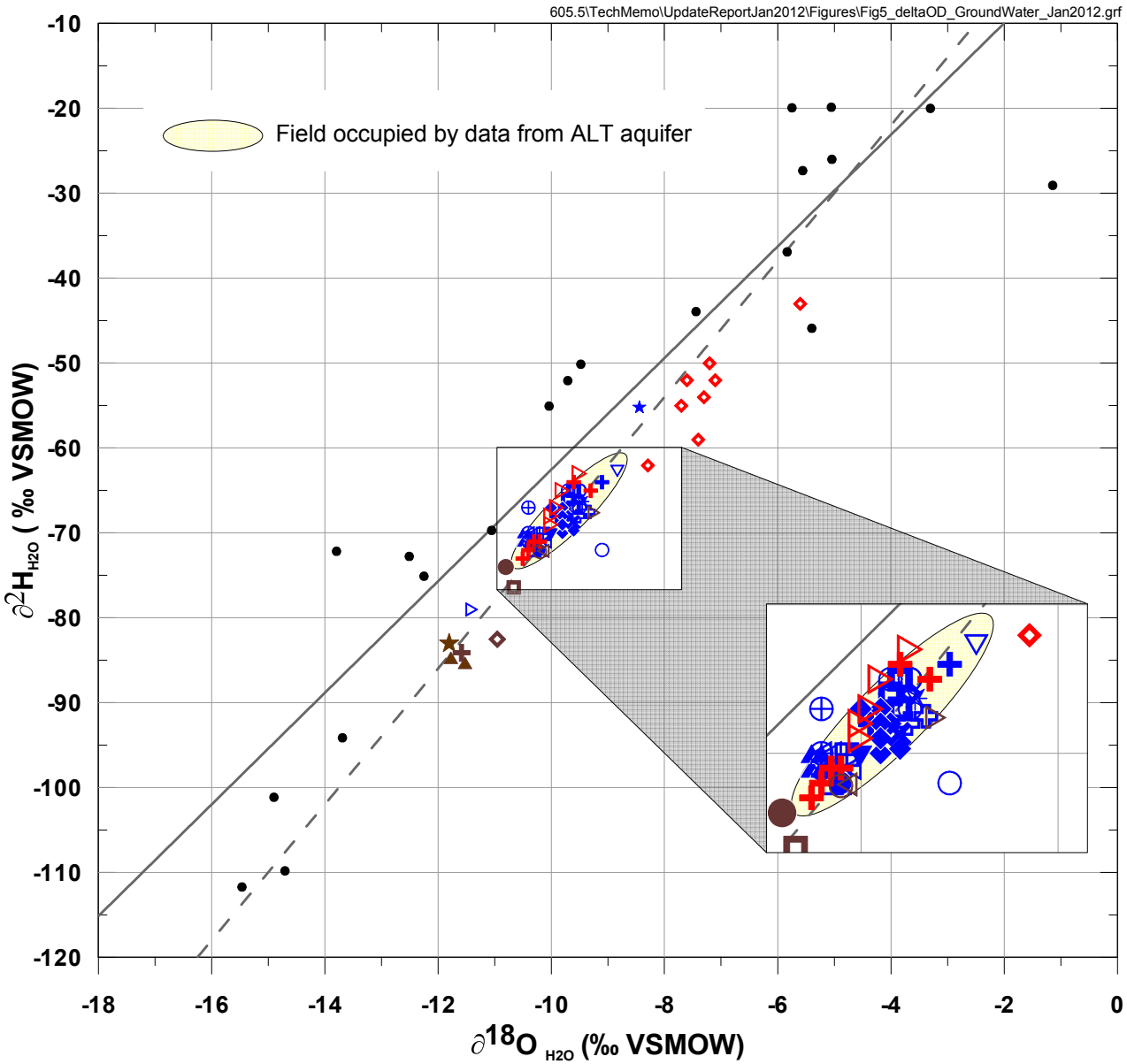


FIGURE 4. TIME SERIES OF MAJOR ION CHEMISTRY FOR SHALLOW GROUNDWATER SYSTEM, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES



EXPLANATION

- Precipitation 1989-1992 (Bassett et al.,1994)
- Local Meteoric Water Line (line of best fit to precipitation data)
- Global Meteoric Water Line (Craig, 1961)

Shallow Groundwater System

- Hackberry Windmill
- JI Ranch Corral Well
- JI Ranch Middle Well

Apache Leap Tuff Aquifer

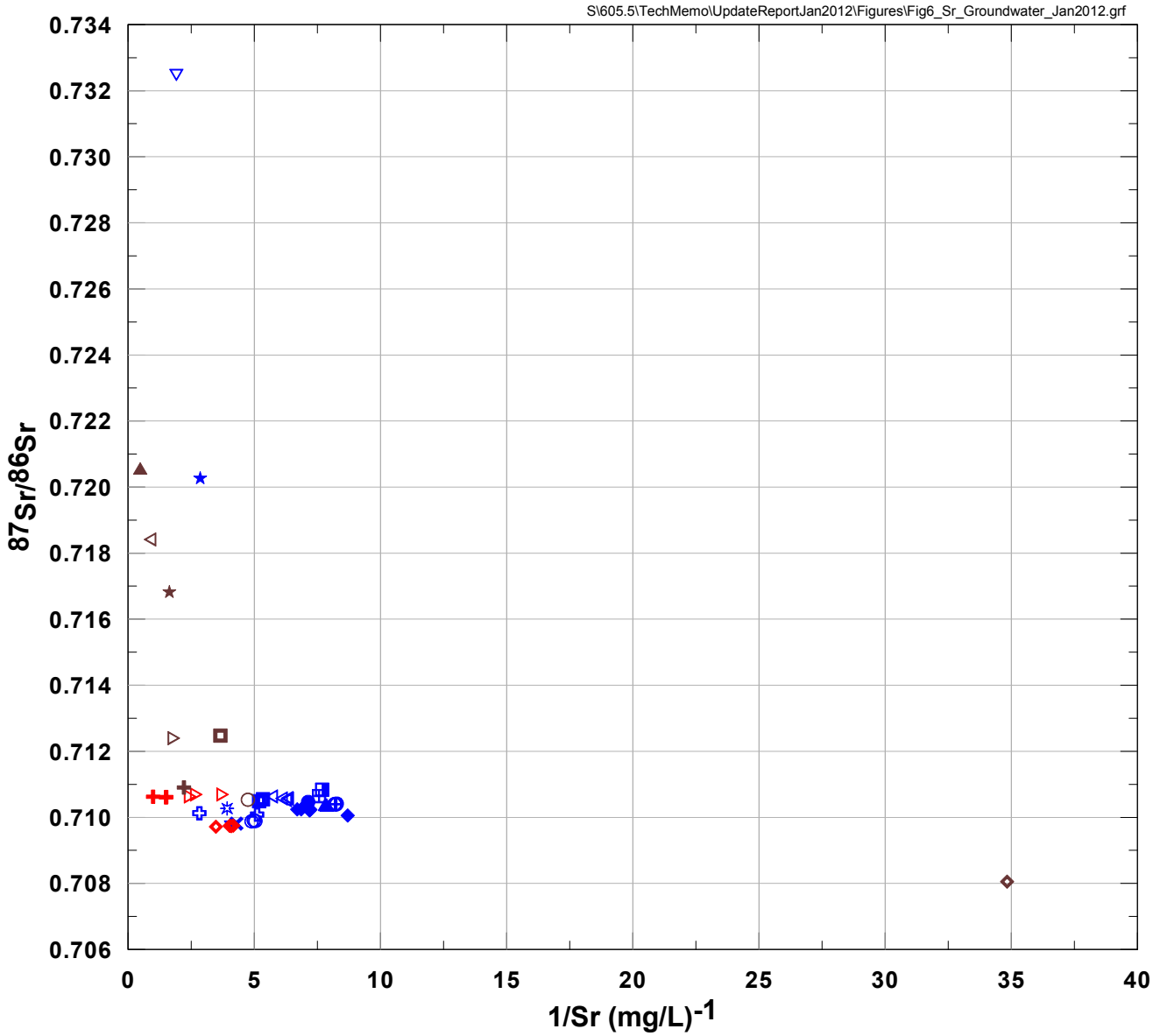
- A-06
- CT Well
- HRES-01
- HRES-02
- HRES-03d
- HRES-04
- HRES-05
- HRES-06
- HRES-07
- HRES-09
- HRES-08
- HRES-10
- HRES-11
- HRES-12
- HRES-13
- HRES-14
- JI Ranch House Well
- MJ-11
- Oak Flat Well

Deep Groundwater System

- DHRES-01
- DHRES-02
- DHRES-04
- DHRES-06
- DHRES-09
- DHRES-10
- DHRES-11
- DHRES-13
- RES-09

FIGURE 5. ∂^2H VERSUS $\partial^{18}O$ COMPOSITION OF GROUNDWATER, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES



EXPLANATION

Shallow Groundwater System

- Hackberry Windmill
- JI Ranch Corral Well
- JI Ranch Middle Well

Apache Leap Tuff Aquifer

- A-06
- CT Well
- HRES-01
- HRES-02
- HRES-03d
- HRES-04
- HRES-05
- HRES-06
- HRES-07
- HRES-09
- HRES-08
- HRES-10
- HRES-11
- HRES-12
- HRES-13
- HRES-14
- JI Ranch House Well
- MJ-11
- Oak Flat Well

Deep Groundwater System

- DHRES-01
- DHRES-02
- DHRES-04
- DHRES-06
- DHRES-09
- DHRES-10
- DHRES-11
- DHRES-13
- RES-09

FIGURE 6. $^{87}Sr/^{86}Sr$ ISOTOPE RATIO VERSUS INVERSE STRONTIUM CONCENTRATION OF GROUNDWATER, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

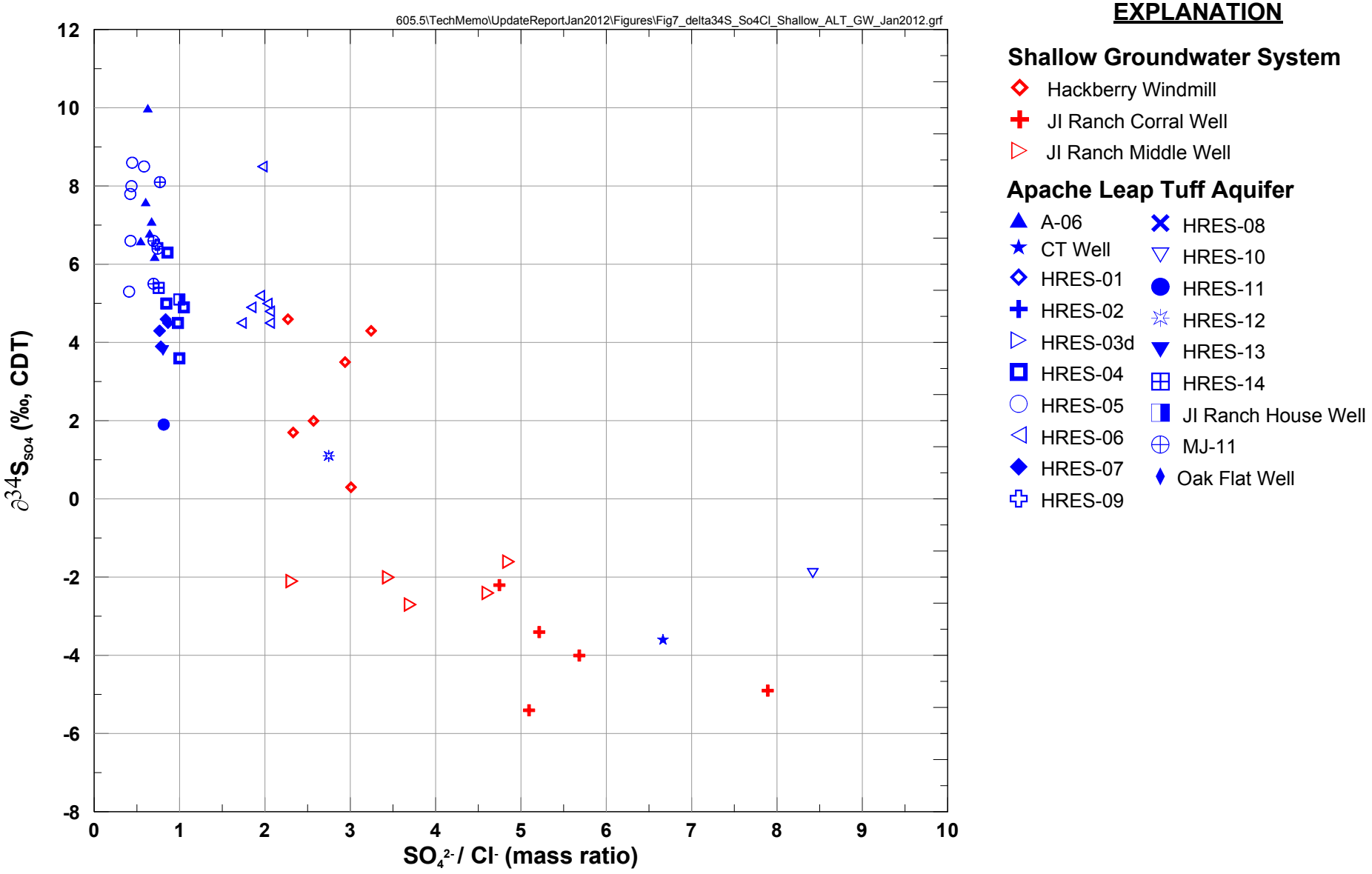


FIGURE 7. $\partial^{34}S_{SO4}$ VERSUS SO_4/Cl MASS RATIO OF GROUNDWATER SAMPLES
RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

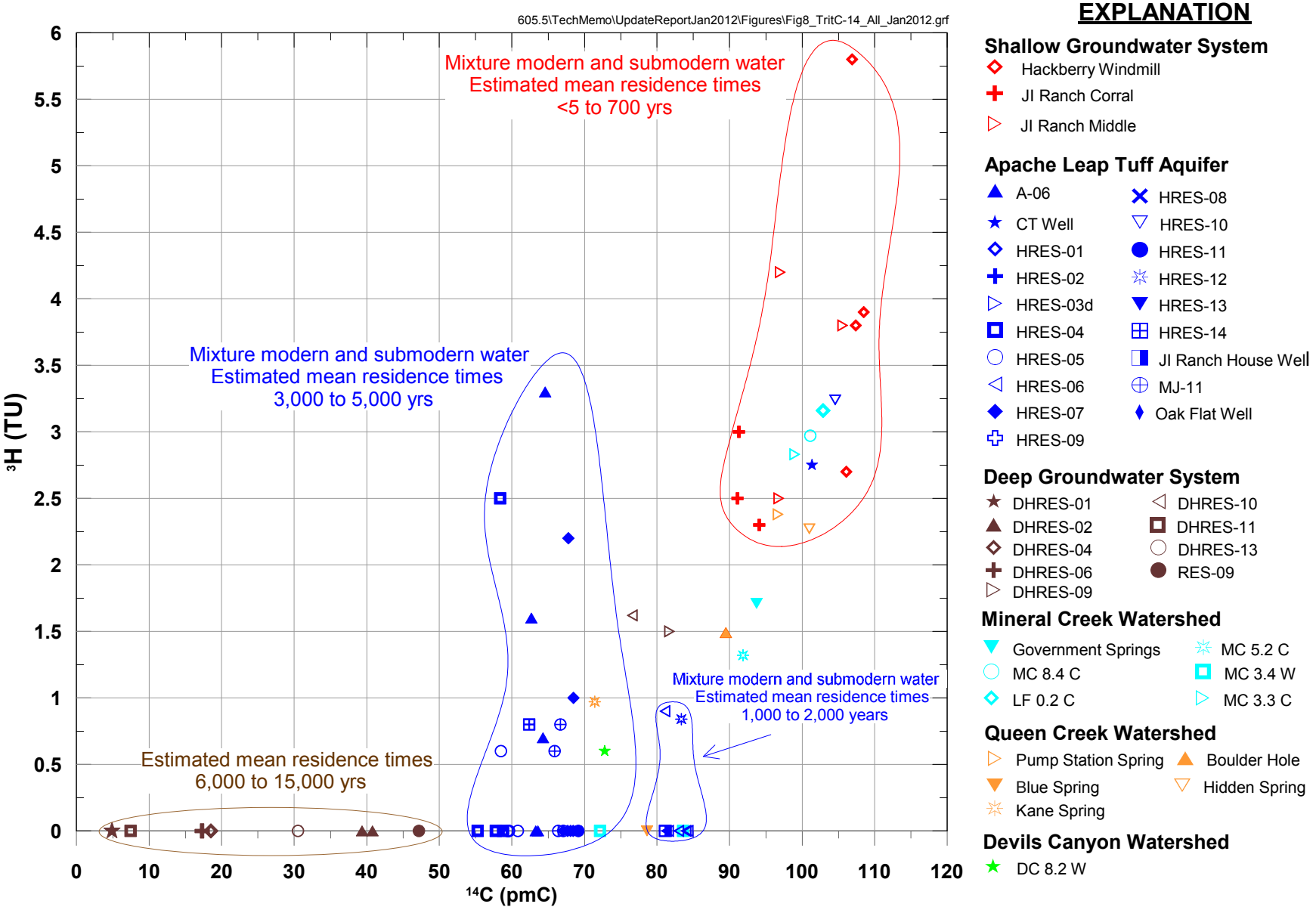
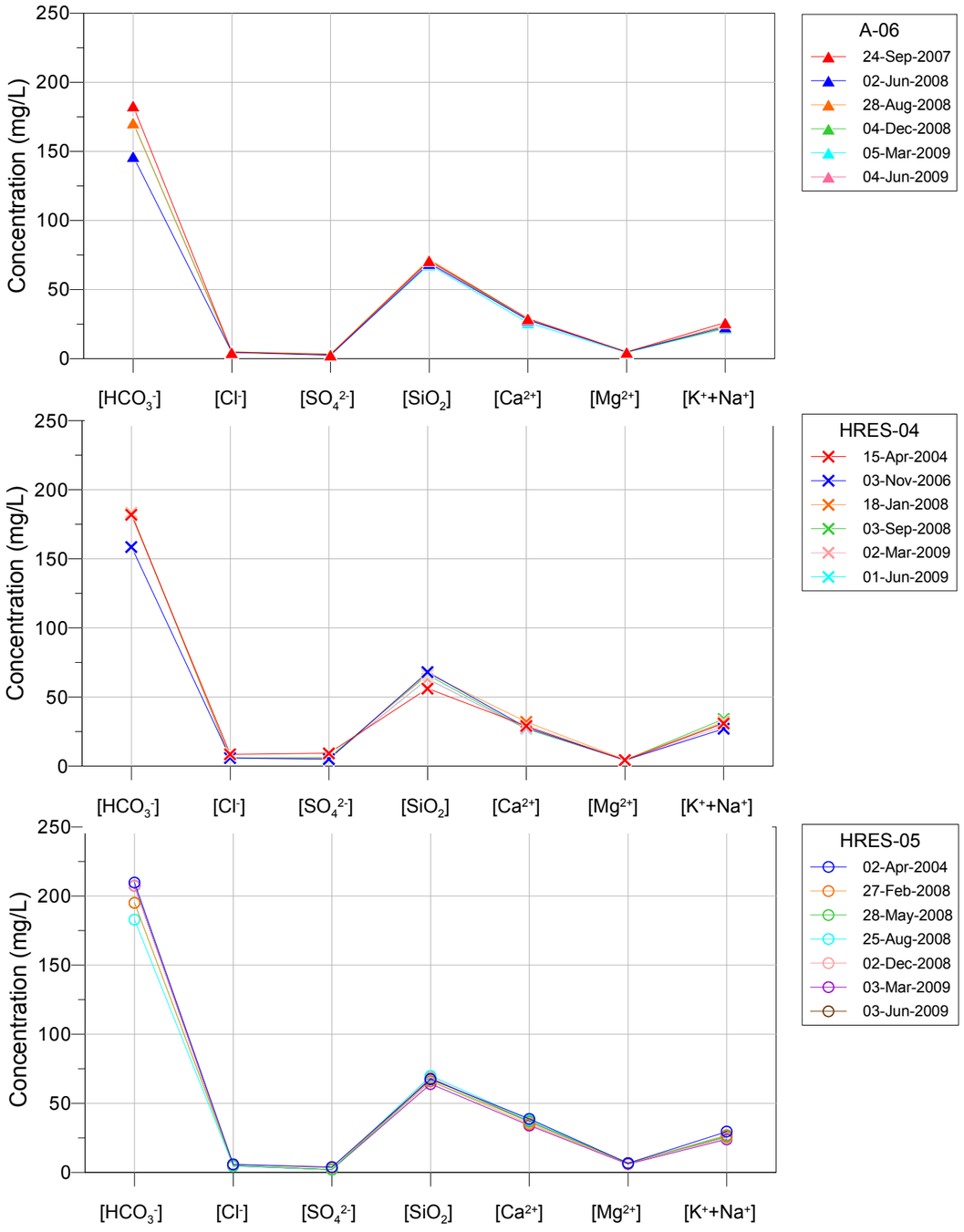


FIGURE 8. ^{3}H VERSUS ^{14}C FOR GROUNDWATER AND SELECTED SPRING AND SURFACE WATER LOCATIONS, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES



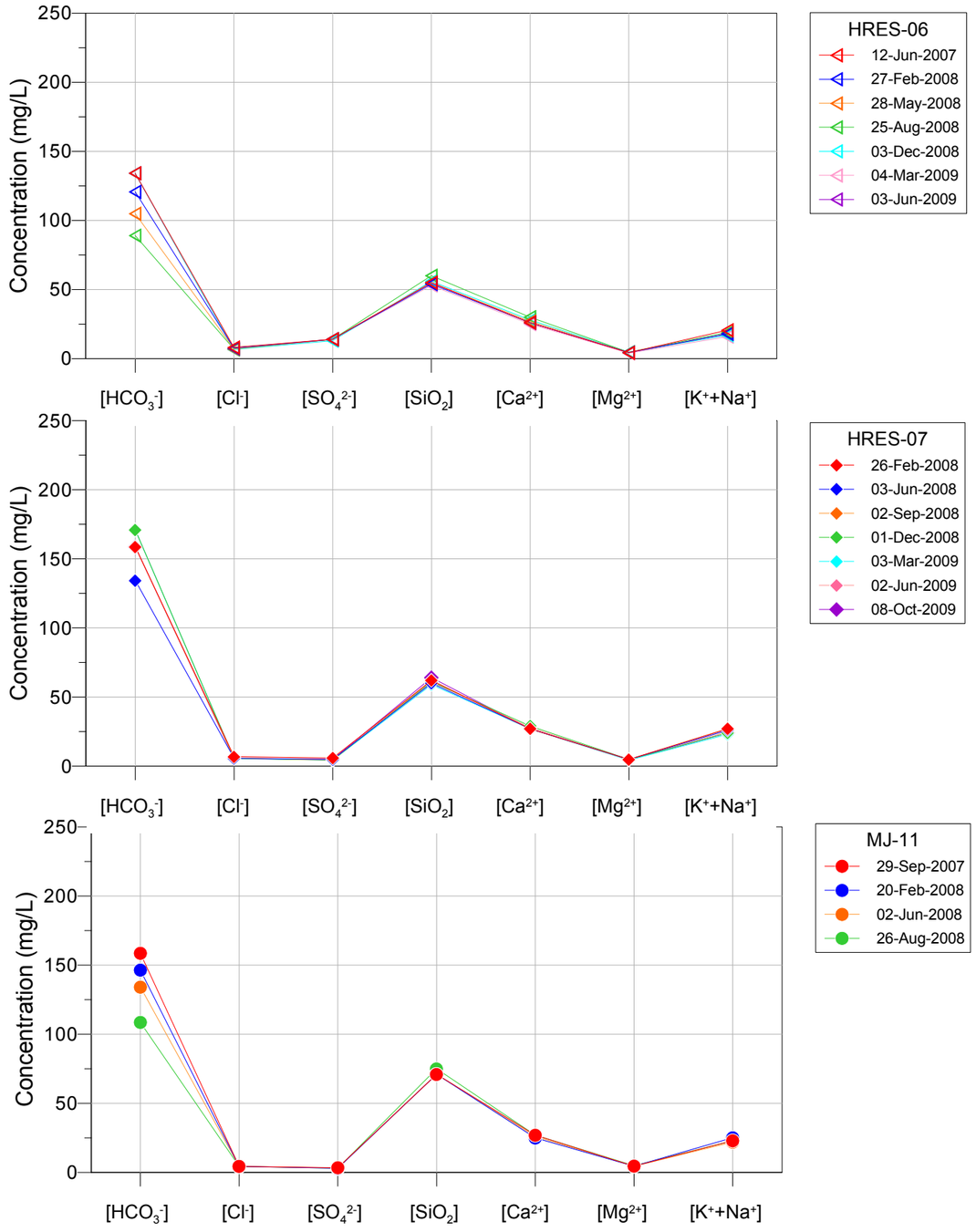


FIGURE 9. TIME SERIES OF MAJOR ION CHEMISTRY FOR APACHE LEAP TUFF AQUIFER, RESOLUTION PROJECT

605.5\TechMemo\UpdateReportJan2012\Figures\Fig9_Spider_ALTAquifer_mgL.grf

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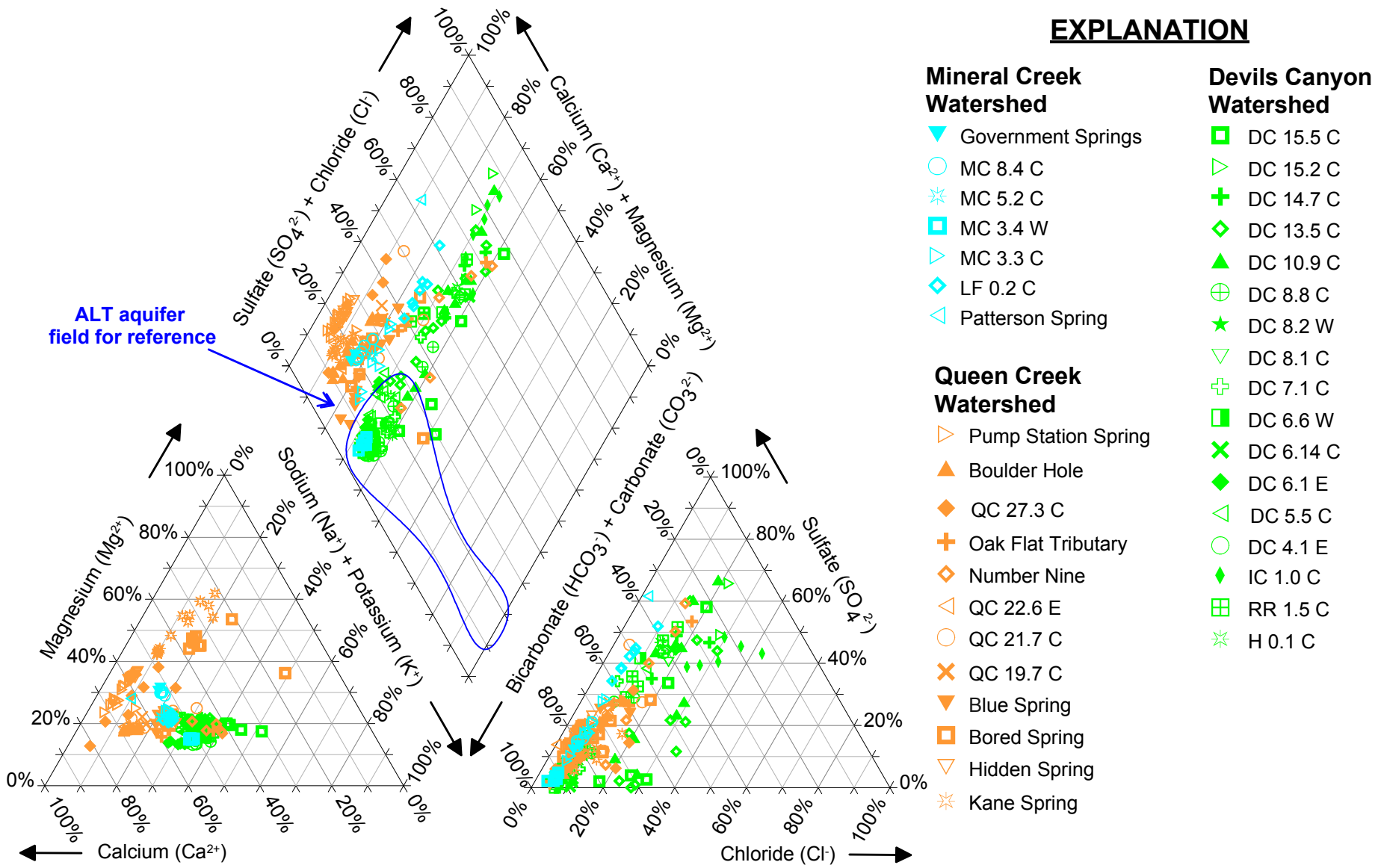


FIGURE 10. TRILINEAR DIAGRAM SHOWING COMMON ION COMPOSITIONS OF SURFACE WATER AND SPRINGS, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

605.5\TechMemo\UpdateReportJan2012\Figures\Fig10_Piper_SurfaceWater_Dec2011_g8.grf

Surface Water

DC15.5C (Devils Canyon)
6 4 2 0 2 4 6
5-Aug-08 110

DC14.7C (Devils Canyon)
6 4 2 0 2 4 6
27-Aug-08 94

DC13.5C (Devils Canyon)
6 4 2 0 2 4 6
21-Aug-08 130

DC8.1C (Devils Canyon)
6 4 2 0 2 4 6
6-Aug-08 230

DC6.14C (Devils Canyon)
6 4 2 0 2 4 6
20-Aug-08 160

Springs

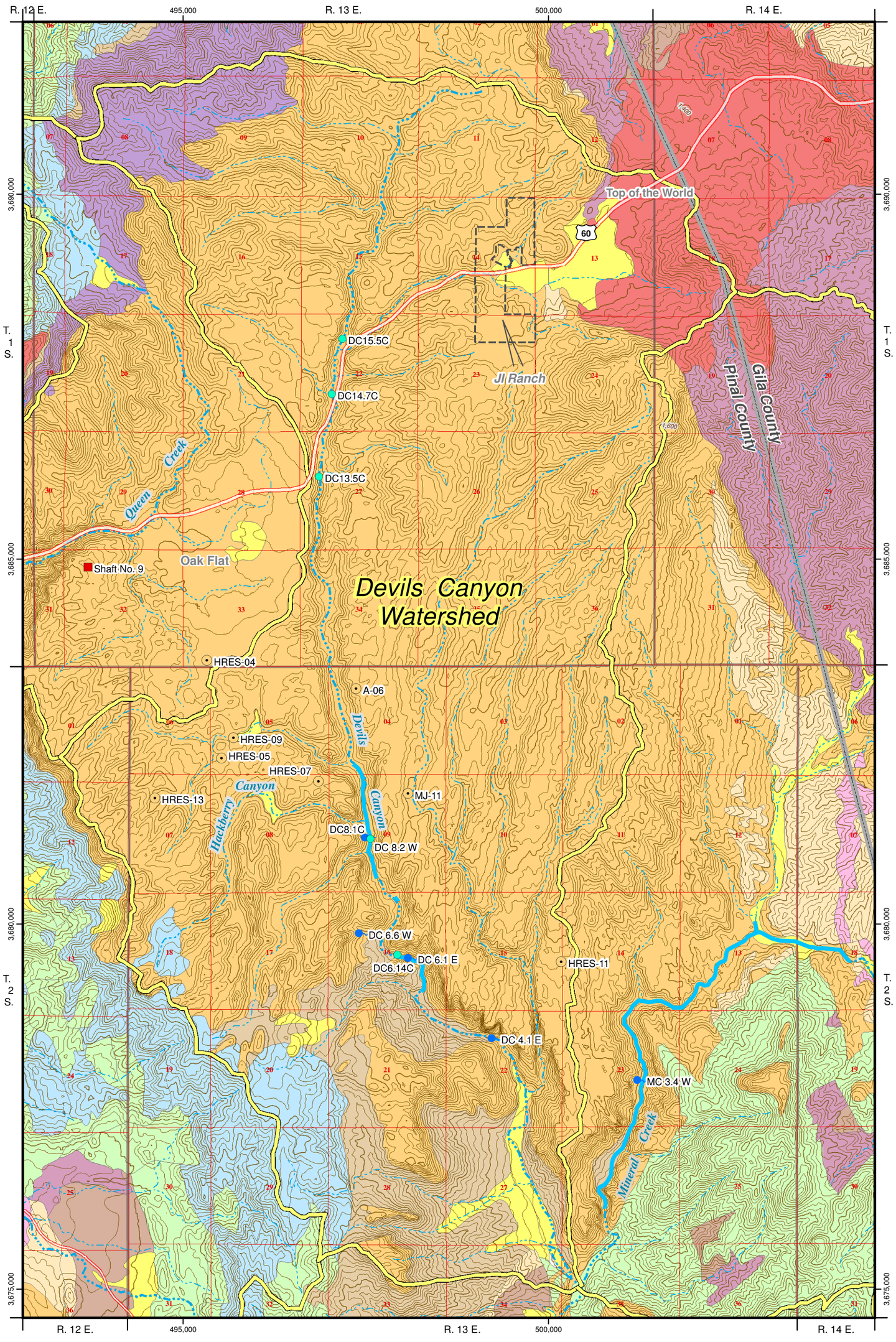
DC8.2W (Devils Canyon)
6 4 2 0 2 4 6
6-Aug-08 230

DC6.6W (Devils Canyon)
6 4 2 0 2 4 6
7-Sep-05 239

DC6.1E (Devils Canyon)
6 4 2 0 2 4 6
7-Aug-08 250

DC4.1E (Devils Canyon)
6 4 2 0 2 4 6
10-Feb-04 202

MC3.4W (Wet Leg Spring)
6 4 2 0 2 4 6
13-Nov-08 220



Apache Leap Tuff Aquifer

Well HRES-04
6 4 2 0 2 4 6
3-Sep-08 190

Well HRES-09
6 4 2 0 2 4 6
4-Jul-11 280

Well A-06
6 4 2 0 2 4 6
28-Aug-08 180

Well HRES-05
6 4 2 0 2 4 6
25-Aug-08 230

Well HRES-13
6 4 2 0 2 4 6
3-Jun-11 300

Well HRES-07
6 4 2 0 2 4 6
2-Sep-08 190

Well MJ-11
6 4 2 0 2 4 6
26-Aug-08 190

Well HRES-11
6 4 2 0 2 4 6
23-Sep-10 200

EXPLANATION

Watershed Boundary

Groundwater Monitoring Sites

A-06 — Apache Leap Tuff Aquifer Monitor Well and Identifier

Shaft Number 9 — Shaft and Identifier

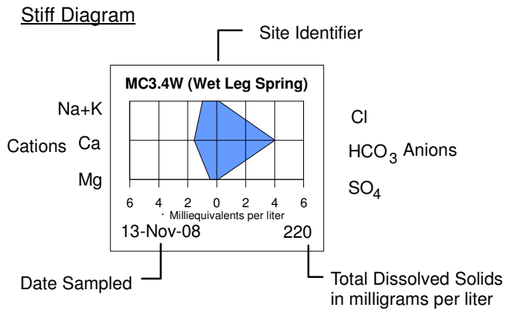
Surface Water Monitoring Sites (Selected)

MC3.4W — Spring and Identifier

DC14.7C — Surface Water Sample and Identifier

Perennial Reach

Stiff Diagram



Stiff Diagram Colors

- Surface Water
- Spring
- Apache Leap Tuff Aquifer Groundwater

Geologic Units

d	Disturbed Surficial Deposits
Qal	Quaternary Alluvial Deposits
QTg	Quaternary-Tertiary Basin-Fill Deposits
Tvy	Tertiary Younger Volcanic Rocks
Tal	Tertiary Apache Leap Tuff
Tvo	Tertiary Older Volcanic Rocks
Tw	Tertiary Whitetail Conglomerate
TKg	Cretaceous-Tertiary Intrusive Rocks
Pz	Paleozoic Sedimentary Rocks
p€y	Younger Precambrian Sedimentary, Volcanic, and Intrusives Rocks
p€gu	Precambrian Granite, Undifferentiated
p€pi	Older Precambrian Pinal Schist

N
0 0.5 1 1.5 2
Miles

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STIFF DIAGRAMS
UPPER QUEEN CREEK / DEVILS CANYON STUDY AREA

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FIGURE 11

\GIS-Tuc\Projects\605\605.5\HydroTech_Memo\\FocusedStiffMap\21March2012

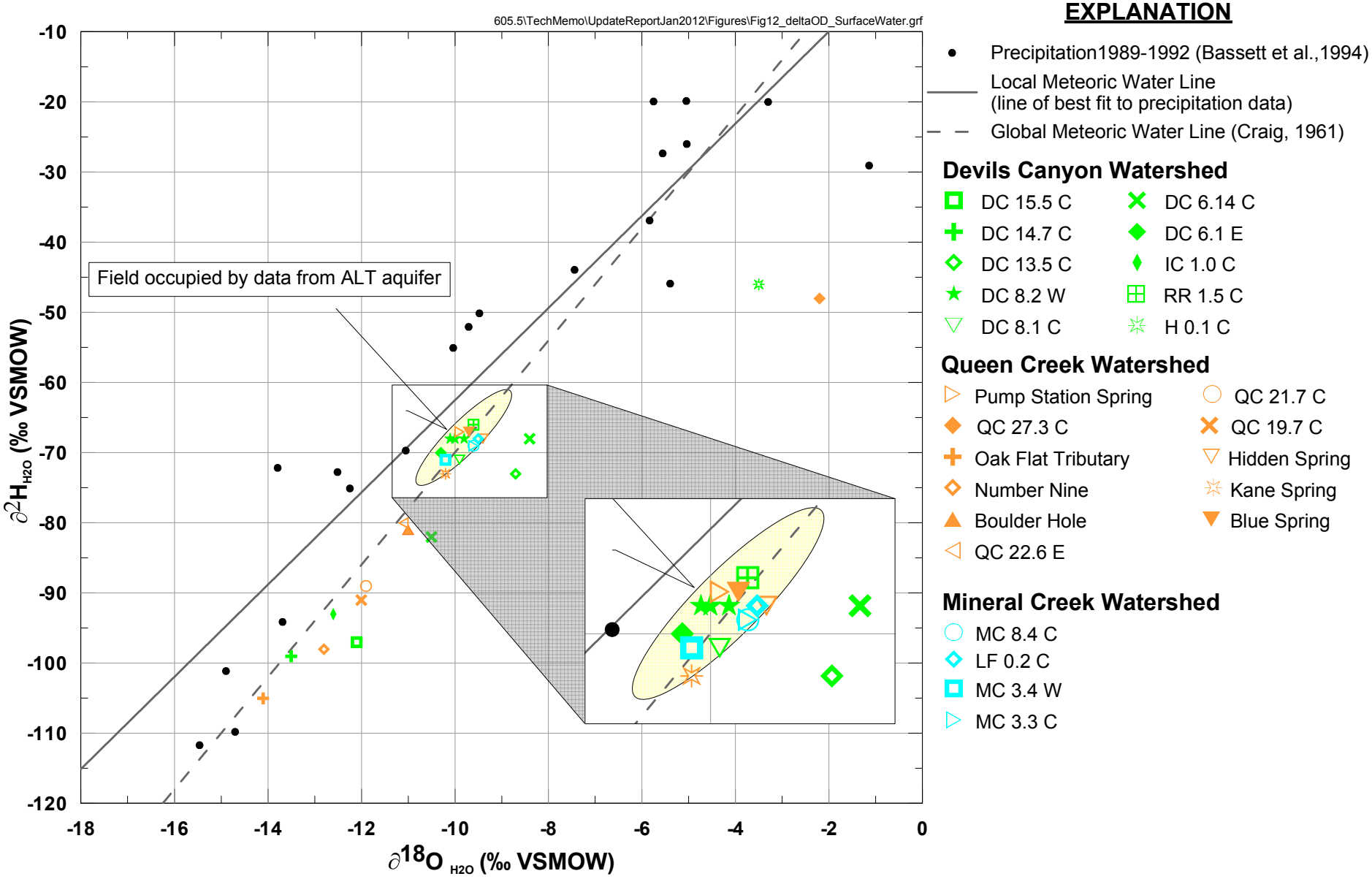


FIGURE 12. ∂^2H VERSUS $\partial^{18}O$ COMPOSITION OF SPRING AND SURFACE WATER SAMPLES COLLECTED IN 2008, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

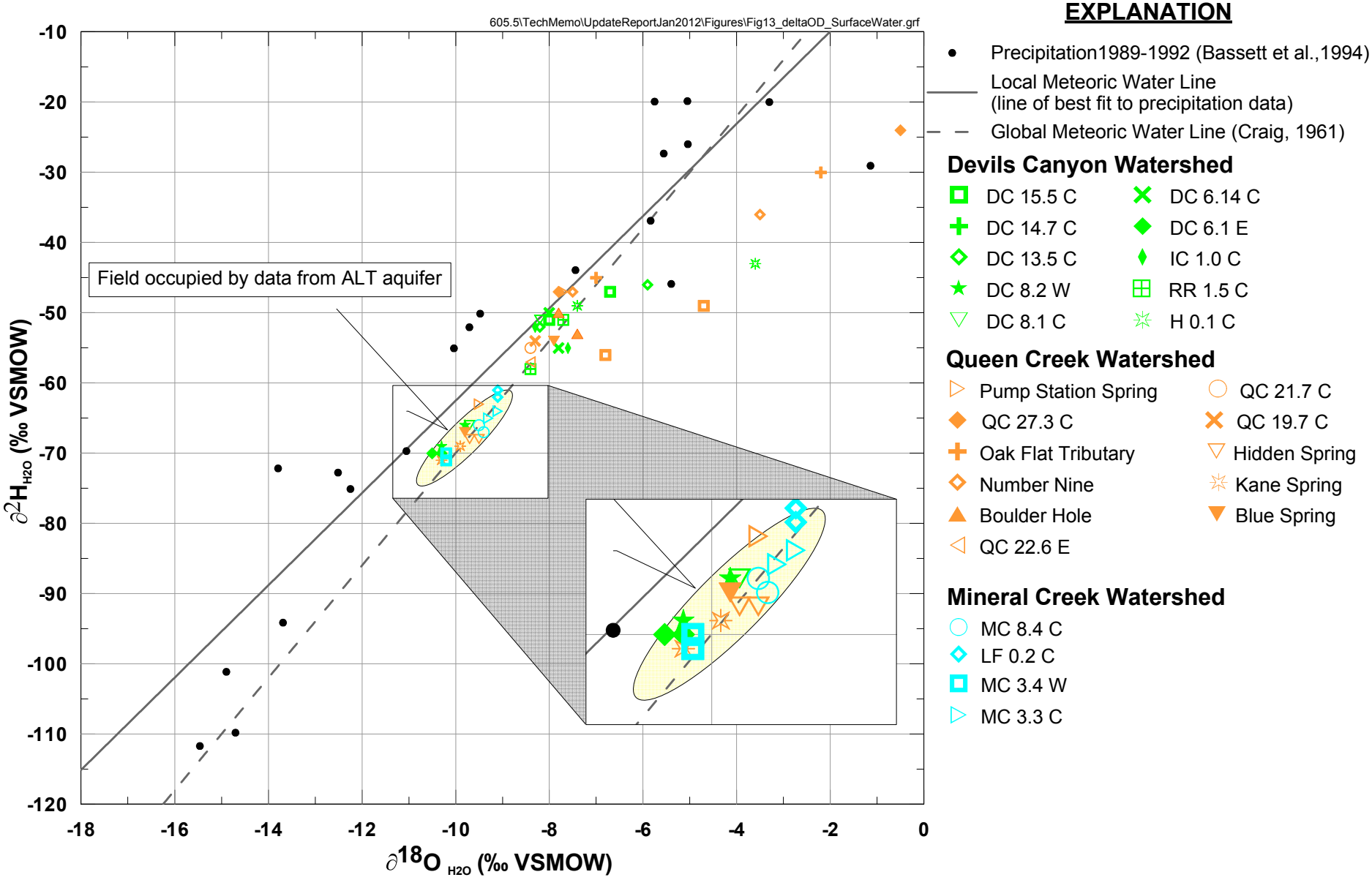


FIGURE 13. ∂^2H VERSUS $\partial^{18}O$ COMPOSITION OF SPRING AND SURFACE WATER SAMPLES COLLECTED IN 2009, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

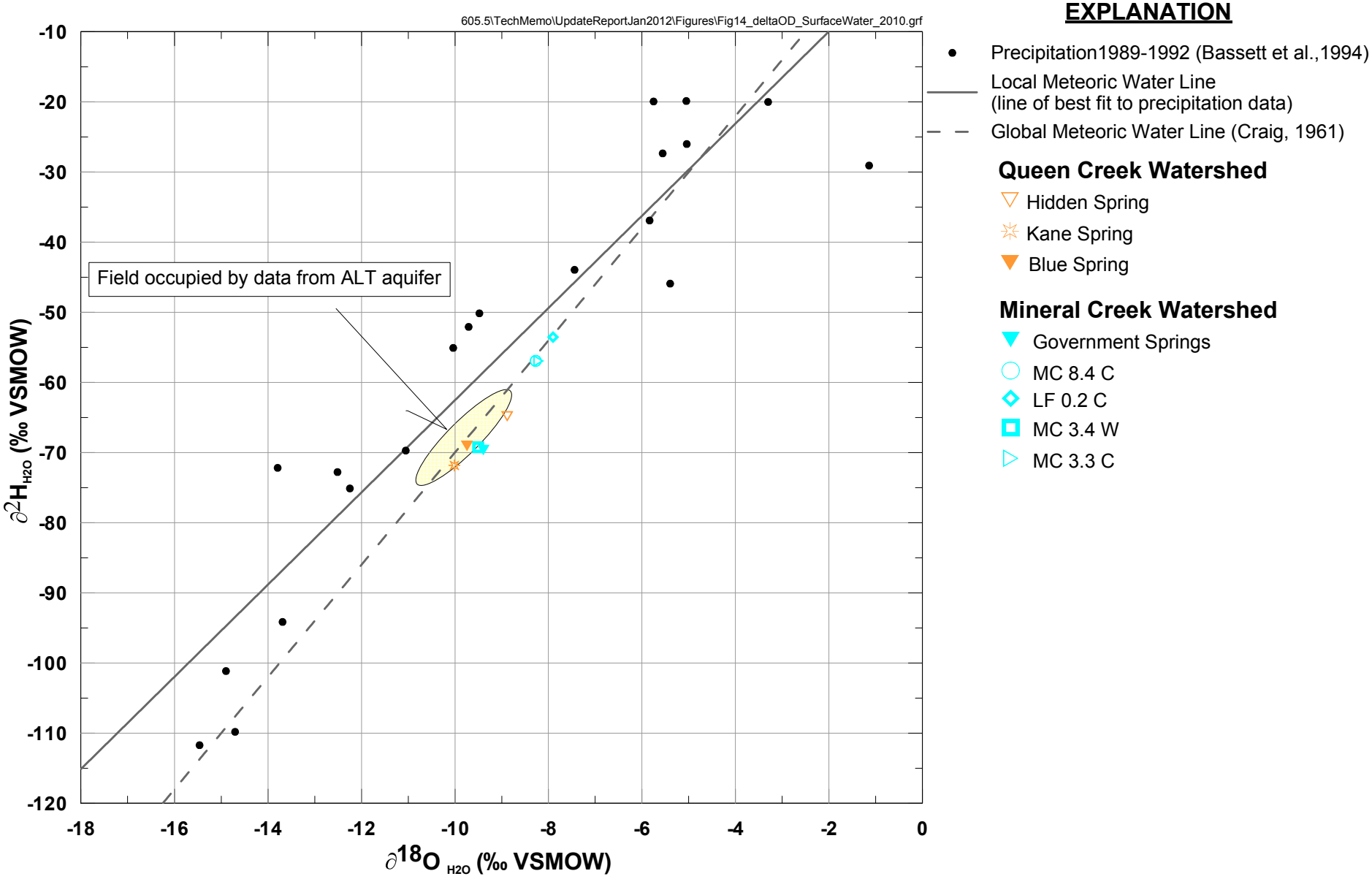


FIGURE 14. ∂^2H VERSUS $\partial^{18}O$ COMPOSITION OF SPRING AND SURFACE WATER SAMPLES COLLECTED IN 2010, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

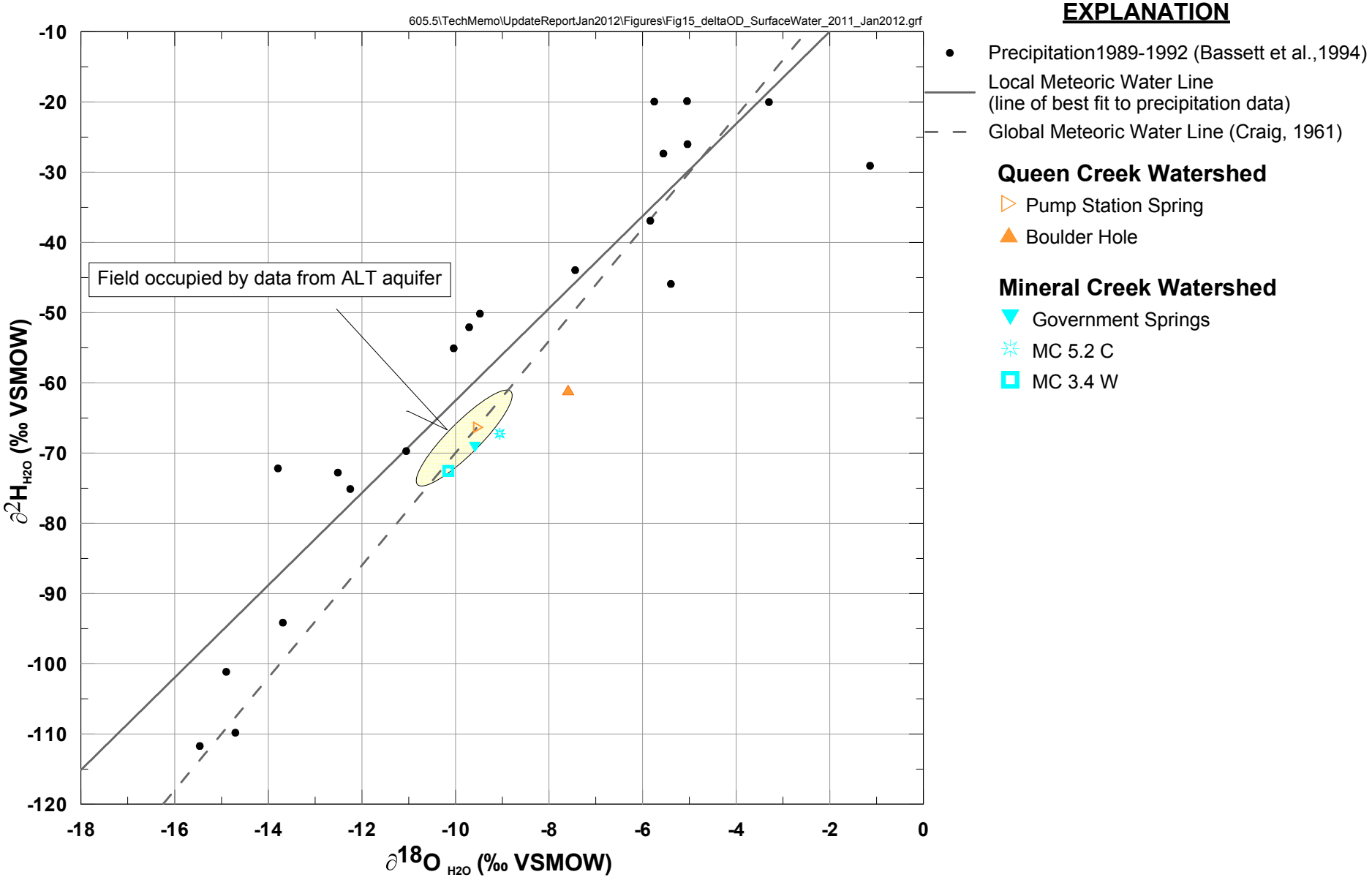
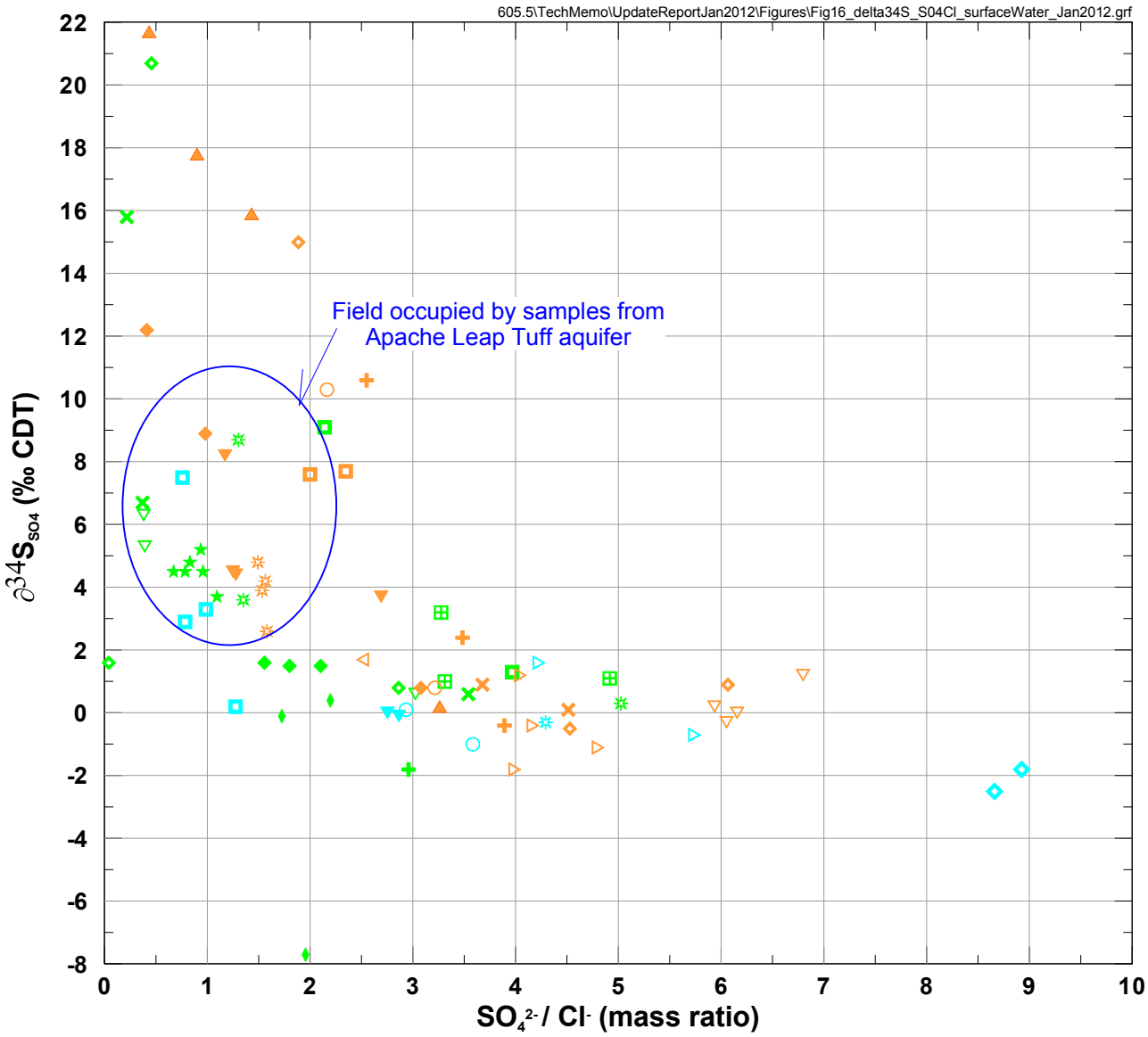


FIGURE 15. ∂^2H VERSUS $\partial^{18}O$ COMPOSITION OF SPRING AND SURFACE WATER SAMPLES COLLECTED IN 2011, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES



EXPLANATION

Devils Canyon Watershed

- DC 15.5 C
- DC 14.7 C
- DC 13.5 C
- DC 8.2 W
- DC 8.1 C
- DC 6.14 C
- DC 6.1 E
- IC 1.0 C
- RR 1.5 C
- H 0.1 C

Queen Creek Watershed

- Pump Station Spring
- QC 27.3 C
- Oak Flat Tributary
- Number Nine
- Boulder Hole
- QC 22.6 E
- QC 21.7 C
- QC 19.7 C
- Bored Spring
- Hidden Spring
- Kane Spring
- Blue Spring

Mineral Creek Watershed

- Government Springs
- MC 8.4 C
- LF 0.2 C
- MC 5.2 C
- MC 3.4 W
- MC 3.3 C

FIGURE 16. $\partial^{34}S_{SO4}$ VERSUS SO_4/Cl MASS RATIO OF SURFACE WATER AND SPRINGS, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

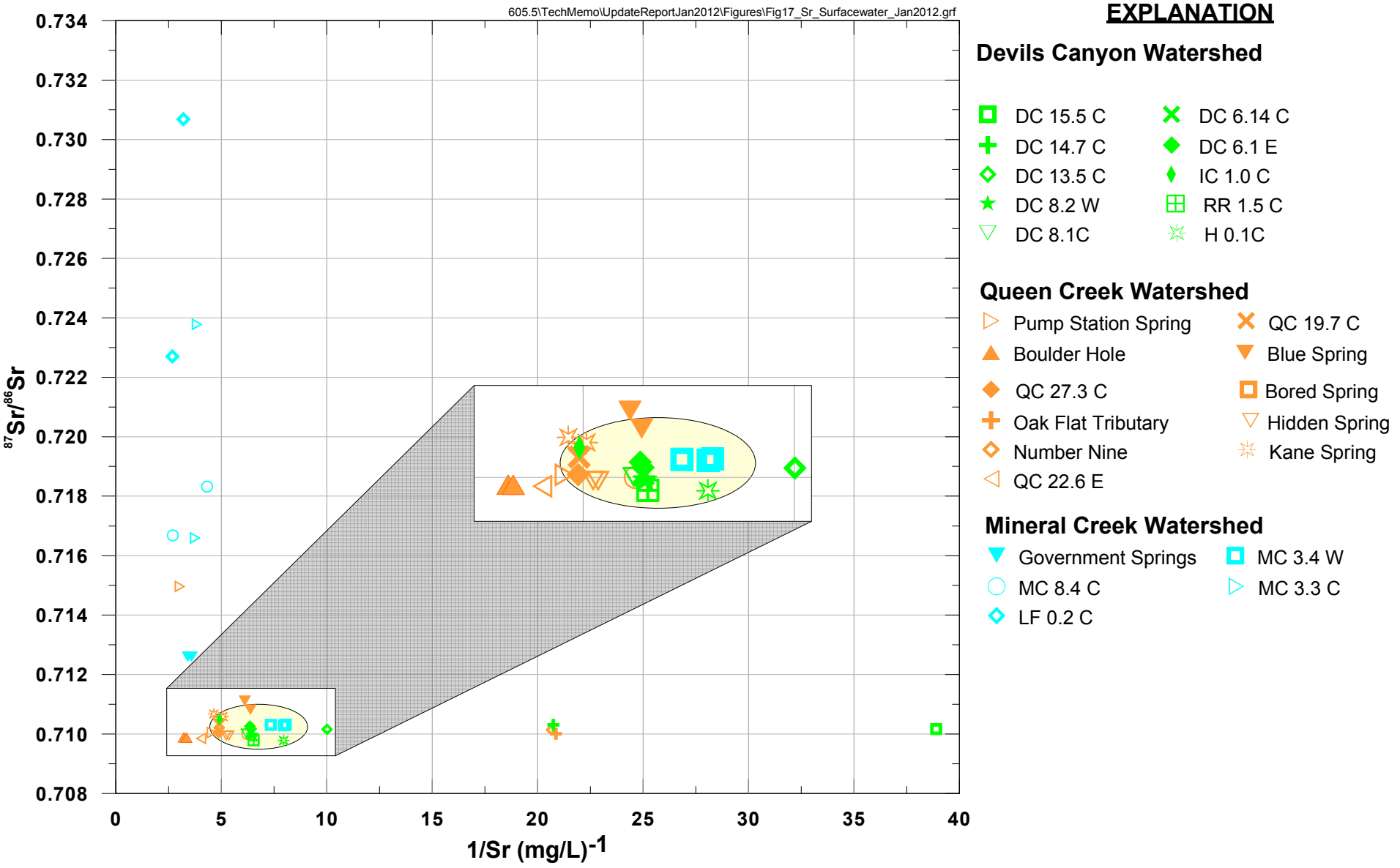
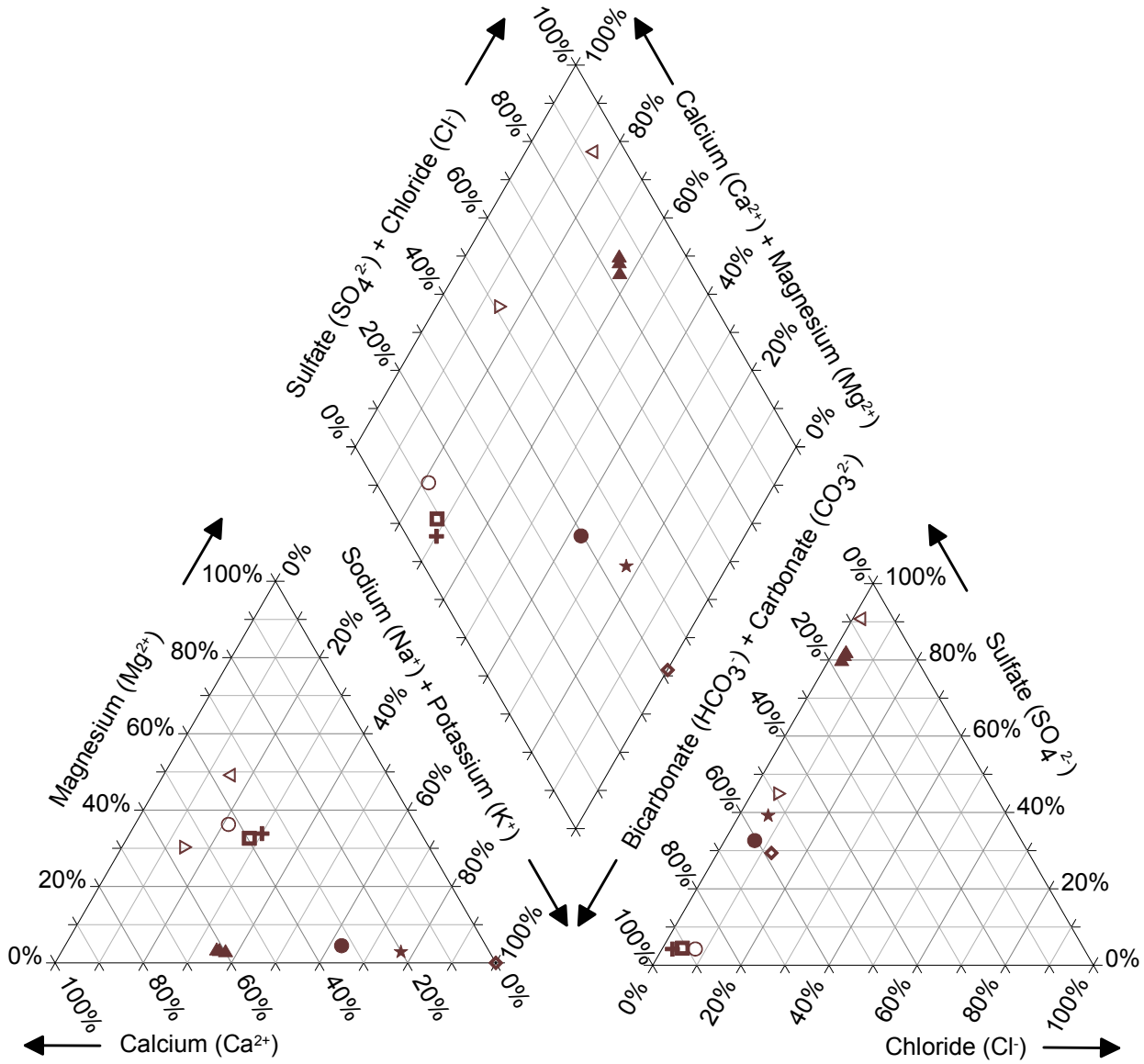


FIGURE 17. $^{87}Sr/^{86}Sr$ ISOTOPE RATIO VERSUS INVERSE STRONTIUM CONCENTRATION OF SPRINGS AND SURFACE WATER, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES



EXPLANATION

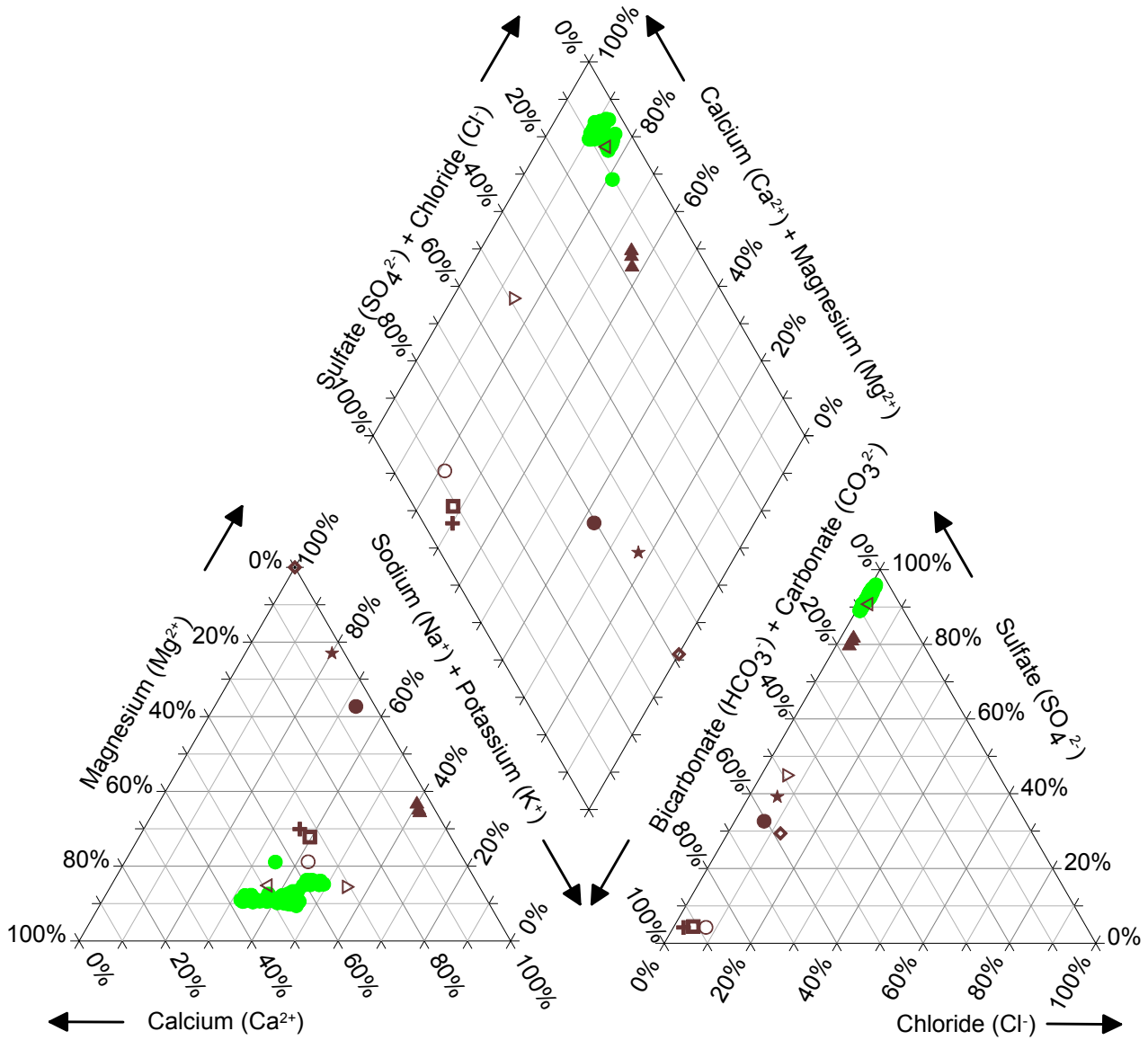
Deep Groundwater System

- ★ DHRES-01
- ▲ DHRES-02
- ◇ DHRES-04
- ✚ DHRES-06
- ▷ DHRES-09
- ◁ DHRES-10
- ◻ DHRES-11
- ○ DHRES-13
- ● RES-09

FIGURE 18. TRILINEAR DIAGRAM SHOWING COMMON ION COMPOSITIONS FOR DEEP GROUNDWATER SYSTEM, RESOLUTION PROJECT

605.5\TechMemo\UpdateReportJan2012\Figures\Fig18_Piper_DeepGroundWater_Jan2012_g8.grf

MONTGOMERY & ASSOCIATES



EXPLANATION

Deep Groundwater System

- ★ DHRES-01
- ▲ DHRES-02
- ◇ DHRES-04
- ✚ DHRES-06
- ▷ DHRES-09
- ◁ DHRES-10
- ▢ DHRES-11
- ○ DHRES-13
- ● RES-09

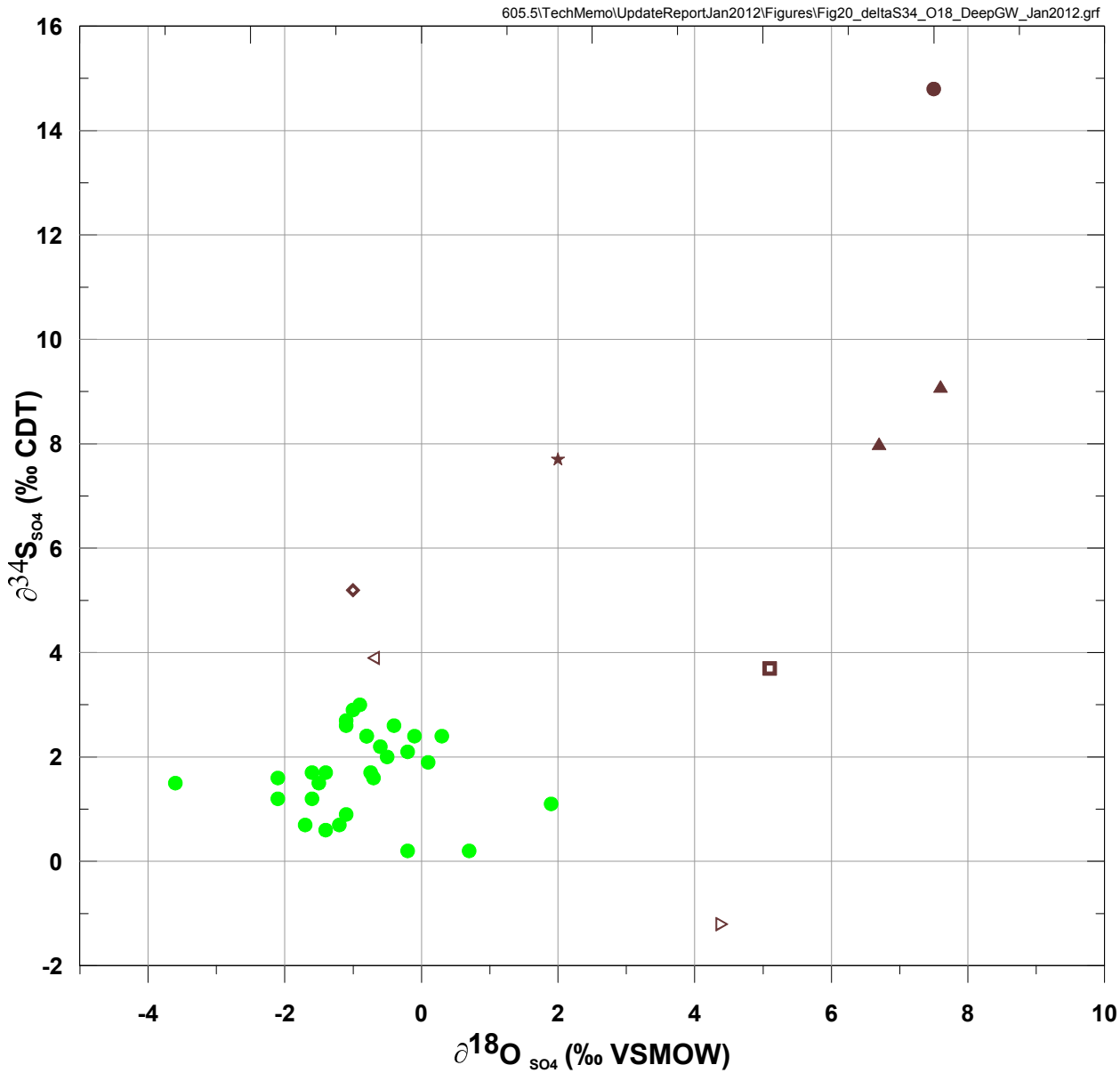
Mine Workings

- ● SHAFT NO. 9 DISCHARGE

FIGURE 19. TRILINEAR DIAGRAM SHOWING COMMON ION COMPOSITION FOR DEEP GROUNDWATER AND MINE WORKINGS, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

605.5\TechMemo\UpdateReportJan2012\Figures\Fig19_Piper_DeepGroundWater_PlusShaft9_Jan2012_g8.grf



EXPLANATION

Deep Groundwater System

- DHRES-01
- DHRES-02
- DHRES-04
- DHRES-06
- DHRES-09
- DHRES-10
- DHRES-11
- DHRES-13
- RES-09

Mine Workings

- SHAFT NO. 9 DISCHARGE

FIGURE 20. $\partial^{34}S$ VERSUS $\partial^{18}O$ IN DISSOLVED SULFATE FOR DEEP GROUNDWATER SYSTEM AND MINE WORKINGS, RESOLUTION PROJECT

MONTGOMERY & ASSOCIATES

APPENDIX A

GROUNDWATER HYDROCHEMICAL DATA

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Apache Leap Tuff Aquifer																					
(D-1-13)14ccc (Gresham Well - ADEQ)	---	19-Feb-02	---	---	---	---	---	---	100	---	---	---	---	---	---	14.98	7.08	214	6.7	210	
(D-1-13)14ccc (Gresham Well - ADEQ)	---	19-Feb-02	21	4.4	15	1.2	6.4	---	---	16	---	---	0.16	0.028	150	---	---	---	---	---	
(D-1-13)14dbd (JI Ranch Well - ADEQ)	---	28-Jun-00	---	---	---	---	---	---	120	---	---	---	---	---	190	20.28	7.22	214	---	240	
(D-1-13)14dbd (JI Ranch Well - ADEQ)	---	28-Jun-00	27	3.8	17	2.1	6.6	---	---	ND	---	---	0.22	0.95	---	---	---	---	---	---	
A-06	RESE-1000255	24-Sep-07	---	---	---	---	---	---	---	---	---	---	---	---	---	25.9	7.13	268.1	---	---	
A-06	RESE-1000255	24-Sep-07	29	4.8	25	1.1	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
A-06	RESE-1000255	24-Sep-07	---	---	---	---	4.6	--	183	2.9	---	<0.50	0.35	0.37	210	---	---	---	---	---	TestAmerica
A-06 DUP	RESE-1000256	24-Sep-07	---	---	---	---	---	---	---	---	---	---	---	---	---	25.9	7.13	268.1	---	---	
A-06 DUP	RESE-1000256	24-Sep-07	30	5.0	24	1.0	---	---	---	---	73	---	---	---	---	---	---	---	---	---	TestAmerica
A-06 DUP	RESE-1000256	24-Sep-07	---	---	---	---	4.6	--	183	2.8	---	<0.50	0.35	0.36	210	---	---	---	---	---	TestAmerica
A-06	RESE-1003008	02-Jun-08	---	---	---	---	---	---	---	---	---	---	---	---	---	26.2	7.17	264.4	---	---	
A-06	RESE-1003008	02-Jun-08	28	4.8	23	<2.0	---	---	---	---	69	---	---	---	---	---	---	---	---	---	TestAmerica
A-06	RESE-1003008	02-Jun-08	---	---	---	---	4.4	--	146.4	2.4	---	<0.50	<0.40	0.27	220	---	---	---	7.42	260	TestAmerica
A-06	RESE-1003016	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	26.0	7.23	267	---	---	
A-06	RESE-1003016	28-Aug-08	29	4.8	24	<2.0	---	---	---	---	72	---	---	---	---	---	---	---	---	---	TestAmerica
A-06	RESE-1003016	28-Aug-08	---	---	---	---	4.5	--	170.8	3.2	---	<0.50	<0.40	0.32	180	---	---	---	7.29	280	TestAmerica
A-06	RESE-1003030	04-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	25.5	7.39	264.3	---	---	
A-06	RESE-1003030	04-Dec-08	28	4.8	22	<2.0	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
A-06	RESE-1003030	04-Dec-08	---	---	---	---	4.9	--	170.8	3.3	---	<0.50	0.41	0.29	220	---	---	---	7.41	270	TestAmerica
A-06	RESE-1003039	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	25.1	7.28	265	---	---	
A-06	RESE-1003039	05-Mar-09	26	4.4	22	<2.0	---	---	---	---	68	---	---	---	---	---	---	---	---	---	TestAmerica
A-06	RESE-1003039	05-Mar-09	---	---	---	---	4.6	--	170.8	3.0	---	<0.50	0.75	0.30	190	---	---	---	7.73	260	TestAmerica
A-06 SP	RESE-1003039	05-Mar-09	---	---	---	---	4.76	---	---	3.10	---	<0.100	0.247	---	---	---	---	---	---	---	SVL
A-06	RESE-1003046	04-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	26.3	7.22	267.8	---	---	
A-06	RESE-1003046	04-Jun-09	28	4.7	24	<2.0	---	---	---	---	70	---	---	---	---	---	---	---	---	---	TestAmerica
A-06	RESE-1003046	04-Jun-09	---	---	---	---	4.8	--	170.8	2.9	---	<0.50	0.73	0.38	190	---	---	---	7.88	260	TestAmerica
A-06 SP	RESE-1003046	04-Jun-09	---	---	---	---	4.73	---	---	3.04	---	<0.100	0.218	---	---	---	---	---	---	---	SVL
CT Well	RESE-1003101	20-Apr-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.0	6.77	662.2	---	---	
CT Well	RESE-1003101	20-Apr-10	67	22	43	<2.0	---	---	---	---	29	---	---	---	---	---	---	---	---	---	TestAmerica
CT Well	RESE-1003101	20-Apr-10	67	22	43	<2.0	18	--	256.2	120	30	<0.50	0.44	0.36	490	---	---	---	7.88	680	TestAmerica
CT Well	RESE-1003102	20-Apr-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.6	6.79	677.8	---	---	
HRES-01	RESE-1001102	15-Mar-04	---	---	---	---	---	---	---	---	---	---	---	---	---	26.2	8.34	259	---	---	
HRES-01	RESE-1001102	15-Mar-04	8.75	0.815	52.2	<1.0	5.64	--	154.9	6.82	55.0	---	0.29	0.840	205	---	---	---	8.30	269	SVL
HRES-01	RESE-1001103	18-Mar-04	---	---	---	---	---	---	---	---	---	---	---	---	---	26.9	8.42	259	---	---	
HRES-01	RESE-1001103	18-Mar-04	7.41	0.722	54.8	<1.0	5.70	--	154.9	6.80	54.4	---	0.31	0.810	196	---	---	---	8.31	270	SVL
HRES-02	RESE-1001105	06-Apr-04	---	---	---	---	---	---	---	---	---	---	---	---	---	23.8	8.03	268.8	---	---	
HRES-02	RESE-1001105	06-Apr-04	21.3	4.76	33.8	<1.0	7.42	--	144	13.6	60.7	---	0.4	0.94	206	---	---	---	8.01	285	SVL
HRES-02	RESE-1001108	08-Apr-04	---	---	---	---	---	---	---	---	---	---	---	---	---	25.4	*9.30*	322	---	---	
HRES-02	RESE-1001108	08-Apr-04	2.3	0.177	66.3	<1.0	7.46	21	119.1	7.97	44.8	---	0.68	0.88	192	---	---	---	*9.23*	304	SVL

MONTGOMERY & ASSOCIATES

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Apache Leap Tuff Aquifer																					
HRES-02	RESE-1001109	10-Apr-04	---	---	---	---	---	---	---	---	---	---	---	---	---	22.6	*9.36*	333	---	---	
HRES-02	RESE-1001109	10-Apr-04	1.89	0.047	69.3	<1.0	6.64	21.9	130.5	8.31	47.6	---	0.76	0.89	211	---	---	---	*9.21*	324	SVL
HRES-03d	RESE-1001111	16-Apr-04	---	---	---	---	---	---	---	---	---	---	---	---	---	24.2	*10.17*	515	---	---	
HRES-03d	RESE-1001111	16-Apr-04	1.16	0.041	55.7	<1.0	6.8	36.5	73.8	7.16	6.98	---	1.05	<0.020	155	---	---	---	*9.79*	293	SVL
HRES-04	RESE-1001110	15-Apr-04	29	4.31	30.9	<1.0	8.45	--	181.8	9.25	56.1	---	0.41	0.36	217	---	---	---	7.9	321	SVL
HRES-04	4531	03-Nov-06	---	---	---	---	---	---	---	---	---	---	---	---	---	27.1	6.72	298	---	---	
HRES-04	4531	03-Nov-06	28	4.3	27	<1.0	---	---	---	---	68	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-04	4531	03-Nov-06	---	---	---	---	5.9	--	158.6	5.0	---	---	0.46	0.589	210	---	---	---	7.83	260	TestAmerica
HRES-04	RESE-1001114	18-Jan-08	---	---	---	---	---	---	---	---	---	---	---	---	---	25.6	7.87	299	---	---	
HRES-04	RESE-1001114	18-Jan-08	32	4.6	31	0.95	---	---	---	---	67	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-04	RESE-1001114	18-Jan-08	---	---	---	---	5.7	--	183	4.9	---	<0.50	0.37	0.33	200	---	---	---	7.99	300	TestAmerica
HRES-04	RESE-1003021	03-Sep-08	---	---	---	---	---	---	---	---	---	---	---	---	---	28.2	7.28	290	---	---	
HRES-04	RESE-1003021	03-Sep-08	27	4.5	34	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-04	RESE-1003021	03-Sep-08	---	---	---	---	5.8	--	183	6.1	---	<0.50	0.42	0.49	190	---	---	---	7.83	280	TestAmerica
HRES-04	RESE-1003031	02-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	27.7	7.54	292.4	---	---	
HRES-04	RESE-1003031	02-Mar-09	27	4.0	29	<2.0	---	---	---	---	63	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-04	RESE-1003031	02-Mar-09	---	---	---	---	5.6	--	183	5.6	---	<0.50	0.71	0.51	210	---	---	---	7.99	290	TestAmerica
HRES-04 SP	RESE-1003031	02-Mar-09	---	---	---	---	5.76	---	---	5.78	---	<0.100	0.263	---	---	---	---	---	---	---	SVL
HRES-04	RESE-1003040	01-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	28.4	7.59	294	---	---	
HRES-04	RESE-1003040	01-Jun-09	27	4.2	31	<2.0	---	---	---	---	63	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-04	RESE-1003040	01-Jun-09	---	---	---	---	5.5	--	183	5.4	---	<0.50	0.46	0.54	180	---	---	---	8.10	280	TestAmerica
HRES-04 SP	RESE-1003040	01-Jun-09	---	---	---	---	5.61	---	---	5.58	---	<0.100	0.214	---	---	---	---	---	---	---	SVL
HRES-05	RESE-1001104	02-Apr-04	---	---	---	---	---	---	---	---	---	---	---	---	---	21.3	7.64	328.8	---	---	
HRES-05	RESE-1001104	02-Apr-04	38.8	6.74	28.5	1.1	5.96	--	209.8	3.89	67.4	---	0.32	0.65	240	---	---	---	7.66	351	SVL
HRES-05	RESE-1000264	27-Feb-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.3	7.49	319.5	---	---	
HRES-05	RESE-1000264	27-Feb-08	35	6.6	27	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-05	RESE-1000264	27-Feb-08	---	---	---	---	5.8	--	195.2	3.4	---	<0.50	0.46	0.81	210	---	---	---	---	---	TestAmerica
HRES-05	RESE-1003001	28-May-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.9	7.34	329.9	---	---	
HRES-05	RESE-1003001	28-May-08	37	6.7	26	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-05	RESE-1003001	28-May-08	---	---	---	---	5.1	--	195.2	2.1	---	<0.50	<0.40	0.56	250	---	---	---	7.73	320	TestAmerica
HRES-05	RESE-1003012	25-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	25.3	7.37	321	---	---	
HRES-05	RESE-1003012	25-Aug-08	38	6.8	27	<2.0	---	---	---	---	70	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-05	RESE-1003012	25-Aug-08	---	---	---	---	4.7	--	183	2.0	---	<0.50	<0.40	0.57	230	---	---	---	7.64	330	TestAmerica
HRES-05	RESE-1003025	02-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.2	7.64	325.9	---	---	
HRES-05	RESE-1003025	02-Dec-08	36	6.8	25	<2.0	---	---	---	---	69	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-05	RESE-1003025	02-Dec-08	---	---	---	---	4.9	--	207.4	2.1	---	<0.50	0.44	0.56	220	---	---	---	7.62	330	TestAmerica
HRES-05	RESE-1003034	03-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.3	7.53	324.6	---	---	
HRES-05	RESE-1003034	03-Mar-09	34	6.1	24	<2.0	---	---	---	---	64	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-05	RESE-1003034	03-Mar-09	---	---	---	---	4.7	--	207.4	2.1	---	<0.50	0.73	0.55	230	---	---	---	7.96	310	TestAmerica
HRES-05 SP	RESE-1003034	03-Mar-09	---	---	---	---	4.88	---	---	2.16	---	<0.100	0.246	---	---	---	---	---	---	---	SVL

MONTGOMERY & ASSOCIATES

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Apache Leap Tuff Aquifer																					
HRES-05	RESE-1003043	03-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.5	7.39	327.6	---	---	
HRES-05	RESE-1003043	03-Jun-09	37	6.5	26	<2.0	---	---	---	---	68	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-05	RESE-1003043	03-Jun-09	---	---	---	---	4.8	--	207.4	2.1	---	<0.50	0.66	0.59	190	---	---	---	8.01	310	TestAmerica
HRES-05 SP	RESE-1003043	03-Jun-09	---	---	---	---	4.95	---	---	2.27	---	<0.100	0.230	---	---	---	---	---	---	---	SVL
HRES-06	RESE-1000301	12-Jun-07	---	---	---	---	---	---	---	---	---	---	---	---	---	19.7	6.72	261	---	---	
HRES-06	RESE-1000301	12-Jun-07	26	4.3	19	1.6	---	---	---	---	55	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1000301	12-Jun-07	---	---	---	---	8.1	--	134.2	14	---	<0.50	0.32	0.27	200	---	---	---	---	---	TestAmerica
HRES-06	RESE-1000265	27-Feb-08	---	---	---	---	---	---	---	---	---	---	---	---	---	19.1	7.27	243.00	---	---	
HRES-06	RESE-1000265	27-Feb-08	26	4.4	18	<2.0	---	---	---	---	54	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1000265	27-Feb-08	---	---	---	---	7.6	--	120.8	14	---	<0.50	<0.40	0.52	180	---	---	---	---	---	TestAmerica
HRES-06 DUP	RESE-1000266	27-Feb-08	---	---	---	---	---	---	---	---	---	---	---	---	---	19.1	7.27	243	---	---	
HRES-06 DUP	RESE-1000266	27-Feb-08	27	4.4	18	<2.0	---	---	---	---	55	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06 DUP	RESE-1000266	27-Feb-08	---	---	---	---	7.6	--	120.8	14	---	<0.50	<0.40	0.54	180	---	---	---	---	---	TestAmerica
HRES-06	RESE-1003003	28-May-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.3	6.51	245.2	---	---	
HRES-06	RESE-1003003	28-May-08	27	4.4	18	<2.0	---	---	---	---	55	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1003003	28-May-08	---	---	---	---	7.1	--	104.9	14	---	<0.50	<0.40	0.26	200	---	---	---	7.20	240	TestAmerica
HRES-06	RESE-1003013	25-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	21.2	7.74	262	---	---	
HRES-06	RESE-1003013	25-Aug-08	30	4.7	19	<2.0	---	---	---	---	60	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1003013	25-Aug-08	---	---	---	---	6.9	--	89.1	14	---	<0.50	<0.40	0.26	170	---	---	---	7.16	250	TestAmerica
HRES-06	RESE-1003026	03-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.9	6.51	252.7	---	---	
HRES-06	RESE-1003026	03-Dec-08	28	4.6	17	<2.0	---	---	---	---	56	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1003026	03-Dec-08	---	---	---	---	6.7	--	134.2	13	---	<0.50	<0.40	0.25	180	---	---	---	7.18	250	TestAmerica
HRES-06 DUP	RESE-1003027	03-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.9	6.51	252.7	---	---	
HRES-06 DUP	RESE-1003027	03-Dec-08	28	4.5	17	<2.0	---	---	---	---	57	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06 DUP	RESE-1003027	03-Dec-08	---	---	---	---	6.9	--	134.2	14	---	<0.50	<0.40	0.26	220	---	---	---	7.27	250	TestAmerica
HRES-06	RESE-1003035	04-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.4	7.00	241.2	---	---	
HRES-06	RESE-1003035	04-Mar-09	25	4.0	16	<2.0	---	---	---	---	53	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1003035	04-Mar-09	---	---	---	---	6.8	--	134.2	14	---	<0.50	0.60	0.26	180	---	---	---	7.61	240	TestAmerica
HRES-06 SP	RESE-1003035	04-Mar-09	---	---	---	---	7.24	---	---	14.7	---	<0.100	0.142	---	---	---	---	---	---	---	SVL
HRES-06 DUP	RESE-1003036	04-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.4	7.00	241.2	---	---	
HRES-06 DUP	RESE-1003036	04-Mar-09	25	4.1	17	<2.0	---	---	---	---	55	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06 DUP	RESE-1003036	04-Mar-09	---	---	---	---	6.9	--	134.2	14	---	<0.50	0.57	0.26	180	---	---	---	7.63	240	TestAmerica
HRES-06 SPD	RESE-1003036	04-Mar-09	---	---	---	---	7.24	---	---	14.7	---	<0.100	0.140	---	---	---	---	---	---	---	SVL
HRES-06	RESE-1003044	03-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.6	6.99	243.8	---	---	
HRES-06	RESE-1003044	03-Jun-09	26	4.2	18	<2.0	---	---	---	---	55	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06	RESE-1003044	03-Jun-09	---	---	---	---	6.8	--	134.2	14	---	<0.50	0.52	<0.30	140	---	---	---	7.63	240	TestAmerica
HRES-06 SP	RESE-1003044	03-Jun-09	---	---	---	---	7.14	---	---	14.5	---	<0.100	0.126	---	---	---	---	---	---	---	SVL

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TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Apache Leap Tuff Aquifer																					
HRES-06 DUP	RESE-1003045	03-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.6	6.99	243.8	---	---	
HRES-06 DUP	RESE-1003045	03-Jun-09	27	4.3	18	<2.0	---	---	---	---	56	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-06 DUP	RESE-1003045	03-Jun-09	---	---	---	---	7.0	--	134.2	14	---	<0.50	0.57	<0.30	170	---	---	---	7.60	240	TestAmerica
HRES-06 SPD	RESE-1003045	03-Jun-09	---	---	---	---	7.15	---	---	14.7	---	0.121	0.132	---	---	---	---	---	---	---	SVL
HRES-07	RESE-1000262	26-Feb-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.2	7.50	278	---	---	
HRES-07	RESE-1000262	26-Feb-08	27	4.7	27	<2.0	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000262	26-Feb-08	---	---	---	---	6.7	--	158.6	5.8	---	<0.50	0.46	0.89	210	---	---	---	---	---	TestAmerica
HRES-07	RESE-1003009	03-Jun-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	7.32	271	---	---	
HRES-07	RESE-1003009	03-Jun-08	27	4.7	26	<2.0	---	---	---	---	60	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1003009	03-Jun-08	---	---	---	---	5.6	--	134.2	4.7	---	<0.50	<0.40	0.62	220	---	---	---	7.61	270	TestAmerica
HRES-07 DUP	RESE-1003010	03-Jun-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	7.32	271	---	---	
HRES-07 DUP	RESE-1003010	03-Jun-08	26	4.4	24	<2.0	---	---	---	---	57	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07 DUP	RESE-1003010	03-Jun-08	---	---	---	---	5.6	--	146.4	4.7	---	<0.50	<0.40	0.62	230	---	---	---	7.63	270	TestAmerica
HRES-07	RESE-1003018	02-Sep-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	7.16	272	---	---	
HRES-07	RESE-1003018	02-Sep-08	27	4.8	27	<2.0	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1003018	02-Sep-08	---	---	---	---	5.7	--	158.6	4.4	---	<0.50	<0.40	0.58	190	---	---	---	7.76	260	TestAmerica
HRES-07	RESE-1003022	01-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.7	7.31	271.3	---	---	
HRES-07	RESE-1003022	01-Dec-08	29	4.8	24	<2.0	---	---	---	---	61	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1003022	01-Dec-08	---	---	---	---	5.6	--	170.8	4.3	---	<0.50	0.44	0.61	200	---	---	---	7.43	280	TestAmerica
HRES-07	RESE-1003032	03-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	25.3	7.25	268.6	---	---	
HRES-07	RESE-1003032	03-Mar-09	27	4.2	23	<2.0	---	---	---	---	59	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1003032	03-Mar-09	---	---	---	---	5.5	--	170.8	4.2	---	<0.50	0.60	0.59	190	---	---	---	7.88	260	TestAmerica
HRES-07 SP	RESE-1003032	03-Mar-09	---	---	---	---	5.68	---	---	4.46	---	<0.100	0.252	---	---	---	---	---	---	---	SVL
HRES-07	RESE-1003041	02-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.9	7.02	274.6	---	---	
HRES-07	RESE-1003041	02-Jun-09	28	4.5	25	<2.0	---	---	---	---	61	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1003041	02-Jun-09	---	---	---	---	5.5	--	170.8	4.3	---	<0.50	0.65	0.62	160	---	---	---	7.92	260	TestAmerica
HRES-07 SP	RESE-1003041	02-Jun-09	---	---	---	---	5.67	---	---	4.49	---	0.100	0.247	---	---	---	---	---	---	---	SVL
HRES-07	RESE-1000279	08-Oct-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.3	7.23	265.3	---	---	
HRES-07	RESE-1000279	08-Oct-09	27	4.5	24	<2.0	---	---	---	---	64	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000279	08-Oct-09	---	---	---	---	5.5	--	158.6	4.7	---	<0.50	<0.40	0.71	200	---	---	---	8.01	270	TestAmerica
HRES-07	RESE-1000280	15-Oct-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.8	7.58	256.6	---	---	
HRES-07	RESE-1000280	15-Oct-09	28	4.6	24	<2.0	---	---	---	---	67	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000280	15-Oct-09	---	---	---	---	5.8	--	183	4.8	---	<0.50	<0.40	0.69	180	---	---	---	7.55	270	TestAmerica
HRES-07	RESE-1000281	20-Oct-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.7	7.12	257.3	---	---	
HRES-07	RESE-1000281	20-Oct-09	29	4.7	26	<2.0	---	---	---	---	67	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000281	20-Oct-09	---	---	---	---	5.5	--	134.2	4.5	---	<0.50	0.69	0.74	190	---	---	---	7.62	270	TestAmerica
HRES-07	RESE-1000282	28-Oct-09	27	4.5	23	<2.0	---	---	---	---	67	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000282	28-Oct-09	---	---	---	---	5.2	--	195.2	4.6	---	<0.50	0.74	0.70	210	---	---	---	7.38	240	TestAmerica

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Apache Leap Tuff Aquifer																					
HRES-07	RESE-1000284	03-Nov-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	7.22	264.2	---	---	
HRES-07	RESE-1000284	03-Nov-09	27	4.5	23	<2.0	---	---	---	---	67	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000284	03-Nov-09	---	---	---	---	5.2	--	146.4	4.6	---	<0.50	<0.40	0.70	200	---	---	---	7.72	240	TestAmerica
HRES-07	RESE-1000285	10-Nov-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	7.07	259.4	---	---	
HRES-07	RESE-1000285	10-Nov-09	26	4.5	26	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000285	10-Nov-09	---	---	---	---	5.2	--	170.8	4.6	---	<0.50	<0.40	0.70	300	---	---	---	7.50	260	TestAmerica
HRES-07	RESE-1000286	17-Nov-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.2	7.29	281	---	---	
HRES-07	RESE-1000286	17-Nov-09	27	4.5	24	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000286	17-Nov-09	---	---	---	---	5.2	--	158.6	4.7	---	<0.50	0.73	0.71	210	---	---	---	7.53	260	TestAmerica
HRES-07	RESE-1000287	24-Nov-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.7	7.19	266	---	---	
HRES-07	RESE-1000287	24-Nov-09	27	4.6	24	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000287	24-Nov-09	---	---	---	---	5.2	--	158.6	4.8	---	<0.50	<0.40	0.71	190	---	---	---	7.34	260	TestAmerica
HRES-07	RESE-1000289	30-Nov-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.5	7.30	268.9	---	---	
HRES-07	RESE-1000289	30-Nov-09	26	4.6	25	<2.0	---	---	---	---	65	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000289	30-Nov-09	---	---	---	---	5.2	--	158.6	4.7	---	<0.50	0.41	0.71	230	---	---	---	7.58	270	TestAmerica
HRES-07	RESE-1000290	06-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.5	7.22	266.6	---	---	
HRES-07	RESE-1000290	06-Dec-09	28	4.6	24	<2.0	---	---	---	---	68	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-07	RESE-1000290	06-Dec-09	---	---	---	---	5.2	--	158.6	4.7	---	<0.50	<0.40	0.71	360	---	---	---	7.86	270	TestAmerica
HRES-08	RESE-1003149	21-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	7.11	371.7	---	---	
HRES-08	RESE-1003149	21-Jul-11	39	5.7	32	<2.0	---	---	---	---	61	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-08	RESE-1003149	21-Jul-11	40	6.0	31	2.0	17	--	195.2	9.6	60	<0.50	<0.40	0.33	260	---	---	---	7.36	370	TestAmerica
HRES-09	RESE-1003182	29-Dec-10	---	---	---	---	---	---	---	---	---	---	---	---	---	26.3	7.24	498.3	---	---	
HRES-09	RESE-1003182	29-Dec-10	64	10	48	<2.0	---	---	---	---	63	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-09	RESE-1003182	29-Dec-10	62	9.9	48	<2.0	11	--	305	6.2	63	<0.50	<0.40	<2.0	470	---	---	---	7.75	480	TestAmerica
HRES-09	RESE-1003133	12-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.6	7.44	470.5	---	---	
HRES-09	RESE-1003133	12-Jun-11	53	8.5	41	<2.0	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-09	RESE-1003133	12-Jun-11	52	8.4	41	<2.0	8.6	--	280.6	5.5	60	<1.0	<0.40	<2.0	410	---	---	---	7.91	460	TestAmerica
HRES-09	RESE-1003136	21-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.7	7.07	363.5	---	---	
HRES-09	RESE-1003136	21-Jun-11	42	6.5	33	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-09	RESE-1003136	21-Jun-11	40	6.2	33	<2.0	6.4	--	219.6	4.9	70	<0.50	<0.40	--	290	---	---	---	7.67	360	TestAmerica
HRES-09	RESE-1003137	28-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.8	7.14	350.1	---	---	
HRES-09	RESE-1003137	28-Jun-11	39	6.1	32	<2.0	---	---	---	---	65	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-09	RESE-1003137	28-Jun-11	39	6.2	31	<2.0	5.9	--	207.4	4.4	66	<0.50	<0.40	0.22	280	---	---	---	7.81	340	TestAmerica
HRES-09	RESE-1003143	04-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.9	7.04	337.9	---	---	
HRES-09	RESE-1003143	04-Jul-11	38	5.9	31	<2.0	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-09	RESE-1003143	04-Jul-11	39	6.2	31	<2.0	5.8	--	207.4	4.3	67	<0.50	<0.40	0.26	280	---	---	---	7.49	330	TestAmerica
HRES-10	RESE-1003175	24-Sep-10	---	---	---	---	---	---	---	---	---	---	---	---	---	19.9	6.97	736.2	---	---	
HRES-10	RESE-1003175	24-Sep-10	76	18	38	<4.0	---	---	---	---	38	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-10	RESE-1003175	24-Sep-10	88	19	42	2.1	19	--	231.8	160	36	<0.50	<0.40	0.60	500	---	---	---	7.12	740	TestAmerica

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Apache Leap Tuff Aquifer																					
HRES-11	RESE-1003174	23-Sep-10	---	---	---	---	---	---	---	---	---	---	---	---	---	27.5	7.28	274.6	---	---	
HRES-11	RESE-1003174	23-Sep-10	28	4.8	20	<4.0	---	---	---	---	68	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-11	RESE-1003174	23-Sep-10	29	5.1	21	<2.0	5.4	--	146.4	4.4	68	<0.50	<0.40	0.46	200	---	---	---	7.44	260	TestAmerica
HRES-12	RESE-1003144	10-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.8	7.35	542.5	---	---	
HRES-12	RESE-1003144	10-Jul-11	66	12	39	<2.0	---	---	---	---	48	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-12	RESE-1003144	10-Jul-11	61	11	38	<2.0	12	--	268.4	33	48	<0.50	0.47	<2.0	320	---	---	---	7.66	510	TestAmerica
HRES-13	RESE-1003130	03-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.4	7.12	448.4	---	---	
HRES-13	RESE-1003130	03-Jun-11	56	10	22	<2.0	---	---	---	---	69	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-13	RESE-1003130	03-Jun-11	53	9.7	20	<2.0	11	--	256.2	8.9	64	<0.50	<0.40	0.83	300	---	---	---	7.38	430	TestAmerica
HRES-14	RESE-1003147	15-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.5	7.15	280.6	---	---	
HRES-14	RESE-1003147	15-Jul-11	29	5.5	26	<2.0	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
HRES-14	RESE-1003147	15-Jul-11	28	5.5	23	5.8	7.4	--	158.6	5.6	70	<0.50	0.43	0.38	220	---	---	---	7.47	270	TestAmerica
JI Ranch House Well	RESE-1000303	21-Jun-07	---	---	---	---	---	---	---	---	---	---	---	---	---	22.8	6.80	232	---	---	
JI Ranch House Well	RESE-1000303	21-Jun-07	26	3.8	17	2.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch House Well	RESE-1000303	21-Jun-07	---	---	---	---	7.3	--	122	7.3	---	<0.50	0.27	1.1	190	---	---	---	---	---	TestAmerica
MJ-11	RESE-1000257	29-Sep-07	---	---	---	---	---	---	---	---	---	---	---	---	---	23.7	7.09	248.7	---	---	
MJ-11	RESE-1000257	29-Sep-07	27	4.6	22	0.97	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
MJ-11	RESE-1000257	29-Sep-07	---	---	---	---	4.4	--	158.6	3.4	---	<0.50	0.34	0.41	190	---	---	---	---	---	TestAmerica
MJ-11	RESE-1000261	20-Feb-08	---	---	---	---	---	---	---	---	---	---	---	---	---	22.0	7.14	256	---	---	
MJ-11	RESE-1000261	20-Feb-08	25	4.6	24	1.2	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
MJ-11	RESE-1000261	20-Feb-08	---	---	---	---	4.3	--	146.4	3.0	---	<0.50	0.38	0.43	230	---	---	---	---	---	TestAmerica
MJ-11	RESE-1003007	02-Jun-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.3	7.17	247.9	---	---	
MJ-11	RESE-1003007	02-Jun-08	26	4.6	22	<2.0	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
MJ-11	RESE-1003007	02-Jun-08	---	---	---	---	4.3	--	134.2	3.2	---	<0.50	<0.40	0.46	220	---	---	---	7.39	250	TestAmerica
MJ-11	RESE-1003015	26-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.9	7.08	251	---	---	
MJ-11	RESE-1003015	26-Aug-08	27	4.8	23	<2.0	---	---	---	---	75	---	---	---	---	---	---	---	---	---	TestAmerica
MJ-11	RESE-1003015	26-Aug-08	---	---	---	---	4.3	--	108.6	3.0	---	<0.50	<0.40	0.46	190	---	---	---	7.40	270	TestAmerica
Oak Flat Well	RESE-1001301	16-Aug-06	---	---	---	---	---	---	---	---	---	---	---	---	---	23.0	---	---	---	---	
Oak Flat Well	RESE-1001301	16-Aug-06	25	3.9	31	5.3	---	---	---	---	88	---	---	---	---	---	---	---	---	---	TestAmerica
Oak Flat Well	RESE-1001301	16-Aug-06	---	---	---	---	14	14.4	112.2	6.8	---	---	0.36	1.3	240	---	---	---	*8.86*	270	TestAmerica
UA - Deep Slanted Borehole	UA - DSB Jun93	11-Jun-93	20.7	3.8	22.5	0.9	4.4	---	122.6	1.9	51.8	<0.25	<0.25	---	229	23	7.2	---	---	---	
UA - Deep Slanted Borehole	UA - DSB Jul93	08-Jul-93	20.6	3.8	22.1	0.9	4.0	---	121.7	1.9	54.8	<0.25	<0.25	---	231	23	7.4	---	---	---	
UA - Deep Slanted Borehole	UA - DSB (51 700 l)	02-Nov-93	19.3	3.5	21.0	0.9	4.1	---	118.3	1.9	52.4	<0.25	<0.25	---	223	22.4	7.44	---	---	---	
Deep Groundwater System																					
DHRES-01	RESE-112808	28-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	68.7	7.20	865	---	---	
DHRES-01	RESE-112808	28-Nov-08	32	2.8	130	18	---	---	---	---	44	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-01	RESE-112808	28-Nov-08	32	2.8	130	18	20	--	280.6	160	45	<0.50	*3.2*	--	500	---	---	---	7.91	810	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Deep Groundwater System																					
DHRES-02	RESE-1003150	20-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	59.1	6.59	3167	---	---	
DHRES-02	RESE-1003150	20-Jul-11	240	7.7	150	36	---	---	---	---	41	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-02	RESE-1003150	20-Jul-11	250	8.7	160	38	21	--	219.6	*810*	46	<0.50	*4.0*	--	*1400*	---	---	---	7.09	1800	TestAmerica
DHRES-02 DUP	RESE-1003201	20-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	58.7	6.82	3155	---	---	
DHRES-02 DUP	RESE-1003201	20-Jul-11	250	8.9	160	39	---	---	---	---	46	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-02 DUP	RESE-1003201	20-Jul-11	250	8.5	160	38	21	--	219.6	*820*	45	<0.50	*3.9*	--	*1400*	---	---	---	7.04	1800	TestAmerica
DHRES-02	RESE-1003216	21-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	42.4	7.50	2081	---	---	
DHRES-02	RESE-1003218	22-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	61.88	7.02	1922	---	---	
DHRES-02	RESE-1003218	22-Oct-11	240	8.4	140	35	---	---	---	---	40	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-02	RESE-1003218	22-Oct-11	240	8.6	150	37	21	--	207.4	*840*	42	<0.50	*4.1*	<2.0	*1400*	---	---	---	7.00	1800	TestAmerica
DHRES-02	RESE-1003217	22-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	43.9	7.39	2131	---	---	
DHRES-02	RESE-1003219	23-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	45.4	7.42	2256	---	---	
DHRES-02	RESE-1003220	24-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	41.9	7.15	2485	---	---	
DHRES-02	RESE-1003222	25-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	62.72	7.03	4196	---	---	
DHRES-02	RESE-1003222	25-Oct-11	230	8.3	130	33	---	---	---	---	41	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-02	RESE-1003222	25-Oct-11	240	8.5	140	36	21	--	195.2	*840*	41	<0.50	*4.1*	--	*1400*	---	---	---	7.50	1700	TestAmerica
DHRES-02	RESE-1003221	25-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	39.1	7.13	2721	---	---	
DHRES-02	RESE-1003223	26-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	44.4	7.30	2779	---	---	
DHRES-02	RESE-1003226	27-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	42.7	7.37	2668	---	---	
DHRES-02	RESE-1003227	27-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.01	7.16	2256	---	---	
DHRES-02	RESE-1003227	27-Oct-11	190	6.9	140	38	---	---	---	---	26	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-02	RESE-1003227	27-Oct-11	270	8.9	150	39	20	--	183	*740*	87	<0.50	*3.9*	<2.0	*1200*	---	---	---	7.13	1700	TestAmerica
DHRES-02	RESE-1003230	28-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	29.6	7.70	2565	---	---	
DHRES-04	RESE-1000291	21-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	33.9	*9.75*	370.5	---	---	
DHRES-04	RESE-1000291	21-Dec-09	<2.0	<0.25	87	<2.0	---	---	---	---	32	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-04	RESE-1000291	21-Dec-09	---	---	---	---	12	39	58.6	39	---	<0.50	1.5	--	92	---	---	---	*9.38*	360	TestAmerica
DHRES-06 DUP	RESE-1003184	09-Jan-11	---	---	---	---	---	---	---	---	---	---	---	---	---	37.7	7.36	599.1	---	---	
DHRES-06 DUP	RESE-1003184	09-Jan-11	51	29	46	4.3	---	---	---	---	21	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-06 DUP	RESE-1003184	09-Jan-11	53	29	49	4.7	5.8	--	390.4	14	20	<0.50	0.57	<2.0	450	---	---	---	7.37	580	TestAmerica
DHRES-06	RESE-1003186	09-Jan-11	---	---	---	---	---	---	---	---	---	---	---	---	---	37.7	7.36	599.1	---	---	
DHRES-06	RESE-1003186	09-Jan-11	51	29	46	4.3	---	---	---	---	20	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-06	RESE-1003186	09-Jan-11	53	29	48	4.6	5.8	--	390.4	14	20	<0.50	0.57	<2.0	440	---	---	---	7.38	570	TestAmerica
DHRES-09	RESE-1003206	02-Sep-11	---	---	---	---	---	---	---	---	---	---	---	---	---	29.1	7.34	954.2	---	---	
DHRES-09	RESE-1003206	02-Sep-11	120	40	34	3.7	---	---	---	---	20	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-09	RESE-1003206	02-Sep-11	110	43	33	3.8	25	--	329.4	240	20	<0.50	<0.40	1.1	*650*	---	---	---	7.70	920	TestAmerica
DHRES-10	RESE-1003105	28-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	34.9	8.12	4644	---	---	
DHRES-10	RESE-1003105	28-Nov-10	530	440	220	54	---	---	---	---	51	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-10	RESE-1003105	28-Nov-10	480	350	220	54	41	--	341.6	*3200*	77	<0.50	1.8	<2.0	*5100*	---	---	---	8.22	4300	TestAmerica

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TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Deep Groundwater System																					
DHRES-11	RESE-1003131	29-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	39.5	7.16	366.3	---	---	
DHRES-11	RESE-1003131	29-Jun-11	32	16	23	4.7	---	---	---	---	31	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-11	RESE-1003131	29-Jun-11	31	15	22	4.4	6.0	--	207.4	8.0	31	<0.50	1.1	1.0	210	---	---	---	7.80	350	TestAmerica
DHRES-13	RESE-1003138	28-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	34.8	7.36	745	---	---	
DHRES-13	RESE-1003138	28-Jun-11	56	29	29	5.1	---	---	---	---	21	---	---	---	---	---	---	---	---	---	TestAmerica
DHRES-13	RESE-1003138	28-Jun-11	57	30	29	5.3	17	--	341.6	13	22	<0.50	<0.40	1.4	350	---	---	---	7.67	570	TestAmerica
RES-09	RES009-1681-2064.28	09-Oct-06	---	---	---	---	---	---	---	---	---	---	---	---	*760*	---	---	---	---	---	SVL
RES-09	RES009-1681-2064.28	09-Oct-06	72.1	6.00	149	16.6	27.0	--	411	175	72.4	<0.10	*6.26*	<0.020	*859*	---	---	---	---	---	SVL
Mine Workings																					
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	---	---	---	---	---	---	---	---	---	---	---	---	40.0	*5.95*	5627	---	---	
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	490	490	160	54	---	---	---	---	60	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	---	---	---	24	--	317.2	*4100*	---	<0.50	1.7	--	*6200*	---	---	---	*6.49*	5100	TestAmerica
Shaft No. 9 Discharge	RESE-1000288	24-Nov-09	---	---	---	---	---	---	---	---	---	---	---	---	---	41.9	*6.18*	4721	---	---	
Shaft No. 9 Discharge	RESE-1000288	24-Nov-09	540	440	150	51	---	---	---	---	61	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1000288	24-Nov-09	---	---	---	---	23	--	402.6	*3300*	---	<0.50	2.0	--	*5200*	---	---	---	*6.30*	4500	TestAmerica
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	---	---	---	---	---	---	---	---	---	---	---	---	---	42.0	*6.41*	4153	---	---	
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	540	370	120	43	---	---	---	---	60	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	540	350	120	43	20	--	414.8	*2800*	54	<0.50	1.9	--	*4500*	---	---	---	*6.30*	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	---	---	---	---	---	---	---	---	---	---	---	---	---	45.3	*6.13*	4050	---	---	
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	430	290	100	36	---	---	---	---	49	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	540	350	120	43	20	--	390.4	*2800*	55	<0.50	1.9	--	*4300*	---	---	---	*6.34*	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	---	---	---	---	---	---	---	---	---	---	---	---	---	44.6	*6.06*	4123	---	---	
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	---	---	---	---	---	---	---	---	---	---	---	---	---	44.7	*6.14*	4066	---	---	
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	490	350	120	44	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	---	---	---	---	20	--	353.8	*3000*	---	<0.50	1.8	--	*4900*	---	---	---	*6.19*	4000	TestAmerica
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	---	---	---	---	---	---	---	---	---	---	---	---	---	45.2	*5.94*	4244	---	---	
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	530	400	130	47	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	---	---	---	---	21	--	317.2	*3100*	---	<0.50	2.0	--	*4800*	---	---	---	*6.17*	4500	TestAmerica
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	---	---	---	---	---	---	---	---	---	---	---	---	---	45.7	*6.12*	4407	---	---	
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	510	380	120	44	---	---	---	---	63	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	---	---	---	---	22	--	366	*3100*	---	<0.50	1.9	---	*4800*	---	---	---	*6.37*	4400	TestAmerica
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	---	---	---	---	---	---	---	---	---	---	---	---	---	45.5	*6.08*	4381	---	---	
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	510	370	130	45	---	---	---	---	59	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	510	380	130	46	20	--	353.8	*3000*	---	<0.50	1.7	---	*4800*	---	---	---	*6.27*	4200	TestAmerica
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	---	---	---	---	---	---	---	---	---	---	---	---	---	45.4	*6.07*	418.3	---	---	
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	500	340	130	45	---	---	---	---	61	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	---	---	---	---	21	--	378.2	*2900*	---	<0.50	1.9	<2.0	*4600*	---	---	---	*6.29*	4300	TestAmerica

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TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Mine Workings																					
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	42.7	*6.09*	413.9	---	---	
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	530	350	130	46	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	---	---	---	---	21	--	378.2	*2900*	---	<0.50	2.0	<2.0	*4700*	---	---	---	6.58	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	---	---	---	---	---	---	---	---	---	---	---	---	---	46.6	*6.33*	4147	---	---	
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	510	340	140	45	---	---	---	---	60	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	520	340	140	46	21	--	353.8	*2800*	63	<0.50	2.0	<2.0	*4500*	---	---	---	6.63	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.8	*6.19*	4151	---	---	
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	510	340	130	45	---	---	---	---	64	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	500	340	130	47	21	--	366	*2800*	67	<0.50	2.0	<2.0	*4400*	---	---	---	6.66	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.3	*6.15*	4128	---	---	
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	530	370	140	49	---	---	---	---	67	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	500	350	130	45	21	--	378.2	*2800*	64	<0.50	1.9	--	*4600*	---	---	---	6.73	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.2	*6.34*	4208	---	---	
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	520	360	130	48	---	---	---	---	68	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	540	360	140	53	21	--	378.2	*2900*	65	<0.50	*2.1*	<2.0	*4400*	---	---	---	6.69	4000	TestAmerica
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.8	*6.34*	2421	---	---	
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	520	350	140	50	---	---	---	---	66	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	480	340	140	46	21	--	353.8	*2800*	66	<0.50	2.0	<2.0	*4400*	---	---	---	6.67	4200	TestAmerica
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.9	*6.15*	4191	---	---	
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	480	340	140	48	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	470	340	140	49	23	--	341.6	*2900*	63	<0.50	2.0	--	*4500*	---	---	---	7.09	4200	TestAmerica
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.5	*6.19*	4108	---	---	
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	520	340	150	49	---	---	---	---	64	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	510	350	150	51	23	--	353.8	*2800*	65	<0.50	1.8	--	*4300*	---	---	---	7.22	4100	TestAmerica
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.5	*6.12*	3977	---	---	
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	540	360	150	50	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	500	330	150	47	25	--	341.6	*2700*	66	<0.50	*2.4*	--	*4400*	---	---	---	7.13	4000	TestAmerica
Shaft No. 9 Discharge	RESE-1003123	02-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.6	*6.45*	3696	---	---	
Shaft No. 9 Discharge	RESE-1003123	02-May-11	510	310	140	47	---	---	---	---	62	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003123	02-May-11	510	350	150	50	24	--	317.2	*2700*	63	<0.50	*2.3*	--	*4200*	---	---	---	7.19	3900	TestAmerica
Shaft No. 9 Discharge	RESE-1003120	18-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	42.7	*6.25*	4172	---	---	
Shaft No. 9 Discharge	RESE-1003120	18-May-11	510	340	160	55	---	---	---	---	69	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003120	18-May-11	500	320	160	50	26	--	341.6	*2700*	63	<0.50	*2.2*	--	*4200*	---	---	---	7.13	4000	TestAmerica
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	49.5	*6.24*	3689	---	---	
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	500	310	160	47	---	---	---	---	61	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	500	320	160	49	24	--	329.4	*2500*	65	<0.50	*2.3*	0.27	*4000*	---	---	---	7.22	4000	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	49.5	*6.24*	3689	---	---	
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	460	290	150	44	---	---	---	---	59	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	440	280	140	47	24	--	305	*2500*	58	<0.50	*2.3*	--	*3900*	---	---	---	7.70	4100	TestAmerica

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Mine Workings																					
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.4	*6.21*	3745	---	---	
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	460	300	150	47	---	---	---	---	59	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	470	300	150	50	25	--	317.2	*2600*	63	<0.50	*2.5*	--	*4000*	---	---	---	6.78	4000	TestAmerica
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	---	---	---	---	---	---	---	---	---	---	---	---	---	46.7	6.70	3472	---	---	
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	440	240	170	47	---	---	---	---	53	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	460	250	160	45	23	--	292.8	*2400*	56	<0.50	*2.3*	<2.0	*3700*	---	---	---	6.65	3600	TestAmerica
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	49.7	*6.29*	3584	---	---	
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	490	280	160	55	---	---	---	---	60	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	510	290	170	57	26	--	292.8	*2600*	62	<0.50	*2.4*	<2.0	*3900*	---	---	---	6.69	3800	TestAmerica
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	---	---	---	---	---	---	---	---	---	---	---	---	---	50.2	6.57	3617	---	---	
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	460	230	150	50	---	---	---	---	52	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	480	250	160	54	24	--	244	*2400*	52	<0.50	*2.5*	--	*3700*	---	---	---	6.78	3600	TestAmerica
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	50.8	*6.18*	3332	---	---	
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	470	230	150	49	---	---	---	---	45	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	470	250	150	49	26	--	195.2	*2500*	48	<0.50	*2.9*	--	*3500*	---	---	---	7.11	3300	TestAmerica
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.9	*6.14*	3391	---	---	
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	470	240	160	52	---	---	---	---	41	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	500	260	170	57	24	--	170.8	*2200*	49	<0.50	*2.6*	--	*3500*	---	---	---	7.11	3400	TestAmerica
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	---	---	---	---	---	---	---	---	---	---	---	---	---	50.1	7.24	3246	---	---	
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	460	220	140	43	---	---	---	---	45	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	560	270	170	45	24	--	219.6	*2400*	58	<0.50	*2.6*	--	*3500*	---	---	---	7.12	3400	TestAmerica
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	---	---	---	---	---	---	---	---	---	---	---	---	---	49.5	6.63	1851	---	---	
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	420	210	130	41	---	---	---	---	44	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	430	220	150	42	25	--	170.8	*2400*	47	<0.50	*2.6*	--	*3300*	---	---	---	7.68	3200	TestAmerica
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.4	6.59	3257	---	---	
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	440	210	140	42	---	---	---	---	39	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	410	200	130	41	24	--	146.4	*2400*	39	<0.50	*2.5*	--	*3200*	---	---	---	7.36	3200	TestAmerica
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	49	6.65	3007	---	---	
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	410	190	130	40	---	---	---	---	38	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	410	190	130	38	24	--	170.8	*2200*	41	<0.50	*2.7*	--	*3200*	---	---	---	7.50	3300	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.5	6.75	3228	---	---	
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	410	190	130	40	---	---	---	---	40	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	400	190	120	37	23	--	170.8	*2200*	40	<0.50	*2.7*	--	*3200*	---	---	---	7.51	3300	TestAmerica
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	48.7	6.79	3094	---	---	
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	410	190	130	36	---	---	---	---	41	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	400	190	130	37	23	--	158.6	*2100*	42	<0.50	*2.6*	--	*3100*	---	---	---	7.02	3000	TestAmerica
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	47.7	*6.48*	3125	---	---	
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	440	200	140	40	---	---	---	---	47	---	---	---	---	---	---	---	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	410	210	140	39	24	--	158.6	*2400*	44	<0.50	*2.7*	--	*2900*	---	---	---	7.39	3000	TestAmerica
Shallow Groundwater System																					

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Shallow Groundwater System																					
(D-1-12)35 (Urquijo Well - ADEQ)	---	22-Mar-01	---	---	---	---	---	---	350	---	---	---	---	---	---	13.5	8.5	2590	---	---	
(D-1-12)35 (Urquijo Well - ADEQ)	---	22-Mar-01	410	120	120	5.1	210	---	---	*950*	---	---	---	---	*2100*	---	---	---	---	---	
(D-2-12)03abc (Layne Well - ADEQ)	---	21-Mar-01	---	---	---	---	---	ND	490	---	---	---	---	---	---	10.2	6.9	4400	---	---	
(D-2-12)03abc (Layne Well - ADEQ)	---	21-Mar-01	370	330	480	7.4	*800*	---	---	*1300*	---	---	0.64	---	*3600*	---	---	---	---	---	
(D-2-12)03bcd (Ruiz Well - ADEQ)	---	20-Mar-01	---	---	---	---	---	17	180	---	---	---	---	---	---	9.1	*8.9*	570	---	---	
(D-2-12)03bcd (Ruiz Well - ADEQ)	---	20-Mar-01	ND	ND	124	4.6	28	---	---	60	---	---	*3.4*	ND	400	---	---	---	---	---	
Hackberry Windmill Well	WM-ALU	17-Jun-86	28.2	5.15	7	2.61	3.52	---	117	25.9	31.9	---	0.45	<0.14	135	20.0	6.50	---	---	---	
Hackberry Windmill Well	RESE-1000263	27-Feb-08	---	---	---	---	---	---	---	---	---	---	---	---	---	14.9	6.61	328	---	---	
Hackberry Windmill Well	RESE-1000263	27-Feb-08	40	8.0	16	3.1	---	---	---	---	30	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1000263	27-Feb-08	---	---	---	---	15	--	120.8	35	---	<0.50	<0.40	2.4	230	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003011	03-Jun-08	---	---	---	---	---	---	---	---	---	---	---	---	---	16.8	*6.47*	267.6	---	---	
Hackberry Windmill Well	RESE-1003011	03-Jun-08	33	6.4	11	2.5	---	---	---	---	34	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003011	03-Jun-08	---	---	---	---	8.5	--	113.5	25	---	<0.50	<0.40	--	190	---	---	---	6.78	270	TestAmerica
Hackberry Windmill Well	RESE-1003019	02-Sep-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.7	6.66	279	---	---	
Hackberry Windmill Well	RESE-1003019	02-Sep-08	36	6.7	11	3.1	---	---	---	---	40	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003019	02-Sep-08	---	---	---	---	9.3	--	134.2	28	---	<0.50	<0.40	--	200	---	---	---	6.83	280	TestAmerica
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.7	6.66	279	---	---	
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	35	7.0	12	3.3	---	---	---	---	39	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	---	---	---	---	9.3	--	134.2	28	---	<0.50	<0.40	--	170	---	---	---	7.19	280	TestAmerica
Hackberry Windmill Well	RESE-1003024	02-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.2	*6.41*	270.4	---	---	
Hackberry Windmill Well	RESE-1003024	02-Dec-08	36	7.0	11	3.0	---	---	---	---	39	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003024	02-Dec-08	---	---	---	---	8.8	--	134.2	20	---	<0.50	<0.40	--	190	---	---	---	6.81	280	TestAmerica
Hackberry Windmill Well	RESE-1003033	03-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.1	*6.40*	312.8	---	---	
Hackberry Windmill Well	RESE-1003033	03-Mar-09	37	6.8	12	2.5	---	---	---	---	31	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003033	03-Mar-09	---	---	---	---	14	--	122	36	---	<0.50	<0.40	1.2	200	---	---	---	7.28	310	TestAmerica
Hackberry Windmill Well SP	RESE-1003033	03-Mar-09	---	---	---	---	14.0	---	---	37.6	---	0.112	<0.100	---	---	---	---	---	---	---	SVL
Hackberry Windmill Well	RESE-1003042	02-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.6	*6.43*	270.7	---	---	
Hackberry Windmill Well	RESE-1003042	02-Jun-09	33	6.4	11	2.7	---	---	---	---	35	---	---	---	---	---	---	---	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003042	02-Jun-09	---	---	---	---	7.7	--	134.2	25	---	<0.50	<0.40	<0.30	150	---	---	---	7.31	260	TestAmerica
Hackberry Windmill Well SP	RESE-1003042	02-Jun-09	---	---	---	---	8.23	---	---	25.8	---	0.108	<0.100	---	---	---	---	---	---	---	SVL
JI Ranch Corral Well	RESE-1000302	21-Jun-07	---	---	---	---	---	---	---	---	---	---	---	---	---	16.0	*5.88*	990	---	---	
JI Ranch Corral Well	RESE-1000302	21-Jun-07	110	23	46	2.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1000302	21-Jun-07	---	---	---	---	49	--	63.4	*390*	---	<0.50	0.11	<0.40	*730*	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003004	29-May-08	---	---	---	---	---	---	---	---	---	---	---	---	---	16.4	*5.55*	772.2	---	---	
JI Ranch Corral Well	RESE-1003004	29-May-08	83	17	48	<2.0	---	---	---	---	37	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003004	29-May-08	---	---	---	---	49	--	17.1	240	---	<0.50	<0.40	16	*580*	---	---	---	*5.78*	770	TestAmerica
JI Ranch Corral Well	RESE-1003005	29-May-08	---	---	---	---	---	---	---	---	---	---	---	---	---	15.0	*5.51*	786.8	---	---	
JI Ranch Corral Well	RESE-1003005	29-May-08	85	17	48	<2.0	---	---	---	---	37	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003005	29-May-08	---	---	---	---	51	--	17.1	*260*	---	<0.50	<0.40	16	*620*	---	---	---	*5.54*	780	TestAmerica

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Shallow Groundwater System																					
JI Ranch Corral Well	RESE-1003014	25-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	17.0	*5.66*	1020	---	---	
JI Ranch Corral Well	RESE-1003014	25-Aug-08	130	26	55	2.1	---	---	---	---	39	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003014	25-Aug-08	---	---	---	---	57	--	29.3	*450*	---	<0.50	<0.40	--	*750*	---	---	---	*5.81*	1100	TestAmerica
JI Ranch Corral Well	RESE-1003029	03-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	14.4	*5.49*	778.2	---	---	
JI Ranch Corral Well	RESE-1003029	03-Dec-08	85	19	45	<2.0	---	---	---	---	38	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003029	03-Dec-08	---	---	---	---	51	--	13.4	*290*	---	<0.50	<0.40	--	*550*	---	---	---	*5.65*	780	TestAmerica
JI Ranch Corral Well	RESE-1003038	04-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	13.6	*6.02*	776	---	---	
JI Ranch Corral Well	RESE-1003038	04-Mar-09	86	16	41	3.3	---	---	---	---	38	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003038	04-Mar-09	---	---	---	---	46	--	79.3	240	---	<0.50	<0.40	4.7	*530*	---	---	---	6.83	760	TestAmerica
JI Ranch Corral Well SP	RESE-1003038	04-Mar-09	---	---	---	---	39.8	---	---	229	---	0.160	0.143	---	---	---	---	---	---	---	SVL
JI Ranch Corral Well	RESE-1003047	05-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	15.8	*5.94*	613.8	---	---	
JI Ranch Corral Well	RESE-1003047	05-Jun-09	64	13	41	2.0	---	---	---	---	41	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003047	05-Jun-09	---	---	---	---	40	--	81.7	190	---	<0.50	<0.40	<0.30	400	---	---	---	6.91	600	TestAmerica
JI Ranch Corral Well SP	RESE-1003047	05-Jun-09	---	---	---	---	40.2	---	---	177	---	0.252	<0.100	---	---	---	---	---	---	---	SVL
JI Ranch Middle Well	RESE-1003006	30-May-08	---	---	---	---	---	---	---	---	---	---	---	---	---	17.0	*6.16*	300	---	---	
JI Ranch Middle Well	RESE-1003006	30-May-08	30	7.1	16	<2.0	---	---	---	---	36	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003006	30-May-08	---	---	---	---	25	--	57.3	58	---	<0.50	<0.40	0.44	240	---	---	---	6.54	300	TestAmerica
JI Ranch Middle Well	RESE-1003017	27-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	17.1	*6.26*	377	---	---	
JI Ranch Middle Well	RESE-1003017	27-Aug-08	43	10	22	<2.0	---	---	---	---	36	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003017	27-Aug-08	---	---	---	---	27	--	61	100	---	<0.50	<0.40	0.36	270	---	---	---	*6.32*	420	TestAmerica
JI Ranch Middle Well	RESE-1003028	03-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	17.7	6.50	494.1	---	---	
JI Ranch Middle Well	RESE-1003028	03-Dec-08	47	12	24	<2.0	---	---	---	---	39	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003028	03-Dec-08	---	---	---	---	26	--	74.4	120	---	<0.50	<0.40	--	310	---	---	---	6.60	470	TestAmerica
JI Ranch Middle Well	RESE-1003037	04-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.1	*6.38*	444.3	---	---	
JI Ranch Middle Well	RESE-1003037	04-Mar-09	43	9.9	22	<2.0	---	---	---	---	35	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003037	04-Mar-09	---	---	---	---	29	--	74.4	100	---	<0.50	<0.40	0.78	290	---	---	---	7.20	420	TestAmerica
JI Ranch Middle Well SP	RESE-1003037	04-Mar-09	---	---	---	---	26.0	---	---	100	---	0.198	0.109	---	---	---	---	---	---	---	SVL
JI Ranch Middle Well	RESE-1003048	05-Jun-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.8	*6.21*	563	---	---	
JI Ranch Middle Well	RESE-1003048	05-Jun-09	54	13	29	<2.0	---	---	---	---	37	---	---	---	---	---	---	---	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003048	05-Jun-09	---	---	---	---	35	--	84.2	170	---	<0.50	<0.40	0.46	350	---	---	---	7.07	530	TestAmerica
JI Ranch Middle Well SP	RESE-1003048	05-Jun-09	---	---	---	---	30.4	---	---	122	---	0.136	<0.100	---	---	---	---	---	---	---	SVL

MONTGOMERY & ASSOCIATES

TABLE A-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
U.S EPA National Primary Drinking Water Regulations			---	---	---	---	---	---	---	---	---	---	4.0	10	---	---	---	---	---	---	
U.S EPA National Secondary Drinking Water Regulations			---	---	---	---	250	---	---	250	---	---	2.0	---	500	---	6.5 to 8.5	---	6.5 to 8.5	---	
Arizona Numeric Aquifer Water Quality Standards			---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---	---	

Values in bold red are out of compliance with EPA primary water quality standards
Values in red italics are out of compliance with EPA secondary water quality standards
Values in red underline are out of compliance with Arizona numeric water quality standards
Values in blue indicate that detection limit exceeds standard

--- = Not available, not applicable
-- = Not calculated due to non-detect
* = Value reported as Na+K

Shading indicates dissolved results
Shading indicates total results
Shading indicates total recoverable results
Shading indicates unknown filtration or no filtration method provided for analyses

[a] Ca = Calcium
Mg = Magnesium
Na = Sodium
K = Potassium
Cl = Chloride
CO_3 = Carbonate
HCO_3 = Bicarbonate
SO_4 = Sulfate
SiO_2 = Silica
Br = Bromide
F = Fluoride
NO_3+NO_2 (as N) = Nitrate plus Nitrite, in equivalent milligrams of nitrogen per liter
TDS = Total dissolved solids

[b] mg/L = milligrams per liter

[c] TEMP (°C) = Temperature, in degrees Celsius

[d] SC (µS/cm) = Specific Conductance in microsiemens per centimeter

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Apache Leap Tuff Aquifer																									
A-06	RESE-1000255	24-Sep-07	*<0.50*	<0.002	0.0015	0.017	<0.0040	<0.50	<0.001	<0.010	<0.050	<0.020	---	<0.20	0.0014	0.048	<0.00020	<0.050	<0.050	<0.002	<0.001	---	<0.001	0.17	TestAmerica
A-06	RESE-1000255	24-Sep-07	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
A-06 DUP	RESE-1000256	24-Sep-07	*<0.50*	<0.002	0.0016	0.016	<0.0040	<0.50	<0.001	<0.010	<0.050	<0.020	---	<0.20	0.0018	0.048	<0.00020	<0.050	<0.050	<0.002	<0.001	---	<0.001	0.16	TestAmerica
A-06 DUP	RESE-1000256	24-Sep-07	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
A-06	RESE-1003008	02-Jun-08	<0.20	---	---	0.016	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	0.48	TestAmerica
A-06	RESE-1003008	02-Jun-08	---	<0.0030	0.0016	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	0.0016	*0.13*	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
A-06	RESE-1003016	28-Aug-08	<0.20	---	---	0.015	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	0.34	TestAmerica
A-06	RESE-1003016	28-Aug-08	---	<0.0030	0.0023	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	<0.0050	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
A-06	RESE-1003030	04-Dec-08	<0.20	<0.0030	0.0021	0.014	<0.0010	---	<0.0010	<0.010	---	<0.010	---	<0.050	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.39	TestAmerica
A-06	RESE-1003030	04-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
A-06	RESE-1003039	05-Mar-09	<0.20	<0.0030	0.0021	0.014	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0018	---	<0.050	<0.0010	0.034	<0.00020	<0.0010	0.0018	<0.0020	<0.0010	---	<0.0010	0.25	TestAmerica
A-06	RESE-1003039	05-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
A-06	RESE-1003046	04-Jun-09	<0.20	<0.0030	0.0020	0.014	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.026	<0.00020	<0.0010	<0.0010	<0.0020	<0.0010	---	<0.0010	0.16	TestAmerica
A-06	RESE-1003046	04-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
CT Well	RESE-1003101	20-Apr-10	<0.20	<0.0030	<0.0010	0.024	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.023	---	<0.050	<0.0010	0.031	<0.00020	0.0017	0.0032	<0.0020	<0.0010	---	<0.0010	0.34	TestAmerica
CT Well	RESE-1003101	20-Apr-10	<0.20	<0.0030	<0.0010	0.023	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.036	<0.020	*0.85*	<0.0010	0.033	<0.00020	0.0017	0.0035	<0.0020	<0.0010	<0.050	<0.0010	0.40	TestAmerica
HRES-01	RESE-1001102	15-Mar-04	<0.020	<0.0050	<0.010	0.0038	<0.0020	<0.040	<0.0020	<0.0060	<0.0060	<0.0030	---	0.083	<0.0050	0.0216	<0.00020	<0.0080	<0.010	<0.010	<0.0050	---	<0.010	0.0138	SVL
HRES-01	RESE-1001103	18-Mar-04	<0.020	<0.0050	<0.010	0.0037	<0.0020	<0.040	<0.0020	<0.0060	<0.0060	<0.0030	---	0.155	<0.0050	0.0171	<0.00020	<0.0080	<0.010	<0.010	<0.0050	---	<0.010	0.0277	SVL
HRES-02	RESE-1001105	06-Apr-04	<0.020	<0.0030	0.003	0.0114	<0.0020	<0.040	<0.00010	<0.0060	<0.0060	0.0135	---	0.037	0.006	0.02	<0.00020	<0.0080	<0.010	<0.0030	<0.00010	---	<0.0020	0.0316	SVL
HRES-02	RESE-1001108	08-Apr-04	0.143	<0.0030	0.01	0.0038	<0.0020	0.043	<0.00010	<0.0060	<0.0060	0.0189	---	0.19	<0.0030	0.0183	<0.00020	<0.0080	<0.010	<0.0030	<0.00010	---	<0.0020	0.0206	SVL
HRES-02	RESE-1001109	10-Apr-04	0.062	<0.0030	0.009	<0.0020	<0.0020	0.043	<0.00010	<0.0060	<0.0060	<0.0030	---	0.021	<0.0030	0.0037	<0.00020	<0.0080	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
HRES-03d	RESE-1001111	16-Apr-04	0.035	<0.0030	<0.0030	<0.0020	<0.0020	0.061	<0.00010	<0.0060	<0.0060	<0.0030	---	0.263	<0.0030	0.006	<0.00020	0.0258	<0.010	<0.0030	<0.00010	---	<0.0020	0.007	SVL
HRES-04	RESE-1001110	15-Apr-04	<0.020	<0.0030	<0.0030	0.0105	<0.0020	<0.040	<0.00010	<0.0060	<0.0060	<0.0030	---	0.061	<0.0030	*0.0775*	<0.00020	0.0094	<0.010	<0.0030	<0.00010	---	<0.0020	0.017	SVL
HRES-04	4531	03-Nov-06	*<0.50*	<0.002	0.0042	<0.010	<0.0040	<0.50	<0.0050	0.012	<0.050	<0.020	---	<0.20	<0.001	<0.020	<0.00020	<0.050	<0.050	<0.002	<0.0050	---	<0.001	0.057	TestAmerica
HRES-04	RESE-1001114	18-Jan-08	*<0.50*	<0.002	0.0025	0.010	<0.0040	---	<0.001	<0.010	---	<0.020	---	<0.20	0.0016	---	---	<0.050	<0.050	<0.002	<0.001	---	<0.001	0.17	TestAmerica
HRES-04	RESE-1001114	18-Jan-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	<0.00020	---	---	---	---	<0.10	---	---	TestAmerica
HRES-04	RESE-1003021	03-Sep-08	<0.20	---	---	<0.010	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	0.099	TestAmerica
HRES-04	RESE-1003021	03-Sep-08	---	<0.0030	0.0035	---	---	---	<0.0010	---	<0.0010	---	<0.020	---	<0.0010	<0.0050	---	---	---	0.0023	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-04	RESE-1003031	02-Mar-09	<0.20	<0.0030	0.0036	0.0084	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0018	---	<0.050	<0.0010	<0.0050	<0.00020	0.0030	0.0017	<0.0020	<0.0010	---	<0.0010	0.15	TestAmerica
HRES-04	RESE-1003031	02-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-04	RESE-1003040	01-Jun-09	<0.20	<0.0030	0.0035	0.0078	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0011	---	<0.050	<0.0010	<0.0050	<0.00020	0.0024	<0.0010	<0.0020	<0.0010	---	<0.0010	0.14	TestAmerica
HRES-04	RESE-1003040	01-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-05	RESE-1001104	02-Apr-04	<0.020	<0.0030	<0.0030	0.028	<0.0020	<0.040	<0.00010	<0.0060	<0.0060	<0.0030	---	0.111	<0.0030	0.0339	<0.00020	0.0082	<0.010	<0.0030	<0.00010	---	<0.0020	0.0178	SVL
HRES-05	RESE-1000264	27-Feb-08	<0.20	<0.0030	0.0023	0.030	<0.0010	<0.20	<0.0010	<0.010	<0.0010	<0.010	---	<0.050	<0.0010	0.015	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.059	TestAmerica
HRES-05	RESE-1000264	27-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-05	RESE-1003001	28-May-08	<0.20	---	---	0.030	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	0.23	TestAmerica
HRES-05	RESE-1003001	28-May-08	---	<0.0030	0.0023	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	0.0010	0.028	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-05	RESE-1003012	25-Aug-08	<0.20	---	---	0.032	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	0.26	TestAmerica
HRES-05	RESE-1003012	25-Aug-08	---	<0.0030	0.0086	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	0.028	---	---	---	0.0058	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-05	RESE-1003025	02-Dec-08	<0.20	<0.0030	0.0024	0.030	<0.0010	---	<0.0010	<0.010	---	<0.010	---	<0.050	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.26	TestAmerica
HRES-05	RESE-1003025	02-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Apache Leap Tuff Aquifer																									
HRES-05	RESE-1003034	03-Mar-09	<0.20	<0.0030	0.0025	0.031	<0.0010	<0.20	<0.0010	<0.0010	0.0021	0.0015	---	<0.050	<0.0010	0.021	<0.00020	0.0023	0.0023	<0.0020	<0.0010	---	<0.0010	0.22	TestAmerica
HRES-05	RESE-1003034	03-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-05	RESE-1003043	03-Jun-09	<0.20	<0.0030	0.0024	0.031	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0014	---	<0.050	<0.0010	0.015	<0.00020	0.0020	<0.0010	0.0020	<0.0010	---	<0.0010	0.22	TestAmerica
HRES-05	RESE-1003043	03-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-06	RESE-1000301	12-Jun-07	*<0.50*	<0.002	0.0014	0.027	<0.0040	---	<0.001	<0.010	---	<0.020	---	<0.20	0.0011	---	---	<0.050	<0.050	<0.002	<0.001	---	<0.001	0.78	TestAmerica
HRES-06	RESE-1000301	12-Jun-07	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
HRES-06	RESE-1000265	27-Feb-08	<0.20	<0.0030	0.0015	0.025	<0.0010	<0.20	<0.0010	<0.010	<0.0010	0.013	---	*1.1*	0.0031	0.040	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.96	TestAmerica
HRES-06	RESE-1000265	27-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-06 DUP	RESE-1000266	27-Feb-08	<0.20	<0.0030	0.0013	0.026	<0.0010	<0.20	<0.0010	<0.010	<0.0010	0.010	---	0.23	0.0024	0.040	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.85	TestAmerica
HRES-06 DUP	RESE-1000266	27-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-06	RESE-1003003	28-May-08	<0.20	---	---	0.026	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	0.76	TestAmerica
HRES-06	RESE-1003003	28-May-08	---	<0.0030	0.0014	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	0.024	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-06	RESE-1003013	25-Aug-08	<0.20	---	---	0.026	<0.0010	<0.20	---	<0.010	---	<0.010	---	0.12	---	---	<0.00020	<0.010	<0.010	---	---	---	---	0.84	TestAmerica
HRES-06	RESE-1003013	25-Aug-08	---	<0.0030	0.0025	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	0.020	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-06	RESE-1003026	03-Dec-08	<0.20	<0.0030	0.0014	0.024	<0.0010	---	<0.0010	<0.010	---	<0.010	---	0.053	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	1.9	TestAmerica
HRES-06	RESE-1003026	03-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
HRES-06 DUP	RESE-1003027	03-Dec-08	<0.20	<0.0030	0.0014	0.025	<0.0010	---	<0.0010	<0.010	---	<0.010	---	0.051	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	1.9	TestAmerica
HRES-06 DUP	RESE-1003027	03-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
HRES-06	RESE-1003035	04-Mar-09	<0.20	<0.0030	0.0016	0.025	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0020	---	<0.050	<0.0010	0.025	<0.00020	0.0024	0.0020	<0.0020	<0.0010	---	<0.0010	0.87	TestAmerica
HRES-06	RESE-1003035	04-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-06 DUP	RESE-1003036	04-Mar-09	<0.20	<0.0030	0.0016	0.026	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0011	---	<0.050	<0.0010	0.024	<0.00020	0.0021	0.0021	<0.0020	<0.0010	---	<0.0010	0.91	TestAmerica
HRES-06 DUP	RESE-1003036	04-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-06	RESE-1003044	03-Jun-09	<0.20	<0.0030	0.0016	0.026	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.019	<0.00020	0.0020	0.0010	<0.0020	<0.0010	---	<0.0010	0.87	TestAmerica
HRES-06	RESE-1003044	03-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-06 DUP	RESE-1003045	03-Jun-09	<0.20	<0.0030	0.0015	0.026	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.019	<0.00020	0.0020	<0.0010	<0.0020	<0.0010	---	<0.0010	0.84	TestAmerica
HRES-06 DUP	RESE-1003045	03-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000262	26-Feb-08	<0.20	<0.0030	0.0015	0.019	<0.0010	<0.20	<0.0010	<0.010	<0.0010	<0.010	---	0.10	<0.0010	*0.059*	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
HRES-07	RESE-1000262	26-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1003009	03-Jun-08	<0.20	---	---	0.015	<0.0010	<0.20	---	<0.010	---	<0.010	---	*0.50*	---	---	---	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
HRES-07	RESE-1003009	03-Jun-08	---	<0.0030	0.0012	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	*0.098*	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-07 DUP	RESE-1003010	03-Jun-08	<0.20	---	---	0.014	<0.0010	<0.20	---	<0.010	---	<0.010	---	*0.47*	---	---	---	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
HRES-07 DUP	RESE-1003010	03-Jun-08	---	<0.0030	0.0012	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	*0.098*	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-07	RESE-1003018	02-Sep-08	<0.20	---	---	0.012	<0.0010	<0.20	---	<0.010	---	<0.010	---	0.27	---	---	<0.00020	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
HRES-07	RESE-1003018	02-Sep-08	---	<0.0030	0.0014	---	---	---	<0.0010	---	0.0016	---	<0.020	---	<0.0010	*0.092*	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
HRES-07	RESE-1003022	01-Dec-08	<0.20	<0.0030	0.0014	0.015	<0.0010	---	<0.0010	<0.010	---	<0.010	---	*0.52*	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
HRES-07	RESE-1003022	01-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
HRES-07	RESE-1003032	03-Mar-09	<0.20	<0.0030	0.0014	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	*0.36*	<0.0010	*0.089*	<0.00020	0.0016	0.010	<0.0020	<0.0010	---	<0.0010	0.044	TestAmerica
HRES-07	RESE-1003032	03-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1003041	02-Jun-09	<0.20	<0.0030	0.0015	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.29	<0.0010	*0.076*	<0.00020	0.0014	0.0032	0.0023	<0.0010	---	<0.0010	0.036	TestAmerica
HRES-07	RESE-1003041	02-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Apache Leap Tuff Aquifer																									
HRES-07	RESE-1000279	08-Oct-09	<0.20	<0.0030	0.0019	0.016	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.12	<0.0010	0.027	<0.00020	0.0013	0.0018	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
HRES-07	RESE-1000279	08-Oct-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000280	15-Oct-09	<0.20	<0.0030	0.0025	0.016	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0015	---	<0.050	<0.0010	0.013	<0.00020	0.0012	0.0013	<0.0020	<0.0010	---	<0.0010	0.032	TestAmerica
HRES-07	RESE-1000280	15-Oct-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000281	20-Oct-09	<0.20	<0.0030	0.0022	0.016	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0045	---	<0.050	<0.0010	0.013	<0.00020	0.0010	0.0023	<0.0020	<0.0010	---	<0.0010	0.036	TestAmerica
HRES-07	RESE-1000281	20-Oct-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000282	28-Oct-09	<0.20	<0.0030	0.0026	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.010	<0.00020	0.0012	0.0014	<0.0020	<0.0010	---	<0.0010	0.011	TestAmerica
HRES-07	RESE-1000282	28-Oct-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000284	03-Nov-09	<0.20	<0.0030	0.0023	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0017	---	<0.050	<0.0010	0.0086	<0.00020	<0.0010	0.0013	<0.0020	<0.0010	---	<0.0010	0.015	TestAmerica
HRES-07	RESE-1000284	03-Nov-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000285	10-Nov-09	<0.20	<0.0030	0.0024	0.016	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.15	<0.0010	0.0073	<0.00020	0.0012	<0.0010	<0.0020	<0.0010	---	<0.0010	0.015	TestAmerica
HRES-07	RESE-1000285	10-Nov-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
HRES-07	RESE-1000286	17-Nov-09	<0.20	<0.0030	0.0024	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.0062	<0.00020	0.0018	0.0012	<0.0020	<0.0010	---	<0.0010	0.011	TestAmerica
HRES-07	RESE-1000286	17-Nov-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.050	---	---	TestAmerica
HRES-07	RESE-1000287	24-Nov-09	<0.20	<0.0030	0.0024	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.0053	<0.00020	0.0012	0.0012	<0.0020	<0.0010	---	<0.0010	0.013	TestAmerica
HRES-07	RESE-1000287	24-Nov-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.050	---	---	TestAmerica
HRES-07	RESE-1000289	30-Nov-09	<0.20	<0.0030	0.0023	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.0052	<0.00020	<0.0010	0.0014	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
HRES-07	RESE-1000289	30-Nov-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.050	---	---	TestAmerica
HRES-07	RESE-1000290	06-Dec-09	<0.20	<0.0030	0.0022	0.015	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0010	---	<0.050	<0.0010	<0.0050	<0.00020	0.0012	0.0011	<0.0020	<0.0010	---	<0.0010	0.017	TestAmerica
HRES-07	RESE-1000290	06-Dec-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.050	---	---	TestAmerica
HRES-08	RESE-1003149	21-Jul-11	<0.20	<0.0030	0.0024	0.053	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	*0.71*	<0.0010	*0.21*	<0.00020	0.0035	0.0048	0.0020	<0.0010	---	<0.0010	0.051	TestAmerica
HRES-08	RESE-1003149	21-Jul-11	<0.20	<0.0030	0.0032	0.060	<0.0010	<0.20	<0.0010	0.0011	<0.0010	0.0019	<0.0080	*1.3*	<0.0010	*0.22*	<0.00020	0.0035	0.0061	<0.0020	<0.0010	<0.050	<0.0010	0.053	TestAmerica
HRES-09	RESE-1003182	29-Dec-10	<0.20	<0.0030	0.0015	0.056	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.30	<0.0010	*0.82*	<0.00020	0.012	0.0041	<0.0020	<0.0010	---	<0.0010	0.12	TestAmerica
HRES-09	RESE-1003182	29-Dec-10	<0.20	<0.0030	0.0014	0.055	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	*0.35*	<0.0010	*0.86*	<0.00020	0.011	0.0026	<0.0020	<0.0010	<0.050	<0.0010	0.13	TestAmerica
HRES-09	RESE-1003133	12-Jun-11	<0.20	<0.0030	0.0018	0.045	<0.0010	<0.20	<0.0010	<0.0010	0.0012	<0.0010	---	0.23	<0.0010	*0.79*	<0.00020	0.0095	0.0022	<0.0020	<0.0050	---	<0.0010	0.19	TestAmerica
HRES-09	RESE-1003133	12-Jun-11	<0.20	<0.0030	0.0015	0.048	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0058	<0.0080	0.26	0.0019	*0.73*	<0.00020	0.010	0.0027	<0.0020	<0.0010	<0.050	<0.0010	0.15	TestAmerica
HRES-09	RESE-1003136	21-Jun-11	<0.20	<0.0030	0.0018	0.033	<0.0010	<0.20	<0.0010	<0.0010	0.0019	<0.0010	---	0.068	<0.0010	*0.54*	<0.00020	0.0045	0.0017	<0.0020	<0.0010	---	<0.0010	0.15	TestAmerica
HRES-09	RESE-1003136	21-Jun-11	<0.20	<0.0030	0.0017	0.033	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0010	<0.0080	<0.050	<0.0010	*0.53*	<0.00020	0.0045	0.0017	<0.0020	<0.0010	<0.050	<0.0010	0.11	TestAmerica
HRES-09	RESE-1003137	28-Jun-11	<0.20	<0.0030	0.0019	0.030	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.12	<0.0010	*0.46*	<0.00020	0.0036	0.0015	<0.0020	<0.0010	---	<0.0010	0.11	TestAmerica
HRES-09	RESE-1003137	28-Jun-11	<0.20	<0.0030	0.0018	0.028	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.0080	0.052	<0.0010	*0.46*	<0.00020	0.0035	0.0016	<0.0020	<0.0010	<0.050	<0.0010	0.10	TestAmerica
HRES-09	RESE-1003143	04-Jul-11	<0.20	<0.0030	0.0019	0.028	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.12	<0.0010	*0.42*	<0.00020	0.0032	0.0016	<0.0020	<0.0010	---	<0.0010	0.12	TestAmerica
HRES-09	RESE-1003143	04-Jul-11	<0.20	<0.0030	0.0018	0.028	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.0080	0.067	<0.0010	*0.42*	<0.00020	0.0032	0.0012	<0.0020	<0.0010	<0.050	<0.0010	0.12	TestAmerica
HRES-10	RESE-1003175	24-Sep-10	*<0.40*	<0.015	<0.0050	0.042	<0.0020	<0.40	<0.0050	<0.0050	<0.0050	<0.0050	---	0.13	<0.0050	<0.020	<0.00020	0.0059	<0.0050	<0.010	<0.0050	---	<0.0050	0.18	TestAmerica
HRES-10	RESE-1003175	24-Sep-10	<0.20	<0.0030	0.0012	0.042	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0030	<0.020	0.24	<0.0010	<0.010	<0.00020	0.0058	0.0011	<0.0020	<0.0010	<0.050	<0.0010	0.20	TestAmerica
HRES-11	RESE-1003174	23-Sep-10	*<0.40*	<0.015	<0.0050	0.017	<0.0020	<0.40	<0.0050	<0.0050	<0.0050	<0.0050	---	0.20	<0.0050	*0.063*	<0.00020	<0.0050	<0.0050	<0.010	<0.0050	---	<0.0050	<0.10	TestAmerica
HRES-11	RESE-1003174	23-Sep-10	<0.20	<0.0030	0.0015	0.017	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.020	*0.52*	<0.0010	*0.069*	<0.00020	0.0021	0.0012	<0.0020	<0.0010	<0.050	<0.0010	<0.050	TestAmerica
HRES-12	RESE-1003144	10-Jul-11	<0.20	<0.0030	<0.0010	0.012	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	*3.2*	<0.0010	*0.38*	<0.00020	0.0063	0.0059	<0.0020	<0.0010	---	<0.0010	0.43	TestAmerica
HRES-12	RESE-1003144	10-Jul-11	<0.20	<0.0030	<0.0010	0.014	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0015	<0.0080	*7.9*	0.0032	*0.38*	<0.00020	0.0063	0.0078	<0.0020	<0.0010	<0.050	<0.0010	0.77	TestAmerica
HRES-13	RESE-1003130	03-Jun-11	<0.20	<0.0030	0.0021	0.042	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.047	<0.00020	0.0018	0.0017	<0.0020	<0.0010	---	<0.0010	0.22	TestAmerica
HRES-13	RESE-1003130	03-Jun-11	<0.20	<0.0030	0.0023	0.038	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0023	<0.0080	0.13	<0.0010	0.046	<0.00020	0.0023	0.0022	<0.0020	<0.0010	<0.050	<0.0010	0.21	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Apache Leap Tuff Aquifer																									
HRES-14	RESE-1003147	15-Jul-11	<0.20	<0.0030	0.0019	0.011	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.065	<0.0010	*0.057*	<0.00020	0.0026	0.0016	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
HRES-14	RESE-1003147	15-Jul-11	*0.39*	<0.0030	0.0024	0.011	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.0080	*0.37*	<0.0010	*0.061*	<0.00020	0.0034	0.0016	<0.0020	<0.0010	<0.050	<0.0010	<0.010	TestAmerica
JI Ranch House Well	RESE-1000303	21-Jun-07	<0.050	<0.002	0.0017	0.022	<0.0020	<0.050	<0.001	<0.0050	<0.010	<0.010	---	<0.040	<0.001	<0.020	---	<0.020	<0.010	<0.002	<0.001	---	<0.001	<0.020	TestAmerica
JI Ranch House Well	RESE-1000303	21-Jun-07	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
MJ-11	RESE-1000257	29-Sep-07	*<0.50*	<0.002	0.0021	0.016	<0.0040	<0.50	<0.001	<0.010	<0.050	<0.020	---	<0.20	0.0014	<0.020	<0.00020	<0.050	<0.050	<0.002	<0.001	---	<0.001	<0.050	TestAmerica
MJ-11	RESE-1000257	29-Sep-07	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
MJ-11	RESE-1000261	20-Feb-08	*<0.50*	<0.002	0.0019	0.014	<0.0040	<0.20	<0.001	<0.010	<0.010	<0.020	---	<0.20	<0.001	<0.010	---	<0.050	<0.050	<0.002	<0.001	---	<0.001	<0.050	TestAmerica
MJ-11	RESE-1000261	20-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	<0.00020	---	---	---	---	<0.10	---	---	TestAmerica
MJ-11	RESE-1003007	02-Jun-08	<0.20	---	---	0.015	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
MJ-11	RESE-1003007	02-Jun-08	---	<0.0030	0.0022	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	<0.0050	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
MJ-11	RESE-1003015	26-Aug-08	<0.20	---	---	0.015	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
MJ-11	RESE-1003015	26-Aug-08	---	<0.0030	0.0018	---	---	---	<0.0010	---	0.040	---	<0.025	---	<0.0010	*1.3*	---	---	---	0.022	<0.0010	<0.040	<0.0010	---	TestAmerica
Oak Flat Well	RESE-1001301	16-Aug-06	*<0.50*	<0.002	0.0031	0.025	<0.0040	<0.50	<0.0050	<0.010	<0.050	<0.020	---	<0.20	0.0014	*0.051*	<0.00020	<0.050	<0.050	<0.002	<0.0050	---	<0.001	<0.050	TestAmerica
UA - Deep Slanted Borehole	UA - DSB Jun93	11-Jun-93	<0.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
UA - Deep Slanted Borehole	UA - DSB Jul93	08-Jul-93	<0.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
UA - Deep Slanted Borehole	UA - DSB (51 700 l)	02-Nov-93	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Deep Groundwater System																									
DHRES-01	RESE-112808	28-Nov-08	<0.20	<0.0030	0.0056	0.48	<0.0010	---	<0.0010	<0.010	---	0.0081	---	*2.7*	<0.0010	*0.16*	<0.00020	0.032	<0.010	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
DHRES-01	RESE-112808	28-Nov-08	<0.20	<0.0030	0.0054	0.48	<0.0010	---	<0.0010	<0.010	---	0.059	<0.020	*2.7*	<0.0010	*0.16*	<0.00020	0.031	<0.010	<0.0020	<0.0010	<0.040	<0.0010	<0.050	TestAmerica
DHRES-02	RESE-1003150	20-Jul-11	<0.20	<0.0030	0.0031	0.061	<0.0010	0.22	<0.0010	<0.0010	<0.0010	0.0025	---	*11*	<0.0010	*0.37*	<0.00020	0.013	0.0074	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
DHRES-02	RESE-1003150	20-Jul-11	<0.20	<0.0030	0.0038	0.054	<0.0010	0.29	<0.0010	0.0020	<0.0010	0.0054	<0.0080	*14*	<0.0010	*0.42*	<0.00020	0.012	0.016	<0.0020	<0.0010	0.26	<0.0010	<0.010	TestAmerica
DHRES-02 DUP	RESE-1003201	20-Jul-11	<0.20	<0.0030	0.0031	0.056	<0.0010	0.27	<0.0010	0.0010	<0.0010	0.0018	---	*12*	<0.0010	*0.35*	<0.00020	0.012	0.0070	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
DHRES-02 DUP	RESE-1003201	20-Jul-11	<0.20	<0.0030	0.0037	0.053	<0.0010	0.26	<0.0010	0.0018	<0.0010	0.0044	<0.0080	*14*	<0.0010	*0.41*	<0.00020	0.012	0.012	<0.0020	<0.0010	0.27	<0.0010	<0.010	TestAmerica
DHRES-02	RESE-1003218	22-Oct-11	<0.20	<0.0030	0.0040	0.052	<0.0010	<0.20	<0.0010	<0.0010	0.0025	0.0021	---	*8.3*	<0.0010	*0.35*	<0.00020	0.0073	0.0072	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
DHRES-02	RESE-1003218	22-Oct-11	<0.20	<0.0030	0.0084	0.049	0.0010	<0.20	<0.0010	0.0027	<0.0010	0.0082	<0.0080	*11*	<0.0010	*0.38*	<0.00020	0.0080	0.012	<0.0020	<0.0010	0.20	<0.0010	<0.050	TestAmerica
DHRES-02	RESE-1003222	25-Oct-11	<0.20	<0.0030	0.0026	0.052	0.0012	<0.20	<0.0010	<0.0010	<0.0010	0.0013	---	*7.3*	<0.0010	*0.34*	<0.00020	0.0057	0.0089	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
DHRES-02	RESE-1003222	25-Oct-11	<0.20	<0.0030	0.0064	0.053	0.0012	<0.20	<0.0010	0.0016	<0.0010	0.0044	<0.050	*7.8*	<0.0010	*0.34*	<0.00020	0.0071	0.017	<0.0020	<0.0010	0.17	<0.0010	<0.050	TestAmerica
DHRES-02	RESE-1003227	27-Oct-11	<0.20	<0.0030	0.0047	0.075	<0.0010	<0.20	<0.0010	<0.0010	0.0010	0.0024	---	*11*	<0.0010	*1.5*	<0.00020	0.023	0.0076	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
DHRES-02	RESE-1003227	27-Oct-11	*4.5*	<0.060	0.13	0.16	0.0016	1.5	<0.020	0.61	0.061	*1.8*	<0.0080	*1100*	0.43	*15*	<0.00020	0.27	0.22	<0.040	<0.020	12	<0.020	0.76	TestAmerica
DHRES-04	RESE-1000291	21-Dec-09	<0.20	<0.0030	0.0032	0.0069	<0.0010	0.39	<0.0010	0.0026	0.0011	0.0049	---	<0.050	<0.0010	0.027	<0.00020	0.032	0.021	0.018	<0.0010	---	<0.0010	0.017	TestAmerica
DHRES-04	RESE-1000291	21-Dec-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.050	---	---	TestAmerica
DHRES-06 DUP	RESE-1003184	09-Jan-11	<0.20	<0.0030	0.0077	0.19	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0012	---	*2.9*	0.0018	*0.53*	<0.00020	0.032	0.0025	<0.0020	<0.0010	---	<0.0010	1.6	TestAmerica
DHRES-06 DUP	RESE-1003184	09-Jan-11	<0.20	<0.0030	0.0076	0.19	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0036	<0.0050	*3.1*	0.0025	*0.55*	<0.00020	0.030	0.0028	<0.0020	<0.0010	<0.10	<0.0010	1.7	TestAmerica
DHRES-06	RESE-1003186	09-Jan-11	<0.20	<0.0030	0.0070	0.19	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0020	---	*2.4*	0.0017	*0.53*	<0.00020	0.030	0.0026	<0.0020	<0.0010	---	<0.0010	1.6	TestAmerica
DHRES-06	RESE-1003186	09-Jan-11	<0.20	<0.0030	0.0079	0.19	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0038	<0.0050	*3.1*	0.0027	*0.53*	<0.00020	0.031	0.0029	<0.0020	<0.0010	<0.10	<0.0010	1.7	TestAmerica
DHRES-09	RESE-1003206	02-Sep-11	<0.20	<0.0030	<0.0010	0.043	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.088	<0.0010	*0.058*	<0.00020	0.0039	0.0033	0.0028	<0.0010	---	<0.0010	<0.050	TestAmerica
DHRES-09	RESE-1003206	02-Sep-11	<0.20	<0.0030	<0.0010	0.041	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.0080	*0.99*	0.0016	*0.057*	<0.00020	0.042	0.0039	0.0028	<0.0010	<0.050	<0.0010	<0.050	TestAmerica
DHRES-10	RESE-1003105	28-Nov-10	<0.20	0.020	0.073	0.022	<0.0010	0.34	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.050	<0.0050	*15*	<0.00020	0.0068	0.021	<0.010	<0.0050	---	<0.0050	<0.050	TestAmerica
DHRES-10	RESE-1003105	28-Nov-10	*3.8*	0.038	0.55	0.051	0.0011	0.52	<0.0050	0.017	0.011	1.0	<0.0050	*64*	0.024	*16*	<0.00020	0.0095	0.032	<0.010	<0.0050	<0.050	<0.0050	0.74	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Deep Groundwater System																									
DHRES-11	RESE-1003131	29-Jun-11	<0.20	<0.0030	0.0086	0.026	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.26	<0.0010	*0.17*	<0.00020	0.0057	0.0011	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
DHRES-11	RESE-1003131	29-Jun-11	<0.20	<0.0030	0.036	0.026	<0.0010	<0.20	<0.0010	0.0011	<0.0010	<0.0010	<0.0080	*3.8*	<0.0010	*0.17*	<0.00020	0.0052	<0.0010	<0.0020	<0.0010	<0.050	<0.0010	0.010	TestAmerica
DHRES-13	RESE-1003138	28-Jun-11	<0.20	<0.0030	0.0010	0.024	<0.0010	<0.20	<0.0010	<0.0010	0.0018	<0.0010	---	0.30	<0.0010	*0.19*	<0.00020	0.017	0.0021	<0.0020	<0.0010	---	<0.0010	0.011	TestAmerica
DHRES-13	RESE-1003138	28-Jun-11	*0.54*	<0.0030	0.0018	0.025	<0.0010	<0.20	<0.0010	0.0014	<0.0010	0.0018	<0.0080	*2.0*	0.0049	*0.22*	<0.00020	0.016	0.0023	<0.0020	<0.0010	<0.050	<0.0010	0.019	TestAmerica
RES-09	RES009-1681-2064.28	09-Oct-06	---	<0.00300	0.0188	0.262	<0.0020	---	<0.00020	<0.0060	---	0.034	---	---	<0.00300	---	<0.00020	---	<0.010	---	<0.00010	---	<0.00200	0.030	SVL
RES-09	RES009-1681-2064.28	09-Oct-06	<0.030	<0.0030	0.0152	---	<0.0020	0.19	<0.0021	---	<0.006	0.042	<0.10	*13.7*	0.0344	---	<0.00020	0.061	---	<0.009	<0.00072	<1.0	<0.0034	0.045	SVL
RES-09	RES009-1681-2064.28	09-Oct-06	---	<0.0030	0.0178	---	<0.0020	---	<0.00020	0.0130	---	0.040	---	---	0.0045	*0.339*	---	---	<0.010	<0.0030	<0.00010	---	---	0.054	SVL
Mine Workings																									
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	<0.20	<0.0030	0.079	0.025	0.0025	0.68	<0.0010	<0.0010	0.19	0.0080	---	*120*	0.0010	*120*	<0.00020	<0.010	0.13	0.0053	<0.0010	---	<0.0010	*98*	TestAmerica
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1000288	24-Nov-09	<0.20	<0.0030	0.057	0.026	0.0015	0.27	<0.0010	<0.0010	0.036	0.0018	---	*47*	<0.0010	*24*	<0.00020	0.0037	0.041	0.011	<0.0010	---	<0.0010	*7.2*	TestAmerica
Shaft No. 9 Discharge	RESE-1000288	24-Nov-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.050	---	---	TestAmerica
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	<0.20	<0.0030	0.054	0.024	<0.0010	r	<0.0010	<0.0010	0.018	0.0029	---	*45*	<0.0010	*18*	<0.00020	0.0041	0.030	<0.010	<0.0010	---	<0.0010	3.0	TestAmerica
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	<0.20	<0.0030	0.056	0.024	0.0012	0.27	<0.0010	<0.0010	0.017	0.0051	0.36	*49*	0.0016	*19*	<0.00020	0.0042	0.028	0.010	<0.0010	<0.050	<0.0010	3.0	TestAmerica
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	<0.20	<0.015	0.056	0.032	<0.0010	0.32	<0.0050	<0.0050	0.024	<0.0050	---	*39*	<0.0050	*18*	<0.00020	0.0056	0.037	<0.010	<0.0050	---	<0.0050	3.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	<0.20	<0.0030	0.047	0.026	<0.0010	0.41	<0.0010	<0.0010	0.017	0.0060	<0.020	*50*	0.0015	*18*	<0.00020	0.0043	0.022	0.0064	<0.0010	<0.050	<0.0010	2.9	TestAmerica
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	<0.20	<0.0030	0.055	0.026	0.0011	<0.20	<0.0010	<0.0010	0.024	0.0036	---	*73*	<0.0010	*21*	<0.00020	0.0040	0.038	0.0042	<0.0010	---	<0.0010	4.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	<0.20	<0.0030	0.069	0.024	0.0015	0.32	<0.0010	<0.0010	0.029	0.0030	---	*70*	<0.0010	*22*	<0.00020	0.0038	0.032	0.0073	<0.0010	---	<0.0010	4.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	<0.20	<0.015	0.065	0.025	<0.0010	0.51	<0.0050	<0.0050	0.030	<0.0050	---	*66*	<0.0050	*18*	<0.00020	<0.0050	0.049	<0.010	<0.0050	---	<0.0050	3.4	TestAmerica
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	<0.20	<0.060	0.057	0.027	0.0012	0.34	<0.020	<0.020	0.027	<0.020	---	*62*	<0.020	*17*	<0.00020	<0.020	0.040	<0.040	<0.020	---	<0.020	2.7	TestAmerica
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	<0.20	<0.0030	0.052	0.025	0.0015	0.38	<0.0010	<0.0010	0.026	0.0031	---	*61*	<0.0010	*18*	<0.00020	0.0037	0.031	0.0028	<0.0010	---	<0.0010	2.7	TestAmerica
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	<0.20	<0.0030	0.051	0.027	0.0010	0.53	<0.0010	<0.0010	0.021	0.0018	---	*59*	<0.0010	*17*	<0.00020	0.0037	0.021	0.0074	<0.0010	---	<0.0010	2.7	TestAmerica
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	<0.20	<0.0030	0.044	0.026	<0.0010	0.48	<0.0010	<0.0010	0.018	0.0016	---	*48*	<0.0010	*14*	<0.00020	0.0038	0.029	0.0049	<0.0010	---	<0.0010	2.0	TestAmerica
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	<0.20	<0.0030	0.053	0.026	<0.0010	0.57	<0.0010	<0.0010	0.017	0.010	---	*53*	0.0027	*15*	<0.00020	0.0039	0.024	0.0051	<0.0010	---	<0.0010	2.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	<0.20	<0.0030	0.046	0.026	<0.0010	<0.20	<0.0010	<0.0010	0.015	0.0024	---	*37*	<0.0010	*12*	<0.00020	0.0041	0.023	0.0079	<0.0010	---	<0.0010	1.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	<0.20	<0.0030	0.048	0.026	<0.0010	<0.20	<0.0010	<0.0010	0.013	0.0036	---	*39*	<0.0010	*12*	<0.00020	0.0039	0.022	0.0062	<0.0010	---	<0.0010	1.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	<0.20	<0.0030	0.065	0.026	0.0027	<0.20	<0.0050	<0.0050	0.017	<0.0050	---	*32*	<0.0050	*11*	<0.00020	<0.0050	0.039	0.014	<0.0050	---	<0.0050	1.3	TestAmerica
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	<0.20	<0.015	0.078	0.031	0.0010	0.42	<0.0050	<0.0050	0.017	0.010	---	*36*	<0.0050	*12*	<0.00020	0.0057	0.043	<0.010	<0.0050	---	<0.0050	1.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	<0.20	<0.030	0.057	0.028	<0.0010	0.40	<0.010	<0.010	0.013	<0.010	---	*32*	<0.010	*11*	<0.00020	<0.010	0.025	<0.020	<0.010	---	<0.010	1.3	TestAmerica
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	<0.20	<0.030	0.069	0.029	<0.0010	0.37	<0.010	<0.010	0.014	<0.010	<0.020	*36*	<0.010	*13*	<0.00020	<0.010	0.029	<0.020	<0.010	<0.050	<0.010	1.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	<0.20	<0.0030	0.060	0.025	<0.0010	0.39	<0.0010	<0.0050	0.014	0.0019	---	*29*	<0.0050	*14*	<0.00020	0.0060	0.030	0.0023	<0.0010	---	<0.0050	1.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	<0.20	<0.0030	0.065	0.025	<0.0010	0.41	<0.0010	<0.0010	0.012	0.0046	<0.0050	*31*	0.0014	*14*	<0.00020	0.0050	0.022	0.0038	<0.0010	<0.050	<0.0010	1.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	<0.20	<0.015	0.069	0.026	<0.0010	0.36	<0.0050	<0.0050	0.018	<0.0050	---	*28*	<0.0050	*13*	<0.00020	<0.0050	0.033	<0.010	<0.0050	---	<0.0050	2.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	<0.20	<0.015	0.068	0.024	<0.0010	0.37	<0.0050	<0.0050	0.016	0.0054	<0.0050	*30*	<0.0050	*13*	<0.00020	<0.0050	0.026	0.014	<0.0050	<0.050	<0.0050	2.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	0.20	<0.0030	0.056	0.027	<0.0010	0.23	<0.0010	<0.0010	0.013	0.0021	---	*31*	<0.0010	*11*	<0.00020	0.0052	0.024	0.0058	<0.0010	---	<0.0010	1.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	<0.20	<0.0030	0.063	0.026	<0.0010	0.25	<0.0010	<0.0010	0.012	0.0053	<0.020	*30*	0.0014	*9.7*	<0.00020	0.0052	0.021	<0.010	<0.0010	<0.050	<0.0050	1.4	TestAmerica
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	<0.20	<0.0030	0.034	0.024	<0.0010	0.32	<0.0010	<0.0010	0.011	0.0026	---	*18*	<0.0010	*10*	<0.00020	0.0055	0.024	0.0021	<0.0010	---	<0.0010	1.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	*0.21*	<0.0030	0.066	0.027	<0.0010	0.29	<0.0010	<0.0010	0.016	0.0081	<0.0080	*32*	0.0014	*10*	<0.00020	0.0059	0.026	0.0026	<0.0010	<0.050	<0.0010	1.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003123	02-May-11	<0.20	<0.015	0.074	0.026	<0.0010	0.23	<0.0050	<0.0050	0.012	<0.0050	---	*27*	<0.0050	*11*	<0.00020	0.0062	0.047	<0.010	<0.0050	---	<0.0050	1.8	TestAmerica
Shaft No. 9 Discharge	RESE-1003123	02-May-11	<0.20	<0.015	0.069	0.026	<0.0010	0.36	<0.0050	<0.0050	0.011	0.0076	<0.0080	*30*	<0.0050	*11*	<0.00020	0.0073	0.040	<0.010	<0.0050	<0.050	<0.0050	1.6	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Mine Workings																									
Shaft No. 9 Discharge	RESE-1003120	18-May-11	<0.20	<0.015	0.064	0.030	<0.0010	0.36	<0.0050	<0.0050	0.015	<0.0050	---	28	<0.0050	11	<0.00020	0.0061	0.033	<0.010	<0.0050	---	<0.0050	1.9	TestAmerica
Shaft No. 9 Discharge	RESE-1003120	18-May-11	<0.20	<0.0030	0.065	0.028	<0.0010	0.40	<0.0010	<0.0010	0.011	0.031	<0.0080	29	0.0014	11	<0.00020	0.0053	0.025	0.0022	<0.0010	<0.050	<0.0010	1.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	<0.20	<0.0030	0.053	0.028	<0.0010	0.36	<0.0010	<0.0010	0.011	0.0014	---	25	<0.0010	9.7	<0.00020	0.0070	0.032	0.0025	<0.0010	---	<0.0010	1.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	0.26	<0.015	0.079	0.037	<0.0010	0.41	<0.0050	<0.0050	0.016	0.044	<0.0080	30	<0.0050	10	<0.00020	0.0091	0.036	<0.010	<0.0050	<0.050	<0.0050	2.3	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	<0.20	<0.0030	0.051	0.028	<0.0010	0.34	<0.0010	<0.0010	0.011	0.0015	---	22	<0.0010	9.4	<0.00020	0.0068	0.035	0.0025	<0.0010	---	<0.0010	1.2	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	0.21	<0.015	0.058	0.028	<0.0010	0.36	<0.0050	<0.0050	0.012	0.033	0.017	26	<0.0050	9.1	<0.00020	0.0067	0.027	<0.010	<0.0050	<0.050	<0.0050	1.7	TestAmerica
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	<0.20	<0.0030	0.039	0.025	<0.0010	0.24	<0.0010	<0.0010	0.014	<0.0010	---	25	<0.010	10	<0.00020	0.0065	0.023	<0.0020	<0.0050	---	<0.0010	2.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	0.29	<0.015	0.052	0.031	<0.0010	0.40	<0.0050	<0.0050	0.017	0.0095	0.0098	30	<0.0050	10	<0.00020	0.0079	0.032	<0.010	<0.0050	<0.050	<0.0050	2.4	TestAmerica
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	<0.20	<0.0030	0.010	0.026	<0.0010	0.32	<0.0010	<0.0010	0.0099	<0.0010	---	1.7	<0.0010	8.2	<0.00020	0.010	0.024	<0.0020	<0.0010	---	<0.0010	1.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	0.22	<0.0030	0.023	0.026	<0.0010	0.32	<0.0010	<0.0010	0.0096	0.0026	<0.0080	14	0.0016	8.5	<0.00020	0.012	0.018	<0.0020	<0.0010	<0.050	<0.0010	1.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	<0.20	<0.015	0.022	0.033	<0.0010	0.30	<0.0050	<0.0050	0.016	<0.0050	---	16	<0.0050	9.0	<0.00020	0.0097	0.039	<0.010	<0.0050	---	<0.0050	1.8	TestAmerica
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	<0.20	<0.015	0.022	0.027	<0.0010	0.27	<0.0050	<0.0010	0.013	0.012	<0.0080	20	<0.0050	9.1	<0.00020	0.0078	0.032	<0.010	<0.0050	<0.050	<0.0050	1.6	TestAmerica
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	<0.20	<0.0030	0.013	0.030	<0.0010	0.25	<0.0010	0.0010	0.013	0.0027	---	5.6	<0.0010	9.0	<0.00020	0.011	0.033	0.0025	<0.0010	---	<0.0010	1.8	TestAmerica
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	<0.20	<0.015	0.019	0.035	<0.0010	0.26	<0.0050	<0.0050	<0.0050	0.11	<0.0080	8.4	<0.0050	9.1	<0.00020	0.091	0.026	<0.010	<0.0050	<0.050	<0.0050	2.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	<0.20	<0.015	0.0052	0.029	<0.0010	0.24	<0.0050	<0.0050	0.017	<0.0050	---	1.5	<0.010	9.9	<0.00020	0.011	0.028	<0.010	<0.0050	---	<0.010	3.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	<0.20	<0.015	0.010	0.030	<0.0010	0.30	<0.0050	<0.0050	0.015	0.043	<0.0080	4.6	<0.0050	10	<0.00020	0.012	0.029	<0.010	<0.0050	<0.050	<0.0050	3.3	TestAmerica
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	<0.20	<0.015	<0.0050	0.029	<0.0010	0.24	<0.0050	<0.0050	0.033	<0.0050	---	1.4	<0.0050	11	<0.00020	0.011	0.037	<0.010	<0.0050	---	<0.0050	5.7	TestAmerica
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	<0.20	<0.015	0.0072	0.029	<0.0010	0.29	<0.0050	<0.0050	0.032	0.050	<0.0080	3.1	<0.0050	13	<0.00020	0.012	0.037	<0.010	<0.0050	<0.050	<0.0050	6.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	<0.20	<0.015	<0.0050	0.028	<0.0010	0.23	<0.0050	<0.0050	0.011	0.0097	---	0.91	<0.0050	7.9	<0.00020	0.011	0.028	<0.010	<0.0050	---	<0.0050	1.0	TestAmerica
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	<0.20	<0.0030	0.0089	0.029	<0.0010	0.27	<0.0010	<0.0010	0.012	0.074	<0.0080	5.5	0.0024	10	<0.00020	0.011	0.027	0.0023	<0.0010	<0.050	<0.0010	1.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	<0.20	<0.0030	0.0016	0.030	<0.0010	0.21	0.0021	<0.0010	0.023	0.0031	---	0.078	<0.0010	10	<0.00020	0.013	0.040	0.0020	<0.0010	---	<0.0010	3.3	TestAmerica
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	<0.20	<0.0030	0.0062	0.028	<0.0010	0.23	0.0024	0.0014	0.020	0.030	<0.0080	2.4	<0.0010	11	<0.00020	0.013	0.037	<0.0020	<0.0010	<0.050	<0.0010	4.3	TestAmerica
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	<0.20	<0.0030	0.0055	0.027	<0.0010	<0.20	0.0032	<0.0050	0.040	0.0038	---	2.7	<0.0010	16	<0.00020	0.0083	0.052	0.0040	<0.0010	---	<0.0010	7.5	TestAmerica
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	<0.20	<0.0030	0.0070	0.028	<0.0010	<0.20	0.0039	0.0014	0.039	0.072	<0.050	3.1	0.0015	16	<0.00020	0.0093	0.049	0.0042	<0.0010	<0.050	<0.0010	7.4	TestAmerica
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	<0.20	<0.0030	0.0023	0.029	<0.0010	0.21	0.0023	<0.0010	0.017	0.0044	---	0.14	<0.0010	9.8	<0.00020	0.011	0.031	0.0021	<0.0010	---	<0.0010	2.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	<0.20	<0.0030	0.0080	0.029	<0.0010	0.21	0.0017	0.0020	0.016	0.089	<0.0080	2.5	0.0019	9.7	<0.00020	0.010	0.030	0.0022	<0.0010	<0.050	<0.0010	2.3	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	<0.20	<0.0030	0.0023	0.027	<0.0010	0.22	0.0026	<0.0010	0.017	0.0045	---	0.13	<0.0010	9.9	<0.00020	0.011	0.030	0.0020	<0.0010	---	<0.0010	2.1	TestAmerica
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	<0.20	<0.0030	0.0080	0.029	<0.0010	0.21	0.0017	0.0023	0.017	0.093	<0.0080	2.5	0.0020	9.5	<0.00020	0.011	0.031	0.0020	<0.0010	<0.050	<0.0010	2.2	TestAmerica
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	<0.20	<0.0030	0.0020	0.028	<0.0010	0.23	0.0049	<0.0010	0.018	0.029	---	<0.050	<0.0010	9.6	<0.00020	0.015	0.045	0.0020	<0.0010	---	<0.0010	2.9	TestAmerica
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	<0.20	<0.015	0.0071	0.030	<0.0010	0.25	0.0052	0.0050	0.022	0.10	<0.050	1.8	<0.0050	9.8	<0.00020	0.016	0.056	<0.010	<0.0050	<0.050	<0.0050	3.4	TestAmerica
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	<0.20	<0.0060	0.0025	0.030	<0.0010	0.25	0.0025	<0.0020	0.024	0.023	---	<0.050	<0.0020	11	<0.00020	0.014	0.058	<0.0040	<0.0020	---	<0.0020	2.1	TestAmerica
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	<0.20	<0.015	0.0067	0.032	<0.0010	0.20	<0.0050	0.0027	0.022	0.063	<0.050	1.8	<0.0010	10	<0.00020	0.013	0.050	0.0023	<0.0010	<0.050	<0.0010	2.2	TestAmerica
Shallow Groundwater System																									
Hackberry Windmill Well	RESE-1000263	27-Feb-08	<0.20	<0.0030	<0.0010	0.11	<0.0010	<0.20	<0.0010	<0.010	<0.0010	<0.010	---	<0.050	0.0011	0.024	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.082	TestAmerica
Hackberry Windmill Well	RESE-1000263	27-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003011	03-Jun-08	<0.20	---	---	0.094	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
Hackberry Windmill Well	RESE-1003011	03-Jun-08	---	<0.0030	<0.0010	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	0.074	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
Hackberry Windmill Well	RESE-1003019	02-Sep-08	<0.20	---	---	0.10	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	0.061	TestAmerica
Hackberry Windmill Well	RESE-1003019	02-Sep-08	---	<0.0030	<0.0010	---	---	---	<0.0010	---	<0.0010	---	<0.020	---	<0.0010	0.078	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	<0.20	---	---	0.10	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	0.064	TestAmerica
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	---	<0.0030	<0.0010	---	---	---	<0.0010	---	<0.0010	---	<0.020	---	<0.0010	0.079	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Shallow Groundwater System																									
Hackberry Windmill Well	RESE-1003024	02-Dec-08	<0.20	<0.0030	<0.0010	0.10	<0.0010	---	<0.0010	<0.010	---	<0.010	---	*0.51*	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	0.31	TestAmerica
Hackberry Windmill Well	RESE-1003024	02-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003033	03-Mar-09	<0.20	<0.0030	<0.0010	0.11	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0018	---	0.20	<0.0010	0.034	<0.00020	<0.0010	0.0028	<0.0020	<0.0010	---	<0.0010	0.074	TestAmerica
Hackberry Windmill Well	RESE-1003033	03-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
Hackberry Windmill Well	RESE-1003042	02-Jun-09	<0.20	<0.0030	<0.0010	0.094	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.27	<0.0010	0.048	<0.00020	<0.0010	0.0015	<0.0020	<0.0010	---	<0.0010	0.095	TestAmerica
Hackberry Windmill Well	RESE-1003042	02-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
JI Ranch Corral Well	RESE-1000302	21-Jun-07	<0.050	<0.002	<0.001	0.033	<0.0020	<0.050	<0.001	<0.0050	0.036	<0.010	---	*30*	0.0073	*1.3*	---	<0.020	0.019	<0.002	<0.001	---	<0.001	0.60	TestAmerica
JI Ranch Corral Well	RESE-1000302	21-Jun-07	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003004	29-May-08	<0.20	---	---	0.040	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	0.019	---	---	---	---	0.13	TestAmerica
JI Ranch Corral Well	RESE-1003004	29-May-08	---	<0.0030	0.0011	---	---	---	<0.0010	---	0.024	---	<0.025	---	<0.0010	*0.72*	<0.00020	---	---	0.015	<0.0010	<0.040	<0.0010	---	TestAmerica
JI Ranch Corral Well	RESE-1003005	29-May-08	<0.20	---	---	0.039	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	0.019	---	---	---	---	0.083	TestAmerica
JI Ranch Corral Well	RESE-1003005	29-May-08	---	<0.0030	0.0011	---	---	---	<0.0010	---	0.026	---	<0.025	---	<0.0010	*0.52*	<0.00020	---	---	0.013	<0.0010	<0.040	<0.0010	---	TestAmerica
JI Ranch Corral Well	RESE-1003014	25-Aug-08	<0.20	---	---	0.048	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	0.019	---	---	---	---	0.36	TestAmerica
JI Ranch Corral Well	RESE-1003014	25-Aug-08	---	<0.0030	0.0015	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	<0.0010	0.025	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
JI Ranch Corral Well	RESE-1003029	03-Dec-08	<0.20	<0.0030	<0.0010	0.027	<0.0010	---	<0.0010	<0.010	---	<0.010	---	*8.5*	<0.0010	---	<0.00020	<0.010	0.016	<0.0020	<0.0010	---	<0.0010	0.093	TestAmerica
JI Ranch Corral Well	RESE-1003029	03-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003038	04-Mar-09	<0.20	<0.0030	0.0011	0.034	<0.0010	<0.20	<0.0010	<0.0010	0.012	0.0049	---	*2.7*	<0.0010	*0.50*	<0.00020	<0.0010	0.014	<0.0020	<0.0010	---	<0.0010	0.044	TestAmerica
JI Ranch Corral Well	RESE-1003038	04-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
JI Ranch Corral Well	RESE-1003047	05-Jun-09	<0.20	<0.0030	0.0016	0.034	<0.0010	<0.20	<0.0010	<0.0010	0.015	0.0047	---	*4.1*	<0.0010	*0.52*	<0.00020	<0.0010	0.0084	<0.0020	<0.0010	---	<0.0010	0.029	TestAmerica
JI Ranch Corral Well	RESE-1003047	05-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003006	30-May-08	<0.20	---	---	0.083	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
JI Ranch Middle Well	RESE-1003006	30-May-08	---	<0.0030	<0.0010	---	---	---	<0.0010	---	0.0044	---	<0.025	---	<0.0010	*0.40*	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
JI Ranch Middle Well	RESE-1003017	27-Aug-08	<0.20	---	---	0.13	<0.0010	<0.20	---	<0.010	---	<0.010	---	<0.050	---	---	<0.00020	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
JI Ranch Middle Well	RESE-1003017	27-Aug-08	---	<0.0030	0.0019	---	---	---	<0.0010	---	<0.0010	---	<0.025	---	0.0011	*0.067*	---	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
JI Ranch Middle Well	RESE-1003028	03-Dec-08	<0.20	<0.0030	<0.0010	0.15	<0.0010	---	<0.0010	<0.010	---	<0.010	---	*12*	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
JI Ranch Middle Well	RESE-1003028	03-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003037	04-Mar-09	<0.20	<0.0030	<0.0010	0.13	<0.0010	<0.20	<0.0010	<0.0010	0.0029	0.0015	---	*4.6*	<0.0010	*0.92*	<0.00020	<0.0010	0.0041	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
JI Ranch Middle Well	RESE-1003037	04-Mar-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica
JI Ranch Middle Well	RESE-1003048	05-Jun-09	<0.20	<0.0030	<0.0010	0.16	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	*12*	<0.0010	*0.67*	<0.00020	<0.0010	0.0025	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
JI Ranch Middle Well	RESE-1003048	05-Jun-09	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.040	---	---	TestAmerica

TABLE A-2. TRACE CONSTITUENTS
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
U.S EPA National Primary Drinking Water Regulations			---	0.006	0.010	2	0.004	---	0.005	0.1	---	1.3	0.20	---	0.015	---	0.002	---	---	0.05	---	---	0.002	---	
U.S EPA National Secondary Drinking Water Regulations			0.05 to 0.2	---	---	---	---	---	---	---	---	1.0	---	0.3	---	0.050	---	---	---	---	0.1	---	---	5	
Arizona Numeric Aquifer Water Quality Standards			---	0.006	0.05	2.0	0.004	---	0.005	0.1	---	---	0.20	---	0.05	---	0.002	---	0.1	0.05	---	---	0.002	---	

Values in bold red are out of compliance with EPA primary water quality standards

Values in red italics are out of compliance with EPA secondary water quality standards

Values in red underline are out of compliance with Arizona numeric water quality standards

Values in blue indicate that detection limit exceeds standard

--- = Not available, not applicable

-- = Not calculated due to non-detect

Shading indicates dissolved results
Shading indicates total results
Shading indicates total recoverable results
Shading indicates unknown filtration or no filtration method provided for analyses

[a]
Al = Aluminum
Sb = Antimony
As = Arsenic
Ba = Barium
Be = Beryllium
B = Boron
Cd = Cadmium
Cr = Chromium (total)
Co = Cobalt
Cu = Copper
CN = Cyanide (amenable)
Fe = Iron
Pb = Lead
Mn = Manganese
Hg = Mercury
Mo = Molybdenum
Ni = Nickel
Se = Selenium
Ag = Silver
S = Sulfide
Tl = Thallium
Zn = Zinc

[b] mg/L = milligrams per liter

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

TABLE A-3. RADIOLOGICAL DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOLOGICAL CONSTITUENTS[a]							ANALYTICAL LABORATORY
			Gross Alpha (pCi/L)[b]	Gross Beta (pCi/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Ra-226 + Ra-228 (pCi/L)	Total U (pCi/L)	Total U (mg/L)[c]	
Apache Leap Tuff Aquifer										
A-06	RESE-1000255	24-Sep-07	1.8 ± 0.5	<2.0	<0.2	<1.0	--	0.7 ± 0.5	0.0004	Energy Labs
A-06 DUP	RESE-1000256	24-Sep-07	1.3 ± 0.5	<2.0	<0.2	<1.0	--	3.1 ± 0.7	0.0004	Energy Labs
A-06	RESE-1003008	02-Jun-08	<1.6	<2.7	0.12 ± 0.09	<0.85	0.12	1.1 ± 0.3	0.0003	Energy Labs
A-06	RESE-1003016	28-Aug-08	<1.5	<2.7	<0.23	<1.2	--	0.9 ± 0.4	<0.0003	Energy Labs
A-06	RESE-1003030	04-Dec-08	<1.5	<2.6	<0.17	<1.2	--	0.7 ± 0.3	0.0003	Energy Labs
CT Well	RESE-1003102	20-Apr-10	10.0 ± 2.6	3.8 ± 1.7	<0.19	<1.3	--	6.4	0.0090	Energy Labs
HRES-04	RESE-1001114	18-Jan-08	2.3 ± 0.7	<2.0	<0.2	<1.0	--	2.8 ± 0.7	0.0022	Energy Labs
HRES-04	RESE-1003021	03-Sep-08	1.7 ± 1	<2.7	<0.20	<1.2	--	2.7 ± 0.6	0.0016	Energy Labs
HRES-05	RESE-1000264	27-Feb-08	5.5 ± 1	<2.5	<0.1	<1.3	--	2.9 ± 0.5	0.0012	Energy Labs
HRES-05	RESE-1003001	28-May-08	<1.8	<2.7	0.13 ± 0.09	<0.85	0.13	2.6 ± 0.5	0.0010	Energy Labs
HRES-05	RESE-1003012	25-Aug-08	2.0 ± 1.1	<2.7	<0.22	<1.2	--	2.6 ± 0.6	0.0008	Energy Labs
HRES-05	RESE-1003025	02-Dec-08	<1.6	<2.6	<0.15	<1.2	--	2.4 ± 0.6	0.0009	Energy Labs
HRES-06	RESE-1000301	12-Jun-07	<1.0	<2.0	<0.2	<1.0	--	1.1 ± 0.6	0.0004	Energy Labs
HRES-06	RESE-1000265	27-Feb-08	2.0 ± 0.7	<2.5	<0.1	<1.3	--	0.4 ± 0.2	0.0003	Energy Labs
HRES-06 DUP	RESE-1000266	27-Feb-08	3.7 ± 0.8	<2.5	<0.1	<1.3	--	0.6 ± 0.2	<0.0003	Energy Labs
HRES-06	RESE-1003003	28-May-08	<1.5	<2.6	<0.14	2.2 ± 0.6	2.20	0.4 ± 0.2	<0.0003	Energy Labs
HRES-06	RESE-1003013	25-Aug-08	<1.4	<2.7	<0.23	<1.2	--	0.4 ± 0.2	<0.0003	Energy Labs
HRES-06	RESE-1003026	03-Dec-08	<1.4	<2.6	<0.15	<1.2	--	<0.2	<0.0003	Energy Labs
HRES-06 DUP	RESE-1003027	03-Dec-08	1.5 ± 1	<2.6	<0.15	<1.2	--	<0.2	<0.0003	Energy Labs
HRES-07	RESE-1000262	26-Feb-08	2.7 ± 0.8	3.3 ± 1.5	<0.1	<1.3	--	1.1 ± 0.3	0.0006	Energy Labs
HRES-07	RESE-1003009	03-Jun-08	1.6 ± 1.1	<2.6	<0.14	1.8 ± 0.58	1.80	1.3 ± 0.4	0.0007	Energy Labs
HRES-07 DUP	RESE-1003010	03-Jun-08	<1.6	<2.6	0.19 ± 0.1	<0.85	0.19	1.7 ± 0.5	0.0008	Energy Labs
HRES-07	RESE-1003018	02-Sep-08	<1.4	<2.7	<0.23	<1.2	--	1.3 ± 0.5	0.0006	Energy Labs
HRES-07	RESE-1003022	01-Dec-08	<1.5	<2.6	<0.16	<1.2	--	1.7 ± 0.4	0.0007	Energy Labs
HRES-07	RESE-1000290	06-Dec-09	2.5 ± 1.5	<2.7	<0.18	1.5 ± 0.9	1.50	1.2 ± 0.3	0.0004	Energy Labs
HRES-08	RESE-1003149	21-Jul-11	2.2 ± 2.8	<4.2	<0.39	<1.20	--	---	0.0008	ACZ
HRES-09	RESE-1003182	29-Dec-10	<2.3	<4.20	<0.64	<1.3	--	---	0.0016	ACZ
HRES-09	RESE-1003143	04-Jul-11	4.1 ± 2.8	4.6 ± 2.9	<0.30	1.9 ± 0.56	1.90	---	0.0009	ACZ
HRES-10	RESE-1003175	24-Sep-10	<2.3	<4.0	<0.40	<1.50	--	---	0.0134	ACZ
HRES-11	RESE-1003174	23-Sep-10	<1.9	<4.00	<0.21	<1.6	--	---	0.0004	ACZ
HRES-12	RESE-1003144	10-Jul-11	3.2 ± 3.4	<4.40	<0.29	<1.30	--	---	0.0030	ACZ
HRES-13	RESE-1003130	03-Jun-11	<2.20	<4.2	<0.32	<1.10	--	---	0.0011	ACZ
HRES-14	RESE-1003147	15-Jul-11	<2.1	<4.30	<0.46	<1.10	--	---	0.0006	ACZ
JI Ranch House Well	RESE-1000303	21-Jun-07	<1.0	<2.0	<0.2	<1.0	--	<0.2	<0.0003	Energy Labs
MJ-11	RESE-1000257	29-Sep-07	1.3 ± 0.5	<2.0	<0.2	<1.0	--	1.2 ± 0.5	0.0003	Energy Labs
MJ-11	RESE-1000261	20-Feb-08	2.9 ± 0.8	<2.5	<0.1	<1.3	--	0.6 ± 0.3	0.0003	Energy Labs
MJ-11	RESE-1003007	02-Jun-08	<1.6	<2.7	0.17 ± 0.12	1.5 ± 0.79	1.67	0.9 ± 0.3	<0.0003	Energy Labs
MJ-11	RESE-1003015	26-Aug-08	<1.4	<2.7	<0.23	<1.2	--	0.8 ± 0.5	<0.0003	Energy Labs
Deep Groundwater System										
DHRES-01	RESE-112808	28-Nov-08	9.5 ± 2.3	25.0 ± 2.2	2.4 ± 0.31	2.3 ± 0.82	4.7	<0.2	<0.0003	Energy Labs
DHRES-02	RESE-1003150	20-Jul-11	23 ± 8.4	49 ± 7.7	10 ± 0.5	0.97 ± 0.45	11	---	<0.0001	ACZ
DHRES-02 DUP	RESE-1003201	20-Jul-11	21 ± 8.4	48 ± 7.9	10 ± 0.49	1.1 ± 0.5	11.1	---	<0.0001	ACZ
DHRES-02	RESE-1003218	22-Oct-11	19 ± 7.4	47 ± 7	10 ± 0.45	1.5 ± 0.57	11.5	---	<0.0001	ACZ
DHRES-02	RESE-1003222	25-Oct-11	49 ± 13	54 ± 9.3	11 ± 0.53	3.9 ± 0.6	14.9	---	<0.0001	ACZ
DHRES-02	RESE-1003227	27-Oct-11	28 ± 18	56 ± 17	11 ± 0.82	5.3 ± 1	16.3	---	0.0017	ACZ
DHRES-04	RESE-1000291	21-Dec-09	3.1 ± 1.3	<2.6	<0.20	<1.5	--	0.3 ± 0.2	<0.0003	Energy Labs

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TABLE A-3. RADIOLOGICAL DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOLOGICAL CONSTITUENTS[a]							ANALYTICAL LABORATORY
			Gross Alpha (pCi/L)[b]	Gross Beta (pCi/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Ra-226 + Ra-228 (pCi/L)	Total U (pCi/L)	Total U (mg/L)[c]	
Deep Groundwater System										
DHRES-06 DUP	RESE-1003184	09-Jan-11	3.2 ± 3.5	6.5 ± 3.4	0.73 ± 0.18	<1.7	0.73	---	0.0033	ACZ
DHRES-06	RESE-1003186	09-Jan-11	<2.5	8.3 ± 3.8	1.5 ± 0.26	<1.40	1.5	---	0.0033	ACZ
DHRES-09	RESE-1003206	02-Sep-11	36 ± 7.1	6.9 ± 3.2	0.31 ± 0.1	<0.96	0.31	---	0.0115	ACZ
DHRES-10	RESE-1003105	28-Nov-10	<15.0	55 ± 22	1.5 ± 0.21	1.8 ± 0.57	3.3	---	0.0045	ACZ
DHRES-11	RESE-1003131	29-Jun-11	<2.20	5.6 ± 3.1	0.74 ± 0.17	0.99 ± 0.43	1.73	---	0.0002	ACZ
DHRES-13	RESE-1003138	28-Jun-11	<2.6	9.1 ± 3.7	0.67 ± 0.2	1.7 ± 0.54	2.37	---	0.0011	ACZ
RES-09	RES009-1681-2064.28	09-Oct-06	21 ± 5.8	26 ± 5	10 ± 0.67	3.4 ± 0.83	13.4	---	0.0001 j	ACZ
RES-09 SP	RES009-1681-2064.28	09-Oct-06	---	---	---	---	---	---	<0.0010	SVL
Mine Workings										
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	27.0 ± 17.8	<27.6	4.2 ± 0.44	<1.4	4.2	8.8 ± 0.9	0.0117	Energy Labs
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	20 ± 16	56 ± 20	6.3 ± 0.35	1.2 ± 0.51	7.5	---	0.0192	ACZ
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	22 ± 21	55 ± 23	4.7 ± 0.3	1.2 ± 0.49	5.9	---	0.0177	ACZ
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	22 ± 15	67 ± 18	0.42 ± 0.14	1.7 ± 0.62	2.12	---	0.0154	ACZ
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	21 ± 14	49 ± 16	7.5 ± 0.37	1.2 ± 0.65	8.7	---	0.0146	ACZ
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	16 ± 18	60 ± 23	5.2 ± 0.29	1.1 ± 0.68	6.3	---	0.0156	ACZ
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	26 ± 20	58 ± 23	5.3 ± 0.28	1.7 ± 0.72	7.0	---	0.0159	ACZ
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	<12.0	48 ± 16	4.8 ± 0.39	<1.40	4.8	---	0.0118	ACZ
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	<12.00	54 ± 19	5.6 ± 0.33	3.3 ± 0.64	8.9	---	0.0130	ACZ
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	34 ± 17	48 ± 16	4.3 ± 0.29	1.8 ± 0.75	6.1	---	0.0111	ACZ
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	<12.0	47 ± 17	4.4 ± 0.32	1.9 ± 0.64	6.3	---	0.0124	ACZ
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	12 ± 13	54 ± 17	5.7 ± 0.42	<1.3	5.7	---	0.0133	ACZ
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	29 ± 17	72 ± 17	8.2 ± 0.35	3.5 ± 0.65	11.7	---	0.0122	ACZ
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	<11.0	51 ± 18	4.1 ± 0.26	3.2 ± 0.69	7.3	---	0.0111	ACZ
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	<12.0	33 ± 17	9.6 ± 0.5	2.5 ± 0.67	12.1	---	0.0108	ACZ
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	21 ± 14	76 ± 19	7.5 ± 0.38	<1.5	7.5	---	0.0120	ACZ
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	<12.00	66 ± 18	4.5 ± 0.29	<1.5	4.5	---	0.0121	ACZ
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	24 ± 15	67 ± 17	5.7 ± 0.31	<0.99	5.7	---	0.0106	ACZ
Shaft No. 9 Discharge	RESE-1003123	02-May-11	44 ± 18	87 ± 18	4.5 ± 0.26	<1.40	4.5	---	0.0121	ACZ
Shaft No. 9 Discharge	RESE-1003120	18-May-11	17 ± 17	55 ± 19	6.4 ± 0.4	1.4 ± 0.48	7.8	---	0.0145	ACZ
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	42 ± 18	85 ± 19	5.1 ± 0.37	1.9 ± 0.49	7.0	---	0.0108	ACZ
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	12 ± 10	59 ± 14	5.9 ± 0.37	1.6 ± 0.49	7.5	---	0.0109	ACZ
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	<10.0	54 ± 16	4.9 ± 0.34	0.73 ± 0.51	5.6	---	0.0136	ACZ
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	<9.5	42 ± 14	5 ± 0.29	3.2 ± 0.49	8.2	---	0.0124	ACZ
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	25 ± 17	73 ± 19	6.3 ± 0.37	1.7 ± 0.62	8.0	---	0.0173	ACZ
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	20 ± 16	36 ± 17	3.7 ± 0.27	1.6 ± 0.5	5.3	---	0.0224	ACZ
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	19 ± 13	52 ± 12	4.2 ± 0.31	<0.97	4.2	---	0.0192	ACZ
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	15 ± 12	43 ± 14	5.4 ± 0.35	<1.10	5.4	---	0.0197	ACZ
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	20 ± 14	65 ± 11	5.5 ± 0.31	1.4 ± 0.46	6.9	---	0.0138	ACZ
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	15 ± 14	42 ± 13	4.8 ± 0.3	<1.1	4.8	---	0.0140	ACZ
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	r ± 26	r ± 18	4.6 ± 0.37	2.4 ± 0.52	7.0	---	0.0159	ACZ
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	20 ± 13	54 ± 14	5.8 ± 0.37	2.6 ± 0.52	8.4	---	0.0163	ACZ
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	55 ± 18	98 ± 17	6.7 ± 0.4	3.2 ± 0.55	9.9	---	0.0162	ACZ
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	10 ± 11	57 ± 13	4.2 ± 0.29	<1.6	4.2	---	0.0107	ACZ
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	14 ± 12	45 ± 12	4 ± 0.29	<1.00	4	---	0.0103	ACZ
Shallow Groundwater System										
Hackberry Windmill Well	RESE-1000263	27-Feb-08	<1.3	2.5 ± 1.4	<0.1	<1.3	--	<0.2	<0.0003	Energy Labs
Hackberry Windmill Well	RESE-1003011	03-Jun-08	<1.5	<2.6	0.25 ± 0.15	2.8 ± 0.85	3.05	<0.2	<0.0003	Energy Labs

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TABLE A-3. RADIOLOGICAL DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOLOGICAL CONSTITUENTS[a]							ANALYTICAL LABORATORY
			Gross Alpha (pCi/L)[b]	Gross Beta (pCi/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Ra-226 + Ra-228 (pCi/L)	Total U (pCi/L)	Total U (mg/L)[c]	
Shallow Groundwater System										
Hackberry Windmill Well	RESE-1003019	02-Sep-08	<1.4	2.9 ± 1.7	<0.23	<1.2	--	<0.2	<0.0003	Energy Labs
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	<1.4	<2.7	<0.19	<1.2	--	<0.2	<0.0003	Energy Labs
Hackberry Windmill Well	RESE-1003024	02-Dec-08	3.5 ± 1.1	6.0 ± 1.7	<0.15	<1.2	--	<0.2	<0.0003	Energy Labs
JI Ranch Corral Well	RESE-1000302	21-Jun-07	<1.0	<2.0	0.6 ± 0.3	<1.0	0.6	<0.2	<0.0003	Energy Labs
JI Ranch Corral Well	RESE-1003005	29-May-08	2.6 ± 1.6	<2.7	0.55 ± 0.15	1.1 ± 0.55	1.65	<0.2	<0.0003	Energy Labs
JI Ranch Corral Well	RESE-1003014	25-Aug-08	<3.1	<4.0	<0.23	<1.2	--	<0.2	<0.0003	Energy Labs
JI Ranch Corral Well	RESE-1003029	03-Dec-08	8.6 ± 3	5.1 ± 2.8	<0.18	1.7 ± 0.8	1.70	<0.2	<0.0003	Energy Labs
JI Ranch Middle Well	RESE-1003006	30-May-08	<1.5	<2.6	0.29 ± 0.11	<0.85	0.29	<0.2	<0.0003	Energy Labs
JI Ranch Middle Well	RESE-1003017	27-Aug-08	<1.6	<2.7	<0.25	<1.2	--	<0.2	<0.0003	Energy Labs
JI Ranch Middle Well	RESE-1003028	03-Dec-08	4.6 ± 1.5	3.9 ± 1.7	<0.16	2.0 ± 0.81	2.00	<0.2	<0.0003	Energy Labs
U.S.EPA National Primary Drinking Water Regulations			15 pCi/L	50 pCi/L[d]	---	---	5 pCi/L	---	0.03 mg/L	
Arizona Numeric Aquifer Water Quality Standards			15 pCi/L	50 pCi/L	---	---	5 pCi/L	---	0.035 mg/L	

Values in bold red are out of compliance with EPA primary water quality standards
Values in red italics are out of compliance with Arizona numeric water quality standards
Values in blue indicate that detection limit exceeds standard

[a] Ra-226 = Radium 226
Ra-228 = Radium 228
U = Uranium

[b] pCi/L = picocuries per liter

[c] mg/L = milligrams per liter

[d] pCi/L alert level for EPA and Arizona Numeric Standard of 4 mrem/year (milliroentgen equivalent man per year)

< = Less than reported detection limit
--- = Not available, not applicable
-- = Not calculated due to non-detect

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

TABLE A-4. STABLE ISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Apache Leap Tuff Aquifer								
A-06	RESE-1000255	24-Sep-07	-10.4	-70	-16.4	10.0	13.5	University of Arizona
A-06 DUP	RESE-1000256	24-Sep-07	-10.4	-71	---	9.2	i	University of Arizona
A-06	RESE-1003008	02-Jun-08	-10.4	-70	-15.8	6.6	8.3	University of Arizona
A-06	RESE-1003016	28-Aug-08	-10.5	-71	-16.3	6.2	12.5	University of Arizona
A-06	RESE-1003030	04-Dec-08	-10.4	-71	-16.0	7.1	i	University of Arizona
A-06	RESE-1003039	05-Mar-09	-10.5	-70	-15.9	6.8	6.3	University of Arizona
A-06	RESE-1003046	04-Jun-09	-10.4	-70	---	7.6	14.1	University of Arizona
CT Well	RESE-1003102	20-Apr-10	---	---	-14.0	---	---	Beta Analytic
CT Well	RESE-1003102	20-Apr-10	-8.44	-55.2	---	-3.6	2.1	Isotech
HRES-01	RESE-1001103	18-Mar-04	-9.5	-66	---	---	---	University of Arizona
HRES-02	RESE-1001105	06-Apr-04	-9.1	-64	---	---	---	University of Arizona
HRES-02	RESE-1001108	08-Apr-04	-9.9	-68	---	---	---	University of Arizona
HRES-02	RESE-1001109	10-Apr-04	-9.9	-68	---	---	---	University of Arizona
HRES-03d	RESE-1001111	16-Apr-04	-11.4	-79	---	---	---	University of Arizona
HRES-04	RESE-1001110	15-Apr-04	-9.6	-65	---	---	---	University of Arizona
HRES-04	4531	03-Nov-06	-9.6	-65	-15.6	5.0	8.2	University of Arizona
HRES-04	RESE-1001114	18-Jan-08	-9.7	-66	-15.1	6.3	12.0	University of Arizona
HRES-04	RESE-1003021	03-Sep-08	-9.6	-67	-14.5	4.9	16.7	University of Arizona
HRES-04	RESE-1003031	02-Mar-09	-9.6	-65	-14.0	3.6	5.3	University of Arizona
HRES-04	RESE-1003040	01-Jun-09	-9.6	-65	---	4.5	9.8	University of Arizona
HRES-05	RESE-1001104	02-Apr-04	-9.5	-65	---	---	---	University of Arizona
HRES-05	RESE-1000264	27-Feb-08	-9.7	-66	-13.3	8.5	13.5	University of Arizona
HRES-05	RESE-1003001	28-May-08	-9.5	-65	-14.0	5.3	13.1	University of Arizona
HRES-05	RESE-1003012	25-Aug-08	-9.1	-72	-14.2	7.8	7.8	University of Arizona
HRES-05	RESE-1003025	02-Dec-08	-9.5	-67	-14.7	6.6	i	University of Arizona
HRES-05	RESE-1003034	03-Mar-09	-9.6	-65	-14.2	8.6	3.3	University of Arizona
HRES-05 SP	RESE-1003034	03-Mar-09	---	---	-13.5	---	---	Beta Analytic
HRES-05	RESE-1003043	03-Jun-09	-9.7	-65	---	8.0	7.4	University of Arizona
HRES-06	RESE-1000301	12-Jun-07	-10.3	-70	-15.6	4.5	9.9	University of Arizona
HRES-06	RESE-1000265	27-Feb-08	-10.3	-71	-7.7	4.9	9.2	University of Arizona
HRES-06 DUP	RESE-1000266	27-Feb-08	-10.3	-71	-15.0	4.8	9.3	University of Arizona
HRES-06	RESE-1003003	28-May-08	-10.1	-71	-16.5	8.5	18.7	University of Arizona
HRES-06	RESE-1003013	25-Aug-08	-10.2	-72	-15.6	5.0	11.6	University of Arizona
HRES-06	RESE-1003026	03-Dec-08	-10.2	-72	-16.1	5.2	9.6	University of Arizona
HRES-06 DUP	RESE-1003027	03-Dec-08	-10.3	-71	-15.8	4.9	8.0	University of Arizona

TABLE A-4. STABLE ISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Apache Leap Tuff Aquifer								
HRES-06	RESE-1003035	04-Mar-09	-10.4	-70	-15.4	4.5	8.7	University of Arizona
HRES-06 SP	RESE-1003035	04-Mar-09	---	---	-14.5	---	---	Beta Analytic
HRES-06 DUP	RESE-1003036	04-Mar-09	-10.4	-70	-15.3	5.0	5.6	University of Arizona
HRES-06 SPD	RESE-1003036	04-Mar-09	---	---	-15.2	---	---	Beta Analytic
HRES-06	RESE-1003044	03-Jun-09	-10.3	-71	---	4.8	9.2	University of Arizona
HRES-06 DUP	RESE-1003045	03-Jun-09	-10.3	-70	---	4.7	9.8	University of Arizona
HRES-07	RESE-1000262	26-Feb-08	-9.8	-67	-14.2	4.5	17.6	University of Arizona
HRES-07	RESE-1003009	03-Jun-08	-9.8	-70	-13.5	4.6	9.0	University of Arizona
HRES-07 DUP	RESE-1003010	03-Jun-08	-9.8	-67	-13.9	4.8	6.5	University of Arizona
HRES-07	RESE-1003018	02-Sep-08	-9.7	-68	-14.3	4.3	9.0	University of Arizona
HRES-07	RESE-1003022	01-Dec-08	-9.8	-68	-15.1	4.3	5.2	University of Arizona
HRES-07	RESE-1003032	03-Mar-09	-10.0	-67	---	4.3	5.8	University of Arizona
HRES-07	RESE-1003041	02-Jun-09	-9.8	-69	---	3.9	10.3	University of Arizona
HRES-07	RESE-1000290	06-Dec-09	---	---	-15.1	---	---	Beta Analytic
HRES-07	RESE-1000290	06-Dec-09	-9.60	-69.7	---	---	---	Isotech
HRES-08	RESE-1003149	21-Jul-11	---	---	-13.0	---	---	Beta Analytic
HRES-08	RESE-1003149	21-Jul-11	-9.61	-68.7	---	Lost	Lost	Isotech
HRES-09	RESE-1003182	29-Dec-10	---	---	-14.7	---	---	Beta Analytic
HRES-09	RESE-1003182	29-Dec-10	-9.34	-67.5	---	i	i	Isotech
HRES-09	RESE-1003143	04-Jul-11	---	---	-19.0	---	---	Beta Analytic
HRES-09	RESE-1003143	04-Jul-11	-9.52	-68.0	---	6.5	-0.7	Isotech
HRES-10	RESE-1003175	24-Sep-10	---	---	-17.2	---	---	Beta Analytic
HRES-10	RESE-1003175	24-Sep-10	-8.83	-62.7	---	-1.9	2.3	Isotech
HRES-11	RESE-1003174	23-Sep-10	---	---	-16.6	---	---	Beta Analytic
HRES-11	RESE-1003174	23-Sep-10	-10.21	-72.0	---	1.9	-0.5	Isotech
HRES-12	RESE-1003144	10-Jul-11	---	---	-15.3	---	---	Beta Analytic
HRES-12	RESE-1003144	10-Jul-11	-9.45	-66.3	---	1.1	7.5	Isotech
HRES-13	RESE-1003130	03-Jun-11	---	---	-15.2	---	---	Beta Analytic
HRES-13	RESE-1003130	03-Jun-11	-10.01	-70.2	---	3.8	1.3	Isotech
HRES-14	RESE-1003147	15-Jul-11	---	---	-15.6	---	---	Beta Analytic
HRES-14	RESE-1003147	15-Jul-11	-10.14	-70.1	---	5.4	-3.9	Isotech
JI Ranch House Well	RESE-1000303	21-Jun-07	-10.3	-72	-16.2	5.1	23.8	University of Arizona
MJ-11	RESE-1000257	29-Sep-07	-10.4	-71	-16.7	8.1	9.8	University of Arizona
MJ-11	RESE-1000261	20-Feb-08	-10.4	-67	-15.6	6.6	i	University of Arizona
MJ-11	RESE-1003007	02-Jun-08	-10.4	-70	-15.6	6.4	10.6	University of Arizona

TABLE A-4. STABLE ISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Apache Leap Tuff Aquifer								
MJ-11	RESE-1003015	26-Aug-08	-10.4	-71	-15.9	5.5	8.3	University of Arizona
Deep Groundwater System								
DHRES-01	RESE-112808	28-Nov-08	-11.8	-83	-7.3	7.7	2.0	University of Arizona
DHRES-02	RESE-1003150	20-Jul-11	---	---	-14.6	---	---	Beta Analytic
DHRES-02	RESE-1003150	20-Jul-11	-11.52	-85.3	---	9.10	7.60	Isotech
DHRES-02 DUP	RESE-1003201	20-Jul-11	---	---	-17.3	---	---	Beta Analytic
DHRES-02 DUP	RESE-1003201	20-Jul-11	-11.50	-85.2	---	8.20	7.09	Isotech
DHRES-02	RESE-1003218	22-Oct-11	---	---	-19.3	---	---	Beta Analytic
DHRES-02	RESE-1003218	22-Oct-11	-11.77	-84.7	---	8.0	6.7	Isotech
DHRES-02	RESE-1003222	25-Oct-11	---	---	-13.0	---	---	Beta Analytic
DHRES-02	RESE-1003222	25-Oct-11	-11.96	-84.7	---	7.9	6.5	Isotech
DHRES-02	RESE-1003227	27-Oct-11	---	---	-15.1	---	---	Beta Analytic
DHRES-02	RESE-1003227	27-Oct-11	-11.89	-85.1	---	9.4	6.2	Isotech
DHRES-04	RESE-1000291	21-Dec-09	---	---	-13.7	---	---	Beta Analytic
DHRES-04	RESE-1000291	21-Dec-09	-10.95	-82.5	---	5.2	-1.0	Isotech
DHRES-06 DUP	RESE-1003184	09-Jan-11	---	---	-13.1	---	---	Beta Analytic
DHRES-06 DUP	RESE-1003184	09-Jan-11	-11.69	-83.1	---	i	i	Isotech
DHRES-06	RESE-1003186	09-Jan-11	---	---	-16.0	---	---	Beta Analytic
DHRES-06	RESE-1003186	09-Jan-11	-11.58	-84.1	---	i	i	Isotech
DHRES-09	RESE-1003206	02-Sep-11	---	---	-15.2	---	---	Beta Analytic
DHRES-09	RESE-1003206	02-Sep-11	-9.24	-67.6	---	-1.2	4.4	Isotech
DHRES-10	RESE-1003105	28-Nov-10	---	---	-23.1	---	---	Beta Analytic
DHRES-10	RESE-1003105	28-Nov-10	-10.14	-72.1	---	3.9	-0.7	Isotech
DHRES-11	RESE-1003131	29-Jun-11	---	---	-13.4	---	---	Beta Analytic
DHRES-11	RESE-1003131	29-Jun-11	-10.66	-76.4	---	3.7	5.1	Isotech
DHRES-13	RESE-1003138	28-Jun-11	---	---	-12.3	---	---	Beta Analytic
DHRES-13	RESE-1003138	28-Jun-11	-10.20	-72.2	---	i	i	Isotech
RES-09	RES009-1681-2064.28	09-Oct-06	-10.8	-74	-17.4	14.8	7.5	University of Arizona
Mine Workings								
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	---	-26.1	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	-9.9	-68	---	1.1	1.9	University of Arizona
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	---	---	-18.7	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	-10.29	-70.7	---	1.2	-2.1	Isotech
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	---	---	-15.9	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	-10.10	-71.5	---	0.9	-1.1	Isotech

TABLE A-4. STABLE ISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Mine Workings								
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	---	---	-15.5	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	-10.11	-71.1	---	0.7	-1.7	Isotech
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	---	---	-16.4	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	-10.03	-71.7	---	0.7	-1.2	Isotech
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	---	---	-13.3	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	-10.12	-72.6	---	1.6	-2.1	Isotech
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	---	---	-20.3	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	-10.17	-72.2	---	1.5	-3.6	Isotech
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	---	---	-19.4	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	-10.13	-72.1	---	1.2	-1.6	Isotech
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	---	---	-15.9	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	-10.36	-73.7	---	1.7	-1.4	Isotech
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	---	---	-15.9	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	-10.09	-72.4	---	1.7	-1.6	Isotech
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	---	---	-18.0	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	-10.00	-73.7	---	2.0	-0.5	Isotech
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	---	---	-22.5	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	-10.26	-73.6	---	1.9	0.1	Isotech
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	---	---	-16.9	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	-10.24	-75.2	---	2.1	-0.2	Isotech
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	---	---	-19.4	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	-10.11	-71.4	---	0.2	0.7	Isotech
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	---	---	-16.9	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	-10.51	-74.6	---	2.4	-0.8	Isotech
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	---	---	-18.6	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	-10.14	-73.5	---	2.2	-0.6	Isotech
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	---	---	-19.6	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	-10.02	-71.8	---	2.6	-0.4	Isotech
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	---	---	-23.4	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	-10.16	-73.3	---	2.4	0.3	Isotech
Shaft No. 9 Discharge	RESE-1003123	02-May-11	---	---	-19.5	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003123	02-May-11	-10.27	-73.4	---	2.4	-0.1	Isotech
Shaft No. 9 Discharge	RESE-1003120	18-May-11	---	---	-17.3	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003120	18-May-11	-10.16	-74.8	---	2.4	-0.8	Isotech
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	---	---	-17.0	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	-10.36	-75.2	---	2.6	-1.1	Isotech

TABLE A-4. STABLE ISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Mine Workings								
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	---	---	-17.2	---	---	Beta Analytic
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	-10.44	-76.2	---	2.2	-0.9	Isotech
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	---	---	-21.4	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	-10.22	-75.1	---	2.7	-1.1	Isotech
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	---	---	-18.1	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	-10.63	-75.8	---	2.9	-1.0	Isotech
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	---	---	-17.5	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	-10.28	-74.4	---	3.0	-0.9	Isotech
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	---	---	-21.4	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	-10.32	-75.6	---	1.70	-0.74	Isotech
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	---	---	-23.1	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	-10.37	-74.6	---	1.5	-1.5	Isotech
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	---	---	-19.7	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	-10.45	-75.0	---	0.2	-0.2	Isotech
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	---	---	-16.0	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	-10.56	-77.6	---	1.6	-0.7	Isotech
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	---	---	-13.0	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	-10.56	-76.1	---	0.6	-1.4	Isotech
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	---	---	-18.7	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	-10.50	-74.9	---	0.7	-3.5	Isotech
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	---	---	-17.3	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	-10.62	-74.7	---	1.6	-3.2	Isotech
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	---	---	-12.6	---	---	Beta Analytic
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	-10.69	-74.8	---	1.2	-2.3	Isotech
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	---	---	-21.0	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	-10.72	-76.0	---	1.7	-1.0	Isotech
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	---	---	-11.1	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	-10.40	-76.1	---	1.0	-1.2	Isotech
Shallow Groundwater System								
Hackberry Windmill Well	WM-ALU	17-Jun-86	-8.29	-62.05	---	---	---	
Hackberry Windmill Well	001225	04-Jun-03	-5.6	-43	---	---	---	University of Arizona
Hackberry Windmill Well	RESE-1000263	27-Feb-08	-7.6	-52	-10.5	1.7	8.4	University of Arizona
Hackberry Windmill Well	RESE-1003011	03-Jun-08	-7.2	-50	-14.7	3.5	12.6	University of Arizona
Hackberry Windmill Well	RESE-1003019	02-Sep-08	-7.1	-52	-15.9	0.3	10.8	University of Arizona
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	-7.2	-52	---	0.4	9.5	University of Arizona
Hackberry Windmill Well	RESE-1003024	02-Dec-08	-7.4	-59	-15.3	4.6	8.0	University of Arizona

TABLE A-4. STABLE ISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Shallow Groundwater System								
Hackberry Windmill Well	RESE-1003033	03-Mar-09	-7.7	-55	---	2.0	5.6	University of Arizona
Hackberry Windmill Well	RESE-1003042	02-Jun-09	-7.3	-54	---	4.3	i	University of Arizona
JI Ranch Corral Well	RESE-1003004	29-May-08	-9.3	-65	---	---	---	University of Arizona
JI Ranch Corral Well	RESE-1003005	29-May-08	-9.6	-64	---	-5.4	5.6	University of Arizona
JI Ranch Corral Well	RESE-1003014	25-Aug-08	-10.4	-72	-19.4	-4.9	-0.7	University of Arizona
JI Ranch Corral Well	RESE-1003029	03-Dec-08	-10.5	-73	-20.0	-4.0	0.9	University of Arizona
JI Ranch Corral Well	RESE-1003038	04-Mar-09	-10.3	-71	-18.0	-3.4	-0.1	University of Arizona
JI Ranch Corral Well	RESE-1003047	05-Jun-09	-10.2	-71	---	-2.2	2.7	University of Arizona
JI Ranch Middle Well	RESE-1003006	30-May-08	-9.5	-63	---	-2.1	28.8	University of Arizona
JI Ranch Middle Well	RESE-1003017	27-Aug-08	-9.9	-67	-18.9	-2.7	32.3	University of Arizona
JI Ranch Middle Well	RESE-1003028	03-Dec-08	-10.0	-69	-18.8	-2.4	4.3	University of Arizona
JI Ranch Middle Well	RESE-1003037	04-Mar-09	-9.8	-65	-18.9	-2.0	3.9	University of Arizona
JI Ranch Middle Well	RESE-1003048	05-Jun-09	-10.0	-68	---	-1.6	4.8	University of Arizona

a $\delta^{18}O$ (‰) = delta oxygen-18 (per mil)
b δD (‰) = delta deuterium (per mil)
c $\delta^{13}C$ in DIC (‰) = delta carbon-13 in dissolved inorganic carbon (per mil)
d $\delta^{34}S$ (‰) = delta sulfur-34 (per mil)
e $\delta^{18}O$ in SO_4 (‰) = delta oxygen-18 in sulfate (per mil)

--- = Not available, not applicable
-- = Not calculated due to non-detect

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Apache Leap Tuff Aquifer											
A-06	RESE-1000255	24-Sep-07	---	---	---	---	0.7 ± 0.5	<0.2	<0.2	---	Energy Labs
A-06	RESE-1000255	24-Sep-07	---	---	0.1271	0.710390 ± 0.000007	---	---	---	---	Geochron
A-06	RESE-1000255	24-Sep-07	<0.7	63.6 ± 0.9	---	---	---	---	---	---	University of Arizona
A-06 DUP	RESE-1000256	24-Sep-07	---	---	---	---	1.9 ± 0.6	<0.2	1.2 ± 0.4	1.6	Energy Labs
A-06 DUP	RESE-1000256	24-Sep-07	---	---	0.1281	0.710386 ± 0.000009	---	---	---	---	Geochron
A-06 DUP	RESE-1000256	24-Sep-07	<0.6	---	---	---	---	---	---	---	University of Arizona
A-06	RESE-1003008	02-Jun-08	---	---	---	---	1.0 ± 0.3	<0.2	<0.2	---	Energy Labs
A-06	RESE-1003008	02-Jun-08	---	---	0.1279	0.710372 ± 0.000009	---	---	---	---	Geochron
A-06	RESE-1003008	02-Jun-08	1.6 ± 0.23	62.7 ± 0.6	---	---	---	---	---	---	University of Arizona
A-06	RESE-1003016	28-Aug-08	---	---	---	---	0.6 ± 0.3	<0.2	0.3 ± 0.2	2.0	Energy Labs
A-06	RESE-1003016	28-Aug-08	---	---	0.1281	0.710385 ± 0.00001	---	---	---	---	Geochron
A-06	RESE-1003016	28-Aug-08	<0.7	63.3 ± 1.1	---	---	---	---	---	---	University of Arizona
A-06	RESE-1003030	04-Dec-08	---	---	---	---	0.6 ± 0.3	<0.2	<0.2	---	Energy Labs
A-06	RESE-1003030	04-Dec-08	---	---	0.1270	0.710360 ± 0.000007	---	---	---	---	Geochron
A-06	RESE-1003030	04-Dec-08	3.3 ± 0.33	64.6 ± 1	---	---	---	---	---	---	University of Arizona
A-06	RESE-1003039	05-Mar-09	0.7 ± 0.28	64.3 ± 0.8	---	---	---	---	---	---	University of Arizona
A-06	RESE-1003046	04-Jun-09	0.6 ± 0.29	---	---	---	---	---	---	---	University of Arizona
CT Well	RESE-1003102	20-Apr-10	---	101.38 ± 0.49	---	---	---	---	---	---	Beta Analytic
CT Well	RESE-1003102	20-Apr-10	---	---	---	---	3.7 ± 0.5	<0.20	2.7 ± 0.4	1.4	Energy Labs
CT Well	RESE-1003102	20-Apr-10	---	---	0.3494	0.720268 ± 0.000007	---	---	---	---	Geochron
CT Well	RESE-1003102	20-Apr-10	2.75 ± 0.26	---	---	---	---	---	---	---	Isotech
HRES-04	4531	03-Nov-06	<1.1	55.3 ± 1	---	---	---	---	---	---	University of Arizona
HRES-04	RESE-1001114	18-Jan-08	---	---	---	---	2.0 ± 0.6	<0.2	0.8 ± 0.4	2.5	Energy Labs
HRES-04	RESE-1001114	18-Jan-08	---	---	0.1923	0.710492 ± 0.000007	---	---	---	---	Geochron
HRES-04	RESE-1001114	18-Jan-08	2.5 ± 0.29	58.4 ± 0.4	---	---	---	---	---	---	University of Arizona
HRES-04	RESE-1003021	03-Sep-08	---	---	---	---	2.0 ± 0.5	<0.2	0.6 ± 0.3	3.3	Energy Labs
HRES-04	RESE-1003021	03-Sep-08	---	---	0.1867	0.710550 ± 0.000011	---	---	---	---	Geochron
HRES-04	RESE-1003021	03-Sep-08	<0.6	58.8 ± 0.8	---	---	---	---	---	---	University of Arizona
HRES-04	RESE-1003031	02-Mar-09	<0.5	57.8 ± 0.3	---	---	---	---	---	---	University of Arizona
HRES-04	RESE-1003040	01-Jun-09	<1.2	---	---	---	---	---	---	---	University of Arizona
HRES-05	RESE-1000264	27-Feb-08	---	---	---	---	2.6 ± 0.5	<0.2	0.3 ± 0.2	8.7	Energy Labs
HRES-05	RESE-1000264	27-Feb-08	---	---	0.1979	0.709890 ± 0.000009	---	---	---	---	Geochron
HRES-05	RESE-1000264	27-Feb-08	<0.8	59.6 ± 1.5	---	---	---	---	---	---	University of Arizona

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Apache Leap Tuff Aquifer											
HRES-05	RESE-1003001	28-May-08	---	---	---	---	2.3 ± 0.5	<0.2	0.3 ± 0.2	7.7	Energy Labs
HRES-05	RESE-1003001	28-May-08	---	---	0.2042	0.709882 ± 0.00001	---	---	---	---	Geochron
HRES-05	RESE-1003001	28-May-08	0.6 ± 0.23	58.5 ± 0.7	---	---	---	---	---	---	University of Arizona
HRES-05	RESE-1003012	25-Aug-08	---	---	---	---	2.0 ± 0.5	<0.2	0.6 ± 0.3	3.3	Energy Labs
HRES-05	RESE-1003012	25-Aug-08	---	---	0.2003	0.709908 ± 0.000009	---	---	---	---	Geochron
HRES-05	RESE-1003012	25-Aug-08	<0.6	59.6 ± 1	---	---	---	---	---	---	University of Arizona
HRES-05	RESE-1003025	02-Dec-08	---	---	---	---	2.3 ± 0.6	<0.2	<0.2	---	Energy Labs
HRES-05	RESE-1003025	02-Dec-08	---	---	0.2006	0.709914 ± 0.00001	---	---	---	---	Geochron
HRES-05	RESE-1003025	02-Dec-08	<0.9	59.4 ± 0.3	---	---	---	---	---	---	University of Arizona
HRES-05	RESE-1003034	03-Mar-09	---	60.83 ± 0.3	---	---	---	---	---	---	Beta Analytic
HRES-05	RESE-1003034	03-Mar-09	<0.6	---	---	---	---	---	---	---	University of Arizona
HRES-05	RESE-1003043	03-Jun-09	<0.9	---	---	---	---	---	---	---	University of Arizona
HRES-06	RESE-1000301	12-Jun-07	---	---	---	---	1.1 ± 0.6	<0.2	<0.2	---	Energy Labs
HRES-06	RESE-1000301	12-Jun-07	---	---	0.1757	0.710635 ± 0.000009	---	---	---	---	Geochron
HRES-06	RESE-1000301	12-Jun-07	<0.4	81.6 ± 1.4	---	---	---	---	---	---	University of Arizona
HRES-06	RESE-1000265	27-Feb-08	---	---	---	---	0.3 ± 0.2	<0.2	<0.2	---	Energy Labs
HRES-06	RESE-1000265	27-Feb-08	---	---	0.1645	0.710579 ± 0.000009	---	---	---	---	Geochron
HRES-06	RESE-1000265	27-Feb-08	<0.4	81.3 ± 1.2	---	---	---	---	---	---	University of Arizona
HRES-06 DUP	RESE-1000266	27-Feb-08	---	---	---	---	0.5 ± 0.2	<0.2	<0.2	---	Energy Labs
HRES-06 DUP	RESE-1000266	27-Feb-08	---	---	0.1639	0.710558 ± 0.000009	---	---	---	---	Geochron
HRES-06 DUP	RESE-1000266	27-Feb-08	<0.8	82.6 ± 1.6	---	---	---	---	---	---	University of Arizona
HRES-06	RESE-1003003	28-May-08	---	---	---	---	0.4 ± 0.2	<0.2	<0.2	---	Energy Labs
HRES-06	RESE-1003003	28-May-08	---	---	0.1601	0.710525 ± 0.000013	---	---	---	---	Geochron
HRES-06	RESE-1003003	28-May-08	0.9 ± 0.26	81.1 ± 0.9	---	---	---	---	---	---	University of Arizona
HRES-06	RESE-1003013	25-Aug-08	---	---	---	---	0.4 ± 0.2	<0.2	<0.2	---	Energy Labs
HRES-06	RESE-1003013	25-Aug-08	---	---	0.1586	0.710587 ± 0.00001	---	---	---	---	Geochron
HRES-06	RESE-1003013	25-Aug-08	<0.6	84.0 ± 1.1	---	---	---	---	---	---	University of Arizona
HRES-06	RESE-1003026	03-Dec-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
HRES-06	RESE-1003026	03-Dec-08	---	---	0.1581	0.710571 ± 0.000011	---	---	---	---	Geochron
HRES-06	RESE-1003026	03-Dec-08	<1.0	83.0 ± 1.2	---	---	---	---	---	---	University of Arizona
HRES-06 DUP	RESE-1003027	03-Dec-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
HRES-06 DUP	RESE-1003027	03-Dec-08	---	---	0.1581	0.710574 ± 0.00001	---	---	---	---	Geochron
HRES-06 DUP	RESE-1003027	03-Dec-08	<0.6	82.6 ± 1.7	---	---	---	---	---	---	University of Arizona
HRES-06	RESE-1003035	04-Mar-09	<0.6	84.3 ± 1.3	---	---	---	---	---	---	University of Arizona
HRES-06 SP	RESE-1003035	04-Mar-09	---	79.79 ± 0.4	---	---	---	---	---	---	Beta Analytic

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Apache Leap Tuff Aquifer											
HRES-06 DUP	RESE-1003036	04-Mar-09	<0.6	85.7 ± 1.2	---	---	---	---	---	---	University of Arizona
HRES-06 SPD	RESE-1003036	04-Mar-09	---	81.5 ± 0.41	---	---	---	---	---	---	Beta Analytic
HRES-06	RESE-1003044	03-Jun-09	1.2 ± 0.31	---	---	---	---	---	---	---	University of Arizona
HRES-06 DUP	RESE-1003045	03-Jun-09	0.6 ± 0.28	---	---	---	---	---	---	---	University of Arizona
HRES-07	RESE-1000262	26-Feb-08	---	---	---	---	0.8 ± 0.3	<0.2	0.2 ± 0.1	4.0	Energy Labs
HRES-07	RESE-1000262	26-Feb-08	---	---	0.1492	0.710245 ± 0.000009	---	---	---	---	Geochron
HRES-07	RESE-1000262	26-Feb-08	1.0 ± 0.27	68.5 ± 0.7	---	---	---	---	---	---	University of Arizona
HRES-07	RESE-1003009	03-Jun-08	---	---	---	---	1.0 ± 0.3	<0.2	0.4 ± 0.2	2.5	Energy Labs
HRES-07	RESE-1003009	03-Jun-08	---	---	0.1458	0.710247 ± 0.000011	---	---	---	---	Geochron
HRES-07	RESE-1003009	03-Jun-08	2.2 ± 0.27	67.8 ± 0.6	---	---	---	---	---	---	University of Arizona
HRES-07 DUP	RESE-1003010	03-Jun-08	---	---	---	---	1.3 ± 0.4	<0.2	0.3 ± 0.2	4.3	Energy Labs
HRES-07 DUP	RESE-1003010	03-Jun-08	---	---	0.1462	0.710271 ± 0.000009	---	---	---	---	Geochron
HRES-07 DUP	RESE-1003010	03-Jun-08	1.4 ± 0.29	66.3 ± 0.7	---	---	---	---	---	---	University of Arizona
HRES-07	RESE-1003018	02-Sep-08	---	---	---	---	1.0 ± 0.4	<0.2	0.2 ± 0.2	5.0	Energy Labs
HRES-07	RESE-1003018	02-Sep-08	---	---	0.1389	0.710209 ± 0.000011	---	---	---	---	Geochron
HRES-07	RESE-1003018	02-Sep-08	<0.9	67.1 ± 0.6	---	---	---	---	---	---	University of Arizona
HRES-07 LD	RESE-1003018	02-Sep-08	---	---	0.1396	0.710229 ± 0.000009	---	---	---	---	Geochron
HRES-07	RESE-1003022	01-Dec-08	---	---	---	---	1.3 ± 0.4	<0.2	0.3 ± 0.2	4.3	Energy Labs
HRES-07	RESE-1003022	01-Dec-08	---	---	0.1383	0.710237 ± 0.000009	---	---	---	---	Geochron
HRES-07	RESE-1003022	01-Dec-08	<0.7	67.7 ± 1.1	---	---	---	---	---	---	University of Arizona
HRES-07	RESE-1003032	03-Mar-09	<0.6	---	---	---	---	---	---	---	University of Arizona
HRES-07	RESE-1003041	02-Jun-09	<0.9	---	---	---	---	---	---	---	University of Arizona
HRES-07	RESE-1000290	06-Dec-09	---	68.46 ± 0.34	---	---	---	---	---	---	Beta Analytic
HRES-07	RESE-1000290	06-Dec-09	---	---	---	---	0.9 ± 0.3	<0.1	0.2 ± 0.1	4.5	Energy Labs
HRES-07	RESE-1000290	06-Dec-09	---	---	0.1149	0.710058 ± 0.000013	---	---	---	---	Geochron
HRES-07	RESE-1000290	06-Dec-09	<1.00	---	---	---	---	---	---	---	Isotech
HRES-08	RESE-1003149	21-Jul-11	---	---	---	---	1.2 ± 1.6	<1.10	1.67 ± 1.2	0.7	ACZ
HRES-08	RESE-1003149	21-Jul-11	---	68.66 ± 0.25	---	---	---	---	---	---	Beta Analytic
HRES-08	RESE-1003149	21-Jul-11	---	---	0.233	0.709809 ± 0.000007	---	---	---	---	Geochron
HRES-08	RESE-1003149	21-Jul-11	<1.00	---	---	---	---	---	---	---	Isotech
HRES-09	RESE-1003182	29-Dec-10	---	---	---	---	4.5 ± 2.1	<1.20	3.5 ± 1.5	1.3	ACZ
HRES-09	RESE-1003182	29-Dec-10	---	75.29 ± 0.28	---	---	---	---	---	---	Beta Analytic
HRES-09	RESE-1003182	29-Dec-10	---	---	0.3537	0.710125 ± 0.000009	---	---	---	---	Geochron

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Apache Leap Tuff Aquifer											
HRES-09	RESE-1003143	04-Jul-11	---	---	---	---	1.6 ± 2.4	<1.0	<1.00	---	ACZ
HRES-09	RESE-1003143	04-Jul-11	---	66.56 ± 0.25	---	---	---	---	---	---	Beta Analytic
HRES-09	RESE-1003143	04-Jul-11	---	---	0.1954	0.710082 ± 0.00001	---	---	---	---	Geochron
HRES-10	RESE-1003175	24-Sep-10	---	---	---	---	7.3 ± 2.5	<1.2	5.32 ± 2	1.4	ACZ
HRES-10	RESE-1003175	24-Sep-10	---	104.58 ± 0.38	---	---	---	---	---	---	Beta Analytic
HRES-10	RESE-1003175	24-Sep-10	---	---	0.521	0.732473 ± 0.000007	---	---	---	---	Geochron
HRES-10	RESE-1003175	24-Sep-10	3.24 ± 0.17	---	---	---	---	---	---	---	Isotech
HRES-11	RESE-1003174	23-Sep-10	---	---	---	---	<1.3	<1.30	<1.30	---	ACZ
HRES-11	RESE-1003174	23-Sep-10	---	69.18 ± 0.34	---	---	---	---	---	---	Beta Analytic
HRES-11	RESE-1003174	23-Sep-10	---	---	0.140	0.710463 ± 0.000009	---	---	---	---	Geochron
HRES-11	RESE-1003174	23-Sep-10	<1.00	---	---	---	---	---	---	---	Isotech
HRES-12	RESE-1003144	10-Jul-11	---	---	---	---	2.5 ± 2.1	<0.97	2.22 ± 1.6	1.1	ACZ
HRES-12	RESE-1003144	10-Jul-11	---	83.38 ± 0.31	---	---	---	---	---	---	Beta Analytic
HRES-12	RESE-1003144	10-Jul-11	---	---	0.2544	0.710271 ± 0.000009	---	---	---	---	Geochron
HRES-12	RESE-1003144	10-Jul-11	0.84 ± 0.26	---	---	---	---	---	---	---	Isotech
HRES-13	RESE-1003130	03-Jun-11	---	---	---	---	3.4 ± 2.3	<1.10	1.38 ± 2	2.5	ACZ
HRES-13	RESE-1003130	03-Jun-11	---	58.70 ± 0.21	---	---	---	---	---	---	Beta Analytic
HRES-13	RESE-1003130	03-Jun-11	---	---	0.2449	0.709723 ± 0.000009	---	---	---	---	Geochron
HRES-13	RESE-1003130	03-Jun-11	<1.00	---	---	---	---	---	---	---	Isotech
HRES-14	RESE-1003147	15-Jul-11	---	---	---	---	<0.99	<0.99	<0.99	---	ACZ
HRES-14	RESE-1003147	15-Jul-11	---	62.39 ± 0.23	---	---	---	---	---	---	Beta Analytic
HRES-14	RESE-1003147	15-Jul-11	---	---	0.132	0.710645 ± 0.001878	---	---	---	---	Geochron
HRES-14	RESE-1003147	15-Jul-11	0.80 ± 0.26	---	---	---	---	---	---	---	Isotech
JI Ranch House Well	RESE-1000303	21-Jun-07	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch House Well	RESE-1000303	21-Jun-07	---	---	0.1299	0.710837 ± 0.000011	---	---	---	---	Geochron
JI Ranch House Well	RESE-1000303	21-Jun-07	<1.0	81.1 ± 1.6	---	---	---	---	---	---	University of Arizona
MJ-11	RESE-1000257	29-Sep-07	---	---	---	---	1.2 ± 0.5	<0.2	<0.2	---	Energy Labs
MJ-11	RESE-1000257	29-Sep-07	---	---	0.1222	0.710397 ± 0.000009	---	---	---	---	Geochron
MJ-11	RESE-1000257	29-Sep-07	<0.3	67.1 ± 1.2	---	---	---	---	---	---	University of Arizona
MJ-11	RESE-1000261	20-Feb-08	---	---	---	---	0.6 ± 0.3	<0.2	<0.2	---	Energy Labs
MJ-11	RESE-1000261	20-Feb-08	---	---	0.1218	0.710404 ± 0.000009	---	---	---	---	Geochron
MJ-11	RESE-1000261	20-Feb-08	0.6 ± 0.23	65.9 ± 1.1	---	---	---	---	---	---	University of Arizona

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Apache Leap Tuff Aquifer											
MJ-11	RESE-1003007	02-Jun-08	---	---	---	---	0.6 ± 0.3	<0.2	0.2 ± 0.1	3.0	Energy Labs
MJ-11	RESE-1003007	02-Jun-08	---	---	0.1212	0.710392 ± 0.00001	---	---	---	---	Geochron
MJ-11	RESE-1003007	02-Jun-08	0.8 ± 0.24	66.7 ± 0.8	---	---	---	---	---	---	University of Arizona
MJ-11 LD	RESE-1003007	02-Jun-08	---	---	0.1201	0.710403 ± 0.000009	---	---	---	---	Geochron
MJ-11	RESE-1003015	26-Aug-08	---	---	---	---	0.6 ± 0.4	<0.2	<0.2	---	Energy Labs
MJ-11	RESE-1003015	26-Aug-08	---	---	0.1208	0.710415 ± 0.000011	---	---	---	---	Geochron
MJ-11	RESE-1003015	26-Aug-08	<0.6	66.4 ± 1.4	---	---	---	---	---	---	University of Arizona
Deep Groundwater System											
DHRES-01	RESE-112808	28-Nov-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
DHRES-01	RESE-112808	28-Nov-08	---	---	0.6118	0.716824 ± 0.000009	---	---	---	---	Geochron
DHRES-01	RESE-112808	28-Nov-08	1.9 q ± 0.34	4.9 ± 0.2	---	---	---	---	---	---	University of Arizona
DHRES-02	RESE-1003150	20-Jul-11	---	---	---	---	<0.98	<0.98	<0.98	---	ACZ
DHRES-02	RESE-1003150	20-Jul-11	---	39.36 ± 0.19	---	---	---	---	---	---	Beta Analytic
DHRES-02	RESE-1003150	20-Jul-11	---	---	2.081	0.720566 ± 0.000012	---	---	---	---	Geochron
DHRES-02	RESE-1003150	20-Jul-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-02 DUP	RESE-1003201	20-Jul-11	---	---	---	---	<1.0	<1.00	1.16 ± 0.84	---	ACZ
DHRES-02 DUP	RESE-1003201	20-Jul-11	---	41.11 ± 0.2	---	---	---	---	---	---	Beta Analytic
DHRES-02 DUP	RESE-1003201	20-Jul-11	---	---	2.085	0.720514 ± 0.000007	---	---	---	---	Geochron
DHRES-02 DUP	RESE-1003201	20-Jul-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-02	RESE-1003218	22-Oct-11	---	---	---	---	<0.99	<0.99	<0.99	---	ACZ
DHRES-02	RESE-1003218	22-Oct-11	---	40.81 ± 0.2	---	---	---	---	---	---	Beta Analytic
DHRES-02	RESE-1003218	22-Oct-11	---	---	2.1069	0.720460 ± 0.00001	---	---	---	---	Geochron
DHRES-02	RESE-1003218	22-Oct-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-02	RESE-1003222	25-Oct-11	---	---	---	---	<0.97	<0.97	<0.97	---	ACZ
DHRES-02	RESE-1003222	25-Oct-11	---	17.61 ± 0.13	---	---	---	---	---	---	Beta Analytic
DHRES-02	RESE-1003222	25-Oct-11	---	---	2.0852	0.720490 ± 0.00001	---	---	---	---	Geochron
DHRES-02	RESE-1003222	25-Oct-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-02	RESE-1003227	27-Oct-11	---	---	---	---	9.7 ± 4.4	<2.80	<2.80	---	ACZ
DHRES-02	RESE-1003227	27-Oct-11	---	40.15 ± 0.24	---	---	---	---	---	---	Beta Analytic
DHRES-02	RESE-1003227	27-Oct-11	---	---	1.8149	0.720476 ± 0.00001	---	---	---	---	Geochron
DHRES-02	RESE-1003227	27-Oct-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-04	RESE-1000291	21-Dec-09	---	18.53 ± 0.16	---	---	---	---	---	---	Beta Analytic
DHRES-04	RESE-1000291	21-Dec-09	---	---	---	---	<0.2	<0.1	<0.1	---	Energy Labs
DHRES-04	RESE-1000291	21-Dec-09	---	---	0.0287	0.708058 ± 0.000011	---	---	---	---	Geochron
DHRES-04	RESE-1000291	21-Dec-09	<1.00	---	---	---	---	---	---	---	Isotech

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Deep Groundwater System											
DHRES-06 DUP	RESE-1003184	09-Jan-11	---	---	---	---	3.3 ± 1.8	<1.00	2.85 ± 1.6	1.2	ACZ
DHRES-06 DUP	RESE-1003184	09-Jan-11	---	16.18 ± 0.14	---	---	---	---	---	---	Beta Analytic
DHRES-06 DUP	RESE-1003184	09-Jan-11	---	---	0.6181	0.710898 ± 0.000007	---	---	---	---	Geochron
DHRES-06 DUP	RESE-1003184	09-Jan-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-06	RESE-1003186	09-Jan-11	---	---	---	---	3.5 ± 1.3	<0.73	1.26 ± 0.88	2.8	ACZ
DHRES-06	RESE-1003186	09-Jan-11	---	17.33 ± 0.13	---	---	---	---	---	---	Beta Analytic
DHRES-06	RESE-1003186	09-Jan-11	---	---	0.4513	0.710908 ± 0.000009	---	---	---	---	Geochron
DHRES-06	RESE-1003186	09-Jan-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-09	RESE-1003206	02-Sep-11	---	---	---	---	46 ± 4.9	<1.00	3.68 ± 1.6	12.5	ACZ
DHRES-09	RESE-1003206	02-Sep-11	---	81.74 ± 0.3	---	---	---	---	---	---	Beta Analytic
DHRES-09	RESE-1003206	02-Sep-11	---	---	0.550	0.712401 ± 0.000011	---	---	---	---	Geochron
DHRES-09	RESE-1003206	02-Sep-11	1.50 ± 0.3	---	---	---	---	---	---	---	Isotech
DHRES-10	RESE-1003105	28-Nov-10	---	---	---	---	2.7 ± 1.5	<1.10	2.08 ± 1.2	1.3	ACZ
DHRES-10	RESE-1003105	28-Nov-10	---	76.61 ± 0.38	---	---	---	---	---	---	Beta Analytic
DHRES-10	RESE-1003105	28-Nov-10	---	---	1.150	0.718413 ± 0.000009	---	---	---	---	Geochron
DHRES-10	RESE-1003105	28-Nov-10	1.62 ± 0.19	---	---	---	---	---	---	---	Isotech
DHRES-11	RESE-1003131	29-Jun-11	---	---	---	---	<1.10	<1.10	<1.10	---	ACZ
DHRES-11	RESE-1003131	29-Jun-11	---	7.48 ± 0.07	---	---	---	---	---	---	Beta Analytic
DHRES-11	RESE-1003131	29-Jun-11	---	---	0.2729	0.712478 ± 0.000007	---	---	---	---	Geochron
DHRES-11	RESE-1003131	29-Jun-11	<1.00	---	---	---	---	---	---	---	Isotech
DHRES-13	RESE-1003138	28-Jun-11	---	---	---	---	<0.98	<0.98	<0.98	---	ACZ
DHRES-13	RESE-1003138	28-Jun-11	---	30.53 ± 0.15	---	---	---	---	---	---	Beta Analytic
DHRES-13	RESE-1003138	28-Jun-11	---	---	0.2106	0.710538 ± 0.000007	---	---	---	---	Geochron
DHRES-13	RESE-1003138	28-Jun-11	<1.00	---	---	---	---	---	---	---	Isotech
RES-09	RES009-1681-2064.28	09-Oct-06	<1.0	47.2 ± 0.4	---	---	---	---	---	---	University of Arizona
Mine Workings											
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	61.69 ± 0.31	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	---	---	---	4.9 ± 0.7	<0.2	3.8 ± 0.6	1.3	Energy Labs
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	---	---	1.849	0.713221 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1000278	22-Apr-09	2.7 ± 0.35	---	---	---	---	---	---	---	University of Arizona
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	---	---	---	---	8.1 ± 2.5	<1.00	7.16 ± 2.1	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	---	51.50 ± 0.25	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	---	---	1.771	0.714075 ± 0.000007	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003157	25-Jun-10	1.26 ± 0.14	---	---	---	---	---	---	---	Isotech

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Mine Workings											
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	---	---	---	---	7 ± 2.5	<1.50	6.14 ± 2.2	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	---	55.15 ± 0.27	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	---	---	1.857	0.713905 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003169	29-Jul-10	1.55 ± 0.27	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	---	---	---	---	6.1 ± 3.5	<2.0	5.13 ± 2.6	1.2	ACZ
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	---	49.12 ± 0.24	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	---	---	1.770	0.714098 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003160	16-Aug-10	1.04 ± 0.27	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	---	---	---	---	8.5 ± 2.7	<1.00	7.91 ± 2.6	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	---	55.36 ± 0.27	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	---	---	1.809	0.714166 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003171	30-Aug-10	1.70 ± 0.28	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	---	---	---	---	4.3 ± 2.4	<1.30	3.23 ± 2.2	1.3	ACZ
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	---	48.04 ± 0.23	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	---	---	1.797	0.714008 ± 0.000007	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003162	14-Sep-10	1.69 ± 0.16	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	---	---	---	---	7.4 ± 4.7	<3.2	<3.20	---	ACZ
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	---	59.65 ± 0.29	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	---	---	1.840	0.713981 ± 0.000014	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003177	27-Sep-10	1.63 ± 0.16	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	---	---	---	---	4.1 ± 2.2	<1.00	3.88 ± 1.9	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	---	55.91 ± 0.28	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	---	---	1.891	0.713904 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003179	11-Oct-10	1.47 ± 0.17	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	---	---	---	---	4.8 ± 2	<1.10	3.49 ± 1.8	1.4	ACZ
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	---	51.76 ± 0.25	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	---	---	1.821	0.713979 ± 0.000016	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003180	25-Oct-10	1.45 ± 0.17	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	---	---	---	---	4.7 ± 2.1	<0.99	4.67 ± 1.9	1.0	ACZ
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	---	51.89 ± 0.25	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	---	---	1.827	0.713969 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003181	09-Nov-10	1.32 ± 0.18	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	---	---	---	---	4.1 ± 1.6	<0.97	5.08 ± 1.7	0.80	ACZ
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	---	49.19 ± 0.24	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	---	---	1.759	0.713862 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003106	12-Jan-11	1.04 ± 0.18	---	---	---	---	---	---	---	Isotech

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Mine Workings											
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	---	---	---	---	6.8 ± 5.9	<3.0	4.19 ± 4.6	1.6	ACZ
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	---	39.07 ± 0.19	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	---	---	1.7795	0.713780 ± 0.000007	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003187	25-Jan-11	1.31 ± 0.33	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	---	---	---	---	5.7 ± 1.7	<0.92	4.53 ± 1.6	1.3	ACZ
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	---	44.58 ± 0.27	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	---	---	1.7360	0.713817 ± 0.000011	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003195	09-Feb-11	1.31 ± 0.18	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	---	---	---	---	3.9 ± 2	<1.20	4.52 ± 1.7	0.9	ACZ
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	---	45.02 ± 0.28	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	---	---	1.7676	0.713822 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003198	22-Feb-11	1.38 ± 0.18	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	---	---	---	---	5.2 ± 1.9	<1.0	4.83 ± 1.6	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	---	48.10 ± 0.24	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	---	---	1.7120	0.713713 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003115	08-Mar-11	1.46 ± 0.26	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	---	---	---	---	3.8 ± 1.8	<1.3	2.89 ± 1.7	1.3	ACZ
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	---	50.43 ± 0.25	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	---	---	1.6652	0.713698 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003107	22-Mar-11	1.79 ± 0.32	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	---	---	---	---	4 ± 1.9	<1.1	4.52 ± 1.6	0.9	ACZ
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	---	46.33 ± 0.23	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	---	---	1.7046	0.713687 ± 0.000011	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003111	06-Apr-11	1.48 ± 0.29	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	---	---	---	---	4.4 ± 2.1	<1.20	3.24 ± 1.4	1.4	ACZ
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	---	52.87 ± 0.26	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	---	---	1.7054	0.713759 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003200	19-Apr-11	1.86 ± 0.29	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003123	02-May-11	---	---	---	---	6.6 ± 2.7	<1.10	5.71 ± 2.2	1.2	ACZ
Shaft No. 9 Discharge	RESE-1003123	02-May-11	---	55.71 ± 0.27	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003123	02-May-11	---	---	1.6269	0.713656 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003123	02-May-11	2.26 ± 0.31	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003120	18-May-11	---	---	---	---	4.4 ± 1.6	<0.92	4.02 ± 1.5	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003120	18-May-11	---	57.61 ± 0.28	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003120	18-May-11	---	---	1.6280	0.713886 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003120	18-May-11	2.33 ± 0.16	---	---	---	---	---	---	---	Isotech

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Mine Workings											
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	---	---	---	---	1.8 ± 1.9	<1.10	4.39 ± 1.7	0.4	ACZ
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	---	51.70 ± 0.25	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	---	---	2.0519	0.713654 ± 0.000007	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003127	01-Jun-11	1.18 ± 0.16	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	---	---	---	---	3.4 ± 2.3	<1.20	3.01 ± 1.4	1.1	ACZ
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	---	52.21 ± 0.26	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	---	---	1.7080	0.713638 ± 0.000007	---	---	---	---	Geochron
Shaft No. 9 Discharge DUP	RESE-1003128	01-Jun-11	1.41 ± 0.15	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	---	---	---	---	6.8 ± 2.5	<1.10	4.23 ± 2	1.6	ACZ
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	---	54.67 ± 0.27	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	---	---	1.630	0.713845 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003134	13-Jun-11	1.79 ± 0.15	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	---	---	---	---	4.5 ± 2	<1.00	3.73 ± 1.5	1.2	ACZ
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	---	46.51 ± 0.23	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	---	---	1.776	0.713093 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003140	30-Jun-11	1.10 ± 0.14	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	---	---	---	---	4.8 ± 2.6	<0.99	4.97 ± 2.1	1.0	ACZ
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	---	49.86 ± 0.18	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	---	---	1.785	0.713489 ± 0.000013	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003145	12-Jul-11	1.08 ± 0.23	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	---	---	---	---	7.3 ± 2.6	<1.00	6.69 ± 2.3	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	---	55.98 ± 0.28	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	---	---	1.863	0.713532 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003202	27-Jul-11	0.98 ± 0.29	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	---	---	---	---	7.3 ± 2.4	<1.20	7.18 ± 2.3	1.0	ACZ
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	---	56.68 ± 0.28	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	---	---	1.762	0.713673 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003204	12-Aug-11	1.00 ± 0.26	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	---	---	---	---	8.2 ± 2.7	<0.98	6.18 ± 2.2	1.3	ACZ
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	---	55.98 ± 0.28	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	---	---	1.772	0.713740 ± 0.000007	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003209	25-Aug-11	1.90 ± 0.31	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	---	---	---	---	4.4 ± 2.1	<1.10	4.01 ± 2	1.1	ACZ
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	---	49.62 ± 0.24	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	---	---	1.846	0.713645 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003210	07-Sep-11	1.10 ± 0.29	---	---	---	---	---	---	---	Isotech

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Mine Workings											
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	---	---	---	---	4.8 ± 1.8	<0.99	5.89 ± 1.8	0.80	ACZ
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	---	36.71 ± 0.18	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	---	---	1.648	0.713774 ± 0.000016	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003212	20-Sep-11	1.19 ± 0.18	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	---	---	---	---	7.5 ± 2.1	<0.88	8 ± 2.1	0.9	ACZ
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	---	52.67 ± 0.26	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	---	---	1.6988	0.713659 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003225	26-Oct-11	1.30 ± 0.27	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	---	---	---	---	4.6 ± 2.2	<1.20	5.45 ± 2.4	0.8	ACZ
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	---	52.41 ± 0.32	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	---	---	1.6654	0.713725 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003228	09-Nov-11	0.93 ± 0.28	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	---	---	---	---	5.2 ± 2.2	<1.20	5.06 ± 2	1.0	ACZ
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	---	43.27 ± 0.26	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	---	---	1.6530	0.713706 ± 0.00001	---	---	---	---	Geochron
Shaft No. 9 Discharge DUP	RESE-1003229	09-Nov-11	1.32 ± 0.32	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	---	---	---	---	3.9 ± 1.8	<0.99	3 ± 1.7	1.3	ACZ
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	---	19.17 ± 0.38	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	---	---	1.627	0.713578 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003232	22-Nov-11	0.95 ± 0.14	---	---	---	---	---	---	---	Isotech
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	---	---	---	---	5.9 ± 2.7	<1.20	7.75 ± 2.8	0.8	ACZ
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	---	43.10 ± 0.21	---	---	---	---	---	---	Beta Analytic
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	---	---	1.528	0.713943 ± 0.000009	---	---	---	---	Geochron
Shaft No. 9 Discharge	RESE-1003234	07-Dec-11	1.27 ± 0.15	---	---	---	---	---	---	---	Isotech
Shallow Groundwater System											
Hackberry Windmill Well	RESE-1000263	27-Feb-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Hackberry Windmill Well	RESE-1000263	27-Feb-08	---	---	0.2868	0.709723 ± 0.000007	---	---	---	---	Geochron
Hackberry Windmill Well	RESE-1000263	27-Feb-08	2.7 ± 0.26	106.1 ± 2.6	---	---	---	---	---	---	University of Arizona
Hackberry Windmill Well	RESE-1003011	03-Jun-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Hackberry Windmill Well	RESE-1003011	03-Jun-08	---	---	0.2395	0.709750 ± 0.000009	---	---	---	---	Geochron
Hackberry Windmill Well	RESE-1003011	03-Jun-08	3.9 ± 0.28	108.5 ± 1.2	---	---	---	---	---	---	University of Arizona
Hackberry Windmill Well	RESE-1003019	02-Sep-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Hackberry Windmill Well	RESE-1003019	02-Sep-08	---	---	0.2481	0.709744 ± 0.000014	---	---	---	---	Geochron
Hackberry Windmill Well	RESE-1003019	02-Sep-08	5.8 ± 0.42	106.9 ± 1.3	---	---	---	---	---	---	University of Arizona

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Shallow Groundwater System											
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	---	---	0.2477	0.709722 ± 0.000011	---	---	---	---	Geochron
Hackberry Windmill Well DUP	RESE-1003020	02-Sep-08	5.1 ± 0.41	---	---	---	---	---	---	---	University of Arizona
Hackberry Windmill Well	RESE-1003024	02-Dec-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Hackberry Windmill Well	RESE-1003024	02-Dec-08	---	---	0.2442	0.709737 ± 0.000009	---	---	---	---	Geochron
Hackberry Windmill Well	RESE-1003024	02-Dec-08	3.8 ± 0.35	107.4 ± 1.5	---	---	---	---	---	---	University of Arizona
Hackberry Windmill Well	RESE-1003033	03-Mar-09	3.0 ± 0.34	---	---	---	---	---	---	---	University of Arizona
Hackberry Windmill Well	RESE-1003042	02-Jun-09	6.2 ± 0.3	---	---	---	---	---	---	---	University of Arizona
JI Ranch Corral Well	RESE-1000302	21-Jun-07	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Corral Well	RESE-1003005	29-May-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Corral Well	RESE-1003005	29-May-08	---	---	0.6607	0.710617 ± 0.000007	---	---	---	---	Geochron
JI Ranch Corral Well	RESE-1003005	29-May-08	3.2 ± 0.29	---	---	---	---	---	---	---	University of Arizona
JI Ranch Corral Well	RESE-1003014	25-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Corral Well	RESE-1003014	25-Aug-08	---	---	1.0042	0.710626 ± 0.000007	---	---	---	---	Geochron
JI Ranch Corral Well	RESE-1003014	25-Aug-08	2.5 ± 0.34	91.1 ± 1.1	---	---	---	---	---	---	University of Arizona
JI Ranch Corral Well	RESE-1003029	03-Dec-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Corral Well	RESE-1003029	03-Dec-08	---	---	0.6636	0.710609 ± 0.000009	---	---	---	---	Geochron
JI Ranch Corral Well	RESE-1003029	03-Dec-08	2.3 ± 0.34	94.1 ± 0.7	---	---	---	---	---	---	University of Arizona
JI Ranch Corral Well LD	RESE-1003029	03-Dec-08	---	---	0.6642	0.710611 ± 0.00001	---	---	---	---	Geochron
JI Ranch Corral Well	RESE-1003038	04-Mar-09	3.0 ± 0.3	91.3 ± 0.8	---	---	---	---	---	---	University of Arizona
JI Ranch Corral Well	RESE-1003047	05-Jun-09	4.8 ± 0.28	---	---	---	---	---	---	---	University of Arizona
JI Ranch Middle Well	RESE-1003006	30-May-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Middle Well	RESE-1003006	30-May-08	---	---	0.2667	0.710693 ± 0.000007	---	---	---	---	Geochron
JI Ranch Middle Well	RESE-1003006	30-May-08	3.3 ± 0.24	---	---	---	---	---	---	---	University of Arizona
JI Ranch Middle Well	RESE-1003017	27-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Middle Well	RESE-1003017	27-Aug-08	---	---	0.3694	0.710692 ± 0.000009	---	---	---	---	Geochron
JI Ranch Middle Well	RESE-1003017	27-Aug-08	2.5 ± 0.46	96.8 ± 0.9	---	---	---	---	---	---	University of Arizona
JI Ranch Middle Well	RESE-1003028	03-Dec-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
JI Ranch Middle Well	RESE-1003028	03-Dec-08	---	---	0.4056	0.710638 ± 0.000009	---	---	---	---	Geochron
JI Ranch Middle Well	RESE-1003028	03-Dec-08	3.8 ± 0.32	105.6 ± 1.6	---	---	---	---	---	---	University of Arizona
JI Ranch Middle Well	RESE-1003037	04-Mar-09	4.2 ± 0.36	97.0 ± 1.3	---	---	---	---	---	---	University of Arizona
JI Ranch Middle Well	RESE-1003048	05-Jun-09	3.8 ± 0.39	---	---	---	---	---	---	---	University of Arizona

TABLE A-5. RADIOISOTOPE DATA
FOR GROUNDWATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	

a ^{3}H = Tritium; tritium unit (1 TU = 1 tritium atom per 10^{18} atoms of hydrogen)
b ^{14}C = carbon-14; pmC = percent modern carbon
c Sr = strontium; ppm = parts per million
d Mass of strontium-87 isotope divided by mass of strontium-86 isotope
e Uranium-234 isotope; pCi/L = activity in picoCuries per liter
f Uranium-235 isotope; pCi/L = activity in picoCuries per liter
g Uranium-238 isotope; pCi/L = activity in picoCuries per liter
h Activity of uranium-234 isotope divided by activity of uranium-238 isotope

--- = Not available, not applicable
-- = Not calculated due to non-detect

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicates
SP = Split samples
SPD = Split-Duplicates

APPENDIX B

SURFACE WATER HYDROCHEMICAL DATA

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Blue Spring	RESE-1001087	26-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	25.8	7.4	558	---	---	
Blue Spring	RESE-1001087	26-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Blue Spring	RESE-1001087	26-May-04	59.2	13.5	32.5	1.7	12.2	--	364.8	6.10	72.9	0.11	0.40	---	370	---	---	---	---	---	SVL
Blue Spring	RESE-1001093	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	22.9	7.4	809	---	---	
Blue Spring	RESE-1001093	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Blue Spring	RESE-1001093	03-Aug-04	89.4	23.6	43.4	3.9	23.8	--	419.7	123	69.2	0.19	0.27	---	*594*	---	---	---	---	---	SVL
Blue Spring	RESE-1001185	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	10.3	7.7	519	---	---	
Blue Spring	RESE-1001185	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Blue Spring	RESE-1001185	09-Feb-05	63.4	15.3	24.8	1.48	16.7	--	258.6	41.2	46.7	0.174	0.300	---	347	---	---	---	---	---	SVL
Blue Spring	RESE-1001200	03-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	17.9	7.6	746	---	---	
Blue Spring	RESE-1001200	03-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Blue Spring	RESE-1001200	03-May-05	103	27.2	44.5	1.80	51.4	--	342.8	107	57.8	0.38	0.301	---	*564*	---	---	---	---	---	SVL
Blue Spring	RESE-1001219	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	25.6	7.1	443.6	---	---	
Blue Spring	RESE-1001219	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Blue Spring	RESE-1001219	03-Aug-05	57.1	9.68	23.6	1.75	10.3	--	253.8	20.1	64.6	0.124	0.276	---	320	---	---	---	---	---	SVL
Blue Spring	RESE-1002009	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.6	7.54	367	---	---	
Blue Spring	RESE-1002009	19-Aug-08	45.7	9.4	21.9	1.75	9.58	---	---	12.0	63.2	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002009	19-Aug-08	50	9.93	23	1.95	9.62	--	237.9	12.0	---	0.161	0.185	---	280 j	---	---	---	---	---	SVL
Blue Spring	RESE-1002009	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.70	---	---	---	---	---	---	TestAmerica
Blue Spring DUP	RESE-1002010	19-Aug-08	45.7	9.34	21.9	1.74	9.58	---	---	12.0	62.9	---	---	---	---	---	---	---	---	---	SVL
Blue Spring DUP	RESE-1002010	19-Aug-08	50.1	10	23	1.96	9.60	--	236.7	12.1	---	0.160	0.186	---	280	---	---	---	---	---	SVL
Blue Spring DUP	RESE-1002010	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.70	---	---	---	---	---	---	TestAmerica
Blue Spring	RESE-1002043	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	16.1	7.25	591	---	---	
Blue Spring	RESE-1002043	13-Nov-08	---	---	---	---	---	---	---	---	67.7	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002043	13-Nov-08	---	---	---	---	11.2	--	383.1	2.66	---	<0.100	0.479	---	380	---	---	---	---	---	SVL
Blue Spring	RESE-1002043	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
Blue Spring	RESE-1002043	13-Nov-08	70.7	18.0	32.3	3.25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002052	12-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	14.0	7.91	343	---	---	
Blue Spring	RESE-1002052	12-Feb-09	---	---	---	---	---	---	---	---	38.8	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002052	12-Feb-09	---	---	---	---	8.95	--	218.4	24.1	---	0.126	0.198	---	242	---	---	---	---	---	SVL
Blue Spring	RESE-1002052	12-Feb-09	43.5	8.83	17.0	1.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002088	13-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.4	7.76	404	---	---	
Blue Spring	RESE-1002088	13-May-09	---	---	---	---	---	---	---	---	63.2	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002088	13-May-09	---	---	---	---	11.4	--	244	13.4	---	<0.100	0.282	---	308 j	---	---	---	---	---	SVL
Blue Spring	RESE-1002088	13-May-09	53.5	10.8	23.9	2.02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002118	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	14	7.95	517	---	---	
Blue Spring	RESE-1002118	12-Feb-10	---	---	---	---	---	---	---	---	46.8	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002118	12-Feb-10	---	---	---	---	20.3	--	250.1	52.5	---	<0.100	0.164	---	338	---	---	---	---	---	SVL
Blue Spring	RESE-1002118	12-Feb-10	64.8	15.1	28.0	1.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Blue Spring	RESE-1003165	17-Jul-10	---	---	---	---	---	---	---	---	---	---	---	---	---	25.3	7.96	380	---	---	
Blue Spring	RESE-1003165	17-Jul-10	45	9.4	22	<2.0	---	---	---	---	69	---	---	---	---	---	---	---	---	---	TestAmerica
Blue Spring	RESE-1003165	17-Jul-10	46	9.6	22	<2.0	8.6	--	207.4	11	70	<0.50	0.55	0.43	270	---	---	---	8.00	380	TestAmerica
Blue Spring	RESE-1002153	08-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	19.6	7.46	345	---	---	
Blue Spring	RESE-1002153	08-Nov-10	---	---	---	---	---	---	---	---	63.3	---	---	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002153	08-Nov-10	---	---	---	---	10.2	--	244	11.3	---	0.143	0.288	---	276	---	---	---	---	---	SVL
Blue Spring	RESE-1002153	08-Nov-10	54.5	11.1	23.5	2.53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1001088	26-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	26.7	*10.1*	446	---	---	
Bored Spring	RESE-1001088	26-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Bored Spring	RESE-1001088	26-May-04	15.8	23.4	53.0	11.2	20.8	93.6	92.7	22.7	10.3	0.32	0.55	---	332	---	---	---	---	---	SVL
Bored Spring DUP	RESE-1001164	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Bored Spring DUP	RESE-1001164	03-Nov-04	42.3	33.7	25.8	5.4	9.77	--	366	35.0	41.4	0.14	0.30	---	334	---	---	---	---	---	SVL
Bored Spring	RESE-1001163	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	11.7	7.9	540	---	---	
Bored Spring	RESE-1001163	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Bored Spring	RESE-1001163	03-Nov-04	42.5	33.8	25.9	5.4	9.95	--	372.1	34.2	41.0	0.15	0.29	---	354	---	---	---	---	---	SVL
Bored Spring	RESE-1001188	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	18.5	7.7	598	---	---	
Bored Spring	RESE-1001188	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Bored Spring	RESE-1001188	09-Feb-05	43.6	35.1	28.3	3.89	9.37	--	328.2	44.7	37.2	0.163	0.405	---	353	---	---	---	---	---	SVL
Bored Spring	RESE-1001204	03-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	7.6	523	---	---	
Bored Spring	RESE-1001204	03-May-05	---	---	---	---	---	---	---	---	---	---	---	0.25	---	---	---	---	---	---	Del Mar
Bored Spring	RESE-1001204	03-May-05	43.6	34.5	22.7	4.10	11.6	--	300.1	44.1	36.4	0.175	0.318	---	330	---	---	---	---	---	SVL
Bored Spring	RESE-1001221	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	24.6	7.1	609	---	---	
Bored Spring	RESE-1001221	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	0.21	---	---	---	---	---	---	Del Mar
Bored Spring	RESE-1001221	03-Aug-05	52.0	36.9	25.5	5.54	16.2	--	323.3	51.4	39.2	0.247	0.304	---	383	---	---	---	---	---	SVL
Bored Spring	RESE-1002044	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	18.0	7.88	642	---	---	
Bored Spring	RESE-1002044	13-Nov-08	---	---	---	---	---	---	---	---	39.6	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002044	13-Nov-08	---	---	---	---	25.3	--	307.4	57.3	---	0.233	0.386	---	410	---	---	---	---	---	SVL
Bored Spring	RESE-1002044	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
Bored Spring	RESE-1002044	13-Nov-08	50.8	40.1	26.2	7.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002051	12-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	11.5	7.5	592	---	---	
Bored Spring	RESE-1002051	12-Feb-09	---	---	---	---	---	---	---	---	35.7	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002051	12-Feb-09	---	---	---	---	24.8	--	346.5	58.3	---	0.327	0.262	---	385	---	---	---	---	---	SVL
Bored Spring	RESE-1002051	12-Feb-09	46.7	38.2	23.6	4.76	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002089	13-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	31.6	*9.62*	465	---	---	
Bored Spring	RESE-1002089	13-May-09	---	---	---	---	---	---	---	---	35	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002089	13-May-09	---	---	---	---	31.1	42.5	103.7	62.3	---	0.309	0.337	---	312	---	---	---	---	---	SVL
Bored Spring	RESE-1002089	13-May-09	23.7	36.6	29.1	6.14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Bored Spring	RESE-1002119	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.6	8.18	609	---	---	
Bored Spring	RESE-1002119	12-Feb-10	---	---	---	---	---	---	---	---	36.7	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002119	12-Feb-10	---	---	---	---	27.3	--	275.7	69.5	---	0.187	<0.100	---	353	---	---	---	---	---	SVL
Bored Spring	RESE-1002119	12-Feb-10	45.0	38.9	25.0	4.53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002157	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	16.0	7.44	580	---	---	
Bored Spring	RESE-1002157	09-Nov-10	---	---	---	---	---	---	---	---	32.9	---	---	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002157	09-Nov-10	---	---	---	---	37.9	--	407.5	38.7	---	0.378	0.284	---	485	---	---	---	---	---	SVL
Bored Spring	RESE-1002157	09-Nov-10	83.1	37.1	23.6	9.76	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1001008	22-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	19.8	7.8	441	---	---	
Boulder Hole	RESE-1001008	22-May-03	---	---	---	---	---	---	---	---	---	0.24	0.13	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1001008	22-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001008	22-May-03	74.8	12.0	16.0	2.5	13.4	--	292.8	20.7	41.5	---	---	---	333	---	---	---	---	---	SVL
Boulder Hole	RESE-1001023	04-Sep-03	---	---	---	---	---	---	---	---	---	---	---	---	---	24.2	7.5	412	---	---	
Boulder Hole	RESE-1001023	04-Sep-03	---	---	---	---	---	---	---	---	---	0.14	0.12	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1001023	04-Sep-03	---	---	---	---	---	---	---	---	---	---	---	0.16	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001023	04-Sep-03	56.1	9.40	12.3	4.3	8.11	--	212.3	23.0	33.2	---	---	---	214	---	---	---	---	---	SVL
Boulder Hole	RESE-1001028	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	15.8	7.5	747	---	---	
Boulder Hole	RESE-1001028	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001028	03-Nov-03	112	17.7	23.2	3.3	18.5	--	398.9	62.3	45.2	0.35	0.14	---	473	---	---	---	---	---	SVL
Boulder Hole DUP	RESE-1001055	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	0.24	---	---	---	---	---	---	Del Mar
Boulder Hole DUP	RESE-1001055	09-Feb-04	57.3	9.49	15.7	1.86	8.30	--	218.4	32.1	---	0.152	0.161	---	281	---	---	---	---	---	SVL
Boulder Hole	RESE-1001054	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	14.5	7.6	417.1	---	---	
Boulder Hole	RESE-1001054	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	0.24	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001054	09-Feb-04	55.9	9.31	15.4	1.82	8.73	--	217.2	33.6	---	0.158	0.156	---	276	---	---	---	---	---	SVL
Boulder Hole	RESE-1001083	24-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	17.6	7.6	502	---	---	
Boulder Hole	RESE-1001083	24-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001083	24-May-04	74.8	11.5	15.2	2.3	11.0	--	309.9	15.9	40.0	0.28	0.15	---	320	---	---	---	---	---	SVL
Boulder Hole DUP	RESE-1001095	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Boulder Hole DUP	RESE-1001095	03-Aug-04	78.0	13.6	19.0	6.7	15.0	--	340.4	19.6	42.7	0.24	0.21	---	361	---	---	---	---	---	SVL
Boulder Hole	RESE-1001094	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	24.1	7.7	536	---	---	
Boulder Hole	RESE-1001094	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001094	03-Aug-04	78.0	13.6	19.2	6.8	14.8	--	339.2	19.5	42.7	0.22	0.21	---	349	---	---	---	---	---	SVL
Boulder Hole	RESE-1001165	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	13.3	7.7	599	---	---	
Boulder Hole	RESE-1001165	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	1.3	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001165	03-Nov-04	91.7	14.6	18.2	5.2	12.7	--	464.8	64.5	40.2	0.18	0.12	---	408	---	---	---	---	---	SVL
Boulder Hole	RESE-1001181	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	9.7	7.9	200	---	---	
Boulder Hole	RESE-1001181	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.94	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001181	08-Feb-05	30.0	5.10	7.06	1.51	6.36	--	91.3	22.0	28.4	0.112	0.135	---	171	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Boulder Hole	RESE-1001205	04-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	15.9	7.3	415.4	---	---	
Boulder Hole	RESE-1001205	04-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Boulder Hole	RESE-1001205	04-May-05	66.2	10.3	13.1	2.41	11.2	--	237.9	29.0	36.5	0.155	0.105	---	243	---	---	---	---	---	SVL
Boulder Hole	RESE-1002006	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	27.0	7.68	578	---	---	
Boulder Hole	RESE-1002006	06-Aug-08	81.6	13.5	17.6	3.30	11.3	---	---	16.2	51.2	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002006	06-Aug-08	---	---	---	---	12.4	--	361.1	15.0	---	0.170	0.278	---	390	---	---	---	---	---	SVL
Boulder Hole	RESE-1002006	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
Boulder Hole	RESE-1002006	06-Aug-08	79.3	12.8	17.5	3.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002031	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	13.2	7.53	672	---	---	
Boulder Hole	RESE-1002031	06-Nov-08	---	---	---	---	---	---	---	---	34.2	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002031	06-Nov-08	---	---	---	---	17.5	--	396.5	28.3	---	0.286	0.198	---	400	---	---	---	---	---	SVL
Boulder Hole	RESE-1002031	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
Boulder Hole	RESE-1002031	06-Nov-08	96.2	17.1	20.0	5.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002060	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	10.6	8.13	189	---	---	
Boulder Hole	RESE-1002060	19-Feb-09	---	---	---	---	---	---	---	---	23.7	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002060	19-Feb-09	---	---	---	---	5.73	--	69.4	18.7	---	<0.100	<0.100	---	156	---	---	---	---	---	SVL
Boulder Hole	RESE-1002060	19-Feb-09	21.5	3.93	5.54	1.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002082	07-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	18.0	7.57	447	---	---	
Boulder Hole	RESE-1002082	07-May-09	---	---	---	---	---	---	---	---	34.0	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002082	07-May-09	---	---	---	---	13.3	--	300.1	12.0	---	0.196	0.115	---	291	---	---	---	---	---	SVL
Boulder Hole	RESE-1002082	07-May-09	75.7	12.4	14.8	2.49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002120	13-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	10.4	7.85	228	---	---	
Boulder Hole	RESE-1002120	13-Feb-10	---	---	---	---	---	---	---	---	26.4	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002120	13-Feb-10	---	---	---	---	6.88	--	90.6	22.8	---	<0.100	<0.100	---	120	---	---	---	---	---	SVL
Boulder Hole	RESE-1002120	13-Feb-10	30.1	5.22	7.02	1.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002140	01-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	17.5	7.68	735	---	---	
Boulder Hole	RESE-1002140	01-Nov-10	---	---	---	---	---	---	---	---	38.1	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002140	01-Nov-10	---	---	---	---	17.0	4.6	379.4	58.6	---	0.219	<0.100	---	442	---	---	---	---	---	SVL
Boulder Hole	RESE-1002140	01-Nov-10	107	17.9	20.2	6.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002167	16-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	17.6	7.72	741	---	---	
Boulder Hole	RESE-1002167	16-May-11	---	---	---	---	---	---	---	---	37.6	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002167	16-May-11	---	---	---	---	18.8	--	406.3	8.19	---	0.21	<0.10	---	390	---	---	---	---	---	SVL
Boulder Hole	RESE-1002167	16-May-11	92.8	18.2	25.9	4.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Boulder Hole SP	RESE-1002167	16-May-11	89	18	27	4.3	---	---	---	---	41	---	---	---	---	---	---	---	---	---	TestAmerica
Boulder Hole SP	RESE-1002167	16-May-11	91	18	28	4.2	19	--	390.4	8.3	38	<0.50	<0.40	<2.0	420	---	---	---	8.00	650	TestAmerica
DC 10.9 C	RESE-1001004	16-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	18.2	6.6	79.5	---	---	
DC 10.9 C	RESE-1001004	16-May-03	---	---	---	---	---	---	---	---	---	<0.10	<0.10	---	---	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001004	16-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001004	16-May-03	7.23	2.02	5.95	1.8	5.59	--	17.7	17.8	32.8	---	---	---	110	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 10.9 C	RESE-1001020	27-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	23.2	*5.9*	216	---	---	
DC 10.9 C	RESE-1001020	27-Aug-03	---	---	---	---	---	---	---	---	---	0.21	<0.10	---	---	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001020	27-Aug-03	---	---	---	---	---	---	---	---	---	---	---	0.79	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001020	27-Aug-03	17.6	4.58	10.0	2.8	10.9	--	14.4	52.6	53.6	---	---	---	195	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001036	05-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	11.7	6.6	81.6	---	---	
DC 10.9 C	RESE-1001036	05-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001036	05-Nov-03	6.73	1.83	5.81	1.6	5.16	--	34.3	3.58	34.7	<0.10	<0.10	---	60	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001060	11-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	11.8	6.7	93.4	---	---	
DC 10.9 C	RESE-1001060	11-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001060	11-Feb-04	8.26	2.3	5.56	1.48	4.44	--	12.6	24.4	---	<0.10	<0.10	---	113	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001091	27-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	17.9	6.75	84.1	---	---	
DC 10.9 C	RESE-1001091	27-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001091	27-May-04	6.44	1.93	6.03	1.7	6.08	--	32.0	6.39	31.8	0.11	<0.10	---	95	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001099	11-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	23.0	6.6	123.4	---	---	
DC 10.9 C	RESE-1001099	11-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001099	11-Aug-04	8.70	2.38	7.86	2.0	11.2	--	48.1	2.49	37.1	0.16	<0.10	---	91	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001169	05-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	10.3	7.6	145.6	---	---	
DC 10.9 C	RESE-1001169	05-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001169	05-Nov-04	13.1	3.82	9.18	2.1	6.75	--	39.2	31.0	34.0	<0.10	<0.10	---	117	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001189	15-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	9.3	7.5	58	---	---	
DC 10.9 C	RESE-1001189	15-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.29	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001189	15-Feb-05	5.47	1.49	4.02	1.66	2.87	--	10.58	10.5	25.1	<0.100	<0.100	---	70.0	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001208	09-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	15.8	6.8	89.1	---	---	
DC 10.9 C	RESE-1001208	09-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001208	09-May-05	7.46	2.01	5.97	1.67	8.23	--	21.4	10.7	28.4	0.115	<0.100	---	42	---	---	---	---	---	SVL
DC 10.9 C	RESE-1001224	10-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.0	7.3	105.5	---	---	
DC 10.9 C	RESE-1001224	10-Aug-05	---	---	---	---	---	---	---	---	---	---	---	0.72	---	---	---	---	---	---	Del Mar
DC 10.9 C	RESE-1001224	10-Aug-05	9.44	2.58	6.63	2.54	9.38	--	26.7	10.4	27.7 j	0.102	<0.100	---	93	---	---	---	---	---	SVL
DC 13.5 C DUP	RESE-1001012	30-May-03	---	---	---	---	---	---	---	---	---	0.12	0.18	---	---	---	---	---	---	---	SVL
DC 13.5 C DUP	RESE-1001012	30-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 13.5 C DUP	RESE-1001012	30-May-03	10.6	2.90	7.71	2.3	7.62	--	34.0	19.3 j	34.6 j	---	---	---	91 j	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001011	30-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	25.0	8.3	125	---	---	
DC 13.5 C	RESE-1001011	30-May-03	---	---	---	---	---	---	---	---	---	0.35	0.17	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001011	30-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001011	30-May-03	10.7	2.88	7.73	2.3	7.60	--	33.9	19.2 j	35.1 j	---	---	---	91 j	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001021	27-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	26.3	6.6	139	---	---	
DC 13.5 C	RESE-1001021	27-Aug-03	---	---	---	---	---	---	---	---	---	<0.10	<0.10	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001021	27-Aug-03	---	---	---	---	---	---	---	---	---	---	---	1.4	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001021	27-Aug-03	11.0	2.78	7.17	2.3	4.44	--	33.8	14.6	23.2	---	---	---	121	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 13.5 C	RESE-1001037	05-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	16.6	8.0	110.8	---	---	
DC 13.5 C	RESE-1001037	05-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001037	05-Nov-03	9.23	2.44	7.03	1.7	6.89	--	40.9	8.79	30.6	0.47	0.12	---	96	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001059	11-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	6.8	6.5	80.5	---	---	
DC 13.5 C	RESE-1001059	11-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001059	11-Feb-04	6.6	1.86	5.29	1.37	3.60	--	11.15	20.6	---	<0.10	<0.10	---	76	---	---	---	---	---	SVL
DC 13.5 C LD	RESE-1001059	11-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<1.0	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001086	26-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	16.7	7.4	112.9	---	---	
DC 13.5 C	RESE-1001086	26-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001086	26-May-04	8.96	2.75	7.20	2.0	10.9	--	33.8	11.5	33.2	0.14	<0.10	---	123	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001190	15-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	10.0	7.4	61.6	---	---	
DC 13.5 C	RESE-1001190	15-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.35	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001190	15-Feb-05	5.79	1.55	4.09	1.78	3.19	--	11.25	10.9	26.4	<0.100	0.104	---	75.0	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001209	09-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	26.3	7.4	151.2	---	---	
DC 13.5 C	RESE-1001209	09-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001209	09-May-05	13.2	3.4	7.93	2.27	13.7	--	20.6	27.4	28.4	0.116	<0.100	---	122	---	---	---	---	---	SVL
DC 13.5 C	RESE-1001225	10-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	24.8	7.6	88	---	---	
DC 13.5 C	RESE-1001225	10-Aug-05	---	---	---	---	---	---	---	---	---	---	---	0.55	---	---	---	---	---	---	Del Mar
DC 13.5 C	RESE-1001225	10-Aug-05	7.54	1.99	4.10	1.75	7.65	--	18.8	6.78	12.9 j	<0.100	<0.100	---	30	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002014	21-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	30.6	8.25	152	---	---	
DC 13.5 C	RESE-1002014	21-Aug-08	13	3.37	8.99	2.31	14.6	---	---	0.66	39.1	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002014	21-Aug-08	14	3.47	9.29	2.51	14.6	--	62.3	0.70	---	0.187	<0.100	---	130 j	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002014	21-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
DC 13.5 C	RESE-1002033	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	17.0	7.84	141.5	---	---	
DC 13.5 C	RESE-1002033	12-Nov-08	---	---	---	---	---	---	---	---	32.3	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002033	12-Nov-08	---	---	---	---	11.5	--	62.7	1.45	---	0.169	0.202	---	110	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002033	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
DC 13.5 C	RESE-1002033	12-Nov-08	13.0	3.47	8.21	2.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C DUP	RESE-1002034	12-Nov-08	---	---	---	---	---	---	---	---	32.1	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C DUP	RESE-1002034	12-Nov-08	---	---	---	---	10.9	--	63.2	1.45	---	0.208	0.337	---	120	---	---	---	---	---	SVL
DC 13.5 C DUP	RESE-1002034	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
DC 13.5 C DUP	RESE-1002034	12-Nov-08	13.3	3.55	8.31	2.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002057	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	7.0	7.68	70.6	---	---	
DC 13.5 C	RESE-1002057	19-Feb-09	---	---	---	---	---	---	---	---	23.7	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002057	19-Feb-09	---	---	---	---	3.91	--	9.0	11.2	---	<0.100	<0.100	---	107	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002057	19-Feb-09	4.89	1.35	4.47	1.45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002103	21-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	21.9	7.22	136	---	---	
DC 13.5 C	RESE-1002103	21-May-09	---	---	---	---	---	---	---	---	33.3	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002103	21-May-09	---	---	---	---	14.5	--	38.8	6.64	---	0.166	0.574	---	104	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002103	21-May-09	10.2	2.99	7.74	2.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 13.5 C	RESE-1002142	02-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	9.6	*8.53*	212	---	---	
DC 13.5 C	RESE-1002142	02-Nov-10	---	---	---	---	---	---	---	---	35.8	---	---	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002142	02-Nov-10	---	---	---	---	27.3	--	77.2	12.0	---	0.218	0.125	---	158	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002142	02-Nov-10	22.3	5.81	12.5	2.69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1001069	05-Mar-04	---	---	---	---	---	---	---	---	---	---	---	---	---	4.2	6.8	48.4	---	---	
DC 14.7 C /US 60 Bridge	RESE-1001069	05-Mar-04	---	---	---	---	---	---	---	---	---	---	---	0.44	---	---	---	---	---	---	Del Mar
DC 14.7 C /US 60 Bridge	RESE-1001069	05-Mar-04	5.54	1.62	3.15	2.4	1.90	--	7.1	7.85	26.3	<0.10	<0.10	---	35	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	25.1	7.07	79	---	---	
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	6.16	1.55	4.07	2.47	2.89	---	---	8.56	18.2	---	---	---	---	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	6.88	2.3	3.81	3.21	2.75	--	15.1	9.40	---	<0.100	<0.100	---	94	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.77	---	---	---	---	---	---	TestAmerica
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	9	6.92	57.1	---	---	
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	---	---	---	---	---	---	---	---	25.0	---	---	---	---	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	---	---	---	---	6.82	--	12.0	16.4	---	<0.100	<0.100	---	48	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	6.62	1.89	5.46	1.60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 15.2 C	RESE-1001191	15-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	10.3	7.6	64.2	---	---	
DC 15.2 C	RESE-1001191	15-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.39	---	---	---	---	---	---	Del Mar
DC 15.2 C	RESE-1001191	15-Feb-05	5.87	1.47	4.12	1.86	3.45	--	11.54	11.0	23.3	<0.100	0.103	---	73.0	---	---	---	---	---	SVL
DC 15.2 C	RESE-1001210	09-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	20.5	7.1	214.1	---	---	
DC 15.2 C	RESE-1001210	09-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 15.2 C	RESE-1001210	09-May-05	20.6	5.51	10.9	2.93	20.2	--	27.8	47.8	31.0	0.121	<0.100	---	146	---	---	---	---	---	SVL
DC 15.2 C	RESE-1001226	10-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	24.3	*6.3*	234.9	---	---	
DC 15.2 C	RESE-1001226	10-Aug-05	---	---	---	---	---	---	---	---	---	---	---	2.5	---	---	---	---	---	---	Del Mar
DC 15.2 C	RESE-1001226	10-Aug-05	21.3	5.74	9.93	4.11	14.5	--	13.4	58.0	28.9 j	0.13	<0.100	---	156	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002003	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	28.9	7.15	58.8	---	---	
DC 15.5 C	RESE-1002003	05-Aug-08	3.77	1.14	4.34	1.89	5.38	---	---	0.62	36.5	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002003	05-Aug-08	---	---	---	---	5.78	--	20.0	0.31	---	0.133	0.306	---	110	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002003	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
DC 15.5 C	RESE-1002003	05-Aug-08	3.87	1.14	4.48	1.88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002032	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	9.7	7.98	70.1	---	---	
DC 15.5 C	RESE-1002032	12-Nov-08	---	---	---	---	---	---	---	---	34.8	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002032	12-Nov-08	---	---	---	---	4.60	--	35.1	0.69	---	0.123	0.198	---	76	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002032	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
DC 15.5 C	RESE-1002032	12-Nov-08	5.53	1.67	5.38	2.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002069	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	10.9	7.57	57	---	---	
DC 15.5 C	RESE-1002069	26-Feb-09	---	---	---	---	---	---	---	---	27.9	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002069	26-Feb-09	---	---	---	---	2.62	--	5.0	10.4	---	<0.100	<0.100	---	101	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002069	26-Feb-09	3.14	0.962	3.24	1.11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 15.5 C	RESE-1002075	05-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	21.0	6.59	75.4	---	---	
DC 15.5 C	RESE-1002075	05-May-09	---	---	---	---	---	---	---	---	31.2	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002075	05-May-09	---	---	---	---	4.17	--	15.1	8.94	---	<0.100	<0.100	---	79	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002075	05-May-09	4.63	1.43	4.53	1.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002152	08-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	11.2	6.81	70.2	---	---	
DC 15.5 C	RESE-1002152	08-Nov-10	---	---	---	---	---	---	---	---	38.5	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002152	08-Nov-10	---	---	---	---	3.92	--	33.2	2.56	---	0.149	<0.100	---	73	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002152	08-Nov-10	6.01	1.88	5.36	2.29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002179	22-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.2	7.06	54.1	---	---	
DC 15.5 C	RESE-1002179	22-Aug-11	---	---	---	---	---	---	---	---	41.2	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002179	22-Aug-11	4.57	1.57	6.87	3.28	5.96	--	27.9	1.24	---	0.15	0.11	---	94	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002191	29-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	10.5	6.54	56.7	---	---	
DC 15.5 C	RESE-1002191	29-Nov-11	---	---	---	---	---	---	---	---	29.5	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002191	29-Nov-11	4.10	1.34	4.11	1.49	4.60	--	9.6	12.3	---	<0.10	<0.10	---	49	---	---	---	---	---	SVL
DC 15.5 C DUP	RESE-1002192	29-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	10.5	6.54	56.7	---	---	
DC 15.5 C DUP	RESE-1002192	29-Nov-11	---	---	---	---	---	---	---	---	29.8	---	---	---	---	---	---	---	---	---	SVL
DC 15.5 C DUP	RESE-1002192	29-Nov-11	4.14	1.36	4.13	1.48	4.63	--	9.8	12.6	---	<0.10	<0.10	---	45	---	---	---	---	---	SVL
DC 4.1 E	RESE-1001007	21-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	23.2	8.0	247	---	---	
DC 4.1 E	RESE-1001007	21-May-03	---	---	---	---	---	---	---	---	---	<0.10	0.36	---	---	---	---	---	---	---	SVL
DC 4.1 E	RESE-1001007	21-May-03	---	---	---	---	---	---	---	---	---	---	---	0.48	---	---	---	---	---	---	Del Mar
DC 4.1 E	RESE-1001007	21-May-03	28.2	4.47	22.0	1.0	4.47	--	159.8	3.12	68.6	---	---	---	224	---	---	---	---	---	SVL
DC 4.1 E	RESE-1001019	26-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	24.8	7.6	264	---	---	
DC 4.1 E	RESE-1001019	26-Aug-03	---	---	---	---	---	---	---	---	---	<0.10	0.34	---	---	---	---	---	---	---	SVL
DC 4.1 E	RESE-1001019	26-Aug-03	---	---	---	---	---	---	---	---	---	---	---	0.22	---	---	---	---	---	---	Del Mar
DC 4.1 E	RESE-1001019	26-Aug-03	28.4	4.35	21.6	<1.0	4.37	--	163.5	3.11	72.2	---	---	---	208	---	---	---	---	---	SVL
DC 4.1 E	RESE-1001040	11-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	22.2	7.1	261.3	---	---	
DC 4.1 E	RESE-1001040	11-Nov-03	---	---	---	---	---	---	---	---	---	---	---	0.32	---	---	---	---	---	---	Del Mar
DC 4.1 E	RESE-1001040	11-Nov-03	27.5	4.73	21.6	<1.0	4.62	--	156.2	3.25	70.1	<0.10	0.35	---	175	---	---	---	---	---	SVL
DC 4.1 E	RESE-1001058	10-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	20.0	7.1	243	---	---	
DC 4.1 E	RESE-1001058	10-Feb-04	---	---	---	---	---	---	---	---	---	---	---	0.38	---	---	---	---	---	---	Del Mar
DC 4.1 E	RESE-1001058	10-Feb-04	27.1	4.34	21.4	0.972 j	4.29	--	157.4	3.0	---	0.102	0.313	---	202	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001039	10-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	15.7	7.4	341.3	---	---	
DC 5.5 C	RESE-1001039	10-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001039	10-Nov-03	46.6	10.5	26.3	2.2	11.1	--	202.5	38.5	46.8	0.15	0.19	---	296	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001067	25-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	9.5	7.7	206	---	---	
DC 5.5 C	RESE-1001067	25-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001067	25-Feb-04	21.4	4.64	16.5	1.57	6.14	--	108.28	19.2	---	<0.10	0.174	---	130	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001076	20-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	18.3	7.6	280	---	---	
DC 5.5 C	RESE-1001076	20-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001076	20-May-04	30.2	6.28	19.3	2.1	7.13	--	164.7	12.3	43.5	0.15	0.18	---	192	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 5.5 C	RESE-1001158	23-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	21.6	7.2	466	---	---	
DC 5.5 C	RESE-1001158	23-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001158	23-Aug-04	55.9	11.4	32.2	3.1	11.0	--	274.5	41.6	53.8	0.19	0.24	---	321	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001176	18-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	14.6	7.6	298.7	---	---	
DC 5.5 C	RESE-1001176	18-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001176	18-Nov-04	35.0	7.13	22.0	2.21	10.0	--	157.4	17.7	42.7	<0.10	0.20	---	214	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001198	28-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	9.8	7.9	87.9	---	---	
DC 5.5 C	RESE-1001198	28-Feb-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001198	28-Feb-05	7.78	1.82	5.72	1.43	3.37	--	22.1	13.7	27.4	<0.100	<0.100	---	89.0	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001216	24-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	19.1	7.6	254	---	---	
DC 5.5 C	RESE-1001216	24-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001216	24-May-05	27.7	5.58	15.6	2.02	8.69	--	134.2	13.7	38.8	0.124	0.144	---	200	---	---	---	---	---	SVL
DC 5.5 C	RESE-1001229	23-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.4	7.4	2061.1	---	---	
DC 5.5 C	RESE-1001229	23-Aug-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 5.5 C	RESE-1001229	23-Aug-05	23.5	4.64	14.0	2.28	6.28	--	103.3	14.5	44.1	<0.100	0.144	---	136	---	---	---	---	---	SVL
DC 5.5 C	RESE-1002180	26-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.5	7.49	415	---	---	
DC 5.5 C	RESE-1002180	26-Aug-11	---	---	---	---	---	---	---	---	47.4	---	---	---	---	---	---	---	---	---	SVL
DC 5.5 C	RESE-1002180	26-Aug-11	50.3	10.1	30.4	3.66	9.32	--	247.7	19.2	---	0.11	0.18	---	305	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	20.8	8.2	297	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	---	---	---	---	---	---	---	---	---	---	---	0.65	---	---	---	---	---	---	Del Mar
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	33.6	5.10	22.2	1.1	4.78	--	180.6	7.81	72.3	0.11	0.31	---	234	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001159	23-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	21.5	8.0	296	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1001159	23-Aug-04	---	---	---	---	---	---	---	---	---	---	---	0.52	---	---	---	---	---	---	Del Mar
DC 6.1 E (Lower Crater Tanks)	RESE-1001159	23-Aug-04	33.1	5.04	21.1	1.0	4.97	--	186.7	7.84	69.8	<0.10	0.31	---	226	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001177	18-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	18.2	8.1	273.9	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1001177	18-Nov-04	---	---	---	---	---	---	---	---	---	---	---	0.51	---	---	---	---	---	---	Del Mar
DC 6.1 E (Lower Crater Tanks)	RESE-1001177	18-Nov-04	33.7	5.09	22.4	1.10	4.97	--	161	7.66	67.0	<0.10	0.32	---	226	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001199	28-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	18.9	7.8	374	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1001199	28-Feb-05	---	---	---	---	---	---	---	---	---	---	---	1.5	---	---	---	---	---	---	Del Mar
DC 6.1 E (Lower Crater Tanks)	RESE-1001199	28-Feb-05	43.8	6.28	22.9	1.13	6.56	--	176.9	31.5	70.3	<0.100	0.230	---	275	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001217	24-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	20.7	8.0	299.6	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1001217	24-May-05	---	---	---	---	---	---	---	---	---	---	---	0.77	---	---	---	---	---	---	Del Mar
DC 6.1 E (Lower Crater Tanks)	RESE-1001217	24-May-05	34.9	5.02	21.1	1.05	5.53	--	170.8	13.0	69.2	0.102	0.272	---	240	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001230	23-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	24.7	---	302.3	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1001230	23-Aug-05	---	---	---	---	---	---	---	---	---	---	---	0.70	---	---	---	---	---	---	Del Mar
DC 6.1 E (Lower Crater Tanks)	RESE-1001230	23-Aug-05	36.2	5.36	22.5	1.13	5.20	--	173.2	10.2	72.7	<0.100	0.295	---	220	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	22.6	8.48	298.5	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	32.7	5.02	21.5	1.14	5.32	---	---	11.2	73.3	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	---	---	---	5.35	1.7	170.8	10.2	---	<0.100	0.385	---	250	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.69	---	---	---	---	---	---	TestAmerica
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	32.2	4.86	21.4	0.97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	15.6	8.2	274	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	---	---	---	---	---	---	---	---	68.4	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	---	---	---	---	5.12	--	176.9	9.45	---	<0.100	0.373	---	260	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	0.65	---	---	---	---	---	---	TestAmerica
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	34.1	5.11	22.6	1.19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.5	8.18	291	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	---	---	---	---	---	---	---	---	71.3	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	---	---	---	---	5.28	--	167.1	9.52	---	<0.100	0.247	---	266	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	30.5	4.57	20.2	0.97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	21.8	8.04	300	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	---	---	---	---	---	---	---	---	75.5	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	---	---	---	---	6.11	--	168.4	9.52	---	0.100	0.490	---	218	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	32.5	5.07	22.4	1.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	16.9	8.18	287	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	---	---	---	---	---	---	---	---	69.4	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	---	---	---	---	6.67	--	181.8	29.6	---	<0.100	0.193	---	290	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	45.1	6.77	24.2	1.22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks) DUP	RESE-1002136	19-Mar-10	---	---	---	---	---	---	---	---	69.3	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks) DUP	RESE-1002136	19-Mar-10	---	---	---	---	6.68	--	181.8	30.2	---	<0.100	0.196	---	292	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks) DUP	RESE-1002136	19-Mar-10	43.4	6.51	23.5	1.17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	---	---	---	---	---	---	---	---	---	---	---	---	---	22.4	7.33	332.4	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	---	---	---	---	---	---	---	---	75.2	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	---	---	---	---	5.72	--	168.4	10.8	---	0.102	0.217	---	244	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	35.6	5.37	21.9	1.09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.2	7.39	245.5	---	---	
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	---	---	---	---	---	---	---	---	43.9	---	---	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	---	---	---	---	12.8 j-d	--	141.5	0.59 j-	---	0.136 j-	0.130 j-	---	174 j-	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	26.3	6.25	18.6	2.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	26.1	*8.68*	244	---	---	
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	23.9	5.58	17	2.35	9.52	---	---	3.54	38.5	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	26.1	5.81	17.9	2.64	9.64	1.1	137.9	3.53	---	0.573	<0.100	---	160	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	13.3	7.71	223	---	---	
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	---	---	---	---	---	---	---	---	43.8	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	---	---	---	---	9.64	--	137.9	0.45	---	0.131	0.283	---	160	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	24.7	5.68	17.3	2.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	9.5	7.59	71.7	---	---	
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	---	---	---	---	---	---	---	---	21.3	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	---	---	---	---	3.02	--	11.8	10.7	---	<0.100	<0.100	---	99	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	5.13	1.33	4.59	1.35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	18.9	7.02	191	---	---	
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	---	---	---	---	---	---	---	---	34.1	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	---	---	---	---	8.24	--	116.8	1.81	---	<0.100	<0.100	---	114	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	20.6	4.83	16.1	2.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002196	30-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	13.0	7.53	278	---	---	
DC 6.14 C (Upper Crater Tank)	RESE-1002196	30-Nov-11	---	---	---	---	---	---	---	---	33.8	---	---	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002196	30-Nov-11	29.3	6.89	24.5	2.20	12.4	--	169.6	15.1	---	0.10	0.19	---	184	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001010	29-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	25.4	8.0	325	---	---	
DC 6.6 W	RESE-1001010	29-May-03	---	---	---	---	---	---	---	---	---	<0.10	0.42	---	---	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001010	29-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001010	29-May-03	32.7	7.70	26.6	1.6	7.85	--	190.3	7.09 j	83.1 j	---	---	---	258 j	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001022	03-Sep-03	---	---	---	---	---	---	---	---	---	---	---	---	---	22.6	6.6	362	---	---	
DC 6.6 W	RESE-1001022	03-Sep-03	---	---	---	---	---	---	---	---	---	0.12	0.42	---	---	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001022	03-Sep-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001022	03-Sep-03	36.1	8.27	26.8	1.8	7.96	--	200.1	11.6	93.3	---	---	---	200	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001033	04-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	18.3	6.8	412	---	---	
DC 6.6 W	RESE-1001033	04-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001033	04-Nov-03	40.0	9.40	33.4	1.5	9.26	--	234.2	13.3	98.9	0.28	0.50	---	293	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001064	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	15.7	7.1	155	---	---	
DC 6.6 W	RESE-1001064	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	164	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001064	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001064	18-Feb-04	29	6.48	25.9	1.21	7.41	--	179.3	5.18	---	0.127	0.407	---	235	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001074	05-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	17.7	7.6	318	---	---	
DC 6.6 W	RESE-1001074	05-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001074	05-May-04	31.2	7.00	26.4	1.2	7.80	--	197.6	4.39	89.8	<0.10	0.30	---	228	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001155	19-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	21.5	7.1	224	---	---	
DC 6.6 W	RESE-1001155	19-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001155	19-Aug-04	34.3	7.79	28.0	1.5	10.2	--	202.5	17.4	92.0	0.11	0.41	---	305	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001170	12-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	17.5	7.2	178.6	---	---	
DC 6.6 W	RESE-1001170	12-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001170	12-Nov-04	30.8	7.28	27.9	1.2	7.77	--	190.3	5.02	89.9	<0.10	0.44	---	245	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 6.6 W	RESE-1001192	16-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	11.9	7.5	101.2	---	---	
DC 6.6 W	RESE-1001192	16-Feb-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001192	16-Feb-05	8.97	2.37	6.78	1.38	3.26	--	28.5	19.2	31.5	<0.100	0.125	---	68.0	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001214	17-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	18.1	7.3	303.2	---	---	
DC 6.6 W	RESE-1001214	17-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001214	17-May-05	30.5	6.97	26.1	1.5	8.15	--	181.8	4.82	86.2	<0.100	0.249	---	245	---	---	---	---	---	SVL
DC 6.6 W	RESE-1001232	07-Sep-05	---	---	---	---	---	---	---	---	---	---	---	---	---	23.5	6.8	297.6	---	---	
DC 6.6 W	RESE-1001232	07-Sep-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 6.6 W	RESE-1001232	07-Sep-05	29.0	6.70	25.0	1.64	7.56	--	173.2	7.40	85.3	0.113	0.37	---	239	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001009	29-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	24.6	8.1	287	---	---	
DC 7.1 C	RESE-1001009	29-May-03	---	---	---	---	---	---	---	---	---	0.15	0.21	---	---	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001009	29-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001009	29-May-03	31.2	6.72	21.7	2.4	7.92	--	180.6	0.92 j	51.5 j	---	---	---	199 j	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001034	04-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	15.6	7.8	352	---	---	
DC 7.1 C	RESE-1001034	04-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001034	04-Nov-03	33.6	7.17	30.0	2.2	9.71	--	179.3	24.8	52.4	0.15	0.35	---	218	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001065	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	9.0	7.4	184.3	---	---	
DC 7.1 C	RESE-1001065	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001065	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001065	18-Feb-04	18.6	3.86	16.4	1.1	5.32	--	97.6	16.8	---	0.104	0.227	---	138	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001065	18-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001075	05-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	20.0	8.1	204	---	---	
DC 7.1 C	RESE-1001075	05-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001075	05-May-04	20.6	4.21	17.0	1.5	6.44	--	111.0	9.89	42.9	<0.10	0.17	---	126	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001156	19-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	23.8	7.8	378.5	---	---	
DC 7.1 C	RESE-1001156	19-Aug-04	---	---	---	---	---	---	---	---	---	---	---	0.90	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001156	19-Aug-04	41.4	8.82	28.4	3.1	10.7	--	154.9	71.1	50.7	0.12	0.22	---	320	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001171	12-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	12.4	8.0	279	---	---	
DC 7.1 C	RESE-1001171	12-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001171	12-Nov-04	29.8	6.44	28.5	1.7	8.69	--	175.7	7.94	49.8	<0.10	0.36	---	186	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001193	16-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	10.5	7.7	72.1	---	---	
DC 7.1 C	RESE-1001193	16-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.28	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001193	16-Feb-05	6.67	1.62	4.67	1.51	3.02	--	15.5	12.6	25.0	<0.100	<0.100	---	80.0	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001215	17-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	19.2	8.0	205.1	---	---	
DC 7.1 C	RESE-1001215	17-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001215	17-May-05	20.3	4.31	18.1	1.80	8.30	--	113.3	6.33	39.3	<0.100	0.101	---	161	---	---	---	---	---	SVL
DC 7.1 C	RESE-1001231	07-Sep-05	---	---	---	---	---	---	---	---	---	---	---	---	---	25.4	8.0	242.9	---	---	
DC 7.1 C	RESE-1001231	07-Sep-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 7.1 C	RESE-1001231	07-Sep-05	24.1	5.28	18.9	2.53	8.21	--	145.2	1.38	48.3	0.165	0.209	---	173	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 7.1 C	RESE-1002195	30-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	11.3	8.3	297	---	---	
DC 7.1 C	RESE-1002195	30-Nov-11	---	---	---	---	---	---	---	---	43.7	---	---	---	---	---	---	---	---	---	SVL
DC 7.1 C	RESE-1002195	30-Nov-11	30.8	7.05	29.6	1.53	11.1	--	200.1	9.27	---	<0.10	0.33	---	207	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002005	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.4	7.92	265.3	---	---	
DC 8.1 C	RESE-1002005	06-Aug-08	26.6	5.41	21.9	1.53	7.00	---	---	2.76	68.1	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002005	06-Aug-08	---	---	---	---	7.52	--	165.9	2.37	---	<0.100	0.509	---	230	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002005	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.21	---	---	---	---	---	---	TestAmerica
DC 8.1 C	RESE-1002005	06-Aug-08	26.4	5.21	21.6	1.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002026	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	16.9	7.51	270.8	---	---	
DC 8.1 C	RESE-1002026	05-Nov-08	---	---	---	---	---	---	---	---	57.6	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002026	05-Nov-08	---	---	---	---	6.40	--	163.5	3.94	---	<0.100	0.356	---	180	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002026	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
DC 8.1 C	RESE-1002026	05-Nov-08	26.0	5.24	22.6	1.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002062	24-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	15.0	7.7	90	---	---	
DC 8.1 C	RESE-1002062	24-Feb-09	---	---	---	---	---	---	---	---	28.8	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002062	24-Feb-09	---	---	---	---	4.46	--	17.6	13.5	---	<0.100	<0.100	---	143	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002062	24-Feb-09	6.25	1.62	5.34	1.23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002098	19-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	8.12	262	---	---	
DC 8.1 C	RESE-1002098	19-May-09	---	---	---	---	---	---	---	---	64.1	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002098	19-May-09	---	---	---	---	7.34	--	152.5	2.80	---	<0.100	0.556	---	205	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002098	19-May-09	25.8	5.23	21.5	1.37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002160	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	13.8	7.41	270.7	---	---	
DC 8.1 C	RESE-1002160	10-Nov-10	---	---	---	---	---	---	---	---	64.8	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002160	10-Nov-10	---	---	---	---	7.77 j-	--	173.2	4.08 j-	---	<0.100	0.243 j-	---	219 j-	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002160	10-Nov-10	29.6	6.08	24.8	1.66	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002187	31-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24	8.05	276	---	---	
DC 8.1 C	RESE-1002187	31-Aug-11	---	---	---	---	---	---	---	---	71.4	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002187	31-Aug-11	32.9	6.07	25.4	1.16	7.42	--	169.6	3.83	---	0.14	0.33	---	224	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002194	30-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	11.7	7.79	287	---	---	
DC 8.1 C	RESE-1002194	30-Nov-11	---	---	---	---	---	---	---	---	58.7	---	---	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002194	30-Nov-11	30.6	6.47	28.1	1.42	8.86	--	198.9	6.26	---	<0.10	0.26	---	231	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001006	20-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	23.6	7.6	266	---	---	
DC 8.2 W	RESE-1001006	20-May-03	---	---	---	---	---	---	---	---	---	<0.10	0.34	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001006	20-May-03	---	---	---	---	---	---	---	---	---	---	---	0.49	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001006	20-May-03	29.3	5.50	22.1	1.0	4.77	--	165.9	4.14	70.4	---	---	---	231	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001017	21-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	7.2	229	---	---	
DC 8.2 W	RESE-1001017	21-Aug-03	---	---	---	---	---	---	---	---	---	<0.10	0.37	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001017	21-Aug-03	---	---	---	---	---	---	---	---	---	---	---	0.38	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001017	21-Aug-03	29.6	6.05	22.1	<1.0	4.70	--	175.7	3.63	76.1	---	---	---	218	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 8.2 W	RESE-1001044	12-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	22.7	7.1	273.6	---	---	
DC 8.2 W	RESE-1001044	12-Nov-03	---	---	---	---	---	---	---	---	---	---	---	0.30	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001044	12-Nov-03	29.2	5.97	22.2	1.0	4.90	--	163.5	4.11	72.8	<0.10	0.39	---	197	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001063	17-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	22.8	7.2	244	---	---	
DC 8.2 W	RESE-1001063	17-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	146	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001063	17-Feb-04	---	---	---	---	---	---	---	---	---	---	---	0.57	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001063	17-Feb-04	28.3	5.07	21.1	1.01	4.77	--	164.7	4.0	---	<0.10	0.343	---	180	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001079	21-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	23.1	7.6	276	---	---	
DC 8.2 W	RESE-1001079	21-May-04	---	---	---	---	---	---	---	---	---	---	---	0.40	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001079	21-May-04	28.1	5.26	21.7	<1.0	4.65	--	174.5	3.98	71.3	0.12	0.35	---	198	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001152	16-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	23.3	7.4	274	---	---	
DC 8.2 W	RESE-1001152	16-Aug-04	---	---	---	---	---	---	---	---	---	---	---	0.34	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001152	16-Aug-04	28.1	5.15	21.2	<1.0	4.94	--	178.1	4.09	70.7	<0.10	0.35	---	210	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001175	16-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	15.5	7.3	311	---	---	
DC 8.2 W	RESE-1001175	16-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001175	16-Nov-04	30.6	5.93	24.0	1.02	5.64	--	178.1	5.45	70.0	<0.10	0.32	---	221	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001196	25-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.4	7.5	273.8	---	---	
DC 8.2 W	RESE-1001196	25-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.51	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001196	25-Feb-05	28.8	5.30	21.5	1.11	4.61	--	158.6	4.65	70.2	<0.100	0.282	---	201	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001212	11-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.7	7.4	205.6	---	---	
DC 8.2 W	RESE-1001212	11-May-05	---	---	---	---	---	---	---	---	---	---	---	0.49	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001212	11-May-05	28.5	5.20	20.7	0.87	5.04	--	159.8	4.17	67.3	<0.100	0.293	---	158	---	---	---	---	---	SVL
DC 8.2 W	RESE-1001227	16-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	7.4	267.7	---	---	
DC 8.2 W	RESE-1001227	16-Aug-05	---	---	---	---	---	---	---	---	---	---	---	0.46	---	---	---	---	---	---	Del Mar
DC 8.2 W	RESE-1001227	16-Aug-05	27.9	5.27	21.6	1.03	4.80	--	162.3	4.02	72.7	0.117	0.266	---	212	---	---	---	---	---	SVL
DC 8.2 W	RESE-1000260	19-Feb-08	29	5.6	25	1.3	---	---	---	---	71	---	---	---	---	---	---	---	---	---	TestAmerica
DC 8.2 W	RESE-1000260	19-Feb-08	---	---	---	---	4.9	--	170.8	4.7	---	<0.50	0.40	0.65	230	---	---	---	---	---	TestAmerica
DC 8.2 W	RESE-1003002	27-May-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.8	274.8	---	---	
DC 8.2 W	RESE-1003002	27-May-08	28	5.3	21	<2.0	---	---	---	---	69	---	---	---	---	---	---	---	---	---	TestAmerica
DC 8.2 W	RESE-1003002	27-May-08	---	---	---	---	4.8	--	134.2	4.0	---	<0.50	<0.40	0.60	230	---	---	---	7.32	270	TestAmerica
DC 8.2 W	RESE-1002004	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.5	7.57	264	---	---	
DC 8.2 W	RESE-1002004	06-Aug-08	27.4	5.15	21.3	1.04	4.97	---	---	4.67	73.5	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002004	06-Aug-08	---	---	---	---	5.13	--	163.5	4.06	---	<0.100	0.429	---	230	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002004	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.57	---	---	---	---	---	---	TestAmerica
DC 8.2 W	RESE-1002004	06-Aug-08	27.5	5.13	21.5	0.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002027	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	21.6	7.27	281.7	---	---	
DC 8.2 W	RESE-1002027	05-Nov-08	---	---	---	---	---	---	---	---	69.5	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002027	05-Nov-08	---	---	---	---	5.06	--	168.4	4.12	---	<0.100	0.427	---	210	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002027	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	0.47	---	---	---	---	---	---	TestAmerica
DC 8.2 W	RESE-1002027	05-Nov-08	28.0	5.20	22.5	1.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

MONTGOMERY & ASSOCIATES

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 8.2 W	RESE-1003023	02-Dec-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.1	6.87	271.1	---	---	
DC 8.2 W	RESE-1003023	02-Dec-08	30	5.8	21	<2.0	---	---	---	---	73	---	---	---	---	---	---	---	---	---	TestAmerica
DC 8.2 W	RESE-1003023	02-Dec-08	---	---	---	---	5.1	--	170.8	4.0	---	<0.50	0.45	0.62	210	---	---	---	7.25	280	TestAmerica
DC 8.2 W	RESE-1002063	24-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.6	7.31	263	---	---	
DC 8.2 W	RESE-1002063	24-Feb-09	---	---	---	---	---	---	---	---	65.5	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002063	24-Feb-09	---	---	---	---	5.11	--	147.6	5.61	---	<0.100	0.269	---	240	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002063	24-Feb-09	24.8	4.65	19.4	1.01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002097	19-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.8	6.88	243	---	---	
DC 8.2 W	RESE-1002097	19-May-09	---	---	---	---	---	---	---	---	75.5	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002097	19-May-09	---	---	---	---	6.41	--	158.6	4.32	---	0.114	0.717	---	214	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002097	19-May-09	28.7	5.47	23.0	0.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002159	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	20.1	7.19	260.4	---	---	
DC 8.2 W	RESE-1002159	10-Nov-10	---	---	---	---	---	---	---	---	78.5	---	---	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002159	10-Nov-10	---	---	---	---	5.13 j-	--	170.8	3.49 j-	---	<0.100	0.274 j-	---	226 j-	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002159	10-Nov-10	33	6.27	22.9	1.32	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001005	20-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	17.2	7.9	218	---	---	
DC 8.8 C	RESE-1001005	20-May-03	---	---	---	---	---	---	---	---	---	0.12	0.23	---	---	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001005	20-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001005	20-May-03	22.5	4.50	19.0	1.2	6.02	--	117.2	12.8	56.0	---	---	---	241	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001018	21-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	22.4	7.6	302	---	---	
DC 8.8 C	RESE-1001018	21-Aug-03	---	---	---	---	---	---	---	---	---	<0.10	0.42	---	---	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001018	21-Aug-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001018	21-Aug-03	31.3	6.28	27.5	<1.0	5.95	--	198.9	4.71	82.3	---	---	---	241	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001042	12-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	14.5	6.8	232.5	---	---	
DC 8.8 C	RESE-1001042	12-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001042	12-Nov-03	28.4	6.20	25.0	1.3	7.02	--	154.9	15.7	66.9	<0.10	0.35	---	198	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001062	17-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	7.0	7.0	128.6	---	---	
DC 8.8 C	RESE-1001062	17-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	75.5	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001062	17-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001062	17-Feb-04	12.3	2.57	10.6	1.08	4.50	--	52.7	18.2	---	<0.10	0.137	---	73.0	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001078	21-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	15.8	8.0	220	---	---	
DC 8.8 C	RESE-1001078	21-May-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001078	21-May-04	22.3	4.40	19.3	1.2	5.95	--	133	7.06	59.2	0.13	0.29	---	190	---	---	---	---	---	SVL
DC 8.8 C LD	RESE-1001078	21-May-04	---	---	---	---	---	---	---	---	---	---	---	<2.0	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001151	16-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	19.9	7.8	337.5	---	---	
DC 8.8 C	RESE-1001151	16-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001151	16-Aug-04	32.7	6.03	30.6	1.4	9.85	--	214.7	9.06	70.1	<0.10	0.39	---	256	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001174	16-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	10.7	7.6	297	---	---	
DC 8.8 C	RESE-1001174	16-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001174	16-Nov-04	30.8	6.10	27.8	1.22	6.42	--	180.6	5.34	70.0	0.12	0.35	---	242	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
DC 8.8 C	RESE-1001197	25-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	11.0	7.8	66.7	---	---	
DC 8.8 C	RESE-1001197	25-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.22	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001197	25-Feb-05	5.68	1.50	4.50	1.46	2.81	--	13.1	10.8	25.9	<0.100	<0.100	---	76.0	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001211	11-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	13.7	7.7	170.1	---	---	
DC 8.8 C	RESE-1001211	11-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001211	11-May-05	17.0	3.46	13.6	1.22	7.38	--	86.1	9.69	43.9	0.115	0.164	---	96	---	---	---	---	---	SVL
DC 8.8 C	RESE-1001228	16-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.3	7.8	116	---	---	
DC 8.8 C	RESE-1001228	16-Aug-05	---	---	---	---	---	---	---	---	---	---	---	0.33	---	---	---	---	---	---	Del Mar
DC 8.8 C	RESE-1001228	16-Aug-05	9.79	2.39	7.92	2.21	5.37	--	37.2	14.9	35.0	<0.100	<0.100	---	111	---	---	---	---	---	SVL
Government Springs	RESE-1002112	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.23	---	---	---	
Government Springs	RESE-1002112	15-Dec-09	---	---	---	---	---	---	---	---	41.6	---	---	---	---	---	---	---	---	---	SVL
Government Springs	RESE-1002112	15-Dec-09	---	---	---	---	17.9	--	370.9	49.3	---	0.134	0.386	---	423	---	---	---	---	---	SVL
Government Springs	RESE-1002112	15-Dec-09	78.3	28.7	27.3	1.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Government Springs	RESE-1002130	18-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	21.9	6.94	583	---	---	
Government Springs	RESE-1002181	29-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	21.9	7.23	612	---	---	
Government Springs	RESE-1002181	29-Aug-11	---	---	---	---	---	---	---	---	38.6	---	---	---	---	---	---	---	---	---	SVL
Government Springs	RESE-1002181	29-Aug-11	79.8	27.8	26.9	2.41	15.6	--	381.9	44.7	---	0.15	0.35	---	437	---	---	---	---	---	SVL
Government Springs	RESE-1002199	08-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	21.3	7.28	565	---	---	
Government Springs	RESE-1002199	08-Dec-11	---	---	---	---	---	---	---	---	39.7	---	---	---	---	---	---	---	---	---	SVL
Government Springs	RESE-1002199	08-Dec-11	85.4	30.5	28.7	2.45	19.0	--	377	49.9	---	0.12	0.59	---	424	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	33.1	*9.52*	172	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	16.7	2.87	10.9	2.11	5.78	24.2	---	7.54	33.5	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	18	2.94	11.3	2.3	5.92	---	41.2	7.55	---	<0.100	<0.100	---	120 j	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	11.7	7.83	298	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	---	---	---	---	---	---	---	---	31.7	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	---	---	---	---	6.52	--	170.8	12.5	---	<0.100	0.315	---	190	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	30.5	6.64	20.8	2.28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	13.1	7.63	102	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	---	---	---	---	---	---	---	---	25.1	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	---	---	---	---	3.68	--	20.4	18.5	---	<0.100	<0.100	---	142	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	7.53	1.68	5.32	1.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	28.5	*8.74*	269	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	---	---	---	---	---	---	---	---	56.3	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	---	---	---	---	8.87	--	142.7	12.0	---	0.126	0.477	---	214	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	25.6	6.82	26.6	2.35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

MONTGOMERY & ASSOCIATES

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	8.1	6.8	206.0	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	---	---	---	---	---	---	---	---	35.4	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	---	---	---	---	5.85	--	112.7	10.0	---	<0.100	0.210	---	153	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	21.8	5.57	16.0	2.22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002188	31-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	25.9	7.51	130.9	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002188	31-Aug-11	---	---	---	---	---	---	---	---	38.4	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002188	31-Aug-11	14.9	4.17	13.6	3.55	5.54	--	85.0	8.85	---	<0.10	0.25	---	157	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon) DUP	RESE-1002189	31-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	25.9	7.51	130.9	---	---	
H 0.1 C (Hackberry Canyon) DUP	RESE-1002189	31-Aug-11	---	---	---	---	---	---	---	---	38.6	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon) DUP	RESE-1002189	31-Aug-11	14.6	4.10	13.1	3.36	5.02	--	87.4	8.87	---	<0.10	0.26	---	139	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002193	30-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	7.4	7.79	129.7	---	---	
H 0.1 C (Hackberry Canyon)	RESE-1002193	30-Nov-11	---	---	---	---	---	---	---	---	20.8	---	---	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002193	30-Nov-11	14.3	3.30	9.41	1.62	3.63	--	72.3	12.5	---	<0.10	<0.10	---	93	---	---	---	---	---	SVL
Hidden Spring	RESE-1001003	15-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	18.3	7.6	642	---	---	
Hidden Spring	RESE-1001003	15-May-03	---	---	---	---	---	---	---	---	---	0.15	0.21	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1001003	15-May-03	---	---	---	---	---	---	---	---	---	---	---	0.78	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001003	15-May-03	90.2	34.4	13.4	<1.0	14.1	--	320.9	81.8	24.6	---	---	---	447	---	---	---	---	---	SVL
Hidden Spring	RESE-1001015	20-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	23.1	7.4	710	---	---	
Hidden Spring	RESE-1001015	20-Aug-03	---	---	---	---	---	---	---	---	---	0.16	0.21	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1001015	20-Aug-03	---	---	---	---	---	---	---	---	---	---	---	0.30	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001015	20-Aug-03	93.3	34.0	13.7	1.5	12.1	--	375.8	75.3	26.5	---	---	---	442	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1001016	20-Aug-03	---	---	---	---	---	---	---	---	---	0.15	0.21	---	---	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1001016	20-Aug-03	---	---	---	---	---	---	---	---	---	---	---	0.32	---	---	---	---	---	---	Del Mar
Hidden Spring DUP	RESE-1001016	20-Aug-03	80.0	34.5	13.1	<1.0	12.1	--	378.2	74.3	26.7	---	---	---	440	---	---	---	---	---	SVL
Hidden Spring	RESE-1001027	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	18.0	7.4	767	---	---	
Hidden Spring	RESE-1001027	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	0.13	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001027	03-Nov-03	93.6	33.9	13.0	<1.0	12.3	--	386.7	75.3	25.6	0.15	0.22	---	410	---	---	---	---	---	SVL
Hidden Spring	RESE-1001052	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	11.5	8.0	485	---	---	
Hidden Spring	RESE-1001052	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	440	---	---	---	---	---	SVL
Hidden Spring	RESE-1001052	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	0.70	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001052	09-Feb-04	86.5	34.2	13.2	0.502 j	12.3	--	372.1	79.6	24.7	0.169	0.213	---	413	---	---	---	---	---	SVL
Hidden Spring	RESE-1001082	24-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	17.6	7.4	716	---	---	
Hidden Spring	RESE-1001082	24-May-04	---	---	---	---	---	---	---	---	---	---	---	0.78	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001082	24-May-04	90.7	33.9	12.7	<1.0	11.8	--	403.8	75.9	23.7	0.14	0.24	---	427	---	---	---	---	---	SVL
Hidden Spring LD	RESE-1001082	24-May-04	---	---	---	---	---	---	---	---	---	---	---	<2.0	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001097	04-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	23.3	7.8	342	---	---	
Hidden Spring	RESE-1001097	04-Aug-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001097	04-Aug-04	91.6	35.8	13.8	<1.0	12.2	--	438	76.2	25.1	0.14	0.22	---	435	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Hidden Spring	RESE-1001162	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	15.6	7.4	694	---	---	
Hidden Spring	RESE-1001162	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001162	03-Nov-04	84.6	33.9	13.1	<1.0	11.2	--	422.1	74.5	27.3	0.13	0.20	---	420	---	---	---	---	---	SVL
Hidden Spring	RESE-1001187	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	14.9	7.5	709	---	---	
Hidden Spring	RESE-1001187	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	1.3	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001187	09-Feb-05	86.7	32.0	12.3	<0.500	11.6	--	356.2	74.3	24.3	0.179	0.254	---	431	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1001203	03-May-05	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	---	---	---	---	Del Mar
Hidden Spring DUP	RESE-1001203	03-May-05	86.9	29.9	11.9	<0.500	11.0	--	337.9	69.8	24	0.134	0.23	---	396	---	---	---	---	---	SVL
Hidden Spring	RESE-1001202	03-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	21.6	7.3	628	---	---	
Hidden Spring	RESE-1001202	03-May-05	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001202	03-May-05	88.0	30.4	12.0	<0.500	10.9	--	339.2	69.7	24.3	0.156	0.234	---	389	---	---	---	---	---	SVL
Hidden Spring	RESE-1001220	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.8	7.1	663	---	---	
Hidden Spring	RESE-1001220	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	1.3	---	---	---	---	---	---	Del Mar
Hidden Spring	RESE-1001220	03-Aug-05	88.8	30.7	11.7	<0.500	10.9	--	352.6	65.8	25.3	0.15	0.208	---	412	---	---	---	---	---	SVL
Hidden Spring	RESE-1002008	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.5	7.16	678	---	---	
Hidden Spring	RESE-1002008	19-Aug-08	84.1	30.6	10.9	0.252 j	11.4	---	---	67.7	25.1	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002008	19-Aug-08	142	35.1	11.4	1.06	11.3	--	378.2	67.8	---	<0.100	0.171	---	390	---	---	---	---	---	SVL
Hidden Spring	RESE-1002008	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	1.6	---	---	---	---	---	---	TestAmerica
Hidden Spring	RESE-1002030	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	19.1	7.08	716	---	---	
Hidden Spring	RESE-1002030	06-Nov-08	---	---	---	---	---	---	---	---	24.9	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002030	06-Nov-08	---	---	---	---	11.0	--	378.2	69.7	---	<0.100	0.251	---	410	---	---	---	---	---	SVL
Hidden Spring	RESE-1002030	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	1.3	---	---	---	---	---	---	TestAmerica
Hidden Spring	RESE-1002030	06-Nov-08	87.1	32.2	11.8	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002045	10-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	19.4	7.41	637	---	---	
Hidden Spring	RESE-1002045	10-Feb-09	---	---	---	---	---	---	---	---	23.3	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002045	10-Feb-09	---	---	---	---	11.0	--	402.6	66.6	---	0.129	0.151	---	420	---	---	---	---	---	SVL
Hidden Spring	RESE-1002045	10-Feb-09	82.7	29.7	10.5	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002086	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.6	7.23	673	---	---	
Hidden Spring	RESE-1002086	12-May-09	---	---	---	---	---	---	---	---	25.5	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002086	12-May-09	---	---	---	---	11.4	--	353.8	70.2	---	0.128	0.307	---	393	---	---	---	---	---	SVL
Hidden Spring	RESE-1002086	12-May-09	90.1	31.7	11.5	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002116	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	21.6	7.33	619	---	---	
Hidden Spring	RESE-1002116	12-Feb-10	---	---	---	---	---	---	---	---	25.1	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002116	12-Feb-10	---	---	---	---	10.5	--	345.3	64.9	---	<0.100	0.127	---	358	---	---	---	---	---	SVL
Hidden Spring	RESE-1002116	12-Feb-10	87.4	31.2	11.2	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1003163	17-Jul-10	---	---	---	---	---	---	---	---	---	---	---	---	---	25.8	6.81	667.3	---	---	
Hidden Spring	RESE-1003163	17-Jul-10	86	30	10	<2.0	---	---	---	---	26	---	---	---	---	---	---	---	---	---	TestAmerica
Hidden Spring	RESE-1003163	17-Jul-10	90	31	11	<2.0	10	--	329.4	68	26	<0.50	<0.40	2.4	490	---	---	---	7.49	680	TestAmerica

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Hidden Spring	RESE-1002155	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	19.2	7.09	639	---	---	
Hidden Spring	RESE-1002155	09-Nov-10	---	---	---	---	---	---	---	---	24.5	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002155	09-Nov-10	---	---	---	---	11.1	--	366	66.6	---	0.127	0.271	---	434	---	---	---	---	---	SVL
Hidden Spring	RESE-1002155	09-Nov-10	94.1	33.0	10.8	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1002156	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	19.2	7.09	639	---	---	
Hidden Spring DUP	RESE-1002156	09-Nov-10	---	---	---	---	---	---	---	---	24.5	---	---	---	---	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1002156	09-Nov-10	---	---	---	---	11.2	--	366	66.9	---	0.154	0.270	---	420	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1002156	09-Nov-10	94.1	32.7	10.7	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	27.6	6.88	264	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	23.6	5.69	14.9	4.41	23.2	---	---	45.4	35.5	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	21.1	5.09	13.5	4.2	22.5	--	48.7	49.4	---	<0.100	<0.100	---	192	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.97	---	---	---	---	---	---	TestAmerica
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	10.6	7.65	90.9	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	---	---	---	---	---	---	---	---	21.6	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	---	---	---	---	5.55	--	14.8	12.2	---	<0.100	<0.100	---	126	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	6.64	1.75	5.72	2.39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	21.5	6.80	384	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	---	---	---	---	---	---	---	---	34.0	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	---	---	---	---	43.4	--	39.2	75.0	---	0.118	0.267	---	238	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	33.1	7.97	20.6	2.39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002109	07-Aug-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.7	6.95	348.7	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002109	07-Aug-09	---	---	---	---	---	---	---	---	40.3	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002109	07-Aug-09	---	---	---	---	42.1	--	62.6	72.6	---	0.106	0.184	---	281	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002109	07-Aug-09	36.8	9.02	22.9	4.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	6.9	6.80	370	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	---	---	---	---	---	---	---	---	36.1	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	---	---	---	---	51.4	--	29.0	70.3	---	0.121	<0.100	---	260	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	31.3	8.12	22.5	1.44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	6	7.49	273.8	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	---	---	---	---	---	---	---	---	27.4	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	---	---	---	---	25.2	--	32.0	55.7	---	<0.100	<0.100	---	162	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	26.3	6.13	16.1	4.09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002204	09-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	4.8	7.35	474	---	---	
IC 1.0 C (Iron Canyon)	RESE-1002204	09-Dec-11	---	---	---	---	---	---	---	---	28.8	---	---	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002204	09-Dec-11	48.0	11.9	31.3	2.76	78.8	--	39.2	82.1	---	0.30	0.17	---	292	---	---	---	---	---	SVL
Kane Spring	RESE-1001002	15-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	27.7	8.5	397	---	---	
Kane Spring	RESE-1001002	15-May-03	---	---	---	---	---	---	---	---	---	0.21	0.37	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1001002	15-May-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001002	15-May-03	52.4	54.3	24.2	<1.0	32.6	41.3	274.5	29.4	29.8	---	---	---	420	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Kane Spring	RESE-1001014	20-Aug-03	---	---	---	---	---	---	---	---	---	---	---	---	---	22.7	8.1	790	---	---	
Kane Spring	RESE-1001014	20-Aug-03	---	---	---	---	---	---	---	---	---	0.23	0.30	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1001014	20-Aug-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001014	20-Aug-03	47.6	63.6	26.4	2.2	30.3	--	484.3	25.0	40.7	---	---	---	476	---	---	---	---	---	SVL
Kane Spring	RESE-1001026	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	14.6	8.1	903	---	---	
Kane Spring	RESE-1001026	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001026	03-Nov-03	43.5	75.6	35.0	5.1	44.1	--	478.2	62.4	33.2	0.12	0.34	---	*528*	---	---	---	---	---	SVL
Kane Spring	RESE-1001051	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	4.2	7.6	771	---	---	
Kane Spring	RESE-1001051	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	474	---	---	---	---	---	SVL
Kane Spring	RESE-1001051	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001051	09-Feb-04	59.4	56.6	23.1	7.47	30.2	--	435.5	46.5	28.7	0.117	0.277	---	440	---	---	---	---	---	SVL
Kane Spring	04Aug04ALKS	04-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	24.5	8.1	785	---	---	
Kane Spring	RESE-1001161	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	6.9	8.2	757	---	---	
Kane Spring	RESE-1001161	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001161	03-Nov-04	45.8	63.6	30.1	7.8	34.0	--	480.7	54.7	31.4	<0.10	0.33	---	*501*	---	---	---	---	---	SVL
Kane Spring	RESE-1001186	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	6.9	8.3	698	---	---	
Kane Spring	RESE-1001186	09-Feb-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001186	09-Feb-05	53.0	51.2	18.1	2.23	21.8	2.39	408.7	29.3	23.3	0.151	0.388	---	416	---	---	---	---	---	SVL
Kane Spring	RESE-1001201	03-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	15.8	8.1	752	---	---	
Kane Spring	RESE-1001201	03-May-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001201	03-May-05	76.1	54.9	23.1	0.68	28.3	--	452.6	45.7	26.3	0.204	0.35	---	460	---	---	---	---	---	SVL
Kane Spring	RESE-1001218	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	22.7	7.8	1019	---	---	
Kane Spring	RESE-1001218	03-Aug-05	---	---	---	---	---	---	---	---	---	---	---	<0.20	---	---	---	---	---	---	Del Mar
Kane Spring	RESE-1001218	03-Aug-05	62.1	78.3	51.0	5.17	72.4	--	491.7	102	34.7	0.275	0.269	---	*713*	---	---	---	---	---	SVL
Kane Spring	RESE-1002022	29-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.7	7.91	707	---	---	
Kane Spring	RESE-1002022	29-Aug-08	74.8	42.5	17.2	1.87	20.2	---	---	31.0	22.4	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002022	29-Aug-08	66.9	37.6	15.5	1.72	18.6	--	427	33.6	---	0.207	0.274	---	366	---	---	---	---	---	SVL
Kane Spring	RESE-1002022	29-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.99	---	---	---	---	---	---	TestAmerica
Kane Spring	RESE-1002035	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.7	6.96	654	---	---	
Kane Spring	RESE-1002035	05-Nov-08	---	---	---	---	---	---	---	---	21.0	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002035	05-Nov-08	---	---	---	---	18.7	--	430.7	29.6	---	0.153	0.282	---	420	---	---	---	---	---	SVL
Kane Spring	RESE-1002035	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	0.82	---	---	---	---	---	---	TestAmerica
Kane Spring	RESE-1002035	05-Nov-08	74.3	41.5	17.2	1.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002046	10-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.7	7.37	613	---	---	
Kane Spring	RESE-1002046	10-Feb-09	---	---	---	---	---	---	---	---	19.6	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002046	10-Feb-09	---	---	---	---	18.4	--	436.8	28.8	---	0.146	0.229	---	374	---	---	---	---	---	SVL
Kane Spring	RESE-1002046	10-Feb-09	67.4	36.6	15.5	1.71	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Kane Spring	RESE-1002087	13-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	21.8	7.27	650	---	---	
Kane Spring	RESE-1002087	13-May-09	---	---	---	---	---	---	---	---	20.1	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002087	13-May-09	---	---	---	---	20.1	--	396.5	30.0	---	0.172	0.337	---	386	---	---	---	---	---	SVL
Kane Spring	RESE-1002087	13-May-09	70.5	38.6	16	1.82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002117	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	18.6	7.54	653	---	---	
Kane Spring	RESE-1002117	12-Feb-10	---	---	---	---	---	---	---	---	21.4	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002117	12-Feb-10	---	---	---	---	22.2	--	379.4	31.9	---	0.142	0.246	---	356	---	---	---	---	---	SVL
Kane Spring	RESE-1002117	12-Feb-10	73.6	39.8	16.7	1.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1003164	17-Jul-10	---	---	---	---	---	---	---	---	---	---	---	---	---	24.4	7.36	730.0	---	---	
Kane Spring	RESE-1003164	17-Jul-10	72	42	18	<2.0	---	---	---	---	23	---	---	---	---	---	---	---	---	---	TestAmerica
Kane Spring	RESE-1003164	17-Jul-10	76	43	19	<2.0	24	--	390.4	38	24	<0.50	<0.40	0.87	440	---	---	---	7.45	730	TestAmerica
Kane Spring	RESE-1002154	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	20.3	6.65	318.3	---	---	
Kane Spring	RESE-1002154	09-Nov-10	---	---	---	---	---	---	---	---	20.2	---	---	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002154	09-Nov-10	---	---	---	---	22.3	--	409.9	32.8	---	0.259	0.370	---	392	---	---	---	---	---	SVL
Kane Spring	RESE-1002154	09-Nov-10	78.0	41.0	17.0	1.88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	19.3	6.87	651	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	---	---	---	---	---	---	---	---	39.8	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	---	---	---	---	18.7	--	133	141	---	0.164	0.436	---	460	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	83.0	18.9	37.1	1.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.7	7.51	519	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	---	---	---	---	---	---	---	---	29.1	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	---	---	---	---	14.2	--	175.7	123	---	0.117	0.320	---	361	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	61.0	15.9	30.2	1.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	20.3	6.85	594	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	---	---	---	---	---	---	---	35.3	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	---	---	---	14.0	--	228.1	125	---	0.117	0.342	---	414	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	70.1	17.4	35.4	1.01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002106	06-Aug-09	---	---	---	---	---	---	---	---	---	---	---	---	---	23.6	6.79	658	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002106	06-Aug-09	---	---	---	---	---	---	---	---	39.1	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002106	06-Aug-09	---	---	---	---	13.7	--	222	120	---	<0.100	0.304	---	404	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002106	06-Aug-09	69.9	16.1	36	1.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	16.7	7.00	533	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	---	---	---	---	---	---	---	---	37.4	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	---	---	---	---	12.8	--	159.8	117	---	<0.100	0.229	---	410	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	58.5	13.9	30.9	0.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.6	7.65	449.4	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	---	---	---	---	---	---	---	---	32.9	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	---	---	---	---	10.2	--	144	93.3	---	<0.100	0.207	---	286	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	48.9	12.9	24.9	1.24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

MONTGOMERY & ASSOCIATES

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	17.5	7.74	384.4	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	20.8	6.92	686	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	---	---	---	---	---	---	---	---	41.5	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	---	---	---	---	18.7	--	323.3	138	---	0.221	0.468	---	470	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	89.4	21.4	40.4	1.21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	14.9	7.77	542	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	---	---	---	---	---	---	---	---	38.7	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	---	---	---	---	12.4	--	209.8	99.6	---	0.13	0.26	---	365	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	64.4	15.1	31.6	1.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	20.8	7	673	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	---	---	---	---	---	---	---	---	38.9	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	---	---	---	---	14.0	--	223.3	112	---	0.26	0.29	---	425	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	75.5	16.6	35.6	1.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002182	29-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.3	7.13	539	---	---	
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002182	29-Aug-11	---	---	---	---	---	---	---	---	40.0	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002182	29-Aug-11	72.1	16.1	35.0	2.28	12.1	--	234.2	105	---	0.12	0.26	---	405	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring) DUP	RESE-1002183	29-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.3	7.13	539	---	---	
LF 0.2 C (Lyons Fork Headwater Spring) DUP	RESE-1002183	29-Aug-11	---	---	---	---	---	---	---	---	39.9	---	---	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring) DUP	RESE-1002183	29-Aug-11	72.2	16.0	35.3	2.16	13.3	--	233	111	---	0.12	0.30	---	420	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002040	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	15.8	8.22	448	---	---	
MC 3.3 C	RESE-1002040	13-Nov-08	---	---	---	---	---	---	---	---	56.5	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002040	13-Nov-08	---	---	---	---	11.6	--	246.4	44.7	---	<0.100	0.532	---	310	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002040	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
MC 3.3 C	RESE-1002040	13-Nov-08	54.6	14.5	25.5	1.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002074	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	18.1	8.33	460	---	---	
MC 3.3 C	RESE-1002074	05-Mar-09	---	---	---	---	---	---	---	---	41.7	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002074	05-Mar-09	---	---	---	---	12.9	--	213.5	74.1	---	<0.100	0.287	---	321	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002074	05-Mar-09	53.1	14.4	23.8	1.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002095	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	25.9	8.38	494	---	---	
MC 3.3 C	RESE-1002095	14-May-09	---	---	---	---	---	---	---	---	49.4	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002095	14-May-09	---	---	---	---	13.4	4.3	242.8	56.7	---	<0.100	0.319	---	342	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002095	14-May-09	60.2	16.7	28.5	1.37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002104	06-Aug-09	---	---	---	---	---	---	---	---	---	---	---	---	---	30.9	7.98	379.6	---	---	
MC 3.3 C	RESE-1002104	06-Aug-09	---	---	---	---	---	---	---	---	63.8	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002104	06-Aug-09	---	---	---	---	9.19	--	224.5	21.6	---	<0.100	0.324	---	266	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002104	06-Aug-09	47.1	11.8	23.8	1.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002114	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	14.7	7.98	448.6	---	---	
MC 3.3 C	RESE-1002114	15-Dec-09	---	---	---	---	---	---	---	---	64.0	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002114	15-Dec-09	---	---	---	---	13.2	--	224.5	41.7	---	<0.100	0.177	---	335	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002114	15-Dec-09	49.3	12.4	26.4	1.09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
MC 3.3 C	RESE-1002121	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.5	8.2	440	---	---	
MC 3.3 C	RESE-1002121	15-Feb-10	---	---	---	---	---	---	---	---	40.4	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002121	15-Feb-10	---	---	---	---	11.5	--	213.5	70.9	---	<0.100	0.216	---	305	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002121	15-Feb-10	57.6	16.3	26.5	1.47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002131	18-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	17.4	8.38	379.1	---	---	
MC 3.3 C	RESE-1002151	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	21.8	7.62	233.4	---	---	
MC 3.3 C	RESE-1002151	04-Nov-10	---	---	---	---	---	---	---	---	83.5	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002151	04-Nov-10	---	---	---	---	5.29	--	157.4	4.86	---	<0.100	0.385	---	208	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002151	04-Nov-10	30.1	5.39	21.4	0.65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002163	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	13.8	8.27	426.7	---	---	
MC 3.3 C	RESE-1002163	24-Feb-11	---	---	---	---	---	---	---	---	48.0	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002163	24-Feb-11	---	---	---	---	10.7	--	228.1	46.8	---	0.12	0.28	---	303	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002163	24-Feb-11	51.0	14.8	26.0	1.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002172	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	23.5	8.07	433	---	---	
MC 3.3 C	RESE-1002172	31-May-11	---	---	---	---	---	---	---	---	63.3	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002172	31-May-11	---	---	---	---	8.90	--	203.7	28.6	---	<0.10	0.29	---	305	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002172	31-May-11	46.3	11.5	24.4	0.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002186	29-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	29.9	7.97	345	---	---	
MC 3.3 C	RESE-1002186	29-Aug-11	---	---	---	---	---	---	---	---	63.6	---	---	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002186	29-Aug-11	44.0	10.1	22.3	1.66	8.17	2.4	209.8	16.9	---	0.13	0.27	---	272	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	15.5	8.08	268	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	---	---	---	---	---	---	---	---	79.8	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	---	---	---	---	5.22	--	245.2	4.40	---	<0.100	0.519	---	220	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	31.2	5.53	22.6	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	21.4	7.62	235	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	---	---	---	---	---	---	---	---	69.0	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	---	---	---	---	4.64	--	144	4.59	---	<0.100	0.217	---	187	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	26.2	4.56	18.2	1.09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.1	7.62	263	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	---	---	---	---	---	---	---	81	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	---	---	---	5.58	--	159.8	4.24	---	<0.100	0.256	---	218 j	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	29	5.24	22.2	0.193 j	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002105	06-Aug-09	---	---	---	---	---	---	---	---	---	---	---	---	---	25.0	7.68	278.2	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002105	06-Aug-09	---	---	---	---	---	---	---	---	83.1	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002105	06-Aug-09	---	---	---	---	5.67	--	174.5	3.28	---	<0.100	0.418	---	219 j	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002105	06-Aug-09	31.7	5.68	22.9	0.419	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	18.7	7.88	254.5	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	---	---	---	---	---	---	---	---	76.4	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	---	---	---	---	5.07	--	153.7	4.13	---	<0.100	0.188	---	174	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	27.5	4.90	20.1	0.97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	21.4	7.85	245	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	---	---	---	---	---	---	---	---	72.3	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	---	---	---	---	4.77	--	144	6.09	---	<0.100	0.147	---	179	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	26.9	4.63	18.7	1.16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	22.4	7.81	220.9	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	18.9	7.96	372.0	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	---	---	---	---	---	---	---	---	61.8	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	---	---	---	---	11.3	--	231.8	47.4	---	0.107	0.278	---	314	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	58.1	15.3	26.8	1.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	20.3	8.11	230	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	---	---	---	---	---	---	---	---	73.3	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	---	---	---	---	4.47	--	146.4	4.28	---	<0.10	0.32	---	212	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	26.7	4.77	19.5	1.16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	23.3	7.62	309	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	---	---	---	---	---	---	77.8	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	---	---	5.30	--	159.8	4.17	---	<0.10	0.30	---	237	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	30.2	5.20	21.8	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring) SP	RESE-1002173	31-May-11	28	5.1	21	<2.0	---	---	---	---	79	---	---	---	---	---	---	---	---	---	TestAmerica
MC 3.4 W (Wet Leg Spring) SP	RESE-1002173	31-May-11	28	5.2	21	<2.0	5.1	--	158.6	4.4	77	<0.50	<0.40	--	210	---	---	---	8.16	260	TestAmerica
MC 3.4 W (Wet Leg Spring)	RESE-1002185	29-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.1	7.41	244	---	---	
MC 3.4 W (Wet Leg Spring)	RESE-1002185	29-Aug-11	---	---	---	---	---	---	---	---	77.7	---	---	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002185	29-Aug-11	30.4	5.29	22.3	0.67	6.01	--	167.1	4.01	---	<0.10	0.33	---	234	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002171	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	22.9	6.91	535	---	---	
MC 5.2 C	RESE-1002171	31-May-11	---	---	---	---	---	---	---	---	53.0	---	---	---	---	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002171	31-May-11	---	---	---	---	11.6	4.6	226.9	49.8	---	<0.10	0.25	---	355	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002171	31-May-11	60.9	15.6	26.6	1.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 5.2 C SP	RESE-1002171	31-May-11	54	15	24	<2.0	---	---	---	---	52	---	---	---	---	---	---	---	---	---	TestAmerica
MC 5.2 C SP	RESE-1002171	31-May-11	54	15	24	<2.0	10	--	219.6	51	52	<0.50	<0.40	<2.0	330	---	---	---	8.42	490	TestAmerica
MC 5.2 C	RESE-1002184	29-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	26.8	8.3	413	---	---	
MC 5.2 C	RESE-1002184	29-Aug-11	---	---	---	---	---	---	---	---	53.8	---	---	---	---	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002184	29-Aug-11	55.3	13.1	23.1	1.54	11.4	2.9	229.4	44.6	---	0.11	0.24	---	343	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002201	08-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	11.7	8.1	397	---	---	
MC 5.2 C	RESE-1002201	08-Dec-11	---	---	---	---	---	---	---	---	55.1	---	---	---	---	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002201	08-Dec-11	57.5	13.7	23.7	1.28	11.7	--	223.3	52.5	---	<0.10	0.24	---	339	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	19.1	6.68	750	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	---	---	---	---	---	---	---	---	39.7	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	---	---	---	---	18.9	--	444.1	63.5	---	0.158	0.468	---	480	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	0.36	---	---	---	---	---	---	TestAmerica
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	92.7	31.8	34.0	1.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	18.7	6.97	657	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	---	---	---	---	---	---	---	---	37.8	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	---	---	---	---	17.1	--	385.5	50.2	---	0.150	0.373	---	431	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	79.7	27.5	29.9	1.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	22.8	7.14	757	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	---	---	---	---	---	---	---	38	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	---	---	---	20.5	--	405	73.5	---	0.166	0.367	---	474	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	90.3	31.6	34	1.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	---	---	---	---	---	---	---	---	38.4	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	---	---	---	---	20.4	--	412.4	72.6	---	0.175	0.373	---	498	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	91.6	32.1	34.9	1.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002107	06-Aug-09	---	---	---	---	---	---	---	---	---	---	---	---	---	22.7	6.74	736	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002107	06-Aug-09	---	---	---	---	---	---	---	---	39.7	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002107	06-Aug-09	---	---	---	---	16.9	--	441.6	65.2	---	<0.100	0.358	---	489	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002107	06-Aug-09	93.3	32.9	35.5	1.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002108	06-Aug-09	---	---	---	---	---	---	---	---	39.5	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002108	06-Aug-09	---	---	---	---	16.6	--	433.1	63.9	---	<0.100	0.394	---	490	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002108	06-Aug-09	94.2	32.8	36.5	1.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	15.2	6.90	692	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	---	---	---	---	---	---	---	---	38.8	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	---	---	---	---	18.2	--	373.3	59.9	---	0.120	0.322	---	456	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	81.3	28.7	30.9	1.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	14.3	7.68	577	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	---	---	---	---	---	---	---	---	33.9	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	---	---	---	---	14.2	--	275.7	63.3	---	<0.100	0.382	---	344	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	66.5	22.5	27.0	1.11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	16.4	7.83	385.8	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	18.7	6.88	752.2	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	---	---	---	---	---	---	---	---	42.3	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	---	---	---	---	17.3	--	411.1	57.8	---	0.173	0.413	---	442	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	91.6	30.8	32.7	1.40	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	15.1	7.21	622.3	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	---	---	---	---	---	---	---	---	37.9	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	---	---	---	---	14.7	--	384.3	43.3	---	0.22	0.30	---	410	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	76.1	26.4	30.1	1.29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	15.1	7.21	622.3	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	---	---	---	---	---	---	---	---	38.5	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	---	---	---	---	14.9	--	377	43.3	---	0.14	0.29	---	420	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	78.4	27.1	30.5	1.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	20.2	7.06	789	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	---	---	---	---	---	---	---	---	40.3	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	---	---	---	---	17.7	--	397.7	42.7	---	0.18	0.35	---	442	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	87.4	29.2	32.6	1.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	20.2	7.06	789	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	---	---	---	---	---	---	---	---	39.4	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	---	---	---	---	17.7	--	395.3	43.3	---	0.18	0.34	---	448	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	84.2	28.2	31.4	1.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002200	08-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	14.1	7.2	574	---	---	
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002200	08-Dec-11	---	---	---	---	---	---	---	---	38.1	---	---	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002200	08-Dec-11	86.3	28.7	30.9	2.22	17.9	--	386.7	43.4	---	0.12	0.36	---	423	---	---	---	---	---	SVL
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	---	---	---	---	---	---	---	---	---	---	---	---	---	33.0	7.65	682.7	---	---	
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	75	28	30	<2.0	---	---	---	---	37	---	---	---	---	---	---	---	---	---	TestAmerica
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	83	29	31	<2.0	16	--	341.6	65	41	<0.50	0.56	0.22	450	---	---	---	7.54	680	TestAmerica
Number Nine	RESE-1002020	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	27.6	7.11	85.5	---	---	
Number Nine	RESE-1002020	28-Aug-08	7.25	1.7	5.25	2.18	3.40	---	---	15.4	24.2	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002020	28-Aug-08	6.42	1.54	4.71	2.09	2.48	--	13.5	16.1	---	<0.100	<0.100	---	93	---	---	---	---	---	SVL
Number Nine	RESE-1002020	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	0.64	---	---	---	---	---	---	TestAmerica
Number Nine	RESE-1002042	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	14.5	*8.56*	210.9	---	---	
Number Nine	RESE-1002042	12-Nov-08	---	---	---	---	---	---	---	---	25.9	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002042	12-Nov-08	---	---	---	---	12.3	--	93.7	7.14	---	0.153	0.369	---	200	---	---	---	---	---	SVL
Number Nine	RESE-1002042	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
Number Nine	RESE-1002042	12-Nov-08	18.7	5.34	17.1	3.65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002058	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	9.9	7.64	71	---	---	
Number Nine	RESE-1002058	19-Feb-09	---	---	---	---	---	---	---	---	21.6	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002058	19-Feb-09	---	---	---	---	2.34	--	8.3	14.2	---	<0.100	<0.100	---	114	---	---	---	---	---	SVL
Number Nine	RESE-1002058	19-Feb-09	5.17	1.31	4.99	1.19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Number Nine DUP	RESE-1002059	19-Feb-09	---	---	---	---	---	---	---	---	20.5	---	---	---	---	---	---	---	---	---	SVL
Number Nine DUP	RESE-1002059	19-Feb-09	---	---	---	---	2.36	--	8.4	14.2	---	<0.100	<0.100	---	93	---	---	---	---	---	SVL
Number Nine DUP	RESE-1002059	19-Feb-09	4.87	1.25	4.74	1.16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002077	05-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	24.2	7.72	101.2	---	---	
Number Nine	RESE-1002077	05-May-09	---	---	---	---	---	---	---	---	25.2	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002077	05-May-09	---	---	---	---	4.67	--	32.3	8.82	---	0.169	<0.100	---	85	---	---	---	---	---	SVL
Number Nine	RESE-1002077	05-May-09	7.15	1.74	7.15	1.45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Number Nine	RESE-1002139	01-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	12.9	7.88	125.6	---	---	
Number Nine	RESE-1002139	01-Nov-10	---	---	---	---	---	---	---	---	26.4	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002139	01-Nov-10	---	---	---	---	3.47	--	38.9	12.8	---	<0.100	0.103	---	76	---	---	---	---	---	SVL
Number Nine	RESE-1002139	01-Nov-10	8.33	2.16	9.04	0.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002147	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	19.9	7.91	240	---	---	
Number Nine	RESE-1002147	03-Nov-10	---	---	---	---	---	---	---	---	7.59	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002147	03-Nov-10	---	---	---	---	2.08	--	148.8	2.36	---	<0.100	0.163	---	148	---	---	---	---	---	SVL
Number Nine	RESE-1002147	03-Nov-10	39.6	4.12	2.81	5.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002178	19-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	24.7	7.55	114.1	---	---	
Number Nine	RESE-1002178	19-Aug-11	---	---	---	---	---	---	---	---	12.8	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002178	19-Aug-11	12.7	3.28	7.29	3.26	5.24	--	33.2	22.2	---	<0.10	0.18	---	99	---	---	---	---	---	SVL
Number Nine	RESE-1002198	01-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	9.1	*8.68*	148.4	---	---	
Number Nine	RESE-1002198	01-Dec-11	---	---	---	---	---	---	---	---	20.6	---	---	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002198	01-Dec-11	13.2	3.45	11.7	1.32	9.41	--	15.1	48.8	---	<0.10	<0.10	---	131	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002016	27-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	24.3	7.25	99.5	---	---	
Oak Flat Tributary	RESE-1002016	27-Aug-08	12.4	2	3.86	3.43	2.80	---	---	10.9	18.9	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002016	27-Aug-08	11.3	1.85	3.55	3.37	2.50	--	33.2	11.2	---	<0.100	<0.100	---	104	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002016	27-Aug-08	---	---	---	---	---	---	---	---	---	---	---	1.9	---	---	---	---	---	---	TestAmerica
Oak Flat Tributary	RESE-1002068	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.7	7.25	123.9	---	---	
Oak Flat Tributary	RESE-1002068	26-Feb-09	---	---	---	---	---	---	---	---	22.7	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002068	26-Feb-09	---	---	---	---	4.19	--	40.5	14.6	---	<0.100	<0.100	---	145	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002068	26-Feb-09	11.2	2.17	4.84	1.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002076	05-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.15	7.08	182	---	---	
Oak Flat Tributary	RESE-1002076	05-May-09	---	---	---	---	---	---	---	---	27.9	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002076	05-May-09	---	---	---	---	9.76	--	71.0	24.9	---	0.146	<0.100	---	119	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002076	05-May-09	22.4	4.37	9.26	3.80	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002176	19-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	21.4	*6.4*	48.3	---	---	
Oak Flat Tributary	RESE-1002176	19-Aug-11	---	---	---	---	---	---	---	---	10.0	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002176	19-Aug-11	4.43	1.08	2.67	2.94	1.70	--	4.6	6.83	---	<0.10	0.13	---	63	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002205	09-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	6.3	7.12	116.2	---	---	
Oak Flat Tributary	RESE-1002205	09-Dec-11	---	---	---	---	---	---	---	---	21.6	---	---	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002205	09-Dec-11	11.5	2.95	6.97	2.28	7.10	--	13.3	33.3	---	0.10	<0.10	---	114	---	---	---	---	---	SVL
Patterson Spring	RESE-1002137	18-May-10	---	---	---	---	---	---	---	---	---	---	---	---	---	18.7	6.55	668	---	---	
Patterson Spring	RESE-1002137	18-May-10	---	---	---	---	---	---	---	---	31.0	---	---	---	---	---	---	---	---	---	SVL
Patterson Spring	RESE-1002137	18-May-10	---	---	---	---	5.58	--	206.2	*274*	---	<0.100	0.279	---	*600*	---	---	---	---	---	SVL
Patterson Spring	RESE-1002137	18-May-10	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
Patterson Spring	RESE-1002137	18-May-10	109	29.9	18.9	1.49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Pump Station Spring	RESE-1001001	15-May-03	---	---	---	---	---	---	---	---	---	---	---	---	---	14.8	7.6	746	---	---	
Pump Station Spring	RESE-1001001	15-May-03	---	---	---	---	---	---	---	---	---	0.13	0.23	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001001	15-May-03	---	---	---	---	---	---	---	---	---	---	---	2.7	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001001	15-May-03	123	29.1	11.3	1.4	9.81	--	394.1	54.2	43.8	---	---	---	*523*	---	---	---	---	---	SVL
Pump Station Spring LD	RESE-1001001	15-May-03	---	---	---	---	---	---	---	---	---	---	---	2.5	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001024	04-Sep-03	---	---	---	---	---	---	---	---	---	---	---	---	---	18.7	7.4	770	---	---	
Pump Station Spring	RESE-1001024	04-Sep-03	---	---	---	---	---	---	---	---	---	0.17	0.25	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001024	04-Sep-03	---	---	---	---	---	---	---	---	---	---	---	9.2	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001024	04-Sep-03	151	30.3	11.2	1.4	10.2	--	456.3	56.8	49.5	---	---	---	496	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001029	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	---	---	13.6	7.5	872	---	---	
Pump Station Spring	RESE-1001029	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001029	03-Nov-03	130	29.9	11.0	1.2	10.1	--	335.5	60.8	45.7	0.17	0.24	---	*602*	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1001030	03-Nov-03	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---	---	---	---	Del Mar
Pump Station Spring DUP	RESE-1001030	03-Nov-03	132	30.2	11.1	1.2	10.1	--	457.5	59.8	46.1	0.16	0.26	---	*558*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001056	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	---	---	9.3	7.4	820	---	---	
Pump Station Spring	RESE-1001056	09-Feb-04	---	---	---	---	---	---	---	---	---	---	---	9.8	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001056	09-Feb-04	104	31	10.9	1.06	11.2	--	469.7	61.8	---	0.192	0.240	---	*545*	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1001085	25-May-04	---	---	---	---	---	---	---	---	---	---	---	9.8	---	---	---	---	---	---	Del Mar
Pump Station Spring DUP	RESE-1001085	25-May-04	119	29.8	10.6	1.1	11.0	--	477	57.0	45.5	0.18	0.27	---	*571*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001084	25-May-04	---	---	---	---	---	---	---	---	---	---	---	---	---	16.8	7.3	845	---	---	
Pump Station Spring	RESE-1001084	25-May-04	---	---	---	---	---	---	---	---	---	---	---	9.8	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001084	25-May-04	85.4	29.8	10.8	1.1	10.6	--	479.5	58.8	45.6	0.13	0.25	---	*544*	---	---	---	---	---	SVL
Pump Station Spring LD	RESE-1001084	25-May-04	---	---	---	---	---	---	---	---	---	---	---	9.2	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001096	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	---	---	18.0	7.7	830	---	---	
Pump Station Spring	RESE-1001096	03-Aug-04	---	---	---	---	---	---	---	---	---	---	---	12	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001096	03-Aug-04	77.8	29.9	11.6	1.3	11.9	--	479.5	60.1	45.1	0.18	0.26	---	*536*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001166	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	---	---	12.3	7.3	857	---	---	
Pump Station Spring	RESE-1001166	03-Nov-04	---	---	---	---	---	---	---	---	---	---	---	12	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001166	03-Nov-04	90.5	30.9	11.3	1.1	17.8	--	481.9	76.1	47.0	0.31	0.22	---	*554*	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1001183	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	26	---	---	---	---	---	---	Del Mar
Pump Station Spring DUP	RESE-1001183	08-Feb-05	85.3	21.7	6.41	1.99	11.4	--	285.5	48.8	40.6	0.149	0.346	---	430	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001182	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	9.0	7.9	634	---	---	
Pump Station Spring	RESE-1001182	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	26	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001182	08-Feb-05	84.4	21.6	6.45	2.00	11.4	--	298.9	48.8	40.5	0.155	0.343	---	440	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001206	04-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	16.3	7.9	710	---	---	
Pump Station Spring	RESE-1001206	04-May-05	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001206	04-May-05	104	32.6	9.64	2.73	16.0	--	336.7	74.4	38.9	0.172	0.254	---	453	---	---	---	---	---	SVL
Pump Station Spring	RESE-1001222	08-Aug-05	---	---	---	---	---	---	---	---	---	---	---	---	---	21.3	7.5	832	---	---	
Pump Station Spring	RESE-1001222	08-Aug-05	---	---	---	---	---	---	---	---	---	---	---	20	---	---	---	---	---	---	Del Mar
Pump Station Spring	RESE-1001222	08-Aug-05	114	36.2	11.4	2.67	17.7	--	348.9	82.4	66.5 j	0.217 j	0.28	---	*541 j*	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Pump Station Spring DUP	RESE-1001223	08-Aug-05	---	---	---	---	---	---	---	---	---	---	---	18	---	---	---	---	---	---	Del Mar
Pump Station Spring DUP	RESE-1001223	08-Aug-05	109	34.8	10.8	2.57	17.9	--	351.4	82.5	63.5 j	0.21	0.269	---	*540 j*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002001	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	20.5	7.54	851	---	---	
Pump Station Spring	RESE-1002001	05-Aug-08	118	29.3	11.3	2.38	14.3	---	---	68.7	49.4	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002001	05-Aug-08	---	---	---	---	15.0	--	450.2	64.4	---	0.135	0.344	---	*570*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002001	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	7.3	---	---	---	---	---	---	TestAmerica
Pump Station Spring	RESE-1002001	05-Aug-08	113	27.3	11.0	2.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002023	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	14.7	7.06	891	---	---	
Pump Station Spring	RESE-1002023	04-Nov-08	---	---	---	---	---	---	---	---	45.8	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002023	04-Nov-08	---	---	---	---	14.8	--	442.9	65.9	---	0.149	0.259	---	*540*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002023	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---	---	TestAmerica
Pump Station Spring	RESE-1002023	04-Nov-08	121	30.9	10.7	1.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002053	17-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	9.1	8.22	147	---	---	
Pump Station Spring	RESE-1002053	17-Feb-09	---	---	---	---	---	---	---	---	25.7	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002053	17-Feb-09	---	---	---	---	3.16	--	66.7	12.8	---	<0.100	<0.100	---	145	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002053	17-Feb-09	23.2	5.67	3.92	2.83	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002080	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	16.5	7.32	8.41	---	---	
Pump Station Spring	RESE-1002080	12-May-09	---	---	---	---	---	---	---	---	40.6	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002080	12-May-09	---	---	---	---	13.4	--	392.8	55.9	---	0.151	0.278	---	457	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002080	12-May-09	104	26.5	11.0	2.70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002084	12-May-09	---	---	---	---	---	---	---	---	43.0	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002084	12-May-09	---	---	---	---	14.4	--	386.7	57.1	---	0.155	0.275	---	458	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002084	12-May-09	107	27.0	11.1	2.77	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002125	16-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	11.6	7.67	374.9	---	---	
Pump Station Spring	RESE-1002125	16-Feb-10	---	---	---	---	---	---	---	---	40.8	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002125	16-Feb-10	---	---	---	---	10.5	--	269.6	38.4	---	<0.100	<0.100	---	296	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002125	16-Feb-10	76.5	18.1	8.48	1.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002144	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	13.5	7.04	784	---	---	
Pump Station Spring	RESE-1002144	03-Nov-10	---	---	---	---	---	---	---	---	46.8	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002144	03-Nov-10	---	---	---	---	14.2	--	425.8	59.2	---	0.188	0.206	---	494	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002144	03-Nov-10	116	27.4	11.2	1.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002145	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	13.5	7.04	784	---	---	
Pump Station Spring DUP	RESE-1002145	03-Nov-10	---	---	---	---	---	---	---	---	46.5	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002145	03-Nov-10	---	---	---	---	14.5	--	427	60.0	---	0.169	0.228	---	497	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002145	03-Nov-10	118	27.6	11.4	1.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
Pump Station Spring	RESE-1002168	17-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	12.7	7.3	876	---	---	
Pump Station Spring	RESE-1002168	17-May-11	---	---	---	---	---	---	---	---	46.1	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002168	17-May-11	---	---	---	---	13.8	--	441.6	55.1	---	0.14	0.19	---	*517*	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002168	17-May-11	124	29.1	10.2	1.61	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
Pump Station Spring SP	RESE-1002168	17-May-11	120	30	11	<2.0	---	---	---	---	49	---	---	---	---	---	---	---	---	---	TestAmerica
Pump Station Spring SP	RESE-1002168	17-May-11	120	28	11	<2.0	13	--	427	57	48	<0.50	<0.40	3.8	*540*	---	---	---	7.77	790	TestAmerica
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	28.9	8.29	438	---	---	
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	57	12.4	14.5	4.17	12.6	---	---	56.9	30	---	---	---	---	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	50.7	11	13	3.93	11.8	--	170.8	58.2	---	0.111	0.159	---	292	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	4.6	---	---	---	---	---	---	TestAmerica
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	11.6	8.11	188	---	---	
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	---	---	---	---	---	---	---	---	22.8	---	---	---	---	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	---	---	---	---	5.95	--	75.4	21.9	---	0.236	<0.100	---	147	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	21.0	4.08	6.27	1.48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002206	14-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	9.1	8.19	127.2	---	---	
QC 19.7 C (Queen above Magma Wash)	RESE-1002206	14-Dec-11	---	---	---	---	---	---	---	---	20.0	---	---	---	---	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002206	14-Dec-11	18.1	3.43	5.93	1.99	4.84	--	45.8	20.7	---	<0.10	0.13	---	122	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	26.2	8.27	335	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	5.6	---	---	---	---	---	---	TestAmerica
QC 21.7 C (Magma Avenue) LD	RESE-1002018	28-Aug-08	45.4	8.48	8.69	3.09	8.82	---	---	29.6	30.7	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue) LD	RESE-1002018	28-Aug-08	41.1	7.59	7.94	2.93	8.23	--	136.6	32.3	---	0.116	0.122	---	236	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	16.5	8.3	405	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	---	---	---	---	---	---	---	---	24.5	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	---	---	---	---	21.4	--	191.5	24.3	---	0.213	0.290	---	250	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	43.6	12.2	19.4	5.43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	6.5	8.13	168	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	---	---	---	---	---	---	---	---	22.9	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	---	---	---	---	5.41	--	64.1	17.4	---	0.214	<0.100	---	141	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	18.4	3.31	5.31	1.41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	22.2	8.44	307	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	---	---	---	---	---	---	---	---	3.56	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	---	---	---	---	21.0	--	116.1	45.5	---	0.180	0.229	---	224	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	31.6	10.6	20.3	6.21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	18.3	7.78	449.8	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	---	---	---	---	---	---	---	---	7.55	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	---	---	---	---	24.2	--	156.2	61.5	---	0.152	0.196	---	273	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	49.2	13.7	15.9	6.47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
QC 21.7 C (Magma Avenue)	RESE-1002177	19-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	27.1	7.51	249	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002177	19-Aug-11	---	---	---	---	---	---	---	---	10.6	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002177	19-Aug-11	37.5	7.56	4.55	7.30	3.32	--	64.1	46.8	---	<0.10	0.20	---	220	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002190	28-Nov-11	---	---	---	---	---	---	---	---	---	---	---	---	---	8.0	8.45	279	---	---	
QC 21.7 C (Magma Avenue)	RESE-1002190	28-Nov-11	---	---	---	---	---	---	---	---	9.31	---	---	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002190	28-Nov-11	40.3	8.05	6.28	4.76	4.92	--	130.5	50.3	---	<0.10	0.20	---	186	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1001180	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	15.2	7.5	366	---	---	
QC 22.6 E (Karst Spring)	RESE-1001180	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	0.84	---	---	---	---	---	---	Del Mar
QC 22.6 E (Karst Spring)	RESE-1001180	08-Feb-05	53.1	8.96	9.75	2.15	8.39	--	179.3	27.4	29.6	0.135	0.162	---	254	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	19.4	7.14	570	---	---	
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	84.2	14.6	20	3.07	15.2	---	---	38.2	35.3	---	---	---	---	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	76	13	18.3	2.9	13.9	--	322.1	41.4	---	0.143	0.166	---	359	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	---	---	---	---	---	---	---	---	---	---	---	1.6	---	---	---	---	---	---	TestAmerica
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	---	---	---	---	---	---	---	---	28.2	---	---	---	---	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	---	---	---	---	10.4	--	241.6	31.1	---	0.189	<0.100	---	257	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	54.5	9.26	12.7	2.17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	17.0	7.29	392	---	---	
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	---	---	---	---	---	---	---	---	27.6	---	---	---	---	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	---	---	---	---	<0.200	--	244	31.0	---	<0.100	<0.100	---	267	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	56.1	9.56	13.0	2.21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1001184	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	---	---	10.4	8.3	336	---	---	
QC 27.3 C (Upper QC)	RESE-1001184	08-Feb-05	---	---	---	---	---	---	---	---	---	---	---	2.1	---	---	---	---	---	---	Del Mar
QC 27.3 C (Upper QC)	RESE-1001184	08-Feb-05	81.9	14.1	6.41	3.52	16.8	--	266	24.4	69.7	0.321	0.135	---	295	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1001207	04-May-05	---	---	---	---	---	---	---	---	---	---	---	---	---	20.9	8.4	442	---	---	
QC 27.3 C (Upper QC)	RESE-1001207	04-May-05	---	---	---	---	---	---	---	---	---	---	---	2.1	---	---	---	---	---	---	Del Mar
QC 27.3 C (Upper QC)	RESE-1001207	04-May-05	60.9	17.5	9.44	2.81	21.3	--	159.8	70.7	27.1	0.22	0.125	---	298	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	23.2	*8.69*	444	---	---	
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	43.0	17.2	17.0	7.55	33.6	---	---	13.9	20.6	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	---	---	---	33.7	--	207.4	12.7	---	0.392	0.230	---	210	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	44.9	16.3	16.5	7.16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	14.7	*8.98*	396	---	---	
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	---	---	---	---	---	---	---	---	0.18	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	---	---	---	---	17.9	--	157.4	56.8	---	0.131	0.239	---	230	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	40.6	19.1	9.49	4.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	10.9	8.33	161	---	---	
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	---	---	---	---	---	---	---	---	23.1	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	---	---	---	---	4.32	--	69.5	13.3	---	<0.100	<0.100	---	154	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	67.2	6.46	4.45	2.44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

MONTGOMERY & ASSOCIATES

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]													ROUTINE PARAMETERS					ANALYTICAL LABORATORY
																FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	14.4	7.76	503	---	---	
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	---	---	---	---	---	---	---	---	21.9	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	---	---	---	---	43.0	--	241.6	42.2	---	0.541	0.131	---	321	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	69.6	23.7	13.8	4.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	13.8	*8.53*	267	---	---	
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	---	---	---	---	---	---	---	---	16.4	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	---	---	---	---	13.6	--	137.9	12.1	---	0.183	0.105	---	175	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	35.9	8.44	5.58	3.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002175	19-Aug-11	---	---	---	---	---	---	---	---	---	---	---	---	---	23.7	7.32	261	---	---	
QC 27.3 C (Upper QC)	RESE-1002175	19-Aug-11	---	---	---	---	---	---	---	---	28.5	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002175	19-Aug-11	40.4	8.57	6.43	3.39	3.99	--	164.7	8.62	---	<0.10	0.13	---	193	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002197	01-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	8.0	8.4	287	---	---	
QC 27.3 C (Upper QC)	RESE-1002197	01-Dec-11	---	---	---	---	---	---	---	---	16.4	---	---	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002197	01-Dec-11	42.9	9.19	5.41	2.70	15.6	--	154.9	15.4	---	0.16	<0.10	---	204	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	31.7	*9.67*	168	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	15.1	3.89	8.05	1.58	6.67	---	---	22.1	32.8	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	16.7	4.2	8.71	1.8	6.84	1.7	55.1	22.6	---	<0.100	<0.100	---	150	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	TestAmerica
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	14.8	7.64	1637	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	---	---	---	---	---	---	---	---	29.9	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	---	---	---	---	5.87	--	52.8	27.6	---	<0.100	0.289	---	110	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	<0.30	---	---	---	---	---	---	TestAmerica
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	15.0	3.84	9.07	1.77	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	---	---	---	---	---	---	---	---	26.5	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	---	---	---	---	3.03	--	16.0	15.0	---	<0.100	<0.100	---	110	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	5.66	1.43	4.92	1.09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	15.1	6.78	88.5	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	---	---	---	---	---	---	---	---	26.4	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	---	---	---	---	3.05	--	15.9	15.0	---	<0.100	<0.100	---	112	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	5.86	1.48	5.03	1.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	19.1	*6.15*	137.3	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	---	---	---	---	---	---	---	---	33.1	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	---	---	---	---	5.80	--	40.0	19.0	---	<0.100	0.341	---	106	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	11.3	2.92	6.62	1.47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	---	---	---	---	---	---	---	---	32.3	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	---	---	---	---	5.15	--	39.9	19.1	---	<0.100	0.279	---	104	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	11.6	3.03	6.88	1.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL

TABLE B-1. COMMON CONSTITUENTS AND ROUTINE PARAMETERS FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	COMMON CONSTITUENTS[a] (mg/L)[b]												ROUTINE PARAMETERS					ANALYTICAL LABORATORY
															FIELD			LABORATORY		
			Ca	Mg	Na	K	Cl	CO_3	HCO_3	SO_4	SiO_2	Br	F	$NO_3 + NO_2$ (as N)	TDS	TEMP (°C)[c]	pH	SC (µS/cm)[d]	pH	SC (µS/cm)	
Surface Water																					
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	15.4	6.89	88.6	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	---	---	---	---	---	---	---	---	26.0	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	---	---	---	---	4.40	--	16.8	20.5	---	<0.100	<0.100	---	66	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	9.78	2.50	6.70	1.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	17.1	7.62	115.4	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	---	---	---	---	---	---	---	---	27.7	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	---	---	---	---	5.43	--	38.9	19.6	---	<0.100	0.102	---	85	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	10.6	2.73	8.18	1.91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002202	09-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	4.8	6.99	102.9	---	---	
RR 1.5 C (Rancho Rio)	RESE-1002202	09-Dec-11	---	---	---	---	---	---	---	---	19.3	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002202	09-Dec-11	6.80	1.69	7.35	1.01	5.06	--	22.7	22.6	---	<0.10	0.10	---	89	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002203	09-Dec-11	---	---	---	---	---	---	---	---	---	---	---	---	---	4.8	6.99	102.9	---	---	
RR 1.5 C (Rancho Rio) DUP	RESE-1002203	09-Dec-11	---	---	---	---	---	---	---	---	24.4	---	---	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002203	09-Dec-11	8.81	2.15	9.28	1.25	4.97	--	22.7	22.5	---	<0.10	0.12	---	99	---	---	---	---	---	SVL
SS-1	RESE-1001106	07-Apr-04	---	---	---	---	---	---	---	---	---	---	---	---	---	12.4	7.89	53.4	---	---	
SS-1	RESE-1001106	07-Apr-04	3.57	0.971	4.26	1	1.94	--	3.3	14.1	26	---	<0.10	<0.020	32	---	---	---	*6.39*	56	SVL
U.S EPA National Primary Drinking Water Regulations			---	---	---	---	---	---	---	---	---	---	4.0	10	---	---	---	---	---	---	
U.S EPA National Secondary Drinking Water Regulations			---	---	---	---	250	---	---	250	---	---	2.0	---	500	---	6.5 to 8.5	---	6.5 to 8.5	---	
Arizona Numeric Aquifer Water Quality Standards			---	---	---	---	---	---	---	---	---	---	---	10	---	---	---	---	---	---	

Values in bold red are out of compliance with EPA primary water quality standards

Values in red italics are out of compliance with EPA secondary water quality standards

Values in red underline are out of compliance with Arizona numeric water quality standards

Values in blue indicate that detection limit exceeds standard

--- = Not available, not applicable

-- = Not calculated due to non-detect

* = Value reported as Na+K

Shading indicates dissolved results
Shading indicates total results
Shading indicates total recoverable results
Shading indicates unknown filtration or no filtration method provided for analyses

[a] Ca = Calcium
Mg = Magnesium
Na = Sodium
K = Potassium
Cl = Chloride
CO_3 = Carbonate
HCO_3 = Bicarbonate
SO_4 = Sulfate
SiO_2 = Silica
Br = Bromide
F = Fluoride
NO_3+NO_2 (as N) = Nitrate plus Nitrite, in equivalent milligrams of nitrogen per liter
TDS = Total dissolved solids

[b] mg/L = milligrams per liter

[c] TEMP (°C) = Temperature, in degrees Celsius

[d] SC (µS/cm) = Specific Conductance in microsiemens per centimeter

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Blue Spring	RESE-1001087	26-May-04	---	<0.0030	<0.0030	0.0305	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Blue Spring	RESE-1001087	26-May-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0033	<0.010	0.201	<0.0030	---	<0.00020	0.0086	---	<0.030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Blue Spring	RESE-1001087	26-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0443	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Blue Spring	RESE-1001093	03-Aug-04	---	<0.0030	<0.0030	0.0601	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Blue Spring	RESE-1001093	03-Aug-04	0.041	<0.0030	0.0040	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	*0.993*	<0.0030	---	<0.00020	0.0105	---	<0.0060	<0.00010	<1.0	<0.0020	<0.0050	SVL
Blue Spring	RESE-1001093	03-Aug-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0030	---	---	<0.0030	*0.789*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Blue Spring	RESE-1001185	09-Feb-05	---	<0.00300	<0.00300	0.0261	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Blue Spring	RESE-1001185	09-Feb-05	<0.0300	<0.00300	0.00310	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Blue Spring	RESE-1001185	09-Feb-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0362	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Blue Spring	RESE-1001200	03-May-05	---	<0.00300	<0.00300	0.0348	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Blue Spring	RESE-1001200	03-May-05	<0.0300	<0.00300	<0.00300	---	<0.00200	0.048	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0082	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Blue Spring	RESE-1001200	03-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0346	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Blue Spring	RESE-1001219	03-Aug-05	---	<0.00300	<0.00300	0.0291	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Blue Spring	RESE-1001219	03-Aug-05	<0.030	<0.0030	<0.00300	---	<0.0020	<0.04	<0.00010	---	<0.0060	<0.0100	---	0.243	<0.0030	---	<0.0002	<0.0080	---	<0.0030	<0.00010	<1	<0.00200	<0.0100	SVL
Blue Spring	RESE-1001219	03-Aug-05	---	<0.00300	<0.00300	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	*0.0783*	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Blue Spring	RESE-1002009	19-Aug-08	<0.0141	<0.002	<0.0066	0.0199	<0.00036	---	<0.000034	---	<0.00065	0.000552 j	---	<0.0202	<0.000043	0.0179	<0.000064	0.0029 j	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
Blue Spring	RESE-1002009	19-Aug-08	---	<0.0004	<0.0065	---	<0.00036	0.0291 j	<0.00096	<0.001	---	<0.0039	---	---	<0.000172	0.0399 j	<0.000064	---	<0.0023	<0.0004	<0.00079	---	<0.000072	<0.0019	SVL
Blue Spring DUP	RESE-1002010	19-Aug-08	<0.0141	<0.0001	<0.0066	0.0199	<0.00036	---	<0.000034	---	<0.00065	0.000511 j	---	<0.0202	<0.000043	0.0165	<0.000064	<0.0023	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
Blue Spring DUP	RESE-1002010	19-Aug-08	---	<0.0004	<0.0065	---	<0.00036	0.0264 j	<0.00096	<0.001	---	<0.0039	---	---	0.000184 j,d	*0.178 j*	<0.000064	---	<0.0023	<0.0004	<0.00079	---	<0.000072	<0.0019	SVL
Blue Spring	RESE-1002043	13-Nov-08	<0.080	<0.00300	<0.025	0.0506	<0.00200	---	<0.000200	---	<0.0060	0.00177	---	<0.060	<0.00300	*0.361*	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1002043	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002043	13-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.467*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1002052	12-Feb-09	<0.080	<0.00300	<0.025	0.0215	<0.00200	---	<0.000034	---	<0.0060	0.00417	---	<0.060	<0.000043	0.0274	---	0.0198	0.00135	---	<0.000100	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1002052	12-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002052	12-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0271	---	---	<0.010	0.00028 jd	<0.0050	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1002088	13-May-09	<0.0141	<0.00022	0.009 j	---	<0.00036	---	<0.000024	---	<0.00065	0.000751 j	---	0.0243 j	<0.000053	0.013	---	0.0057 j	0.000839 j	---	<0.000019	---	<0.000023	<0.0019	SVL
Blue Spring	RESE-1002088	13-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002088	13-May-09	---	<0.022	0.0089 j	0.0624	<0.00018	0.0257	<0.00048	0.0029 j	---	0.0099	---	---	0.0568	*1.65*	---	---	0.0022 j	0.0421	<0.00021	---	<0.0023	0.0085	SVL
Blue Spring	RESE-1002118	12-Feb-10	<0.080	<0.00300	<0.025	0.0321	---	---	<0.000024	---	<0.0060	0.00318	---	<0.060	<0.000053	0.0156	---	<0.0080	0.00146	---	<0.000100	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1002118	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002118	12-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0170	---	---	<0.010	0.00034 jd	<0.0050	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1003165	17-Jul-10	<0.20	<0.0030	0.0026	0.020	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.023	<0.00020	0.0010	0.0013	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
Blue Spring	RESE-1003165	17-Jul-10	<0.20	<0.0030	0.0027	0.021	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.14	<0.0010	*0.060*	<0.00020	<0.0010	0.0013	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
Blue Spring	RESE-1002153	08-Nov-10	<0.080	<0.00300	<0.025	0.0221	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000019	0.0138	---	<0.0080	0.00198	---	<0.000100	---	<0.00100	<0.0100	SVL
Blue Spring	RESE-1002153	08-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Blue Spring	RESE-1002153	08-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.349*	---	---	<0.010	0.00065 jd	<0.0050	---	<0.00100	<0.0100	SVL
Bored Spring	RESE-1001088	26-May-04	---	<0.0030	0.0090	0.0102	<0.0020	---	<0.0010	<0.0060	---	0.0221	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Bored Spring	RESE-1001088	26-May-04	0.079	<0.0030	0.0080	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0254	<0.010	0.092	<0.0030	---	<0.00020	0.0132	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Bored Spring	RESE-1001088	26-May-04	---	<0.0030	0.0090	---	<0.0020	---	<0.00010	<0.0060	---	0.0248	---	---	<0.0030	0.0469	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Bored Spring DUP	RESE-1001164	03-Nov-04	---	<0.0030	<0.0030	0.0128	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Bored Spring DUP	RESE-1001164	03-Nov-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.094	<0.0030	---	<0.00020	0.0137	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Bored Spring DUP	RESE-1001164	03-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0179	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Bored Spring	RESE-1001163	03-Nov-04	---	<0.0030	<0.0030	0.0132	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Bored Spring	RESE-1001163	03-Nov-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.099	<0.0030	---	<0.00020	0.0142	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Bored Spring	RESE-1001163	03-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0187	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Bored Spring	RESE-1001188	09-Feb-05	---	<0.00300	<0.00300	0.0115	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	0.0120	SVL
Bored Spring	RESE-1001188	09-Feb-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	0.0110	SVL
Bored Spring	RESE-1001188	09-Feb-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0467	---	---	<0.0100	<0.00300	<0.00010	---	---	0.0110	SVL
Bored Spring	RESE-1001204	03-May-05	---	<0.00300	<0.00300	0.0119	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Bored Spring	RESE-1001204	03-May-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0098	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Bored Spring	RESE-1001204	03-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	*0.0993*	---	---	<0.0100	<0.00300	<0.00010	---	---	0.015	SVL
Bored Spring	RESE-1001221	03-Aug-05	---	<0.00300	<0.00300	0.0129	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Bored Spring	RESE-1001221	03-Aug-05	0.115	<0.0030	<0.00300	---	<0.0020	<0.04	0.00030	---	<0.0060	<0.0100	---	0.214	<0.0030	---	<0.0002	0.0093	---	<0.0030	<0.00010	<1	<0.00200	0.041	SVL
Bored Spring	RESE-1001221	03-Aug-05	---	<0.00300	<0.00300	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	*1.34*	---	---	<0.0100	<0.00300	<0.00010	---	---	0.044	SVL
Bored Spring	RESE-1002044	13-Nov-08	<0.080	<0.00300	<0.025	0.0357	<0.00200	---	<0.000200	---	<0.0060	<0.00100	---	0.077	<0.00300	*0.653*	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Bored Spring	RESE-1002044	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002044	13-Nov-08	---	<0.00300	<0.025	---	<0.00200	0.041	<0.0020	<0.0060	---	0.024	---	---	0.00691	*0.732*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	0.0237	SVL
Bored Spring	RESE-1002051	12-Feb-09	<0.080	<0.00300	<0.025	0.0123	<0.00200	---	<0.000034	---	<0.0060	<0.00100	---	<0.060	0.000086 j	*0.220*	---	0.0217	0.00221	---	<0.000100	---	<0.00100	<0.0100	SVL
Bored Spring	RESE-1002051	12-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002051	12-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.214*	---	---	<0.010	<0.00012	<0.0050	---	<0.00100	<0.0100	SVL
Bored Spring	RESE-1002089	13-May-09	<0.0141	0.00027 j	<0.0066	---	<0.00036	---	<0.000024	---	0.0027 j	0.0018	---	<0.0202	0.000092 j	*0.0523*	---	0.0049 j	0.001 j	---	<0.000019	---	<0.000023	<0.0019	SVL
Bored Spring	RESE-1002089	13-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002089	13-May-09	---	<0.00055	0.0057 j	0.0103	<0.00018	0.0359	<0.00048	0.00064 j	---	<0.002	---	---	0.000154 j,d	*0.07*	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0053	SVL
Bored Spring	RESE-1002119	12-Feb-10	<0.080	<0.00300	<0.025	0.0089	---	---	<0.000024	---	<0.0060	0.00161	---	<0.060	0.000105 j	*0.0516*	---	<0.0080	0.00101	---	<0.000100	---	<0.00100	<0.0100	SVL
Bored Spring	RESE-1002119	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002119	12-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.0782*	---	---	<0.010	0.00032 jd	<0.0050	---	<0.00100	0.0181	SVL
Bored Spring	RESE-1002157	09-Nov-10	<0.080	<0.00300	<0.025	0.0615	---	---	<0.000024	---	<0.0060	0.00304	---	0.166	0.000404 j	*1.34*	---	<0.0080	0.00418	---	<0.000100	---	<0.00100	<0.0100	SVL
Bored Spring	RESE-1002157	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Bored Spring	RESE-1002157	09-Nov-10	---	<0.00300	<0.025	---	<0.00200	0.060	<0.0020	<0.0060	---	0.012	---	---	<0.00300	*1.73*	---	---	<0.010	0.00111 jd	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1001008	22-May-03	---	<0.0060	0.0140	0.0408	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0099	SVL
Boulder Hole	RESE-1001008	22-May-03	<0.020	<0.0060	0.0150	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	0.031	<0.0050	---	<0.00020	0.0130	---	<0.0030	<0.00010	<1.0	---	0.0094	SVL
Boulder Hole	RESE-1001008	22-May-03	---	<0.0060	0.0140	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.0942*	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	0.0104	SVL
Boulder Hole	RESE-1001023	04-Sep-03	---	<0.0030	0.0300	0.0481	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0051	SVL
Boulder Hole	RESE-1001023	04-Sep-03	<0.020	<0.0030	0.0330	---	<0.0020	0.043	<0.00010	---	<0.0060	0.0038	<0.010	0.048	<0.0050	---	<0.00020	0.0097	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001023	04-Sep-03	---	<0.0030	0.0290	---	<0.0020	---	<0.00010	<0.0060	---	0.0034	---	---	<0.0030	*0.124*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Boulder Hole	RESE-1001028	03-Nov-03	---	<0.0030	0.0150	0.0696	<0.0020	---	<0.00010	<0.0060	---	0.0033	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001028	03-Nov-03	<0.020	<0.0030	0.0160	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0051	---	0.046	<0.0050	---	<0.00020	0.0127	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001028	03-Nov-03	---	<0.0030	0.0160	---	<0.0020	---	<0.00010	<0.0060	---	0.0039	---	---	0.0050	*0.0510*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Boulder Hole DUP	RESE-1001055	09-Feb-04	---	<0.00050	0.0089	0.0247	<0.00020	---	<0.00010	<0.00030	---	0.0052	---	---	<0.0010	---	<0.00020	---	0.00300 j	---	<0.00010	---	<0.00040	<0.00020	SVL
Boulder Hole DUP	RESE-1001055	09-Feb-04	0.0126 j	<0.00050	0.0092	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0056	---	<0.0130	<0.0010	---	<0.00020	0.00720 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00026 j	SVL
Boulder Hole DUP	RESE-1001055	09-Feb-04	---	<0.00050	0.0114	---	<0.00020	---	<0.00010	<0.00030	---	0.0073	---	---	<0.0010	0.0055	---	---	<0.00130	<0.00080	<0.00010	---	---	0.00037 j	SVL
Boulder Hole	RESE-1001054	09-Feb-04	---	<0.00050	0.0109	0.0245	<0.00020	---	<0.00010	<0.00030	---	0.0042	---	---	<0.0010	---	<0.00020	---	0.00290 j	---	<0.00010	---	<0.00040	0.00031 j	SVL
Boulder Hole	RESE-1001054	09-Feb-04	0.0110 j	0.00078 j	0.0094	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0066	---	0.0150 j	<0.0010	---	<0.00020	0.00780 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00046 j	SVL
Boulder Hole	RESE-1001054	09-Feb-04	---	<0.00050	0.0128	---	<0.00020	---	<0.00010	<0.00030	---	0.0051	---	---	<0.0010	0.0046	---	---	<0.00130	<0.00080	<0.00010	---	---	0.00041 j	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Boulder Hole	RESE-1001083	24-May-04	---	<0.0030	0.0160	0.0447	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001083	24-May-04	<0.020	<0.0030	0.0174	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0056	<0.010	0.038	<0.0030	---	<0.00020	0.0135	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001083	24-May-04	---	<0.0030	0.0160	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.138*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Boulder Hole DUP	RESE-1001095	03-Aug-04	---	<0.0030	0.0240	0.0731	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Boulder Hole DUP	RESE-1001095	03-Aug-04	<0.020	<0.0030	0.0430	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.065	<0.0030	---	<0.00020	0.0085	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Boulder Hole DUP	RESE-1001095	03-Aug-04	---	<0.0030	0.0430	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.636*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Boulder Hole	RESE-1001094	03-Aug-04	---	<0.0030	0.0340	0.0734	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001094	03-Aug-04	<0.020	<0.0030	0.0400	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.058	<0.0030	---	<0.00020	0.0085	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001094	03-Aug-04	---	<0.0030	0.0390	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.565*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Boulder Hole	RESE-1001165	03-Nov-04	---	<0.0030	0.0260	0.0706	<0.0020	---	<0.00010	<0.0060	---	0.0071	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001165	03-Nov-04	<0.020	<0.0030	0.0280	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0080	---	0.036	<0.0030	---	<0.00020	0.0115	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Boulder Hole	RESE-1001165	03-Nov-04	---	<0.0030	0.0290	---	<0.0020	---	<0.00010	<0.0060	---	0.0078	---	---	<0.0030	*0.0508*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Boulder Hole	RESE-1001181	08-Feb-05	---	<0.00300	0.0190	0.0130	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Boulder Hole	RESE-1001181	08-Feb-05	<0.0300	<0.00300	0.0171	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Boulder Hole	RESE-1001181	08-Feb-05	---	<0.00300	0.0175	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Boulder Hole	RESE-1001205	04-May-05	---	<0.00300	0.0176	0.0364	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Boulder Hole	RESE-1001205	04-May-05	<0.0300	<0.00300	0.0171	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Boulder Hole	RESE-1001205	04-May-05	---	<0.00300	0.0173	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	*0.194*	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Boulder Hole	RESE-1002006	06-Aug-08	<0.080	<0.00300	0.029	0.0540	<0.00200	---	<0.000200	---	<0.0060	0.00243	---	<0.060	<0.00300	*0.0947*	<0.00020	0.0493	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002006	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002006	06-Aug-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.148*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002031	06-Nov-08	<0.080	<0.00300	0.026	0.0563	<0.00200	---	<0.000200	---	<0.0060	0.00189	---	<0.060	<0.00300	*0.244*	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002031	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002031	06-Nov-08	---	<0.00300	0.040	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.335*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002060	19-Feb-09	<0.080	<0.00300	<0.025	0.0132	<0.00200	---	<0.000034	---	<0.0060	0.0150	---	<0.060	0.000206 j	0.0082	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002060	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002060	19-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.019	---	---	<0.00300	0.0104	---	---	<0.010	<0.00012	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002082	07-May-09	<0.080	<0.00300	0.031	0.0457	<0.00200	---	<0.000024	---	<0.0060	0.00216	---	<0.060	<0.000053	*0.110*	---	<0.0080	0.00120	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002082	07-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002082	07-May-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.122*	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002120	13-Feb-10	<0.080	<0.00300	<0.025	0.0131	---	---	<0.000024	---	<0.0060	0.00638	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002120	13-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002120	13-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00031 jd	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002140	01-Nov-10	<0.080	<0.00300	<0.025	0.0752	---	---	<0.000024	---	<0.0060	0.00407	---	<0.060	0.00003 j	0.0318	---	0.0102	0.00369	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002140	01-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002140	01-Nov-10	---	<0.00300	0.025	---	<0.00200	0.042	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0401	---	---	<0.010	0.00059 jd	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002167	16-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	<0.00100	---	0.099	0.000049 j	*2.32*	---	<0.008	0.00123	---	<0.000100	---	<0.00100	<0.0100	SVL
Boulder Hole	RESE-1002167	16-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Boulder Hole	RESE-1002167	16-May-11	---	<0.00300	0.034	0.0531	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*2.49*	---	---	<0.010	0.00051 jd	<0.0050	---	<0.00100	<0.0100	SVL
Boulder Hole SP	RESE-1002167	16-May-11	<0.20	<0.015	0.027	0.049	<0.0010	<0.20	<0.0050	<0.0050	<0.0050	<0.0050	---	0.18	<0.0050	*2.6*	<0.00020	<0.0050	<0.0050	<0.010	<0.0050	---	<0.0050	<0.050	TestAmerica
Boulder Hole SP	RESE-1002167	16-May-11	<0.20	<0.015	0.029	0.053	<0.0010	<0.20	<0.0050	<0.0050	<0.0050	<0.0050	<0.0080	*0.61*	<0.0050	*2.7*	<0.00020	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.050	TestAmerica

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 10.9 C	RESE-1001004	16-May-03	---	<0.0060	<0.0030	0.0128	<0.0020	<0.040	<0.00010	---	---	0.0061	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001004	16-May-03	0.182	<0.0060	<0.0030	---	<0.0020	---	<0.00010	---	<0.0060	0.0089	<0.10	0.198	<0.0050	---	<0.00020	<0.0080	---	<0.0030	0.00010	<1.0	---	<0.0050	SVL
DC 10.9 C	RESE-1001004	16-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0086	---	---	<0.0030	0.0224	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001020	27-Aug-03	---	<0.0060	0.0110	0.0358	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0055	SVL
DC 10.9 C	RESE-1001020	27-Aug-03	0.040	<0.0060	0.0130	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	*8.26*	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001020	27-Aug-03	---	<0.0060	0.0130	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.826*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 10.9 C	RESE-1001036	05-Nov-03	---	<0.0030	<0.0030	0.0109	<0.0020	---	<0.00010	<0.0060	---	0.0063	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001036	05-Nov-03	0.199	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0090	---	*0.679*	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001036	05-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0089	---	---	<0.0030	*0.0596*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 10.9 C	RESE-1001060	11-Feb-04	---	<0.00050	<0.00060	0.0089	<0.00020	---	<0.00010	<0.00030	---	0.0045	---	---	<0.0010	---	<0.00020	---	0.00390 j	---	<0.00010	---	<0.00040	0.0012 j	SVL
DC 10.9 C	RESE-1001060	11-Feb-04	*0.499*	<0.00050	0.00100 j	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0078	---	0.22	<0.0010	---	<0.00020	0.00240 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.0014 j	SVL
DC 10.9 C	RESE-1001060	11-Feb-04	---	<0.00050	<0.00060	---	<0.00020	---	<0.00010	0.00043 j	---	0.0074	---	---	<0.0010	0.0092	---	---	0.00240 j	<0.00080	<0.00010	---	---	0.00290 j	SVL
DC 10.9 C	RESE-1001091	27-May-04	---	<0.0030	<0.0030	0.0107	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001091	27-May-04	0.192	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0088	<0.010	*0.696*	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001091	27-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0061	---	---	<0.0030	*0.0769*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 10.9 C	RESE-1001099	11-Aug-04	---	<0.0030	0.0140	0.0172	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001099	11-Aug-04	0.123	<0.0030	0.0130	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	*5.45*	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001099	11-Aug-04	---	<0.0030	0.0140	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.532*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 10.9 C	RESE-1001169	05-Nov-04	---	<0.0030	<0.0030	0.0248	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001169	05-Nov-04	0.048	<0.0030	0.0040	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	*4.41*	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 10.9 C	RESE-1001169	05-Nov-04	---	<0.0030	0.0040	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.229*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 10.9 C	RESE-1001189	15-Feb-05	---	<0.00300	0.00350	0.0110	<0.00200	---	<0.00020	<0.00600	---	0.0150	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 10.9 C	RESE-1001189	15-Feb-05	*1.15*	<0.00300	0.00360	---	<0.00200	<0.0400	<0.00020	---	<0.00600	0.0170	---	*0.553*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 10.9 C	RESE-1001189	15-Feb-05	---	<0.00300	0.00350	---	<0.00200	---	<0.00020	<0.00600	---	0.0170	---	---	<0.00300	0.00990	---	---	<0.0100	<0.00300	0.00031	---	---	<0.0100	SVL
DC 10.9 C	RESE-1001208	09-May-05	---	<0.00300	<0.00300	0.0118	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 10.9 C	RESE-1001208	09-May-05	*0.275*	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	*0.436*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 10.9 C	RESE-1001208	09-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0424	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 10.9 C	RESE-1001224	10-Aug-05	---	<0.00300	0.0053	0.0250	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 10.9 C	RESE-1001224	10-Aug-05	*0.407*	<0.00300	0.00760	---	<0.0020	<0.04	0.00100 j	---	<0.0060	<0.017	---	*1.42*	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1	<0.00200	<0.0100	SVL
DC 10.9 C	RESE-1001224	10-Aug-05	---	<0.00300	0.0073	---	<0.0020	---	<0.00020	<0.0060	---	<0.017	---	---	<0.00300	*0.225*	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 13.5 C DUP	RESE-1001012	30-May-03	---	<0.0030	0.0050	0.0135	<0.0020	<0.040	<0.00010	---	---	0.0046 j-	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 13.5 C DUP	RESE-1001012	30-May-03	0.044	<0.0030	0.0060 j	---	<0.0020	---	<0.00010	---	<0.0060	0.0087	<0.10	0.223	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
DC 13.5 C DUP	RESE-1001012	30-May-03	---	<0.0030	0.0060	---	<0.0020	---	<0.00010	<0.0060	---	0.0077	---	---	<0.0030	*0.0776*	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001011	30-May-03	---	<0.0030	0.0050	0.0135	<0.0020	<0.040	<0.00010	---	---	0.0047 j-	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001011	30-May-03	0.035	<0.0030	0.0060 j	---	<0.0020	---	<0.00010	---	<0.0060	0.0085	<0.10	0.217	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
DC 13.5 C	RESE-1001011	30-May-03	---	<0.0030	0.0060	---	<0.0020	---	<0.00010	<0.0060	---	0.0076	---	---	<0.0030	*0.0804*	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001021	27-Aug-03	---	<0.0060	0.0110	0.0176	<0.0020	---	<0.00010	<0.0060	---	0.0203	---	---	<0.0030	---	<0.00020	---	<0.010	---	0.00010	---	<0.0020	0.0091	SVL
DC 13.5 C	RESE-1001021	27-Aug-03	0.123	<0.0060	0.0130	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0248	<0.010	0.144	<0.0050	---	<0.00020	<0.0080	---	<0.0030	0.00010	<1.0	<0.0020	0.0126	SVL
DC 13.5 C	RESE-1001021	27-Aug-03	---	<0.0060	0.0110	---	<0.0020	---	<0.00010	<0.0060	---	0.0252	---	---	<0.0030	*0.113*	---	---	<0.010	<0.0030	0.00010	---	---	0.0138	SVL
DC 13.5 C	RESE-1001037	05-Nov-03	---	<0.0030	<0.0030	0.0076	<0.0020	---	<0.00010	<0.0060	---	0.0054	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001037	05-Nov-03	0.086	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0055	---	0.273	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001037	05-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0064	---	---	<0.0030	0.0211	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 13.5 C	RESE-1001059	11-Feb-04	---	<0.00050	0.00069 j	0.0101	<0.00020	---	<0.00010	<0.00030	---	0.0041	---	---	<0.0010	---	<0.00020	---	0.00480 j	---	<0.00010	---	<0.00040	0.00091 j	SVL
DC 13.5 C	RESE-1001059	11-Feb-04	*0.482*	<0.00050	0.00065 j	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0061	---	*0.309*	<0.0010	---	<0.00020	0.00180 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00120 j	SVL
DC 13.5 C	RESE-1001059	11-Feb-04	---	<0.00050	0.00083 j	---	<0.00020	---	<0.00010	<0.00030	---	0.0059	---	---	<0.0010	0.0198	---	---	0.00150 j	<0.00080	<0.00010	---	---	0.00160 j	SVL
DC 13.5 C	RESE-1001086	26-May-04	---	<0.0030	<0.0030	0.0119	<0.0020	---	0.00100	<0.0060	---	0.0036	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001086	26-May-04	0.053	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0067	<0.010	*0.308*	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 13.5 C	RESE-1001086	26-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0045	---	---	<0.0030	*0.0749*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 13.5 C	RESE-1001190	15-Feb-05	---	<0.00300	0.00320	0.0121	<0.00200	---	<0.00020	<0.00600	---	0.0150	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 13.5 C	RESE-1001190	15-Feb-05	*1.43*	<0.00300	0.00330	---	<0.00200	<0.0400	<0.00020	---	<0.00600	0.0170	---	*0.697*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 13.5 C	RESE-1001190	15-Feb-05	---	<0.00300	0.00330	---	<0.00200	---	<0.00020	<0.00600	---	0.0160	---	---	<0.00300	0.00900	---	---	<0.0100	<0.00300	0.00013	---	---	<0.0100	SVL
DC 13.5 C	RESE-1001209	09-May-05	---	<0.00300	<0.00300	0.0153	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 13.5 C	RESE-1001209	09-May-05	0.072	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	0.209	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 13.5 C	RESE-1001209	09-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	*0.0607*	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 13.5 C	RESE-1001225	10-Aug-05	---	<0.00300	0.0084	0.0158	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 13.5 C	RESE-1001225	10-Aug-05	0.154	<0.00300	0.00880	---	<0.0020	<0.04	0.00020 j	---	<0.0060	<0.013	---	0.211	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1	<0.00200	<0.0100	SVL
DC 13.5 C	RESE-1001225	10-Aug-05	---	<0.00300	0.0078	---	<0.0020	---	<0.00020	<0.0060	---	<0.013	---	---	<0.00300	*0.142*	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 13.5 C	RESE-1002014	21-Aug-08	<0.0141	0.00021 j	<0.0066	0.02	<0.00036	---	<0.000034	---	<0.00065	0.0023	---	*0.471*	0.000106 j	*0.0756*	<0.000064	<0.0023	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
DC 13.5 C	RESE-1002014	21-Aug-08	---	<0.0004	<0.0065	---	<0.00036	0.0188 j	<0.00096	<0.001	---	<0.0039	---	---	0.000441 j,d	*0.219*	<0.000064	---	<0.0023	<0.005	<0.00079	---	<0.000072	0.0031 j	SVL
DC 13.5 C	RESE-1002033	12-Nov-08	<0.080	<0.00300	<0.025	0.0111	<0.00200	---	<0.000200	---	<0.0060	0.00190	---	*0.489*	<0.00300	0.0496	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002033	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002033	12-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.236*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 13.5 C DUP	RESE-1002034	12-Nov-08	<0.080	<0.00300	<0.025	0.0110	<0.00200	---	<0.000200	---	<0.0060	0.00194	---	*0.502*	<0.00300	0.0493	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 13.5 C DUP	RESE-1002034	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 13.5 C DUP	RESE-1002034	12-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.260*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002057	19-Feb-09	0.189	<0.00300	<0.025	0.0106	<0.00200	---	<0.000034	---	<0.0060	0.0107	---	0.103	0.000335 j	0.0057	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002057	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002057	19-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.013	---	---	<0.00300	0.0078	---	---	<0.010	0.00021 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002103	21-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00209	---	*0.446*	0.000130 j	*0.135*	---	<0.0080	0.00390	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002103	21-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002103	21-May-09	---	<0.00300	<0.025	0.0150	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.160*	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002142	02-Nov-10	<0.080	<0.00300	<0.025	0.0064	---	---	<0.000024	---	<0.0060	0.00172	---	*0.937*	0.000085 j	*0.113*	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 13.5 C	RESE-1002142	02-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 13.5 C	RESE-1002142	02-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.139*	---	---	<0.010	0.00034 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 14.7 C /US 60 Bridge	RESE-1001069	05-Mar-04	---	<0.0030	<0.0060	0.0172	<0.0020	---	<0.00020	<0.0060	---	0.0161	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 14.7 C /US 60 Bridge	RESE-1001069	05-Mar-04	*2.53*	<0.0030	0.0050	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0290	---	*1.65*	0.0030	---	<0.00020	<0.0080	---	<0.0030	0.00010	<1.0	<0.0020	0.0100	SVL
DC 14.7 C /US 60 Bridge	RESE-1001069	05-Mar-04	---	<0.0030	0.0050	---	<0.0020	---	<0.00010	<0.0060	---	0.0251	---	---	0.0030	*0.0849*	---	---	<0.010	<0.0030	<0.00010	---	---	0.0093	SVL
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	*0.247*	0.00052 j	0.0081 j	0.0193	<0.00036	---	<0.000034	---	<0.00065	0.0279	---	0.137	0.000207 j	0.0132	---	<0.0023	<0.0023	---	0.000027 j	---	<0.000018	<0.0019	SVL
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	---	0.00072 j	0.0071 j	---	0.00047 j	0.0234 j	<0.00096	0.0023 j	---	0.0882	---	---	0.0099	*0.16*	---	---	<0.0023	0.00047 j	<0.00079	---	0.000054 j	0.0197	SVL
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	0.172	<0.00300	<0.025	0.0087	---	---	<0.000024	---	<0.0060	0.00625	---	<0.060	0.000115 j	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 14.7 C /US 60 Bridge	RESE-1002127	17-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 15.2 C	RESE-1001191	15-Feb-05	---	<0.00300	<0.00300	0.0126	<0.00200	---	<0.00020	<0.00600	---	0.0150	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 15.2 C	RESE-1001191	15-Feb-05	*0.714*	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	0.0170	---	*0.376*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 15.2 C	RESE-1001191	15-Feb-05	---	<0.00300	0.00320	---	<0.00200	---	<0.00020	<0.00600	---	0.0160	---	---	<0.00300	0.0105	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 15.2 C	RESE-1001210	09-May-05	---	<0.00300	<0.00300	0.0248	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 15.2 C	RESE-1001210	09-May-05	0.044	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 15.2 C	RESE-1001210	09-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0059	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 15.2 C	RESE-1001226	10-Aug-05	---	<0.00300	<0.00300	0.0539	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	0.010	SVL
DC 15.2 C	RESE-1001226	10-Aug-05	*0.533*	<0.00300	0.00370	---	<0.0020	<0.04	0.00200 j	---	<0.0060	<0.011	---	*0.466*	<0.00300	---	<0.0002	<0.0083	---	<0.00300	<0.00010	<1	<0.00200	0.016	SVL
DC 15.2 C	RESE-1001226	10-Aug-05	---	<0.00300	<0.00300	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	*0.103*	---	---	<0.0100	<0.00300	<0.00010	---	---	0.016	SVL
DC 15.5 C	RESE-1002003	05-Aug-08	<0.080	<0.00300	<0.025	0.0045	<0.00200	---	<0.000200	---	<0.0060	0.00871	---	<0.060	<0.00300	0.0253	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002003	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002003	05-Aug-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.0697*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002032	12-Nov-08	<0.080	<0.00300	<0.025	<0.0020	<0.00200	---	<0.000200	---	<0.0060	0.00375	---	<0.060	<0.00300	0.0137	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002032	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002032	12-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0230	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002069	26-Feb-09	*0.272*	<0.00300	<0.025	0.0045	<0.00200	---	<0.000042	---	<0.0060	0.00652	---	0.090	0.000199 j	0.0046	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002069	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002069	26-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00041	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002075	05-May-09	*0.249*	<0.00300	<0.025	0.0062	<0.00200	---	<0.000024	---	<0.0060	0.00453	---	0.102	0.000271 j	0.0095	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002075	05-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002075	05-May-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0092	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002152	08-Nov-10	0.144	<0.00300	<0.025	0.0049	---	---	<0.000024	---	<0.0060	0.00472	---	0.280	0.000267 j	0.0383	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002152	08-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 15.5 C	RESE-1002152	08-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.011	---	---	<0.00300	0.0438	---	---	<0.010	0.00092 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002179	22-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00494	---	<0.060	<0.000042	0.0053	---	<0.008	0.00109	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002179	22-Aug-11	---	<0.00300	<0.025	0.0048	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.137*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002191	29-Nov-11	0.098	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00335	---	<0.060	0.000128	0.0126	---	<0.008	0.00103	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C	RESE-1002191	29-Nov-11	---	<0.00300	<0.025	0.0056	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0123	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 15.5 C DUP	RESE-1002192	29-Nov-11	0.097	<0.00300	<0.025	---	---	---	0.00003	---	<0.0060	0.00365	---	<0.060	0.000346	0.0119	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 15.5 C DUP	RESE-1002192	29-Nov-11	---	<0.00300	<0.025	0.0055	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0125	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 4.1 E	RESE-1001007	21-May-03	---	<0.0060	<0.0030	0.0126	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0096	SVL
DC 4.1 E	RESE-1001007	21-May-03	<0.020	<0.0060	<0.0030	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	<0.020	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	---	0.0215	SVL
DC 4.1 E	RESE-1001007	21-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	0.0224	SVL
DC 4.1 E	RESE-1001019	26-Aug-03	---	<0.0060	<0.0030	0.0132	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 4.1 E	RESE-1001019	26-Aug-03	<0.020	<0.0060	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	<0.020	<0.0050	---	<0.00020	0.0081	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 4.1 E	RESE-1001019	26-Aug-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 4.1 E	RESE-1001040	11-Nov-03	---	<0.0030	<0.0030	0.0139	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 4.1 E	RESE-1001040	11-Nov-03	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 4.1 E	RESE-1001040	11-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 4.1 E	RESE-1001058	10-Feb-04	---	<0.00050	0.00120 j	0.0128	<0.00020	---	<0.00010	0.00033 j	---	<0.00210	---	---	<0.0010	---	<0.00020	---	0.00390 j	---	<0.00010	---	<0.00040	0.0007 j	SVL
DC 4.1 E	RESE-1001058	10-Feb-04	0.0082 j	<0.00050	0.00180 j	---	<0.00020	<0.0070	<0.00010	---	<0.00070	<0.00210	---	<0.0130	<0.0010	---	<0.00020	0.00490 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00140 j	SVL
DC 4.1 E	RESE-1001058	10-Feb-04	---	<0.00050	0.00110 j	---	<0.00020	---	<0.00010	0.00040 j	---	<0.00210	---	---	<0.0010	<0.0010	---	---	<0.00130	<0.00080	<0.00010	---	---	0.00180 j	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 5.5 C	RESE-1001039	10-Nov-03	---	<0.0030	0.0040	0.0405	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 5.5 C	RESE-1001039	10-Nov-03	<0.020	<0.0030	0.0040	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.043	<0.0050	---	<0.00020	0.0083	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 5.5 C	RESE-1001039	10-Nov-03	---	<0.0030	0.0040	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0130	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 5.5 C	RESE-1001067	25-Feb-04	---	<0.00030	0.00310	0.0170	<0.00020	---	<0.00010	<0.00030	---	0.0022 j	---	---	<0.0010	---	<0.00020	---	0.0042 j	---	<0.00010	---	<0.00040	<0.00020	SVL
DC 5.5 C	RESE-1001067	25-Feb-04	0.0281	<0.00030	0.00410	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0029 j	---	0.0256	<0.0010	---	<0.00020	0.0025 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.003 j	SVL
DC 5.5 C	RESE-1001067	25-Feb-04	---	<0.00030	0.00310	---	<0.00020	---	<0.00010	<0.00030	---	<0.00210	---	---	<0.0010	0.0016 j	---	---	<0.00130	<0.00080	<0.00010	---	---	<0.00020	SVL
DC 5.5 C	RESE-1001076	20-May-04	---	<0.0030	0.0040	0.0256	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 5.5 C	RESE-1001076	20-May-04	<0.020	<0.0030	0.0050	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.077	<0.0030	---	<0.00020	<0.0080	---	<0.0030	0.00010	<1.0	<0.0020	<0.0050	SVL
DC 5.5 C	RESE-1001076	20-May-04	---	<0.0030	0.0040	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0465	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 5.5 C	RESE-1001158	23-Aug-04	---	<0.0030	0.0050	0.0539	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0086	SVL
DC 5.5 C	RESE-1001158	23-Aug-04	<0.020	<0.0030	0.0060	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0059	---	0.057	<0.0030	---	<0.00020	0.0091	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 5.5 C	RESE-1001158	23-Aug-04	---	<0.0030	0.0060	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0257	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 5.5 C	RESE-1001176	18-Nov-04	---	<0.0030	<0.0030	0.0270	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.010	SVL
DC 5.5 C	RESE-1001176	18-Nov-04	<0.030	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.010	---	<0.060	<0.0030	---	<0.00033	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.010	SVL
DC 5.5 C	RESE-1001176	18-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	0.0056	---	---	<0.010	<0.0030	<0.00010	---	---	<0.010	SVL
DC 5.5 C	RESE-1001198	28-Feb-05	---	<0.00300	0.00320	0.0127	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 5.5 C	RESE-1001198	28-Feb-05	*0.658*	<0.00300	0.00340	---	<0.00200	<0.0400	<0.00020	---	<0.00600	0.0100	---	*0.328*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 5.5 C	RESE-1001198	28-Feb-05	---	<0.00300	0.00320	---	<0.00200	---	<0.00020	<0.00600	---	0.0110	---	---	<0.00300	0.00460	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 5.5 C	RESE-1001216	24-May-05	---	<0.00300	0.0053	0.0253	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 5.5 C	RESE-1001216	24-May-05	<0.0300	<0.00300	0.0050	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	0.088	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 5.5 C	RESE-1001216	24-May-05	---	<0.00300	0.0052	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0466	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 5.5 C	RESE-1001229	23-Aug-05	---	<0.00300	0.0060	0.0229	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 5.5 C	RESE-1001229	23-Aug-05	0.037	<0.00300	0.00610	---	<0.0020	<0.04	<0.00010	---	<0.0060	<0.0100	---	0.106	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1	<0.00200	<0.0100	SVL
DC 5.5 C	RESE-1001229	23-Aug-05	---	<0.00300	0.0056	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	0.0445	---	---	<0.0100	<0.00300	<0.00010	---	---	0.020	SVL
DC 5.5 C	RESE-1002180	26-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00125	---	<0.060	<0.000042	*0.252*	---	<0.008	0.00168	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 5.5 C	RESE-1002180	26-Aug-11	---	<0.00300	<0.025	0.0544	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.276*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	---	<0.0030	<0.0030	0.0181	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	<0.020	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001159	23-Aug-04	---	<0.0030	<0.0030	0.0183	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001159	23-Aug-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001159	23-Aug-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001177	18-Nov-04	---	<0.0030	<0.0030	0.0181	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.010	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001177	18-Nov-04	<0.030	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.010	---	<0.060	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.010	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001177	18-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	<0.0040	---	---	<0.010	<0.0030	<0.00010	---	---	<0.010	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001199	28-Feb-05	---	<0.00300	<0.00300	0.0231	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001199	28-Feb-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001199	28-Feb-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001217	24-May-05	---	<0.00300	<0.00300	0.0195	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001217	24-May-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001217	24-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 6.1 E (Lower Crater Tanks)	RESE-1001230	23-Aug-05	---	<0.00300	<0.00300	0.0185	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001230	23-Aug-05	<0.030	<0.00300	<0.00300	---	<0.0020	<0.04	<0.00010	---	<0.0060	<0.0100	---	<0.060	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1	<0.00200	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1001230	23-Aug-05	---	<0.00300	<0.00300	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	<0.0040	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	<0.080	<0.00300	<0.025	0.0172	<0.00200	---	<0.000200	---	<0.0060	<0.00100	---	<0.060	<0.00300	<0.0040	<0.00020	0.0289	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	<0.080	<0.00300	<0.025	0.0176	<0.00200	---	<0.000200	---	<0.0060	<0.0010	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002036	06-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	<0.080	<0.00300	<0.025	0.0171	<0.00200	---	<0.000042	---	<0.0060	<0.00100	---	<0.060	<0.000017	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00041	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	---	<0.00300	<0.025	0.0172	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	<0.080	<0.00300	<0.025	0.0228	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002135	19-Mar-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00033 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks) DUP	RESE-1002136	19-Mar-10	<0.080	<0.00300	<0.025	0.0228	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks) DUP	RESE-1002136	19-Mar-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks) DUP	RESE-1002136	19-Mar-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	<0.080	<0.00300	<0.025	0.0191	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000019	<0.0040	---	<0.0080	0.00107	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002138	19-Oct-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00068 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	<0.0172	<0.0001	<0.0066	0.0303	---	---	<0.000036	---	<0.00095	0.0014	---	0.032 j	<0.00002	0.0104	---	0.0058 j	<0.00013	---	<0.000012	---	<0.000018	<0.0019	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.000065	---	---	---	---	---	---	---	SVL
DC 6.1 E (Lower Crater Tanks)	RESE-1002161	10-Nov-10	---	<0.00012	<0.0032	---	<0.00024	0.01 j	<0.00025	<0.00043	---	0.00 j	---	---	<0.003	0.0114	---	---	<0.0015	<0.0038	<0.0007	---	<0.000022	<0.01	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	<0.0141	<0.0001	<0.0066	0.0292	<0.00036	---	<0.000034	---	<0.00065	0.0022	---	<0.0202	<0.000043	<0.0013	<0.000064	<0.0023	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	---	<0.0004	<0.0065	---	<0.00036	0.0258 j	<0.00096	<0.001	---	<0.0039	---	---	<0.000172	0.0062 j	<0.000064	---	<0.0023	<0.0004	<0.00079	---	<0.000072	<0.0019	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	<0.080	<0.00300	<0.025	0.0249	<0.00200	---	<0.000200	---	<0.0060	0.00127	---	<0.060	<0.00300	0.0049	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	0.0046	<0.0060	---	<0.010	---	---	<0.00300	0.0184	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	0.165	<0.00300	<0.025	0.0112	<0.00200	---	<0.000034	---	<0.0060	0.0117	---	0.097	0.000298 j	0.0105	---	<0.0080	0.00120	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.013	---	---	<0.00300	0.0097	---	---	<0.010	0.00016 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	<0.080	<0.00300	<0.025	0.0242	<0.00200	---	<0.000024	---	<0.0060	0.00134	---	<0.060	<0.000053	0.0090	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0079	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002196	30-Nov-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00161	---	<0.060	<0.000042	<0.0040	---	<0.008	0.00178	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 6.14 C (Upper Crater Tank)	RESE-1002196	30-Nov-11	---	<0.00300	<0.025	0.0316	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 6.6 W	RESE-1001010	29-May-03	---	<0.0030	0.0040	0.0238	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001010	29-May-03	0.052	<0.0030	0.0040 j	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	0.061	<0.0050	---	<0.00020	<0.0080	---	<0.0060	<0.00010	<1.0	---	<0.0050	SVL
DC 6.6 W	RESE-1001010	29-May-03	---	<0.0030	0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0086	---	---	<0.010	<0.0060	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001022	03-Sep-03	---	<0.0030	<0.0030	0.0324	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001022	03-Sep-03	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.264	<0.0050	---	<0.00020	0.0088	---	<0.0150	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001022	03-Sep-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.323*	---	---	<0.010	<0.0150	<0.00010	---	---	<0.0050	SVL
DC 6.6 W	RESE-1001033	04-Nov-03	---	<0.0030	0.0040	0.0361	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001033	04-Nov-03	<0.020	<0.0030	0.0060	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	*0.433*	<0.0050	---	<0.00020	0.0100	---	<0.0060	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001033	04-Nov-03	---	<0.0030	0.0050	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.415*	---	---	<0.010	<0.0150	<0.00010	---	---	<0.0050	SVL
DC 6.6 W	RESE-1001064	18-Feb-04	---	<0.00030	0.0056	0.0231	<0.00020	---	<0.00010	<0.00030	---	<0.00210	---	---	<0.0010	---	<0.00020	---	0.005 j	---	<0.00010	---	<0.00040	0.00051 j	SVL
DC 6.6 W	RESE-1001064	18-Feb-04	0.02	0.00034 j	0.004	---	<0.00020	<0.0070	<0.00010	---	<0.00070	<0.00210	---	0.128	<0.0010	---	<0.00020	0.0054 j	---	<0.00080	<0.00010	<1.0	<0.00040	<0.00020	SVL
DC 6.6 W	RESE-1001064	18-Feb-04	---	<0.00030	0.0043	---	<0.00020	---	<0.00010	<0.00030	---	<0.00210	---	---	<0.0010	*0.0809*	---	---	0.0021 j	<0.00080	<0.00010	---	---	<0.00020	SVL
DC 6.6 W	RESE-1001074	05-May-04	---	<0.0030	<0.0030	0.0303	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001074	05-May-04	0.025	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.277	<0.0030	---	<0.00020	<0.0080	---	<0.0060	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001074	05-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.110*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 6.6 W	RESE-1001155	19-Aug-04	---	<0.0030	0.0040	0.0257	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0075	SVL
DC 6.6 W	RESE-1001155	19-Aug-04	<0.020	<0.0030	0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.088	<0.0030	---	<0.00020	<0.0080	---	<0.0060	<0.00010	<1.0	<0.0020	0.0084	SVL
DC 6.6 W	RESE-1001155	19-Aug-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0201	---	---	<0.010	<0.0150	<0.00010	---	---	0.0088	SVL
DC 6.6 W	RESE-1001170	12-Nov-04	---	<0.0030	<0.0030	0.0255	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 6.6 W	RESE-1001170	12-Nov-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.134	<0.0030	---	<0.00020	<0.0080	---	<0.0150	<0.00010	<1.0	<0.0020	0.0060	SVL
DC 6.6 W	RESE-1001170	12-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.0696*	---	---	<0.010	<0.0150	<0.00010	---	---	<0.0050	SVL
DC 6.6 W	RESE-1001192	16-Feb-05	---	<0.00300	<0.00300	0.0169	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 6.6 W	RESE-1001192	16-Feb-05	*0.325*	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	0.146	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 6.6 W	RESE-1001192	16-Feb-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 6.6 W	RESE-1001214	17-May-05	---	<0.00300	0.0048	0.0253	<0.00200	---	<0.00020	<0.00600	---	0.011	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 6.6 W	RESE-1001214	17-May-05	0.041	<0.00300	0.0050	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	*0.403*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	0.017	SVL
DC 6.6 W	RESE-1001214	17-May-05	---	<0.00300	0.0049	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	*0.152*	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 6.6 W	RESE-1001232	07-Sep-05	---	<0.00300	0.0048	0.0306	<0.0020	---	<0.00008	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 6.6 W	RESE-1001232	07-Sep-05	0.072	<0.00300	0.00460	---	<0.0020	<0.04	<0.00010	---	<0.0060	<0.0100	---	0.090	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1.0	<0.00200	<0.0100	SVL
DC 6.6 W	RESE-1001232	07-Sep-05	---	<0.00300	0.0042	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	0.0185	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 7.1 C	RESE-1001009	29-May-03	---	<0.0030	0.0080 j	0.0246	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001009	29-May-03	<0.020	<0.0030	0.0090 j	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	0.206	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
DC 7.1 C	RESE-1001009	29-May-03	---	<0.0030	0.0090	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.137*	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001034	04-Nov-03	---	<0.0030	0.0050	0.0286	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001034	04-Nov-03	<0.020	<0.0030	0.0060	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.079	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001034	04-Nov-03	---	<0.0030	0.0050	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0416	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 7.1 C	RESE-1001065	18-Feb-04	---	<0.00030	0.0035	0.0159	<0.00020	---	<0.00010	<0.00030	---	<0.00210	---	---	<0.0010	---	<0.00020	---	0.0048 j	---	<0.00010	---	<0.00040	<0.00020	SVL
DC 7.1 C	RESE-1001065	18-Feb-04	0.0534	<0.00030	0.003 j	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0029 j	---	0.0786	<0.0010	---	<0.00020	0.0045 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00042 j	SVL
DC 7.1 C	RESE-1001065	18-Feb-04	---	<0.00030	0.0036	---	<0.00020	---	0.00017	<0.00030	---	<0.00210	---	---	<0.0010	0.0076	---	---	0.0026 j	<0.00080	<0.00010	---	---	0.00099 j	SVL
DC 7.1 C	RESE-1001075	05-May-04	---	<0.0030	<0.0030	0.0196	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001075	05-May-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0057	<0.010	0.088	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001075	05-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0041	---	---	<0.0030	0.0184	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 7.1 C	RESE-1001156	19-Aug-04	---	<0.0030	<0.0030	0.0429	<0.0020	---	<0.00010	<0.0060	---	0.0061	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001156	19-Aug-04	<0.020	<0.0030	0.0050	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0096	---	0.042	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001156	19-Aug-04	---	<0.0030	0.0040	---	<0.0020	---	<0.00010	<0.0060	---	0.0097	---	---	<0.0030	0.0128	---	---	<0.010	<0.0060	<0.00010	---	---	<0.0050	SVL
DC 7.1 C	RESE-1001171	12-Nov-04	---	<0.0030	0.0040	0.0224	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001171	12-Nov-04	0.024	<0.0030	0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.072	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 7.1 C	RESE-1001171	12-Nov-04	---	<0.0030	0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0138	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 7.1 C	RESE-1001193	16-Feb-05	---	<0.00300	0.00300	0.0134	<0.00200	---	<0.00020	<0.00600	---	0.0120	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 7.1 C	RESE-1001193	16-Feb-05	*0.570*	<0.00300	0.00310	---	<0.00200	<0.0400	<0.00020	---	<0.00600	0.0130	---	0.279	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 7.1 C	RESE-1001193	16-Feb-05	---	<0.00300	0.00330	---	<0.00200	---	<0.00020	<0.00600	---	0.0120	---	---	<0.00300	0.00730	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 7.1 C	RESE-1001215	17-May-05	---	<0.00300	0.0053	0.0186	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 7.1 C	RESE-1001215	17-May-05	<0.0300	<0.00300	0.0047	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	0.076	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	0.016	SVL
DC 7.1 C	RESE-1001215	17-May-05	---	<0.00300	0.0049	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0166	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 7.1 C	RESE-1001231	07-Sep-05	---	<0.00300	0.0088	0.0294	<0.0020	---	<0.00008	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 7.1 C	RESE-1001231	07-Sep-05	<0.030	<0.00300	0.00810	---	<0.0020	<0.04	<0.00010	---	<0.0060	<0.0100	---	0.109	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1.0	<0.00200	<0.0100	SVL
DC 7.1 C	RESE-1001231	07-Sep-05	---	<0.00300	0.0077	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	0.0452	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 7.1 C	RESE-1002195	30-Nov-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00174	---	<0.060	<0.000042	0.0046	---	<0.008	0.00207	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 7.1 C	RESE-1002195	30-Nov-11	---	<0.00300	<0.025	0.0248	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0047	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002005	06-Aug-08	<0.080	<0.00300	<0.025	0.0240	<0.00200	---	<0.000200	---	<0.0060	0.00111	---	<0.060	<0.00300	0.0203	<0.00020	0.0279	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002005	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002005	06-Aug-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0222	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002026	05-Nov-08	<0.080	<0.00300	<0.025	0.0224	<0.00200	---	<0.000200	---	<0.0060	<0.00100	---	<0.060	<0.00300	0.0051	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002026	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002026	05-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0094	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	0.0135	SVL
DC 8.1 C	RESE-1002062	24-Feb-09	0.136	<0.00300	<0.025	0.0118	<0.00200	---	<0.000042	---	<0.0060	0.00753	---	0.115	0.000200 j	0.0077	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002062	24-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002062	24-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	<0.010	---	---	<0.00300	0.0082	---	---	<0.010	<0.00041	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002098	19-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00105	---	<0.060	<0.000053	0.0088	---	<0.0080	0.00101	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002098	19-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002098	19-May-09	---	<0.00300	<0.025	0.0215	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0157	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002160	10-Nov-10	<0.0172	<0.0001	<0.0066	0.0282	---	---	<0.000036	---	<0.00095	0.000 j	---	0.033 j	<0.00002	0.0079 j	---	0.0070 j	<0.00013	---	<0.000012	---	<0.000018	<0.0019	SVL
DC 8.1 C	RESE-1002160	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.000065	---	---	---	---	---	---	---	SVL
DC 8.1 C	RESE-1002160	10-Nov-10	---	<0.00012	<0.0032	---	<0.00024	0.01 j	<0.00025	<0.00043	---	0.00 j	---	---	<0.003	*0.0743*	---	---	<0.0015	<0.0038	<0.0007	---	<0.000022	<0.01	SVL
DC 8.1 C	RESE-1002187	31-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	0.000053	0.0150	---	<0.008	0.00120	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002187	31-Aug-11	---	<0.00300	<0.025	0.0225	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0209	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002194	30-Nov-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00110	---	<0.060	<0.000042	0.0101	---	<0.008	0.00175	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.1 C	RESE-1002194	30-Nov-11	---	<0.00300	<0.025	0.0280	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0081	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1001006	20-May-03	---	<0.0060	<0.0030	0.0176	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001006	20-May-03	<0.020	<0.0060	<0.0030	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	<0.020	<0.0050	---	<0.00020	0.0085	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
DC 8.2 W	RESE-1001006	20-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0060	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001017	21-Aug-03	---	<0.0060	<0.0030	0.0200	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001017	21-Aug-03	<0.020	<0.0060	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	<0.020	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001017	21-Aug-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 8.2 W	RESE-1001044	12-Nov-03	---	<0.0030	<0.0030	0.0201	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001044	12-Nov-03	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.044	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001044	12-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.2 W	RESE-1001063	17-Feb-04	---	<0.00030	0.0028 j	0.0173	<0.00020	---	<0.00010	0.00038 j	---	<0.00210	---	---	<0.0010	---	<0.00020	---	0.0049 j	---	<0.00010	---	<0.00040	0.00042 j	SVL
DC 8.2 W	RESE-1001063	17-Feb-04	0.0318	<0.00030	0.0026 j	---	<0.00020	<0.0070	<0.00010	---	<0.00070	<0.00210	---	0.0256	<0.0010	---	<0.00020	0.0048 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00035 j	SVL
DC 8.2 W	RESE-1001063	17-Feb-04	---	<0.00030	0.0034	---	<0.00020	---	<0.00010	0.00049 j	---	<0.00210	---	---	<0.0010	0.0027	---	---	0.0023 j	<0.00080	<0.00010	---	---	0.00031 j	SVL
DC 8.2 W	RESE-1001079	21-May-04	---	<0.0030	<0.0030	0.0183	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001079	21-May-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.028	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001079	21-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.2 W	RESE-1001152	16-Aug-04	---	<0.0030	<0.0030	0.0181	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001152	16-Aug-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.2 W	RESE-1001152	16-Aug-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.2 W	RESE-1001175	16-Nov-04	---	<0.0030	<0.0030	0.0224	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.010	SVL
DC 8.2 W	RESE-1001175	16-Nov-04	0.073	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.010	---	0.161	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.010	SVL
DC 8.2 W	RESE-1001175	16-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	0.0192	---	---	<0.010	<0.0030	<0.00010	---	---	<0.010	SVL
DC 8.2 W	RESE-1001196	25-Feb-05	---	<0.00300	0.00310	0.0181	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 8.2 W	RESE-1001196	25-Feb-05	0.0610	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 8.2 W	RESE-1001196	25-Feb-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 8.2 W	RESE-1001212	11-May-05	---	<0.00300	<0.00300	0.0186	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 8.2 W	RESE-1001212	11-May-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 8.2 W	RESE-1001212	11-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 8.2 W	RESE-1001227	16-Aug-05	---	<0.00300	<0.00300	0.0184	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	---	---	<0.00200	<0.0100	SVL
DC 8.2 W	RESE-1001227	16-Aug-05	0.173	<0.00300	<0.00300	---	<0.0020	<0.04	0.00010	---	<0.0060	<0.0100	---	0.137	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1	<0.00200	<0.0100	SVL
DC 8.2 W	RESE-1001227	16-Aug-05	---	<0.00300	<0.00300	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	0.0121	---	---	<0.0100	<0.00300	---	---	---	<0.0100	SVL
DC 8.2 W	RESE-1000260	19-Feb-08	<0.20	<0.0030	0.0025	0.024	<0.0010	---	<0.0010	<0.010	---	<0.010	---	<0.050	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.010	---	<0.0010	<0.050	TestAmerica
DC 8.2 W	RESE-1000260	19-Feb-08	---	---	---	---	---	---	---	---	---	---	<0.020	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
DC 8.2 W	RESE-1003002	27-May-08	<0.20	---	---	0.018	<0.0010	<0.20	---	<0.010	---	0.014	---	<0.050	---	---	---	<0.010	<0.010	---	---	---	---	<0.050	TestAmerica
DC 8.2 W	RESE-1003002	27-May-08	---	<0.0030	0.0021	---	---	---	<0.0010	---	0.0081	---	<0.025	---	<0.0010	0.018	<0.00020	---	---	<0.0020	<0.0010	<0.040	<0.0010	---	TestAmerica
DC 8.2 W	RESE-1002004	06-Aug-08	<0.080	<0.00300	<0.025	0.0168	<0.00200	---	<0.000200	---	<0.0060	<0.00100	---	<0.060	<0.00300	<0.0040	<0.00020	0.0277	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1002004	06-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002004	06-Aug-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1002027	05-Nov-08	<0.080	<0.00300	<0.025	0.0172	<0.00200	---	<0.000200	---	<0.0060	<0.00100	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1002027	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002027	05-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1003023	02-Dec-08	<0.20	<0.0030	0.0023	0.018	<0.0010	---	<0.0010	<0.010	---	<0.010	---	<0.050	<0.0010	---	<0.00020	<0.010	<0.010	<0.0020	<0.0010	---	<0.0010	<0.050	TestAmerica
DC 8.2 W	RESE-1003023	02-Dec-08	---	---	---	---	---	---	---	---	---	---	<0.025	---	---	---	---	---	---	---	---	<0.10	---	---	TestAmerica
DC 8.2 W	RESE-1002063	24-Feb-09	<0.080	<0.00300	<0.025	0.0178	<0.00200	---	<0.000042	---	<0.0060	0.00103	---	<0.060	0.000019 j	0.0044	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1002063	24-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002063	24-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00043 jd	<0.0050	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1002097	19-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
DC 8.2 W	RESE-1002097	19-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002097	19-May-09	---	<0.00300	<0.025	0.0180	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
DC 8.2 W	RESE-1002159	10-Nov-10	<0.0172	<0.0001	<0.0066	0.02	---	---	<0.000036	---	<0.00095	0.000 j	---	0.030 j	<0.00002	0.0066 j	---	0.0070 j	<0.00013	---	<0.000012	---	<0.000018	<0.0019	SVL
DC 8.2 W	RESE-1002159	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.000065	---	---	---	---	---	---	---	SVL
DC 8.2 W	RESE-1002159	10-Nov-10	---	<0.00012	<0.0032	---	0.0004 j	0.01 j	<0.00025	0.0059 j	---	0.00 j	---	---	<0.003	*0.104*	---	---	<0.0015	<0.0038	<0.0007	---	<0.000022	<0.00095	SVL
DC 8.8 C	RESE-1001005	20-May-03	---	<0.0060	<0.0030	0.0200	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001005	20-May-03	<0.020	<0.0060	<0.0030	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	0.072	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
DC 8.8 C	RESE-1001005	20-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0106	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001018	21-Aug-03	---	<0.0060	0.0050	0.0247	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001018	21-Aug-03	<0.020	<0.0060	0.0050	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.115	<0.0050	---	<0.00020	<0.0080	---	<0.0060	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001018	21-Aug-03	---	<0.0060	0.0050	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.0544*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.8 C	RESE-1001042	12-Nov-03	---	<0.0030	0.0030	0.0247	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001042	12-Nov-03	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	0.094	<0.0050	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001042	12-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0171	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.8 C	RESE-1001062	17-Feb-04	---	<0.00030	0.0011 j	0.0129	<0.00020	---	0.00036	<0.00030	---	0.0026 j	---	---	<0.0010	---	<0.00020	---	0.0049 j	---	<0.00010	---	<0.00040	0.00028 j	SVL
DC 8.8 C	RESE-1001062	17-Feb-04	0.118	<0.00030	0.0011 j	---	<0.00020	<0.0070	<0.00010	---	<0.00070	0.0039	---	0.114	<0.0010	---	<0.00020	0.0031 j	---	<0.00080	<0.00010	<1.0	<0.00040	0.00087 j	SVL
DC 8.8 C	RESE-1001062	17-Feb-04	---	<0.00030	0.0013 j	---	<0.00020	---	<0.00010	<0.00030	---	0.0023 j	---	---	<0.0010	0.0076	---	---	0.0027 j	<0.00080	<0.00010	---	---	0.00063 j	SVL
DC 8.8 C	RESE-1001078	21-May-04	---	<0.0030	<0.0030	0.0200	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001078	21-May-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.086	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001078	21-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0034	---	---	<0.0030	0.0181	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.8 C	RESE-1001151	16-Aug-04	---	<0.0030	0.0050	0.0262	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001151	16-Aug-04	0.020	<0.0030	0.0050	---	<0.0020	<0.040	0.00010	---	<0.0060	<0.0030	---	0.212	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
DC 8.8 C	RESE-1001151	16-Aug-04	---	<0.0030	0.0040	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.0619*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
DC 8.8 C	RESE-1001174	16-Nov-04	---	<0.0030	<0.0030	0.0229	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.010	SVL
DC 8.8 C	RESE-1001174	16-Nov-04	<0.030	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.010	---	0.151	<0.0030	---	<0.00020	<0.0080	---	<0.0030	<0.00010	<1.0	<0.0020	<0.010	SVL
DC 8.8 C	RESE-1001174	16-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.010	---	---	<0.0030	0.0242	---	---	<0.010	<0.0030	<0.00010	---	---	<0.010	SVL
DC 8.8 C	RESE-1001197	25-Feb-05	---	<0.00300	0.00340	0.0119	<0.00200	---	<0.00020	<0.00600	---	0.0130	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 8.8 C	RESE-1001197	25-Feb-05	*0.905*	<0.00300	0.00360	---	<0.00200	<0.0400	<0.00020	---	<0.00600	0.0150	---	*0.454*	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 8.8 C	RESE-1001197	25-Feb-05	---	<0.00300	0.00370	---	<0.00200	---	<0.00020	<0.00600	---	0.0140	---	---	<0.00300	0.00790	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 8.8 C	RESE-1001211	11-May-05	---	<0.00300	<0.00300	0.0184	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
DC 8.8 C	RESE-1001211	11-May-05	0.056	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	0.121	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
DC 8.8 C	RESE-1001211	11-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0109	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
DC 8.8 C	RESE-1001228	16-Aug-05	---	<0.00300	0.0057	0.0236	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	---	---	<0.00200	<0.0100	SVL
DC 8.8 C	RESE-1001228	16-Aug-05	*0.205*	<0.00300	0.00520	---	<0.0020	<0.04	0.00010	---	<0.0060	0.012	---	0.203	<0.00300	---	<0.0002	<0.0080	---	<0.00300	<0.00010	<1	<0.00200	<0.0100	SVL
DC 8.8 C	RESE-1001228	16-Aug-05	---	<0.00300	0.0052	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	0.0297	---	---	<0.0100	<0.00300	---	---	---	<0.0100	SVL
Government Springs	RESE-1002112	15-Dec-09	<0.080	<0.00300	<0.025	0.0643	---	---	<0.000024	---	<0.0060	0.00231	---	<0.060	0.000172 j	<0.0040	---	<0.0080	0.00161	---	<0.000100	---	<0.00100	<0.0100	SVL
Government Springs	RESE-1002112	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Government Springs	RESE-1002112	15-Dec-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00060 jd	<0.0050	---	<0.00100	<0.0100	SVL
Government Springs	RESE-1002181	29-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00343	---	<0.060	0.000158	<0.0040	---	<0.008	0.00245	---	<0.000100	---	<0.00100	<0.0100	SVL
Government Springs	RESE-1002181	29-Aug-11	---	<0.00300	<0.025	0.0612	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
Government Springs	RESE-1002199	08-Dec-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00268	---	<0.060	0.000269	<0.0040	---	0.009	0.00341	---	<0.000100	---	<0.00100	<0.0100	SVL
Government Springs	RESE-1002199	08-Dec-11	---	<0.00300	<0.025	0.0654	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	<0.0141	<0.002	<0.0066	0.0361	<0.00036	---	<0.000034	---	<0.00065	0.0033	---	<0.0202	0.000065 j	0.0112	<0.000064	<0.0023	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	---	<0.0004	0.0074 j	---	<0.00036	0.0163 j	<0.00096	<0.001	---	0.0051 j	---	---	<0.000172	0.0262	<0.000064	---	<0.0023	<0.0004	<0.00079	---	<0.000072	0.0078 j	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	<0.080	<0.00300	<0.025	0.0585	<0.00200	---	<0.000200	---	<0.0060	0.00123	---	<0.060	<0.00300	0.0129	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002028	05-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0204	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	<0.080	<0.00300	<0.025	0.0254	<0.00200	---	<0.000042	---	<0.0060	0.00388	---	<0.060	0.000054 j	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00041	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00218	---	<0.060	<0.000053	0.0324	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	---	<0.00300	<0.025	0.0568	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.0958*	---	---	<0.010	0.00034 jd	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	<0.080	<0.00300	<0.025	0.0421	---	---	<0.000024	---	<0.0060	0.00238	---	<0.060	<0.000019	0.0041	---	<0.0080	0.00125	---	<0.000100	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002158	10-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0044	---	---	<0.010	<0.00034	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002188	31-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00328	---	<0.060	<0.000042	0.0370	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002188	31-Aug-11	---	<0.00300	<0.025	0.0276	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0421	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon) DUP	RESE-1002189	31-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00326	---	<0.060	0.000046	0.0380	---	<0.008	0.00129	---	<0.000100	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon) DUP	RESE-1002189	31-Aug-11	---	<0.00300	<0.025	0.0276	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0418	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002193	30-Nov-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00305	---	<0.060	0.000049	0.0092	---	<0.008	0.00153	---	<0.000100	---	<0.00100	0.0216	SVL
H 0.1 C (Hackberry Canyon)	RESE-1002193	30-Nov-11	---	<0.00300	<0.025	0.0222	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1001003	15-May-03	---	<0.0060	<0.0030	0.0269	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0095	SVL
Hidden Spring	RESE-1001003	15-May-03	0.042	<0.0060	<0.0030	---	<0.0020	---	<0.00010	---	<0.0060	<0.0030	<0.10	0.097	<0.0050	---	<0.00020	0.0216	---	<0.0030	<0.00010	<1.0	---	0.0108	SVL
Hidden Spring	RESE-1001003	15-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0225	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	0.0117	SVL
Hidden Spring	RESE-1001015	20-Aug-03	---	<0.0060	<0.0030	0.0273	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Hidden Spring	RESE-1001015	20-Aug-03	<0.020	<0.0060	<0.0030	---	<0.0020	0.045	<0.00010	---	<0.0060	<0.0030	<0.010	0.213	<0.0050	---	<0.00020	0.0092	---	<0.0030	<0.00010	<1.0	<0.0020	0.0172	SVL
Hidden Spring	RESE-1001015	20-Aug-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0211	---	---	<0.010	<0.0030	<0.00010	---	---	0.0173	SVL
Hidden Spring DUP	RESE-1001016	20-Aug-03	---	<0.0060	<0.0030	0.0271	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0074	SVL
Hidden Spring DUP	RESE-1001016	20-Aug-03	<0.020	<0.0060	<0.0030	---	<0.0020	0.040	<0.00010	---	<0.0060	<0.0030	<0.010	*0.380*	<0.0050	---	<0.00020	0.0087	---	<0.0030	<0.00010	<1.0	<0.0020	0.0246	SVL
Hidden Spring DUP	RESE-1001016	20-Aug-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0320	---	---	<0.010	<0.0030	<0.00010	---	---	0.0328	SVL
Hidden Spring	RESE-1001027	03-Nov-03	---	<0.0030	<0.0030	0.0269	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0100	SVL
Hidden Spring	RESE-1001027	03-Nov-03	0.020	<0.0030	<0.0030	---	<0.0020	0.049	<0.00010	---	<0.0060	<0.0030	---	*0.302*	<0.0050	---	<0.00020	0.0155	---	<0.0030	<0.00010	<1.0	<0.0020	0.0246	SVL
Hidden Spring	RESE-1001027	03-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0294	---	---	<0.010	<0.0030	<0.00010	---	---	0.0283	SVL
Hidden Spring	RESE-1001052	09-Feb-04	---	<0.00050	0.00094 j	0.0228	<0.00020	---	<0.00006	0.00047 j	---	<0.00210	---	---	<0.0010	---	<0.00020	---	0.0021 j	---	<0.00010	---	<0.00040	0.0056	SVL
Hidden Spring	RESE-1001052	09-Feb-04	<0.0060	0.00061 j	<0.00060	---	<0.00020	0.0292 j	<0.00006	---	<0.00070	<0.00210	---	0.0283	<0.0010	---	<0.00020	0.0113	---	<0.00080	<0.00010	<1.0	0.0004 j	0.0066	SVL
Hidden Spring	RESE-1001052	09-Feb-04	---	<0.00050	0.0012 j	---	<0.00020	---	<0.00006	0.00068 j	---	<0.00210	---	---	<0.0010	0.0034	---	---	<0.00130	<0.00080	<0.00010	---	---	0.0069	SVL
Hidden Spring	RESE-1001082	24-May-04	---	<0.0030	<0.0030	0.0265	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0096	SVL
Hidden Spring	RESE-1001082	24-May-04	0.066	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.065	<0.0030	---	<0.00020	0.0135	---	<0.0030	<0.00010	<1.0	<0.0020	0.0079	SVL
Hidden Spring	RESE-1001082	24-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0149	---	---	<0.010	<0.0030	<0.00010	---	---	0.0086	SVL
Hidden Spring	RESE-1001097	04-Aug-04	---	<0.0030	<0.0030	0.0278	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Hidden Spring	RESE-1001097	04-Aug-04	0.059	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	*0.475*	<0.0030	---	<0.00020	0.0113	---	<0.0030	<0.00010	<1.0	<0.0020	0.0054	SVL
Hidden Spring	RESE-1001097	04-Aug-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0034	---	---	<0.0030	0.0495	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Hidden Spring	RESE-1001162	03-Nov-04	---	<0.0030	<0.0030	0.0267	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Hidden Spring	RESE-1001162	03-Nov-04	0.028	<0.0030	<0.0030	---	<0.0020	0.043	<0.00010	---	<0.0060	<0.0030	---	0.134	<0.0030	---	<0.00020	0.0130	---	<0.0030	<0.00010	<1.0	<0.0020	0.0071	SVL
Hidden Spring	RESE-1001162	03-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0363	---	---	<0.010	<0.0030	<0.00010	---	---	0.0078	SVL

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Hidden Spring	RESE-1001187	09-Feb-05	---	<0.00300	<0.00300	0.0226	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Hidden Spring	RESE-1001187	09-Feb-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Hidden Spring	RESE-1001187	09-Feb-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	0.0110	SVL
Hidden Spring DUP	RESE-1001203	03-May-05	---	<0.00300	<0.00300	0.0218	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Hidden Spring DUP	RESE-1001203	03-May-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0082	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Hidden Spring DUP	RESE-1001203	03-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	0.012	SVL
Hidden Spring	RESE-1001202	03-May-05	---	<0.00300	<0.00300	0.0216	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Hidden Spring	RESE-1001202	03-May-05	<0.0300	<0.00300	<0.00300	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0082	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Hidden Spring	RESE-1001202	03-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Hidden Spring	RESE-1001220	03-Aug-05	---	<0.00300	<0.00300	0.0239	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Hidden Spring	RESE-1001220	03-Aug-05	<0.030	<0.0030	<0.00300	---	<0.0020	<0.04	<0.00010	---	<0.0060	<0.0100	---	<0.060	<0.0030	---	<0.0002	<0.0080	---	<0.0030	<0.00010	<1	<0.00200	<0.0100	SVL
Hidden Spring	RESE-1001220	03-Aug-05	---	<0.00300	<0.00300	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	<0.0040	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Hidden Spring	RESE-1002008	19-Aug-08	<0.0141	<0.002	<0.0066	0.0216	<0.00036	---	<0.000034	---	<0.00065	0.000311 j	---	0.0235 j	<0.000043	0.0113	<0.000064	<0.0023	<0.0023	---	<0.000017	---	<0.000018	0.004 j	SVL
Hidden Spring	RESE-1002008	19-Aug-08	---	<0.0004	<0.0065	---	<0.00036	0.0385 j	<0.00096	0.0046 j	---	0.0281	---	---	0.0331	*0.0789*	<0.000064	---	0.0028 j	<0.005	<0.00079	---	<0.000072	0.162	SVL
Hidden Spring	RESE-1002030	06-Nov-08	<0.080	<0.00300	<0.025	0.0215	<0.00200	---	<0.000200	---	<0.0060	<0.00100	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002030	06-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002030	06-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002045	10-Feb-09	<0.080	<0.00300	<0.025	0.0218	<0.00200	---	<0.000034	---	<0.0060	<0.00100	---	<0.060	<0.000043	<0.0040	---	0.0256	0.00111	---	<0.000100	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002045	10-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002045	10-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00070 jd	<0.0050	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002086	12-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	0.000689 j	0.0091	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002086	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002086	12-May-09	---	<0.00300	<0.025	0.0232	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0151	---	---	<0.010	0.00119 jd	<0.0050	---	<0.00100	0.0171	SVL
Hidden Spring	RESE-1002116	12-Feb-10	<0.080	<0.00300	<0.025	0.0203	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	0.000054 j	<0.0040	---	<0.0080	0.00124	---	<0.000100	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002116	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002116	12-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00096 jd	<0.0050	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1003163	17-Jul-10	<0.20	<0.0030	0.0017	0.024	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	0.0086	<0.00020	<0.0010	0.0026	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
Hidden Spring	RESE-1003163	17-Jul-10	<0.20	<0.0030	0.0018	0.024	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	0.050	<0.0010	0.0087	0.0017	<0.0010	0.0023	<0.0020	<0.0010	---	<0.0010	0.010	TestAmerica
Hidden Spring	RESE-1002155	09-Nov-10	<0.080	<0.00300	<0.025	0.0222	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	0.000024 j	<0.0040	---	<0.0080	0.00304	---	<0.000100	---	<0.00100	<0.0100	SVL
Hidden Spring	RESE-1002155	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Hidden Spring	RESE-1002155	09-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00195 jd	<0.0050	---	<0.00100	0.0187	SVL
Hidden Spring DUP	RESE-1002156	09-Nov-10	<0.080	<0.00300	<0.025	0.0223	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	0.000042 j	<0.0040	---	<0.0080	0.00334	---	<0.000100	---	<0.00100	<0.0100	SVL
Hidden Spring DUP	RESE-1002156	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Hidden Spring DUP	RESE-1002156	09-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0048	---	---	<0.010	0.00090 jd	<0.0050	---	<0.00100	0.0284	SVL
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	0.0527 j	0.00045 j	<0.0066	0.0569	<0.00036	---	<0.000034	---	<0.00065	0.0135	---	0.0374 j	0.000149 j	0.0053 j	---	<0.0023	<0.0023	---	<0.000017	---	<0.000018	0.0028 j	SVL
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	---	0.00042 j	<0.0065	---	<0.00036	0.0328 j	<0.00096	<0.001	---	0.0126	---	---	0.000477 j	0.0052 j	---	---	<0.0023	0.00066 j	<0.00079	---	<0.000018	0.0092 j	SVL
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	0.165	<0.00300	<0.025	0.0161	<0.00200	---	<0.000034	---	<0.0060	0.0208	---	0.136	0.000292 j	0.0134	---	<0.0080	0.00101	---	<0.000100	---	<0.00100	<0.0100	SVL
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.033	---	---	<0.00300	*0.0674*	---	---	<0.010	0.00039 jd	<0.0050	---	<0.00100	0.0135	SVL
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	0.00003 j	---	<0.0060	0.00397	---	0.070	0.000072 j	*0.0845*	---	<0.0080	0.00159	---	<0.000100	---	<0.00100	<0.0100	SVL
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	---	<0.00300	<0.025	0.0778	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.274*	---	---	<0.010	0.00037 jd	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
IC 1.0 C (Iron Canyon)	RESE-1002109	07-Aug-09	<0.0192	0.00037 j	0.0081 j	0.0747	<0.00024	---	<0.000024	---	0.0025 j	0.007	---	0.24	0.000105 j	*0.161*	---	0.0034 j	0.0029	---	<0.000019	---	<0.000023	0.0074 j	SVL
IC 1.0 C (Iron Canyon)	RESE-1002109	07-Aug-09	---	<0.00028	0.0046 j	---	<0.00012	0.0333	<0.00024	<0.0004	---	0.009	---	---	0.000281 j	*0.157*	---	---	<0.005	0.0004 j	0.00034 j	---	<0.000029	0.0017 j	SVL
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	<0.080	<0.00300	<0.025	0.0628	---	---	0.000065 j	---	<0.0060	0.00664	---	<0.060	0.000089 j	*0.0990*	---	<0.0080	0.00165	---	<0.000100	---	<0.00100	0.0196	SVL
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002115	16-Dec-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.012	---	---	<0.00300	*0.0872*	---	---	<0.010	0.00063 jd	<0.0050	---	<0.00100	0.0179	SVL
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	<0.080	<0.00300	<0.025	0.0422	---	---	<0.000024	---	<0.0060	0.00955	---	0.068	0.000086 j	<0.0040	---	<0.0080	0.00117	---	<0.000100	---	<0.00100	<0.0100	SVL
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
IC 1.0 C (Iron Canyon)	RESE-1002126	17-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.011	---	---	<0.00300	0.0044	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
IC 1.0 C (Iron Canyon)	RESE-1002204	09-Dec-11	<0.080	<0.00300	<0.025	---	---	---	0.00003	---	<0.0060	0.00894	---	<0.060	<0.000042	<0.0040	---	<0.008	0.00300	---	<0.000100	---	<0.00100	<0.0100	SVL
IC 1.0 C (Iron Canyon)	RESE-1002204	09-Dec-11	---	<0.00300	<0.025	0.0640	<0.0020	<0.040	<0.0020	<0.0060	---	0.012	---	---	<0.00300	<0.0040	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1001002	15-May-03	---	<0.0060	<0.0030	0.0493	<0.0020	0.075	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Kane Spring	RESE-1001002	15-May-03	<0.020	<0.0060	0.0030	---	<0.0020	---	<0.00010	---	<0.0060	0.0041	<0.10	0.026	<0.0050	---	<0.00020	0.0279	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
Kane Spring	RESE-1001002	15-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0042	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
Kane Spring	RESE-1001014	20-Aug-03	---	<0.0060	0.0030	0.0407	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Kane Spring	RESE-1001014	20-Aug-03	<0.020	<0.0060	<0.0030	---	<0.0020	0.088	<0.00010	---	<0.0060	<0.0030	<0.010	<0.020	<0.0050	---	<0.00050	0.0082	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Kane Spring	RESE-1001014	20-Aug-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	<0.0020	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Kane Spring	RESE-1001026	03-Nov-03	---	<0.0030	0.0030	0.0331	<0.0020	---	<0.00010	<0.0060	---	0.0033	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	0.0071	SVL
Kane Spring	RESE-1001026	03-Nov-03	0.029	<0.0030	0.0040	---	<0.0020	0.069	<0.00010	---	<0.0060	0.0043	---	0.037	<0.0050	---	<0.00020	0.0204	---	<0.0030	<0.00010	<1.0	<0.0020	0.0094	SVL
Kane Spring	RESE-1001026	03-Nov-03	---	<0.0030	0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0041	---	---	<0.0030	0.0234	---	---	<0.010	<0.0030	<0.00010	---	---	0.0100	SVL
Kane Spring	RESE-1001051	09-Feb-04	---	<0.0010	<0.00060	0.0317	<0.00020	---	<0.00006	0.00061 j	---	0.0026 j	---	---	<0.0010	---	<0.00020	---	0.0023 j	---	<0.00010	---	<0.00040	0.001 j	SVL
Kane Spring	RESE-1001051	09-Feb-04	<0.0060	<0.00050	0.0018 j	---	<0.00020	0.0285 j	<0.00006	---	<0.00070	0.0031	---	<0.0130	<0.0010	---	<0.00020	0.0132	---	<0.00080	<0.00010	<1.0	<0.00040	0.00052 j	SVL
Kane Spring	RESE-1001051	09-Feb-04	---	<0.00050	0.0019 j	---	<0.00020	---	<0.00006	0.00065 j	---	0.0029 j	---	---	<0.0010	0.0034	---	---	<0.00130	<0.00080	<0.00010	---	---	0.00077 j	SVL
Kane Spring	RESE-1001161	03-Nov-04	---	<0.0030	<0.0030	0.0267	<0.0020	---	<0.00010	<0.0060	---	0.0042	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Kane Spring	RESE-1001161	03-Nov-04	<0.020	<0.0030	<0.0030	---	<0.0020	0.050	<0.00010	---	<0.0060	0.0050	---	0.077	<0.0030	---	<0.00020	0.0184	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Kane Spring	RESE-1001161	03-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0047	---	---	<0.0030	0.0081	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Kane Spring	RESE-1001186	09-Feb-05	---	<0.00300	0.00330	0.0291	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Kane Spring	RESE-1001186	09-Feb-05	<0.0300	<0.00300	0.00340	---	<0.00200	0.0410	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Kane Spring	RESE-1001186	09-Feb-05	---	<0.00300	0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Kane Spring	RESE-1001201	03-May-05	---	<0.00300	<0.00300	0.0438	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Kane Spring	RESE-1001201	03-May-05	0.030	<0.00300	<0.00300	---	<0.00200	0.056	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0104	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Kane Spring	RESE-1001201	03-May-05	---	<0.00300	<0.00300	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	0.0047	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Kane Spring	RESE-1001218	03-Aug-05	---	<0.00300	0.0047	0.0511	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Kane Spring	RESE-1001218	03-Aug-05	<0.030	<0.0030	0.0050	---	<0.0020	0.09	<0.00010	---	<0.0060	<0.0100	---	<0.060	<0.0030	---	<0.0002	0.0135	---	<0.0030	<0.00010	<1	<0.00200	<0.0100	SVL
Kane Spring	RESE-1001218	03-Aug-05	---	<0.00300	0.0047	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	0.0107	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Kane Spring	RESE-1002022	29-Aug-08	<0.0141	<0.0001	0.0094 j	0.0523	<0.00036	---	<0.000034	---	<0.00065	0.000339 j	---	<0.0202	<0.000043	<0.0013	---	0.0026 j	<0.0023	---	<0.000017	---	<0.000018	0.0141	SVL
Kane Spring	RESE-1002022	29-Aug-08	---	<0.0001	<0.0065	---	<0.00036	0.0443	<0.00096	<0.001	---	<0.0039	---	---	<0.000043	<0.0013	---	---	<0.0023	0.00052 j	<0.00079	---	<0.000018	0.0121	SVL
Kane Spring	RESE-1002035	05-Nov-08	<0.080	<0.00300	<0.025	0.0499	<0.00200	---	<0.000200	---	<0.0060	<0.0010	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1002035	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002035	05-Nov-08	---	<0.00300	<0.025	---	<0.00200	0.049	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1002046	10-Feb-09	<0.080	<0.00300	<0.025	0.0447	<0.00200	---	<0.000034	---	<0.0060	<0.00100	---	<0.060	<0.000043	0.0064	---	0.0272	0.00136	---	<0.000100	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1002046	10-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002046	10-Feb-09	---	<0.00300	<0.025	---	<0.00200	0.042	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00060 jd	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Kane Spring	RESE-1002087	13-May-09	<0.0141	<0.00022	0.0113 j	---	<0.00036	---	<0.000024	---	<0.00065	0.00053 j	---	<0.0202	<0.000053	<0.0013	---	0.0068 j	0.000809 j	---	<0.000019	---	<0.000023	<0.0019	SVL
Kane Spring	RESE-1002087	13-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002087	13-May-09	---	<0.00055	0.0053 j	0.0462	<0.00018	0.0434	<0.00048	<0.0005	---	<0.002	---	---	<0.000132	<0.00065	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0031 j	SVL
Kane Spring	RESE-1002117	12-Feb-10	<0.080	<0.00300	<0.025	0.0414	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	0.000112 j	<0.0040	---	<0.0080	0.00124	---	<0.000100	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1002117	12-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002117	12-Feb-10	---	<0.00300	<0.025	---	<0.00200	0.044	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00058 jd	<0.0050	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1003164	17-Jul-10	<0.20	<0.0030	0.0018	0.055	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	<0.0050	<0.00020	0.0013	0.0021	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
Kane Spring	RESE-1003164	17-Jul-10	<0.20	<0.0030	0.0017	0.054	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	<0.0050	0.00037	0.0014	0.0024	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
Kane Spring	RESE-1002154	09-Nov-10	<0.080	<0.00300	<0.025	0.0504	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	0.000023 j	<0.0040	---	<0.0080	0.00319	---	<0.000100	---	<0.00100	<0.0100	SVL
Kane Spring	RESE-1002154	09-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Kane Spring	RESE-1002154	09-Nov-10	---	<0.00300	<0.025	---	<0.00200	0.049	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0053	---	---	<0.010	0.00110 jd	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	<0.080	<0.00300	<0.025	0.0436	<0.00200	---	<0.000200	---	<0.0060	0.00287	---	<0.060	<0.00300	0.0272	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.011	---	---	<0.00300	0.0282	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	<0.080	<0.00300	<0.025	0.0310	<0.00200	---	<0.000042	---	<0.0060	0.00704	---	<0.060	<0.000017	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.011	---	---	<0.00300	<0.0040	---	---	<0.010	0.00056 jd	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	<0.0141	0.00023 j	<0.0066	---	<0.00036	---	<0.000024	---	<0.00065	0.0045	---	<0.0202	<0.000053	0.0035 j	---	0.0072 j	0.0013	---	<0.000019	---	<0.000023	<0.0019	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	<0.00055	0.0042 j	0.0351	<0.00018	0.0225	<0.00048	<0.0005	---	0.0065	---	---	<0.000132	<0.00065	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0019 j	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002106	06-Aug-09	<0.0192	<0.00022	0.0146 j	0.0365	<0.00024	---	<0.000024	---	<0.00085	0.0023	---	0.0742 j	<0.000054	0.0172	---	0.0048 j	0.0018	---	<0.000019	---	<0.000023	<0.0026	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002106	06-Aug-09	---	<0.00028	<0.0028	---	<0.00012	0.027	<0.00024	<0.0004	---	0.0177	---	---	0.0021 j	0.0243	---	---	<0.00095	0.00052 j	<0.00024	---	<0.000029	0.0028 j	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	<0.080	<0.00300	<0.025	0.0338	---	---	<0.000024	---	<0.0060	0.00524	---	<0.060	<0.000053	0.0128	---	<0.0080	0.00145	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002111	15-Dec-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0074	---	---	<0.010	0.00068 jd	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	<0.080	<0.00300	<0.025	0.0244	---	---	<0.000024	---	<0.0060	0.00922	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002124	15-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.013	---	---	<0.00300	<0.0040	---	---	<0.010	0.00069 jd	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	<0.080	<0.00300	<0.025	0.0426	---	---	<0.000024	---	<0.0060	0.00197	---	*0.330*	<0.000019	0.0468	---	<0.0080	0.00341	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002149	04-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0474	---	---	<0.010	0.00110 jd	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	0.00215	---	<0.060	<0.000019	<0.0040	---	<0.008	0.00230	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002165	24-Feb-11	---	<0.00300	<0.025	0.0355	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00069 jd	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00184	---	<0.060	<0.000042	0.0054	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002174	31-May-11	---	<0.00300	<0.025	0.0406	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0086	---	---	<0.010	<0.00108	<0.0050	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002182	29-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00192	---	0.145	0.000102	*0.213*	---	<0.008	0.00286	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002182	29-Aug-11	---	<0.00300	<0.025	0.0688	<0.0020	<0.040	<0.0020	<0.0060	---	0.034	---	---	0.00731	*0.456*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	0.0270	SVL
LF 0.2 C (Lyons Fork Headwater Spring) DUP	RESE-1002183	29-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00188	---	0.154	0.000139	*0.212*	---	<0.008	0.00263	---	<0.000100	---	<0.00100	<0.0100	SVL
LF 0.2 C (Lyons Fork Headwater Spring) DUP	RESE-1002183	29-Aug-11	---	<0.00300	<0.025	0.0619	<0.0020	<0.040	<0.0020	<0.0060	---	0.024	---	---	0.00485	*0.391*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	0.0168	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
MC 3.3 C	RESE-1002040	13-Nov-08	<0.080	<0.00300	<0.025	0.0352	<0.00200	---	<0.000200	---	<0.0060	0.00182	---	<0.060	<0.00300	0.0137	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002040	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002040	13-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0254	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002074	05-Mar-09	<0.080	<0.00300	<0.025	0.0346	<0.00200	---	<0.000042	---	<0.0060	0.00247	---	<0.060	<0.000017	0.0131	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002074	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002074	05-Mar-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0177	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002095	14-May-09	<0.0141	0.00028 j	0.0126 j	---	<0.00036	---	<0.000024	---	0.0012 j	0.0022	---	<0.0202	<0.000053	0.0075 j	---	0.0059 j	0.0011	---	<0.000019	---	<0.000023	<0.0019	SVL
MC 3.3 C	RESE-1002095	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002095	14-May-09	---	<0.00055	0.0047 j	0.0409	<0.00018	0.0186 j	<0.00048	0.00059 j	---	<0.002	---	---	<0.000132	<0.0157	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0026 j	SVL
MC 3.3 C	RESE-1002104	06-Aug-09	<0.0192	<0.00022	0.0162 j	0.0292	<0.00024	---	<0.000024	---	<0.00085	0.0019 j	---	0.0653 j	<0.000054	*0.083*	---	0.0041 j	0.0012 j	---	<0.000019	---	<0.000023	<0.0026	SVL
MC 3.3 C	RESE-1002104	06-Aug-09	---	<0.00028	0.0051 j	---	<0.00012	0.0208	<0.00024	<0.0004	---	0.0081	---	---	0.0012 j	*0.614*	---	---	<0.0059	0.00047 j	0.0004 j	---	<0.000029	<0.0013	SVL
MC 3.3 C	RESE-1002114	15-Dec-09	<0.080	<0.00300	<0.025	0.0367	---	---	<0.000024	---	<0.0060	0.00214	---	0.071	<0.000053	0.0380	---	<0.0080	0.00136	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002114	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002114	15-Dec-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0404	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002121	15-Feb-10	<0.080	<0.00300	<0.025	0.0290	---	---	<0.000024	---	<0.0060	0.00444	---	<0.060	<0.000053	0.0109	---	<0.0080	0.00109	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002121	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002121	15-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0116	---	---	<0.010	0.00068 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002151	04-Nov-10	<0.080	<0.00300	<0.025	0.0160	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000019	<0.0040	---	<0.0080	0.00201	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002151	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002151	04-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00080 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002163	24-Feb-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	0.00139	---	<0.060	<0.000019	0.0041	---	<0.008	0.00172	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002163	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002163	24-Feb-11	---	<0.00300	<0.025	0.0321	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0051	---	---	<0.010	<0.00034	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002172	31-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00122	---	<0.060	<0.000042	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002172	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.3 C	RESE-1002172	31-May-11	---	<0.00300	<0.025	0.0291	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0159	---	---	<0.010	<0.00108	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002186	29-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00139	---	0.184	0.000139	*0.136*	---	<0.008	0.00179	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.3 C	RESE-1002186	29-Aug-11	---	<0.00300	<0.025	0.0307	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.147*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	<0.080	<0.00300	<0.025	0.0180	<0.00200	---	<0.000200	---	<0.0060	<0.001	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0078	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	<0.080	<0.00300	<0.025	0.0148	<0.00200	---	<0.000042	---	<0.0060	<0.00100	---	<0.060	<0.000017	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	<0.0141	<0.00022	0.0067 j	---	<0.00036	---	<0.000024	---	<0.00065	0.000601 j	---	<0.0202	<0.000053	<0.0013	---	0.0045 j	0.000363 j	---	<0.000019	---	<0.000023	<0.0019	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	<0.00055	0.0056 j	0.0151	<0.00018	0.01 j	<0.00048	<0.0005	---	<0.002	---	---	<0.000132	<0.00065	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0019 j	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002105	06-Aug-09	<0.0192	<0.00022	0.0098 j	0.0167	<0.00024	---	<0.000024	---	<0.00085	0.000666 j	---	0.0276 j	<0.000054	0.0042	---	0.003 j	0.000871 j	---	<0.000019	---	<0.000023	<0.0026	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002105	06-Aug-09	---	<0.00028	<0.0028	---	<0.00012	0.0117 j	<0.00024	0.00044 j	---	0.0049 j	---	---	0.000436 j	0.0319	---	---	<0.005	0.00047 j	0.00046 j	---	<0.000029	<0.0013	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	<0.080	<0.00300	<0.025	0.0163	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002113	15-Dec-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0045	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	<0.080	<0.00300	<0.025	0.0154	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000053	<0.0040	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002122	15-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0040	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	<0.080	<0.00300	<0.025	0.0350	---	---	<0.000024	---	<0.0060	0.00137	---	<0.060	0.000019 j	0.0096	---	<0.0080	0.00244	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002150	04-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0176	---	---	<0.010	0.00204 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	<0.00100	---	<0.060	<0.000019	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002164	24-Feb-11	---	<0.00300	<0.025	0.0156	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00034	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	<0.000042	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	<0.00300	<0.025	0.0163	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00108	<0.0050	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring) SP	RESE-1002173	31-May-11	<0.20	<0.0030	0.0028	0.016	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.050	<0.0010	<0.010	<0.00020	<0.0010	0.0019	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
MC 3.4 W (Wet Leg Spring) SP	RESE-1002173	31-May-11	<0.20	<0.015	<0.0050	0.016	<0.0010	<0.20	<0.0050	<0.0050	<0.0050	<0.0050	<0.0080	<0.050	<0.0050	<0.010	<0.00020	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.050	TestAmerica
MC 3.4 W (Wet Leg Spring)	RESE-1002185	29-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	<0.000042	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 3.4 W (Wet Leg Spring)	RESE-1002185	29-Aug-11	---	<0.00300	<0.025	0.0205	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0156	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
MC 5.2 C	RESE-1002171	31-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00111	---	<0.060	<0.000042	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 5.2 C	RESE-1002171	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 5.2 C	RESE-1002171	31-May-11	---	<0.00300	<0.025	0.0336	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0047	---	---	<0.010	<0.00108	<0.0050	---	<0.00100	<0.0100	SVL
MC 5.2 C SP	RESE-1002171	31-May-11	<0.20	<0.0030	0.0022	0.032	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	0.0014	---	<0.050	<0.0010	<0.010	<0.00020	0.0013	0.0037	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
MC 5.2 C SP	RESE-1002171	31-May-11	<0.20	<0.015	<0.0050	0.038	<0.0010	<0.20	<0.0050	<0.0050	<0.0050	0.0052	<0.0080	0.054	<0.0050	0.023	<0.00020	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.050	TestAmerica
MC 5.2 C	RESE-1002184	29-Aug-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	<0.000042	*0.0937*	---	<0.008	0.00153	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 5.2 C	RESE-1002184	29-Aug-11	---	<0.00300	<0.025	0.0373	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.127*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
MC 5.2 C	RESE-1002201	08-Dec-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	<0.000042	0.0336	---	0.008	0.00270	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 5.2 C	RESE-1002201	08-Dec-11	---	<0.00300	<0.025	0.0359	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0342	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	<0.080	<0.00300	0.037	0.0464	<0.00200	---	<0.000200	---	<0.0060	0.00159	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	<0.080	<0.00300	<0.025	0.0430	<0.00200	---	0.000047 j	---	<0.0060	0.00116	---	<0.060	<0.000017	<0.0040	---	<0.0080	0.00123	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00074 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	<0.0141	0.00027 j	0.0167 j	---	<0.00036	---	<0.000024	---	<0.00065	0.0015	---	<0.0202	<0.000053	0.0098 j	---	0.0063 j	0.0012	---	<0.000019	---	<0.000023	<0.0019	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	<0.00055	0.0035 j	0.0523	<0.00018	0.0288	<0.00048	<0.0005	---	<0.002	---	---	<0.000132	<0.0107	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0015 j	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	<0.0141	<0.00022	0.0143 j	---	<0.00036	---	<0.000024	---	<0.00065	0.0014	---	<0.0202	<0.000053	0.0099 j	---	0.0073 j	0.0012	---	<0.000019	---	<0.000023	<0.0019	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00006	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	---	<0.00055	0.0042 j	0.0527	<0.00018	0.0287	<0.00048	<0.0005	---	<0.002	---	---	<0.000132	<0.0112	---	---	<0.0011	<0.0006	<0.00021	---	<0.000058	0.0013 j	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002107	06-Aug-09	<0.0192	<0.00022	0.0301	0.0499	<0.00024	---	<0.000024	---	<0.00085	0.0014	---	<0.0182	<0.000054	0.0054	---	0.0036 j	0.0026	---	<0.000019	---	<0.000023	<0.0026	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002107	06-Aug-09	---	<0.00028	<0.0028	---	<0.00012	0.0329	<0.00024	<0.0004	---	0.0038 j	---	---	<0.000066	0.0052	---	---	<0.00095	<0.0003	<0.00024	---	<0.000029	<0.0013	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002108	06-Aug-09	<0.0192	<0.00022	0.0229 j	0.0494	<0.00024	---	<0.000024	---	<0.00085	0.0014	---	<0.0182	<0.000054	0.005	---	0.0036 j	0.0023	---	<0.000019	---	<0.000023	<0.0026	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002108	06-Aug-09	---	<0.00028	<0.0028	---	<0.00012	0.0334	<0.00024	<0.0004	---	0.0033 j	---	---	<0.000066	0.0052	---	---	<0.00095	0.00035 j	<0.00024	---	<0.000029	<0.0013	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	<0.080	<0.00300	<0.025	0.0431	---	---	<0.000024	---	<0.0060	0.00165	---	<0.060	<0.000053	<0.0040	---	<0.0080	0.00180	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002110	15-Dec-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00067 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	<0.080	<0.00300	<0.025	0.0295	---	---	<0.000024	---	<0.0060	0.00269	---	<0.060	0.000058 j	<0.0040	---	<0.0080	0.00122	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002123	15-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00111 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	<0.080	<0.00300	<0.025	0.0468	---	---	<0.000024	---	<0.0060	0.00136	---	<0.060	0.00003 j	<0.0040	---	<0.0080	0.00386	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002148	04-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0161	---	---	<0.010	0.00079 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	0.00103	---	<0.060	0.000023 j	<0.0040	---	<0.008	0.00231	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002166	24-Feb-11	---	<0.00300	<0.025	0.0409	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0112	---	---	<0.010	0.00059 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	0.00106	---	<0.060	<0.000019	<0.0040	---	<0.008	0.00251	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002162	24-Feb-11	---	<0.00300	<0.025	0.0404	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0043	---	---	<0.010	0.00052 jd	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	0.000049 j	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002169	31-May-11	---	<0.00300	<0.025	0.0432	<0.0020	0.054	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00108	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	<0.00100	---	<0.060	<0.000042	<0.0040	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002170	31-May-11	---	<0.00300	<0.025	0.0419	<0.0020	0.045	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0042	---	---	<0.010	<0.00108	<0.0050	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002200	08-Dec-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00158	---	<0.060	<0.000042	0.0372	---	0.008	0.00396	---	<0.000100	---	<0.00100	<0.0100	SVL
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002200	08-Dec-11	---	<0.00300	<0.025	0.0627	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0397	<0.00020	---	<0.010	0.00072	<0.0050	---	<0.00100	<0.0100	SVL
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	<0.20	<0.0030	0.0019	0.047	<0.0010	<0.20	<0.0010	<0.0010	0.0015	0.0021	---	<0.050	<0.0010	*0.097*	<0.00020	0.0012	0.0033	<0.0020	<0.0010	---	<0.0010	<0.010	TestAmerica
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	*0.83*	<0.0030	0.0027	0.063	<0.0010	<0.20	<0.0010	<0.0010	0.0015	0.012	<0.020	*0.77*	0.0046	*0.21*	<0.00020	0.0010	0.0040	<0.0020	<0.0010	<0.050	<0.0010	0.011	TestAmerica
Number Nine	RESE-1002020	28-Aug-08	0.138	0.0015 j	0.0248 j	0.0302	<0.00036	---	<0.000034	---	<0.00065	0.0591	---	0.0916 j	0.000298 j	0.0104	---	<0.0023	<0.0023	---	0.00014 j	---	<0.000018	0.0041 j	SVL
Number Nine	RESE-1002020	28-Aug-08	---	0.0016 j	0.0187 j	---	<0.00036	0.0234 j	<0.00096	<0.001	---	0.0566	---	---	0.000636 j	0.0118	---	---	<0.0023	0.00034 j	<0.00079	---	<0.000018	0.0057 j	SVL
Number Nine	RESE-1002042	12-Nov-08	<0.080	<0.00300	0.051	0.0289	<0.00200	---	<0.000200	---	<0.0060	0.0389	---	0.125	<0.00300	*0.0813*	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002042	12-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002042	12-Nov-08	---	<0.00300	0.058	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.045	---	---	<0.00300	*0.217*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002058	19-Feb-09	0.182	<0.00300	<0.025	0.0206	<0.00200	---	<0.000034	---	0.0061	0.0442	---	0.097	0.000330 j	0.0169	---	<0.0080	0.00150	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002058	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002058	19-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.049	---	---	<0.00300	0.0150	---	---	<0.010	<0.00012	<0.0050	---	<0.00100	<0.0100	SVL
Number Nine DUP	RESE-1002059	19-Feb-09	0.175	<0.00300	<0.025	0.0197	<0.00200	---	<0.000034	---	<0.0060	0.0447	---	0.092	0.000362 j	0.0149	---	<0.0080	0.00140	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine DUP	RESE-1002059	19-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Number Nine DUP	RESE-1002059	19-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.048	---	---	<0.00300	0.0190	---	---	<0.010	0.00029 jd	<0.0050	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002077	05-May-09	0.101	<0.00300	<0.025	0.0261	<0.00200	---	<0.000024	---	<0.0060	0.0462	---	0.102	0.000216 j	0.0328	---	<0.0080	0.00117	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002077	05-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002077	05-May-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.084	---	---	<0.00300	0.0423	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002139	01-Nov-10	<0.080	<0.00300	<0.025	0.0252	---	---	0.000025 j	---	<0.0060	0.0425	---	0.262	0.000480 j	0.0192	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002139	01-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002139	01-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.062	---	---	<0.00300	0.0214	---	---	<0.010	<0.00034	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Number Nine	RESE-1002147	03-Nov-10	<0.080	<0.00300	0.039	0.0176	---	---	<0.000024	---	<0.0060	0.0201	---	<0.060	0.000135 j	0.0216	---	<0.0080	0.00190	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002147	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Number Nine	RESE-1002147	03-Nov-10	---	<0.00300	0.047	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.045	---	---	0.00647	*0.172*	---	---	<0.010	0.00040 jd	<0.0050	---	<0.00100	0.0177	SVL
Number Nine	RESE-1002178	19-Aug-11	<0.080	<0.00300	0.026	---	---	---	0.00005	---	<0.0060	0.0169	---	0.146	0.000344	*0.169*	---	<0.008	0.00191	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002178	19-Aug-11	---	<0.00300	0.032	0.0373	<0.0020	<0.040	<0.0020	<0.0060	---	0.025	---	---	<0.00300	*0.200*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002198	01-Dec-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.0151	---	<0.060	0.000069	<0.0040	---	<0.008	0.00161	---	<0.000100	---	<0.00100	<0.0100	SVL
Number Nine	RESE-1002198	01-Dec-11	---	<0.00300	<0.025	0.0403	<0.0020	<0.040	<0.0020	<0.0060	---	0.021	---	---	<0.00300	0.0158	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
Oak Flat Tributary	RESE-1002016	27-Aug-08	0.192	0.0013 j	0.024 j	0.0159	<0.00036	---	0.000058 j	---	<0.00065	0.0506	---	0.103	0.000419 j	0.0131	---	0.0026 j	<0.0023	---	0.000049 j	---	0.000034 j	0.0067 j	SVL
Oak Flat Tributary	RESE-1002016	27-Aug-08	---	0.0012 j	0.0218 j	---	<0.00036	0.0288 j	<0.00096	<0.001	---	0.0508	---	---	0.0017 j	0.0215	---	---	<0.0023	0.00068 j	<0.00079	---	0.000051 j	0.0072 j	SVL
Oak Flat Tributary	RESE-1002068	26-Feb-09	0.110	<0.00300	<0.025	0.0112	<0.00200	---	<0.000042	---	<0.0060	0.0318	---	0.087	0.000353 j	0.0192	---	<0.0080	0.00118	---	<0.000100	---	<0.00100	<0.0100	SVL
Oak Flat Tributary	RESE-1002068	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002068	26-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	0.036	---	---	<0.00300	0.0163	---	---	<0.010	0.00068 jd	<0.0050	---	<0.00100	<0.0100	SVL
Oak Flat Tributary	RESE-1002076	05-May-09	<0.080	<0.00300	0.045	0.0123	<0.00200	---	0.000025 j	---	<0.0060	0.0289	---	<0.060	0.000335 j	0.0444	---	0.0083	0.00194	---	<0.000100	---	<0.00100	<0.0100	SVL
Oak Flat Tributary	RESE-1002076	05-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Oak Flat Tributary	RESE-1002076	05-May-09	---	<0.00300	0.038	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.055	---	---	0.00579	*0.313*	---	---	<0.010	0.00040 jd	<0.0050	---	<0.00100	0.0132	SVL
Oak Flat Tributary	RESE-1002176	19-Aug-11	*0.253*	<0.00300	<0.025	---	---	---	0.00010	---	<0.0060	0.0402	---	0.160	0.000762	*0.0871*	---	<0.008	0.00108	---	<0.000100	---	<0.00100	<0.0100	SVL
Oak Flat Tributary	RESE-1002176	19-Aug-11	---	<0.00300	0.028	0.0139	<0.0020	<0.040	<0.0020	<0.0060	---	0.052	---	---	<0.00300	*0.100*	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	0.0126	SVL
Oak Flat Tributary	RESE-1002205	09-Dec-11	*0.344*	<0.00300	<0.025	---	---	---	0.00007	---	<0.0060	0.0215	---	0.174	0.000240	0.0302	---	<0.008	0.00137	---	<0.000100	---	<0.00100	<0.0100	SVL
Oak Flat Tributary	RESE-1002205	09-Dec-11	---	<0.00300	<0.025	0.0145	<0.0020	<0.040	<0.0020	<0.0060	---	0.027	---	---	<0.00300	0.0323	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
Patterson Spring	RESE-1002137	18-May-10	<0.080	<0.00300	<0.025	0.0106	---	---	0.00209	---	0.0427	0.00219	---	<0.060	<0.000019	*3.66*	---	<0.0080	0.0414	---	<0.000100	---	<0.00100	1.84	SVL
Patterson Spring	RESE-1002137	18-May-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Patterson Spring	RESE-1002137	18-May-10	---	<0.00300	<0.025	---	<0.00200	<0.040	0.0021	<0.0060	---	<0.010	---	---	<0.00300	*3.57*	---	---	0.038	0.00059 jd	<0.0050	---	<0.00100	1.82	SVL
Pump Station Spring	RESE-1001001	15-May-03	---	<0.0060	<0.0030	0.0219	<0.0020	<0.040	<0.00010	---	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001001	15-May-03	*0.454*	<0.0060	<0.0030	---	<0.0020	---	<0.00010	---	<0.0060	0.0040	<0.10	*0.593*	<0.0050	---	<0.00020	0.0225	---	<0.0030	<0.00010	<1.0	---	<0.0050	SVL
Pump Station Spring	RESE-1001001	15-May-03	---	<0.0060	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	0.0039	---	---	<0.0030	*0.268*	---	---	<0.010	<0.0030	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001024	04-Sep-03	---	<0.0030	<0.0030	0.0164	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001024	04-Sep-03	0.038	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	0.0032	<0.010	0.020	<0.0050	---	<0.00020	0.0154	---	<0.0090	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001024	04-Sep-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	*0.0502*	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Pump Station Spring	RESE-1001029	03-Nov-03	---	<0.0030	<0.0030	0.0167	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001029	03-Nov-03	0.021	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0050	---	<0.00020	0.0151	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001029	03-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0067	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Pump Station Spring DUP	RESE-1001030	03-Nov-03	---	<0.0030	<0.0030	0.0166	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring DUP	RESE-1001030	03-Nov-03	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0050	---	<0.00020	0.0145	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring DUP	RESE-1001030	03-Nov-03	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0066	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Pump Station Spring	RESE-1001056	09-Feb-04	---	<0.00050	0.00083 j	0.0141	<0.00020	---	<0.00010	0.00041 j	---	0.00300 j	---	---	<0.0010	---	<0.00020	---	0.00170 j	---	<0.00010	---	<0.00040	0.0004 j	SVL
Pump Station Spring	RESE-1001056	09-Feb-04	0.0391	<0.00050	0.00110 j	---	0.00022 j	<0.0070	<0.00010	---	<0.00070	0.004	---	0.0258	<0.0010	---	<0.00020	0.0106	---	<0.00160	<0.00010	<1.0	<0.00040	0.00390 j	SVL
Pump Station Spring	RESE-1001056	09-Feb-04	---	<0.00050	0.00087 j	---	<0.00020	---	<0.00010	0.00053 j	---	0.00290 j	---	---	<0.0010	0.0025	---	---	<0.00130	0.00140 j	<0.00010	---	---	<0.00020	SVL
Pump Station Spring DUP	RESE-1001085	25-May-04	---	<0.0030	<0.0030	0.0167	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring DUP	RESE-1001085	25-May-04	0.116	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.072	<0.0030	---	<0.00020	0.0147	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring DUP	RESE-1001085	25-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0076	---	---	<0.010	<0.030	<0.00010	---	---	<0.0050	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																				ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Pump Station Spring	RESE-1001084	25-May-04	---	<0.0030	<0.0030	0.0141	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001084	25-May-04	0.051	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	<0.010	0.025	<0.0030	---	<0.00020	0.0137	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001084	25-May-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0068	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Pump Station Spring	RESE-1001096	03-Aug-04	---	<0.0030	<0.0030	0.0144	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001096	03-Aug-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0030	---	<0.00020	0.0102	---	<0.0030	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001096	03-Aug-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0049	---	---	<0.010	<0.0030	<0.00010	---	---	<0.0050	SVL
Pump Station Spring	RESE-1001166	03-Nov-04	---	<0.0030	<0.0030	0.0159	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	---	<0.00020	---	<0.010	---	<0.00010	---	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001166	03-Nov-04	<0.020	<0.0030	<0.0030	---	<0.0020	<0.040	<0.00010	---	<0.0060	<0.0030	---	<0.020	<0.0030	---	<0.00020	0.0121	---	<0.0060	<0.00010	<1.0	<0.0020	<0.0050	SVL
Pump Station Spring	RESE-1001166	03-Nov-04	---	<0.0030	<0.0030	---	<0.0020	---	<0.00010	<0.0060	---	<0.0030	---	---	<0.0030	0.0027	---	---	<0.010	<0.0060	<0.00010	---	---	<0.0050	SVL
Pump Station Spring DUP	RESE-1001183	08-Feb-05	---	0.00310	0.00350	0.0196	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Pump Station Spring DUP	RESE-1001183	08-Feb-05	<0.0300	<0.00300	0.00360	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0394	---	0.00840	<0.00010	<1.00	<0.00200	<0.0100	SVL
Pump Station Spring DUP	RESE-1001183	08-Feb-05	---	<0.00300	0.00340	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	0.00830	<0.00010	---	---	<0.0100	SVL
Pump Station Spring	RESE-1001182	08-Feb-05	---	0.00310	0.00360	0.0195	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Pump Station Spring	RESE-1001182	08-Feb-05	<0.0300	<0.00300	0.00370	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0393	---	0.00850	<0.00010	<1.00	<0.00200	<0.0100	SVL
Pump Station Spring	RESE-1001182	08-Feb-05	---	<0.00300	0.00340	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	0.00770	<0.00010	---	---	<0.0100	SVL
Pump Station Spring	RESE-1001206	04-May-05	---	<0.00300	0.0035	0.0216	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Pump Station Spring	RESE-1001206	04-May-05	<0.0300	<0.00300	0.0036	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0159	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
Pump Station Spring	RESE-1001206	04-May-05	---	<0.00300	0.0035	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Pump Station Spring	RESE-1001222	08-Aug-05	---	0.0032	0.0033	0.0255	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Pump Station Spring	RESE-1001222	08-Aug-05	<0.030	<0.00390	0.00380	---	<0.0020	<0.04	0.00500 j	---	<0.0060	<0.0100	---	<0.060	<0.00300	---	<0.0002	0.0262	---	<0.00300	<0.00010	<1.0	<0.00200	<0.0100	SVL
Pump Station Spring	RESE-1001222	08-Aug-05	---	0.0031	0.0033	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	<0.0040	---	---	<0.0100	0.0031	<0.00010	---	---	<0.0100	SVL
Pump Station Spring DUP	RESE-1001223	08-Aug-05	---	0.0030	0.0033	0.0259	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	---	<0.0002	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
Pump Station Spring DUP	RESE-1001223	08-Aug-05	<0.030	<0.00360	0.00330	---	<0.0020	<0.04	<0.00100	---	<0.0060	<0.0100	---	<0.060	<0.00300	---	<0.0002	0.0248	---	<0.00300	<0.00010	<1.0	<0.00200	<0.0100	SVL
Pump Station Spring DUP	RESE-1001223	08-Aug-05	---	0.0034	0.0035	---	<0.0020	---	<0.00020	<0.0060	---	<0.0100	---	---	<0.00300	<0.0040	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
Pump Station Spring	RESE-1002001	05-Aug-08	<0.080	<0.00300	0.027	0.0249	<0.00200	---	<0.000200	---	<0.0060	0.00130	---	<0.060	<0.00300	*0.0702*	<0.00020	0.0556	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002001	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002001	05-Aug-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0421	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002023	04-Nov-08	<0.080	<0.00300	<0.025	0.0237	<0.00200	---	<0.000200	---	<0.0060	0.00131	---	<0.060	<0.00300	<0.0040	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002023	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002023	04-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002053	17-Feb-09	0.136	<0.00300	<0.025	0.0083	<0.00200	---	<0.000034	---	<0.0060	0.00739	---	0.078	0.000288 j	0.0052	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002053	17-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002053	17-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.019	---	---	<0.00300	*0.0566*	---	---	<0.010	0.00018 jd	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002080	12-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00125	---	<0.060	<0.000053	<0.0040	---	<0.0080	0.00119	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002080	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002080	12-May-09	---	<0.00300	<0.025	0.0192	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	<0.0040	---	---	<0.010	0.00095 jd	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring DUP	RESE-1002084	12-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00119	---	<0.060	<0.000053	0.0048	---	<0.0080	0.00156	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring DUP	RESE-1002084	12-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002084	12-May-09	---	<0.00300	<0.025	0.0204	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0076	---	---	<0.010	0.00126 jd	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002125	16-Feb-10	<0.080	<0.00300	<0.025	0.0194	---	---	<0.000024	---	<0.0060	0.00188	---	<0.060	<0.000053	0.0096	---	<0.0080	0.00132	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002125	16-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002125	16-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0110	---	---	<0.010	0.00167 jd	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
Pump Station Spring	RESE-1002144	03-Nov-10	<0.080	<0.00300	<0.025	0.0158	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000019	0.0338	---	0.0082	0.00377	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002144	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002144	03-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.0727*	---	---	<0.010	0.00203 jd	<0.0050	---	<0.00100	0.0100	SVL
Pump Station Spring DUP	RESE-1002145	03-Nov-10	<0.080	<0.00300	<0.025	0.0155	---	---	<0.000024	---	<0.0060	<0.00100	---	<0.060	<0.000019	0.0359	---	0.0084	0.00421	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring DUP	RESE-1002145	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring DUP	RESE-1002145	03-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0472	---	---	<0.010	0.00146 jd	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002168	17-May-11	<0.080	<0.00300	<0.025	---	---	---	<0.000036	---	<0.0060	<0.00100	---	<0.060	0.000022 j	0.0441	---	<0.008	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
Pump Station Spring	RESE-1002168	17-May-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
Pump Station Spring	RESE-1002168	17-May-11	---	<0.00300	<0.025	0.0191	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0377	---	---	<0.010	0.00146 jd	<0.0050	---	<0.00100	<0.0100	SVL
Pump Station Spring SP	RESE-1002168	17-May-11	<0.20	<0.015	<0.0050	0.019	<0.0010	<0.20	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.050	<0.0050	0.045	<0.00020	<0.0050	0.0051	<0.010	<0.0050	---	<0.0050	<0.050	TestAmerica
Pump Station Spring SP	RESE-1002168	17-May-11	<0.20	<0.0030	0.0023	0.023	<0.0010	<0.20	<0.0010	<0.0010	<0.0010	<0.0050	<0.0080	0.21	<0.0010	0.037	<0.00020	<0.0010	0.0050	0.0022	<0.0010	<0.050	<0.0010	<0.010	TestAmerica
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	0.0142 j	0.0015 j	0.0266	0.034	<0.00036	---	<0.000034	---	<0.00065	0.0183	---	<0.0202	0.000051 j	0.005 j	---	0.0047 j	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	---	0.0014 j	0.0176 j	---	<0.00036	0.05	<0.00096	<0.001	---	0.0173	---	---	0.000232 j	0.005 j	---	---	<0.0023	0.00072 j	<0.00079	---	0.000023 j	0.0028 j	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	0.087	<0.00300	0.026	0.0143	<0.00200	---	<0.000034	---	<0.0060	0.0195	---	<0.060	0.000241 j	0.0099	---	0.0145	0.00111	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.022	---	---	<0.00300	0.0091	---	---	<0.010	0.00044 jd	<0.0050	---	<0.00100	<0.0100	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002206	14-Dec-11	0.115	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.0257	---	<0.060	0.000289	0.0079	---	<0.008	0.00121	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 19.7 C (Queen above Magma Wash)	RESE-1002206	14-Dec-11	---	<0.00300	<0.025	0.0179	<0.0020	<0.040	<0.0020	<0.0060	---	0.032	---	---	<0.00300	0.0214	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue) LD	RESE-1002018	28-Aug-08	0.0248 j	0.0011 j	0.0209 j	0.0289	<0.00036	---	<0.000034	---	<0.00065	0.0167	---	<0.0202	0.000079 j	0.0068 j	---	0.0038 j	<0.0023	---	0.000018 j	---	<0.000018	<0.0019	SVL
QC 21.7 C (Magma Avenue) LD	RESE-1002018	28-Aug-08	---	0.0011 j	0.014 j	---	<0.00036	0.0342 j	<0.00096	<0.001	---	0.0165	---	---	0.000444 j	0.0091 j	---	---	<0.0023	0.00087 j	<0.00079	---	<0.000018	0.0032 j	SVL
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	<0.080	<0.00300	0.028	0.0323	<0.00200	---	<0.000200	---	<0.0060	0.00540	---	<0.060	<0.00300	*0.230*	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002025	04-Nov-08	---	<0.00300	0.040	---	<0.00200	0.054	<0.0020	<0.0060	---	0.010	---	---	<0.00300	*0.419*	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	0.0248	SVL
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	0.106	<0.00300	<0.025	0.0143	<0.00200	---	<0.000034	---	<0.0060	0.0203	---	<0.060	0.000223 j	0.0088	---	0.0128	0.00112	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.023	---	---	<0.00300	0.0108	---	---	<0.010	0.00030 jd	<0.0050	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	<0.080	<0.00300	0.035	0.0299	<0.00200	---	0.000027 j	---	<0.0060	0.00775	---	<0.060	0.000185 j	*0.102*	---	0.0111	0.00259	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	---	<0.00300	0.027	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.011	---	---	<0.00300	*0.327*	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	<0.080	<0.00300	<0.025	0.0563	---	---	0.000063 j	---	<0.0060	0.0159	---	<0.060	0.000397 j	0.0258	---	0.0098	0.00270	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 21.7 C (Magma Avenue)	RESE-1002141	01-Nov-10	---	<0.00300	<0.025	---	<0.00200	0.062	<0.0020	<0.0060	---	0.034	---	---	0.00523	*0.0596*	---	---	<0.010	0.00044 jd	<0.0050	---	<0.00100	0.0273	SVL
QC 21.7 C (Magma Avenue)	RESE-1002177	19-Aug-11	<0.080	<0.00300	<0.025	---	---	---	0.00006	---	<0.0060	0.0508	---	<0.060	0.000349	0.0326	---	0.010	0.00287	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 21.7 C (Magma Avenue)	RESE-1002177	19-Aug-11	---	<0.00300	<0.025	0.0771	<0.0020	0.043	<0.0020	<0.0060	---	0.144	---	---	0.0215	*0.183*	<0.00020	---	<0.010	0.00116	<0.0050	---	<0.00100	0.0898	SVL
QC 21.7 C (Magma Avenue)	RESE-1002190	28-Nov-11	<0.080	<0.00300	<0.025	---	---	---	0.00003	---	<0.0060	0.0286	---	<0.060	0.000537	0.0068	---	<0.008	0.00340	---	<0.000100	---	<0.00100	0.0104	SVL
QC 21.7 C (Magma Avenue)	RESE-1002190	28-Nov-11	---	<0.00300	<0.025	0.0318	<0.0020	<0.040	<0.0020	<0.0060	---	0.033	---	---	<0.00300	0.0315	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
QC 22.6 E (Karst Spring)	RESE-1001180	08-Feb-05	---	<0.00300	0.0108	0.00730	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	0.0210	SVL
QC 22.6 E (Karst Spring)	RESE-1001180	08-Feb-05	<0.0300	<0.00300	0.00990	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	0.0200	SVL
QC 22.6 E (Karst Spring)	RESE-1001180	08-Feb-05	---	<0.00750	0.00980	---	<0.00200	---	<0.00050	<0.00600	---	<0.0100	---	---	<0.00750	<0.00400	---	---	<0.0100	<0.00300	<0.00025	---	---	0.0200	SVL
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	<0.0141	0.00049 j	0.0155 j	0.0136	<0.00036	---	0.000241	---	<0.00065	0.009	---	<0.0202	0.000169 j	0.0079 j	---	0.0026 j	<0.0023	---	<0.000017	---	<0.000018	0.0628	SVL
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	---	0.00049 j	<0.0065	---	<0.00036	0.0347 j	<0.00096	<0.001	---	0.0122	---	---	0.001 j	0.0122	---	---	<0.0023	0.00069 j	<0.00079	---	<0.000018	0.0626	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b]																					ANALYTICAL LABORATORY
			Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	
Surface Water																									
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	<0.080	<0.00300	<0.025	0.0088	<0.00200	---	0.000122 j	---	<0.0060	0.00745	---	<0.060	0.000098 j	<0.0040	---	0.0221	<0.00100	---	<0.000100	---	<0.00100	0.0377	SVL
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0055	---	---	<0.010	0.00064 jd	<0.0050	---	<0.00100	0.0364	SVL
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	<0.080	<0.00300	0.028	0.0089	<0.00200	---	0.000141 j	---	<0.0060	0.00739	---	<0.060	0.000110 j	0.0115	---	0.0226	0.00134	---	<0.000100	---	<0.00100	0.0392	SVL
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0065	---	---	<0.010	0.00029 jd	<0.0050	---	<0.00100	0.0379	SVL
QC 27.3 C (Upper QC)	RESE-1001184	08-Feb-05	---	<0.00300	0.00490	0.0187	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1001184	08-Feb-05	9.32	<0.00300	0.00780	---	<0.00200	<0.0400	0.00021	---	<0.00600	0.0240	---	5.11	0.00770	---	<0.00020	<0.00800	---	<0.00300	<0.00010	<1.00	<0.00200	0.0200	SVL
QC 27.3 C (Upper QC)	RESE-1001184	08-Feb-05	---	<0.00300	0.00730	---	<0.00200	---	0.00032	<0.00600	---	0.0200	---	---	0.00780	0.120	---	---	<0.0100	<0.00300	<0.00010	---	---	0.0180	SVL
QC 27.3 C (Upper QC)	RESE-1001207	04-May-05	---	<0.00300	0.0042	0.0234	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	---	<0.00020	---	<0.0100	---	<0.00010	---	<0.00200	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1001207	04-May-05	<0.0300	<0.00300	0.0043	---	<0.00200	<0.0400	<0.00020	---	<0.00600	<0.0100	---	<0.0600	<0.00300	---	<0.00020	0.0088	---	<0.00300	<0.00010	<1.00	<0.00200	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1001207	04-May-05	---	<0.00300	0.0040	---	<0.00200	---	<0.00020	<0.00600	---	<0.0100	---	---	<0.00300	<0.00400	---	---	<0.0100	<0.00300	<0.00010	---	---	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	<0.080	<0.00300	0.051	0.0362	<0.00200	---	<0.000200	---	<0.0060	0.00914	---	<0.060	<0.00300	0.0626	<0.00020	0.0437	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	<0.00300	0.033	---	<0.00200	0.083	<0.0020	<0.0060	---	0.010	---	---	<0.00300	0.264	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	<0.080	<0.00300	<0.025	0.0288	<0.00200	---	<0.000200	---	<0.0060	0.0110	---	<0.060	<0.00300	0.0050	<0.00020	0.0105	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002024	04-Nov-08	---	<0.00300	<0.025	---	<0.00200	0.064	<0.0020	<0.0060	---	0.020	---	---	<0.00300	0.0962	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	0.089	<0.00300	<0.025	0.0112	<0.00200	---	0.000038 j	---	<0.0060	0.00921	---	<0.060	0.000188 j	0.0098	---	<0.0080	0.00102	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.025	---	---	0.00363	0.0861	---	---	<0.010	0.00021 jd	<0.0050	---	<0.00100	0.0130	SVL
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	<0.080	<0.00300	<0.025	0.0475	<0.00200	---	<0.000024	---	<0.0060	0.00250	---	<0.060	<0.000053	0.444	---	0.0119	0.00218	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	---	<0.00300	<0.025	---	<0.00200	0.048	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.543	---	---	<0.010	0.00056 jd	<0.0050	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	<0.080	<0.00300	<0.025	0.0207	---	---	<0.000024	---	<0.0060	0.00903	---	<0.060	<0.000019	<0.0040	---	<0.0080	0.00152	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
QC 27.3 C (Upper QC)	RESE-1002146	03-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	0.010	---	---	<0.00300	0.0156	---	---	<0.010	0.00051 jd	<0.0050	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002175	19-Aug-11	<0.080	<0.00300	<0.025	---	---	---	0.00003	---	<0.0060	0.00827	---	0.098	0.000127	0.293	---	0.008	0.00265	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002175	19-Aug-11	---	<0.00300	<0.025	0.0227	<0.0020	<0.040	<0.0020	<0.0060	---	0.011	---	---	<0.00300	0.307	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002197	01-Dec-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00755	---	<0.060	<0.000042	<0.0040	---	0.009	0.00251	---	<0.000100	---	<0.00100	<0.0100	SVL
QC 27.3 C (Upper QC)	RESE-1002197	01-Dec-11	---	<0.00300	<0.025	0.0236	<0.0020	<0.040	<0.0020	<0.0060	---	0.010	---	---	<0.00300	<0.0040	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	<0.0141	<0.002	<0.0066	0.0073 j	<0.00036	---	<0.000034	---	0.0014 j	0.0018	---	0.364	0.000065 j	0.0871	<0.000064	<0.0023	<0.0023	---	<0.000017	---	<0.000018	<0.0019	SVL
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	---	<0.0004	0.0069 j	---	<0.00036	0.0217 j	<0.00096	<0.001	---	<0.0039	---	---	0.000273 j,d	0.301	<0.000064	---	<0.0023	<0.0004	<0.00079	---	<0.000072	<0.0019	SVL
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	<0.080	<0.00300	<0.025	0.0614	<0.00200	---	<0.000200	---	<0.0060	0.00260	---	<0.060	<0.00300	0.0214	<0.00020	<0.0080	<0.010	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002029	05-Nov-08	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0243	---	---	<0.010	<0.00300	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	0.157	<0.00300	<0.025	0.0324	<0.00200	---	<0.000042	---	<0.0060	0.00904	---	0.086	0.000114 j	0.0338	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	0.010	---	---	<0.00300	0.0316	---	---	<0.010	<0.00041	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	0.175	<0.00300	<0.025	0.0307	<0.00200	---	<0.000042	---	<0.0060	0.00896	---	0.088	0.000125 j	0.0297	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.00020	<0.0060	---	0.010	---	---	<0.00300	0.0324	---	---	<0.010	<0.00041	<0.0050	---	<0.00100	<0.0100	SVL

MONTGOMERY & ASSOCIATES

TABLE B-2. TRACE CONSTITUENTS
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	TRACE CONSTITUENTS[a] (mg/L)[b] Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	CN	Fe	Pb	Mn	Hg	Mo	Ni	Se	Ag	S	Tl	Zn	ANALYTICAL LABORATORY
Surface Water																									
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00212	---	0.174	0.000055 j	*0.202*	---	<0.0080	0.00159	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	---	<0.00300	<0.025	0.0586	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.183*	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	<0.080	<0.00300	<0.025	---	<0.00200	---	<0.000024	---	<0.0060	0.00199	---	0.189	<0.000053	*0.207*	---	<0.0080	0.00270	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	---	<0.00300	<0.025	0.0602	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	*0.187*	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	0.088	<0.00300	<0.025	0.0405	---	---	<0.000024	---	<0.0060	0.00665	---	<0.060	0.000053 j	0.0074	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	0.0377	SVL
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002128	18-Feb-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0068	---	---	<0.010	<0.00030	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	<0.080	<0.00300	<0.025	0.0407	---	---	<0.000024	---	<0.0060	0.00840	---	0.274	0.000386 j	0.0178	---	<0.0080	<0.00100	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.00020	---	---	---	---	---	---	---	SVL
RR 1.5 C (Rancho Rio)	RESE-1002143	02-Nov-10	---	<0.00300	<0.025	---	<0.00200	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0252	---	---	<0.010	0.00056 jd	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002202	09-Dec-11	<0.080	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00776	---	<0.060	<0.000042	0.0082	---	<0.008	0.00134	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio)	RESE-1002202	09-Dec-11	---	<0.00300	<0.025	0.0335	<0.0020	<0.040	<0.0020	<0.0060	---	<0.010	---	---	<0.00300	0.0082	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002203	09-Dec-11	0.088	<0.00300	<0.025	---	---	---	<0.000026	---	<0.0060	0.00767	---	<0.060	0.000061	0.0101	---	<0.008	0.00182	---	<0.000100	---	<0.00100	<0.0100	SVL
RR 1.5 C (Rancho Rio) DUP	RESE-1002203	09-Dec-11	---	<0.00300	<0.025	0.0446	<0.0020	<0.040	<0.0020	<0.0060	---	0.010	---	---	<0.00300	0.0103	<0.00020	---	<0.010	<0.00070	<0.0050	---	<0.00100	<0.0100	SVL
SS-1	RESE-1001106	07-Apr-04	0.114	<0.0030	0.033	0.0259	<0.0020	<0.040	<0.00001	<0.0060	<0.0060	0.057	---	0.042	<0.0030	0.0039	<0.00020	<0.0080	<0.010	<0.0030	<0.00010	---	<0.0020	0.0063	SVL
U.S EPA National Primary Drinking Water Regulations			---	0.006	0.010	2	0.004	---	0.005	0.1	---	1.3	0.20	---	0.015	---	0.002	---	---	0.05	---	---	0.002	---	
U.S EPA National Secondary Drinking Water Regulations			0.05 to 0.2	---	---	---	---	---	---	---	---	1.0	---	0.3	---	0.050	---	---	---	---	---	0.1	---	---	5
Arizona Numeric Aquifer Water Quality Standards			---	0.006	0.05	2.0	0.004	---	0.005	0.1	---	---	0.20	---	0.05	---	0.002	---	0.1	0.05	---	---	0.002	---	

Values in bold red are out of compliance with EPA primary water quality standards

Values in red italics are out of compliance with EPA secondary water quality standards

Values in red underline are out of compliance with Arizona numeric water quality standards

Values in blue indicate that detection limit exceeds standard

--- = Not available, not applicable

-- = Not calculated due to non-detect

Shading indicates dissolved results
Shading indicates total results
Shading indicates total recoverable results
Shading indicates unknown filtration or no filtration method provided for analyses

a
Al = Aluminum
Sb = Antimony
As = Arsenic
Ba = Barium
Be = Beryllium
B = Boron
Cd = Cadmium
Cr = Chromium (total)
Co = Cobalt
Cu = Copper
CN = Cyanide (amenable)
Fe = Iron
Pb = Lead
Mn = Manganese
Hg = Mercury
Mo = Molybdenum
Ni = Nickel
Se = Selenium
Ag = Silver
S = Sulfide
Tl = Thallium
Zn = Zinc

b
mg/L = milligrams per liter

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

MONTGOMERY & ASSOCIATES

TABLE B-3. RADIOLOGICAL DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOLOGICAL CONSTITUENTS[a]							ANALYTICAL LABORATORY
			Gross Alpha (pCi/L)[b]	Gross Beta (pCi/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Ra-226 + Ra-228 (pCi/L)	Total U (pCi/L)	Total U (mg/L)[c]	
Surface Water										
Blue Spring	RESE-1001087	26-May-04	3.03 ± 0	<4.10	<0.70	<1.4	--	---	0.0004 j	ACZ
Blue Spring	RESE-1002009	19-Aug-08	3.8 ± 1.6	<3.3	<0.19	<1.2	--	1.1 ± 0.5	0.0006	Energy Labs
Blue Spring DUP	RESE-1002010	19-Aug-08	5.8 ± 1.8	<3.3	<0.20	<1.2	--	0.7 ± 0.4	0.0006	Energy Labs
Blue Spring	RESE-1003165	17-Jul-10	<2.1	<4.0	<0.35	<1.30	--	---	0.0007	ACZ
Bored Spring	RESE-1001088	26-May-04	<2.90	11.2 ± 0	<0.90	<1.40	--	---	<0.0003	ACZ
Boulder Hole	RESE-1001008	22-May-03	<2.40	<3.60	<0.90	<1.50	--	---	0.00129	ACZ
Boulder Hole	RESE-1001083	24-May-04	<2.80	4.93 ± 0	<0.40	<1.50	--	---	0.0011	ACZ
Boulder Hole	RESE-1002006	06-Aug-08	<2.5	<3.1	<0.23	<1.2	--	2.5 ± 0.6	0.0017	Energy Labs
Boulder Hole	RESE-1002167	16-May-11	<2.3	6.2 ± 3	<0.41	1.1 ± 0.41	1.10	---	0.0017	ACZ
DC 10.9 C	RESE-1001004	16-May-03	<1.60	<3.30	<1.00	<1.50	--	---	<0.00005	ACZ
DC 10.9 C	RESE-1001091	27-May-04	2.16 ± 0	5.83 ± 0	<0.5	<1.40	--	---	<0.0003	ACZ
DC 13.5 C DUP	RESE-1001012	30-May-03	<1.60	<4.00	<0.60	<1.50	--	---	<0.00005	ACZ
DC 13.5 C	RESE-1001011	30-May-03	<1.60	<4.00	<0.30	<1.40	--	---	<0.00005	ACZ
DC 13.5 C	RESE-1001086	26-May-04	<1.6	<4.00	<0.40	<1.4	--	---	<0.0003	ACZ
DC 13.5 C	RESE-1002014	21-Aug-08	5.1 ± 1.3	<3.2	<0.22	<1.2	--	<0.2	<0.0003	Energy Labs
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	20.8 ± 2.7	18.4 ± 2.3	<0.19	<1.2	--	0.6 ± 0.5	<0.0003	Energy Labs
DC 15.5 C	RESE-1002003	05-Aug-08	<1.0	<2.6	<0.19	1.4 ± 0.79	1.40	<0.2	<0.0003	Energy Labs
DC 4.1 E	RESE-1001007	21-May-03	<2.30	<3.40	<1.10	<1.40	--	---	0.00024 j	ACZ
DC 5.5 C	RESE-1001076	20-May-04	<2.0	<4.1	<0.30	<1.40	--	---	0.0001 j	ACZ
DC 6.1 E (Lower Crater Tanks)	RESE-1001077	20-May-04	<2.00	<3.9	<0.30	<1.4	--	---	0.0006	ACZ
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	<1.6	<2.7	<0.18	<1.2	--	1.2 ± 0.5	0.0005	Energy Labs
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	3.9 ± 1.3	<3.2	<0.24	<1.2	--	<0.2	<0.0003	Energy Labs
DC 6.6 W	RESE-1001010	29-May-03	<2.70	<4.30	<0.60	<1.40	--	---	0.00009 j	ACZ
DC 6.6 W	RESE-1001074	05-May-04	<2.10	<3.60	<0.50	1.42 ± 0.7	1.42	---	0.0000 j	ACZ
DC 7.1 C	RESE-1001009	29-May-03	<2.5	<4.30	<0.40	<1.4	--	---	0.00018 j	ACZ
DC 7.1 C	RESE-1001075	05-May-04	<1.80	<4.00	<0.40	<1.4	--	---	<0.00005	ACZ
DC 8.1 C	RESE-1002005	06-Aug-08	<1.5	<2.7	<0.20	<1.2	--	1.2 ± 0.5	<0.0003	Energy Labs
DC 8.2 W	RESE-1001006	20-May-03	<2.3	<3.40	<1.10	<1.40	--	---	0.00050	ACZ
DC 8.2 W	RESE-1001079	21-May-04	<2.10	<4.20	<0.30	<1.40	--	---	0.0005	ACZ
DC 8.2 W	RESE-1000260	19-Feb-08	2.9 ± 0.8	<2.5	<0.1	<1.3	--	1.1 ± 0.3	0.0006	Energy Labs
DC 8.2 W	RESE-1003002	27-May-08	<1.6	<2.7	<0.12	1.1 ± 0.56	1.10	1.3 ± 0.4	0.0005	Energy Labs
DC 8.2 W	RESE-1002004	06-Aug-08	<1.4	<2.7	<0.18	1.4 ± 0.79	1.40	1.0 ± 0.4	0.0005	Energy Labs
DC 8.2 W	RESE-1003023	02-Dec-08	<1.5	<2.6	<0.15	<1.2	--	0.7 ± 0.4	0.0004	Energy Labs
DC 8.8 C	RESE-1001005	20-May-03	<2.10	<3.40	<1.10	<1.5	--	---	0.00014 j	ACZ
DC 8.8 C	RESE-1001078	21-May-04	2.6 ± 2.4	<4.30	<0.30	<1.50	--	---	0.0001 j	ACZ
Government Springs	RESE-1002130	18-Mar-10	5.1 ± 2.4	3.5 ± 1.7	<0.23	<1.20	--	3.7	0.0032	Energy Labs
Government Springs	RESE-1002181	29-Aug-11	3.5 ± 3.4	9.3 ± 3.3	<0.24	<1.20	--	---	0.0033	ACZ
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	3.4 ± 1.2	<3.2	<0.20	<1.2	--	<0.2	<0.0003	Energy Labs
Hidden Spring	RESE-1001003	15-May-03	<2.50	<3.50	<1.00	<1.4	--	---	0.00067	ACZ
Hidden Spring	RESE-1001082	24-May-04	<2.90	<4.30	<0.60	<1.5	--	---	0.0007 j	ACZ
Hidden Spring	RESE-1002008	19-Aug-08	3.7 ± 2.4	<4.2	<0.19	<1.2	--	0.7 ± 0.4	0.0005	Energy Labs
Hidden Spring	RESE-1003163	17-Jul-10	4.2 ± 2.9	<4.1	<0.34	<1.20	--	---	0.0006	ACZ
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	18.2 ± 2	23.8 ± 2.3	<0.21	<1.2	--	<0.2	<0.0003	Energy Labs
Kane Spring	RESE-1001002	15-May-03	0.39 ± 3.8	<3.50	<1.00	<1.4	--	---	0.00039	ACZ
Kane Spring	RESE-1002022	29-Aug-08	8.4 ± 2.7	<3.4	<0.20	<1.2	--	2.4 ± 0.6	0.0004	Energy Labs
Kane Spring	RESE-1003164	17-Jul-10	<2.30	<4.10	<0.34	<1.30	--	---	0.0013	ACZ

TABLE B-3. RADIOLOGICAL DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOLOGICAL CONSTITUENTS[a]							ANALYTICAL LABORATORY
			Gross Alpha (pCi/L)[b]	Gross Beta (pCi/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Ra-226 + Ra-228 (pCi/L)	Total U (pCi/L)	Total U (mg/L)[c]	
Surface Water										
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	4.9 ± 1.8	<2.7	<0.20	<1.2	--	3.4 ± 0.5	0.0041	Energy Labs
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	1.7 ± 1.6	<1.6	<0.20	<1.10	--	1.6	0.0024	Energy Labs
MC 3.3 C	RESE-1002095	14-May-09	<2.4	<2.6	<0.20	<1.2	--	0.3 ± 0.2	<0.0003	Energy Labs
MC 3.3 C	RESE-1002131	18-Mar-10	2.0 ± 1.6	2.6 ± 1.6	<0.21	<1.10	--	2.3	0.0023	Energy Labs
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	<2.5	<2.7	<0.19	<1.1	--	2.7 ± 0.4	0.0022	Energy Labs
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	<1.3	2.6 ± 1.6	<0.22	<1.20	--	0.3	<0.0003	Energy Labs
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	2 ± 2.1	<4.10	<0.23	<1.20	--	---	0.0006	ACZ
MC 5.2 C	RESE-1002171	31-May-11	4.8 ± 2.7	5 ± 2.9	<0.22	<1.00	--	---	0.0021	ACZ
MC 5.2 C	RESE-1002184	29-Aug-11	7.5 ± 3.5	8.1 ± 3.3	<0.26	<1.5	--	---	0.0015	ACZ
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	<3.6	<3.0	<0.21	1.3 ± 0.79	1.30	3.3 ± 0.5	0.0037	Energy Labs
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	<3.7	<3.5	<0.20	<1.2	--	3.7 ± 0.7	0.0037	Energy Labs
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	<1.7	<1.6	<0.21	<1.10	--	1.7	0.0019	Energy Labs
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	<3.1	<5.5	<0.19	1.1 ± 0.47	1.1	---	0.0029	ACZ
Number Nine	RESE-1002020	28-Aug-08	3.8 ± 1.1	<3.2	<0.22	<1.2	--	<0.2	<0.0003	Energy Labs
Oak Flat Tributary	RESE-1002016	27-Aug-08	4.0 ± 1.1	<3.2	<0.20	<1.2	--	<0.2	<0.0003	Energy Labs
Pump Station Spring	RESE-1001001	15-May-03	<2.4	<3.60	<0.80	<1.40	--	---	0.00071	ACZ
Pump Station Spring DUP	RESE-1001085	25-May-04	<3.80	<5.40	<0.50	<1.4	--	---	0.0013	ACZ
Pump Station Spring	RESE-1001084	25-May-04	4.02 ± 0	<5.70	4.3 ± 0	<1.40	4.3	---	0.0013	ACZ
Pump Station Spring	RESE-1002001	05-Aug-08	<3.5	<4.1	<0.18	<1.2	--	1.2 ± 0.4	0.0011	Energy Labs
Pump Station Spring	RESE-1002168	17-May-11	<2.4	<4.1	<0.26	<0.92	--	---	0.0016	ACZ
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	5.9 ± 1.8	4.2 ± 2	<0.21	<1.2	--	0.4 ± 0.4	<0.0003	Energy Labs
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	4.7 ± 1.5	<3.3	<0.20	<1.2	--	<0.2	<0.0003	Energy Labs
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	9.1 ± 2.5	<3.4	<0.21	<1.2	--	1.5 ± 0.5	<0.0003	Energy Labs
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	<1.9	2.9 ± 1.7	0.87 ± 0.62	<1.2	0.87	<0.2	0.0003	Energy Labs
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	1.9 ± 1	<3.2	<0.28	<1.2	--	<0.2	<0.0003	Energy Labs
U.S.EPA National Primary Drinking Water Regulations			15 pCi/L	50 pCi/L[d]	---	---	5 pCi/L	---	0.03 mg/L	
Arizona Numeric Aquifer Water Quality Standards			15 pCi/L	50 pCi/L	---	---	5 pCi/L	---	0.035 mg/L	

Values in bold red are out of compliance with EPA primary water quality standards

Values in red italics are out of compliance with Arizona numeric water quality standards

Values in blue indicate that detection limit exceeds standard

a Ra-226 = Radium 226
Ra-228 = Radium 228
U = Uranium

b pCi/L = picocuries per liter

c mg/L = milligrams per liter

d pCi/L alert level for EPA and Arizona Numeric Standard of 4 mrem/year (milliroentgen equivalent man per year)

< = Less than reported detection limit
--- = Not available, not applicable
-- = Not calculated due to non-detect

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

TABLE B-4. STABLE ISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Surface Water								
Blue Spring	RESE-1002009	19-Aug-08	-9.7	-67	---	4.5	17.7	University of Arizona
Blue Spring DUP	RESE-1002010	19-Aug-08	-9.7	-67	---	4.7	17.8	University of Arizona
Blue Spring	RESE-1002052	12-Feb-09	-7.9	-54	---	3.7	4.9	University of Arizona
Blue Spring	RESE-1002088	13-May-09	-9.8	-67	---	8.2	7.8	University of Arizona
Blue Spring	RESE-1003165	17-Jul-10	---	---	-15.5	---	---	Beta Analytic
Blue Spring	RESE-1003165	17-Jul-10	-9.74	-69.0	---	4.4	1.0	Isotech
Bored Spring	RESE-1002051	12-Feb-09	-6.8	-56	---	7.7	6.4	University of Arizona
Bored Spring	RESE-1002089	13-May-09	-4.7	-49	---	7.6	6.3	University of Arizona
Boulder Hole	RESE-1002006	06-Aug-08	-11.0	-81	---	15.9	14.8	University of Arizona
Boulder Hole	RESE-1002060	19-Feb-09	-7.8	-50	---	0.2	3.3	University of Arizona
Boulder Hole	RESE-1002082	07-May-09	-7.4	-53	---	17.8	9.8	University of Arizona
Boulder Hole	RESE-1002167	16-May-11	---	---	-13.4	---	---	Beta Analytic
Boulder Hole	RESE-1002167	16-May-11	-7.59	-61.0	---	21.7	-1.3	Isotech
DC 13.5 C	RESE-1002014	21-Aug-08	-8.7	-73	---	1.6	i	University of Arizona
DC 13.5 C	RESE-1002057	19-Feb-09	-8.2	-52	---	0.8	7.4	University of Arizona
DC 13.5 C	RESE-1002103	21-May-09	-5.9	-46	---	20.7	14.6	University of Arizona
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	-13.5	-99	---	-1.8	10.3	University of Arizona
DC 15.5 C	RESE-1002003	05-Aug-08	-12.1	-97	---	i	i	University of Arizona
DC 15.5 C	RESE-1002069	26-Feb-09	-8.0	-51	---	1.3	5.1	University of Arizona
DC 15.5 C	RESE-1002075	05-May-09	-6.7	-47	---	9.1	8.4	University of Arizona
DC 6.1 E (Lower Crater Tanks)	001226	05-Jun-03	-10.0	-69	---	---	---	University of Arizona
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	-10.3	-70	---	1.5	6.8	University of Arizona
DC 6.1 E (Lower Crater Tanks)	RESE-1002064	25-Feb-09	-10.3	-70	---	1.5	4.2	University of Arizona
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	-10.5	-70	---	1.6	6.9	University of Arizona
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	-10.5	-82	---	6.7	13.4	University of Arizona
DC 6.14 C (Upper Crater Tank)	RESE-1002037	12-Nov-08	-8.4	-68	---	---	---	University of Arizona
DC 6.14 C (Upper Crater Tank)	RESE-1002056	18-Feb-09	-8.0	-50	---	0.6	7.3	University of Arizona
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	-7.8	-55	---	15.8	i	University of Arizona
DC 6.6 W	001227	05-Jun-03	-9.9	-68	---	---	---	University of Arizona
DC 8.1 C	RESE-1002005	06-Aug-08	-9.9	-71	---	5.3	16.0	University of Arizona
DC 8.1 C	RESE-1002062	24-Feb-09	-8.2	-51	---	0.6	8.5	University of Arizona
DC 8.1 C	RESE-1002098	19-May-09	-9.7	-66	---	6.3	23.3	University of Arizona
DC 8.2 W	RESE-1000260	19-Feb-08	-10.0	-68	-15.0	4.5	9.8	University of Arizona
DC 8.2 W	RESE-1003002	27-May-08	-9.8	-68	---	4.8	8.7	University of Arizona
DC 8.2 W	RESE-1002004	06-Aug-08	-10.0	-68	---	5.2	14.1	University of Arizona

TABLE B-4. STABLE ISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Surface Water								
DC 8.2 W	RESE-1003023	02-Dec-08	-10.1	-68	---	4.5	1.8	University of Arizona
DC 8.2 W	RESE-1002063	24-Feb-09	-9.8	-66	---	3.7	7.1	University of Arizona
DC 8.2 W	RESE-1002097	19-May-09	-10.3	-69	---	4.5	10.9	University of Arizona
Government Springs	RESE-1002130	18-Mar-10	---	---	-15.4	---	---	Beta Analytic
Government Springs	RESE-1002130	18-Mar-10	-9.39	-69.6	---	0.0	4.06	Isotech
Government Springs	RESE-1002181	29-Aug-11	---	---	-14.2	---	---	Beta Analytic
Government Springs	RESE-1002181	29-Aug-11	-9.58	-69.1	---	-0.1	1.6	Isotech
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	-3.5	-46	---	8.7	13.1	University of Arizona
H 0.1 C (Hackberry Canyon)	RESE-1002061	24-Feb-09	-7.4	-49	---	0.3	4.7	University of Arizona
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	-3.6	-43	---	3.6	5.6	University of Arizona
Hidden Spring	RESE-1002008	19-Aug-08	-9.4	-68	---	0.2	5.9	University of Arizona
Hidden Spring	RESE-1002045	10-Feb-09	-9.5	-68	---	-0.3	4.6	University of Arizona
Hidden Spring	RESE-1002086	12-May-09	-9.7	-68	---	0.0	4.4	University of Arizona
Hidden Spring	RESE-1003163	17-Jul-10	---	---	-14.4	---	---	Beta Analytic
Hidden Spring	RESE-1003163	17-Jul-10	-8.88	-64.8	---	1.2	1.1	Isotech
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	-12.6	-93	---	-7.7	6.8	University of Arizona
IC 1.0 C (Iron Canyon)	RESE-1002055	17-Feb-09	-8.3	-52	---	0.4	7.4	University of Arizona
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	-7.6	-55	---	-0.1	9.3	University of Arizona
Kane Spring	RESE-1002022	29-Aug-08	-10.2	-73	---	3.9	9.9	University of Arizona
Kane Spring	RESE-1002046	10-Feb-09	-9.9	-69	---	4.2	5.3	University of Arizona
Kane Spring	RESE-1002087	13-May-09	-10.3	-71	---	4.8	5.6	University of Arizona
Kane Spring	RESE-1003164	17-Jul-10	---	---	-13.1	---	---	Beta Analytic
Kane Spring	RESE-1003164	17-Jul-10	-10.01	-71.8	---	2.6	1.6	Isotech
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002039	13-Nov-08	-9.5	-68	---	---	---	University of Arizona
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002072	05-Mar-09	-9.1	-61	---	-2.5	5.2	University of Arizona
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	-9.1	-62	---	-1.8	4.3	University of Arizona
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	---	---	-15.6	---	---	Beta Analytic
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	-7.90	-53.5	---	6.2	1.69	Isotech
MC 3.3 C	RESE-1002040	13-Nov-08	-9.6	-69	---	---	---	University of Arizona
MC 3.3 C	RESE-1002074	05-Mar-09	-9.1	-64	---	-0.7	3.9	University of Arizona
MC 3.3 C	RESE-1002095	14-May-09	-9.3	-65	---	1.6	15.9	University of Arizona
MC 3.3 C	RESE-1002131	18-Mar-10	---	---	-14.1	---	---	Beta Analytic
MC 3.3 C	RESE-1002131	18-Mar-10	-8.21	-56.9	---	-3.4	2.37	Isotech
MC 3.4 W (Wet Leg Spring)	RESE-1002041	13-Nov-08	-10.2	-71	---	---	---	University of Arizona
MC 3.4 W (Wet Leg Spring)	RESE-1002073	05-Mar-09	-10.2	-71	---	3.3	3.6	University of Arizona

TABLE B-4. STABLE ISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Surface Water								
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	-10.2	-70	---	7.5	19.6	University of Arizona
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	---	---	-16.5	---	---	Beta Analytic
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	-9.50	-69.2	---	0.2	0.45	Isotech
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	-15.8	---	---	Beta Analytic
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	-10.15	-72.5	---	2.9	-2.5	Isotech
MC 5.2 C	RESE-1002171	31-May-11	---	---	-14.1	---	---	Beta Analytic
MC 5.2 C	RESE-1002171	31-May-11	-9.05	-67.2	---	-0.3	4.6	Isotech
MC 5.2 C	RESE-1002184	29-Aug-11	---	---	-15.7	---	---	Beta Analytic
MC 5.2 C	RESE-1002184	29-Aug-11	-9.36	-67.4	---	-0.3	2.3	Isotech
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002038	13-Nov-08	-9.6	-69	---	---	---	University of Arizona
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002071	05-Mar-09	-9.5	-66	---	0.1	4.9	University of Arizona
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	-9.4	-67	---	-1.0	5.8	University of Arizona
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	-9.6	-67	---	-0.8	6.1	University of Arizona
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	---	---	-14.4	---	---	Beta Analytic
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	-8.27	-56.9	---	-4.3	2.09	Isotech
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	-8.85	-60.4	---	---	---	Isotech
Number Nine	RESE-1002020	28-Aug-08	-12.8	-98	---	-0.5	6.7	University of Arizona
Number Nine	RESE-1002058	19-Feb-09	-7.5	-47	---	0.9	6.2	University of Arizona
Number Nine DUP	RESE-1002059	19-Feb-09	-7.6	-47	---	0.5	6.3	University of Arizona
Number Nine	RESE-1002077	05-May-09	-3.5	-36	---	15.0	10.4	University of Arizona
Oak Flat Tributary	RESE-1002016	27-Aug-08	-14.1	-105	---	-0.4	6.0	University of Arizona
Oak Flat Tributary	RESE-1002068	26-Feb-09	-7.0	-45	---	2.4	5.4	University of Arizona
Oak Flat Tributary	RESE-1002076	05-May-09	-2.2	-30	---	10.6	11.6	University of Arizona
Pump Station Spring	RESE-1002001	05-Aug-08	-9.9	-67	---	-1.1	14.6	University of Arizona
Pump Station Spring	RESE-1002053	17-Feb-09	-7.7	-47	---	1.2	7.0	University of Arizona
Pump Station Spring	RESE-1002080	12-May-09	-9.5	-63	---	-0.4	6.2	University of Arizona
Pump Station Spring DUP	RESE-1002084	12-May-09	-9.7	-64	---	-0.1	5.6	University of Arizona
Pump Station Spring	RESE-1002168	17-May-11	---	---	-15.4	---	---	Beta Analytic
Pump Station Spring	RESE-1002168	17-May-11	-9.51	-66.3	---	-1.8	2.1	Isotech
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	-12.0	-91	---	0.1	4.4	University of Arizona
QC 19.7 C (Queen above Magma Wash)	RESE-1002048	11-Feb-09	-8.3	-54	---	0.9	7.2	University of Arizona
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	-11.9	-89	---	-1.1	4.9	University of Arizona
QC 21.7 C (Magma Avenue)	RESE-1002047	11-Feb-09	-8.4	-55	---	0.8	6.5	University of Arizona
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	7.5	4.0	---	10.3	13.9	University of Arizona
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	-11.1	-80	---	1.7	6.0	University of Arizona

TABLE B-4. STABLE ISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	ISOTOPES					ANALYTICAL LABORATORY
			$\delta^{18}O$ [a] (‰)	δD [b] (‰)	$\delta^{13}C$ in DIC [c] (‰)	$\delta^{34}S$ [d] (‰)	$\delta^{18}O$ in SO_4 [e] (‰)	
Surface Water								
QC 22.6 E (Karst Spring) DUP	RESE-1002050	11-Feb-09	-8.5	-56	---	0.5	4.5	University of Arizona
QC 22.6 E (Karst Spring)	RESE-1002049	11-Feb-09	-8.4	-57	---	0.7	5.3	University of Arizona
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	-2.2	-48	---	12.2	11.3	University of Arizona
QC 27.3 C (Upper QC)	RESE-1002054	17-Feb-09	-7.8	-47	---	0.8	5.3	University of Arizona
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	-0.5	-24	---	8.9	9.1	University of Arizona
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	-9.6	-66	---	1.0	8.4	University of Arizona
RR 1.5 C (Rancho Rio) DUP	RESE-1002066	26-Feb-09	-7.7	-50	---	1.1	5.3	University of Arizona
RR 1.5 C (Rancho Rio)	RESE-1002065	26-Feb-09	-7.7	-51	---	1.1	6.5	University of Arizona
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	-8.4	-58	---	3.2	7.6	University of Arizona
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	-8.3	-58	---	3.1	7.6	University of Arizona
SS-1	RESE-1001106	07-Apr-04	-8.1	-55	---	---	---	University of Arizona

a $\delta^{18}O$ (‰) = delta oxygen-18 (per mil)
b δD (‰) = delta deuterium (per mil)
c $\delta^{13}C$ in DIC (‰) = delta carbon-13 in dissolved inorganic carbon (per mil)
d $\delta^{34}S$ (‰) = delta sulfur-34 (per mil)
e $\delta^{18}O$ in SO_4 (‰) = delta oxygen-18 in sulfate (per mil)

--- = Not available, not applicable
-- = Not calculated due to non-detect

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicate
SP = Split sample
SPD = Split-Duplicate

TABLE B-5. RADIOISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Surface Water											
Blue Spring	RESE-1002009	19-Aug-08	---	---	---	---	0.9 ± 0.4	<0.2	<0.2	---	Energy Labs
Blue Spring	RESE-1002009	19-Aug-08	---	---	0.1636	0.711123 ± 0.00001	---	---	---	---	Geochron
Blue Spring	RESE-1002009	19-Aug-08	<0.8	---	---	---	---	---	---	---	University of Arizona
Blue Spring DUP	RESE-1002010	19-Aug-08	---	---	---	---	0.5 ± 0.3	<0.2	<0.2	---	Energy Labs
Blue Spring DUP	RESE-1002010	19-Aug-08	---	---	0.1642	0.711117 ± 0.000009	---	---	---	---	Geochron
Blue Spring DUP	RESE-1002010	19-Aug-08	<0.8	---	---	---	---	---	---	---	University of Arizona
Blue Spring	RESE-1002088	13-May-09	0.8 ± 0.31	---	---	---	---	---	---	---	University of Arizona
Blue Spring	RESE-1003165	17-Jul-10	---	---	---	---	<1.20	<1.20	<1.20	---	ACZ
Blue Spring	RESE-1003165	17-Jul-10	---	78.64 ± 0.38	---	---	---	---	---	---	Beta Analytic
Blue Spring	RESE-1003165	17-Jul-10	---	---	0.1565	0.710825 ± 0.00001	---	---	---	---	Geochron
Blue Spring	RESE-1003165	17-Jul-10	<1.00	---	---	---	---	---	---	---	Isotech
Bored Spring	RESE-1002089	13-May-09	6.6 ± 0.35	---	---	---	---	---	---	---	University of Arizona
Boulder Hole	RESE-1002006	06-Aug-08	---	---	---	---	1.8 ± 0.5	<0.2	0.6 ± 0.3	3.0	Energy Labs
Boulder Hole	RESE-1002006	06-Aug-08	---	---	0.3099	0.709883 ± 0.000009	---	---	---	---	Geochron
Boulder Hole	RESE-1002006	06-Aug-08	2.7 ± 0.31	---	---	---	---	---	---	---	University of Arizona
Boulder Hole	RESE-1002082	07-May-09	2.2 ± 0.27	---	---	---	---	---	---	---	University of Arizona
Boulder Hole	RESE-1002167	16-May-11	---	---	---	---	<0.90	<0.9	<0.9	---	ACZ
Boulder Hole	RESE-1002167	16-May-11	---	89.51 ± 0.33	---	---	---	---	---	---	Beta Analytic
Boulder Hole	RESE-1002167	16-May-11	---	---	0.2985	0.709880 ± 0.00001	---	---	---	---	Geochron
Boulder Hole	RESE-1002167	16-May-11	1.49 ± 0.17	---	---	---	---	---	---	---	Isotech
DC 13.5 C	RESE-1002014	21-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
DC 13.5 C	RESE-1002014	21-Aug-08	---	---	0.0998	0.710162 ± 0.000014	---	---	---	---	Geochron
DC 13.5 C	RESE-1002014	21-Aug-08	3.9 ± 0.4	---	---	---	---	---	---	---	University of Arizona
DC 13.5 C	RESE-1002103	21-May-09	4.0 ± 0.31	---	---	---	---	---	---	---	University of Arizona
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	---	---	---	---	0.4 ± 0.4	<0.2	<0.2	---	Energy Labs
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	---	---	0.0482	0.710313 ± 0.00001	---	---	---	---	Geochron
DC 14.7 C /US 60 Bridge	RESE-1002015	27-Aug-08	3.9 ± 0.41	---	---	---	---	---	---	---	University of Arizona
DC 15.5 C	RESE-1002003	05-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
DC 15.5 C	RESE-1002003	05-Aug-08	---	---	0.0257	0.710171 ± 0.00001	---	---	---	---	Geochron
DC 15.5 C	RESE-1002003	05-Aug-08	4.8 ± 0.4	---	---	---	---	---	---	---	University of Arizona
DC 15.5 C	RESE-1002075	05-May-09	5.1 ± 0.38	---	---	---	---	---	---	---	University of Arizona
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	---	---	---	1.1 ± 0.4	<0.2	<0.2	---	Energy Labs
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	---	---	0.1573	0.710261 ± 0.00001	---	---	---	---	Geochron
DC 6.1 E (Lower Crater Tanks)	RESE-1002007	07-Aug-08	<0.9	---	---	---	---	---	---	---	University of Arizona
DC 6.1 E (Lower Crater Tanks) LD	RESE-1002007	07-Aug-08	---	---	0.1574	0.710281 ± 0.000011	---	---	---	---	Geochron

TABLE B-5. RADIOISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Surface Water											
DC 6.1 E (Lower Crater Tanks)	RESE-1002099	20-May-09	<1.0	---	---	---	---	---	---	---	University of Arizona
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	---	---	0.1557	0.710040 ± 0.00001	---	---	---	---	Geochron
DC 6.14 C (Upper Crater Tank)	RESE-1002013	20-Aug-08	3.8 ± 0.36	---	---	---	---	---	---	---	University of Arizona
DC 6.14 C (Upper Crater Tank)	RESE-1002078	06-May-09	2.8 ± 0.35	---	---	---	---	---	---	---	University of Arizona
DC 8.1 C	RESE-1002005	06-Aug-08	---	---	---	---	0.7 ± 0.3	<0.2	0.4 ± 0.3	1.8	Energy Labs
DC 8.1 C	RESE-1002005	06-Aug-08	---	---	0.1613	0.710015 ± 0.000014	---	---	---	---	Geochron
DC 8.1 C	RESE-1002005	06-Aug-08	1.7 ± 0.33	---	---	---	---	---	---	---	University of Arizona
DC 8.1 C	RESE-1002098	19-May-09	1.2 ± 0.27	---	---	---	---	---	---	---	University of Arizona
DC 8.2 W	RESE-1000260	19-Feb-08	---	---	---	---	0.9 ± 0.3	<0.2	0.2 ± 0.1	4.5	Energy Labs
DC 8.2 W	RESE-1000260	19-Feb-08	---	---	0.1553	0.709962 ± 0.000014	---	---	---	---	Geochron
DC 8.2 W	RESE-1000260	19-Feb-08	0.6 ± 0.24	72.8 ± 1.7	---	---	---	---	---	---	University of Arizona
DC 8.2 W	RESE-1003002	27-May-08	---	---	---	---	1.1 ± 0.3	<0.2	0.2 ± 0.2	5.5	Energy Labs
DC 8.2 W	RESE-1003002	27-May-08	---	---	0.1542	0.709959 ± 0.000009	---	---	---	---	Geochron
DC 8.2 W	RESE-1003002	27-May-08	0.9 ± 0.21	---	---	---	---	---	---	---	University of Arizona
DC 8.2 W	RESE-1002004	06-Aug-08	---	---	---	---	0.7 ± 0.3	<0.2	0.2 ± 0.2	3.5	Energy Labs
DC 8.2 W	RESE-1002004	06-Aug-08	---	---	0.1540	0.709962 ± 0.00001	---	---	---	---	Geochron
DC 8.2 W	RESE-1002004	06-Aug-08	<0.7	---	---	---	---	---	---	---	University of Arizona
DC 8.2 W	RESE-1003023	02-Dec-08	---	---	---	---	0.6 ± 0.3	<0.2	<0.2	---	Energy Labs
DC 8.2 W	RESE-1003023	02-Dec-08	---	---	0.1550	0.709973 ± 0.000007	---	---	---	---	Geochron
DC 8.2 W	RESE-1003023	02-Dec-08	<0.5	---	---	---	---	---	---	---	University of Arizona
DC 8.2 W	RESE-1002097	19-May-09	0.7 ± 0.28	---	---	---	---	---	---	---	University of Arizona
Government Springs	RESE-1002130	18-Mar-10	---	93.73 ± 0.46	---	---	---	---	---	---	Beta Analytic
Government Springs	RESE-1002130	18-Mar-10	---	---	---	---	2.5 ± 0.3	<0.1	1 ± 0.2	2.5	Energy Labs
Government Springs	RESE-1002130	18-Mar-10	---	---	0.293	0.712608 ± 0.000009	---	---	---	---	Geochron
Government Springs	RESE-1002130	18-Mar-10	1.71 ± 0.27	---	---	---	---	---	---	---	Isotech
Government Springs	RESE-1002181	29-Aug-11	---	---	---	---	2.8 ± 1.7	<0.95	<0.95	---	ACZ
Government Springs	RESE-1002181	29-Aug-11	---	97.78 ± 0.36	---	---	---	---	---	---	Beta Analytic
Government Springs	RESE-1002181	29-Aug-11	---	---	0.278	0.712603 ± 0.000007	---	---	---	---	Geochron
Government Springs	RESE-1002181	29-Aug-11	2.31 ± 0.3	---	---	---	---	---	---	---	Isotech
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	---	---	0.1256	0.709784 ± 0.00002	---	---	---	---	Geochron
H 0.1 C (Hackberry Canyon)	RESE-1002011	19-Aug-08	6.6 ± 0.38	---	---	---	---	---	---	---	University of Arizona
H 0.1 C (Hackberry Canyon)	RESE-1002096	19-May-09	2.1 ± 0.26	---	---	---	---	---	---	---	University of Arizona

TABLE B-5. RADIOISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Surface Water											
Hidden Spring	RESE-1002008	19-Aug-08	---	---	---	---	0.5 ± 0.3	<0.2	0.3 ± 0.2	1.7	Energy Labs
Hidden Spring	RESE-1002008	19-Aug-08	---	---	0.1907	0.709949 ± 0.00001	---	---	---	---	Geochron
Hidden Spring	RESE-1002008	19-Aug-08	2.1 ± 0.39	---	---	---	---	---	---	---	University of Arizona
Hidden Spring	RESE-1002086	12-May-09	2.8 ± 0.33	---	---	---	---	---	---	---	University of Arizona
Hidden Spring	RESE-1003163	17-Jul-10	---	---	---	---	<1.30	<1.30	<1.3	---	ACZ
Hidden Spring	RESE-1003163	17-Jul-10	---	101.00 ± 0.49	---	---	---	---	---	---	Beta Analytic
Hidden Spring	RESE-1003163	17-Jul-10	---	---	0.1866	0.709946 ± 0.000006	---	---	---	---	Geochron
Hidden Spring	RESE-1003163	17-Jul-10	2.27 ± 0.16	---	---	---	---	---	---	---	Isotech
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	---	---	0.2035	0.710503 ± 0.000009	---	---	---	---	Geochron
IC 1.0 C (Iron Canyon)	RESE-1002019	28-Aug-08	4.5 ± 0.35	---	---	---	---	---	---	---	University of Arizona
IC 1.0 C (Iron Canyon)	RESE-1002085	12-May-09	4.6 ± 0.42	---	---	---	---	---	---	---	University of Arizona
Kane Spring	RESE-1002022	29-Aug-08	---	---	---	---	1.9 ± 0.5	<0.2	0.5 ± 0.3	3.8	Energy Labs
Kane Spring	RESE-1002022	29-Aug-08	---	---	0.1966	0.710588 ± 0.000014	---	---	---	---	Geochron
Kane Spring	RESE-1002022	29-Aug-08	0.9 ± 0.38	---	---	---	---	---	---	---	University of Arizona
Kane Spring	RESE-1002087	13-May-09	1.1 ± 0.31	---	---	---	---	---	---	---	University of Arizona
Kane Spring	RESE-1003164	17-Jul-10	---	---	---	---	3.1 ± 2.1	<1.30	<1.30	---	ACZ
Kane Spring	RESE-1003164	17-Jul-10	---	71.45 ± 0.35	---	---	---	---	---	---	Beta Analytic
Kane Spring	RESE-1003164	17-Jul-10	---	---	0.2148	0.710675 ± 0.000009	---	---	---	---	Geochron
Kane Spring	RESE-1003164	17-Jul-10	0.97 ± 0.17	---	---	---	---	---	---	---	Isotech
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	---	---	---	1.9 ± 0.4	<0.1	1.4 ± 0.3	1.4	Energy Labs
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	---	---	0.3723	0.722708 ± 0.000007	---	---	---	---	Geochron
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002093	14-May-09	3.3 ± 0.35	---	---	---	---	---	---	---	University of Arizona
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	---	102.9 ± 0.5	---	---	---	---	---	---	Beta Analytic
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	---	---	---	---	0.9 ± 0.2	<0.10	0.7 ± 0.2	1.3	Energy Labs
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	---	---	0.312	0.730685 ± 0.000007	---	---	---	---	Geochron
LF 0.2 C (Lyons Fork Headwater Spring)	RESE-1002133	18-Mar-10	3.16 ± 0.29	---	---	---	---	---	---	---	Isotech
MC 3.3 C	RESE-1002095	14-May-09	---	---	---	---	0.3 ± 0.2	<0.2	<0.2	---	Energy Labs
MC 3.3 C	RESE-1002095	14-May-09	---	---	0.2660	0.716595 ± 0.00001	---	---	---	---	Geochron
MC 3.3 C	RESE-1002095	14-May-09	2.6 ± 0.29	---	---	---	---	---	---	---	University of Arizona
MC 3.3 C	RESE-1002131	18-Mar-10	---	99.01 ± 0.48	---	---	---	---	---	---	Beta Analytic
MC 3.3 C	RESE-1002131	18-Mar-10	---	---	---	---	1.4 ± 0.2	<0.10	0.8 ± 0.2	1.8	Energy Labs
MC 3.3 C	RESE-1002131	18-Mar-10	---	---	0.260	0.723783 ± 0.00001	---	---	---	---	Geochron
MC 3.3 C	RESE-1002131	18-Mar-10	2.83 ± 0.28	---	---	---	---	---	---	---	Isotech

TABLE B-5. RADIOISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Surface Water											
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	---	---	---	1.6 ± 0.3	<0.2	1.0 ± 0.3	1.6	Energy Labs
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	---	---	0.1361	0.710308 ± 0.000009	---	---	---	---	Geochron
MC 3.4 W (Wet Leg Spring)	RESE-1002094	14-May-09	1.8 ± 0.33	---	---	---	---	---	---	---	University of Arizona
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	---	83.59 ± 0.41	---	---	---	---	---	---	Beta Analytic
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	---	---	---	---	0.2 ± 0.1	<0.10	<0.09	---	Energy Labs
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	---	---	0.124	0.710317 ± 0.000006	---	---	---	---	Geochron
MC 3.4 W (Wet Leg Spring)	RESE-1002132	18-Mar-10	<1.05	---	---	---	---	---	---	---	Isotech
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	---	---	2.5 ± 2.1	<1.00	<1.00	---	ACZ
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	72.17 ± 0.26	---	---	---	---	---	---	Beta Analytic
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	---	---	0.1255	0.710293 ± 0.00001	---	---	---	---	Geochron
MC 3.4 W (Wet Leg Spring)	RESE-1002173	31-May-11	<1.00	---	---	---	---	---	---	---	Isotech
MC 5.2 C	RESE-1002171	31-May-11	---	---	---	---	2.2 ± 1.7	<1.00	1.29 ± 1.5	1.7	ACZ
MC 5.2 C	RESE-1002171	31-May-11	---	91.88 ± 0.34	---	---	---	---	---	---	Beta Analytic
MC 5.2 C	RESE-1002171	31-May-11	---	---	0.2808	0.714971 ± 0.000007	---	---	---	---	Geochron
MC 5.2 C	RESE-1002171	31-May-11	1.32 ± 0.15	---	---	---	---	---	---	---	Isotech
MC 5.2 C	RESE-1002184	29-Aug-11	---	---	---	---	1.2 ± 1.6	<0.91	<0.91	---	ACZ
MC 5.2 C	RESE-1002184	29-Aug-11	---	92.34 ± 0.34	---	---	---	---	---	---	Beta Analytic
MC 5.2 C	RESE-1002184	29-Aug-11	---	---	0.225	0.714251 ± 0.000007	---	---	---	---	Geochron
MC 5.2 C	RESE-1002184	29-Aug-11	1.92 ± 0.26	---	---	---	---	---	---	---	Isotech
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	---	---	---	2.2 ± 0.4	<0.2	1.0 ± 0.3	2.2	Energy Labs
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	---	---	0.3690	0.716685 ± 0.000013	---	---	---	---	Geochron
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002090	14-May-09	1.7 ± 0.32	---	---	---	---	---	---	---	University of Arizona
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	---	---	---	---	2.3 ± 0.5	<0.3	1.1 ± 0.4	2.1	Energy Labs
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	---	---	0.3689	0.716685 ± 0.000009	---	---	---	---	Geochron
MC 8.4 C (Ranch Fork Headwaters Spring) DUP	RESE-1002091	14-May-09	1.6 ± 0.27	---	---	---	---	---	---	---	University of Arizona
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	---	101.13 ± 0.49	---	---	---	---	---	---	Beta Analytic
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	---	---	---	---	0.9 ± 0.2	<0.10	0.7 ± 0.2	1.3	Energy Labs
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	---	---	0.231	0.718324 ± 0.000006	---	---	---	---	Geochron
MC 8.4 C (Ranch Fork Headwaters Spring)	RESE-1002134	18-Mar-10	2.97 ± 0.28	---	---	---	---	---	---	---	Isotech
Mineral Creek Post-Fire	RESE-1003170	28-Jul-10	---	---	---	---	3.3 ± 1.6	<1.1	1.75 ± 1.2	1.9	ACZ
Number Nine	RESE-1002020	28-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Number Nine	RESE-1002020	28-Aug-08	---	---	0.0484	0.710144 ± 0.000007	---	---	---	---	Geochron
Number Nine	RESE-1002020	28-Aug-08	4.6 ± 0.35	---	---	---	---	---	---	---	University of Arizona
Number Nine	RESE-1002077	05-May-09	6.0 ± 0.32	---	---	---	---	---	---	---	University of Arizona

TABLE B-5. RADIOISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	
Surface Water											
Oak Flat Tributary	RESE-1002016	27-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
Oak Flat Tributary	RESE-1002016	27-Aug-08	---	---	0.0479	0.710010 ± 0.000014	---	---	---	---	Geochron
Oak Flat Tributary	RESE-1002016	27-Aug-08	4.5 ± 0.4	---	---	---	---	---	---	---	University of Arizona
Oak Flat Tributary	RESE-1002076	05-May-09	5.0 ± 0.34	---	---	---	---	---	---	---	University of Arizona
Pump Station Spring	RESE-1002001	05-Aug-08	---	---	---	---	0.7 ± 0.3	<0.2	0.4 ± 0.2	1.8	Energy Labs
Pump Station Spring	RESE-1002001	05-Aug-08	---	---	0.2190	0.710048 ± 0.000011	---	---	---	---	Geochron
Pump Station Spring	RESE-1002001	05-Aug-08	3.4 ± 0.33	---	---	---	---	---	---	---	University of Arizona
Pump Station Spring	RESE-1002080	12-May-09	3.1 ± 0.29	---	---	---	---	---	---	---	University of Arizona
Pump Station Spring DUP	RESE-1002084	12-May-09	4.8 ± 0.37	---	---	---	---	---	---	---	University of Arizona
Pump Station Spring	RESE-1002168	17-May-11	---	---	---	---	<0.95	<0.95	0.98 ± 0.76	---	ACZ
Pump Station Spring	RESE-1002168	17-May-11	---	96.69 ± 0.35	---	---	---	---	---	---	Beta Analytic
Pump Station Spring	RESE-1002168	17-May-11	---	---	0.3291	0.709997 ± 0.000011	---	---	---	---	Geochron
Pump Station Spring	RESE-1002168	17-May-11	2.38 ± 0.17	---	---	---	---	---	---	---	Isotech
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	---	---	---	---	0.3 ± 0.3	<0.2	<0.2	---	Energy Labs
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	---	---	0.2038	0.710345 ± 0.000007	---	---	---	---	Geochron
QC 19.7 C (Queen above Magma Wash)	RESE-1002021	28-Aug-08	4.2 ± 0.4	---	---	---	---	---	---	---	University of Arizona
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	---	---	---	---	0.3 ± 0.3	<0.2	<0.2	---	Energy Labs
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	---	---	0.1602	0.710004 ± 0.00001	---	---	---	---	Geochron
QC 21.7 C (Magma Avenue)	RESE-1002018	28-Aug-08	4.6 ± 0.39	---	---	---	---	---	---	---	University of Arizona
QC 21.7 C (Magma Avenue) LD	RESE-1002018	28-Aug-08	---	---	0.1599	0.710004 ± 0.000009	---	---	---	---	Geochron
QC 21.7 C (Magma Avenue)	RESE-1002083	07-May-09	6.7 ± 0.36	---	---	---	---	---	---	---	University of Arizona
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	---	---	---	---	0.9 ± 0.4	<0.2	0.6 ± 0.3	1.5	Energy Labs
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	---	---	0.2477	0.709858 ± 0.0007	---	---	---	---	Geochron
QC 22.6 E (Karst Spring)	RESE-1002017	28-Aug-08	3.2 ± 0.36	---	---	---	---	---	---	---	University of Arizona
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	---	---	0.2046	0.710052 ± 0.000009	---	---	---	---	Geochron
QC 27.3 C (Upper QC)	RESE-1002002	05-Aug-08	6.7 ± 0.39	---	---	---	---	---	---	---	University of Arizona
QC 27.3 C (Upper QC)	RESE-1002079	07-May-09	5.8 ± 0.31	---	---	---	---	---	---	---	University of Arizona
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	---	---	---	---	<0.2	<0.2	<0.2	---	Energy Labs
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	---	---	0.1530	0.709789 ± 0.000011	---	---	---	---	Geochron
RR 1.5 C (Rancho Rio)	RESE-1002012	19-Aug-08	3.7 ± 0.37	---	---	---	---	---	---	---	University of Arizona
RR 1.5 C (Rancho Rio)	RESE-1002100	21-May-09	4.0 ± 0.34	---	---	---	---	---	---	---	University of Arizona
RR 1.5 C (Rancho Rio) DUP	RESE-1002101	21-May-09	4.1 ± 0.33	---	---	---	---	---	---	---	University of Arizona

TABLE B-5. RADIOISOTOPE DATA
FOR SURFACE WATER SAMPLES OBTAINED IN DEVILS CANYON/UPPER QUEEN CREEK STUDY AREA

SAMPLE LOCATION	SAMPLE IDENTIFIER/ DESCRIPTION	SAMPLE DATE	RADIOISOTOPE DATA								ANALYTICAL LABORATORY
			^{3}H (TU)[a]	^{14}C (pmC)[b]	Sr (ppm)[c]	$^{87}Sr/^{86}Sr$[d]	^{234}U (pCi/L)[e]	^{235}U (pCi/L)[f]	^{238}U (pCi/L)[g]	$^{234}U/^{238}U$[h]	

a ^{3}H = Tritium; tritium unit (1 TU = 1 tritium atom per 10^{18} atoms of hydrogen)
b ^{14}C = carbon-14; pmC = percent modern carbon
c Sr = strontium; ppm = parts per million
d Mass of strontium-87 isotope divided by mass of strontium-86 isotope
e Uranium-234 isotope; pCi/L = activity in picoCuries per liter
f Uranium-235 isotope; pCi/L = activity in picoCuries per liter
g Uranium-238 isotope; pCi/L = activity in picoCuries per liter
h Activity of uranium-234 isotope divided by activity of uranium-238 isotope

--- = Not available, not applicable
-- = Not calculated due to non-detect

Explanation of Codes

Absent = Analyte not present
ge = Greater than or equal to reported value
i = Insufficient sample
j = Estimated value
j+ = Estimated value, high bias
j- = Estimated value, low bias
Lost = Sample lost in processing
n = Not measured
na = Not available
ND = Not Detected
np = Analyte not applicable
Present = Analyte was detected
q = Uncertain value
r = Unusable data
< = Less than reported detection limit
> = Greater than reported value
d = Diluted. Diluted samples are indicated only when value is estimated.
DUP = Field Duplicate
LD = Laboratory duplicates
SP = Split samples
SPD = Split-Duplicates