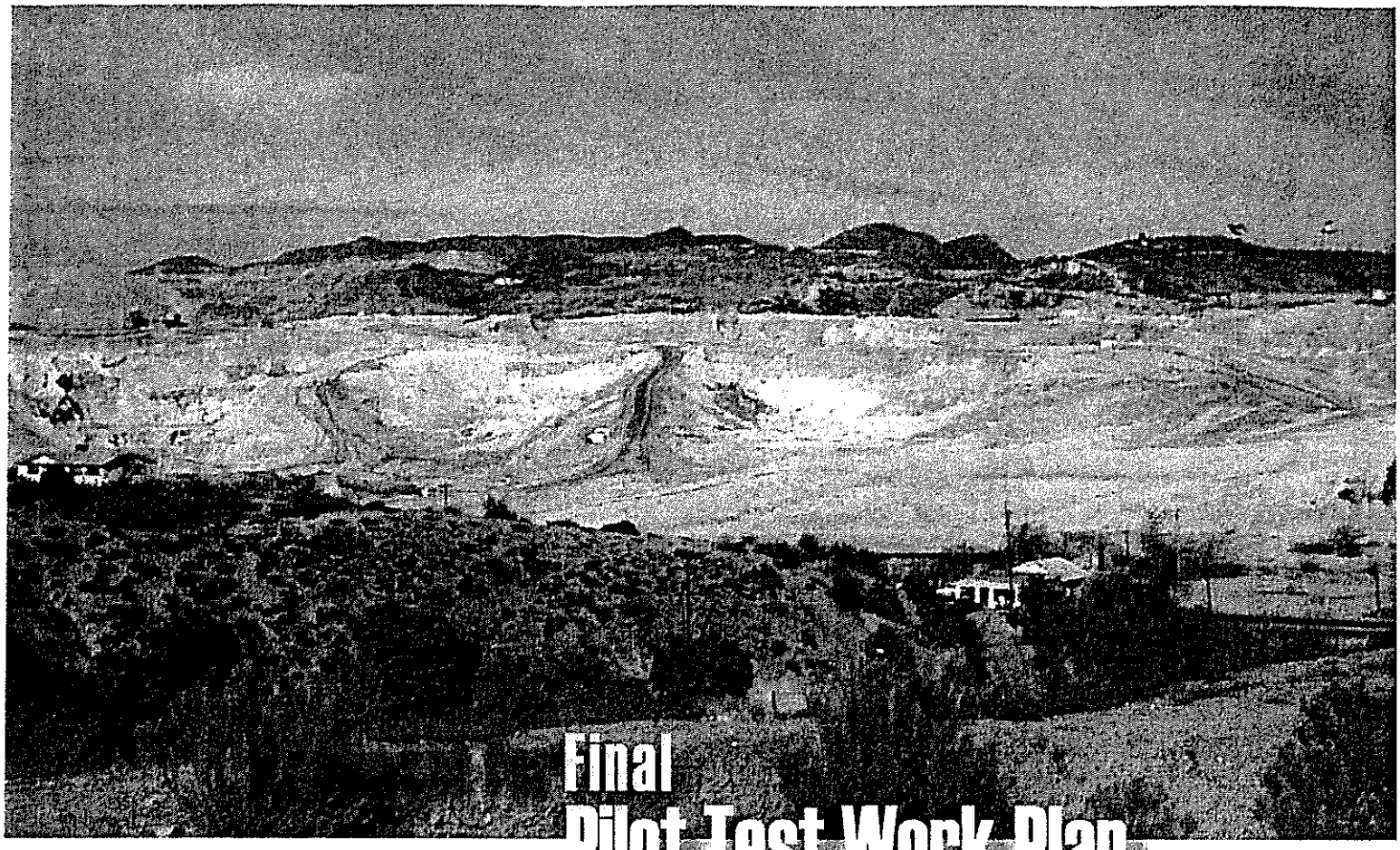
Exhibit 56



Final
Pilot Test Work Plan
In-Situ Remediation Project
Miami Unit No. 2 Tailings

bhpbilliton

Prepared for: **BHP Copper Inc.,**
Pinto Valley Operations
Miami, Arizona

MWH

October 2005

FINAL

WORK PLAN FOR
PILOT TESTING – IN SITU REMEDIATION
MIAMI UNIT NO. 2
BHP COPPER, INC.

October 2005

Prepared for:

BHP Copper Inc., Pinto Valley Operations
Miami, Arizona

Prepared by:

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1.0 INTRODUCTION

At the request of BHP Billiton, MWH submitted a proposal for conducting bench and pilot scale testing of in-situ treatment of the alluvial aquifer at BHP Copper's Miami Unit No. 2 Tailings (MU No. 2). This work plan presents a detailed approach for conducting the pilot scale portion of MWH's proposed scope of work for evaluating the potential for in-situ treatment of the alluvial aquifer at this site. Note that the approach presented herein varies somewhat from MWH's original approach based on the results of the associated bench scale testing (i.e., reagent dose strengths were increased). The approach to the bench scale testing is presented in the *Final Bench Scale Work Plan, In-Situ Remediation Project, Miami Unit No. 2 Tailings, BHP Copper Inc.* ("Bench Scale Work Plan", MWH, 2005). The bench testing was completed in September, and the results from the bench scale testing (discussed herein) indicate the technology does have the potential to successfully reduce constituent concentrations within the alluvium and groundwater beneath the MU No. 2 tailings.

Therefore, this work plan presents the necessary detail to allow a comprehensive evaluation of the selected technologies and their treatment effectiveness at the pilot scale at the Miami Unit No. 2 site. As indicated above, the bench scale results have indicated the proposed remediation reagents have the potential to achieve project objectives (see below) for in-situ treatment of MU No. 2 alluvium and groundwater. Therefore, the proposed physical approach, remediation reagents, and procedures presented herein assume that the pilot scale testing will include the use of Bauxsol™, calcium polysulfide, and emulsified vegetable oil.

The primary objective of the pilot testing is to demonstrate a proposed technology or technologies for in-situ geochemical remediation of groundwater over an area underlying approximately 15-20% of the Miami Unit No. 2 Tailings in Bloody Tanks Wash, Miami, Arizona.

Based on these parameters, injection of reagents was simulated by injecting a conservative tracer (chloride at 15,000 milligrams per liter, a similar concentration as currently designed for calcium polysulfide injection) into the aquifer at the planned reagent injection rate of 100 gallons per minute (gpm) per well for 24 hours each well. Results of the modeling, shown in Figure 2-2, indicate that the injection wells in the proposed layout (Figure 2-1) will distribute the reagents adequately across an area of approximately 4.6 acres within 20 days following reagent injection. The distribution of the chloride, which does somewhat overestimate the migration of the reagents because they are reactive and chloride is not, shows that this configuration of injection wells injected at the design rate of 100 gpm per well for 24 hours each will deliver reagents across essentially the width of the aquifer (approximately 600 feet), even though the injection well configuration has a maximum linear width of 350 feet. Therefore, the originally proposed delivery system includes 10 injection wells spaced as shown in Figure 2-1 and with injection of reagents at the rate and duration as just described.

APPROACH SUMMARY

From the preceding discussion, MWH believes that Acid B Extra™, calcium polysulfide, and sulfate reduction by bacterial action each are capable of neutralizing acid and removing metals from solution. MWH believes that, rather than just using one of these reagents, using all three reagents, either as mixtures and/or in successively downgradient treatment zones, provides a significantly improved remedy. With this approach, we expect the pilot test will demonstrate that contaminants in the treated area will be significantly reduced and potentially removed from solution (i.e., to concentrations below detection limits). Based on the bench scale testing, MWH's current proposed approach is as follows:

- Installation of 10 underground injection wells configured as shown in Figure 2-3. The wells are expected to be installed to depths of about 80-85 feet below ground surface. The injection wells are currently planned for use only during the pilot test phase. If the pilot is considered successful, the wells may be used as part of a full-scale remediation system.

- Installation of five monitoring wells located as shown in Figure 2-3. The wells are situated to monitor groundwater upgradient, within, and downgradient of the in-situ treatment zone.

- Initial partial neutralization and metals removal by means of Acid B Extra™ injected into the subsurface as a dilute slurry (in the most upgradient series of up to three injection wells – see Figure 2-3). Based on the bench scale results, MWH plans on using a dose rate of 34 g/l of Acid B Extra™ during injection.

- Engendering reducing conditions downgradient of the Acid B Extra™ injection area through injection of a mixture of inorganic (calcium polysulfide) and organic (emulsified vegetable oil) in the middle and downgradient series of injection wells (Figure 2-3), thereby forming a inorganic and biologically-mediated reaction zone in which the ferric iron has been reduced to the ferrous state, with production of pyrite that will react with and remove several target metals from the groundwater. The polysulfide from the calcium polysulfide injection and the bisulfide ions formed by SRB bacterial action (stimulated through injection of the emulsified vegetable oil) would also remove dissolved metals as sulfide precipitates. Note that the lifetime of the treatment zone engendered through injection of calcium polysulfide may be significant (on the order of years to potentially tens of years), but can eventually lose its ability to provide treatment. However, the treatment can be maintained (i.e., if monitoring results show the dissipation of effective treatment) through periodic injection of additional carbon at a rate determined based on monitoring. This approach accounts for this potential by including injection of both reagents initially, followed by periodic injection of a carbon source if needed (i.e., if the treatment zone appears to be losing its metal removal efficiency based on downgradient monitoring results). Therefore, the treatment zone could be maintained indefinitely, if desired and if needed. For the pilot test, MWH plans on a dose rate of CPS of 10% by volume of the injection water and a dose rate of 1000 gallons of emulsified vegetable oil per injection well (where approximately 130,000 gallons will be injected per well).

- Because generation of reduced conditions has the potential for mobilization of arsenic, MWH has developed a contingency that could include injection of Bauxsol™ (i.e., Arsenic ProActiv™, an oxidizing-enhanced Bauxsol™ blend) on the downgradient side if arsenic is shown to be mobilized, as Arsenic ProActiv™ has been shown to be very effective in removal of dissolved arsenic. If necessary, calcium peroxide could also be injected if the Arsenic ProActiv™ does not reduce the arsenic concentrations to desired levels.

2.1.2 Pilot Test Tasks and Procedures

Based on the approach presented in the preceding section, the following tasks will be completed as part of the pilot testing:

- Monitoring Well Installation and Development
- Injection Well Installation and Development
- Monitoring and Injection Well Step Testing
- Reagent Injection
- Groundwater Monitoring.

The following paragraphs described the procedures to be used for each of these tasks. Standard operating procedures associated with completion of these tasks are presented in Appendix A.

Monitoring Well Installation and Development. As described in our approach, five new monitoring wells will be installed to monitor the progress and effectiveness of the in-situ treatment. The locations of the monitoring wells are shown in Figure 2-3. Each monitoring well will be installed using hollow-stem auger drilling, and will be constructed of 4-inch, Schedule 40 polyvinyl chloride (PVC) casing and screen. Each well screen will be approximately 60 feet in length and will be 0.01-inch slot. The well screen will extend across the ground water table approximately 5 feet. The PVC blank casing will extend from the top of the well screen to the ground surface. The annular

space between the borehole wall and the well screen will be filled with appropriately sized silica sand from the bottom of the borehole to approximately two feet above the top of the well screen. Approximately two feet of hydrated bentonite pellets will be placed above the silica sand. Cement grout will be placed above the bentonite pellets to the ground surface. A locking above-ground, or flush-mount protector will be placed within a concrete pad at the top of the well. Specific monitoring well installation procedures are presented in the SOPs included in Appendix A. All required permits and variances will be acquired prior to well installation.

Prior to groundwater sampling, each well will be developed using a Grundfos MP-1 submersible pump or Smeal rig (or equivalent). The method used for development will be determined in the field and will depend on the depth to ground water, the amount of sediment that is present in the well, and the hydraulic conductivity of the aquifer at the well location. The depth to ground water and the total depth of each well will be measured prior to and immediately after well development using an electric water level indicator.

During well development, the water quality parameters of pH, specific conductivity, and temperature will be monitored. These parameters will be measured using a portable, multi-parameter water quality meter. The parameters will be measured at the beginning of well development and after the evacuation of each borehole volume. A minimum of six water quality parameter measurements will be made. Well development will continue until the following criteria are met:

- Five borehole volumes (assuming 30 percent porosity in the sand pack) have been removed
- Of these six measurements, three consecutive water quality measurements satisfy the following criteria:
  - pH = ± 0.2 pH units
  - Temperature = ± 1°C
  - Specific conductivity (SC) = ± 10 percent

Refer to the SOP in Appendix A for more details regarding development procedures.

Injection Well Installation and Development. As described in our approach, 10 injection wells will be installed to allow injection of the selected geochemical reagents. As mentioned previously, the layout of injection wells described here assumes the use of the reagents Bauxsol™, CPS, and emulsified vegetable oil. The locations of the proposed injection wells are shown in Figure 2-3. Each injection well will be installed using hollow-stem auger drilling, and will be constructed of 4-inch, Schedule 80 PVC casing and screen. Each well screen will be approximately 60 feet in length and will be 0.02-inch slot. The well screen will extend across the ground water table approximately 5 feet. The PVC blank casing will extend from the top of the well screen to the ground surface. The annular space between the borehole wall and the well screen will be filled with appropriately sized silica sand from the bottom of the borehole to approximately two feet above the top of the well screen. Approximately two feet of hydrated bentonite pellets will be placed above the silica sand. Cement grout will be placed above the bentonite pellets to the ground surface. A locking above-ground or flush-mount protector will be placed within a concrete pad at the top of the well. Specific well installation procedures are presented in the standard operating procedures (SOPs) included in Appendix A. All required permits and variances will be acquired prior to well installation.

Prior to injection, each well will be developed using a Grundfos MP-1 submersible pump or Smeal rig (or equivalent). The method used for development will be determined in the field and will depend on the depth to ground water, the amount of sediment that is present in the well, and the hydraulic conductivity of the aquifer at the well location. The depth to ground water and the total depth of each well will be measured prior to and immediately after well development using an electric water level indicator. The injection wells will be developed similarly as described above for the monitoring wells.

Monitoring and Injection Well Step Testing. To confirm and evaluate the hydraulic conductivity and yield of the aquifer in the pilot test area (i.e., to confirm viability of proposed injection rates), one monitoring well and one injection well will be step tested. Each step test will consist of approximately 4, 2.5 hour steps, where the pumping rate is

adjusted upward for each step and groundwater elevations in the tested well and surrounding monitoring and injection wells are monitored closely. Water levels will be monitored continuously with data loggers and transducers and periodically by hand using water level sounders. The step tests will be conducted using a Smeal rig (or equivalent). The procedures to be followed in conducting the step tests are presented in SOP 28 in Appendix A.

Reagent Injection. Once the monitoring and injection wells are installed, developed, and step tested (and groundwater samples have been collected – see groundwater sampling section below), the pilot test will be initiated. As described above, the pilot test program consists of injecting selected reagents (and mixtures thereof) into 10 injection wells configured as shown in Figure 2-3. The first, upgradient line of wells will be injected with Acid B Extra™, while the middle and downgradient series of wells will be injected with a mixture of calcium polysulfide and emulsified vegetable oil. A process flow diagram depicts how the reagents will be stored, transferred, mixed, and injected.

To ensure optimum delivery of reagent in the aquifer, MWH proposes injecting the reagents using packers over successive 10-foot intervals within each well at an injection rate of 100 gpm, with injection continuing for approximate total injection periods of 24 hours per well. The use of packers will help ensure delivery of reagents evenly in the subsurface. MHW has designed the injection volumes and reagent mixtures such that eventually the entire pore volume beneath the injection well layout will be replaced with active reagents at varying concentrations. The reagent volume calculations assumed an aquifer porosity of 25%, which is typical of these materials. This will ensure the most effective treatment possible for treatment over such a large area.

Groundwater Monitoring. For monitoring treatment progression and efficacy of the pilot test, the five new monitoring wells will be sampled during the pilot test at varying frequencies and for varying analytes. Two tiers of monitoring from these wells are planned. The first tier of monitoring would include sampling of the groundwater from each well for laboratory analysis for appropriate parameters (i.e., total dissolved solids (TDS), anions, cations, acidity, alkalinity, and total organic carbon). During the pilot

testing, the 5 monitoring wells will be sampled three times: once before injection of reagents (a baseline as discussed previously), and twice following injection. After reagent injection, the monitoring wells will be sampled first when groundwater field measurements indicate the wells are intercepting groundwater treated by the in-situ treatment zone. The second round of sampling following reagent injection will take place approximately 2.5 months after initial injection. Additionally, MWH proposes sampling monitoring well MU-282 once groundwater field parameters (see below) indicate that this well is intercepting groundwater that has been treated by the in-situ treatment zone (likely towards the end of the monitoring period).

The second tier of monitoring will consist of measurement of field geochemical parameters (pH, Eh, dissolved oxygen [DO], SC) in all monitoring wells, starting after injection is initiated and continuing at successively lower frequency (e.g., daily for a week, then weekly for two weeks, bi-weekly for a month, then monthly). Monitoring well MU-282 will be field monitored on a weekly basis starting approximately 4 weeks after injection is completed. This monitoring is intended to track the progress of the treatment and to guide when the Tier 1 sampling of this well should be performed; Tier 2 monitoring will end at the same time as Tier 1 monitoring.

Groundwater monitoring (Tier 1 and 2) will be conducted using either a portable bladder or Grundfos pump or pump rig (or equivalent). The wells will be sampled according to the procedures listed in Appendix A for groundwater sampling. For Tier 1 sampling, field parameters (pH, SC, temperature, DO, Eh, etc.) will be monitored during purging of the well for groundwater sampling. As mentioned previously, the Tier 1 samples will be analyzed for TDS, anions, cations, metals, alkalinity, and acidity. The specific Tier1 analytes and associated analytical methods are listed in Table 2-1. The laboratory analysis will be conducted following the Environmental Compliance Quality Assurance Plan, BHP Copper Inc. (MWH, 2002).

For Tier 2 groundwater sampling, the wells will be purged as for Tier 1 samples, with the final purge parameters recorded for each well. No samples will be collected for

laboratory analysis. General and specific groundwater monitoring purging and sampling procedures are presented in SOP-20 of Appendix A.

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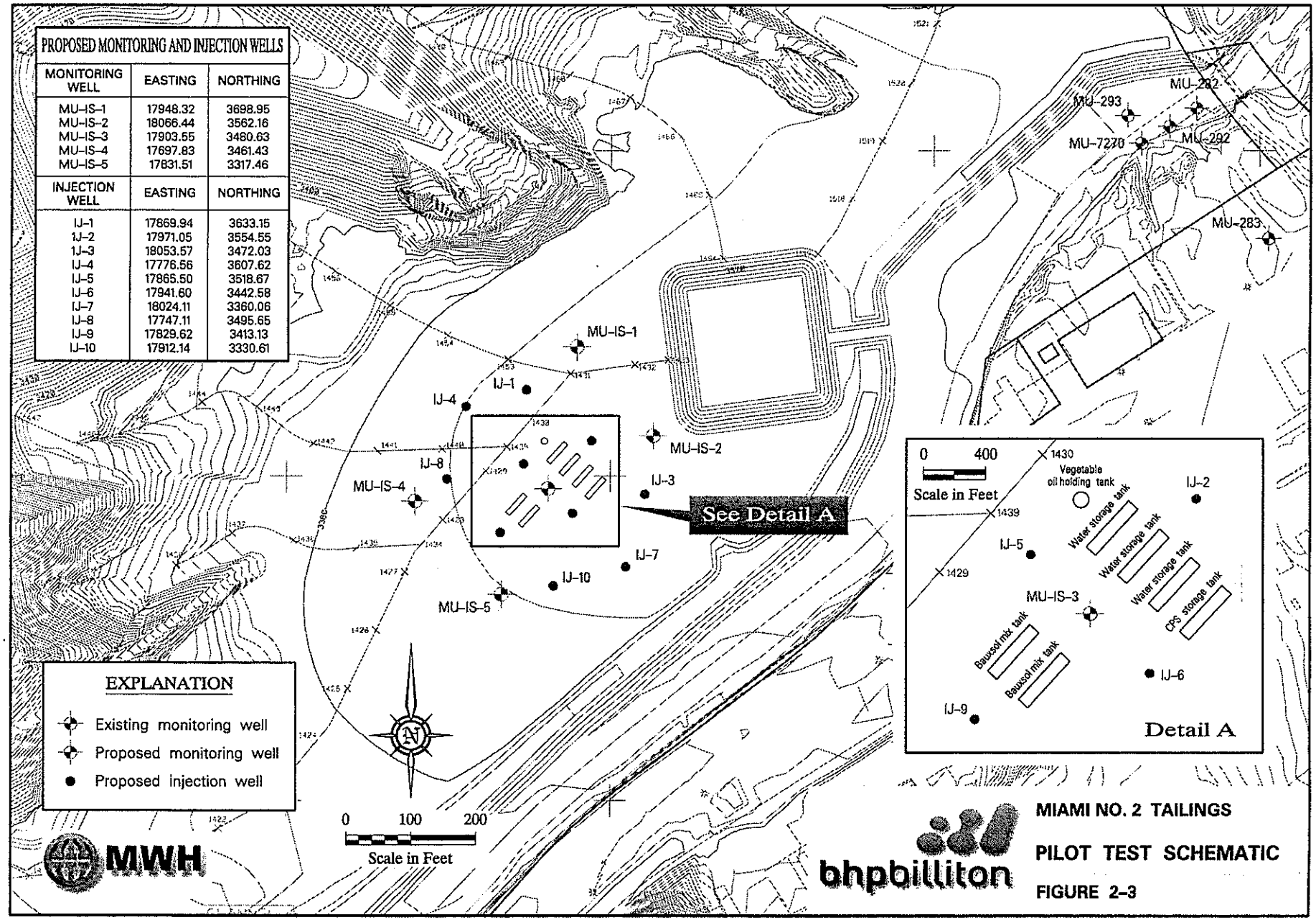

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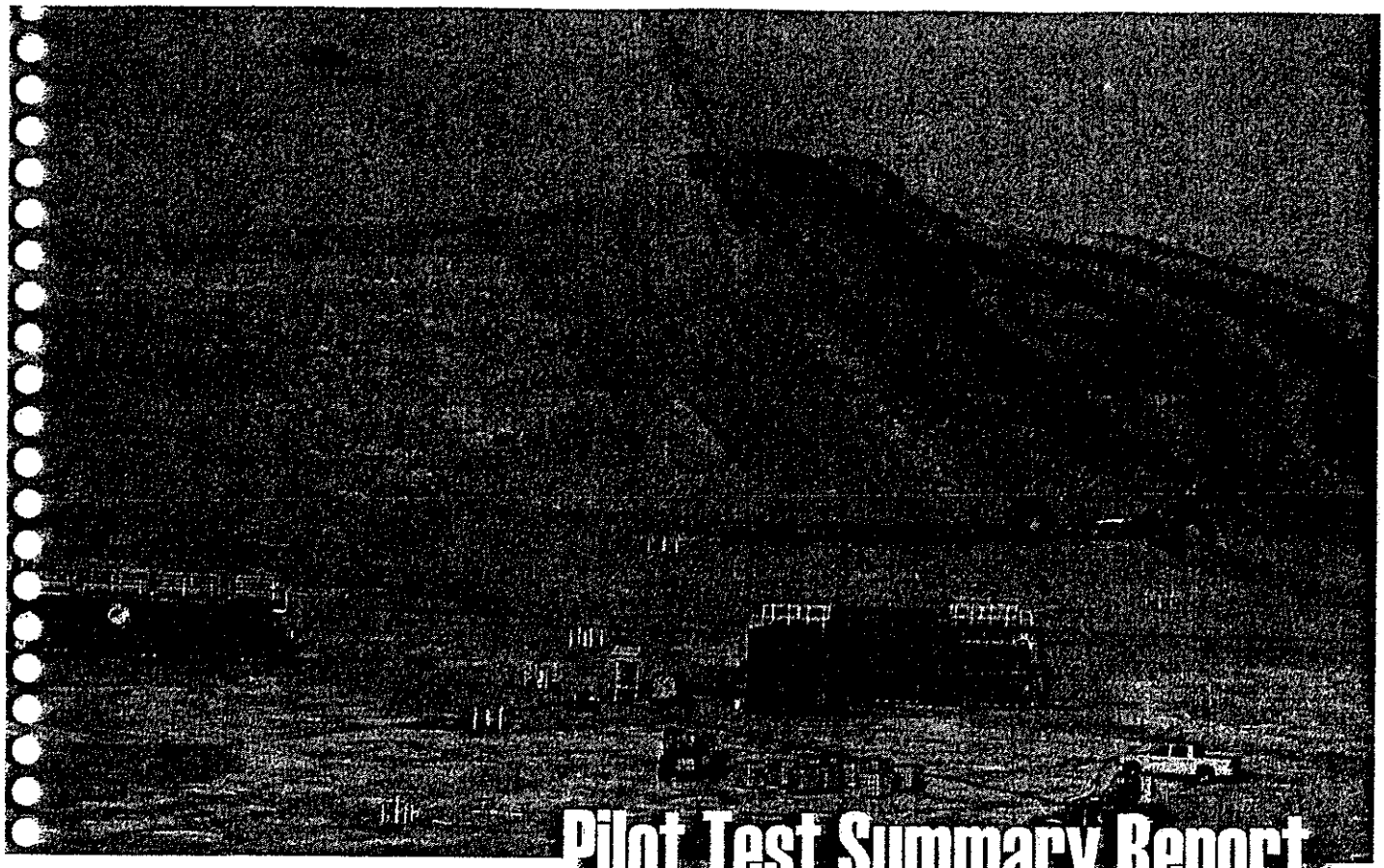

Pilot Test Summary Report

In-Situ Remediation Project
Miami Unit No. 2 Tailings

bhpbilliton

Prepared for: **BHP Copper Inc.,**

Pinto Valley Operations
Miami, Arizona

MWH

August 2006

BHPSUP 030361

PILOT TEST SUMMARY REPORT

IN SITU REMEDIATION PROJECT
MIAMI UNIT NO. 2 TAILINGS
BHP COPPER, INC.

August 2006

Prepared for:

BHP Copper Inc., Pinto Valley Operations
Miami, Arizona

Prepared by:

MWH
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TABLE OF CONTENTS

LIST OF ATTACHMENTS

LIST OF TABLES
(Tables follow text)

LIST OF FIGURES
(Figures follow tables)

EXECUTIVE SUMMARY

MWH conducted a pilot test as part of our overall scope of work for evaluating the potential for in-situ treatment of groundwater in the alluvial aquifer underlying the Miami Unit No. 2 tailings. The pilot test, which involved injection of chemical reagents into the alluvial aquifer through 10 injection wells to induce precipitation of target analytes, was conducted according to the *Final Work Plan for Pilot Testing – In Situ Remediation, Miami Unit No. 2, BHP Copper Inc.* ("Work Plan;" MWH, 2005).

Pilot Test Implementation. Details regarding the installation and completion of the monitoring and injection wells, reagent storage, handling, and delivery, and groundwater sampling are presented in the Work Plan (MWH, 2005). During the pilot test, several deviations to the procedures presented in the Work Plan occurred due to field conditions, including:

- Unsuccessful Bauxsol™ Injection
- Treatment of Surface Soil with Bauxsol™
- Injection of Calcium Polysulfide (CPS) and Emulsified Vegetable Oil in Multiple Wells Using Injection Headers
- Injection Without Packer
- Treatment of Surface Soil with CPS
- Inability to Evaluate Effect of Emulsified Vegetable Oil

Pilot Test Results Summary. To evaluate the efficacy of the reagent injection, monitoring wells installed upgradient, within, and downgradient of the pilot test injection zone were sampled prior to and three times after reagent injection. Additionally, monitoring well MU-282 was sampled twice to evaluate migration of the treated groundwater downgradient from the pilot test area. Results from sampling of these wells prior to the pilot test indicated that constituent concentrations and acidity in the pilot test area were several times higher than those of groundwater used for the batch and column testing.

Evaluation of groundwater sampling results before and after reagent injection and along groundwater flow lines through the pilot test area indicate that the reagent-treated portion of the aquifer successfully provided significant treatment of acidic groundwater. Along a groundwater flow line across the pilot test area (from upgradient well MU-IS-5 to downgradient well MU-IS-2), metals and acidity concentrations were reduced from 40% to 100%, most by approximately 40-45%. Decreases in concentrations of up to 50% also were observed in monitoring well MU-IS-3, which is within the pilot test-treated portion of the aquifer. Along a groundwater flow line (from MU-IS-4 to MU-IS-1) through the pilot test area, decreases in constituent concentrations averaging near 20% were observed. Reagent injection was less successful in the area of MU-IS-4/MU-IS-1, likely resulting in less removal along this groundwater flow line. Significant treatment and removal of constituents was still occurring after up to seven pore volumes of the upgradient, acidic groundwater had flowed through the pilot test treated area.

During the test, constituent concentrations in monitoring wells generally increased (although relative reductions in constituent concentrations occurred across the pilot test zone). At the same time, depth-to-water increased (i.e., groundwater elevations declined). Evaluation of constituent concentrations versus groundwater elevation in monitoring well MU-282 suggests that mixing of two water types results in the observed relationship of increasing constituent concentrations with decreasing groundwater elevations. The two types appear to be 1) a deep zone of groundwater with relatively high constituent concentration at approximately 60 feet below ground surface, and 2) low constituent concentration surface water recharge (along Bloody Tanks Wash), which migrates through the vadose zone and mixes with this deeper groundwater.

Although the pilot test has successfully removed between 20-45% of constituents in seven pore volumes of acidic groundwater (approximately 13.3 million gallons) that has flowed through the

pilot test area, several factors resulted in the pilot test not achieving similar results as the batch or column testing:

- Significantly higher concentrations in the groundwater at the pilot test area than those evaluated in the batch and column testing
- Inability to inject Bauxsol™, which 1) impacted the effectiveness of the emulsified vegetable oil (did not get a pH increase necessary to stimulate sulfate-reducing bacteria) and 2) did not provide the expected direct metals removal through pH increase and fixation processes
- Significantly higher concentrations of acidic minerals/fluids in aquifer matrix
- Constituent concentrations in the groundwater upgradient of the pilot test area increased during the pilot test
- Significant treatment of the vadose zone occurred (i.e., a large amount of CPS was likely consumed in the vadose zone); the results from this treatment will not be apparent until the water table rises to approximately 50 to 20 feet below ground surface

Considerations For Full-Scale Treatment. Based on the preceding, the following should be considered by BHP in deciding whether (and how) to proceed with full-scale treatment:

- The long-term, positive effect from treatment resulting from CPS injection at the pilot test area should be evaluated through additional sampling
- The feasibility and associated cost of injecting Bauxsol™ should be re-evaluated; based on this, re-consider emulsified vegetable oil addition
- Given the significantly higher concentrations observed in the pilot test area, the water quality of the groundwater beneath the alluvial flat area of MU#2 should be characterized prior to implementation of any full-scale treatment
- Assuming this characterization is carried out, if the water quality found across the site is similar to that observed in the pilot test area, then an in-situ permeable reactive zone created through CPS addition should be considered rather than site-wide in-situ treatment (due to costs associated with the CPS reagent and injection well installation) and higher concentrations of CPS reagent should be used
- If a permeable reactive zone treatment is pursued, additional injection wells or an alternate delivery mechanism (e.g., infiltration trench) should be evaluated; this permeable reactive zone should be sited at or near the existing pilot test area to take advantage of reagents already delivered to the subsurface at this location
- CPS reagent mixing/storage systems should be configured to allow for removal of any solids created from storing and mixing the CPS before it is injected into the subsurface

Conclusions. Based on the results of the pilot test, the following conclusions can be drawn:

- The inability to inject Bauxsol™ prevented evaluation of the treatment effects of the three reagents together (i.e., pH adjustment and metals removal via Bauxsol™, direct treatment via CPS, and long-term treatment via vegetable oil stimulating sulfate-reducing bacteria)
- The pilot test provided useful data for evaluating full-scale treatment and produced positive results in terms of reducing contaminant mass in the groundwater within and downgradient of the pilot-test area
- Although significantly underdosed (pilot-scale dosing was based on batch and column testing performed on acidic groundwater with lower constituent concentrations), injection

of CPS into the aquifer at the pilot-test area resulted in constituent reductions averaging approximately 20 to 50 percent as acidic groundwater flowed through the treated zone

- Treatment of up to 7 pore volumes has been demonstrated
- Additional treatment of groundwater should be expected if or when the water table rises into the vadose zone treated with CPS
- Injection of Bauxsol™ may not be possible using typical injection wells; injection via high pressure jetting may be required
- Full-scale treatment is possible, with modifications to the full-scale application based on the considerations described in the preceding section.

ATTACHMENT 1

NOVEMBER 2005 PILOT TEST SUMMARY

MEMORANDUM

MWH

To:	Dave Unger, BHP	**Date:**	December 2, 2005
From:	Craig Stevens, MWH	**Reference:**	MWH PO No. 6300007083

Subject: November 2005 – Pilot Test Summary, Miami Unit No. 2 In-Situ Remediation Project

SUMMARY

- **Pilot Test.** MWH began mobilizing for conducting the pilot test on 1 November 2005. Tanks, equipment, and reagents began delivery on the 1 November and continued through 3 November. MWH began initiation of the pilot testing of Bauxsol injection in IJ-10 on 4 November 2005. Initial injection rates were substantially slower than expected, and by the end of 4 November, only several thousand gallons of Bauxsol had been injected into IJ-10. Additionally, injection through the packer into separate injection depth zones was shown not to be feasible (Bauxsol came around the packer and up to the ground surface). MWH then attempted injection through the packer only from the top of the well (i.e., with the packer set just above the well screen). This approach succeeded, but at substantially lower rates than expected. MWH tried both pumps that were provided by the subcontractor Precision Sampling to attempt to increase the injection rate into the well. Similar, slower than expected rates were achieved. On 5 November 2005, MWH attempted injection into IJ-9, with similar results. At this time, MWH depth sounded both wells and found that both wells were plugged to just below the top of the screen with Bauxsol. Precision Sampling attempted to remove the Bauxsol from the well IJ-10, but was unsuccessful. At this point, MWH ceased continuing to try to inject Bauxsol into the wells, sent Precision Sampling home until further notice, and subcontracted with Davie Ruiz (Excel Pump) to attempt removal of the Bauxsol from the two plugged wells. Only partial success was achieved by Excel; MWH then brought in Circle B Environmental, who was successful in removing the Bauxsol from both wells by 9 November.

- At this time, MWH began preparing to begin the injection of calcium polysulfide (CPS) and emulsified vegetable oil, and were ready to begin injection of CPS and emulsified vegetable oil on 12 November 2005. For the CPS and vegetable oil injection (and Bauxsol for that matter), MWH had requested that Precision Sampling find a more appropriate pump to help achieve the expected and higher injection rates than achieved to date. Precision Sampling had selected a pump from RainForRent and was planning on picking up this pump on the 12 November to begin CPS injection. However, the lead member of the Precision Sampling crew had a family emergency and was not available to begin work on the 12 November. On 15 November, Precision Sampling returned to the site and CPS and emulsified vegetable oil injection was initiated on IJ-4. Successful (albeit at slower rates than planned for) injection of CPS and IJ-4 seemed to slow each day; therefore, MWH switched to injecting CPS and emulsified vegetable oil into IJ-1 on 16 November 2005. By 19 November 2005, MWH had

injected 104,200 gallons into IJ-4. From 19 to 22 November 2005, MWH injected approximately 66,000 gallons into IJ-1. In an attempt to reduce costs for the injection work, MWH built injection headers to test on the CPS injection wells (basically to pressurize the well and inject into each well without packers – thereby eliminating the need for Precision Sampling's services). MWH attached the first injection header on IJ-4, and initiated injection testing of this apparatus on 22 November 2005. The test was successful, and MWH injected 25,800 gallons into IJ-4, reaching the total of 130,000 gallons by the morning of 23 November 2005. After completing the injection into IJ-4, MWH attached another injection header onto IJ-1, and began injection into this well on 23 November. After some period of injection, MWH and BHP Copper personnel noticed surfacing of CPS injection water from two locations away from the injection well. At this time, MWH ceased injection and shut down the project for the Thanksgiving Holiday.

ATTACHMENT 2

DECEMBER 2005 PILOT TEST SUMMARY

MEMORANDUM

MWH

To: Dave Unger, BHP **Date:** January 4, 2006

From: Craig Stevens, MWH **Reference:** MWH PO No. 6300007083

Subject: December 2005, Pilot Test Summary
Miami Unit No. 2 In-Situ Remediation Project

SUMMARY

Pilot Test. As indicated in the November 05 summary, MWH had successfully begun injecting CPS into the injection wells using injection headers on November 22, 2005. From that time until the end of the injection, MWH used the injection headers to inject the remainder of the CPS into the seven remaining injection wells (IJ-7 through IJ-1). In general, the injection rates of CPS into each individual well tended to decrease with time (sometimes significantly), leading MWH to begin simultaneous injection of CPS into multiple wells later in the reporting period. At two of the wells (IJ-1, IJ-5), CPS came to the ground surface during injection, and MWH then began rotating injection of CPS into multiple wells at relatively lower pressures. Additionally, to attempt to keep the project on schedule, MWH added CPS into the water make up tanks, and allowed these tanks to drain overnight on several occasions. After some period of injection, injection into wells IJ-2 and IJ-3 became very slow to essentially non-existent, and MWH decided to cease injection into these wells, with the remainder of the CPS mix (i.e., remainder of total CPS mixture planned for injection into the ground) then injected into IJ-4, IJ-6, and IJ-7. The attached Table 1 provides a daily summary of the CPS injection during the December reporting period. Additionally, Attachment A provides more detail regarding daily injection activities during this reporting period.

Note that, due to the large footprint required for the injection project equipment, the ongoing reclamation activities were being slowed down by the continued operation of the injection pilot test. Therefore, as the injection project was nearly complete, MWH and BHP decided on 15 December 2005 to use the remaining CPS and water to treat the ground surface and cease the injection project. The remaining CPS and water used to treat the ground surface was estimated at less than 16,000 gallons (out of the total of 910,000 gallons of CPS and vegetable oil mixture planned for injection; therefore, approximately 894,000 gallons of the CPS/veg oil mixture was injected into the subsurface).

In an attempt to begin injection of Bauxsol™ into the three Bauxsol™ injection wells (IJ-8, IJ-9, and IJ-10), MWH subcontracted with Layne Christensen to provide high pressure injection equipment (pump, drill rig, packers) and experienced crew. Layne Christensen and MWH attempted injection into IJ-10 at pressures ranging from 100 to 150 psi (with an initial flow rate of around 100 gpm), resulting in "silting in" of the well with Bauxsol™ within 45 minutes. Additionally, MWH and BHP had been considering using a suspension agent to

attempt to keep the Bauxsol™ in suspension and thereby allow injection of the Bauxsol™ into the ground. Given the results of the high pressure injection by Layne Christensen, which suggested that either the well screen or formation (or both) was already plugged with Bauxsol™, MWH and Dave Unger of BHP determined that 1) it did not make sense to spend the additional capital and labor required to test the suspension agent and 2) efforts to inject Bauxsol™ into the subsurface should be terminated. The remaining Bauxsol™ was then spread on the ground surface within the alluvial flat area of the MU# 2 site.

Groundwater sampling for measurement of geochemical parameters in wells MU-IS-1 through MU-IS-5 was initiated on 12 December 2005, and additional rounds of monitoring were conducted on these same wells on 14, 19, and 21 December 2005. Parameters were also measured in groundwater purged from well MU-282 on 21 December. Groundwater samples for chemical analysis were collected on 21 December 2005 and submitted to ACZ Laboratories for analysis. Table 2 summarizes the geochemical parameters measured in tehse wells for these collection rounds (along with geochemical field parameters monitored during collection of the baseline water quality for wells MU-IS-1 through MU-IS-5). Additional geochemical parameter monitoring will be performed in the January reporting period, and one additional sample will be collected for laboratory analysis from wells MU-IS-1 through MU-IS-5. Additionally, one groundwater sample for laboratory analysis will be collected from MU-282.

TABLE 1

SUMMARY OF INJECTION VOLUMES - DECEMBER 2005

MIAMI UNIT #2
IN SITU REMEDIATION PROJECT

Date	CPS Injection Into Wells:	Cumulative Volume1	Comments
11/28/05	IJ-5	21,715	CPS came to ground surface - IJ-5
	IJ-6	2,451	
11/29/05	IJ-6	34,058	
11/30/05	IJ-6	53,133	
12/01/05	IJ-6	66,676	
12/02/05	IJ-6	116,868	Began multiple well injection - IJ-6, IJ-7
	IJ-7	13,554	
12/03/05	IJ-5	30,142	
	IJ-6	`130000	
	IJ-7	36,121	
12/05/05	IJ-5	50,537	
	IJ-6	56,516	
12/06/05	IJ-2	9,258	Began injecting into three wells - IJ-2, 3, 7
	IJ-3	9,258	
	IJ-5	62,571	CPS came to ground surface
	IJ-7	78,822	
12/07/05	IJ-2	30,762	
	IJ-3	30,762	
	IJ-7	100,326	
12/08/05	IJ-2	47,042	Added CPS to water tanks, allowed overnight gravity drainage
	IJ-3	47,042	
	IJ-7	116,614	
12/09/05	IJ-2	62,799	
	IJ-3	62,799	
	IJ-7	`130000	
12/10/05	IJ-2	65,582	Slow injection rate
	IJ-3	65,582	Slow injection rate
12/11/05	IJ-2	69,780	No to very little injection
	IJ-3	69,780	No to very little injection

TABLE 1
(cont.)

SUMMARY OF INJECTION VOLUMES- DECEMBER 2005

MIAMI UNIT #2
IN SITU REMEDIATION PROJECT

Date	CPS Injection Into Wells:	Cumulative Volume1	Comments
12/12/05	IJ-1	68,578	gravity drain to IJ-1
	IJ-2	70,998	No to very little injection; ceased additional attempts
	IJ-3	70,998	No to very little injection; ceased additional attempts
	IJ-5	69,251	CPS came to ground surface; began gravity drainage only
12/13/05	IJ-1	70,998	CPS came to ground surface; ceased additional attempts
	IJ-5	112,888	Gravity drained 30 gpm overnight of CPS mix
12/14/05	IJ-4	140,756	Decided to inject remainder of CPS into IJ-4, IJ-6, IJ-7
	IJ-5	120,337	Very slow injection; ceased additional attempts
	IJ-6	141,370	Decided to inject remainder of CPS into IJ-4, IJ-6, IJ-7
	IJ-7	144,703	Decided to inject remainder of CPS into IJ-4, IJ-6, IJ-7
12/15/05	IJ-4	148,454	Injection rate steadily decreasing; decided to stop injection completely
	IJ-6	152,401	Injection rate steadily decreasing; decided to stop injection completely
	IJ-7	149,068	Injection rate steadily decreasing; decided to stop injection completely

TABLE 2

SUMMARY OF GEOCHEMICAL PARAMTER MONITORING

MIAMI UNIT #2
IN SITU REMEDIATION PROJECT

Well	Date	pH	DO	SC	Eh	Temp
MU-IS-1	10/19/2005	3.37	8.64	27400	234	21.9
	12/13/2005	3.46	1.81	14493	243	19.4
	12/14/2005	3.25	1.22	14458	238	18.5
	12/20/2005	3.38	3.1	14729	228	20.3
	12/21/2005	3.64	3.3	14876	215	19.9
	1/3/2006	3.52	3.02	15392	231	19.6
MU-IS-2	10/19/2005	3.22	9.3	15000	304	20.2
	12/13/2005	3.53	1.6	5565	267	16.6
	12/14/2005	3.31	1.9	5700	265	17.8
	12/19/2005	6.61	2.9	6158	266	17.8
	12/21/2005	3.7	3.3	5920	223	17.8
	1/3/2006	3.49	5.7	6959	252	18.1
MU-IS-3	10/19/2005	3.14	5.98	16100	315	19.2
	12/12/2005	3.32	2.44	8174	402	16.9
	12/14/2005	3.22	2.4	7986	328	16.8
	12/19/2005	4.65	2.4	8759	331	17.8
	12/21/2005	3.43	6.1	8368	322	18.3
	1/3/2006	3.27	3.4	9779	324	18.4
MU-IS-4	10/19/2005	3.17	5.55	28900	272	20.6
	12/14/2005	3.21	1.8	16675	285	18.7
	12/20/2005	3.3	5.8	16431	283	19.4
	12/21/2005	3.53	3.2	17025	266	19.8
	1/3/2006	3.41	2.92	17596	279	20.0
MU-IS-5	10/19/2005	3.25	5.79	8450	309	17.4
	12/12/2005	3.34	1.99	8918	324	17.6
	12/14/2005	3.29	1.8	9101	321	16.9
	12/19/2005	7.45	1.7	9796	321	17.7
	12/21/2005	3.52	4.6	9238	306	17.4
	1/3/2006	3.31	5.6	10783	322	17.8
MU-282	7/26/2005	3.32	--	4513	--	17.8
	8/20/2005	3.32	--	5410	--	18.2
	9/21/2005	3.25	--	6700	--	18.6
	12/21/2005	3.62	2.63	11528	279	18.2
	1/3/2006	3.5	6.5	12020	267	18.0

-- not measured

Attachment A
MU#2 In-situ Remediation Pilot Test
Injection Daily Activity Summary – December 2005 Pilot Test Summary

11-28-05

Moved from IJ-1 to IJ-5 first thing in the morning – Injection solution came up to the surface on IJ-1 at the end of the day 11-23-05.

Started on IJ-5 by 1236 after several set-backs with ice in water lines, obtaining correct fittings to attach manifold to well casing.

Up and running with injection pump at 36 psi – injection rate at 140 gpm
AOD pump at 40 psi – trying to achieve 14 gpm

Injection rates increasing – between 1304 and 1349 averaged 200 gpm at 45 psi. by 1407 rates dropped to less than 100 gpm

1443 shut down – CPS coming to the surface ~10 feet from IJ-5

Moved to IJ-6

1642 Began injecting into IJ-6 at a rate of 45 gpm, at an injection pressure of 31 psi

Injection rate too low for AOD pump so shut down pump to allow CPS to flow via gravity – flowing at ~5gpm from tank.

1745 shut off pump.

- IJ-5 - 21,715 gal injected by EOB 11-28-05
- IJ-6 - 2,451 gal injected by EOB 11-28-05

11-29-2005

Ambient air temp 26° F – pump and water lines frozen.

Pump started up at 0934 – injecting at 30 psi at a rate of 84 gpm

Veg oil pumping at ~1gpm, AOD pump off, allowing CPS to gravity flow

Averaged 82 gpm throughout the day

Injected steadily until 1741.

- IJ-6 - 34,058 gal injected by EOB 11-29-05

11-30-2005

Pump and water lines frozen again – couldn't start injecting until 0910

Trying to keep injection pressures below 35 psi to avoid solutions coming to surface. Flow rates significantly lower today - average flow rate for injection at ~24 gpm.

Injecting steadily until 1747.

- IJ-6 – 53,133 gal injected by EOB 11-30-2005

12-1-2005

Weather warming up – able to start by 0805 today

Injected at an average rate of ~24 gpm again today

Injected steadily until1742

- IJ-6 – 66,676 gal injected by EOB 12-1-05

12-2-05

Injected by 0714 – injection rates are significantly higher than past two days, could be due to fact that dilution water drained via gravity overnight, a total of 5,800 gal drained overnight.

Injected steadily into IJ-6 until 1150 at an average of ~100 gpm – shut down to hook up another well to the injection pump.

1412 - Started injecting into both IJ-6 and IJ-7

Injection rates averaging ~100 gpm total (including both wells).

Shut down CPS and veg oil injection by 1654 to allow injection of only dilution water for last 30 minutes

Injected steadily until 1720

- IJ-6 – 116,868 gal injected by EOB 12-2-05
- IJ-7 – 13,554 gal injected by EOB 12-2-05

12-3-05

0703 – allowed dilution water to drain via gravity overnight, drained a total of 32,920 gal at 40 gpm over 13:43 hours.

0731 started injection pump on IJ-6 and IJ-7

1040 shut down CPS and veg oil – IJ-6 has exceeded its dosage of both reagents, nearing dosage of dilution water.

1043 shut down injection pump – moved pump to set up on IJ-5 as well as continue with IJ-7

1126 injecting into both IJ-5 and IJ-7 – injection rates very high, injection pressures low. Averaging >150 gpm with pressures around 30 psi.

1357 shut down AOD pump for veg oil - tank empty

Having problems with the PVC flow meters for each individual well – will have to assume that each well is receiving ~50% of flow.

Injected steadily until 1403

- IJ-5 - 30,142 gal injected as of EOB 12-3-05
- IJ-7 - 36,121 gal injected as of EOB 12-3-05

12-5-05

0728 started injection – rate averaging ~90 gpm with injection pressures around 35 psi

Injection rates decreasing throughout the day – daily average at ~34 gpm

Layne Christensen onsite with injection rig – setting up to start injection of Bauxsol™

1505 began injection of Bauxsol™ into IJ-10 – pressure at 100 psi
1550 Shut down injection of Bauxsol™, pressure rising and flow rate dropping. IJ-10 is silted up to 20.4 feet below the top of the collar.

Injected steadily into IJ-5 and IJ-7 until 1743

- IJ-5 – 50,537 gal by EOB on 12-5-05
- IJ-7 – 56,516 gal by EOB on 12-5-05

12-6-05

0705 – Pump and water line frozen, ambient air temp 24° F

1021 began injection into IJ-5 and IJ-7. Averaging >180 gpm

1213 shut off injection pump – solution coming to the surface on IJ-5 in the same location as previously on 11-28-05.

Moved to set up on IJ-3 as well as IJ-7. Began injection on both wells at 1440

Injected steadily on both wells until 1623, stopped to hook up IJ-2 as well

1636 began injecting into three wells – IJ-2, IJ-3 and IJ-7. Averaging >150 gpm

Injected steadily until 1741

- IJ-5 – 62,571 gal injected as of EOB on 12-6-05
- IJ-7 – 78,822 gal injected as of EOB on 12-6-05
- IJ-3 – 9,258 gal injected as of EOB on 12-6-05
- IJ-2 – 9,258 gal injected as of EOB on 12-6-05

12-7-05

0700 attempted to reconnect all hoses (disconnected and drained at end of day yesterday in order to avoid ice build-up delaying injection)

0749 began injection – ice blockage still within system, had to shut down

0926 began injection into IJ-2, IJ-3, and IJ-7. Averaging >200 gpm total

1159 injection rates decreasing to ~100 gpm average

Injected steadily until 1736

- IJ-2 – 30,762 gal injected as of EOB on 12-7-05
- IJ-3 – 30,762 gal injected as of EOB on 12-7-05
- IJ-7 – 100,326 gal injected as of EOB on 12-7-05

12-8-05

0900 all lines still frozen

1007 began injection into IJ-2, IJ-3, and IJ-7. Averaging ~100 gpm total

Injected steadily averaging >80 gpm until 1603, flow rates decreasing significantly, now averaging ~35gpm

Injected steadily until 1718 – shut down early to monitor gravity flow rates, will allow CPS and dilution water to flow via gravity overnight.

- IJ-2 – 47,042 gal injected as of EOB on 12-8-05
- IJ-3 – 47,042 gal injected as of EOB on 12-8-05
- IJ-7 – 116,614 gal injected as of EOB on 12-8-05

12-9-05
0145 shut off dilution water line, opened 3rd tank to allow to equilibrate and observe flow rate via gravity, 42gpm flow of dilution water. Opened CPS tank valve half way to allow CPS to flow ~2-3 gpm.

0715 A total of 15,750 gal flowed overnight from dilution tank, no CPS drained, so only "injected" water.

0736 began injection into IJ-2, IJ-3, and IJ-7.

Injection rates started low and are decreasing. By 1224 shut injection pump down to allow pressure to dissipate within injection well.

1314 opened valve to dilution water tank, no flow via gravity
1336 turned injection pump back on, averaging 40 gpm

1504 closed ball valve on manifold on IJ-7, dosage achieved – done injecting

Injected steadily until 1740

- IJ-2 – 62,799 gal injected as of EOB on 12-9-05
- IJ-3 – 62,799 gal injected as of EOB on 12-9-05
- IJ-7 – 130,109 gal injected as of EOB on 12-9-05

12-10-05
0845 no drain via gravity overnight despite nearly full water tanks (plenty of head to drive gravity drain)

Changed out pressure gauges from manifold on IJ-7 to IJ-2 in order to try and have accurate reading on IJ-2

0952 began injection – IJ-2 new gauge not functioning either, must be a problem within manifold, not with gauge

Injection rates very low – averaging 15 gpm total

1215 shut down injection pump, discovered that there is CPS in the dilution water tanks, will investigate cause

Low injection rates allowed CPS AOD pump to pump portion of CPS up into water line leading back into dilution tanks, based off of evaluation of timeline with changes in injection rates, could have pumped up to 6% dilution of CPS into water tanks (2 tanks only)

1406 Opened water tanks to allow mixed solution to gravity drain overnight.

- IJ-2 – 65,582 gal injected as of EOB on 12-10-05
- IJ-3 – 65,582 gal injected as of EOB on 12-10-05

12-11-05
Gravity drain allowed for 21 hours, only drained at 2.5 gpm despite head in dilution tanks

Injection rates averaging ~15gpm

Opened valve on Bauxsol™ mix tank to allow to drain onto ground

Injected steadily until 1601

- IJ-2 – 69,780 gal injected as of EOB on 12-11-05
- IJ-3 – 69,780 gal injected as of EOB on 12-11-05

12-12-05
0730 less than 2,000 gal flowed via gravity overnight (15 hours)

0743 began injection - very little sign of injection
0922 Shut down pump to move to IJ-5 as well

Received help from Nielsons to lift one end of the Bauxsol™ mix tank in order to clean out and drain remaining few inches of Bx

1457 began injecting into IJ-2, IJ-3 and IJ-5

1537 Shut down injection pump – discovered that all 38 gpm is going into IJ-5. Moved to IJ-1 to be able to inject into IJ-5 and IJ-1, allow IJ-2 and IJ-3 to sit and dissipate pressure for a few days.

Pumped CPS equaling ~10% dilution into each of the three water tanks in order to inject from just the dilution tanks. From here on out, will pump CPS into third water tank while filling with dilution water in order to control dilution factor of CPS, maintaining ~10% dilution.

1556 Opened valve to dilution tanks – did not start injection pump. IJ-1 receiving flow simply by feeding hose into well casing, manifolds are stuck on IJ-2 and 3.

1622 shut valve – solution coming back up casing in IJ-1, need manifold to control injection flow.

1629 began injection again into only IJ-5, averaging ~45 gpm

Shut down at 1722 to observe gravity flow rate

1756 gravity flow rate = 40 gpm (now flowing with ~10% dilution of CPS in water therefore, gravity drain overnight will be achieving desired dilution factor of CPS)

- IJ-1 – 68,578 gal injected as of EOB on 12-12-05
- IJ-2 – 70,998 gal injected as of EOB on 12-12-05
- IJ-3 – 70,998 gal injected as of EOB on 12-12-05
- IJ-5 – 69,251gal injected as of EOB on 12-12-05

12-13-05
0800 "injected" 26,586 gal overnight into IJ-5, ~30 gpm average

Continuing to allow gravity flow into IJ-5 while constructing new manifold for IJ-1 and allowing PVC glue to set-up before connecting up and starting pump.

1319 connected IJ-1 as well as IJ-5, allowing gravity feed to monitor flow into each well, as long as gravity can flow at a reasonable rate, will allow to continue without pumping to avoid coming to the surface again

MWH and BHP personnel emptying remaining super sacks of Bx and MgO onto impacted ground, Nielsons using grader to till into impacted surface before dumping clean cover on top

Cleaned out all Bx related hoses

1354 No flow going into IJ-1 so started injection pump

1401 solution coming to the surface again in IJ-1, through same locations as previously observed on 11-23-05, shut down pump, no more attempts on IJ-1

Started up pump, injecting into only IJ-5, averaging ~ 65 gpm

1615 Shut down injection pump on IJ-5, solution coming to the surface

1625 allowing gravity flow into IJ-5, ~20 gpm average

1750 shut down AOD pump and water line for the night to allow gravity drain at correct dilution factor of CPS and water

- IJ-1 – 70,998 gal injected as of EOB on 12-13-05
- IJ-5 – 112,888 gal injected as of EOB on 12-13-05

12-14-05
0700 only lost 7,449 gal overnight into IJ-5

Moved pump to set up on IJ-4, IJ-6 and IJ-7

0926 stared up injection pump into all 3 wells, averaging ~75 gpm

Throughout the day, injection flow rate decreased, overall average of 45 gpm total

Injected steadily until 1815

- IJ-4 – 140,756 gal injected as of EOB on 12-14-05
- IJ-6 – 141,370 gal injected as of EOB on 12-14-05
- IJ-7 – 144,703 gal injected as of EOB on 12-14-05

12-15-05
0700 Began injection, water valve shut for the night to allow well pressure to dissipate overnight

0840 CPS down below top of valve, will lift one end of tank and allow final few inches to drain out onto impacted ground

1017 averaged ~100 gpm up until 1017

Injection rate steadily decreasing, by 1303, rate down to 34 gpm total

BHP and MWH made the decision to allow remaining water and CPS mixture to flow onto impacted ground. Began clean up of CPS tank.

- IJ-4 – 148,454 gal injected as of EOB on 12-15-05
- IJ-6 – 152,401 gal injected as of EOB on 12-15-05
- IJ-7 – 149,068 gal injected as of EOB on 12-15-05

12-16-05
Cleaned out all remaining hoses and three water tanks, cleaned out pump and all fittings

12-19-05
Gathered all RFR items into one area, out of the way of Nielsons

Nielsons began to move tanks off of impacted surface, onto clean cover in order to apply clean cover to pilot test work area

RFR supposed to begin removing tanks today

Sunstate to arrive today to remove air compressor and forklift.

Exhibit 59

Facility/Project Name: Solitude Tailings - SCP

Well Number: MW05-ST-01

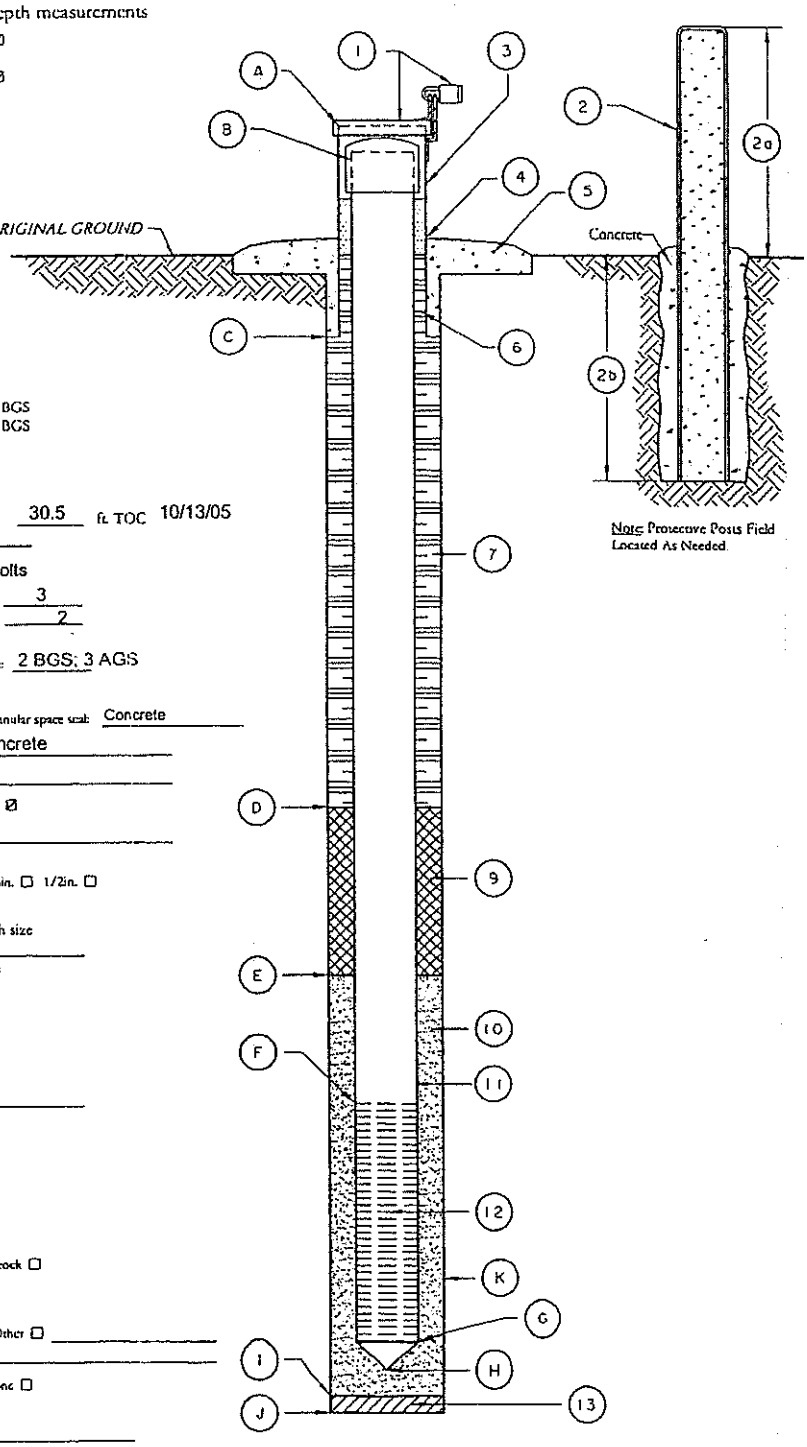
Date Well Installed: From 10/06/05 To 10/06/05

Well Installed By (Person's Name & Firm): Bob Layne Christensen

Type of Protective Cover: Above-Ground ☑ Flush-To-Ground ☐

NOTE: Use Ground Surface (BGS or AGS) for all depth measurements

- (A) - Protective casing: 3 ft. BGS ☐ or AGS ☑
- (B) - Well casing, top: 2.7 ft. BGS ☐ or AGS ☑
- (C) - Surface seal, bottom: 2.0 ft. BGS
- (D) - Bentonite seal, top: 15 ft. BGS
- (E) - Primary filter, top: 18 ft. BGS
- (F) - Screen joint, top: 19.5 ft. BGS
- (G) - Screen joint, bottom: 59.5 ft. BGS
- (H) - End cap bottom: 60 ft. BGS
- (I) - Filter pack, bottom: 60 ft. BGS
- (J) - Borehole, bottom: 64 ft. BGS
- (K) - Borehole, diameter: 9.5 in. to 64 ft. BGS; ____ in. to ____ ft. BGS
- (L) - O.D. well casing: 4.25 in.
- (M) - I.D. well casing: 4 in.
- (N) - 24 hr. water level after completion: 27.8 ft. BGS 30.5 ft. TOC 10/13/05



- (1) - Cap and Lock? Yes ☑ No ☐ nuts & bolts
- (2) - Protective posts? Yes ☑ No ☐ No. of Posts 3
  a. Height AGS: Feet 3 b. Depth BGS: Feet 2
- (3) Protective casing:
  a. Inside diameter: Inches 8 b. Depth: Feet 2 BGS; 3 AGS
- (4) - Drainage port (s)? Yes ☐ No ☑
- (5) - Surface seal material a. Cap: Concrete b. Annular space seal: Concrete
- (6) - Material between well casing and protective casing: Concrete
- (7) - Annular space seal: Mix: Cement & Bentonite
  - How installed: Tremie ☐ Tremie pumped ☐ Gravity ☑
- (8) - Centralizers: No ☑ Yes ☐ Depths (BGS) ____
- (9) - Bentonite seal:
  a. Bentonite granules ☐ or b. Bentonite pellets 1/4in. ☑ 3/8in. ☐ 1/2in. ☐
  c. ____ ☐ other
- (10) - Filter pack material: Manufacturer, product name, & mesh size
  a. Colorado Silica Sand 10 x20
  b. Volume added ____ ft.3 32 Bags/Size
- (11) - Well casing: Flush threaded PVC schedule 40 ☑
  Flush threaded PVC schedule 80 ☐
  ____ Other ☐
- (12) - Screen material: PVC
  a. Screen type: Slotted
  Factory cut ☑ Continuous slot ☐ Other ☐ ____
  b. Manufacturer: Boart Longyear
  c. Slot size: 0.02 mm
  d. Slotted length: 40
- (13) - Backfill material (below filter pack): None ☐
  Colorado Sand 10x20 Other ☑
- (14) - USCS classification of soil near screen None ☐
  GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☑
  SM ☑ SC ☐ ML ☑ MH ☐ CL ☐ CH ☐ Bedrock ☐
- (15) - Sieve analysis attached? Yes ☐ No ☑
- (16) Drilling method used: Rotary ☑ Hollow Stem Auger ☐ Other ☐ ____
- (17) - Drilling fluid used: Water ☐ Air ☑ Drilling Mud ☐ None ☐
- (18) - Drilling additives used? Yes ☐ No ☑
  Describe: ____

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY

MWH

PROJECT No.: 1004475

AutoCAD FILE: WELL.dwg

SCALE: Not To Scale

FIGURE No.

BHP

Solitude Site Characterization

BHPSUP020541

Exhibit 60

Arizona Department of Water Resources
Records Management Section
500 N. 3rd Street ❖ Phoenix, Arizona 85004
(602) 417-2405 ❖ (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

- Review instructions prior to completing form
- This report should be prepared by the driller in detail and filed with the Department within 30 days following completion of the well.

** PLEASE PRINT CLEARLY **

RECEIVED SEP 26 2005 Information Management

FILE NUMBER: A(1-15)27 CCB
WELL REGISTRATION NUMBER: 55 - 902960
PERMIT NUMBER (IF ISSUED):

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: BHP

MAILING ADDRESS: P. O. Box 100

CITY / STATE / ZIP CODE: Miaml, AZ, 85539

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 928 473-6308

FAX:

Location of Well

WELL LOCATION ADDRESS (IF ANY): NA

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 AC
1	15	27	NW ¼	SW SW

LATITUDE: ° ' "N

LONGITUDE: °

LAND SURFACE ELEVATION AT WELL: Feet Al

METHOD OF LATITUDE / LONGITUDE (CHECK ONE)

☐ USGS Quad Map ☐ Conventional Survey ☐ GPS

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARC

COUNTY WHERE WELL IS LOCATED: Gila

SECTION 2. DRILLING AUTHORIZATION

Drilling Firm

NAME: BOART LONGYEAR COMPANY

DWR LICENSE NUMBER: 83

TELEPHONE NUMBER: 623-486-1881

FAX:

SECTION 3. WELL CONSTRUCTION DETAILS

DATE WELL CONSTRUCTION STARTED: 9-13-05

DATE WELL CONSTRUCTION COMPLETED: 9-14-05

IF FLOWING WELL, METHOD OF FLOW RE: ☐ Valve ☐ Other:

Drill Method

CHECK ONE

- ☐ Air Rotary
- ☒ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted

Method of Well Development

CHECK ONE

- ☐ Airlift
- ☒ Bail
- ☒ Surge Block
- ☐ Surge Pump
- ☐ Other *(please specify)*:

Method of Sealing at Reduction P

CHECK ONE

- ☒ None
- ☐ Packed
- ☐ Swedged
- ☐ Welded
- ☐ Other *(please specify)*:

Water Level Information

STATIC WATER LEVEL: 155'

ENTERED OCT - 4 2005

Arizona Department of Water Resources
Records Management Section
500 N. 3rd Street ❖ Phoenix, Arizona 85004
(602) 417-2405 ❖ (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

- ❖ Review instructions prior to completing form
- ❖ This report should be prepared by the driller in detail and filed with the Department within 30 days following completion of the well.

** PLEASE PRINT CLEARLY **

RECEIVED OCT -8 2005

FILE NUMBER: A(1-15)27 CCB
WELL REGISTRATION NUMBER: 55 - 902962
PERMIT NUMBER (IF ISSUED):

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: BHP

MAILING ADDRESS: P. O. Box 100

CITY / STATE / ZIP CODE: Miami, AZ, 85539

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 928 473-6308

FAX:

Location of Well

WELL LOCATION ADDRESS (IF ANY): NA

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 AC
1	15	27	NW ¼	SW SW

LATITUDE: ° ' "N

LONGITUDE: °

LAND SURFACE ELEVATION AT WELL: Feet Al

METHOD OF LATITUDE / LONGITUDE (CHECK ONE)

☐ USGS Quad Map ☐ Conventional Survey ☐ GPS

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARC

COUNTY WHERE WELL IS LOCATED: Gila

SECTION 2. DRILLING AUTHORIZATION

Drilling Firm

NAME: BOART LONGYEAR COMPANY

DWR LICENSE NUMBER: 83

TELEPHONE NUMBER: 623-486-1881

FAX:

ANSWERED OCT 0 6 2005

SECTION 3. WELL CONSTRUCTION DETAILS

DATE WELL CONSTRUCTION STARTED: 9-19-05

DATE WELL CONSTRUCTION COMPLETED: 9-21-05

IF FLOWING WELL, METHOD OF FLOW RE(
☐ Valve ☐ Other:

Drill Method

CHECK ONE
- ☐ Air Rotary
- ☒ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted

Method of Well Development

CHECK ONE
- ☐ Airlift
- ☒ Bail
- ☒ Surge Block
- ☐ Surge Pump
- ☐ Other *(please specify)*:

Water Level Information

STATIC WATER LEVEL: 230ft.

Method of Sealing at Reduction P

CHECK ONE
- ☒ None
- ☐ Packed
- ☐ Swedged
- ☐ Welded
- ☐ Other *(please specify)*:

Arizona Department of Water Resources
Records Management Section
500 N. 3rd Street ❖ Phoenix, Arizona 85004
(602) 417-2405 ❖ (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

- Review instructions prior to completing form
- This report should be prepared by the driller in detail and filed with the Department within 30 days following completion of the well.

** PLEASE PRINT CLEARLY **

OCT - 3

FILE NUMBER: A(1-15)28 DDD
WELL REGISTRATION NUMBER: 55 - 902963
PERMIT NUMBER (IF ISSUED):

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: BHP

MAILING ADDRESS: P. O. Box 100

CITY / STATE / ZIP CODE: Miami, AZ, 85539

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 928 473-6308

FAX:

Location of Well

WELL LOCATION ADDRESS (IF ANY): NA

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 AC
1	15	28	SE ¼	SE

LATITUDE: ° ' "N

LONGITUDE: °

LAND SURFACE ELEVATION AT WELL: Feet Al

METHOD OF LATITUDE / LONGITUDE (CHECK ONE)

☐ USGS Quad Map ☐ Conventional Survey ☐ GPS

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARC

COUNTY WHERE WELL IS LOCATED: Gila

SECTION 2. DRILLING AUTHORIZATION

Drilling Firm

NAME: BOART LONGYEAR COMPANY

DWR LICENSE NUMBER: 83

TELEPHONE NUMBER: 623-486-1881

FAX:

ANSWERED OCT 0 6 2005

SECTION 3. WELL CONSTRUCTION DETAILS

DATE WELL CONSTRUCTION STARTED: 9-21-03

DATE WELL CONSTRUCTION COMPLETED: 9-23-03

IF FLOWING WELL, METHOD OF FLOW REC
☐ Valve ☐ Other:

Drill Method

CHECK ONE
- ☐ Air Rotary
- ☒ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted

Method of Well Development

CHECK ONE
- ☐ Airlift
- ☒ Bail
- ☒ Surge Block
- ☐ Surge Pump
- ☐ Other *(please specify)*:

Method of Sealing at Reduction P

CHECK ONE
- ☒ None
- ☐ Packed
- ☐ Swedged
- ☐ Welded
- ☐ Other *(please specify)*:

Water Level Information

STATIC WATER LEVEL: Moist @ 210' No Free Water

Exhibit 61

170.6-7 (00)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Janet Napolitano
Governor

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.adeq.state.az.us

Stephen A. Owens
Director

November 23, 2005
RPU2006, 208

Org: 170.6-9

E-5280.2.2

Copies:
W. Fuller
R. Krain
B. Parker
D. Unger
B. Gray
J. Geye

12/2/05

Wayne A. Fuller
Chief Environmental Engineer
BHP Copper Inc.
P.O. Box 100
Miami, AZ 85539

Re: Solitude Unit-Source Remediation Plan Addendum No. 10-Site Characterization Plan

Dear Mr. Fuller:

The Arizona Department of Environmental Quality, Remedial Projects Unit has completed review of the referenced work plan and would like to include some additional water quality monitoring of wells in Russell Gulch downgradient of the Solitude Tailings. Specifically, wells RG-1, RG-2, RG-3 and MG-8 should be sampled for the same parameters being sampled in the new monitor wells being installed as part of the Solitude Unit Site Characterization Plan. At least one round of sampling should be included with the forthcoming results of the site characterization plan. ADEQ will reserve judgment on a routine sampling program for these Russell Gulch wells until the results can be reviewed, but we do anticipate some sort of routine monitoring for the Solitude Unit as we do for the BHP Miami, Copper Cities and Old Dominion properties.

If you have any questions regarding this matter, please contact me at (602) 771-4575.

Sincerely,

Ed Pond
Remedial Project Manager
Remedial Projects Unit
Superfund Programs Section

BHPSUP 027097

Exhibit 62

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
MW-05-ST-0	Barium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Chloride	10/13/2005 2:22:00 PM	9	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Chromium	10/13/2005 2:22:00 PM	1.34	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Chromium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cadmium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cadmium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cobalt	10/13/2005 2:22:00 PM	51.6	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Beryllium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Copper (Dissolved)	10/13/2005 2:22:00 PM	0.02	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Barium	10/13/2005 2:22:00 PM	0.019	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Arsenic	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Arsenic	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Silica	10/13/2005 2:22:00 PM	19.4	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Fluoride	10/13/2005 2:22:00 PM	1	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Sulfate (Total)	10/13/2005 2:22:00 PM	540	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Beryllium	10/13/2005 2:22:00 PM	1.24	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Manganese	10/13/2005 2:22:00 PM	0.006	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Alkalinity, Carbonate (as CaCO3)	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Alkalinity, Bicarbonate (as CaCO3)	10/13/2005 2:22:00 PM	202	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Alkalinity, Hydroxide (as CaCO3)	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Alkalinity, Total (as CaCO3)	10/13/2005 2:22:00 PM	202	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Nickel	10/13/2005 2:22:00 PM	56.4	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cobalt	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Thallium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Thallium	10/13/2005 2:22:00 PM	0.0001	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Manganese	10/13/2005 2:22:00 PM	785	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Lead	10/13/2005 2:22:00 PM	0.0011	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Lead	10/13/2005 2:22:00 PM	0.001	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Iron (Dissolved)	10/13/2005 2:22:00 PM	0.12	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Iron (Total)	10/13/2005 2:22:00 PM	147	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Copper (Total)	10/13/2005 2:22:00 PM	1070	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Nickel	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Aluminum	10/13/2005 2:22:00 PM	5760	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Anions	10/13/2005 2:22:00 PM	15.7	meq/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cations	10/13/2005 2:22:00 PM	15.4	meq/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cation Anion Balance, % difference	10/13/2005 2:22:00 PM			1/30/2006 4:52:47 PM
MW-05-ST-0		10/13/2005 2:22:00 PM			1/30/2006 4:52:47 PM
MW-05-ST-0	Selenium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Uranium	10/13/2005 2:22:00 PM	0.0072	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Aluminum	10/13/2005 2:22:00 PM	0.08	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Zinc	10/13/2005 2:22:00 PM	105	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Antimony	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Antimony	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Zinc	10/13/2005 2:22:00 PM	0.04	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Strontium	10/13/2005 2:22:00 PM	0.78	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Potassium	10/13/2005 2:22:00 PM	16.3	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	pH (Lab-su)	10/13/2005 2:22:00 PM	7.5	su	1/30/2006 4:52:47 PM
MW-05-ST-0	Selenium	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Hardness	10/13/2005 2:22:00 PM	623	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Sodium	10/13/2005 2:22:00 PM	56.2	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Magnesium	10/13/2005 2:22:00 PM	26.8	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Strontium	10/13/2005 2:22:00 PM	0.37	mg/l	1/30/2006 4:52:47 PM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
MW-05-ST-0	Total Dissolved Solids	10/13/2005 2:22:00 PM	1000	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Calcium	10/13/2005 2:22:00 PM	205	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Nitrite (mg/l as N)	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Nitrate (mg/l as N)	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Total Dissolved Solids	10/13/2005 2:22:00 PM	996	mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Ammonia	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Cation & Anion Sum	10/13/2005 2:22:00 PM	30.908	meq/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Mercury	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Arsenic	10/13/2005 2:22:00 PM	100	%	1/30/2006 4:52:47 PM
MW-05-ST-0	Nitrite Nitorgen (NO2-N)	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0	Mercury	10/13/2005 2:22:00 PM		mg/l	1/30/2006 4:52:47 PM
MW-05-ST-0		10/13/2005 2:22:00 PM			1/30/2006 4:52:47 PM
MW-05-ST-0	Beryllium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Cobalt	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Cobalt	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Chromium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Chromium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Barium	1/23/2006 3:10:00 PM	0.019	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Cadmium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Beryllium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Copper (Dissolved)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Manganese	1/23/2006 3:10:00 PM	0.138	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Barium	1/23/2006 3:10:00 PM	0.026	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Arsenic	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Cadmium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Copper (Total)	1/23/2006 3:10:00 PM	0.04	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Iron (Total)	1/23/2006 3:10:00 PM	0.39	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Iron (Dissolved)	1/23/2006 3:10:00 PM	0.02	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Lead	1/23/2006 3:10:00 PM	0.0002	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Manganese	1/23/2006 3:10:00 PM	0.159	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Thallium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Thallium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Nickel	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Nickel	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Arsenic	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Alkalinity, Bicarbonate (as CaCO3)	1/23/2006 3:10:00 PM	199	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Silver	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Lead	1/23/2006 3:10:00 PM	0.0007	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Nitrate (mg/l as N)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Zinc	1/23/2006 3:10:00 PM	0.09	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Water Temp (c)	1/23/2006 3:10:00 PM			4/4/2006 11:13:58 AM
MW-05-ST-0	Water Temp (F)	1/23/2006 3:10:00 PM			4/4/2006 11:13:58 AM
MW-05-ST-0		1/23/2006 3:10:00 PM	20	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Specific Conductance (umhos/cm @	1/23/2006 3:10:00 PM	1050	micromho	4/4/2006 11:13:58 AM
MW-05-ST-0	Specific Conductance (umhos/cm @	1/23/2006 3:10:00 PM	1210	micromho	4/4/2006 11:13:58 AM
MW-05-ST-0	pH (Lab-su)	1/23/2006 3:10:00 PM	7.8	su	4/4/2006 11:13:58 AM
MW-05-ST-0	pH (Field-su)	1/23/2006 3:10:00 PM	6.72	su	4/4/2006 11:13:58 AM
MW-05-ST-0	Alkalinity, Total (as CaCO3)	1/23/2006 3:10:00 PM	199	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Alkalinity, Hydroxide (as CaCO3)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Total Suspended Solids (mg/l)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Nitrite Nitorgen (NO2-N)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Fluoride	1/23/2006 3:10:00 PM	1	mg/l	4/4/2006 11:13:58 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
MW-05-ST-0	Nitrite (mg/l as N)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Hardness	1/23/2006 3:10:00 PM	551	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Calcium	1/23/2006 3:10:00 PM	181	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Calcium	1/23/2006 3:10:00 PM	181	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Magnesium	1/23/2006 3:10:00 PM	23.9	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Magnesium	1/23/2006 3:10:00 PM	24.5	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0		1/23/2006 3:10:00 PM			4/4/2006 11:13:58 AM
MW-05-ST-0	Potassium	1/23/2006 3:10:00 PM	14.8	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Potassium	1/23/2006 3:10:00 PM	15	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Chloride	1/23/2006 3:10:00 PM	10	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Sulfate (Total)	1/23/2006 3:10:00 PM	450	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Alkalinity, Carbonate (as CaCO3)	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Depth To Water	1/23/2006 3:10:00 PM	42.4	feet MSL	4/4/2006 11:13:58 AM
MW-05-ST-0	Zinc	1/23/2006 3:10:00 PM	0.09	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Silver	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0		1/23/2006 3:10:00 PM			4/4/2006 11:13:58 AM
MW-05-ST-0	Turbidity,lab Nephelometric Turbidity	1/23/2006 3:10:00 PM			4/4/2006 11:13:58 AM
MW-05-ST-0	Mercury	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Mercury	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Total Dissolved Solids	1/23/2006 3:10:00 PM	880	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Selenium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Selenium	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Aluminum	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Aluminum	1/23/2006 3:10:00 PM	0.08	mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Antimony	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	GW Elevation (ft msl)	1/23/2006 3:10:00 PM	3355.4	feet MSL	4/4/2006 11:13:58 AM
MW-05-ST-0	Arsenic	1/23/2006 3:10:00 PM	100	%	4/4/2006 11:13:58 AM
MW-05-ST-0	Antimony	1/23/2006 3:10:00 PM		mg/l	4/4/2006 11:13:58 AM
MW-05-ST-0	Cobalt	4/11/2006 3:50:00 PM	0.01	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Fluoride	4/11/2006 3:50:00 PM	1.1	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Silica	4/11/2006 3:50:00 PM	19.7	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Iron (Total)	4/11/2006 3:50:00 PM	59.3	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Arsenic	4/11/2006 3:50:00 PM	0.0132	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Barium	4/11/2006 3:50:00 PM	0.559	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Beryllium	4/11/2006 3:50:00 PM		mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Chromium	4/11/2006 3:50:00 PM	0.04	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Copper (Total)	4/11/2006 3:50:00 PM	0.43	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Sulfate (Total)	4/11/2006 3:50:00 PM	440	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Alkalinity, Carbonate (as CaCO3)	4/11/2006 3:50:00 PM		mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Cadmium	4/11/2006 3:50:00 PM	0.0003	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Chloride	4/11/2006 3:50:00 PM	10	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Potassium	4/11/2006 3:50:00 PM	13.6	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Sodium	4/11/2006 3:50:00 PM	50.8	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Magnesium	4/11/2006 3:50:00 PM	37.6	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Magnesium	4/11/2006 3:50:00 PM	24	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Lead	4/11/2006 3:50:00 PM	0.0248	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Ammonia	4/11/2006 3:50:00 PM	0.16	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Cation Anion Balance, % difference	4/11/2006 3:50:00 PM			7/11/2006 11:55:07 AM
MW-05-ST-0	Alkalinity, Bicarbonate (as CaCO3)	4/11/2006 3:50:00 PM	211	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Alkalinity, Hydroxide (as CaCO3)	4/11/2006 3:50:00 PM		mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Alkalinity, Total (as CaCO3)	4/11/2006 3:50:00 PM	211	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Specific Conductance (umhos/cm @	4/11/2006 3:50:00 PM	1170	micromho	7/11/2006 11:55:07 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
MW-05-ST-0	Calcium	4/11/2006 3:50:00 PM	181	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Total Dissolved Solids	4/11/2006 3:50:00 PM	867	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0		4/11/2006 3:50:00 PM			5/16/2006 10:38:40 AM
MW-05-ST-0	Depth To Water	4/11/2006 3:50:00 PM	49.2	feet MSL	5/16/2006 10:38:40 AM
MW-05-ST-0	GW Elevation (ft msl)	4/11/2006 3:50:00 PM	3345.91	feet MSL	5/16/2006 10:38:40 AM
MW-05-ST-0	Nitrite (mg/l as N)	4/11/2006 3:50:00 PM		mg/l	5/16/2006 10:38:40 AM
MW-05-ST-0	Nitrate (mg/l as N)	4/11/2006 3:50:00 PM		mg/l	5/16/2006 10:38:40 AM
MW-05-ST-0	Nitrite Nitorgen (NO2-N)	4/11/2006 3:50:00 PM		mg/l	5/16/2006 10:38:40 AM
MW-05-ST-0	pH (Field-su)	4/11/2006 3:50:00 PM	7.13	su	5/16/2006 10:38:40 AM
MW-05-ST-0	Specific Conductance (umhos/cm @	4/11/2006 3:50:00 PM	680	micromho	5/16/2006 10:38:40 AM
MW-05-ST-0	Water Temp (F)	4/11/2006 3:50:00 PM			5/16/2006 10:38:40 AM
MW-05-ST-0	Water Temp (c)	4/11/2006 3:50:00 PM			5/16/2006 10:38:40 AM
MW-05-ST-0	Cation & Anion Sum	4/11/2006 3:50:00 PM	36.266	meq/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Aluminum	4/11/2006 3:50:00 PM	51.2	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Mercury	4/11/2006 3:50:00 PM		mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Manganese	4/11/2006 3:50:00 PM	2.22	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Total Dissolved Solids	4/11/2006 3:50:00 PM	870	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Uranium	4/11/2006 3:50:00 PM	0.0151	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Anions	4/11/2006 3:50:00 PM	13.8	meq/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Cations	4/11/2006 3:50:00 PM	13.6	meq/l	7/11/2006 11:55:07 AM
MW-05-ST-0		4/11/2006 3:50:00 PM			7/11/2006 11:55:07 AM
MW-05-ST-0	pH (Lab-su)	4/11/2006 3:50:00 PM	7.7	su	7/11/2006 11:55:07 AM
MW-05-ST-0	Antimony	4/11/2006 3:50:00 PM		mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Zinc	4/11/2006 3:50:00 PM	0.13	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Strontium	4/11/2006 3:50:00 PM	0.84	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0	Nickel	4/11/2006 3:50:00 PM	0.05	mg/l	7/11/2006 11:55:07 AM
MW-05-ST-0		4/11/2006 3:50:00 PM			7/11/2006 11:55:07 AM
MW-05-ST-0		7/19/2006 10:54:00 AM			1/13/2006 12:02:30 PM
MW-05-ST-0	Alkalinity, Bicarbonate (as CaCO3)	7/19/2006 10:54:00 AM	216	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Sulfate (Total)	7/19/2006 10:54:00 AM	460	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Chloride	7/19/2006 10:54:00 AM	10	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Potassium	7/19/2006 10:54:00 AM	13.5	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Sodium	7/19/2006 10:54:00 AM	47.5	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Magnesium	7/19/2006 10:54:00 AM	27.1	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Magnesium	7/19/2006 10:54:00 AM	26.1	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Calcium	7/19/2006 10:54:00 AM	194	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Nitrite (mg/l as N)	7/19/2006 10:54:00 AM		mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Nitrate (mg/l as N)	7/19/2006 10:54:00 AM		mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Cations	7/19/2006 10:54:00 AM	14.3	meq/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Ammonia	7/19/2006 10:54:00 AM	0.1	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Arsenic	7/19/2006 10:54:00 AM	0.0005	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Alkalinity, Total (as CaCO3)	7/19/2006 10:54:00 AM	216	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	pH (Lab-su)	7/19/2006 10:54:00 AM	7.8	su	1/13/2006 12:02:30 PM
MW-05-ST-0	Specific Conductance (umhos/cm @	7/19/2006 10:54:00 AM	1300	micromho	1/13/2006 12:02:30 PM
MW-05-ST-0		7/19/2006 10:54:00 AM			9/6/2006 11:54:09 AM
MW-05-ST-0	Depth To Water	7/19/2006 10:54:00 AM	55.7	feet MSL	9/6/2006 11:54:09 AM
MW-05-ST-0	GW Elevation (ft msl)	7/19/2006 10:54:00 AM	3339.41	feet MSL	9/6/2006 11:54:09 AM
MW-05-ST-0	pH (Field-su)	7/19/2006 10:54:00 AM	6.76	su	9/6/2006 11:54:09 AM
MW-05-ST-0	Specific Conductance (umhos/cm @	7/19/2006 10:54:00 AM	1110	micromho	9/6/2006 11:54:09 AM
MW-05-ST-0	Water Temp (F)	7/19/2006 10:54:00 AM			9/6/2006 11:54:09 AM
MW-05-ST-0	Water Temp (c)	7/19/2006 10:54:00 AM			9/6/2006 11:54:09 AM
MW-05-ST-0	Nitrite Nitorgen (NO2-N)	7/19/2006 10:54:00 AM		mg/l	1/13/2006 12:02:30 PM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
MW-05-ST-0	Manganese	7/19/2006 10:54:00 AM	1.49	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0		7/19/2006 10:54:00 AM			1/13/2006 12:02:30 PM
MW-05-ST-0	Total Dissolved Solids	7/19/2006 10:54:00 AM	904	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Total Dissolved Solids	7/19/2006 10:54:00 AM	900	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Uranium	7/19/2006 10:54:00 AM	0.0115	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Anions	7/19/2006 10:54:00 AM	14.3	meq/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Cation Anion Balance, % difference	7/19/2006 10:54:00 AM			1/13/2006 12:02:30 PM
MW-05-ST-0	Aluminum	7/19/2006 10:54:00 AM	0.13	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Aluminum	7/19/2006 10:54:00 AM	0.28	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Zinc	7/19/2006 10:54:00 AM	0.06	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Zinc	7/19/2006 10:54:00 AM	0.14	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Fluoride	7/19/2006 10:54:00 AM	0.9	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Strontium	7/19/2006 10:54:00 AM	1.2	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Silica	7/19/2006 10:54:00 AM	21.9	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Manganese	7/19/2006 10:54:00 AM	0.805	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Lead	7/19/2006 10:54:00 AM	0.0003	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Iron (Dissolved)	7/19/2006 10:54:00 AM	0.24	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Iron (Total)	7/19/2006 10:54:00 AM	0.47	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Copper (Total)	7/19/2006 10:54:00 AM	0.02	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Copper (Dissolved)	7/19/2006 10:54:00 AM	0.02	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Chromium	7/19/2006 10:54:00 AM	0.01	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Barium	7/19/2006 10:54:00 AM	0.027	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Barium	7/19/2006 10:54:00 AM	0.021	mg/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Cation & Anion Sum	7/19/2006 10:54:00 AM	28.557	meq/l	1/13/2006 12:02:30 PM
MW-05-ST-0	Strontium	7/19/2006 10:54:00 AM	0.87	mg/l	1/13/2006 12:02:30 PM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2	Cation Anion Balance, % difference	3/27/1998			1/20/2006 10:29:56 AM
RG-2	Thallium	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Nickel	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Vanadium	3/27/1998	0.0035	mg/l	1/20/2006 10:29:56 AM
RG-2	Zinc	3/27/1998	0.026	mg/l	1/20/2006 10:29:56 AM
RG-2	Antimony	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Aluminum	3/27/1998	1.08	mg/l	1/20/2006 10:29:56 AM
RG-2	Selenium	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Manganese	3/27/1998	1.35	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998			1/20/2006 10:29:56 AM
RG-2	Uranium	3/27/1998	0.0115	mg/l	1/20/2006 10:29:56 AM
RG-2	Cations	3/27/1998	32.174	meq/l	1/20/2006 10:29:56 AM
RG-2	Anions	3/27/1998	31.576	meq/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998			1/20/2006 10:29:56 AM
RG-2		3/27/1998			1/20/2006 10:29:56 AM
RG-2	Total Dissolved Solids	3/27/1998	2170	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998			1/20/2006 10:29:56 AM
RG-2		3/27/1998			1/20/2006 10:29:56 AM
RG-2	Cation & Anion Sum	3/27/1998	63.75	meq/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998			1/20/2006 10:29:56 AM
RG-2	Alkalinity, Bicarbonate (as CaCO3)	3/27/1998	190	mg/l	1/20/2006 10:29:56 AM
RG-2	Mercury	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Lead	3/27/1998	0.0009	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Total (as CaCO3)	3/27/1998	190	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Hydroxide (as CaCO3)	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Carbonate (as CaCO3)	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Calcium	3/27/1998	454	mg/l	1/20/2006 10:29:56 AM
RG-2	Magnesium	3/27/1998	62	mg/l	1/20/2006 10:29:56 AM
RG-2	Sodium	3/27/1998	89	mg/l	1/20/2006 10:29:56 AM
RG-2	Potassium	3/27/1998	12.9	mg/l	1/20/2006 10:29:56 AM
RG-2	Chromium	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Copper (Total)	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Chloride	3/27/1998	38	mg/l	1/20/2006 10:29:56 AM
RG-2	Iron (Total)	3/27/1998	0.89	mg/l	1/20/2006 10:29:56 AM
RG-2	Cobalt	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Cadmium	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Beryllium	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Arsenic	3/27/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Fluoride	3/27/1998	0.8	mg/l	1/20/2006 10:29:56 AM
RG-2	Sulfate (Total)	3/27/1998	1280	mg/l	1/20/2006 10:29:56 AM
RG-2	Copper (Total)	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Iron (Total)	3/27/1998 5:20:00 PM	0.89	mg/l	1/20/2006 10:29:56 AM
RG-2	Selenium	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Manganese	3/27/1998 5:20:00 PM	1.35	mg/l	1/20/2006 10:29:56 AM
RG-2	Thallium	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Nickel	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Vanadium	3/27/1998 5:20:00 PM	0.0035	mg/l	1/20/2006 10:29:56 AM
RG-2	Lead	3/27/1998 5:20:00 PM	0.0009	mg/l	1/20/2006 10:29:56 AM
RG-2	Zinc	3/27/1998 5:20:00 PM	0.026	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Aluminum	3/27/1998 5:20:00 PM	1.08	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2	Cobalt	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Hardness	3/27/1998 5:20:00 PM	1390	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Antimony	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Potassium	3/27/1998 5:20:00 PM	12.9	mg/l	1/20/2006 10:29:56 AM
RG-2	Cation Anion Balance, % difference	3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	GW Elevation (ft msl)	3/27/1998 5:20:00 PM	3304.77	feet MSL	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Total (as CaCO3)	3/27/1998 5:20:00 PM	190	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Hydroxide (as CaCO3)	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Bicarbonate (as CaCO3)	3/27/1998 5:20:00 PM	190	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Carbonate (as CaCO3)	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Magnesium	3/27/1998 5:20:00 PM	62	mg/l	1/20/2006 10:29:56 AM
RG-2	Sodium	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Chromium	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Chloride	3/27/1998 5:20:00 PM	38	mg/l	1/20/2006 10:29:56 AM
RG-2	Sulfate (Total)	3/27/1998 5:20:00 PM	1280	mg/l	1/20/2006 10:29:56 AM
RG-2	Fluoride	3/27/1998 5:20:00 PM	0.8	mg/l	1/20/2006 10:29:56 AM
RG-2	Arsenic	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Beryllium	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Cadmium	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Calcium	3/27/1998 5:20:00 PM	454	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Cation & Anion Sum	3/27/1998 5:20:00 PM	59.878	meq/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Depth To Water	3/27/1998 5:20:00 PM	84.56	feet MSL	1/20/2006 10:29:56 AM
RG-2	Mercury	3/27/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Uranium	3/27/1998 5:20:00 PM	0.0115	mg/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Anions	3/27/1998 5:20:00 PM	31.8	meq/l	1/20/2006 10:29:56 AM
RG-2		3/27/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Cations	3/27/1998 5:20:00 PM	32	meq/l	1/20/2006 10:29:56 AM
RG-2	Total Dissolved Solids	3/27/1998 5:20:00 PM	2170	mg/l	1/20/2006 10:29:56 AM
RG-2	Iron (Total)	5/5/1998	0.08	mg/l	1/20/2006 10:29:56 AM
RG-2	Copper (Total)	5/5/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Aluminum	5/5/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Manganese	5/5/1998	1.93	mg/l	1/20/2006 10:29:56 AM
RG-2	Chromium	5/5/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Cadmium	5/5/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Cobalt	5/5/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Nickel	5/5/1998		mg/l	1/20/2006 10:29:56 AM
RG-2	Anions	5/5/1998 5:20:00 PM	29.7	meq/l	1/20/2006 10:29:56 AM
RG-2	Depth To Water	5/5/1998 5:20:00 PM	76.55	feet MSL	1/20/2006 10:29:56 AM
RG-2	Manganese	5/5/1998 5:20:00 PM	1.93	mg/l	1/20/2006 10:29:56 AM
RG-2	Nickel	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Vanadium	5/5/1998 5:20:00 PM	0.001	mg/l	1/20/2006 10:29:56 AM
RG-2	Zinc	5/5/1998 5:20:00 PM	0.02	mg/l	1/20/2006 10:29:56 AM
RG-2	Antimony	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Aluminum	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Selenium	5/5/1998 5:20:00 PM	0.002	mg/l	1/20/2006 10:29:56 AM
RG-2	Cations	5/5/1998 5:20:00 PM	30.8	meq/l	1/20/2006 10:29:56 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2		5/5/1998 5:20:00 PM			1/20/2006 10:29:56 AM
RG-2	Uranium	5/5/1998 5:20:00 PM	0.0105	mg/l	1/20/2006 10:29:56 AM
RG-2	Total Dissolved Solids	5/5/1998 5:20:00 PM	2030	mg/l	1/20/2006 10:29:56 AM
RG-2	Mercury	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Iron (Total)	5/5/1998 5:20:00 PM	0.08	mg/l	1/20/2006 10:29:56 AM
RG-2	Copper (Total)	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	GW Elevation (ft msl)	5/5/1998 5:20:00 PM	3312.78	feet MSL	1/20/2006 10:29:56 AM
RG-2	Hardness	5/5/1998 5:20:00 PM	1330	mg/l	1/20/2006 10:29:56 AM
RG-2	Lead	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Total (as CaCO3)	5/5/1998 5:20:00 PM	195	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Carbonate (as CaCO3)	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Calcium	5/5/1998 5:20:00 PM	436	mg/l	1/20/2006 10:29:56 AM
RG-2	Magnesium	5/5/1998 5:20:00 PM	58.1	mg/l	1/20/2006 10:29:56 AM
RG-2	Potassium	5/5/1998 5:20:00 PM	13.7	mg/l	1/20/2006 10:29:56 AM
RG-2	Chloride	5/5/1998 5:20:00 PM	34	mg/l	1/20/2006 10:29:56 AM
RG-2	Fluoride	5/5/1998 5:20:00 PM	0.7	mg/l	1/20/2006 10:29:56 AM
RG-2	Arsenic	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Beryllium	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Cadmium	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Chromium	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Sulfate (Total)	5/5/1998 5:20:00 PM	1180	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Hydroxide (as CaCO3)	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	Cobalt	5/5/1998 5:20:00 PM		mg/l	1/20/2006 10:29:56 AM
RG-2	GW Elevation (ft msl)	1/14/1999 10:30:00 AM	3321.06	feet MSL	1/20/2006 10:29:56 AM
RG-2	Depth To Water	1/14/1999 10:30:00 AM	68.27	feet MSL	1/20/2006 10:29:56 AM
RG-2	Iron (Dissolved)	6/21/2001 11:06:00 AM	0.02	mg/l	1/20/2006 10:29:56 AM
RG-2	Copper (Dissolved)	6/21/2001 11:06:00 AM	0.02	mg/l	1/20/2006 10:29:56 AM
RG-2	Cobalt	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Cadmium	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Boron	6/21/2001 11:06:00 AM	0.03	mg/l	1/20/2006 10:29:56 AM
RG-2	Beryllium	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Total Dissolved Solids	6/21/2001 11:06:00 AM	2300	mg/l	1/20/2006 10:29:56 AM
RG-2	Silica	6/21/2001 11:06:00 AM	19.5	mg/l	1/20/2006 10:29:56 AM
RG-2	Barium	6/21/2001 11:06:00 AM	0.018	mg/l	1/20/2006 10:29:56 AM
RG-2	Manganese	6/21/2001 11:06:00 AM	2.55	mg/l	1/20/2006 10:29:56 AM
RG-2	Molybdenum	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Nickel	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Zinc	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Antimony	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Aluminum	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Cation Anion Balance, % difference	6/21/2001 11:06:00 AM			1/20/2006 10:29:56 AM
RG-2	Anions	6/21/2001 11:06:00 AM	34	meq/l	1/20/2006 10:29:56 AM
RG-2	Lead	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2		6/21/2001 11:06:00 AM	2160	mg/l	1/20/2006 10:29:56 AM
RG-2	Cations	6/21/2001 11:06:00 AM	31.5	meq/l	1/20/2006 10:29:56 AM
RG-2	Potassium	6/21/2001 11:06:00 AM	15.6	mg/l	1/20/2006 10:29:56 AM
RG-2	Iron (Total)	6/21/2001 11:06:00 AM	0.19	mg/l	1/20/2006 10:29:56 AM
RG-2	Bromide	6/21/2001 11:06:00 AM	0.1	mg/l	1/20/2006 10:29:56 AM
RG-2	Fluoride	6/21/2001 11:06:00 AM	0.8	mg/l	1/20/2006 10:29:56 AM
RG-2	Chloride	6/21/2001 11:06:00 AM	43	mg/l	1/20/2006 10:29:56 AM
RG-2		6/21/2001 11:06:00 AM			1/20/2006 10:29:56 AM
RG-2	Sodium	6/21/2001 11:06:00 AM	73.1	mg/l	1/20/2006 10:29:56 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2	Magnesium	6/21/2001 11:06:00 AM	62	mg/l	1/20/2006 10:29:56 AM
RG-2	Calcium	6/21/2001 11:06:00 AM	452	mg/l	1/20/2006 10:29:56 AM
RG-2	Hardness	6/21/2001 11:06:00 AM	1380	mg/l	1/20/2006 10:29:56 AM
RG-2	pH (Lab-su)	6/21/2001 11:06:00 AM	6.6	su	1/20/2006 10:29:56 AM
RG-2	Sulfate (Total)	6/21/2001 11:06:00 AM	1370	mg/l	1/20/2006 10:29:56 AM
RG-2		6/21/2001 11:06:00 AM	6	mg/l	1/20/2006 10:29:56 AM
RG-2	Cation & Anion Sum	6/21/2001 11:06:00 AM	65.06	meq/l	1/20/2006 10:29:56 AM
RG-2	Specific Conductance (umhos/cm @	6/21/2001 11:06:00 AM	2130	micromho	1/20/2006 10:29:56 AM
RG-2		6/21/2001 11:06:00 AM			1/20/2006 10:29:56 AM
RG-2	Alkalinity, Total (as CaCO3)	6/21/2001 11:06:00 AM	197	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Hydroxide (as CaCO3)	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Bicarbonate (as CaCO3)	6/21/2001 11:06:00 AM	197	mg/l	1/20/2006 10:29:56 AM
RG-2	Alkalinity, Carbonate (as CaCO3)	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Acidity, mg/l	6/21/2001 11:06:00 AM		mg/l	1/20/2006 10:29:56 AM
RG-2	Copper (Total)	1/23/2006 4:10:00 PM	0.06	mg/l	4/4/2006 11:13:58 AM
RG-2	Depth To Water	1/23/2006 4:10:00 PM	69.29	feet MSL	4/4/2006 11:13:58 AM
RG-2	Arsenic	1/23/2006 4:10:00 PM	-50	%	4/4/2006 11:13:58 AM
RG-2	Beryllium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Cadmium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Chromium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2		1/23/2006 4:10:00 PM			4/4/2006 11:13:58 AM
RG-2	Chromium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Cobalt	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Copper (Dissolved)	1/23/2006 4:10:00 PM	0.01	mg/l	4/4/2006 11:13:58 AM
RG-2	Iron (Total)	1/23/2006 4:10:00 PM	3.65	mg/l	4/4/2006 11:13:58 AM
RG-2	Specific Conductance (umhos/cm @	1/23/2006 4:10:00 PM	1860	micromho	4/4/2006 11:13:58 AM
RG-2	Selenium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Iron (Dissolved)	1/23/2006 4:10:00 PM	0.02	mg/l	4/4/2006 11:13:58 AM
RG-2	Cobalt	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Aluminum	1/23/2006 4:10:00 PM	0.82	mg/l	4/4/2006 11:13:58 AM
RG-2	Turbidity,lab Nephelometric Turbidity	1/23/2006 4:10:00 PM			4/4/2006 11:13:58 AM
RG-2	Mercury	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Mercury	1/23/2006 4:10:00 PM	0.0003	mg/l	4/4/2006 11:13:58 AM
RG-2	Total Dissolved Solids	1/23/2006 4:10:00 PM	1530	mg/l	4/4/2006 11:13:58 AM
RG-2	GW Elevation (ft msl)	1/23/2006 4:10:00 PM	3318.77	feet MSL	4/4/2006 11:13:58 AM
RG-2	Arsenic	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Aluminum	1/23/2006 4:10:00 PM	0.04	mg/l	4/4/2006 11:13:58 AM
RG-2	Lead	1/23/2006 4:10:00 PM	0.0001	mg/l	4/4/2006 11:13:58 AM
RG-2	Nickel	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Antimony	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Zinc	1/23/2006 4:10:00 PM	0.12	mg/l	4/4/2006 11:13:58 AM
RG-2	Zinc	1/23/2006 4:10:00 PM	0.14	mg/l	4/4/2006 11:13:58 AM
RG-2	Silver	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Silver	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Nickel	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Selenium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Alkalinity, Carbonate (as CaCO3)	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Barium	1/23/2006 4:10:00 PM	0.019	mg/l	4/4/2006 11:13:58 AM
RG-2	Calcium	1/23/2006 4:10:00 PM	323	mg/l	4/4/2006 11:13:58 AM
RG-2	Calcium	1/23/2006 4:10:00 PM	329	mg/l	4/4/2006 11:13:58 AM
RG-2	Hardness	1/23/2006 4:10:00 PM	1000	mg/l	4/4/2006 11:13:58 AM
RG-2	Nitrite (mg/l as N)	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2	Nitrate (mg/l as N)	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Magnesium	1/23/2006 4:10:00 PM	44.4	mg/l	4/4/2006 11:13:58 AM
RG-2	Total Suspended Solids (mg/l)	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2		1/23/2006 4:10:00 PM			4/4/2006 11:13:58 AM
RG-2	Alkalinity, Bicarbonate (as CaCO3)	1/23/2006 4:10:00 PM	236	mg/l	4/4/2006 11:13:58 AM
RG-2	Alkalinity, Hydroxide (as CaCO3)	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Alkalinity, Total (as CaCO3)	1/23/2006 4:10:00 PM	236	mg/l	4/4/2006 11:13:58 AM
RG-2	pH (Field-su)	1/23/2006 4:10:00 PM	6.59	su	4/4/2006 11:13:58 AM
RG-2	pH (Lab-su)	1/23/2006 4:10:00 PM	7.7	su	4/4/2006 11:13:58 AM
RG-2	Thallium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Nitrite Nitorgen (NO2-N)	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Arsenic	1/23/2006 4:10:00 PM	0.001	mg/l	4/4/2006 11:13:58 AM
RG-2	Manganese	1/23/2006 4:10:00 PM	2.36	mg/l	4/4/2006 11:13:58 AM
RG-2	Manganese	1/23/2006 4:10:00 PM	2.13	mg/l	4/4/2006 11:13:58 AM
RG-2	Water Temp (c)	1/23/2006 4:10:00 PM			4/4/2006 11:13:58 AM
RG-2	Water Temp (F)	1/23/2006 4:10:00 PM			4/4/2006 11:13:58 AM
RG-2		1/23/2006 4:10:00 PM	40	mg/l	4/4/2006 11:13:58 AM
RG-2	Specific Conductance (umhos/cm @	1/23/2006 4:10:00 PM	1640	micromho	4/4/2006 11:13:58 AM
RG-2	Magnesium	1/23/2006 4:10:00 PM	43.9	mg/l	4/4/2006 11:13:58 AM
RG-2	Barium	1/23/2006 4:10:00 PM	0.022	mg/l	4/4/2006 11:13:58 AM
RG-2	Lead	1/23/2006 4:10:00 PM	0.0011	mg/l	4/4/2006 11:13:58 AM
RG-2	Thallium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Fluoride	1/23/2006 4:10:00 PM	0.8	mg/l	4/4/2006 11:13:58 AM
RG-2	Sulfate (Total)	1/23/2006 4:10:00 PM	860	mg/l	4/4/2006 11:13:58 AM
RG-2	Chloride	1/23/2006 4:10:00 PM	17	mg/l	4/4/2006 11:13:58 AM
RG-2	Potassium	1/23/2006 4:10:00 PM	13	mg/l	4/4/2006 11:13:58 AM
RG-2	Potassium	1/23/2006 4:10:00 PM	13.1	mg/l	4/4/2006 11:13:58 AM
RG-2	Beryllium	1/23/2006 4:10:00 PM		mg/l	4/4/2006 11:13:58 AM
RG-2	Strontium	4/11/2006 3:00:00 PM	1.08	mg/l	7/11/2006 11:55:07 AM
RG-2	Arsenic	4/11/2006 3:00:00 PM	0.001	mg/l	7/11/2006 11:55:07 AM
RG-2	Barium	4/11/2006 3:00:00 PM	0.035	mg/l	7/11/2006 11:55:07 AM
RG-2	Beryllium	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Cadmium	4/11/2006 3:00:00 PM	0.0002	mg/l	7/11/2006 11:55:07 AM
RG-2	Chromium	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Cobalt	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Copper (Total)	4/11/2006 3:00:00 PM	0.1	mg/l	7/11/2006 11:55:07 AM
RG-2	Iron (Total)	4/11/2006 3:00:00 PM	4.32	mg/l	7/11/2006 11:55:07 AM
RG-2	Lead	4/11/2006 3:00:00 PM	0.0019	mg/l	7/11/2006 11:55:07 AM
RG-2	Antimony	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Nickel	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Sulfate (Total)	4/11/2006 3:00:00 PM	710	mg/l	7/11/2006 11:55:07 AM
RG-2	Zinc	4/11/2006 3:00:00 PM	0.47	mg/l	7/11/2006 11:55:07 AM
RG-2	Water Temp (c)	4/11/2006 3:00:00 PM			5/16/2006 10:38:40 AM
RG-2	Water Temp (F)	4/11/2006 3:00:00 PM			5/16/2006 10:38:40 AM
RG-2	Specific Conductance (umhos/cm @	4/11/2006 3:00:00 PM	840	micromho	5/16/2006 10:38:40 AM
RG-2	pH (Field-su)	4/11/2006 3:00:00 PM	6.87	su	5/16/2006 10:38:40 AM
RG-2	Nitrite Nitorgen (NO2-N)	4/11/2006 3:00:00 PM		mg/l	5/16/2006 10:38:40 AM
RG-2	Nitrate (mg/l as N)	4/11/2006 3:00:00 PM		mg/l	5/16/2006 10:38:40 AM
RG-2	Nitrite (mg/l as N)	4/11/2006 3:00:00 PM		mg/l	5/16/2006 10:38:40 AM
RG-2	Depth To Water	4/11/2006 3:00:00 PM	76.53	feet MSL	5/16/2006 10:38:40 AM
RG-2		4/11/2006 3:00:00 PM			5/16/2006 10:38:40 AM
RG-2	Manganese	4/11/2006 3:00:00 PM	2.2	mg/l	7/11/2006 11:55:07 AM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2	Alkalinity, Hydroxide (as CaCO3)	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2		4/11/2006 3:00:00 PM			7/11/2006 11:55:07 AM
RG-2	Cation Anion Balance, % difference	4/11/2006 3:00:00 PM			7/11/2006 11:55:07 AM
RG-2	Anions	4/11/2006 3:00:00 PM	19.4	meq/l	7/11/2006 11:55:07 AM
RG-2	Uranium	4/11/2006 3:00:00 PM	0.0115	mg/l	7/11/2006 11:55:07 AM
RG-2	Total Dissolved Solids	4/11/2006 3:00:00 PM	1280	mg/l	7/11/2006 11:55:07 AM
RG-2	Total Dissolved Solids	4/11/2006 3:00:00 PM	1230	mg/l	7/11/2006 11:55:07 AM
RG-2	Mercury	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Cation & Anion Sum	4/11/2006 3:00:00 PM	38.812	meq/l	7/11/2006 11:55:07 AM
RG-2	Specific Conductance (umhos/cm @	4/11/2006 3:00:00 PM	1560	micromho	7/11/2006 11:55:07 AM
RG-2	Silica	4/11/2006 3:00:00 PM	19.5	mg/l	7/11/2006 11:55:07 AM
RG-2	Alkalinity, Total (as CaCO3)	4/11/2006 3:00:00 PM	196	mg/l	7/11/2006 11:55:07 AM
RG-2	Fluoride	4/11/2006 3:00:00 PM	1.1	mg/l	7/11/2006 11:55:07 AM
RG-2	Alkalinity, Bicarbonate (as CaCO3)	4/11/2006 3:00:00 PM	196	mg/l	7/11/2006 11:55:07 AM
RG-2	Alkalinity, Carbonate (as CaCO3)	4/11/2006 3:00:00 PM		mg/l	7/11/2006 11:55:07 AM
RG-2	Ammonia	4/11/2006 3:00:00 PM	0.15	mg/l	7/11/2006 11:55:07 AM
RG-2	Calcium	4/11/2006 3:00:00 PM	253	mg/l	7/11/2006 11:55:07 AM
RG-2	Magnesium	4/11/2006 3:00:00 PM	35.4	mg/l	7/11/2006 11:55:07 AM
RG-2	Magnesium	4/11/2006 3:00:00 PM	36.6	mg/l	7/11/2006 11:55:07 AM
RG-2	Sodium	4/11/2006 3:00:00 PM	67.2	mg/l	7/11/2006 11:55:07 AM
RG-2	Potassium	4/11/2006 3:00:00 PM	12.3	mg/l	7/11/2006 11:55:07 AM
RG-2	Chloride	4/11/2006 3:00:00 PM	18	mg/l	7/11/2006 11:55:07 AM
RG-2	Aluminum	4/11/2006 3:00:00 PM	3.89	mg/l	7/11/2006 11:55:07 AM
RG-2	pH (Lab-su)	4/11/2006 3:00:00 PM	7.4	su	7/11/2006 11:55:07 AM
RG-2	Calcium	7/19/2006 12:00:00 PM	254	mg/l	11/13/2006 12:02:30 PM
RG-2	Cadmium	7/19/2006 12:00:00 PM	0.0001	mg/l	11/13/2006 12:02:30 PM
RG-2	Magnesium	7/19/2006 12:00:00 PM	36	mg/l	11/13/2006 12:02:30 PM
RG-2	Magnesium	7/19/2006 12:00:00 PM	41.6	mg/l	11/13/2006 12:02:30 PM
RG-2	Sodium	7/19/2006 12:00:00 PM	67.3	mg/l	11/13/2006 12:02:30 PM
RG-2	Potassium	7/19/2006 12:00:00 PM	12.4	mg/l	11/13/2006 12:02:30 PM
RG-2	Chloride	7/19/2006 12:00:00 PM	23	mg/l	11/13/2006 12:02:30 PM
RG-2	Sulfate (Total)	7/19/2006 12:00:00 PM	720	mg/l	11/13/2006 12:02:30 PM
RG-2	Fluoride	7/19/2006 12:00:00 PM	1	mg/l	11/13/2006 12:02:30 PM
RG-2	Nitrate (mg/l as N)	7/19/2006 12:00:00 PM		mg/l	11/13/2006 12:02:30 PM
RG-2	Barium	7/19/2006 12:00:00 PM	0.107	mg/l	11/13/2006 12:02:30 PM
RG-2	Ammonia	7/19/2006 12:00:00 PM	0.1	mg/l	11/13/2006 12:02:30 PM
RG-2	Chromium	7/19/2006 12:00:00 PM	0.03	mg/l	11/13/2006 12:02:30 PM
RG-2	Copper (Total)	7/19/2006 12:00:00 PM	0.13	mg/l	11/13/2006 12:02:30 PM
RG-2	Manganese	7/19/2006 12:00:00 PM	2.94	mg/l	11/13/2006 12:02:30 PM
RG-2	Nickel	7/19/2006 12:00:00 PM	0.02	mg/l	11/13/2006 12:02:30 PM
RG-2	Strontium	7/19/2006 12:00:00 PM	1.24	mg/l	11/13/2006 12:02:30 PM
RG-2	Zinc	7/19/2006 12:00:00 PM	0.19	mg/l	11/13/2006 12:02:30 PM
RG-2	Antimony	7/19/2006 12:00:00 PM	0.0005	mg/l	11/13/2006 12:02:30 PM
RG-2	Silica	7/19/2006 12:00:00 PM	20.5	mg/l	11/13/2006 12:02:30 PM
RG-2	Total Dissolved Solids	7/19/2006 12:00:00 PM	1360	mg/l	11/13/2006 12:02:30 PM
RG-2	Water Temp (F)	7/19/2006 12:00:00 PM			9/6/2006 11:54:09 AM
RG-2	Specific Conductance (umhos/cm @	7/19/2006 12:00:00 PM	1500	micromho	9/6/2006 11:54:09 AM
RG-2	pH (Field-su)	7/19/2006 12:00:00 PM	6.62	su	9/6/2006 11:54:09 AM
RG-2	Depth To Water	7/19/2006 12:00:00 PM	83.25	feet MSL	9/6/2006 11:54:09 AM
RG-2		7/19/2006 12:00:00 PM			9/6/2006 11:54:09 AM
RG-2	Cation Anion Balance, % difference	7/19/2006 12:00:00 PM			11/13/2006 12:02:30 PM
RG-2	Cations	7/19/2006 12:00:00 PM	18.9	meq/l	11/13/2006 12:02:30 PM

Location	Analyte	SAMPLEDATE	Result	Units	EntryDate
RG-2	Nitrite (mg/l as N)	7/19/2006 12:00:00 PM		mg/l	11/13/2006 12:02:30 PM
RG-2	Uranium	7/19/2006 12:00:00 PM	0.0115	mg/l	11/13/2006 12:02:30 PM
RG-2	Nitrite Nitorgen (NO2-N)	7/19/2006 12:00:00 PM		mg/l	11/13/2006 12:02:30 PM
RG-2	Total Dissolved Solids	7/19/2006 12:00:00 PM	1240	mg/l	11/13/2006 12:02:30 PM
RG-2		7/19/2006 12:00:00 PM			11/13/2006 12:02:30 PM
RG-2	Cation & Anion Sum	7/19/2006 12:00:00 PM	41.316	meq/l	11/13/2006 12:02:30 PM
RG-2	Specific Conductance (umhos/cm @	7/19/2006 12:00:00 PM	1800	micromho	11/13/2006 12:02:30 PM
RG-2	pH (Lab-su)	7/19/2006 12:00:00 PM	7.9	su	11/13/2006 12:02:30 PM
RG-2	Alkalinity, Total (as CaCO3)	7/19/2006 12:00:00 PM	183	mg/l	11/13/2006 12:02:30 PM
RG-2	Alkalinity, Bicarbonate (as CaCO3)	7/19/2006 12:00:00 PM	183	mg/l	11/13/2006 12:02:30 PM
RG-2	Water Temp (c)	7/19/2006 12:00:00 PM			9/6/2006 11:54:09 AM
RG-2	Anions	7/19/2006 12:00:00 PM	19.5	meq/l	11/13/2006 12:02:30 PM

Exhibit 63

Arizona Department of Water Resources
Water Management Support Section
P.O. Box 458 • Phoenix, Arizona 85001-0458
(602) 417-2470 • (800) 352-8488
www.water.az.gov

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
- $150 check or money order for the filing fee.
- Well construction diagram, labeling all specifications listed in Section 6.
- Authority for fee: A.R.S. § 45-596.

AMA / INA	B	SB
RECEIVED DATE	WS	
ISSUED DATE	WQARF	CERCLA

FILE NUMBER

WELL REGISTRATION NUMBER
55 -

** PLEASE PRINT CLEARLY **

SECTION 1. REGISTRY INFORMATION

Well Type (CHECK ONE)
- [X] Monitor
- [ ] Piezometer
- [ ] Vadose Zone
- [ ] Air Sparging
- [ ] Soil Vapor Extraction
- [ ] Other (*please specify*):

Proposed Action (CHECK ONE)
- [X] Drill New Well
- [ ] Deepen
- [ ] Modify

If Deepening or Modifying:
WELL REGISTRATION NUMBER
55 -

Location of Well
WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
1N	14E	13	NW ¼	SE ¼	NE ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER
BOOK | MAP | PARCEL

COUNTY WHERE WELL IS LOCATED
Gila County

SECTION 2. OWNER INFORMATION

Well Owner
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
BHP COPPER, INC.
MAILING ADDRESS
P.O. BOX 100, HWY 60 PINTO VALLEY RD
CITY / STATE / ZIP CODE
MIAMI, AZ 85539-0100
CONTACT PERSON NAME AND TITLE
DAVE UNGER
TELEPHONE NUMBER: 928/473-6295
FAX: 928/473-6371

Landowner (if different from Well Owner)
FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL
MAILING ADDRESS
CITY / STATE / ZIP CODE
CONTACT PERSON NAME AND TITLE
TELEPHONE NUMBER | FAX

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm
NAME
LAYNE CHRISTENSEN COMPANY
DWR LICENSE NUMBER: 7
ROC LICENSE CATEGORY: A-04
TELEPHONE NUMBER: 480/895-9404
FAX: 480/895-8699

Consultant (if applicable)
CONSULTING FIRM
MWH AMERICAS, INC.
CONTACT PERSON NAME
J. STEVEN RAUGUST, RG
TELEPHONE NUMBER: 480/755-8201
FAX: 480/755-8203
E-MAIL ADDRESS
steve.raugust@mwhglobal.com

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	X		2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?		X	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	X		The wells must be constructed in a vault as defined in A.A.C. R12-15-801(27).
4. Is there another well name or identification number associated with this well?	X		IF YES, PLEASE STATE: MW-1
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?		X	IF YES, PLEASE STATE AGENCY CONTACT & PHONE NUMBER
6. For monitor wells, is dedicated pump equipment to be installed?		X	IF YES, PLEASE STATE DESIGN PUMP CAPACITY: Gallons per Minute
7. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	X		IF NO, WHERE WILL THE REGISTRATION NUMBER BE PLACED?

CC MW 04-CL094

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North Third Street
Phoenix, Arizona 85004

DRILLING CARD
VARIANCE GRANTED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-901094**

AUTHORIZED DRILLER: **LAYNE CHRISTENSEN COMPANY** LICENSE NO: **7**

NOTICE OF INTENT TO **DRILL A MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **BHP Copper, Inc**

ADDRESS: **P.O. Box 100, Hwy 60 Pinto Valley Rd, Miami, AZ, 85539-0100**

The well(s) is/are to be located in the:

SW 1/4 of the NE 1/4 of the SE 1/4 Section 12 Township 1 N Range 14 E

No. of wells in this project: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON **10/6/2005.**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the address above to correct.

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

MW 2

Certification(s) Made By Driller:

☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

☑ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

Arizona Department of Water Resources
Water Management Support Section
P.O. Box 458 • Phoenix, Arizona 85001-0458
(602) 417-2470 • (800) 352-8488
www.water.az.gov

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6.
- Authority for fee: A.R.S. § 45-596.

AMA / INA	B	SB
RECEIVED DATE	WS	
ISSUED DATE	WQARF	CERCLA

FILE NUMBER

WELL REGISTRATION NUMBER
55 -

** PLEASE PRINT CLEARLY **

SECTION 1: REGISTRY INFORMATION

Well Type (CHECK ONE)
- [X] Monitor
- [ ] Piezometer
- [ ] Vadose Zone
- [ ] Air Sparging
- [ ] Soil Vapor Extraction
- [ ] Other (*please specify*):

Proposed Action (CHECK ONE)
- [X] Drill New Well
- [ ] Deepen
- [ ] Modify

If Deepening or Modifying:
WELL REGISTRATION NUMBER
55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
1N	14E	12	SE ¼	NE ¼	SW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL

COUNTY WHERE WELL IS LOCATED
Gila County

SECTION 2: OWNER INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
BHP COPPER, INC.

MAILING ADDRESS
P.O. BOX 100, HWY 60 PINTO VALLEY RD

CITY / STATE / ZIP CODE
MIAMI, AZ 85539-0100

CONTACT PERSON NAME AND TITLE
DAVE UNGER

TELEPHONE NUMBER	FAX
928/473-6295	928/473-6371

Landowner (if different from Well Owner)

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL

MAILING ADDRESS

CITY / STATE / ZIP CODE

CONTACT PERSON NAME AND TITLE

TELEPHONE NUMBER	FAX

SECTION 3: DRILLING AUTHORIZATION

Drilling Firm

NAME
LAYNE CHRISTENSEN COMPANY

DWR LICENSE NUMBER	ROC LICENSE CATEGORY
7	A-04

TELEPHONE NUMBER	FAX
480/895-9404	480/895-8699

Consultant (if applicable)

CONSULTING FIRM
MWH AMERICAS, INC.

CONTACT PERSON NAME
J. STEVEN RAUGUST, RG

TELEPHONE NUMBER	FAX
480/755-8201	480/755-8203

E-MAIL ADDRESS
steve.raugust@mwhglobal.com

SECTION 4:

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	X		2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?		X	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	X		The wells must be constructed in a vault as defined in A.A.C. R12-15-801(27).
4. Is there another well name or identification number associated with this well?	X		IF YES, PLEASE STATE MW - 2
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?		X	IF YES, PLEASE STATE AGENCY CONTACT & PHONE NUMBER
6. For monitor wells, is dedicated pump equipment to be installed?		X	IF YES, PLEASE STATE DESIGN PUMP CAPACITY Gallons per Minute
7. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	X		IF NO, WHERE WILL THE REGISTRATION NUMBER BE PLACED?

CC-MW 04-66.642

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North Third Street
Phoenix, Arizona 85004

DRILLING CARD
SPECIAL REQUIREMENTS APPLY (WQARF/SUPERFUND) - VARIANCE GRANTED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-901095**

AUTHORIZED DRILLER: **LAYNE CHRISTENSEN COMPANY** LICENSE NO: **7**

NOTICE OF INTENT TO **DRILL A MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **BHP Cooper, Inc.**

ADDRESS: **P.O. Box 100, HWY 60 Pinto Valley Rd, Miami, AZ, 85539-0100**

The well(s) is/are to be located in the:

NE 1/4 of the **SW** 1/4 of the **NW** 1/4 Section **9** Township **1 N** Range **15 E**

No. of wells in this project: **1**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON **10/6/2005.**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the address above to correct.

Variance(s) Granted To Driller:

MW-3

- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

Certification(s) Made By Driller:

☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

☑ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

☑ I understand that this well site is located within the boundaries of a contamination area and that special construction or abandonment requirements shall be complied with, and by checking this box, I certify that I have read the applicable special requirements, and that I shall comply with those standards.

☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

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Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6.
- Authority for fee: A.R.S. § 45-596.

AMA / INA	B	SB
RECEIVED DATE	WS	
ISSUED DATE	WQARF	CERCLA

FILE NUMBER

WELL REGISTRATION NUMBER 55-

** PLEASE PRINT CLEARLY **

SECTION 1: REGISTRY INFORMATION

Well Type (CHECK ONE)
- [X] Monitor
- [ ] Piezometer
- [ ] Vadose Zone
- [ ] Air Sparging
- [ ] Soil Vapor Extraction
- [ ] Other (*please specify*):

Proposed Action (CHECK ONE)
- [X] Drill New Well
- [ ] Deepen
- [ ] Modify

If Deepening or Modifying:
WELL REGISTRATION NUMBER: 55 -

Location of Well
WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
1N	15E	5	SW ¼	SE ¼	NE ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL

COUNTY WHERE WELL IS LOCATED: Gila County

SECTION 2: OWNER INFORMATION

Well Owner
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: BHP COPPER, INC.
MAILING ADDRESS: P.O. BOX 100, HWY 60 PINTO VALLEY RD
CITY / STATE / ZIP CODE: MIAMI, AZ 85539-0100
CONTACT PERSON NAME AND TITLE: DAVE UNGER
TELEPHONE NUMBER: 928/473-6295
FAX: 928/473-6371

Landowner (if different from Well Owner)
FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL:
MAILING ADDRESS:
CITY / STATE / ZIP CODE:
CONTACT PERSON NAME AND TITLE:
TELEPHONE NUMBER:
FAX:

SECTION 3: DRILLING AUTHORIZATION

Drilling Firm
NAME: LAYNE CHRISTENSEN COMPANY
DWR LICENSE NUMBER: 7
ROC LICENSE CATEGORY: A-04
TELEPHONE NUMBER: 480/895-9404
FAX: 480/895-8699

Consultant (if applicable)
CONSULTING FIRM: MWH AMERICAS, INC.
CONTACT PERSON NAME: J. STEVEN RAUGUST, RG
TELEPHONE NUMBER: 480/755-8201
FAX: 480/755-8203
E-MAIL ADDRESS: steve.raugust@mwhglobal.com

SECTION 4:

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	X		2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?		X	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	X		The wells must be constructed in a vault as defined in A.A.C. R12-15-801(27).
4. Is there another well name or identification number associated with this well?	X		IF YES, PLEASE STATE: MW-4
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?		X	IF YES, PLEASE STATE AGENCY CONTACT & PHONE NUMBER
6. For monitor wells, is dedicated pump equipment to be installed?		X	IF YES, PLEASE STATE DESIGN PUMP CAPACITY: Gallons per Minute
7. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	X		IF NO, WHERE WILL THE REGISTRATION [illegible]

Arizona Department of Water Resources
Water Management Support Section
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Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

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- You must include with your Notice:
- $150 check or money order for the filing fee.
- Well construction diagram, labeling all specifications listed in Section 6.
- Authority for fee: A.R.S. § 45-596.

AMA / INA	B	SB
RECEIVED DATE	WS	
ISSUED DATE	WQARF / CERCLA	

FILE NUMBER

WELL REGISTRATION NUMBER 55 -

** PLEASE PRINT CLEARLY **

SECTION 1. REGISTRY INFORMATION

Well Type (CHECK ONE)
- [X] Monitor
- [ ] Piezometer
- [ ] Vadose Zone
- [ ] Air Sparging
- [ ] Soil Vapor Extraction
- [ ] Other (*please specify*):

Proposed Action (CHECK ONE)
- [X] Drill New Well
- [ ] Deepen
- [ ] Modify

If Deepening or Modifying:
WELL REGISTRATION NUMBER: 55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
1N	15E	7	NE ¼	SE ¼	NW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER: BOOK | MAP | PARCEL

COUNTY WHERE WELL IS LOCATED: Gila County

SECTION 2. OWNER INFORMATION

Well Owner
- FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: BHP COPPER, INC.
- MAILING ADDRESS: P.O. BOX 100, HWY 60 PINTO VALLEY RD
- CITY / STATE / ZIP CODE: MIAMI, AZ 85539-0100
- CONTACT PERSON NAME AND TITLE: DAVE UNGER
- TELEPHONE NUMBER: 928/473-6295
- FAX: 928/473-6371

Landowner (if different from Well Owner)
- FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL:
- MAILING ADDRESS:
- CITY / STATE / ZIP CODE:
- CONTACT PERSON NAME AND TITLE:
- TELEPHONE NUMBER:
- FAX:

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm
- NAME: LAYNE CHRISTENSEN COMPANY
- DWR LICENSE NUMBER: 7
- ROC LICENSE CATEGORY: A-04
- TELEPHONE NUMBER: 480/895-9404
- FAX: 480/895-8699

Consultant (if applicable)
- CONSULTING FIRM: MWH AMERICAS, INC.
- CONTACT PERSON NAME: J. STEVEN RAUGUST, RG
- TELEPHONE NUMBER: 480/755-8201
- FAX: 480/755-8203
- E-MAIL ADDRESS: steve.raugust@mwhglobal.com

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	X		2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?		X	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	X		The wells must be constructed in a vault as defined in A.A.C. R12-15-801(27).
4. Is there another well name or identification number associated with this well?	X		IF YES, PLEASE STATE: MW-5
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?		X	IF YES, PLEASE STATE AGENCY CONTACT & PHONE NUMBER
6. For monitor wells, is dedicated pump equipment to be installed?		X	IF YES, PLEASE STATE DESIGN PUMP CAPACITY: Gallons per Minute
7. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	X		IF NO, WHERE WILL THE REGISTRA

Facility/Project Name: Copper Cities - SCP

Well Number: MW-05/CC-097

Date Well Installed: From 10/18/04 To 10/26/04

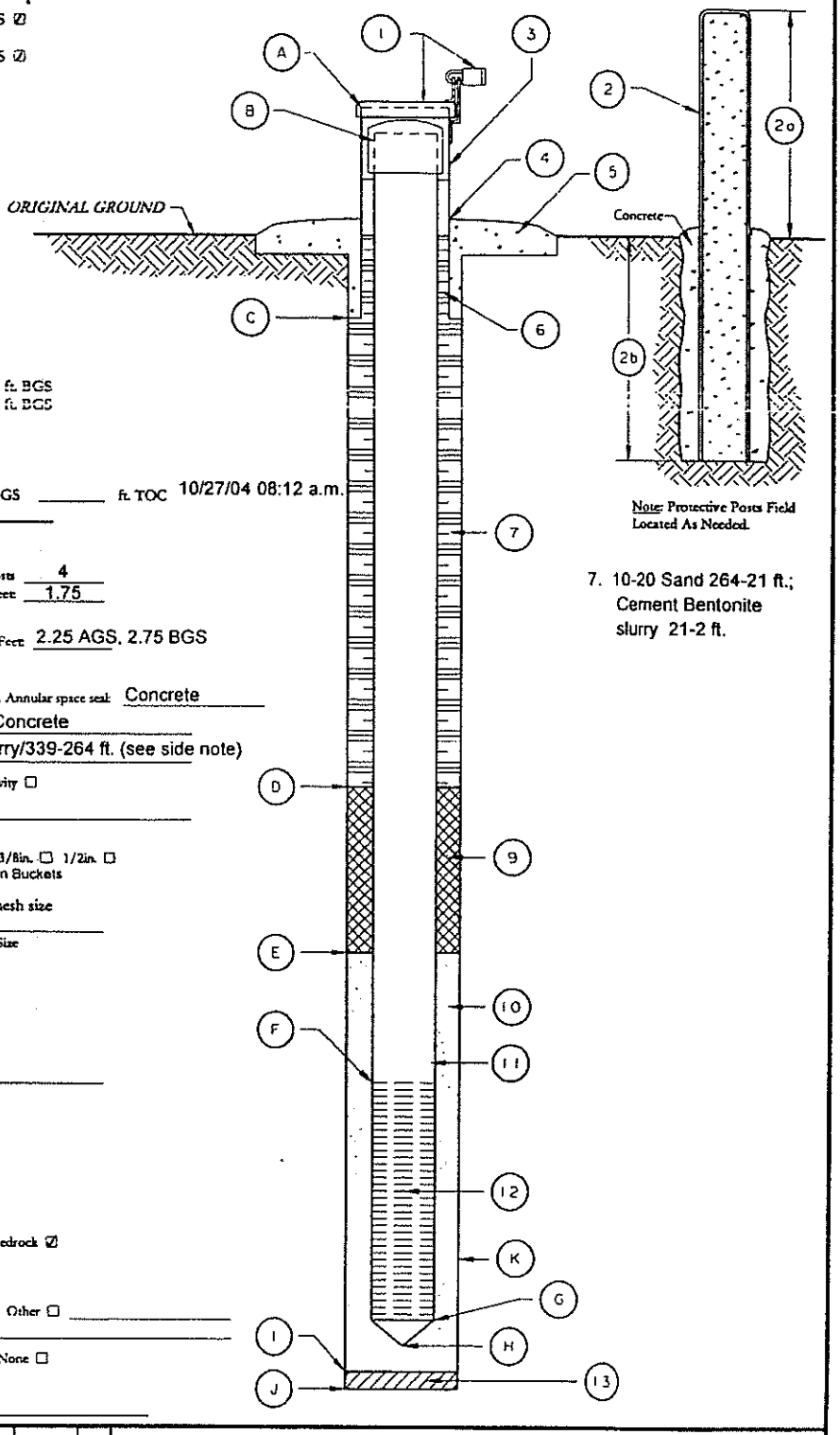
Well Installed By (Person's Name & Firm) Earl Magnum - Layne Christensen

Supervised by J.S. Raugust - MWH

Type of Protective Cover: Above-Gound ☑ Flush-To-Ground ☐

NOTE: Use Ground Surface (BGS or AGS) for all depth measurements

- (A) - Protective casing 2.25 ft. BGS ☐ or AGS ☑
- (B) - Well casing, top 2 ft. BGS ☐ or AGS ☑
- (C) - Surface seal, bottom 332 ft. BGS
- (D) - Bentonite seal, top 332 ft. BGS
- (E) - Primary filter, top 339 ft. BGS
- (F) - Screen joint, top 345 ft. BGS
- (G) - Screen joint, bottom 375 ft. BGS
- (H) - End cap bottom 375 ft. BGS
- (I) - Filter pack, bottom 376 ft. BGS
- (J) - Borehole, bottom 376 ft. BGS
- (K) - Borehole, diameter 9 5/8 in. to 315 ft. BGS; 7 1/4 in. to 376 ft. BGS
- (L) - O.D. well casing 4 in.
- (M) - I.D. well casing 4 in.
- (N) - 24 hr. water level after completion 264.7 ft. BGS _____ ft. TOC 10/27/04 08:12 a.m.



- (1) - Cap and Lock? Yes ☑ No ☐
- (2) - Protective posts? Yes ☑ No ☐ No. of Posts 4
  a. Height AGS: Feet 2.25 b. Depth BGS: Feet 1.75
- (3) - Protective casing:
  a. Inside diameter: Inches: 8" b. Depth: Feet 2.25 AGS, 2.75 BGS
- (4) - Drainage port (s)? Yes ☐ No ☑
- (5) - Surface seal material a. Cap: Concrete b. Annular space seal: Concrete
- (6) - Material between well casing and protective casing: Concrete
- (7) - Annular space seal: Mix: Cement/Bentonite slurry/339-264 ft. (see side note)
  - How installed: Tremie ☐ Tremie pumped ☑ Gravity ☐
- (8) - Centralizers: No ☑ Yes ☐ Depths (BGS) _____
- (9) - Bentonite seal:
  a. Bentonite granules ☐ or b. Bentonite pellets 1/4in. ☑ 3/8in. ☐ 1/2in. ☐
  c. Enviro Plug ☐ other Two 5-Gallon Buckets
- (10) - Filter pack material: Manufacturer, product name, & mesh size
  a. Oglebay-Norton Silica Sand 10 x 20
  b. Volume added _____ ft.^3 13/50 lb. Bags/Size
- (11) - Well casing: Flush threaded PVC schedule 40 ☐
  Flush threaded PVC schedule 80 ☑
  _____ Other ☐
- (12) - Screen material: PVC Schedule 80
  a. Screen type: _____
  Factory cut ☑ Continuous slot ☐ Other ☐ _____
  b: Manufacturer Boart Longyear
  c: Slot size: 0.020"
  d: Slotted length: 30
- (13) - Backfill material (below filter pack): None ☐
  10 x 20 Silica Sand Other ☑
- (14) - USCS classification of soil near screen None ☐
  GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
  SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐ Bedrock ☑
- (15) - Sieve analysis attached? Yes ☐ No ☑
- (16) - Drilling method used: Rotary ☑ Hollow Stem Auger ☐ Other ☐ _____
- (17) - Drilling fluid used: Water ☐ Air ☑ Drilling Mud ☐ None ☐
- (18) - Drilling additives used? Yes ☐ No ☑
  Describe _____

REV No	REVISIONS	REV DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY

MWH

PROJECT No 10040070202.08

AutoCAD FILE well.dwg

SCALE Not To Scale

FIGURE No

BHP

COPPER CITIES SITE CHARACTERIZATION

CC-MW-04-CC098

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North Third Street
Phoenix, Arizona 85004

DRILLING CARD

SPECIAL REQUIREMENTS APPLY (WQARF/SUPERFUND) - VARIANCE GRANTED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-901098**

AUTHORIZED DRILLER: **LAYNE CHRISTENSEN COMPANY** LICENSE NO: **7**

NOTICE OF INTENT TO **DRILL A MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **BHP Copper, Inc.**

ADDRESS: **P.O. Box 100, HWY 60 Pinto Valley Rd, Miami, AZ, 85539-0100**

The well(s) is/are to be located in the:

NE 1/4 of the NE 1/4 of the NE 1/4 Section **7** Township **1 N** Range **15 E**

No. of wells in this project: **1**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON **10/6/2005.**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the address above to correct.

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

MW6

Certification(s) Made By Driller:

☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

☑ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

☑ I understand that this well site is located within the boundaries of a contamination area and that special construction or abandonment requirements shall be complied with, and by checking this box, I certify that I have read the applicable special requirements, and that I shall comply with those standards.

☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

Arizona Department of Water Resources
Water Management Support Section
P.O. Box 458 • Phoenix, Arizona 85001-0458
(602) 417-2470 • (800) 352-8488
www.water.az.gov

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
- $150 check or money order for the filing fee.
- Well construction diagram, labeling all specifications listed in Section 6.
- Authority for fee: A.R.S. § 45-596.

AMA / INA	B	SB
RECEIVED DATE	WS	
ISSUED DATE	WQARF	CERCLA

FILE NUMBER

WELL REGISTRATION NUMBER
55 -

** PLEASE PRINT CLEARLY **

SECTION 1: REGISTRY INFORMATION

Well Type

CHECK ONE

- [X] Monitor
- [ ] Piezometer
- [ ] Vadose Zone
- [ ] Air Sparging
- [ ] Soil Vapor Extraction
- [ ] Other (*please specify*):

Proposed Action

CHECK ONE

- [X] Drill New Well
- [ ] Deepen
- [ ] Modify

If Deepening or Modifying:

WELL REGISTRATION NUMBER
55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
1N	15E	7	NE ¼	NE ¼	NE ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL

COUNTY WHERE WELL IS LOCATED
Gila County

SECTION 2: OWNER INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
BHP COPPER, INC.

MAILING ADDRESS
P.O. BOX 100, HWY 60 PINTO VALLEY RD

CITY / STATE / ZIP CODE
MIAMI, AZ 85539-0100

CONTACT PERSON NAME AND TITLE
DAVE UNGER

TELEPHONE NUMBER	FAX
928/473-6295	928/473-6371

Landowner (if different from Well Owner)

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL

MAILING ADDRESS

CITY / STATE / ZIP CODE

CONTACT PERSON NAME AND TITLE

TELEPHONE NUMBER	FAX

SECTION 3: DRILLING AUTHORIZATION

Drilling Firm

NAME
LAYNE CHRISTENSEN COMPANY

DWR LICENSE NUMBER	ROC LICENSE CATEGORY
7	A-04

TELEPHONE NUMBER	FAX
480/895-9404	480/895-8699

Consultant (if applicable)

CONSULTING FIRM
MWH AMERICAS, INC.

CONTACT PERSON NAME
J. STEVEN RAUGUST, RG

TELEPHONE NUMBER	FAX
480/755-8201	480/755-8203

E-MAIL ADDRESS
steve.raugust@mwhglobal.com

SECTION 4:

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	X		2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?		X	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	X		The wells must be constructed in a vault as defined in A.A.C. R12-15-801(27).
4. Is there another well name or identification number associated with this well?	X		IF YES, PLEASE STATE MW-6
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?		X	IF YES, PLEASE STATE AGENCY CONTACT & PHONE NUMBER
6. For monitor wells, is dedicated pump equipment to be installed?		X	IF YES, PLEASE STATE DESIGN PUMP CAPACITY Gallons per Minute
7. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	X		IF NO, WHERE WILL THE REGISTRATION NUMBER BE PLACED?

Facility/Project Name: Copper Cities - SCP

Well Number: MW-06/CC-098

Date Well Installed: From 11/03/04 To 11/05/04

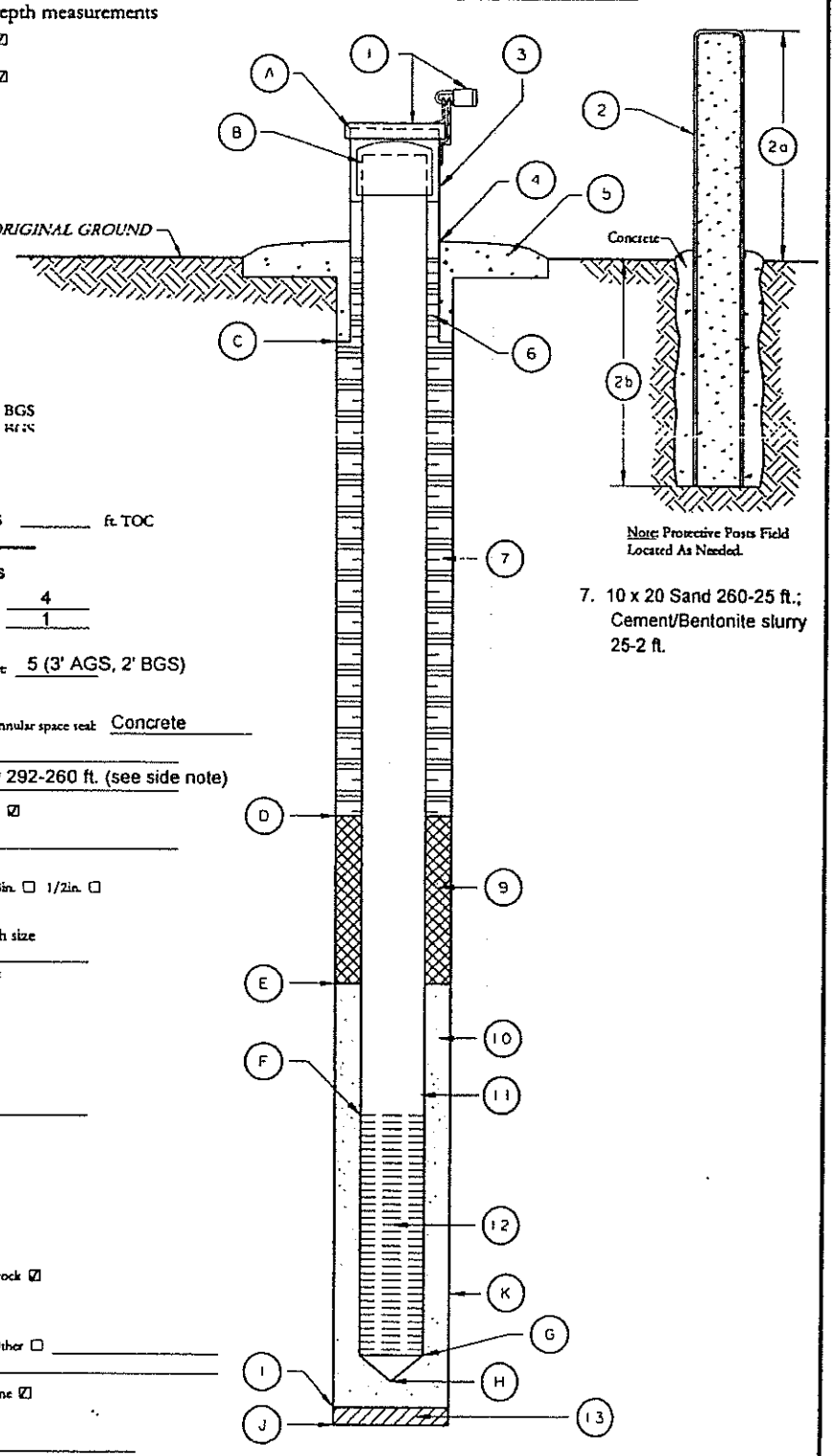
Well Installed By (Person's Name & Firm) Earl Magnum - Layne Christensen

Supervised by Nikhil Parekh - MWH

Type of Protective Cover: Above-Gound ☑ Flush-To-Ground ☐

NOTE: Use Ground Surface (BGS or AGS) for all depth measurements

- (A) - Protective casing 3 ft. BGS ☐ or AGS ☑
- (B) - Well casing, top 2.10 ft. BGS ☐ or AGS ☑
- (C) - Surface seal, bottom 2 ft. BGS
- (D) - Bentonite seal, top 292 ft. BGS
- (E) - Primary filter, top 297 ft. BGS
- (F) - Screen joint, top 300 ft. BGS
- (G) - Screen joint, bottom 315 ft. BGS
- (H) - End cap bottom 315 ft. BGS
- (I) - Filter pack, bottom 315 ft. BGS
- (J) - Borehole, bottom 315 ft. BGS
- (K) - Borehole, diameter 11 5/8 in. to 280 ft. BGS; 9 5/8 in. to 315 ft. BGS
- (L) - O.D. well casing 4 1/4 in.
- (M) - I.D. well casing 4 in.
- (N) - 24 hr. water level after completion 281.6 ft. BGS _____ ft. TOC



Note: Protective Posts Field Located As Needed.

7. 10 x 20 Sand 260-25 ft.; Cement/Bentonite slurry 25-2 ft.

- (1) - Cap and Lock? Yes ☑ No ☐ No locks
- (2) - Protective posts? Yes ☑ No ☐ No. of Posts 4
  a. Height AGS: Feet 4 b. Depth BGS: Feet 1
- (3) - Protective casing:
  a. Inside diameter: Inches: 8 1/8" b. Depth: Feet: 5 (3' AGS, 2' BGS)
- (4) - Drainage port (s)? Yes ☐ No ☑
- (5) - Surface seal material a. Cap: Concrete b. Annular space seal: Concrete
- (6) - Material between well casing and protective casing: _____
- (7) - Annular space seal: Mix: Cement/Bentonite slurry 292-260 ft. (see side note)
  - How installed: Tremie ☐ Tremie pumped ☐ Gravity ☑
- (8) - Centralizers: No ☑ Yes ☐ Depths (BGS) _____
- (9) - Bentonite seal:
  a. Bentonite granules ☐ or b. Bentonite pellets 1/4in. ☑ 3/8in. ☐ 1/2in. ☐
  c. Enviro Plug ☑ other
- (10) - Filter pack material: Manufacturer, product name, & mesh size
  a. Oglebay-Norton 10 x 20 Silica Sand
  b. Volume added _____ ft./3 11 Bags/Size
- (11) - Well casing: Flush threaded PVC schedule 40 ☐
  Flush threaded PVC schedule 80 ☑
  _____ Other ☐
- (12) - Screen material: PVC Schedule 80
  a. Screen type:
  Factory cut ☑ Continuous slot ☐ Other ☐ _____
  b: Manufacturer Boart Longyear
  c: Slot size: 0.020"
  d: Slotted length: 15
- (13) - Backfill material (below filter pack): None ☑
  _____ Other ☐
- (14) - USCS classification of soil near screen None ☐
  GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
  SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐ Bedrock ☑
- (15) - Sieve analysis attached? Yes ☐ No ☑
- (16) - Drilling method used: Rotary ☑ Hollow Stem Auger ☐ Other ☐ _____
- (17) - Drilling fluid used: Water ☐ Air ☐ Drilling Mud ☐ None ☑
- (18) - Drilling additives used? Yes ☐ No ☑
  Describe _____

REV No	REVISIONS	REV DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY

MWH

PROJECT No 100402.020.008

AutoCAD FILE well.dwg

SCALE Not To Scale

FIGURE No

BHP

COPPER CITIES SITE CHARACTERIZATION

C.C. MW-04-CC1.00

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North Third Street
Phoenix, Arizona 85004

DRILLING CARD
SPECIAL REQUIREMENTS APPLY (WQARF/SUPERFUND) - VARIANCE GRANTED

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-901100**

AUTHORIZED DRILLER: **LAYNE CHRISTENSEN COMPANY** LICENSE NO: **7**

NOTICE OF INTENT TO **DRILL A MONITOR WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **BHP Copper, Inc.**

ADDRESS: **P.O. Box 100, Hwy 60 Pinto Valley Rd., Miami, AZ, 85539-0100**

The well(s) is/are to be located in the:

SE 1/4 of the NE 1/4 of the SE 1/4 Section 7 Township 1 N Range 15 E

No. of wells in this project: **1**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON **10/6/2005.**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the address above to correct.

Variance(s) Granted To Driller:

- Thermoplastic Casing Surface Seal Variance in upper 20' of well.

MW# 7

Certification(s) Made By Driller:

☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.

☑ By checking this box, I certify that I have read the applicable substantive policy statement regarding each variance that I am requesting, and that I shall comply with all of the requirements set forth therein.

☑ I understand that this well site is located within the boundaries of a contamination area and that special construction or abandonment requirements shall be complied with, and by checking this box, I certify that I have read the applicable special requirements, and that I shall comply with those standards.

☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.

☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.

Facility/Project Name: Copper Cities - SCP

Well Number: MW-07/CC-100

Date Well Installed: From 10/04/04 To 10/05/04

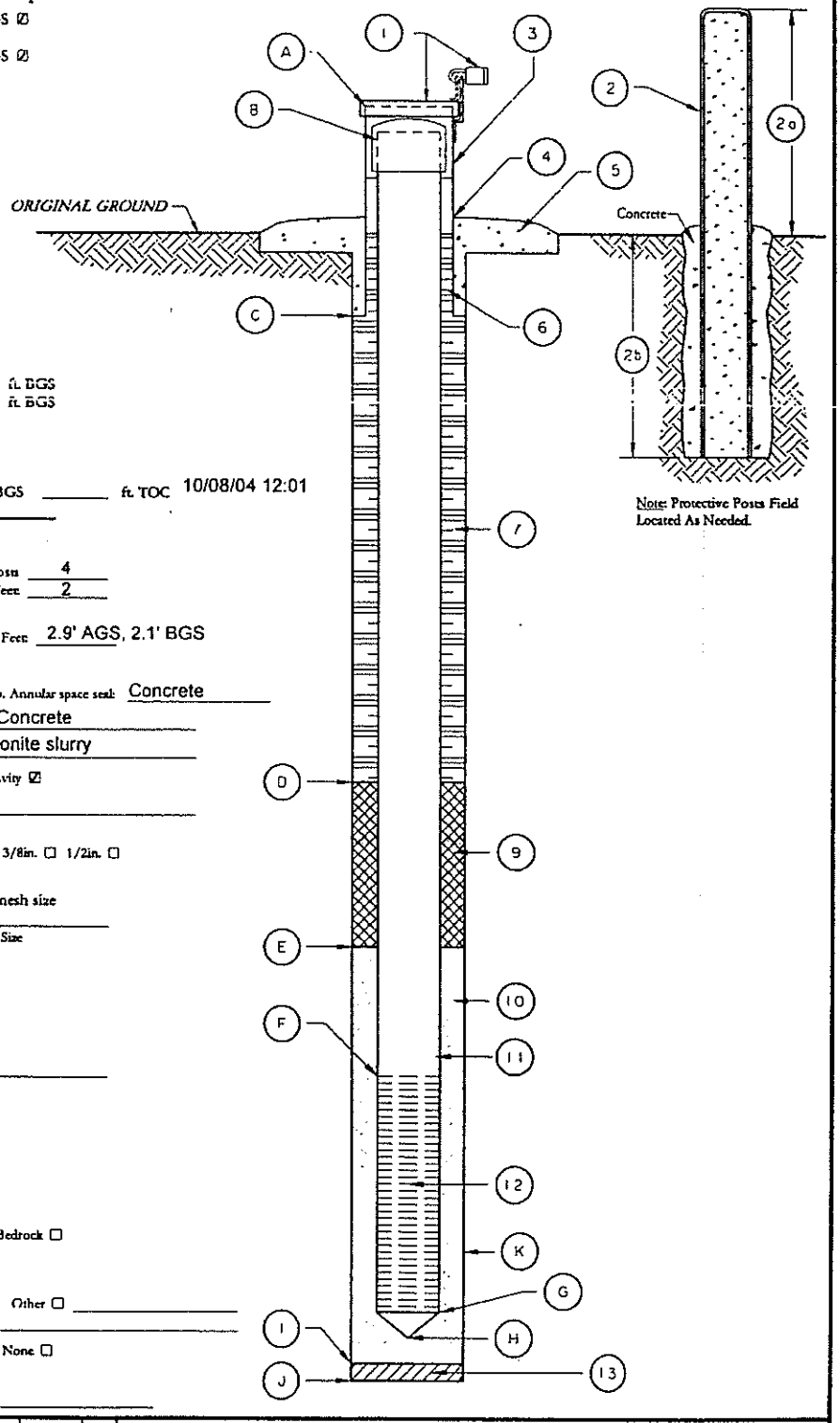
Well Installed By (Person's Name & Firm) Earl Magnum - Layne Christensen

Supervised by J.S. Raugust - MWH

Type of Protective Cover: Above-Gound ☑ Flush-To-Ground ☐

NOTE: Use Ground Surface (BGS or AGS) for all depth measurements

- (A) - Protective casing 2.9 ft. BGS ☐ or AGS ☑
- (B) - Well casing, top 2.7 ft. BGS ☐ or AGS ☑
- (C) - Surface seal, bottom 50 ft. BGS
- (D) - Bentonite seal, top 50 ft. BGS
- (E) - Primary filter, top 55 ft. BGS
- (F) - Screen joint, top 60 ft. BGS
- (G) - Screen joint, bottom 160 ft. BGS
- (H) - End cap bottom 160 ft. BGS
- (I) - Filter pack, bottom 163 ft. BGS
- (J) - Borehole, bottom 163 ft. BGS
- (K) - Borehole, diameter 9 5/8 in. to 45 ft. BGS; 7 1/4 in. to 160 ft. BGS
- (L) - O.D. well casing 4 in.
- (M) - I.D. well casing 4 in.
- (N) - 24 hr. water level after completion 58.1 ft. BGS _____ ft. TOC 10/08/04 12:01



Note: Protective Posts Field Located As Needed.

- (1) - Cap and Lock? Yes ☑ No ☐
- (2) - Protective posts? Yes ☑ No ☐ No. of Posts 4
  a. Height AGS: Feet 3 b. Depth BGS: Feet 2
- (3) - Protective casing:
  a. Inside diameter: Inches 8" b. Depth: Feet 2.9' AGS, 2.1' BGS
- (4) - Drainage port (s)? Yes ☐ No ☑
- (5) - Surface seal material a. Cap: Concrete b. Annular space seal: Concrete
- (6) - Material between well casing and protective casing: Concrete
- (7) - Annular space seal: Mix: Type V cement / bentonite slurry
  - How installed: Tremie ☐ Tremie pumped ☐ Gravity ☑
- (8) - Centralizers: No ☑ Yes ☐ Depths (BGS) _____
- (9) - Bentonite seal:
  a. Bentonite granules ☐ or b. Bentonite pellets 1/4in. ☑ 3/8in. ☐ 1/2in. ☐
  c. Enviroplug ☑ other
- (10) - Filter pack material: Manufacturer, product name, & mesh size
  a. Ogfebay-Norton 10-20 silica sand
  b. Volume added _____ ft./3 39.5/50 lb. Bags/Size
- (11) - Well casing: Flush threaded PVC schedule 40 ☐
  Flush threaded PVC schedule 80 ☑
  _____ Other ☐
- (12) - Screen material: PVC Schedule 80
  a. Screen type: _____
  Factory cut ☑ Continuous slot ☐ Other ☐ _____
  b: Manufacturer Boart Longyear
  c: Slot size: 0.020"
  d: Slotted length: 100'
- (13) - Backfill material (below filter pack): None ☑
  10-20 silica sand Other ☐
- (14) - USCS classification of soil near screen None ☐
  GP ☐ GM ☐ GC ☐ GW ☐ SW ☑ SP ☐
  SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐ Bedrock ☐
- (15) - Sieve analysis attached? Yes ☐ No ☑
- (16) - Drilling method used: Rotary ☑ Hollow Stem Auger ☐ Other ☐ _____
- (17) - Drilling fluid used: Water ☐ Air ☑ Drilling Mud ☐ None ☐
- (18) - Drilling additives used? Yes ☐ No ☑
  Describe: _____

REV No	REVISIONS	REV DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY

MWH

PROJECT No 1004092.020208

AutoCAD FILE well.dwg

SCALE Not To Scale

FIGURE No

BHP

COPPER CITIES SITE CHARACTERIZATION

Exhibit 64

Prepared for:

BHP Copper Inc

Copper Cities Site

Site Characterization Report

Tinhorn Wash Supplemental Hydrogeologic Report

March 2007

Prepared by:

MWH

4820 South Mill Avenue, Suite 104
Tempe, Arizona 85282
(480) 755-8201

1.0 INTRODUCTION

This report details the drilling, well installation, development, and sampling of a new well performed during the fall of 2004 in Tinhorn Wash at Copper Cities Site. The work was completed under a Scope of Work (SOW) for the Copper Cities Site and includes an evaluation of groundwater quality in the Tinhorn Wash Area and discusses the impact of the new data on remedial alternatives for locally impacted groundwater.

1.1 PROJECT DESCRIPTION

The purpose of this supplemental hydrogeologic study was to provide additional subsurface information on the lateral extent of a perched hydrostratigraphic unit that has been impacted with high metals concentrations and low pH values. This impacted zone as well and the rest of upper Tinhorn Wash was described in detail in the Tinhorn Wash Evaluation, Characterization Report, Copper Cities (MWH, 2004a). A new monitoring well denoted as CC-100 was installed to provide a more complete evaluation of the local groundwater conditions in upper Tinhorn Wash. Drawing 1, *General Location Map* presents a Generalized Location Map and the monitoring wells including CC-100 and site facilities are shown on Drawing 2, *Well Location Map.*

1.2 SITE HISTORY

The Copper Cities Site, under ownership of Miami Copper Company, started mining operations at the Deep Pit in 1951 and began mill production in 1954. Part of the operating plan was to use mining equipment from the nearby Castle Dome mine when it became available at mine closure. The concentrator and other facilities were moved to Copper Cities after the closure of the Castle Dome mine in 1953. The mill had a design capacity of 12,000 tons/day. Normal mine production consisted of 12,000 tons/day of milling ore and 24,000 tons/day of leaching ore. The concentrator operated from 1954 through 1975. Mining at the Deep Pit was active from 1951 through 1975, and mining of the Diamond H Pit was active from 1965 through 1975. Total mine production was approximately 70 million tons of milling ore and approximately 98 million tons of leach ore and waste rock. The leach dumps were active from 1962 to 1982. The main ore processing equipment has been removed from the Copper Cities concentrator area, but several associated buildings remain. The property was passed on to BHP's predecessors as part of the Pinto Valley group of mines.

1.3 SITE DESCRIPTION

The Copper Cities Site is located approximately three miles north of the town of Miami in Gila County, Arizona (Drawing 1, *General Location Map*). The property encompasses approximately 4,000 acres of which approximately 1,470-acres have been disturbed by mining operations. The site is bounded by Miami Wash and Lower Pinal Creek to the east, Sleeping Beauty Peak to the north, Flat Top Mountain and Day Peaks to the west, and Phelps Dodge Miami, Inc. (PDMI) property to the south. The site is generally bounded on the south by Lost Gulch and by Tinhorn Wash, which is a tributary to Miami Wash.

Tinhorn Wash starts southeast of the plant site. However, the premine drainage of Tinhorn Wash extends to the west under the plant site and the No. 3 West Leach Dumps. Currently, the wash starts with Upper Tinhorn Wash Spring, which drains into the Tinhorn Dam. Downstream of this facility is monitoring well CC-534. The Tinhorn Concrete Dam gravity feeds to the Tinhorn Fiberglass Tank via pipeline, which is approximately 550-feet (ft) downstream. Any other overflow from the Dam or Tank goes to Tinhorn Final Pond, an unlined facility with a sump. The sump pumps collect solutions and transfer them to the No. 6 Sump, located behind the No. 2 tailings

facility (Drawing 2, *Well Locations Map*). The wash continues southeast to the main access road where small washes from the south and west join Tinhorn Wash. Tinhorn Wash continues east for approximately 3,600 -ft then turns and heads northeast until it crosses the property boundary and joins with Miami Wash off the property.

1.3.1 Current Situation

Since 1982, the Copper Cities Site has been in a care and maintenance mode as a water management facility. Some acid rock drainage (ARD) is generated on the site and may be associated with the tailings impoundments, waste rock dumps, open pits, and leach dumps. This ARD may impact both surface water runoff and groundwater. BHP currently operates several water control facilities to manage these impacted flows. The water control facilities operated by BHP intercept water and stormwater runoff from the historic waste rock dumps, leach dumps and tailings impoundments. The runoff control facilities are principally in 3 groups, on the south side of the inactive West Leach Dumps, on the north and east side of the inactive East Leach Dumps, and in Tinhorn Wash.

In addition to BHP's use of the site for management of seepage and impacted stormwater runoff, several other activities occur or have occurred at the site since 1982. These include the deposition of tailings slurry from the Miami Unit No. 2 Tailings Reprocessing Project into the Copper Cities Deep Pit Tailings Repository. The deposition of the tailings slurry occurred from 1988 until 2001. The water level in the pit currently remains under the elevation allowed in the Aquifer Protection Permit (APP) (ADEQ 1998).

The Pinal Creek Group (PCG), of which BHP is a member, operates several facilities at Copper Cities Site, which include the Diamond H Pit and water treatment facility, the former Precipitation Plant, and associated pipelines and pumps for Water Quality Assurance Revolving Fund (WQARF) remedial water management. PCG uses the facilities of the former Precipitation Plant as a booster pumping station for WQARF remedial water being conveyed to the Diamond H Pit. The treatment facility at Diamond H Pit was constructed for neutralization and metals reduction of the WQARF remedial water prior to discharge into Diamond H Pit, and is currently being relocated.

There are 2 operating leases with BHP at the Copper Cities Site. These leases are held with Yellow Hair Trading and Mining Inc. (Yellow Hair) and PDMI. Yellow Hair operates a turquoise mine on the west slopes of the Deep Pit. They are not authorized to transfer waste into the pit and are responsible for obtaining all required permits for operation and closure. PD owns a tailings impoundment covering an area of approximately 100 acres at the southeast edge of the Copper Cities property. PDMI's lease states that they will be responsible for all aspects of the tailings operation. This facility is included in the PD Miami APP.

1.4 REGULATORY COMPLIANCE

The Copper Cities property is part of the Pinal Creek WQARF Site. Pinal Creek alluvial water has been impacted by historic mining practices in the area. The PCG, consisting of BHP, PDMI and Inspiration Consolidated Copper Company, is remediating the affected groundwater. PCG signed a Consent Decree with the ADEQ in 1998 as part of the WQARF process. Copper Cities has been identified as a potential contributor to the WQARF Site and, as such, was included in a WQARF Source Remediation Plan (SRP) submitted to ADEQ in 1999 (Converse, 1999).

Since the entire Copper Cities property is part of the Pinal Creek WQARF Site, it is subject to ADEQ oversight particularly in regards to WQARF Source Control. BHP's responsibilities to ADEQ under WQARF are spelled out in the 1998 WQARF Consent Decree between ADEQ and PCG. Remediation for portions of the site is outlined in the SRP that was submitted to ADEQ in compliance with WQARF project requirements.

2.0 FIELD ACTIVITIES

2.1 NEW MONITORING WELL

A new monitoring well denoted as CC-100 was installed in upper Tinhorn Wash on October 4 and 5, 2004. The location of the new monitoring well is shown on Drawing 2, *Well Location Map*. Borehole logs and well construction diagrams are included in Appendix A, *Drilling Well Installation.*

The new monitoring well was installed in accordance with the Standard Operating Procedures (SOPs) presented in the Copper Cities Site Characterization Plan (SCP) (MWH, 2004b). A brief description of the drilling and well installation activities is presented below.

2.1.1 Borehole Drilling and Logging

Monitoring well CC-100 was drilled and installed by Layne Christensen Company (Layne) of Chandler, Arizona. Drilling was conducted using a Schramm 685 Drill Rig using a combination of 8⅝-in. outside diameter (OD) Stradex advance rotary casing hammer. The 8⅝-in. OD Stradex system uses a 9⅝-in. bit and was used to a depth of 45-ft. below ground surface (BGS). Below 45-ft., the open hole drilling technique utilizing a 7¼-in. bit was used to complete the hole to a total depth of 163-ft. BGS. The 7¼-in. bit is offset and cuts a 7 ¾-in. hole.

To allow for detection of groundwater, the monitoring well borehole was drilled using compressed air as the drilling fluid until groundwater was detected. Groundwater was initially observed at approximately 84-ft. BGS. The following day, the water level in the borehole was measured at 63-ft. BGS and the borehole was advanced to 160-ft BGS to allow for sufficient depth to install the well screen. The well screen was placed to intercept a peak zone of high metals concentrations observed in water quality packer testing in Boring B-1, approximately 300-ft. upgradient (Drawing 2, *Well Location Map*). The groundwater chemistry from B-1 is described in the Tinhorn Wash Evaluation Characterization Report (MWH, 2004a).

During drilling, grab samples of cuttings were collected every 5 to 10-ft. The samples were either taken by grab sampling through the Cyclone Separator or diverted discharge. An MWH Field Geologist logged all samples in the field, and sample descriptions were recorded on log forms (Appendix A, *Drilling Well Installation*). All data were collected in accordance with MWH SOPs documented in the SCP (MWH, 2004b).

2.1.2 Well Construction

The monitor well was constructed using 4-in. diameter, flush-threaded Schedule 80 PVC well casing and screen. The screen was factory-slotted with 0.02-inch perforations and sealed at the base with a flush-threaded end cap.

The casing and screen sections were lowered down the borehole using a winch and lifting bail. The filter pack consisted of 10/20 silica sand, was emplaced in the annular space of the boreholes around the screened interval by gravity, and was completed approximately 5-ft above the top of the screen. The thickness of the sand pack was confirmed using a weighted probe and tape measure as a depth indicator. A 5-ft. seal of ¼ in. bentonite pellets was placed in the annular seal above the filter pack. The rest of the annular space was filled with an acid resistant Portland Type V Cement/bentonite mixture. A 5-ft. long steel protective casing of 8-in. diameter was set into the borehole.

The new monitoring well was completed at the surface with a sloping concrete pad approximately 3-ft. by 3-ft., and 4-in. thick. Three ft. of the conductor casing rises above the concrete pad topped with cap and lock. Four 4-in. concrete-filled bollards were placed around the well. Marvin Davis and Associates, an Arizona licensed surveyor, of Casa Grande, Arizona surveyed the groundwater well location and elevations. A schematic diagram of CC-100 is included in Appendix A, *Drilling and Well Installation*. Selected well completion details are presented as Table 1, *Well Construction Details and Water Level Elevations*.

2.1.3 Well Development

CC-100 was developed on November 12, 2004. The well was first surged and bailed and then pumped by Layne using a 5-Ton Smeal truck-mounted pump rig. After initial surging and pumping, the well was pumped at 7.5 gallons per minute (gpm) until eight 4-in. casing volumes of water were removed, the groundwater was clear, and the field parameters (pH, electrical conductivity, and temperature) were stable. In this case, eight casing volumes are equivalent to 500 gallons of water. The field measurements were recorded on well development data sheets and presented as Appendix B, *Well Development and Groundwater Sampling Logs*.

2.1.4 Well Sampling

Groundwater samples were collected from CC 100 on November 30, 2004 and January 13, 2005. For each sampling event, at least three 4-in. casing volumes were purged and stable field parameters were achieved prior to sampling. Groundwater sampling logs are presented in Appendix B,*Well Development and Groundwater Sampling Logs*.

Sample bottles were filled, capped with Teflon-lined lids, labeled with sample ID, location, date, and time, secured with Chain-of-Custody seals, and immediately placed in the coolers. The coolers were shipped to ACZ Laboratories (ACZ) in Steamboat Springs, Colorado for analysis. For the January 13, 2004 sampling event, a split sample was sent to Del Mar Analytical Laboratory (Del Mar) in Tempe, Arizona for Nitrate/Nitrite analyses. ACZ and Del Mar are ADEQ certified analytical laboratories.

2.2 WATER LEVEL MONITORING

The most recent static groundwater level measurements from monitoring wells in Tinhorn Wash were collected from January 11 through 14, 2005. MWH personnel collected the groundwater level data using a Solinist slope indicator, water level meter. Table 1, *Well Construction Details and Water Level Elevations* presents the groundwater elevation data. The groundwater elevations are also provided on Drawing 3, *Geologic Map* the geologic map of the Tinhorn Wash vicinity.

3.0 RESULTS AND ANALYSIS

3.1 HYDROGEOLOGY

The geology and hydrogeology in upper Tinhorn Wash is discussed extensively in the Tinhorn Wash Evaluation, Characterization Report (MWH, 2004a); however, a review of the hydrogeologic units and major structural features is appropriate for this report.

There appear to be 3 different hydrostratigraphic units in the Tinhorn Wash area. The first unit is a possible perched zone of groundwater that occurs in a shallow zone of the Gila conglomerate approximately 30-ft to 60-ft. BGS. This may be a zone of Gila that is weathered or coarser grained than an underlying layer of more competent conglomerate. This shallow zone appears to be discontinuous, can be characterized as unconfined, and potentially present only in the vicinity of CC-533. The second hydrostratigraphic unit is a deeper, unconfined zone in Gila conglomerate and appears to be the same as observed in most other Gila wells screened at shallow depths into the water table. The third hydrostratigraphic unit is the fractured crystalline bedrock of the Lost Gulch quartz monzonite, which occurs upstream of the Miami Fault (Drawing 4, *Cross Section A-A'*).

The fault zone in Tinhorn Wash may possibly represent a fourth hydrostratigraphic unit. If hydraulic conductivities in the shear zones of the Miami Fault varied greatly from those of the surrounding geologic units, then it may be a conduit and water bearing unit, and/or a possible barrier.

In part, the purpose of CC-100 was to define the lateral extent of the perched groundwater zone screened by CC-533. CC-100 is approximately 270-ft. southeast and downgradient of CC-533, which is the only other well in Tinhorn Wash screened in the perched groundwater zone. During the drilling of CC-100, a perched groundwater zone was not encountered at the elevation anticipated based on earlier investigations (MWH, 2004a). This indicates that the perched groundwater screened by CC-533 may be laterally discontinuous.

Lithologic units observed during the drilling of CC-100 was alluvium to 28-ft. BGS. Below the alluvium, Gila conglomerate was logged to the depth of the drill hole at 163-ft. BGS. A plan view of the geology mapped by MWH in the area is presented as Drawing 3, *Geologic Map*. Drawing 4, *Cross Section A-A'* presents a cross-section indicating the first encountered and static water level measured in January 2005.

3.2 GROUNDWATER CHEMISTRY ANALYSIS

Table 2, *Monitoring Well Groundwater Chemistry* presents groundwater chemistry for CC-100 and the results of CC-793, CC-794, CC-795, CC-796, CC-800, CC-801, CC-802, CC-803 and CC-804 since sampling began in the Spring of 2004. The results of the November 30, 2004 sampling event of CC-100 indicate that concentrations of beryllium, cadmium, chromium, mercury, and nickel exceeded Arizona Aquifer Water Quality Standards (AWQS). The results of the January 13, 2005 sampling event indicate beryllium, cadmium, and mercury exceeded AWQS. Between the two sampling events of CC-100, cadmium, chromium, mercury, and nickel were slightly above the standard. But in both cases, beryllium was an order of magnitude above the standard. The pH measurements of the groundwater from CC-100 for the two sampling events were 7.3 and 7.5, respectively.

April and July 2004 data show groundwater from CC-794, approximately 175-ft. north and cross gradient of CC-533 exceeded AWQS for beryllium by an order of magnitude and was slightly elevated for fluoride. April and July 2004 data also show that groundwater from CC-796, approximately 100-ft. south and cross gradient of CC-533 exceeded AWQS for beryllium by an order

of magnitude and was slightly elevated cadmium. This was also the case for CC-801, approximately 200-ft. north and cross gradient of CC-963. May and July 2004 groundwater data from CC-800, approximately 950-ft. west of Tinhorn Final Pond showed concentrations of fluoride that slightly exceeded AWQS.

January 2005 groundwater data showed concentrations of beryllium, cadmium, fluoride, and nickel exceeded AWQS in CC-793 immediately west of the Tinhorn Final Pond. This is the first time in 4 quarterly sampling events, that any constituents have exceeded AWQS. This well is screened across the Miami Fault at an approximate elevation of 3,540.79-ft. above mean sea level (amsl) (logged at 28-ft BGS) and is 45-ft. deep. The fault separates the Gila conglomerate above from the Quartz Monzonite below. In previous quarters the groundwater depth was approximately 32-ft. from top of casing (TOC) or approximately 3,540.0-ft. amsl, or approximately within the Quartz Monzonite. On January 12, 2005, the groundwater was measured at 25.21-ft. or 3546.79-ft amsl, up into the Gila conglomerate. The January 2005 measurement was several feet higher than previous quarters probably due to increased winter precipitation. This may indicate that waters infiltrating into the more permeable Gila conglomerate from Tinhorn Final Pond may be degrading the water quality in CC-793 in times of high precipitation. The relationship between water level elevation and metals concentrations should be considered in future quarterly monitoring events.

Table 3, *Other Existing Monitoring Well Groundwater Chemistry* shows the groundwater concentrations of the chemistry analyses of wells existing in Tinhorn Wash including CC-533, CC-534, CC-544, and CC-963. Table 3, *Other Existing Monitoring Well Groundwater Chemistry* presents the groundwater concentrations of the most recent sampling events of these wells back to January 2004. Groundwater from CC-533 and CC-963 have been consistently impacted for the last 4 sampling events by beryllium at 2 orders of magnitude greater than the AWQS; cadmium at concentrations 1 order of magnitude greater than the AWQS; fluoride 4 to 10 times the AWQS, and nickel 4 to 8 times the AWQS. Table 3, *Other Existing Monitoring Well Groundwater Chemistry* also shows the standards for these constituents are exceeded in very similar concentrations over the 3 sampling intervals. The pH measurements of CC-533 and CC-963 were consistently in the range of high 3 and low 5, respectively. Drawing 5, *Generalized Extent of Impacted Water* represents a plan view of the generalized area of impacted groundwater in Tinhorn Wash based on the January 2005 groundwater data. Drawing 4, *Cross Section A-A'* shows the generalized area of impacted groundwater in cross-section.