HOMESTAKE RE-ENTRY AND DEWATERING PROGRAM PLAN

PREPARED FOR THE

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

JANUARY 31, 2007

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1. EXECUTIVE SUMMARY

This report presents conclusions and recommendations for the controlled re-entry and mine dewatering program plan for the Homestake Mine in Lead, SD. The Homestake Mine, now owned by the South Dakota Science and Technology Authority (the Authority), is a candidate site for development of a Deep Underground Science and Engineering Laboratory (DUSEL). While DUSEL may be developed at the ultimate depth of the mine, 8000 ft., current plans call for an Early Implementation Plan (EIP) to be developed at the 4850 Level to conduct scientific and engineering experiments and research.

The dewatering pumps at the Homestake Mine were turned off on June 10, 2003. Since that time the mine has been filling with water, from surface infiltration and subsurface inflow, at an approximate rate of 700 gallons per minute (gpm). To ensure continued viability as a candidate site for DUSEL, and to preserve the 4850 Level as the preferred location for the EIP, this re-entry and dewatering plan has been prepared.

The following summary provides a general description of the Homestake Re-Entry and Dewatering Plan steps that are recommended for approval:

- **Surface Preparations and Equipment Procurement:** The initial surface tasks will provide inspection and preparation of surface facilities and equipment procurement required for re-entry including the Ross hoists, motor generator sets and ropes; exhaust fans for No. 5 Shaft; power supply cables; pump motors and starters; instrumentation and control systems; refurbishment of spare pumps; development of detailed engineering plans; development of underground re-entry approach; and development of the project health and safety plan. Inspection and review of the Water Treatment Plant will be conducted as well as final development of the water discharge plans consistent with water quality permits issued by the State. Ventilation will be initiated and confirmed prior to entry.

  These tasks are expected to commence in February 2007 and be completed approximately April 15, 2007.

- **Ross Shaft Re-Entry and Dewatering System Installation and Start-Up:** The initial underground tasks will execute re-entry to the Ross Shaft including inspection of the shaft, stations, skip pockets, and air doors and seals for accumulated water and air leaks, removal and replacement of pumps and motors, installation of new power supply cables,

and overall assessment of the underground conditions. Primary access to the Ross Shaft will be via the Ross Service Hoist, with secondary egress provided by the Ross Production Hoist. Full inspections and assessments of ingress/egress plans will be provided. Sequential pumping of sumps will be initiated at the upper levels as refurbished pumps are reinstalled. A submersible pump will be lowered from 5000 L through the borehole connecting 5600 L. These pumping sequences have been developed to maintain water levels at 5300 ft.

These tasks are expected to commence on April 16, 2007 with pump systems ready for operations approximately August 15, 2007.

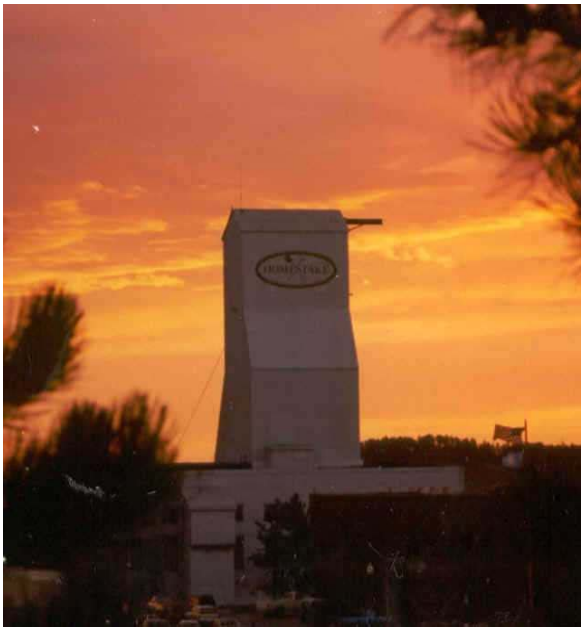

Figure 1.1 - Yates Headframe

The Homestake Re-Entry and Dewatering Program Plan will be managed to the highest level of safety standards and will result in many significant improvements to the site, developed to minimize initial costs and maximize the safety and utility of the site for both the Early Implementation Plan (EIP) as well as long term use as Homestake DUSEL. A synopsis of major improvements is provided in Table 1.1 below:

Table 1.1 Capital Improvement Synopsis
Homestake Re-Entry and Dewatering Program Plan

1. Refurbished Ross Shaft, hoists and skips for safe re-entry into the mine;
2. All new electrics including power supply cables, motors, starters, fiber optics, and programmable logic controllers providing greater efficiency and lower pumping system operating costs;
3. Refurbished 700 horsepower pumps to service Ross Shaft pump stations;
4. New submersible pump, motor and controllers installed to hold water level at 5300 ft.
5. Initial mine ventilation through the No. 5 Shaft, offering significant cost savings over use of the existing Oro Hondo ventilation system; and
6. Continuous remote surface monitoring of water levels and pumping system performance developed to minimize operating costs while preserving 4850 L dry.

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2. OBJECTIVE

The objective of the Homestake Re-entry and Dewatering Program Plan is to:

> *Develop a comprehensive controlled mine re-entry and dewatering plan to preserve 4850 L dry as the preferred initial Early Implementation Plan (EIP) location by maintaining water levels in the No. 6 Winze at approximately 5300 ft.*

3. BACKGROUND

The Homestake Mine, now owned by the South Dakota Science and Technology Authority (the Authority), is a candidate site for development of a Deep Underground Science and Engineering Laboratory (DUSEL). While DUSEL may be developed at the ultimate depth of the mine, 8000 ft., current plans call for an Early Implementation Plan (EIP) to be developed at the 4850 Level to conduct scientific and engineering experiments and research. Further development of DUSEL at 8000 L is the subject of current review and consideration by the National Science Foundation (NSF) with Homestake being a candidate for further downselect by NSF through the S3 selection process. A decision by NSF is expected in Spring 2007.

The dewatering pumps at the Homestake Mine were turned off on June 10, 2003. Since that time the mine has been filling with water, from surface infiltration and subsurface inflow, at an approximate rate of 700 gallons per minute (gpm). Withdrawal from the mine included removal and salvage of various underground assets and equipment such as transformers that, if left underwater, may compromise the water quality within the mine. The mine is now closed to any entry. An extensive knowledge base and inventory of equipment and facilities remaining in the mine has been preserved.

The dewatering system at the Homestake Mine existed within the Ross Shaft to 5000 L, in the No. 6 Winze from 5000 L to 8000 L, and in the 4 Winze from 5000 L to 7400 L. A 12-in steel water column and all pumps remain in place. Power supply cables to the pumps were severed for removal of transformers and were not removed.

During withdrawal from the mine in 2003, water level alarms were placed in the No. 6 Winze approximately every 600 ft. to monitor water levels within the mine. It was estimated at the time of withdrawal that water would reach 5600 L approximately May 2006. The water level in the No. 6 Winze reached 5600 L in November 2006, indicating that the rate of filling in the mine was somewhat slower than expected. The next alarm station, at 5000 L, was originally expected to incur water in March 2007. At the current rate of infiltration and inflow, and considering that water reached the 5600 L about six months later than expected, water may reach the 5000 L in September 2007 or earlier, depending on fluctuations of infiltration and inflow and the variable nature of the volume of shafts and drifts within the mine being filled with water.

It has been estimated that preparations for re-entry into the mine, including refurbishment of the Ross Shaft and hoist, and rehabilitation of the dewatering system, may take 7 months or longer. Thus in order to preserve the 4850 L dry for the Early Implementation Plan (EIP), re-entry to the Ross Shaft should be initiated in approximately April 2007.

4. APPROACH

This section provides a brief discussion of the assessment process and program approach developed for each element of the re-entry and dewatering program. A detailed discussion and technical descriptions of the implementation steps and re-entry sequencing is provided in Section 5 – Re-Entry and Dewatering Work Plan.

4.1. Assess Controlled Re-Entry to Ross and Yates Shafts

The development of the re-entry plan considered use of both the Ross and Yates Shafts, with the Ross Shaft planned for use as primary ingress/egress and the Yates Shaft as secondary ingress/egress. An evaluation of this approach concluded that use of multiple hoists at the Ross Shaft will provide adequate primary and secondary entry and exit from the mine.

4.1.1. Ross Shaft

The Ross Shaft was constructed to hold both the Ross Service Hoist (primarily for personnel) and two Ross Production Hoists (primarily for ore removal to the crusher) from the surface to 5000 L. The Ross Service Hoist will be considered the primary means of ingress/egress for this re-entry program, with one of the Ross Ore Skips considered the secondary means of ingress/egress.

4.1.2. Yates Shaft

The Yates Shaft extends from the surface to 4850 L. Lateral drift connections between the Ross and Yates Shafts exist at several levels, concluding at the Vent Drift at 4850 L. While it is believed that lateral drift access to the Yates Shaft from the Ross remains clear above 4850 L, this condition is not known with sufficient certainty to rely on the Yates Shaft for secondary egress at this time. Thus no entry to the Yates Shaft is anticipated during this initial re-entry program.

4.2. Assess Ventilation Plan at Oro Hondo and No. 5 Shaft

Ventilation of levels to 5000 L is required prior to mine re-entry. Ventilation work steps can be executed concurrent with refurbishing the Ross hoists since surface fans will be used to induce and maintain the airflow. Two alternatives were considered for re-establishing ventilation: the Oro Hondo fan, and new fans on top of No. 5 Shaft. The airflow required for initial re-entry is estimated to be 60,000 cfm down each of the Ross and Yates Shafts, for 120,000 cfm total. This allows adequate ventilation down to 4850 L of each shaft, assuming that moderate leakage will reduce the flow. The 5000 L pump station will be ventilated from 4850 L via auxiliary fan and duct.

Figure 4.1 – No. 5 Shaft

4.2.1. Oro Hondo Ventilation

The present Oro Hondo ventilation system consisting of a 1250 horsepower, 84" 2-stage axial fan was considered to ventilate initial re-entry. The blades could be adjusted to supply the desired 120,000 cfm airflow. The

American Davidson centrifugal fan at Oro Hondo with a 3000 horsepower VFD motor would likely be too large, even at half-speed, for initial operation.

Since the Oro Hondo circuit ventilated the deepest part of the mine, the usual connections from intake to exhaust are now under water. It would be necessary to break into 31 Exhaust on 4850 L in 17 Ledge. Air could reach 31 Exhaust from either the 8' x 9' Ross header, or the 9 ledge drift. This is perhaps the biggest advantage of the Oro Hondo alternative over the No. 5 Shaft alternative. The two drifts could handle 120,000 cfm quite easily (833 fpm velocity in each drift).

At issue with the Oro Hondo alternative is the connection between the 31 Exhaust system and the Oro Hondo shaft on 3950 L. The shaft extends to 4100 L. This permits 150 feet of shaft to fill with fall rock before the connection on 3950 plugs off. In the past, mucking fall rock on 4100 L took place about every other year. It is not known when the shaft was last mucked, but it is assumed that fall rock has now plugged off the 3950 connection and has extended up the shaft for an unknown distance. Given these constraints, use of the Oro Hondo ventilation circuit is not recommended at this time.

4.2.2. No. 5 Shaft Ventilation

An assessment of the No. 5 Shaft has determined that it can provide sufficient ventilation access to lower levels by installing two exhaust fans on the decking that currently seals the No. 5 Shaft. Suitable fans have been located, with power supply provided via the nearby Barrick Substation.

Figure 4.2 – No. 5 Shaft Ventilation Exhaust

This alternative involves placing two axial fans on top of No. 5 Shaft. The advantage of using No. 5 Shaft in an upcast exhaust mode is the short schedule at which the system can be installed and ready. No underground steps are needed. The shaft itself was last reported in good condition, and has the best long-term potential for providing adequate ventilation. The No. 5 Shaft fans can be installed concurrently with all other activities. Holes would be cut in the plate covering the shaft top, and two fans mounted horizontally over each hole. Discharge air from the fans will be directed outside the headframe to prevent condensate and possible winter ice from damaging the headframe.

It is noted that the fans on top of No. 5 Shaft can only ventilate the initial work in the Yates and Ross Shafts. To ventilate excavation and development of the science chambers on 4850 L, or any workings down to the 7400 level, supplemental ventilation, likely through Oro Hondo, will be developed as warranted following completion of underground inspections.

4.3. Prepare Mine Dewatering Plan

A detailed approach to dewatering the mine and holding water levels to 5300 ft. has been developed and is described in detail in Section 5. While the original dewatering program provided redundancy at all pumping levels, this interim dewatering plan provides single pumps and motors which will be sufficient as long as the underground workings are not occupied. Backup equipment and supplies will be maintained on the surface and installed as may be required throughout this dewatering program.

4.3.1. Ross Shaft

The Ross Shaft will continue to be the primary location for the dewatering program and will contain the primary means of dewatering the mine. Pump stations at 1250 L, 2450 L, 3650 L and 5000 L and their companion sumps allow for removal of mine waters to the surface. Inspection of the Ross Shaft upon re-entry will confirm assumptions with regard to condition of the water column. Power supply to the pump stations will be provided down the Ross Shaft, as will conduits for real-time monitoring of water levels in the mine and communications systems at each pump station.

Figure 4.3 – Ross Headframe

4.3.2. No. 6 Winze

The No. 6 Winze provides the primary access for dewatering below 5000 L, extending to 8000 L. In order to postpone refurbishment of the No. 6 Winze hoist and shaft, a submersible pump will be installed in a borehole parallel to the No. 6 Winze, extending to 5600 L. The submersible pump will be installed in the borehole to hold water at 5300 ft.

4.4. Prepare Water Discharge Plan

Mine waters removed via the pumping program will be discharged to Gold Run Creek in accordance with the requirements of the discharge permit issued by the Department of Environment and Natural Resources (DENR). Discharge waters will be routed to the Mill Reservoir for storage and settling, and to the Homestake Water Treatment Plant prior to discharge.

4.4.1. Permit Requirements

All mine waters discharged to the environment are required to comply with the discharge permit requirements established by the DENR. Subject to sampling and analysis of the accumulated mine waters, it is anticipated that compliance with all permit requirements will be achieved without substantive treatment. With all waters routed through the Water Treatment Plant, consistent with previous operations, treatment of discharge waters can be enhanced if required.

4.4.2. Infrastructure Requirements

All piping and connections to allow mine waters to be discharged to Gold Run Creek are currently in place. If discharge temperature requirements following circulation through the Mill Reservoir indicate that additional cooling of mine waters may be required, these waters will be routed through the existing clarifier, cooling/settling pond, and Rotating Biological Contactors (RBCs) located at the Water Treatment Plant. No biological treatment is expected to be required.

4.5. Update Dynatec 4850 Plan

In December 2004, Dynatec Corporation prepared a report entitled, "Feasibility Evaluation of the Conversion of the Homestake Underground Mine." This report, and its subsequent updates, form the basis for the scope of work and cost estimates developed for this Homestake Re-Entry and Dewatering Program Plan. Dynatec Corporation has revised the scope of work and associated budget estimates to reflect the objective of this report. A detailed budget estimate worksheet and supporting documentation, formatted consistent with the organization of this report, is included as Appendix A – Project Budget Estimate.

5. RE-ENTRY AND DEWATERING WORK PLAN

The Re-Entry and Dewatering Program Plan will be executed through several contracts using experienced and qualified under-ground contractors, numerous equipment suppliers and construction contractors, consultants with specialized knowledge of Homestake underground workings, consulting engineers, and current Authority staff. For major equipment purchases such as motors, fans and electrical cabling it is recommended that the Authority purchase items directly from suppliers for installation by the selected contractor, thus reducing contractor mark-up and overall project costs.

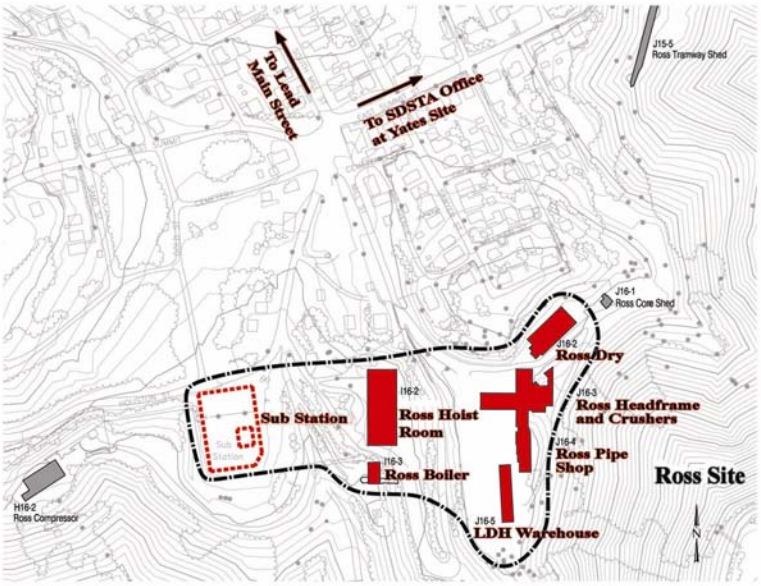


Figure 5.1 – Ross Site

Section 8.1 of this report contains recommendations for additional Authority staffing to facilitate, manage and maintain the site, improvements, and the on-going dewatering program. The Authority will also require resources with sufficient experience to manage and administer various contract documents and schedules, evaluate and process contractor progress payments, fulfill reporting requirements for grant funding and permit compliance, and coordinate site use and access necessary for implementation of the EIP.

The following sections provide a detailed description of the scope and sequence of work to be undertaken to meet the schedule requirements for initiation of the dewatering program.

5.1. Mobilization/Demobilization and Detailed Engineering

Initial costs for the Homestake Re-Entry and Dewatering Program will include contract items for mobilization and demobilization for major contractors. These contractor costs include labor, equipment and supplies necessary to mobilize the major underground contractor to the project site. Upon completion of the work, demobilization costs are included to remove contractor-owned equipment and supplies from the project site.

Upon approval of the Homestake Re-Entry and Dewatering Program, detailed engineering will commence to prepare final design details, seek comments from participating entities, and prepare contract documents for final contract approvals by the Authority. Detailed engineering will include working platforms for shaft rehabilitation, electrical engineering for power supply and distribution to the Ross and No. 5 Shaft, mechanical engineering to finalize ventilation, pumping and dewatering systems, and various civil and environmental engineering elements for compliance with local and state regulations.

5.2. Surface Equipment and Surface Work

The initial surface tasks will provide inspection and preparation of surface facilities and equipment procurement required for mine re-entry and for continued preservation of surface assets. Surface inspections will include the Ross hoists and skips, motor generator sets and ropes, Ross headframe, Yates headframe, Mill Reservoir, water treatment plant complex, No. 5 Shaft seal, spare pumps currently warehoused on-site, and electric cable inventory.

The majority of the surface inspection tasks may be self-performed by the Authority with assistance from consultants with specialized knowledge and experience with Homestake systems and operations.

5.2.1. Ross Service Hoist and Production Hoist Refurbishment

The Ross Shaft was constructed to hold both the Ross Service Hoist (primarily for personnel) and two Ross Production Hoists (primarily for ore removal to the crusher) from the surface to 5000 L. The Ross Service Hoist will be considered the primary means of ingress/egress for this re-entry program, with one of the Ross Production Hoists considered the secondary means of ingress/egress using the Production Hoist. A new single deck cage has been constructed and is ready for placement in the Ross Service Hoist.

Figure 5.2 – New Ross Service Hoist Cage

Preliminary inspections of the Ross hoists, ropes and motor generator sets have been performed and indicate that these systems are suitable for use with nominal repair maintenance updates. A new cage will be installed at the Ross Service Hoist and the hoists, ropes and motor generator sets will undergo further detailed inspections and evaluations prior to being placed in service to re-enter the Ross Shaft for the shaft inspection program.

5.2.2. No. 5 Shaft

The No. 5 Shaft will be used as the primary upcast ventilation shaft, with two new exhaust fans installed to maintain positive draft throughout the upper levels of the underground workings. The No. 5 Shaft access is currently sealed with steel plating supported by steel beams across the shaft collar. No access into the No. 5 Shaft is planned.

5.2.2.1. Ventilation Plan

Ventilation work steps can be concurrent with refurbishing the Ross hoists since surface fans will be used to induce the airflow. Primary ventilation will be via two new fans on top of No. 5 Shaft. Although the Yates Shaft will not be used for initial re-entry, lateral drift connections between the Ross and the Yates Shaft likely exist to the extent that planning for ventilation of both shafts is necessary. The quantity needed for initial re-entry is estimated to be 60,000 cfm down each of the Ross and Yates Shafts, for 120,000 cfm total. This should allow adequate ventilation down to 4850 L of each shaft, assuming that moderate leakage will reduce the flow. The 5000 L pump station will be ventilated from 4850 L via an auxiliary fan and duct.

5.2.2.2. Power Supply

The power supply required for the No. 5 shaft ventilation fans will be routed from the Oro Hondo Substation at 12.5kV. The existing feeder breaker OH24 at the Oro Hondo substation will be used to energize the existing 12.5kV overhead 109 circuit from the Oro Hondo substation to the No. 5 Shaft 12KV Substation. Electrical contractors will install the 12.5kV underground cable from the No. 5 Shaft substation to a pad mounted 12.5kV to 480V transformer. The two new 150HP 480V exhaust fans will be powered from this transformer utilizing a pair of motor starters and disconnects. All items have been identified as available from warehouse stores. The GE metering and relaying unit currently on breaker OH24 can monitor the energy usage and report this to the SCADA system for monitoring and metering purposes.

5.2.3. Water Treatment Plant

The existing Homestake Water Treatment Plant is currently owned by the Authority and is available, if necessary, for treatment of mine waters prior to discharge to the environment. Sampling and analysis of accumulated mine waters will be conducted prior to discharge, with results compared to the requirements of the water discharge permits. The Water Treatment Plant includes sand bed filters that may be used to reduce, if necessary, concentrations of Total Dissolved Solids (TDS) and other parameters to meet the requirements of the water discharge permit. The condition of the sand bed filter media will be inspected prior to operation and replaced if determined to be necessary. The Rotating Biological Contactors (RBCs) are not anticipated to be needed for treatment of mine waters with the

Figure 5.3 – Water Treatment Plant

possible exception of using this circuit to facilitate further cooling of mine waters prior to discharge, should that be required.

The waters pumped from the mine will be routed to the Water Treatment Plant using existing piping and subsequently discharged to Gold Run Creek in accordance with the water quality permit.

5.2.4. Yates Hoist Building Roof Replacement

Preservation of Authority site assets remains an important objective in order to ensure that facilities are adequately maintained and serviceable for continued use. A condition assessment of site facilities indicates an immediate need for roof replacement at the Yates Hoist Building.

Figure 5.4 – Yates Hoist Building Roof

The existing Yates Hoist Building roof was placed in 1985 with a 10 year warranty. The roofing system was ballasted membrane roof placed over precast panels and crowned in the center to route drainage to the edges. The existing roof has outlived its original serviceable life showing severe signs of aging including membrane separation from the parapet walls, numerous cracking, and areas of insulation board failure. The proposed new roof will be a fully adhered single ply roof system using a 60 mil UV protected membrane. The existing roof will be stripped to the precast panels and new system applied.

5.2.5. Water Discharge/Permits

Waters discharged to the environment are regulated under permits issued by the SD Department of Environment and Natural Resources (DENR). The DENR has communicated discharge permit requirements to the Authority that will be the basis for permit issuance and compliance, particularly for accumulated waters discharged during the dewatering program.

It is anticipated that waters discharged during the dewatering program will achieve compliance with DENR permit requirements with minimal, if any, treatment. Provisions have been developed to treat mine waters prior to discharge, if required, through use of the existing Water Treatment Plant.

5.2.6. Local Approvals

A review of local approvals required was conducted to ensure compliance with local building official requirements. Contacts were made with the City of Lead, and with Lawrence County.

5.2.6.1. City of Lead

The City of Lead was contacted in regard to City approvals or permits that are required by contractors performing work within the City limits. Each contractor will be required to obtain a contractors license for work within the Lead City limits. This permit can be obtained at City Hall. Work that ties into City systems (sewer, water, storm sewer, etc.) will need to be done in accordance with City Standards and the City should be notified of the project that will be under construction.

5.2.6.2. Lawrence County

Lawrence County Planning and Zoning was contacted to identify any permits that may be required to work in Lawrence County. The majority of the work if not all will be performed within the Lead City Limits and County permits should not be required. The only permits that may be required are for hauling material and equipment on County roads that may be oversized or above normal load limits for those pavement or bridge sections. The County requests to be notified of pending work if it is outside the City limits so as to confirm any potential permit requirements.

5.3. Ross Shaft Rehabilitation

The Ross Shaft is the primary means of ingress/egress via the Ross Service Hoist and Ross Production Hoist for the re-entry and dewatering plan, and also provides space and supports in the service compartment for power supply cabling, the discharge water column, water supply lines, instrumentation and control wiring conduits, and communications cabling.

5.3.1. Shaft Inspection/Refurbishment

Following inspection and reactivation of the Ross Service Hoist, the underground contractor will perform a detailed shaft inspection. This involves personnel riding on top of the cage and inspecting the condition of the shaft infrastructure to determine what immediate repairs, if any, are required. It is anticipated that in addition to some scaling and minor ground support installation, steel sets in the Ross Pillar area will be replaced as necessary. Refurbishment of the Ross Shaft will include all work necessary to safely re-enter the mine and reactivate the mine services and mine dewatering system.

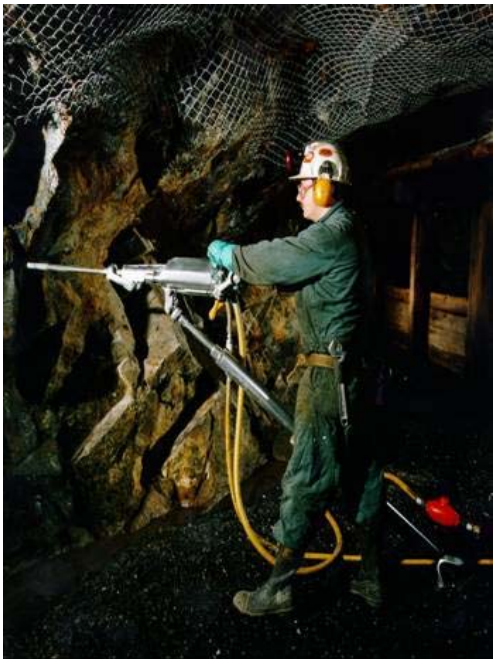


Figure 5.5 – Ross Shaft Inspection/Rehab

Ventilation bulkheads will be installed at level locations to isolate the fresh air circuit from the rest of the mine. Shotcrete-type bulkheads will be installed with man doors for controlled personnel access. These ventilation bulkheads will allow the ventilation circuit from No. 5 Shaft to ventilate both the Ross and Yates Shafts.

5.3.2. Power Supply/Distribution

New 5kVpower supply cabling will be installed in the service compartment of the Ross Shaft, from the new 5/7MVA transformer at the Ross Substation to serve power to each of the four pumping

levels and providing 4160V distribution service. The service at 5000 L will also include a 4160V to 480V electrical substation powering the submersible pump installed into the 5600 L borehole. Low voltage transformers will provide for local 240/120V power for controls, servicing, and lighting.

5.3.3. Pump/Motor Sequential Replacement

The existing pumping system consists of two 700 HP Ingersoll HMTA pumps located on each pumping station level at 1250 L, 2450 L, 3650 L and 5000 L. Each pump is rated at 1750 gpm. Two identical and rebuilt Ingersoll HMTA pumps are currently in storage.

Figure 5.6 – Ross Shaft Pump Refurbishment

Upon re-entry to the Ross Shaft, both existing pumps and motors at 1250 L will be removed and one of the spare 700 HP pumps and one new 4160V motor and switchgear will be installed. The two 1250 L pumps that are removed will be sent promptly for rebuilding. Upon completion of installation of the rebuilt pump, new motors and electrics at 1250 L, test pumping of the 1250 L sump will begin.

Upon contractor arrival at 2450 L, the two existing pumps and motors at that level will be removed and the second spare 700 HP pump and one new 4160V motor and switchgear will be installed. One of the pumps removed from 2450 L will also be sent for inspection and possible rebuilding.

Upon receipt of the first two rebuilt pumps, these will be installed one each at 3650 L and 5000 L with new 4160V motors and switchgear. The remaining rebuilt pump will be kept in the warehouse as a spare. When completed there will be a total of five rebuilt pumps, with four installed and one spare.

As the contractor moves to each successive pump station and completes installation of pumps and motors, the sumps will be pumped to the upper level sumps, readying the entire pumping system for use. At 5000 L a submersible pump will be installed in the borehole alongside the No. 6 Winze, with access to 5600 L. This submersible pump will be set to hold water at 5300 ft., pumping to the 5000 L sump.

Prior to pumping at the 5300 ft. level a complete inspection and performance testing of the pumping system will be completed. This pumping system will be capable of pumping approximately 2000 gpm if required.

The installation of redundant pumps and motors at each pumping station will be accomplished once an occupancy schedule of the mine is determined. In the event of a pump, motor or system failure, there is sufficient time to install a spare pump or motor prior to water elevations reaching a critical level.

5.3.4. Pump Column and Piping

The Ross Shaft currently has a 12-in diameter discharge pump column located in the service compartment. This pump column will be used for sequential conveyance of mine waters from the pump stations to the upper level sumps and eventually to the discharge piping through the Tramway to the Mill Reservoir. The pump column from 4200 L to 5000 L will be replaced, including the 90-deg sweep on 5000 L, transitioning into the pump column recently replaced from 3650 L to 4200 L. These materials are on hand and in storage. The remaining pump column and piping connecting the pumping levels to the sumps will be inspected prior to initial pumping.

Figure 5.7 – Ross Pump Column Foot Elbow

5.3.5. Instrumentation/Controls

New fiber optic cable will be installed in the service compartment of the Ross Shaft, extending to 5000 L. The fiber optic cable, sufficient for future use for the EIP, will connect the programmable logic controllers (PLCs) at each pump station to the existing SCADA system. This will allow operation and monitoring of all pump stations and operational criteria from the surface command center. Real time water level sensors will also be installed in the borehole at 5300 ft. to monitor water levels in the mine from the surface command center.

5.3.6. Communications

The new fiber optic system will be used for voice communication using VOIP/Ethernet, with the existing Leaky Feeder system being maintained for backup communications. The Leaky Feeder system is installed in the mine from the top to the bottom of all shafts for transportation communication. The Leaky Feeder system includes a telephone interface which provides for communications with any telephone on the surface.

5.3.7. Dewatering Control Point

The control point elevation for arresting water levels has been set at 5300 ft. This elevation allows sufficient protection of the 4850 L to achieve the objective of maintaining 4850 L dry.

5.3.8. Operation and Maintenance

Initial system operation, maintenance and testing of the improvements will be provided by the contractor. On-going operation and maintenance of the Ross Shaft infrastructure, pumping

systems, electrical systems, and monitoring systems will be self-performed by the Authority following acceptance by the Authority of the installation by the contractor.

5.4. Electrical Service for Re-Entry and Dewatering Program

Several alternatives were considered during the evaluation of the site electrical system, with consideration given to personnel safety, first cost, on-going operational and maintenance costs, and compatibility with future site needs of the EIP. Alternatives were evaluated based on the determination that the existing electric distribution cables were not usable, the existing mechanical pumps must be rebuilt, and the electric drive motors must be either rebuilt or replaced. The existing electrical service equipment, fusible switches, circuit breakers and motor starters were considered to be either removed or damaged during withdrawal from the mine.

Following evaluation of these alternatives, the most cost-effective approach determined that all Ingersoll HMTA mechanical pumps would be removed and rebuilt in stages starting with the top levels on down, and that all 700 HP electric motors would be replaced with new units. The new units will be purchased with temperature sensors in both the bearings and windings, plus condensate heaters added to prevent high moisture corrosion. The motors will be supplied at 2300V and 4000V, thus allowing operation at a more economical 4160V distribution voltage level.

Figure 5.8 – Ross Shaft 5kV Cable

The electrical service equipment for each level will consist of new line of 5KV switchgear. This switchgear will contain a feed-through section fusible disconnect for the motor, electronic soft starter motor starter with bypass contactor PLC controller, a connection to the existing SCADA system, and low voltage transformers for local 240/120V power for controls, servicing, and lighting. The soft starter will allow coordination between the motor torque and pump operating curves to prevent water surging on pump start.

To establish a 4160V distribution voltage, a used/rebuilt 5/7MVA power transformer will be added in Bay #2 of the Ross Substation. This transformer will utilize an existing line of 5kV switchgear currently not used in the substation. A new 4160V circuit and cable will be installed in the Ross Shaft to serve power to each of the four pumping levels. The 5000 L will also contain a 4160V to 480V electrical substation to power the submersible pump installed into the 5600L bore hole. This 4160/480V substation will contain the PLC and real time water level sensors to monitor and control the submersible pump. This PLC will be connected to the upper four pumping levels and the existing SCADA system through a new fiber optic cable and Ethernet connections.

5.4.1. Ross Hoist Electrical Systems

All existing electrical equipment needed to refurbish the Ross Hoist is still in place. The 2400V circuits from the Ross Substation can be reenergized to the motor-generator sets. The main AC drive motor was rebuilt before shutdown, as were some of the DC generator sets. Some spare parts for the DC controls are available. Local work with the assistance of technical support and testing from the supplier will place the hoist back in service. No major repair issues were observed.

5.4.2. Ross Shaft Electrical Systems

The existing 2400V electrical cables in the service compartment of the Ross Shaft previously served the pumping systems and power requirements at all levels of the Ross Shaft. Upon withdrawal from the mine, these cables were severed and have been exposed to water and high humidity conditions, rendering them unusable. These cables will be removed and replaced with new 5kV cables reaching to all levels of the Ross Shaft to 5000 L and will provide a new 4160V circuit to serve power to each of the four pumping levels. The 5000 L will also contain a 4160V to 480V electrical substation to power the submersible pump installed into the 5600L bore hole.

5.4.3. No. 5 Shaft Electrical Systems

The power supply required for the No. 5 shaft ventilation fans will be routed from the Oro Hondo Substation at 12.5kV. The existing feeder breaker OH24 at the Oro Hondo substation will be used to energize the existing 12.5kV overhead 109 circuit from the Oro Hondo substation to the No. 5 Shaft 12KV Substation. Electrical contractors will install the 12.5kV underground cable from the No. 5 Shaft substation to a pad mounted 12.5kV to 480V transformer. The two new 150HP 480V exhaust fans will be powered from this transformer utilizing a pair of motor starters and disconnects. All items have been identified as available from warehouse stores. The GE metering and relaying unit currently on breaker OH24 can monitor the energy usage and report this to the SCADA system for monitoring and metering purposes.

Figure 5.9 – No. 5 Shaft Power Supply

5.4.4. Instrumentation and Controls

New fiber optic cable will be installed in the service compartment of the Ross Shaft, extending to 5000 L. The fiber optic cable, sufficient for future use for the EIP, will connect the programmable logic controllers (PLCs) at each pump station to the existing SCADA system. This will allow operation and monitoring of all pump stations and operational criteria from the surface

command center. Real time water level sensors will also be installed in the borehole at 5300 ft. to monitor water levels in the mine from the surface command center.

The GE metering and relaying unit servicing the No. 5 Shaft, currently on breaker OH24, can monitor the energy usage for the ventilation fans at No. 5 Shaft and report this to the SCADA system for monitoring and metering purposes.

5.4.5. Dewatering Control Point

Real time water level sensors to monitor and control the submersible pump will be installed in the borehole between 5000 L and 5600 L, with a water level control point set at 5300 ft. This local PLC will be connected to the upper four pumping levels and the existing SCADA system through the new fiber optic cable and Ethernet connections. This control system allows for automatic operation at each level, including the water level control point, with SCADA system override.

5.4.6. Communications

The new fiber optic system will be used for voice communication using VOIP/Ethernet, with the existing Leaky Feeder system being maintained for backup communications. The Leaky Feeder system is installed in the mine from the top to the bottom of all shafts for transportation communication. The Leaky Feeder system includes a telephone interface which provides for communications with any telephone on the surface.

5.5. Dewatering Equipment and Installation

The existing pumping system consists of two 700 HP Ingersoll HMTA pumps located on each pumping station level at 1250 L, 2450 L, 3650 L and 5000 L. Each pump is rated at 1750 gpm. Two identical and rebuilt Ingersoll HMTA pumps are currently in storage.

Upon re-entry to the Ross Shaft, both existing pumps and motors at 1250 L will be removed and one of the spare 700 HP pumps and one new 4160V motor and switchgear will be installed. The two 1250 L pumps that are removed will be sent promptly for rebuilding. Upon completion of installation of the rebuilt pump, new motors and electrics at 1250 L, test pumping of the 1250 L sump will begin.

Upon contractor arrival at 2450 L, the two existing pumps and motors at that level will be removed and the second spare 700 HP pump and one new 4160V motor and switchgear will be installed. One of the pumps removed from 2450 L will also be sent for inspection and possible rebuilding.

Upon receipt of the first two rebuilt pumps, these will be installed one each at 3650 L and 5000 L with new 4160V motors and switchgear. The remaining rebuilt pump will be kept in the warehouse as a spare. When completed there will be a total of five rebuilt pumps, with four installed and one spare.

As the contractor moves to each successive pump station and completes installation of pumps and motors, the sumps will be pumped to the upper level sumps, readying the entire pumping system for use. At 5000 L a submersible pump will be installed in the borehole alongside the No. 6 Winze, with access to 5600 L. This submersible pump will be set to hold water at 5300 ft., pumping to the 5000 L sump.

Prior to pumping at the 5300 ft. level a complete inspection and performance testing of the pumping system will be completed. This pumping system will be capable of pumping approximately 2000 gpm if required.

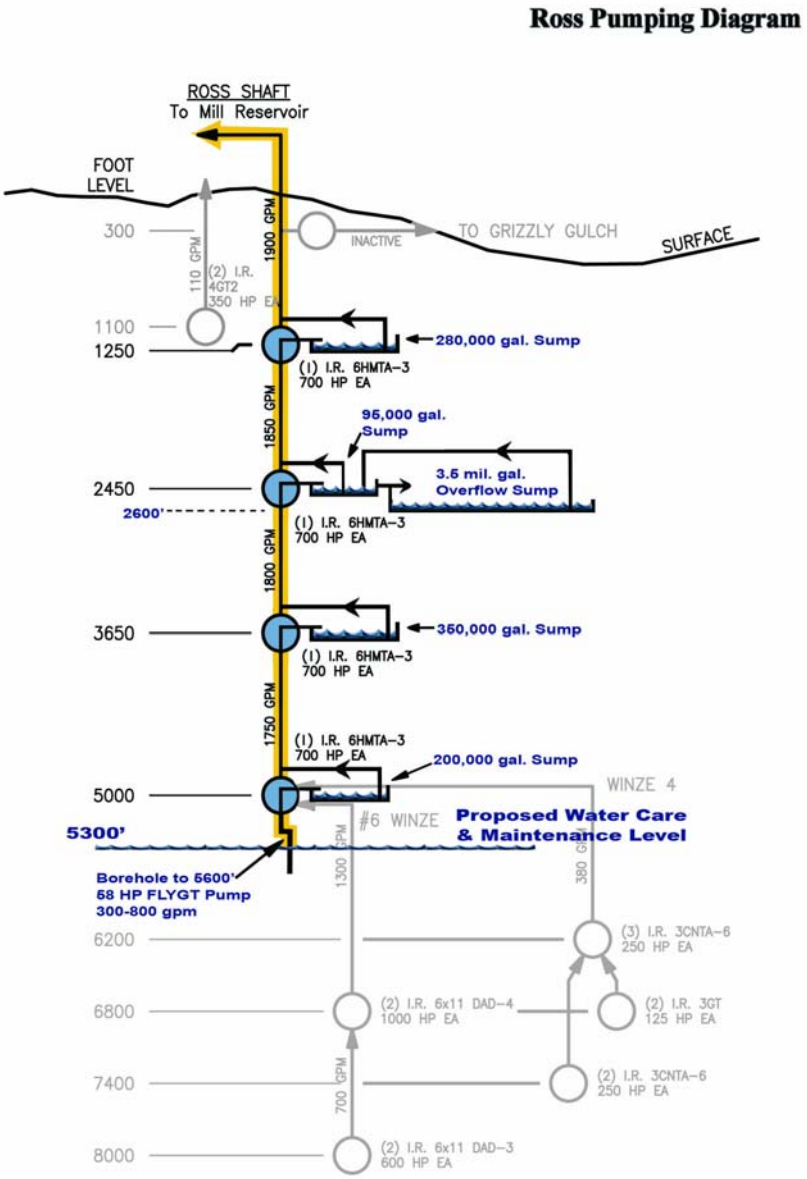


Figure 5.10 – Ross Pumping Diagram

The installation of redundant pumps and motors at each pumping station will be accomplished once an occupancy schedule of the mine is determined. In the event of a pump, motor or system failure, there is sufficient time to install a spare pump or motor prior to water elevations reaching a critical level.

5.5.1. Planning/Engineering

Project planning and engineering to develop the mine dewatering program has been provided by Authority staff, consultants with specialized knowledge of Homestake Mine operations and workings, consulting engineers, experienced underground contractors, and various equipment suppliers. The result of those efforts is embodied in this Homestake Re-Entry and Dewatering Program Plan. Additional detailed engineering, described in Section 5.1, will be initiated upon approval of this Plan by the Authority.

5.5.2. Equipment Procurement

Major equipment will consist of new 5kV electrical cable, four new 700 HP 4160v motors and starters for the pump stations, five rebuilt Ingersoll HMTA pumps, a 5/7MVA transformer, several submersible pumps, and an assortment of smaller electrical and mechanical parts and equipment. It is recommended that the Authority purchase this and other permanent equipment directly from suppliers and provide the equipment to the installation contractor, whether on the surface or underground, so as to realize considerable cost savings without contractor markup.

Procurement procedures and documents are being developed by the Authority to expedite ordering and receipt of equipment in order to maintain the program schedule.

5.5.3. Water Discharge Plan

Mine waters removed via the pumping program will be discharged to Gold Run Creek in accordance with the requirements of the discharge permit issued by the DENR. Discharge waters will be routed from the discharge piping exiting the Tramway level to the Mill Reservoir for

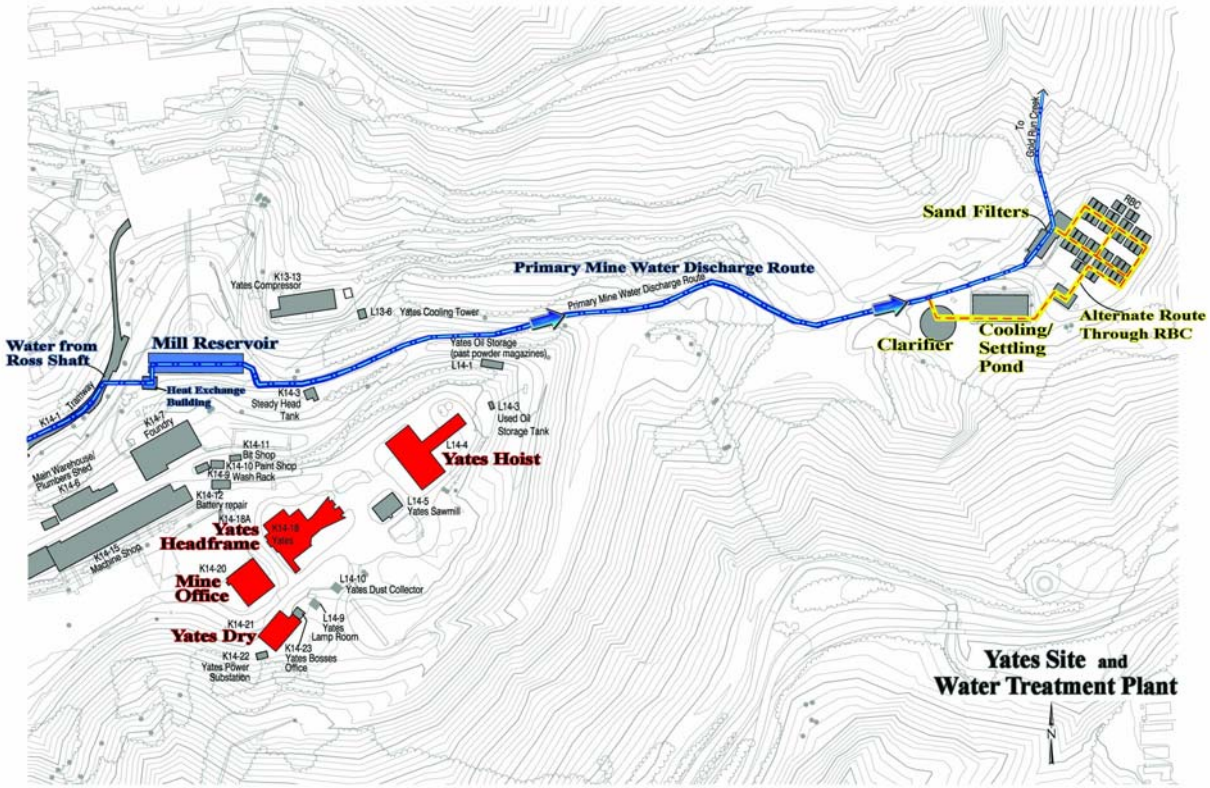


Figure 5.11 – Water Discharge Plan

storage and settling, and then to the Homestake Water Treatment Plant prior to discharge to Gold Run Creek.

5.5.3.1. Permit Requirements

Subject to sampling and analysis of the accumulated mine waters, it is anticipated that compliance with all permit requirements will be achieved without substantive treatment. With all waters routed through the Water Treatment Plant, using existing conveyances, and consistent with previous operations, treatment of discharge waters can be enhanced if required.

The Water Treatment Plant includes sand bed filters that may be used to reduce, if necessary, concentrations of Total Dissolved Solids (TDS) and other parameters to meet the requirements of the water discharge permit. The Rotating Biological Contactors (RBCs) are not anticipated to be needed for treatment of mine waters with the possible exception of using this circuit to facilitate further cooling of mine waters prior to discharge, should that be required.

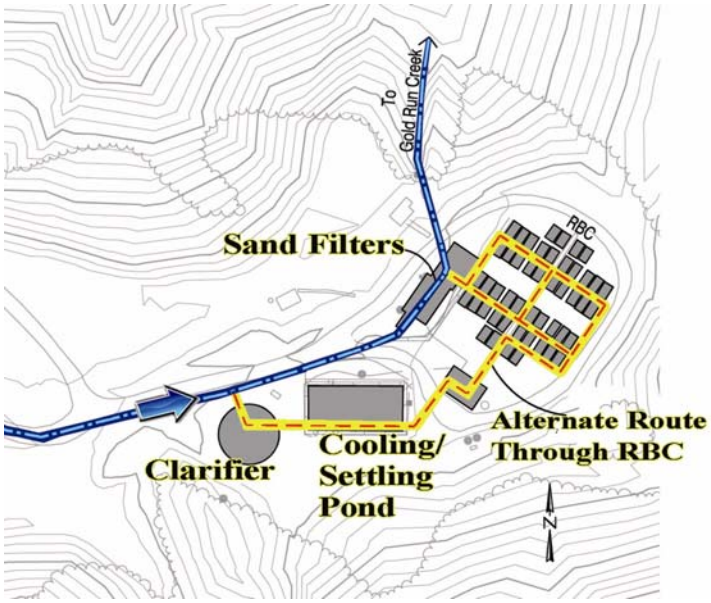


Figure 5.12 – Water Treatment Plant

5.5.3.2. Infrastructure Requirements

The waters pumped from the mine will be routed to the Water Treatment Plant using existing piping and conveyances, and subsequently discharged to Gold Run Creek in accordance with the water quality permit.

5.6. Surface Support

Preparations for surface and underground improvements described in this Homestake Re-Entry and Dewatering Plan will require execution of numerous supply, construction and consultant contracts, supported by Authority staff and special consultants. Working closely with each of the equipment suppliers and contractors, the Authority will manage the surface activities and improvements, facilitate contractor and equipment laydown and storage areas, provide for site, utility and underground access, and advise on site and underground conditions based on their knowledge and experience at the site.

It is anticipated that Authority staff will offset many otherwise contracted costs by developing equipment specifications, procuring equipment, parts and supplies, and coordinating delivery schedules with surface and underground contractor schedules.

5.6.1. Project Management Plan

A Project Management Plan will be developed with prescribed interim technical reviews and possible gate or hold points to provide opportunity for the various project teams and contractors to evaluate the work completed and planned, to verify that the work is coordinated and that all the interfaces among the various disciplines, contractors and subcontractors are under control, and help ensure that the appropriate safety and environmental issues are being addressed. These interim reviews can also provide check points to review progress with respect to budgets and schedules, preferably at the start of each major Task. Additional technical reviews for specific start-up operations or major decision points can also be included in the Project Management Plan.

5.6.2. Early Entry Science

Subject to SDSTA approval and compliance with the property donation agreement, the overall Homestake Re-Entry and Dewatering Plan would support the opportunity for the earth sciences to obtain data during re-entry into the mine. This may include, but is not limited to, microbiology including the gathering of water samples, geological sampling, air monitoring and sampling, and other sampling programs. These efforts would be coordinated with the overall Project Management Plan and Safety Plan to maintain the anticipated re-entry project timelines and safe working conditions through the sampling program.

5.7. Utilities

The primary utility cost during construction of the improvements as well as during operations will be electricity costs. The Authority has negotiated a favorable electric utility rate with the local supplier, Black Hills Power and Light. The re-entry and dewatering plan has been developed to minimize, to the extent practicable, the power and energy requirements of the equipment selected. The motors selected for the pumping system will operate at higher voltage, thus operate more economically than the existing pump motors. Several transformers have been eliminated thus reducing system energy losses, and programmable controllers will allow pump sequencing during off-peak periods, reducing energy costs.

6. RE-ENTRY AND DEWATERING SAFETY PLAN

The South Dakota Science and Technology Authority has developed the Integrated Safety Management System. The Safety Manual concludes that the fundamental basis to create and maintain a safe working environment is the application of well-engineered systems with appropriate administrative controls.

Mine safety priorities for the SDSTA and Homestake Mine include appropriate safeguards, emergency management plans, and security programs. This includes specific safeguards and safety management systems for which the scope will exceed normal standards and requirements for underground work typically associated with the mining industry. Laboratories, research instrumentation, materials, and activities will generate new issues for underground safety and will require careful attention to insure safe operations.

It is the policy of the South Dakota Science and Technology Authority that all employees and participating visitors conduct all activities in a manner fully consistent with all safety-related policies, procedures, regulations, standards, and best practices. All are required to be trained,

familiar with, and observant of relevant safety and environmental standards. Each individual has a personal responsibility for their own safety and for their co-workers.

SDSTA articulates this policy through an Integrated Safety Management Plan, included as Appendix B – Safety Manual.

7. RE-ENTRY AND DEWATERING SCHEDULE

A detailed Project Schedule has been developed for the Homestake Re-Entry and Dewatering Program Plan, with activities anticipated beginning in February 2007. Completion of Ross Hoist and Shaft Rehab, installation of electrical systems and pumping systems, and commissioning of the pumping system is anticipated to be complete in September 2007. Given the rate of water inflow and infiltration into the mine, all activities and timelines become critical until water is arrested at 5300 ft.

A detailed project schedule, formatted consistent with the organization of this report, is included as Appendix C – Project Schedule.

7.1. Planning/Engineering

Project planning and engineering was initiated January 2, 2007 to prepare the Homestake Re-Entry and Dewatering Program Plan. Detailed engineering will be initiated upon authorization by the Authority, estimated in early February 2007, and is scheduled for completion by mid-March 2007.

7.2. Equipment Procurement

Major equipment required for the execution of this Plan has been identified, with cost quotes and delivery schedules included in the Project Schedule. Procurement of major equipment items will be initiated upon authorization by the Authority, estimated in early February 2007. Procurement of equipment will proceed continuously throughout the Project Schedule based on availability, cost, and delivery schedule.

7.3. Safety Training

Safety training will be a continuous activity throughout the Project Schedule. All construction personnel will be required to comply with the requirements of the Safety Manual. The safety program at the site will require compliance with MSHA training requirements as a minimum. This will include MSHA training in underground life safety systems. All safety training will be conducted by the Authority and will be required to stay current.

7.4. Re-Entry/Implementation

The Project Schedule indicates that the Ross Shaft will be re-opened by the end of February 2007. Work will proceed down the Ross Shaft, reaching 4850 L by mid-August. With sequential installation of improvements during the decent, completion of all improvements in the Ross Shaft is expected to be completed and ready for system commissioning in early September 2007.

7.5. Operation/Maintenance

Operation and maintenance of all site improvements will be performed by the Authority or by contracted personnel under the direction of the Authority. Orientation and training on the new

equipment will be provided by contractors with assumption of responsibility by the Authority upon substantial completion of the improvements.

8. RE-ENTRY AND DEWATERING BUDGET ESTIMATE

A detailed budget estimate worksheet and supporting documentation, formatted consistent with the organization of this report, is included as Appendix A – Project Budget Estimate.

8.1. Authority Staffing Requirements

Significant improvements to the site will be accomplished under this Homestake Re-Entry and Dewatering Program Plan that will increase the need for management and operational personnel. At present, the Authority employs four full-time staff including an Executive Director, an Assistant to the Director, a Property Development Manager, and an Executive Assistant. Additional services are currently procured on a consultant or contractor basis with several former Homestake Mine employees currently serving as consultants in such critical areas as Safety, Electrical Systems, and Mechanical and Ventilation Systems.

During the execution of the Re-Entry and Dewatering Plan, the Authority will issue several contracts to equipment suppliers, contractors and consultants to affect the work. While many of these contracts will be short-term in nature, the functions that will be introduced to the Authority will be long term including operation and maintenance of the Ross Shaft and hoists, and operation and maintenance of the electrical and pumping systems and support systems. The Authority will take on additional responsibilities with the initiation of the Early Implementation Plan (EIP). For the EIP to succeed, all surface and underground systems must remain functional, safe, and well-maintained. For these long term needs it is recommended that additional staffing be added by the Authority.

A review of Authority responsibilities and functions indicate that the following 9 new full time equivalent positions are recommended. It is further recommended that the current position of Executive Assistant be expanded to include Finance and Accounting responsibilities including budget preparation and reporting, financial records management, and development of financial processes and procedures. A brief summary of the 9 new positions and their major responsibilities follow:

- Safety Director – Responsible for compliance with Safety Manual, Health and Safety Training, records management and Compliance Reporting
- Human Resources Director – Responsible for all Human Resources administration, records management, recruiting and retention of employees
- Project Administrator – Administer contractor and consultant procurement and bid processes, administer project budgets and reporting requirements, process contractor payment requests, close out project contracts, and records management
- Hoist Operator – Lead Operator for Service Hoist and Production Hoist
- Maintenance Technicians (2) – One electrical technician and one mechanical technician responsible for operation and maintenance of all Authority surface and underground facilities including electrical systems and dewatering systems, and conformance with preventative maintenance program.

- Water Treatment Plant Operator/Technician - Responsible for water treatment plant operations and maintenance, water sampling and analysis, records management, and permit compliance and reporting
- Shaftman – Responsible for maintenance and repair of Ross Shaft systems, guides, shaft sets, bulkheads, and underground site maintenance
- Laborer – Responsible for assisting other Authority staff in operation and maintenance of site facilities

Consideration should also be given to site Security needs and requirements, whether through direct employees or retained services of contract security personnel.

An organizational structure with reporting relationships, position classifications, and position descriptions will be prepared as the Plan proceeds. Costs associated with these recommended positions will be included in the Authority operating budget.

8.2. Source of Funds

Funds for development and implementation of the Re-Entry and Dewatering Program Plan will be drawn from the $10 million HUD Neighborhood Initiative Grant, approved by Congress in 2003. The environmental release date for this Neighborhood Initiative Grant (project number B-02-NI-SD-SD-005) is April 17, 2003. The Grant Agreement was signed by Governor Rounds on June 5, 2003. Therefore, costs incurred after June 5, 2003 are eligible for reimbursement, providing the costs were eligible per the Grant Agreement.

8.2.1. Availability

Grant funds for this program are available immediately upon notification to the State through the Governor's Office of Economic Development.

8.2.2. Eligible Costs

Grant eligible costs are defined by the Grant Agreement as those costs that "will be used for the State of South Dakota to maintain the physical integrity of the Homestake Mine in preparation for the potential development of a major research facility on that site." Capital and operating costs associated with preservation of the site, the re-entry and dewatering program planning, engineering, procurement, re-entry, dewatering, and ongoing system operation and maintenance are considered eligible costs under the terms of the grant, subject to compliance with applicable State and federal rules. The Grant Agreement is included as Appendix D to this report.

9. PROJECT TEAM

The project team responsible for development of this Homestake Re-Entry and Dewatering Program Plan is comprised of the following:

South Dakota Science and Technology Authority
- David W. Snyder, Executive Director
- Greg King, Homestake Property Manager
- Trudy Severson, Assistant to the Director
- Laurie Gehner, Executive Assistant

Short Elliott Hendrickson, Inc., Consulting Engineers
- Charles R. Michael, PE, Program Manager
- Clarence Kadrmas, PE, Director, Electrical Engineering

Jeffrey T. Davis, PE, Project Manager
Donald Lutch, PE, Senior Technical Specialist
Alec J. Boyce, Project Liaison
David Carlson, Community Development Director, HUD Programs

TSP, Inc.

Robert A. Morcom, PE, Project Manager

Dynatec Corporation

John D. Marrington, Vice President, Mining Services
Andrew MacKenzie, P.Eng., Manager, Engineering
Ron C. Skow, Area Manager
Gord Lundy, Project Estimator

Special Consultants:

Gary Lillehaug, Electrical Systems
John R. Marks, PE, Mechanical/Ventilation
Thomas F. Regan, Safety Director

Lawrence Berkeley National Laboratory

Kevin T. Lesko, Ph.D., Principal Investigation, Homestake DUSEL
Richard DiGennaro, Project Manager, Homestake DUSEL

APPENDICES

Appendix A: Project Budget Estimate
Appendix B: Safety Manual
Appendix C: Project Schedule
Appendix D: HUD Grant Agreement

Appendix A – Project Budget Estimate

Appendix B – Safety Manual

Integrated Safety Management System

The fundamental vision for Homestake DUSEL is every person going home safe and healthy every day.

The fundamental basis to create and maintain a safe working environment is the application of well-engineered systems with appropriate administrative controls. This is supplemented by active training programs to promote safety awareness and use of personnel protective equipment (PPE) to mitigate risk of injury.

Mine-safety priorities for the Homestake DUSEL include appropriate safeguards, emergency management plans, and security programs. This includes specific safeguards and safety management systems for which the scope will exceed normal standards and requirements for underground work typically associated with the mining industry. Laboratories, research instrumentation, materials, and activities will generate new issues for underground safety and will require careful attention to insure safe operations.

In addition to engineered systems and technologies for safeguards, organizational structures, administrative controls, and training will be tailored for both underground construction and research activities.

PRIORITIES

1. **People**
2. **Environment**
3. **Property**
4. **Science and Technology**

It is the policy of the South Dakota Science and Technology Authority that all employees and participating visitors conduct all activities in a manner fully consistent with all safety-related policies, procedures, regulations, standards, and best practices. All are required to be trained, familiar with, and observant of relevant safety and environmental standards. Each individual has a personal responsibility for their own safety and for their co-workers. SDSTA articulates this policy through an Integrated Safety Management Plan.

SDSTA safety system incorporates a proactive program to ensure the safest possible work place. This safety system includes the following primary elements:

- **Induction/Orientation Program:** Each newly hired employee is required to participate in an orientation that covers site safety rules and expectations for each worker.
- **Five Point Safety System:** The five-point safety system is employed on site. This is a common system used in the mining industry that forces employees to inspect their work place, ensure there are no hazards, ensure the travel way is free of obstructions, asks employees if they will work safely, and requests the person to perform a specific act of safety each day.
- **Accident/Incident Investigation:** It is essential that all incidents and/or accidents which result in, or have the potential to result in, employee injuries, illness, property and equipment damage, or loss to process be promptly reported by employees to their immediate supervisor. Site management will be well trained in accident/incident investigation and strive to ensure that investigations are done in a timely and efficient manner. All reports are reviewed by senior management with prevention in mind.
- **Communications - Weekly Group Safety Meetings:** In order to ensure effective communication of industry-related safety topics and to provide workers with an opportunity to directly participate in safety programs, weekly group safety meetings are required. Each supervisor is responsible for conducting at least one safety meeting per week.
- **Occupational Health & Safety Committees:** A Management/Employee Health & Safety Committee will be established. This committee will perform monthly work place inspections, identify hazards in the workplace and insure corrective actions have been taken.
- **Planned Inspection Program:** Management teams will ensure that every effort is taken to identify and correct any substandard practices and/or conditions that exist in a workplace through the implementation of a planned inspection program. Each supervisor is required to perform one inspection every two weeks. The Project Manager and Safety Superintendent perform one inspection per month.
- **Job Task Analysis & Procedures:** Management will ensure that all critical tasks on any project are identified and analyzed, and that job procedures are written and updated in a timely manner. These procedures are periodically reviewed with all crews at group safety meetings.
- **Job Observations:** A job observation is an action whereby a supervisor performs an observation of an employee performing a certain job task and documents the level of compliance to the specific job procedure. This is an effective tool in determining if an employee fully understands the various steps in performing a task. Each supervisor is required to perform at least one job observation every two weeks. The Project

Manager and Safety Superintendent also perform at least one job observation every two weeks.

- **System Engineering and Failsafe Design:** Prior to beginning a new, unusual or non-routine task, management will take every reasonable precaution to protect its workers and clients from the occurrence of accidents through the use of system engineering and failsafe design. This incorporates development of specific procedures to perform tasks that minimize the risk of injury to employees. These procedures are developed jointly with management and hourly employees.
- **Safety Audits and Program Measurement:** Safety program measurement is essential in achieving success in accident prevention on projects. Management conducts a minimum of one safety audit per project per year. The audit is performed by the Laboratory Safety Director and a team of impartial auditors who are selected to assist in the process.
- **Training and Education:** To ensure the health and safety of employees through the continuous process of safety and skill training, Management will provide all relevant training according to state and federal regulations as well as training required by site-specific internal standards. This shall include training in the following areas: First Aid & CPR, Common Core training for underground construction workers and supervisors, Ground Control and management training courses.

RESOURCES:

The SDSTA safety plan is an Integrated Safety Management system modeled on the successful systems developed at multidisciplinary laboratories and user facilities such as that employed at Lawrence Berkeley National Laboratory and at mines that demonstrate world class courageous leadership such as Barrick Gold Corporation and Homestake Mining Company. In addition, standards, regulations, and best practices include, but are not limited to:

- Mine Safety Health Administration, Department of Labor, USA.
- Occupational Safety Health Administration, Department of Labor, USA.
- Bureau of Reclamation, Department of Interior, USA.
- ANSI (Am. National Standards Inst.)/AIHA (Am.Industrial Hygiene Assn.) Z-2005 System
- Department of Energy and Natural Resources, South Dakota, USA.
- Environmental Protection Agency, USA.
- Department of Transportation, USA.
- International Building Code 2003
- International Mechanical Code 2003
- International Fire Code 2003
- National Fire Protection Association 2003 (including electrical codes)
- Americans with Disabilities Act (ADA) Standards for Accessible Design

Objectives for Integrated Safety Management

The objective of Integrated Safety Management (ISM) is to implement safe practice as a core value and integral part of DUSEL mission accomplishment. ISM seeks to implement and integrate all applicable safety policies and procedures that ensure protection of workers, visitors and guests, the public, and the environment. The ISM program encompasses all aspects of environment, health and safety with the primary goal of making EH&S protection an inherent part of all activities associated with the development and operation of Homestake DUSEL, thereby creating and maintaining a work environment that is free of work-related accidents, injuries, illnesses, or environmental releases.

Standards and Expectations for ISM

Safety regulatory agencies for mining industries (MSHA) and other industries (OSHA) have well defined codes and standards which establish policies, procedures, reporting, inspections, duties, training, rules, equipment, controls, prevention, requirements, citations, penalties, etc. Federal legislation generally requires that employers, contractors, employees, and guests comply with applicable codes and standards which are intended to protect the health and safety of each worker. Homestake DUSEL Management is thus obligated to understand and implement relevant and applicable safety programs in compliance with minimum legal standards.

However, it is the goal of Homestake DUSEL to develop and implement an Integrated Safety Management program which may **far exceed minimum legal standards** for EH&S. It is a reasonable expectation that Homestake DUSEL should become a model not only for excellence in performance for scientific and technical research but also in performance for protecting the environment and worker health and safety. Making safety a core value for the laboratory through ISM is our primary approach to meet this expectation.

ISM will provide a means to develop the maturity of our safety capabilities and performance. In the terminology of safety professionals, the institutional maturity for safety as a core value may be defined by the following six levels. ISM is a process to **continually** improve and maintain the highest level of maturity:

- Level 6 Maturity: Incidents **don't happen** because safety is no less important than breakthrough scientific apparatus or cutting-edge scientific discovery.
- Level 5 Maturity: All of Level 4, **and** built-in, systemic safety measures that drive **sustainable and continuous improvement**.
- Level 4 Maturity: All of Level 3, **and** people believe safety is critical to organizational survival. Safe decisions and behaviors begin to happen **"without having to think about it."**
- Level 3 Maturity: All of Level 2, **and** employee accountability and ownership. The focus is more on **what gets done safely**, rather than on responding to accidents that already happened.

- Level 2 Maturity: All of Level 1, **and** regular job safety analysis, training, and "near-miss" reporting.
- Level 1 Maturity: **Reactive;** compliance programs; investigations.

Responsibility, Authority, Implementation, and Enforcement of the ISM

All management personnel are expected to provide visible, felt, courageous leadership. Safety training for management, maintenance, contractors, visitors, vendors, and students will be provided as a prime objective of the ISM. This training will be flexible and adaptive including initial site specific and hazard training, task training as needed, and refresher training.

The Homestake DUSEL **Laboratory Director** is responsible to provide visible leadership and the resources necessary to implement ISM systematically. The Laboratory Director is responsible to ensure that the tools and mechanisms described in the ISM Plan are implemented efficiently and effectively.

Homestake DUSEL **Managers** for programs, projects, and supporting organizations will assure that the Supervisors within their line of management understand and effectively meet all safety-related expectations. Periodically, each Manager will provide evidence to the Laboratory Director of effective implementation of the ISM Plan for all operations under his/her purview.

Within each program or project, a designated **Safety Coordinator** facilitates relevant safety initiatives to enable the effective and efficient execution of ISM by Managers and Supervisors. This includes oversight of the project self-assessment program, including formal documentation of safety deficiencies and corrective actions, validation of formal authorizations and waste management programs, helping line supervisors or managers to facilitate accident reviews, identifying safety training needs, auditing for compliance training requirements, and facilitating communications about safety. The Safety Coordinator ensures that personnel who perform self-assessments have the experience, knowledge, skills, and abilities necessary to discharge their responsibilities while conducting a self-assessment. The coordinator may also provide liaison with EH&S subject-matter experts as needed by managers and line supervisors to meet their safety obligations.

For each program or project, the designated **EH&S Safety Liaison** is the individual with professional safety expertise assigned from the EH&S Department to support program or project staff as a technical resource. The EH&S Liaison provides professional expertise and safety-related guidance directly to employees, line supervisors, the Safety Coordinator, and Managers. With the Safety Coordinator, the EH&S Safety Liaison helps line supervisors assure that ISM is systematically and effectively implemented.

Homestake DUSEL **employees, subcontractors, visitors, students, and guests** are expected to work and participate in a safe manner, know and understand relevant EH&S requirements – and all other laboratory requirements – that apply to their duties and activities. Employees have a responsibility to stop work when any question or concern

about safety or environmental impact arises. As a condition of employment, every employee, subcontractor, visiting staff, student, or other person performing work at the laboratory will be familiar with and implement all applicable laboratory safety standards. This responsibility includes taking the initiative to consult with the EH&S Safety Liaison, Safety Coordinator, and/or line supervisor when assistance or advice is needed to carry out operations safely.

Ultimately, **each individual** is responsible for his or her own personal safety. Each person must use safe work practices, use proper personnel protective equipment, and frequently use self-inspection to promote safety awareness, attitudes and actions.

Qualification and Training

Line supervisors determine the requisite qualifications for all their employees, subcontractors, students, guests, and visitors to function safely, and document that these individuals possess the skills and qualifications necessary to work and participate safely.

Qualifications include skills, demonstrated work experience, knowledge, training, and certifications required by law, by regulatory agencies, or by laboratory policy. Line supervisors maintain up-to-date and complete position descriptions and job expectations for this purpose. Line supervisors review and document training requirements as job and task assignments change and as part of the annual performance review process.

Resource Allocation

Line supervisors and managers will incorporate appropriate resource allocations for EH&S-related activities into all budget and work-scope planning, including costs of safety equipment, training, maintenance, waste disposal, permits, and facility or equipment modifications, unless these costs are covered by institutional or other funding sources.

ISM Models, Principles, and Tools

The model for ISM incorporates five Core Functions and seven Guiding Principles:

ISM Core Functions

- Define the scope of work. Missions are translated into work, expectations are set, tasks are identified and prioritized, and resources are allocated.
- Identify, analyze, and categorize the hazards associated with the work.
- Develop and implement hazard controls. Applicable standards and requirements are identified and agreed-upon, controls to prevent or mitigate hazards are identified, the safety envelope is established, and controls are implemented.
- Perform the work within controls. Readiness is confirmed and work is performed safely.
- Provide feedback and continuous improvement. Information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted, and, if necessary, regulatory enforcement actions occur.

ISM Guiding Principles

- Line management shall be responsible for protection of the public, the workers, and the environment.
- Clear roles and responsibilities with unambiguous lines of authority shall be defined
- Personnel shall possess the experience, knowledge, skills and abilities that are necessary to discharge their responsibilities.
- Implement balanced priorities. Resources shall be effectively allocated to address safety, programmatic, and operational considerations. Protecting the public, workers, and environment shall be a priority whenever activities are planned and performed.
- Identify relevant safety standards and requirements. Before work is performed, any associated hazards shall be evaluated and an agreed-upon set of safety standards and requirements shall be established which, if properly implemented, will provide adequate assurance that the public, workers and environment are protected from adverse consequences.
- Administrative and engineering controls to prevent and mitigate hazards shall be tailored to the work being performed and associated hazards.
- The conditions and requirements to be satisfied for operations to be initiated and conducted shall be clearly established and agreed-upon.

The ISM for Homestake DUSEL will incorporate site-specific, tailored processes and tools that incorporate best-practice and best-principles for this work environment and program activities.

Special Safety Teams

South Dakota Science and Technology Authority and Homestake DUSEL will maintain an MSHA-rated mine rescue team that is immediately available in compliance with MSHA standards and training for HAZMAT emergency response. Availability of a back-up, second mine rescue team will be established and called into service should that be required. Logistical contacts will be maintained for existing HAZMAT teams in Rapid City, Sioux Falls, and Gillette, WY. Nearby Ellsworth Air Force Base also maintains several specialty crews, which are proficient with certain hazardous material spills.

Inspection, MSHA/OSHA Jurisdiction and Regulatory Process

Prior to the transfer to the Authority, safety management programs at the Homestake site complied with MSHA codes and standards. The regulatory oversight includes OSHA and MSHA jurisdiction with established Memorandas of Understanding between both agencies.

SUMMARY:

The ISM Plan will include responsibilities, oversight, and enforcement of polices and procedures for life cycle activities, risks, and costs.

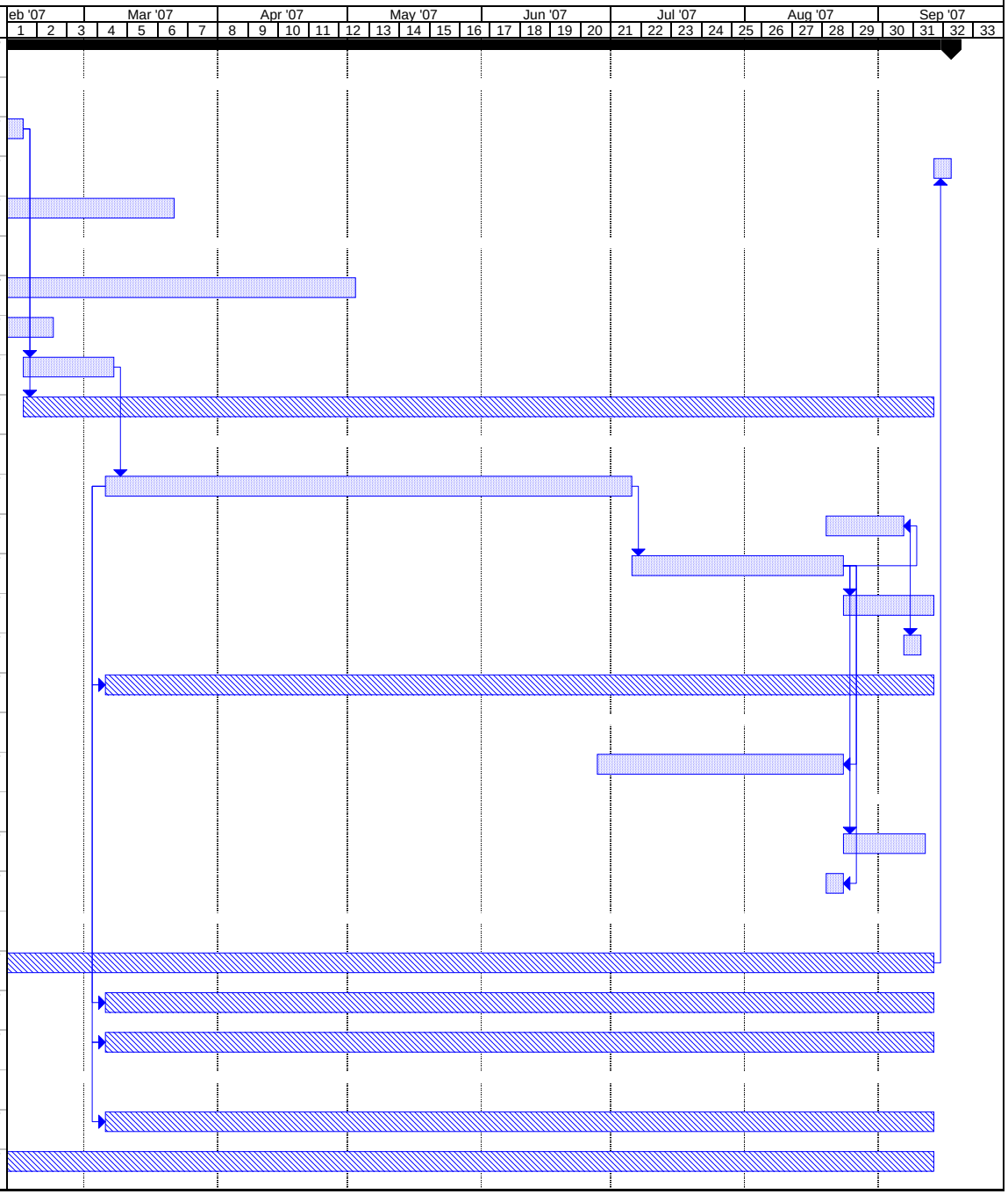
Appendix C – Project Schedule

Dynatec Corporation

Homestake
Re-Entry and Dewatering Plan

E-843

ID	Task Name	Duration	Start	Finish
1	**Project Duration**	**158 days**	**Feb 08 '07**	**Sep 17 '07**
2	**Mob / Demob / Engineering**			
3	Mobilization	5 days	Feb 08 '07	Feb 14 '07
4	Demobilization	2 days	Sep 14 '07	Sep 17 '07
5	Detailed Engineering	30 days	Feb 08 '07	Mar 21 '07
6	**Surface Equipment, Surface Tasks**			
7	Re-establish Power - Site	60 days	Feb 08 '07	May 02 '07
8	Water Treatment Facility	10 days	Feb 08 '07	Feb 21 '07
9	Re-Commission Hoist	15 days	Feb 15 '07	Mar 07 '07
10	Surface Equipment	151 days	Feb 15 '07	Sep 13 '07
11	**Ross Shaft Rehabilitation**			
12	Opening up Ross	88 days	Mar 06 '07	Jul 05 '07
13	Vent. Bulkheads	14 days	Aug 20 '07	Sep 06 '07
14	Re-Hab Ross Shaft	35 days	Jul 06 '07	Aug 23 '07
15	Re-Hab.4850L(Ross To #6)	15 days	Aug 24 '07	Sep 13 '07
16	Dewater Bulkheads	2 days	Sep 07 '07	Sep 10 '07
17	Undergound Equip	138 days	Mar 06 '07	Sep 13 '07
18	**Electrical**			
19	Electrics - Ross Shft	41 days	Jun 28 '07	Aug 23 '07
20	**Dewatering Equipment and Installa**			
21	Install Shaft Pumps	13 days	Aug 24 '07	Sep 11 '07
22	Shaft Services- Ross Shft	4 days	Aug 20 '07	Aug 23 '07
23	**Surface Support**			
24	Admin. & Supervision (On Site)	156 days	Feb 08 '07	Sep 13 '07
25	Maint. Labour-(Surface & U/G)	138 days	Mar 06 '07	Sep 13 '07
26	Shaft Operating & Maint.	138 days	Mar 06 '07	Sep 13 '07
27	**Utilities**			
28	Mine Power	138 days	Mar 06 '07	Sep 13 '07
29	Non Power Utilities	156 days	Feb 08 '07	Sep 13 '07



Appendix D – HUD Grant Agreement

Assistance Award/Amendment

U.S. Department of Housing and Urban Development
Office of Administration

1. Assistance Instrument: ☐ Cooperative Agreement ☒ Grant	2. Type of Action: ☒ Award ☐ Amendment
3. Instrument Number: B-02-NI-SD-SD 0005	4. Amendment Number:
5. Effective Date of this Action:	6. Control Number:
State of South Dakota Office of the Governor 800 East Capitol Avenue Pierre, SD 57501 TIN: 46-6000364	8. HUD Administering Office 8a. Name of Administrator: 8b. Telephone Number:
10. Recipient Project Manager: Steve Harding (605) 773-5032	9. HUD Government Technical Representative: Herbert Mallette (202) 708-1686 ext. 4885
11. Assistance Arrangement: ☐ Cost Reimbursement ☐ Cost Sharing ☒ Fixed Price 12. Payment Method: ☐ Treasury Check Reimbursement ☐ Advance Check ☒ Automated Clearinghouse	13. HUD Payment Office: Chief Finance Officer
14. Assistance Amount	15. HUD Accounting and Appropriation Data
Previous HUD Amount: $ 0	15a. Appropriation Number: 86240162 FY 2002 15b. Reservation number: EID-02
HUD Amount this action: $10,000,000.00	Amount Previously Obligated: $ 0
Total HUD Amount: $10,000,000.00	Obligation by this action: $10,000,000.00
Recipient Amount: $ 0	Total Obligation: $10,000,000.00
Total Instrument Amount: $10,000,000.00	

Description

This Neighborhood Initiative Grant will be used for the State of South Dakota to maintain the phisical integrity of the Homestake Mine in preparation for the potential development of a major research facility on that site.

This award consists of the following items which are appended to and hereby made part of this Award:

(A) Cover Page- HUD Form 1044

(B) Grant Agreement

SPECIAL CONDITIONS:

Please contact Howard Kutzer, Senior Environmental Officer, HUD-Colorado State Office, Denver, Colorado telephone number (303) 672-5285 extension 1327 concerning the environmental review. **NO FUNDS** may be drawn down prior to environmental release of funds approval.

17. ☒ Recipient is required to sign and return three (3) copies of this document to the HUD Administering Office	18. ☐ Recipient is not required to sign this document.
19. Recipient (By Name): Michael Rounds	20. HUD (By name): Donald P. Mains
Signature & Title: Governor Date (mm/dd/yyyy): 06/05/2003	Signature & Title: Deputy Assistant Secretary for Economic Development Date (mm/dd/yyyy): 6/30/03

form HUD-1044 (8/90)

NEIGHBORHOOD INITIATIVE PROJECT NO. B-02-NI-SD-SD-0005

GRANT AGREEMENT

This Grant Agreement between the Department of Housing and Urban Development ("HUD") and the State of South Dakota (the "Grantee") is made pursuant to the authority of Title 1 of the VA-HUD-Independent Agencies Appropriations Act for FY 2002 (PL 107-73). The Grantee's application package, as may be amended by the provisions of this Grant Agreement, is hereby incorporated into this Agreement.

In reliance upon and in consideration of the mutual representations and obligations hereunder, HUD and the Grantee agree as follows:

Subject to the provisions of the Grant Agreement, HUD will make grant funds in the amount of $10,000,000.00 available to the Grantee.

The Grantee agrees to abide by the following:

ARTICLE I. HUD Requirements.

The Grantee agrees to comply with the following requirements for which HUD has enforcement responsibility.

A. The grant funds will only be used for activities described in the application, which is incorporated by reference and made part of this agreement as may be modified by Article VII (A) of this Grant Agreement.

B. EQUAL OPPORTUNITY REQUIREMENTS
The grant funds must be made available in accordance with the following:

1. For projects involving housing, the requirements of the Fair Housing Act (42 U.S.C. 3601-20) and implementing regulations at 24 CFR Part 100; Executive Order 11063 (Equal Opportunity in Housing) and implementing regulations at 24 CFR Part 107.

2. The requirements of title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) (Nondiscrimination in Federally Assisted Programs) and implementing regulations issued at 24 CFR Part 1.

3. The prohibitions against discrimination on the basis of age under the Age Discrimination Act of 1975 (42 U.S.C. 6101-07) and implementing regulations at 24 CFR Part 146, and the prohibitions against discrimination against handicapped individuals under section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and implementing regulations at 24 CFR Part 8.

4. The requirements of 24 CFR 5.105(a) regarding equal opportunity as well as the requirements of Executive Order 11246 (Equal Employment Opportunity) and the implementing regulations issued at 41 CFR Chapter 60.

5. For those grants funding construction covered by 24 CFR 135, the requirements of section 3 of the Housing and Urban Development Act of 1968, (12 U.S.C. 1701u) which requires that economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, be given to low- and very low-income persons and to businesses that provide economic opportunities for these persons.

6. The requirements of Executive Orders 11625 and 12432 (concerning Minority Business Enterprise), and 12138 (concerning Women's Business Enterprise). Consistent with HUD's responsibilities under these Orders, the Grantee must make efforts to encourage the use of minority and women's business enterprises in connection with grant funded activities. 24 CFR Part 85.36(e) describes actions to be taken by the Grantee to assure that minority business enterprises and women business enterprises are used when possible in the procurement of property and services.

7. Grantee where applicable shall maintain records of its efforts to comply with requirements cited in Paragraphs 5 and 6 above.

C. Any requirements that may be imposed by HUD subject to the National Environmental Policy Act or other legislation implemented by 24 CFR Part 50. HUD regulatory requirements on toxic chemical, noise, and airport clear zones also apply.

D. Administrative requirements of OMB Circular A-133 "Audits of States, Local governments, and Non-Profit Organizations".

E. For State and Local Governments, the Administrative requirements of 24 CFR Part 85, including the procurement requirements of 24 CFR Part 85.36, and the requirements of OMB Circular A-87 regarding Cost Principles for State and Local Governments.

F. The regulations at 24 CFR Part 87, related to lobbying, including the requirement that the Grantee obtain certifications and disclosures from all covered persons.

G. Restrictions on participation by ineligible, debarred or suspended persons or entities as described in Executive Order 12549 and at CFR 24 Part 5.105(c).

H. The Uniform Relocation Act as implemented by regulations at 49 CFR Part 24

ARTICLE II. Conditions Precedent to Draw-down.

The Grantee may not draw down grant funds until the following actions have taken place:

A. The Grantee has received and approved any certifications and disclosures required by 24 CFR 87.100 concerning lobbying and by 24 CFR 24.510(b) regarding ineligibility, suspension and debarment.

ARTICLE III. Draw-downs.

A. A request by the Grantee to draw down grant funds under the Letter of Credit Control System (LOCCS) or any other payment system constitutes a representation by the Grantee that it and all participating parties are complying with the terms of this Grant Agreement.

B. The Grantee will be paid on an advance basis provided that the Grantee minimizes the time elapsing between transfer of the grant funds and disbursement for project purposes and otherwise follows the requirements of 24 CFR Part 85 and Treasury Circular 1075 (31 CFR Part 205).

ARTICLE IV. Progress Reports.

The Grantee shall submit a progress report every six months after the effective date of the grant agreement. Progress reports shall include reports on both performance and financial progress and shall conform with 24 CFR 85.40 and 85.41 or 24 CFR Sections 84.50 through 84.53, as applicable. Additional information required or increased frequency of reporting as may be described in Article VIII(C).

A. The performance reports must contain the information required under 24 CFR Part 85.40(b) (2) or 24 CFR Part 84.51(a), as applicable including a comparison of actual accomplishment to the objectives indicated in the approved application, the reasons for slippage if established objectives were not met, and additional pertinent information including explanation of significant cost overruns.

B. Financial reports shall be submitted on Standard Form 269A.

C. No grant payments will be approved for projects with overdue progress reports.

ARTICLE V. Project Close-out.

A. The Grantee shall initiate project closeout within 30 days of project completion. At HUD's option, the Grantee may delay initiation of project close-out until the resolution of any HUD monitoring findings. If HUD exercises this option the Grantee must promptly resolve the issues raised in the findings.

B. The Grantee recognizes that the Close-out process may entail a review by HUD to determine compliance with the Grant Agreement by the Grantee and all participating parties. The Grantee agrees to cooperate with any review in any way possible, including making available records requested by HUD and the project for on-site HUD inspection.

C. Within 90 days of HUD approval to initiate closeout, the Grantee shall provide to HUD the following, in the format(s) approved by HUD:

1. A certification of project completion.

2. A certification of compliance with all requirements of the Grant Agreement.

3. A report giving: the amount and types of project costs charged to the grant (that meet the allowability and allocability requirements of OMB Circular A-122 or A-87 as applicable, including the "necessary and reasonable" standard); a certification of the costs; and the amounts and sources of other project funds.

4. A final performance report providing a comparison of actual accomplishment with each of the project commitments and objectives indicated in the approved application, the reasons for slippage if established objectives were not met and additional pertinent information including explanation of significant cost overruns.

D. The Grantee agrees that the grant funds are allowable only to the extent that the project costs, meeting the standard of OMB Circular A-122, A-87, or A-21 as applicable, equal the grant amount plus other sources of project funds provided.

E. At closeout, the Grantee shall provide a performance report, which includes a comparison of the actual accomplishment to the original scope of work.

F. When HUD has determined that the grant funds are allowable, the activity was completed as described by the Grant Agreements, and all Federal requirements were satisfied, HUD and the Grantee will sign the Close-out Agreement.

G. The Close-out Agreement will include the Grantee's Agreement to abide by any continuing federal requirements.

ARTICLE VI. Default.

A default under this Grant Agreement shall consist of using grant funds for a purpose other than as authorized by this Agreement, any noncompliance with legislative, regulatory, or other requirements applicable to the Agreement, any other material breach of this Agreement, or any material misrepresentation in the application submissions.

ARTICLE VII. Additional Provisions.

A. Clarification to the Application Related to Participating Parties:

B. Special Conditions: U.S. Treasury draw-down requirements provide that grant funds may not be drawn down in advance of need for a grant purpose. The payment standards and methods are set forth at 24 CFR 85.21. Paragraph (C) provides that grantees will be paid in advance (rather than by reimbursement), provided they maintain or demonstrate the willingness and ability to maintain procedures to minimize the time elapsing between the transfer of the funds and their disbursement by the grantee.

C. HUD is responsible for the environmental review of activities assisted under this grant, pursuant to 24 CFR Part 50. The Grantee shall submit to the HUD-field environmental officer copies of each semi-annual report, to assist that officer in monitoring environmental aspects of the project.

IN WITNESS WHEREOF, the parties have caused this AGREEMENT to be executed as of the day and year first written above.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	STATE OF SOUTH DAKOTA
By: _____	By: _____
Title: Grant Officer	Title: Governor
Date: 6/25/03	Date: June 5, 2003