Appendix G
Water Management
Reclamation Cost Estimate

Chino Mine Closure/Closeout Plan Update

Water Management and Treatment Plan

Freeport-McMoRan Chino Mines Company

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1.0 SUMMARY

This Freeport-McMoRan Chino Mines Company (Chino) water management and treatment plan describes the cost basis for the updated post-closure mine water management and treatment system for the Chino Closure Closeout Plan (CCP). This water management and treatment plan was developed in accordance with Section 20.6.7.33H NMAC and previous agreements related to Chino water treatment. The plan provides a conceptual-level engineering document that describes the processes and methods that will be used at Chino for long-term management and treatment of process water. The plan includes a description of each water management and water treatment system throughout the post-closure period. The plan describes the proposed water management and water treatment systems in detail, including locations of key components and the basis for which capital, operational, and maintenance costs will be prepared for financial assurance.

The water management and treatment plan is based on current post-mining water management, water treatment flow rates, and updated mine plans. This update will support financial assurance cost estimates for closure/closeout based on the end of year (EOY) 2030 mine plan. This water management plan will eliminate projected process water inventory over a five-year time frame through evaporation in the existing drip stockpile leach circuits while an enhanced evaporation system and water treatment plant (WTP) is constructed. High total dissolved solids (TDS) water will continue to evaporate during the remainder of the 100-year post-closure period and low TDS water will be treated through an ultrafiltration (UF) and reverse osmosis (RO) system.

Upon approval of this water management and treatment plan (scope of work), costs for capital, operations, and maintenance will be developed using this document as a basis.

2.0 INTRODUCTION

Chino operates an open-pit copper mine, concentrator, and solution extraction-electrowinning (SX/EW) plant located approximately 10 miles east of Silver City in Grant County, New Mexico (Figure 1). For the purposes of the CCP update, the Chino Mine is separated into two geographical areas, the North Mine Area (NMA, Figure 2) and the South Mine Area (SMA, Figure 3). The principal mine facilities and main mine components within each of these two areas at Chino are as follows:

- The NMA includes the Santa Rita Open Pit, waste rock and reclamation cover material (RCM) stockpiles, leach ore stockpiles, maintenance facilities, SX/EW Plant, and the Ivanhoe Concentrator.
- The SMA includes the Area from the reclaimed Lake One to the active Tailing Pond 7. Other facilities in this area include the tailing and decant return pipelines, the filter plant, Axiflo Lake, additional associated infrastructure, and other reclaimed tailing storage facilities.

The associated water management system includes wells, tanks, pipelines, pumps, and process water ponds and impoundments. The ancillary infrastructure includes roads, fuel storage tanks, power lines, and stormwater controls.

3.0 Historical Climate Data

The Chino Mine is in a semiarid region in southwestern New Mexico, with elevations ranging from about 5,200 to 7,700 feet above mean sea level. The climate at Chino is categorized as warm and dry, with a mean annual temperature near 55.4°F (13°C) and precipitation of 15.75 inches (400 mm). Fort Bayard weather station data from the past 100 years was used to determine these climatic conditions.

Evaporative demand in this region is high, and annual evaporation far exceeds annual precipitation. The average annual pan evaporation rate is estimated at 89.40 inches for the North Mine Area (NMA) as measured at former Reservoir 3A. Using a pan coefficient of 0.7 relative to the annual pan evaporation rate to approximate evaporation losses from free water surfaces, an evaporation rate of 62.58 inches per year is used in this water treatment and management plan.

4.0 ESTIMATED VOLUMES OF PROCESS SOLUTIONS AND OTHER SOURCES

4.1 Process Water Inventory

Chino has been maintaining a water balance model in GoldSim for many years. All estimated water volumes come directly from the model and are extrapolated forward to EOY 0 from actual data collected at the mine (Table 1). The stored process waters are separated into the NMA and SMA due to geographical location and for clarity in how they are eliminated in years 1-5.

4.2 Quantity of Water in North Mine Area

The estimated volume of process solutions within the surface impoundments, overflow ponds, tanks, and pit lakes requiring elimination at the cessation of operations are approximated according to the following methodology:

- Estrella Pit, East Pit, Reservoirs 2a, and Reservoir 17 along with all sumps within the circuit are held constant at 60% of their total capacity
- All other reservoirs are held at a volume with enough remaining capacity to receive inflow from a 100-year rainfall event
- All raffinate tank volumes are estimated at 80% based on historical usage
- The tailings thickeners and all remaining tanks are maintained at the maximum allowed volume
- The SX Feed Pond is estimated at 90% of capacity and the SX Raffinate tank is estimated at 80% of capacity based on the GoldSim model water balance
- The SX Raffinate pond is estimated at 100% capacity to support the SX/EW production plan
- The east headwall impoundment and all east Lampbright sumps are maintained at 60% of their total capacity based on the GoldSim model
- Lampbright PLS tanks are maintained at 50%, consistent with historical operations
- The volume of water contained within the South stockpile and the Lampbright stockpiles is calculated within the GoldSim model, based upon current mining schedules
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4.3 Quantity of Water in the South Mine Area

The estimated volume in Tailings Pond 7 from collection of groundwater from local interceptor wells and the Continental Mine are based on Q1 2024 mine forecasting and can be found in Table 1.

4.4 Estimated Quantity of Additional Water Sources

In addition to the process solution requiring elimination in the previous section, runoff, seepage, and interceptor flows will also need to be evaporated or treated depending on the year post-closure. The following subsections outline these additional flows and how they were estimated (Table 2).

4.4.1 *Runoff*

The estimated volume of runoff for waste rock stockpiles, the Santa Rita Pit, and runoff collecting facilities is calculated according to the following methodology:

- Using the average annual precipitation of 15.75 inches per year, runoff volumes were calculated using the SCS curve number method (CN). A conservative curve number of 90

resulted in an average runoff volume of 3.77 inches per year for the facilities and the Santa Rita Pit. A curve number of 86 was used for the waste rock stockpiles resulting in an average runoff of 2.47 inches per year.

- Runoff from the facilities will be reduced based on reclaimed acres until reclamation is complete and the surface flows are directed offsite.
- Runoff from waste rock stockpiles is reduced as acreage is reclaimed until the flow reaches zero at the time of complete reclamation. Perpetual flows, post reclamation, will be considered as seepage and are addressed in the following section.
- Runoff volumes were calculated for the following areas with other mine-related disturbance acreage, such as roads, added to the facility or pit that they flow into:
    - West Side of the West Waste Rock Stockpile
    - 3A Waste Rock Stockpile
    - Northeast Waste Rock Stockpile
    - Southwest Lampbright Waste Rock Stockpile
    - Kessel Waste Rock Stockpile
    - Santa Rita Pit
    - Ivanhoe Concentrator Area
    - Chino Offices and Shops Area
    - SX/EW Area

4.4.2 *Seepage*

The estimated volume of seepage for stockpiles is calculated with the following methodology:

- Prior to reclamation, estimated seepage on the leach stockpiles is calculated with the same CN of 90 and estimated by subtracting the average runoff volume from the average annual precipitation. The calculated average seepage volume is 11.98 inches per year.
- Seepage volume from the leach stockpiles decreases with time based on a drawdown curve that reflects the total volume of process waters in the stockpile after evaporation of the inventory of process water is complete. See Table 2, light purple cells.
- Perpetual seepage from both waste rock and leached stockpiles is reduced to 2% of the annual rainfall over the reclaimed acreage.
- Seepage flow rates are applied to the areas of the mine that are being leached and waste rock piles that have been reclaimed, these areas include the following:
    - East Side of the West Stockpile
    - South Stockpile
    - North, Main and South Lampbright Stockpiles
    - All waste rock piles bulleted in Section 4.4.1

4.4.3 *North Mine Interceptor Wells*

The Princess shaft, Oswaldo shaft, Lampbright interceptor well along with two other pumping locations (to be determined) will be used as interceptor wells in the NMA. These wells will capture

low TDS groundwater before it enters the Santa Rita pit. Inflow from these NMA Interceptor Wells is estimated as a perpetual flow of 377-gallons per minute (gpm) for the entirety of the 100-year period of consideration.

4.4.4 *Continental Mine*

Groundwater currently pumped to the Chino Mill circuit from the Continental Mine is from the long-term drain down of the Main Tailings Impoundment. The Continental Mine flow starts at approximately 120 gpm at beginning of reclamation and ceases at EOY 62. (Table 2). Continental Mine inflows are based on a Continental Mine closure/closeout plan update.

4.4.5 *Tailings Pond 7 Interceptor Wells*

The Tailings Pond 7 interceptor well field currently pumps groundwater to Tailings Pond 7 for evaporation. Once mining operations cease, evaporation will continue in Tailings Pond 7 until the water treatment system is operational. An estimated flow of 1,890 gpm at beginning of reclamation, based on current operational data, is expected with an approximate decline of 5% per year until a steady state of 525 gpm is reached at EOY 26 (Golder 2007, DP-1340 Condition 83 Hydrology Study), Table 2.

5.0 WATER QUALITY

The water quality of the process waters is estimated to be the same as that which is currently collected from the individual sources. Table 3 lists the sulfate and total dissolved solids (TDS) concentrations of the seepage, runoff, and interceptor wells along with the sources sampled. In addition, Table 7 contains the sulfate balance estimating the UF/RO and brine sulfate concentrations for both feed and effluent from the WTP process.

6.0 RECLAMATION SCHEDULE

For this closure/closeout plan, Chino proposes to prioritize leach stockpile reclamation to reduce the higher TDS water management load sooner in the reclamation process. Leach stockpile reclamation is proposed to begin early in the process, excluding the acreage required for evaporation. The Kessel and Southwest Lampbright waste rock stockpiles will be prioritized next in the sequence based on the next highest sulfate levels and continue to reduce the higher TDS water flows. The reclamation schedule is presented in detail in the CCP document. Tailings Pond 7 is the final reclamation area and will be reclaimed starting in year 15 with completion estimated in year 20. Table 2 depicts the reclamation schedule (light blue cells) and outlines the flow rates from each area and their eventual decline as reclamation proceeds. An average of 200-acres will be reclaimed per year (e.g., Year 1 will have a yearly average reclamation of 100-acres at the end of six months, year 2 will have an average total reclamation of 300-acres) until reclamation is complete.

7.0 YEAR 1-5 STOCKPILE/POND EVAPORATION SYSTEM

7.1 NMA Operational Strategy

The year 1-5 evaporation plan for the NMA includes the recirculation of all process solutions through the existing drip irrigation systems to the South stockpile, Main Lampbright stockpile, and the South Lampbright stockpile (Figure 2). Evaporation will mostly occur on these stockpiles and, to a lesser extent, at the surface impoundments, overflow ponds, tanks, and pit sumps. Table 4 estimates the evaporation rate from each source and Table 5 estimates the pumping rate to these stockpiles in years 1 through 5. Section 3.1, Historical Climate Data, was used to determine the evaporation rate based on the surface areas of each structure.

Residual process solutions stored within the operational stockpiles will drain through their respective stockpiles and then be recirculated on top of the South and Lampbright stockpiles for elimination and storage in year 1. The stockpiles will evaporate all stored water within the stockpiles and in the surface water bodies within the first 2 years, including the elimination of all inflows from runoff, seepage, and interceptor wells. Once all stored process waters in the NMA are evaporated, flow rates to the evaporation stockpiles will be limited to just the inflows requiring evaporation since process water storage in the stockpiles will no longer be required. In addition, it is expected that stockpile drain down will begin to occur at this time due to pumping of only the volume of water to the evaporation stockpiles that can be evaporated. It is estimated that stockpile drain down will occur until a steady state of 2% of the average annual rainfall is reached.

The total volumes of process fluids requiring elimination are based on the estimated process solution volumes in Table 1 and the stormwater runoff and seepage flow rates calculated in Table 2. In addition, inflows from the NMA interceptor wells will be added to the evaporation system and sent to the evaporation stockpiles. Table 4 gives the estimated volumes remaining at EOY 0 through EOY 5 for all stored process waters. The Frog Pond will remain at its normal operating volume as a source for dust control on roads and for use in reclamation.

7.2 SMA Operational Strategy (Tailings Pond 7)

Tailing Pond 7 interceptor wells and the Continental Mine inflows will be surface evaporated in Tailing Pond 7 until the water treatment system is operational in year 6, Table 5 and Figure 3.

7.3 Evaporation Losses

Evaporation losses at the surface of water bodies and on the stockpiles were calculated using the values references in Section 3.1, Historical Climate Data. As previously stated, 62.58 inches per year is the estimated evaporation rate and the historical precipitation is 15.75 inches, resulting in an overall evaporation rate of 46.83 inches per year. In year 2, evaporation from most of the water bodies is not considered since evaporation is much higher than the rainfall at these locations. The Estrella and East pits have continued surface evaporation through year 2 until they are empty.

7.4 Acreage Modifier

An acreage modifier is used in Table 4 for the water bodies to represent the total surface area available for surface evaporation in comparison to a completely full water body and is based on the percent full at the start of reclamation. Stockpiles used for evaporation also have an acreage

modifier and reflect the surface area needed as a percentage of the total stockpile area available for evaporation in any given year. Reductions in the acreage modifier in year 2 for the stockpiles reflect that all water bodies have been evaporated and less stockpile area is needed to keep up with incoming stormwater and interceptor wells. This reduction of acreage is also an indication of the acreage available for reclamation.

8.0 YEAR 6-100 WATER ELIMINATION PLAN

The year 6-100 water elimination plan includes the diversion of high TDS process waters to an enhanced evaporation system to be constructed within the Santa Rita pit and low TDS process water to the NMA WTP. High TDS process water sources include residual stockpile seepage and runoff, Santa Rita Pit area runoff, and any other high TDS water sources.

8.1 High TDS Operational Strategy

The operational strategy for high TDS waters, including all runoff and seepage, is to construct an enhanced evaporation system with mechanical sprayers in the Santa Rita pit. With the large surface area available, the mechanical sprayers can be adequately spread out to prevent overspray from one unit to the next. Forced evaporation will be conducted through a network of mechanical spray systems installed in available pit flat areas near open pit water management sumps. Wetted surface evaporation will occur from areas that become wetted near the forced evaporation system and during precipitation events.

The enhanced evaporation system in the Santa Rita pit will require periodic removal and disposal of the precipitated salts. The total salt residual was calculated based on the TDS of the water being evaporated annually, with a 50% reduction in density to account for the waters of hydration expected during the natural evaporation of salts, Table 8. Based on the salt balance, approximately 1 million cubic yards of salt will be disposed of in the West stockpile, requiring approximately 120-acres for the 95-year operation of the WTP. Both enhanced evaporation and the storage of salts are proposed within the post-closure OPSDA.

8.2 Water Treatment Plant Operational Strategy

The year 6-100 WTP operational strategy includes the piping of the Oswaldo, Princess, and the to be determined wells along with the SMA flows to a central WTP located in the vicinity of the Ivanhoe Concentrator (Table 5). The primary objectives for water management and treatment will be to meet the applicable New Mexico Water Quality Control Commission (NMWQCC) criteria for discharge.

The WTP will include a UF system with an RO filtration polishing step. The water treatment system will provide long-term metals and sulfate removal for years 6 through 100 and is presented in Figure 4. This conceptual treatment configuration results in a single facility for treatment of low TDS water. High TDS water will continue to be segregated from the flow to the WTP and evaporated in the Santa Rita pit.

All low TDS process waters and groundwater intercepted prior to entering the Santa Rita Pit in the NMA will be sent to the UF system to filter suspended solids that will cause scaling in the RO membrane system. SMA water that requires treatment to meet effluent standards will also be treated in the UF/RO system with a portion of the SMA waters bypassing treatment to be blended with UF/RO permeate. The brine streams from both the UF and RO membranes will be pumped to the enhanced evaporation system located in the Santa Rita Pit (Table 6). See Section 10.0 for a detailed description of the process steps for the WTP.

9.0 INFRASTRUCTURE

9.1 Existing Infrastructure Used Years 1 - 5

The existing infrastructure at the Chino mine will be repurposed to support the stockpile evaporation system. In the Lampbright circuit, the Reservoir 8 Tank and the Far East Tank are the receiving water bodies for all seepage from the Main and South Lampbright stockpiles and will continue to be used. Both locations have pumps installed that will transfer solutions to the Northeast Lampbright booster station raffinate tank where existing pumps and pipelines will transfer the process solutions on top of the stockpiles. The North Lampbright stockpile will drain to Reservoir 7 (~75%) and to the East Headwall impoundment (~25%). Seepage received at the impoundment will gravity drain through an existing pipeline to the Far East Tank. Seepage collected in Reservoir 7 will be pumped to the Northeast Lampbright booster station with an existing pipeline and pump. In the South circuit, reservoir 4A and reservoir 2 are connected and currently receive all seepage from the South stockpile and will continue to be used. Reservoir 4A and 2 have existing pumps, and with the use of the 6525 tank and booster station, will transfer solutions to the top of the South stockpile. The east side of the West stockpile seepage is currently collected at reservoir 4A and 2 and will be sent to the South stockpile for evaporation.

Waste rock stockpile runoff will also be collected and pumped to the stockpiles for evaporation. The Kessel waste rock stockpile, when constructed, will include an existing stormwater collection pond that will be piped and pumped to Reservoir 8 for eventual evaporation. The Southwest Lampbright waste rock stockpile currently drains to Reservoir 8 and will be maintained for evaporation. The Northeast waste rock stockpile runoff is currently collected in an evaporation area north of Reservoir 7 and will be extended to allow gravity flow to Reservoir 7. The 3A waste rock stockpile runoff is currently eliminated in an evaporation area on the north end of the stockpile and will continue until reclamation is completed. The east side of the West waste rock stockpile runoff will be connected through an existing pipeline for gravity flow to Reservoir 4A and 2.

Facilities runoff will also be collected and pumped to the stockpiles for evaporation. The SX/EW plant runoff, including approximately 53-acres of associated disturbance such as haul roads, will be collected by gravity into Reservoir 7. The main office building and the Ivanhoe concentrator, including approximately 25-acres of associated disturbance, will gravity drain into Reservoir 4A and 2.

The existing Santa Rita pit will collect runoff from its perimeter including approximately 56-acres of associated disturbance that flows to the pit. These process waters are to be pumped to the stockpile evaporation areas along with other process water inventory during the first five years of closure. This is a conservative estimate because much of the precipitation that will fall on these areas, such as the Santa Rita pit, will evaporate prior to reaching the pit sumps where they would be pumped to the stockpile evaporation areas.

9.2 New and Existing Infrastructure Needed Years 6 - 100

During construction of the WTP and prior to start-up at the EOY 5, infrastructure changes will be made in the NMA to simplify process water gathering and conveyance for treatment and evaporation. The SMA area will also be updated to gather and pump process water to the NMA for treatment. Upgrades/changes in the NMA will be discussed from the southeast corner of the mine area and move in a counterclockwise direction until reaching the Ivanhoe concentrator area.

9.2.1 *Kessel Waste Rock Stockpile*

The Kessel waste rock stockpile will require a new 10,000-gallon collection tank to allow for reclamation of the stormwater pond. The existing pipeline and pumps, currently used to gather stormwater, will continue to be used to pump to Reservoir 8.

9.2.2 *Reservoir 8 Area*

The Reservoir 8 area will also be downsized to a single 15,000-gallon tank to allow for reclamation. Two new pumps (one is an online spare) will be connected to this tank and a new, smaller diameter pipeline will be installed to convey process waters to the Reservoir 7 area.

9.2.3 *Far East Lampbright Sump*

The Far East Lampbright sump will consist of a recently constructed stormwater pond and a one-million-gallon PLS collection and pump back tank that feeds Reservoir 7 area. The Far East sump facility will not be needed post-closure and will be removed except for the pipeline connecting the seep to the new tank in the Reservoir 8 area.

9.2.4 *East Headwall Impoundment*

The East Headwall impoundment water will continue to gravity drain to the Far East Lampbright sump. The pipeline will be connected to the existing seep line and gravity drain to the new Reservoir 8 tank.

9.2.5 *Reservoir 7 Area*

Reservoir 7 will also be replaced with a 15,000-gallon tank to allow for reclamation. The tank will collect approximately 84 gpm in year 6 of high TDS water from the Reservoir 8 tank, the SX/EW facility, and the Northeast waste rock stockpile. New pumps and a pipeline will be connected to the tank to convey water to the mechanical evaporators located within the Santa Rita pit.

9.2.6 *Oswaldo and Princess Shafts and Other Santa Rita Pit Interceptor Wells*

The Oswaldo and Princess shafts will be used long-term as an interceptor wells to minimize groundwater entry into the Santa Rita pit. The Oswaldo shaft will require the installation of a properly sized well pump with a capacity estimated at 127 gpm. An existing line from the SX/EW to the Reservoir 4A pond will be repurposed for directing Oswaldo intercept water to one of the existing tailing thickeners at the Ivanhoe concentrator area for storage. The Princess shaft will also be used as an interceptor well for the Santa Rita pit and is estimated at an additional 250 gpm. A new line will be installed for roughly 2,500 feet on the surface to connect this shaft to the existing Oswaldo pump line for conveyance. Two additional wells with pumps (up to 200 feet deep) are assumed to collect 100 gpm of combined flow from near the bottom of the Santa Rita Pit and will reduce the flows from the Oswaldo and Princess shafts by this amount.

9.2.7 *Reservoir 4A Area*

The Reservoir 4A area will collect seepage and runoff from the South and West stockpiles, the offices and shops area, and the Ivanhoe concentrator areas. The total impacted water flow into this

area is approximately 105 gpm in year 6. A new 15,000-gallon collection tank will be installed in this area to facilitate reclamation. Two new pumps and a properly sized pipeline will be installed for the pumping of these high TDS waters to the Santa Rita pit for enhanced evaporation. Once the offices, shops, and the Ivanhoe concentrator areas are reclaimed in years 13 through 15, the runoff will go offsite and will not be part of the flow to the high TDS flow evaporation system.

9.2.8 *Santa Rita Pit Stormwater Elimination*

An estimated 4 sump pumps will be located within the Santa Rita pit to gather stormwater for conveyance to the mechanical evaporators. Locations will be selected based on current sumps within the pit and will be sized to handle stormwater flows estimated at 374 gpm total. Each sump will have piping to nearby evaporators to eliminate these flows.

9.2.9 *Tailings Thickener*

One of the Tailings Thickeners will be repurposed as an equalization basin for feeding the WTP. The Oswaldo shaft, Princess shaft, and the two new interceptor wells will be pumped to this tank to feed the low TDS waters to the UF/RO treatment system. The Tailing Thickener tank has a maximum capacity of just over 2.9 million gallons. Two new pumps (one is online spare) and a pipeline will be connected to this tank to feed the low TDS waters to the treatment system.

9.2.10 *Tailings Pond 7 Area*

In the Tailings Pond 7 area, the current 750,000-gallon tank will be utilized as equalization and to facilitate reclamation. The tank will accept flows from both the interceptor wells and the Continental Mine before being pumped to the NMA WTP. One of the existing 16-inch pipelines will be reused to pump waters from the SMA to the treatment system in the NMA where flows will be split between the UF/RO feed and the effluent bypass. Two new pumps (one is an online spare) will be installed at the tank for pumping to the NMA.

9.2.11 *West Stockpile Solids Impoundment*

Approximately 120 acres of the northeast area of the West stockpile will be set aside as storage for salts removed from the Santa Rita pit. This location was chosen due to runoff and groundwater in this area flowing to the Santa Rita pit (within the OPSDA) where it will be captured for feed to the enhanced evaporation system.

10.0 WATER TREATMENT PLANT

The major process steps and required equipment for the WTP are outlined in the following subsections. See Section 8.2 for the WTP operational strategy.

10.1 Ultrafiltration System

The UF system, as previously mentioned, will be fed directly from the Ivanhoe Concentrator tank and the 750,000-gallon tank in the SMA. The ultrafilters will provide suspended solids removal (down to 0.01 micron) from both the NMA waters and the blended SMA waters. The primary purpose of these filters is to protect the RO membranes from fouling and scaling. It is expected that a clean-in-place (CIP) system will be required to maintain consistent operation of this system. The ultrafilters will be sized based on the estimated water quality outlined in Section 5 and the flowrates in Table 6. Cleaning chemical consumption will be determined by the manufacturer.

10.2 Reverse Osmosis System

The RO system will be selected for the removal of dissolved solids and, more specifically, sulfate. Sulfate removal is the contaminant of greatest concern in meeting the discharge standards. It is expected that an 85% permeate can be achieved based on the low sulfate feed stream, but will be confirmed by the RO manufacturer. It is expected that a clean-in-place (CIP) system will be required to maintain consistent operation of this system. The RO system will be sized based on the estimated water quality outlined in Section 5 and the flowrates in Table 6. Cleaning chemical consumption will be determined by the manufacturer.

11.0 CAPITAL AND OPERATION AND MAINTENANCE COST ESTIMATES

Capital and Operations & Maintenance (O&M) costs for years 0-100 are summarized in Table 9. Years 1-5 estimate minimal capital expenditure for the stockpile evaporation system due to use of the existing infrastructure. Power costs in years 1-5 are the major expense due to the large demand by the pumps to recirculate impacted water on top of the stockpiles. Capital costs for the enhanced evaporation system and the WTP are significant in the first five years and represent the total capital costs for these systems divided by the number of years before start-up in year 6.

11.1 Capital Cost

Capital cost estimates were developed using the infrastructure and sizing outlined in Sections 9.0 and 10.0 and are listed in Table 10. The collection and transfer systems for impacted water include tanks, if needed, pumps and piping based on reasonable retention times and the hydraulics required to pump from each gathering area to the final elimination destination. The WTP capital costs were determined through estimations by vendors on all major equipment and experience with similar WTPs. Shipping, electrical, automation and installation were estimated based on experience and recent work.

Reclamation costs for current process water infrastructure are estimated in Appendix F of the main CCP report. An Indirect Capital cost of 30% was used following previous agreements between Chino, the Agencies and other parties (Table 9).

11.2 Operations and Maintenance Costs

O&M cost estimates are provided for the 100-year elimination/treatment period in Table 9. O&M cost estimates include labor, reagents, maintenance, sampling and analysis costs, electrical power for conveyance and treatment, and indirect costs as per previous agreements. The cost basis for these items is described in the following sections.

11.2.1 *Equipment Maintenance and Replacement Costs*

Routine maintenance and capital replacement costs were estimated as a combined cost that is calculated by the replacement cost divided by the expected life of operation for the individual piece of equipment (Table 11). Yearly costs were reduced for the evaporation system based on the number of sprayers being used, which declines from 14 in year 6 to a steady state of 10 units in year 14. The WTP maintenance costs were similarly reduced based on total flow to the system until steady states are reached in year 63 at 627 gpm.

11.2.2 *Labor Costs*

Labor rates and markup for benefits for all categories is based on the New Mexico Department of Labor's 2024 prevailing wage rates for Type "A" - Street, Highway, Utility & Light Engineering under the Operators subset. WTP supervisors are considered a Group X classification, and the general operators are Group I. Assumptions include:

- Overtime – estimated at 10% of straight time hours for supervisors and 15% for operators
- Overtime wages – 1.5 times the base rates

Staffing levels were estimated based on experience with similar sized WTP plants in Colorado, see Table 12.

11.2.3 *Electrical Power Costs*

The unit cost for electric power is based on the current rates being paid at the mine site.

In years 1-5, the power required for pumping to the stockpile evaporation system was estimated using Bernoulli's equation. Assuming a pumping rate of 1200 gpm per pump and a year 1 flow of 21,000 gpm, a total of 18 pumps would be required to recirculate the stored volumes. Using average elevation changes from the source waters to the top of the stockpiles (890 feet total dynamic head) and the average distance from the sources (5500 feet), the estimated power requirement is 400 hp per pump with an efficiency of 80% (Table 13). In years 2-5, the total power required is scaled down based on the actual gpm required to maintain the water balance, see Tables 5 and 9.

In years 6-100, the power needed to operate the enhanced evaporation system and the WTP are based on vendor quotes, Bernoulli's equation (pumps), and experience with operations of similar sized UF/RO systems. The enhanced evaporation system requires 16 spray units to keep up with year 6 flow rates at the vendor-estimated 74 gpm per sprayer as a yearly average running 16 hours per day. The power for pumping the seep flows and runoff to the sprayers, including the sprayers, are scaled down based on total gpm requiring evaporation due to reclamation and level off in year 62 at 10 spray units, eliminating 500 gpm for the remaining 100-year period. The UF/RO power requirements are similarly scaled down based on total flow to the WTP and level off at 902 gpm in year 63 (Table 5, 9, and 13).

11.2.4 *Reagent Costs*

Antiscalant and biocide dosing rates that are used to control fouling and scaling on the UF/RO membranes were provided by the manufacturer at 3mg/L and 1 mg/L, respectively, and pricing was obtained from Avista Membrane Solutions. The UF high and low pH cleaning chemical usage was provided by the manufacturer at 2 cleaning per month with 270 pounds of chemical for each pH. The RO high and low pH chemical usage was the same as the UF, 270 pounds, with a recommended cleaning every 3 months for each pH. Pricing for the UF/RO cleaning chemicals was also from Avista, See Table 14.

11.2.5 *Analytical Costs*

Sampling and analysis required for compliance with groundwater discharge permit conditions and for measurement of plant performance are estimated yearly in Table 15. Through the duration of water treatment operations, the sampling and analysis required becomes less frequent from quarterly to semi- annually to annually as follows:

- Tailings: quarterly in years 2 through 8, semi-annually in years 9 through 18, and annually in years 19 through 28.

- Stockpiles: quarterly in years 9 through 13, semi-annually in years 14 through 18, and annually in years 19 through 100.
- Pit: quarterly in years 2 through 8, semi-annually in years 9 through 18, and annually in years 19 through 100.
- Plant performance including influent and effluent discharge from water treatment plant will be sampled monthly.

11.2.6 *Salt Disposal*

Cost for loading, hauling, unloading, and disposal of the Santa Rita pit salts are covered in the labor section above. With the close proximity of the disposal site, approximately 3 miles on the West stockpile, it is assumed that current staffing levels will allow for the hauling and dumping of these materials.

12.0 CLOSING

This Water Management and Treatment Plan update is meant to provide information in sufficient detail as required by Section 20.6.7.33H NMAC. Should you have any questions or require additional information, please do not hesitate to contact us.

13.0 REFERENCES

Golder. (2007). *DP-1340 Condition 83 Hydrology Study Final Report.* Hurley, New Mexico: Submitted to Chino Mines Company.

Van Riper Consulting (Van Riper). 2007. Development of a Site-Wide Water Treatment Process for the Chino Mines Company.

Western Regional Climate Center (WRCC). 2024. Fort Bayard, New Mexico Period of Record Climate Summary. **https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm3265**

Tables

Table 1 Inventoried Process Waters at EOY 5

Water in North Mine Area	
Location	**Estimated Volume at EOY 2030 (gallons)**
East Pit	740,204,439
Estrella Pit	363,542,840
Lee Hill Pit	0
Reservoir 9	2,737,148
Reservoir 4a (Overflow Pond)	1,368,574
Reservoir 2a (Overflow Pond)	684,287
Reservoir 17	9,149,896
Frog Pond	1,500,000
PLS Tank at Ivanhoe Concentrator	300,000
5900 PLS Sump	299,131
Lee Hill Sump #1	60,000
Lee Hill Sump #2	36,000
Tailings Thickener	6,777,710
6525 Raffinate Tank	80,000
South Stockpile	120,700,000
Reservoir 6	54,580,043
Reservoir 7	63,201,939
Reservoir 8	1,955,106
SX/EW PLS Feed Pond	1,260,000
SX/EW Raffinate Pond	1,824,766
SX/EW Raffinate Tank	900,000
East Headwall Impoundment	273,715
East Lampbright Sumps	1,200,000
Lampbright PLS Tank	185,923
Lampbright Stockpile	350,600,000
Total	1,723,421,516
Rounded Total	1,723,421,500
Water in South Mine Area	
Location	**Estimated Volume at EOY 2030 (gallons)**
Tailings Pond 7, Axiflo Lake, Elmo's Pond, and Lower Lined Pond	161,491,756

Volume estimates provided by Chino from GoldSim model

Table 2 Stormwater and Intercept Wells Flow Rates with Closure Schedule

	South Mine Area Flows			Interceptor Wells and Pit			Facilities Runoff						Waste Rock Stockpile Runoff/Seepage										Leach Stockpile Seepage					
	Continental Mine Inflows	Tailings Pond 7 Interceptor Wells		NMA Groundwater Interceptor Wells Princess Shaft Oswaldo Shaft and 2 Other Wells TBD Inflow	Lampbright Interceptor Wells	Santa Rita Open Pit Area Storm Water Run-Off	Ivanhoe Concentrator Area		Chino Offices and Shops Area		SX/EW Area		West Side of West Waste Rock Stockpile Runoff		3A Waste Rock Stockpile Runoff		Northeast Waste Rock Stockpile Runoff		Southwest Lampbright Waste Rock Stockpile Runoff		Kessel Waste Rock Stockpile Runoff		East Side of West Stockpile Seepage		South Stockpile Seepage		North, Main, and South Lampbright Stockpile Seepage	
Surface Area (acres)		1,169				1919	92.5		78.4		97		260		134		86.3		79.8		270		260		629		791	
Pre Closure Average Runoff (in.)						3.77	3.77		3.77		3.77		2.47		2.47		2.47		2.47		2.47							
Post Closure Average Seepage (gpm)													0.016273951		0.016273951		0.016273951		0.016273951		0.016273951		0.016273951		0.016273951		0.016273951	
Pre Closure Average Seepage (gpm)																							11.98		11.98		11.98	
Draw Down Curve																							98,204,779.40	0.46	166,500,379	0.46	209,382,830	0.46
5% of Max Seepage Retained																							186.8	6.50	317	19.5	398.4	24.5
Year	(gpm)	(acres)	(gpm)	(gpm)	(gpm)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)	(acres)	(gpm)
1	120	1,169	1,890	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	270	34	160	99	629	389	791	490
2	120	1,169	1,796	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	60	46	629	389	791	490
3	120	1,169	1,706	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	629	179	601	225
4	116	1,169	1,620	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	629	82	401	104
5	107	1,169	1,539	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	629	38	201	48
6	98	1,169	1,462	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	629	17	1	22
7	90	1,169	1,389	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	430	8	0	1
8	83	1,169	1,320	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	230	4	0	1
9	77	1,169	1,254	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	170	22	50	21	30	2	0	1
10	72	1,169	1,191	368	9	374	93	18	78	15	97	19	260	33	134	17	86	11	80	10	0	0.2	50	21	0	1	0	1
11	67	1,169	1,132	368	9	374	93	18	78	15	97	19	260	33	100	13	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
12	64	1,169	1,075	368	9	374	93	18	78	15	97	19	160	20	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
13	60	1,169	1,021	368	9	374	93	18	78	15	57	11	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
14	57	1,169	970	368	9	374	28	5	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
15	55	997	922	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
16	53	797	876	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
17	51	597	832	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
18	49	397	790	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
19	47	197	751	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
20	46	0	713	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
21	44	0	678	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
22	43	0	644	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
23	42	0	611	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
24	40	0	581	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
25	39	0	552	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
26	38	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1

27	37	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
28	36	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
29	35	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
30	33	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
31	32	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
32	31	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
33	30	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
34	29	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
35	28	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
36	27	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
37	26	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
38	25	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
39	24	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
40	23	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
41	22	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
42	22	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
43	21	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
44	20	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
45	19	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
46	18	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
47	17	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
48	16	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
49	15	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
50	15	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
51	14	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
52	13	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
53	12	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
54	12	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
55	11	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
56	10	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
57	10	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
58	9	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
59	8	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
60	8	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
61	7	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
62	2	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
63	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
64	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
65	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
66	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
67	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
68	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
69	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
70	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
71	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
72	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
73	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
74	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
75	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1

76	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
77	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
78	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
79	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
80	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
81	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
82	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
83	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
84	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
85	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
86	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
87	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
88	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
89	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
90	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
91	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
92	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
93	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
94	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
95	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
96	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
97	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
98	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
99	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1
100	0	0	525	368	9	374	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0	0.2	50	21	0	1	0	1

Light Blue reflect the reclamation schedule

Light Purple is the drawdown curve

Acreage reduction due to reclamation is assumed to be 200 acres per year for 20 years.
The reduction of acreage per year is the average from the 1st day to the last day, i.e. 100 acres, 300 acres, 500 acres, etc.

Table 3 Water Quality

Mine Area	Source	Sulfate	Total Dissolved Solids	Source
		(mg/L)	(mg/L)	Data
SMA Flows	Continental Mine	1,450	2,186	2023 sampling, average of 9 wells and pond
	Tailings Pond 7 Interceptor Wells	1,450	2,186	2023 sampling, average of 9 wells and pond
NMA Facilities	Ivanhoe Concentrator Runoff	1,600	2,400	Estimated based of gypsum equilibrium
	Chino Main Office Buildings Runoff	1,600	2,400	Estimated based of gypsum equilibrium
	SX/EW Runoff	1,600	2,400	Estimated based of gypsum equilibrium
NMA Interceptor Wells and Pit	Princess, Oswaldo, and Interceptor Wells	1,571	2,402	2006 and 2019 sampling respectively, average
	Santa Rita Pit Runoff	34,500	47,950	2023 sampling, average of Res 2A and 4A
NMA Waste Rock Stockpile Runoff	West Side of West Waste Rock Pile Runoff	34,500	47,950	2023 sampling, average of Res 2A and 4A
	3A Waste Rock Pile Runoff	34,500	47,950	2023 sampling, average of Res 2A and 4A
	Northeast Waste Rock Pile Runoff	34,500	47,950	2023 sampling, average of Res 2A and 4A
	Southwest Lampbright Waste Rock Pile Runoff	34,500	47,950	2023 sampling, average of Res 2A and 4A
	Kessel Waste Rock Pile Runoff	34,500	47,950	2023 sampling, average of Res 2A and 4A
NMA Stockpile Seepage	East Side of West Stockpile Seepage	148,000	199,667	2023 sampling, average of 526 Raff and PLS tanks, and Res 8
	South Stockpile Seepage	148,000	199,667	2023 sampling, average of 526 Raff and PLS tanks, and Res 8
	North, Main, and South Lampbright Seepage	148,000	199,667	2023 sampling, average of 526 Raff and PLS tanks, and Res 8

Table 4 Evaporation Water Balance – Years 1-5

Yearly Evaporation (inches/year)	46.83	EOY 2030	Year 1			Year 2			Year 3			Year 4			Year 5		
Location	**Maximum Surface Area**	**Starting Volumes**	**Acerage Modifier**	**Volume Added From Runoff, Seepage, Interceptor Wells**	**Volumes**	**Acerage Modifier**	**Volume Added From Runoff, Seepage, Interceptor Wells**	**Volumes**	**Acerage Modifier**	**Volume Added From Runoff, Seepage, Interceptor Wells**	**Volumes**	**Acerage Modifier**	**Volume Added From Runoff, Seepage, Interceptor Wells**	**Volumes**	**Acerage Modifier**	**Volume Added From Runoff, Seepage, Interceptor Wells**	**Volumes**
	(acres)	(gallons)		(gallons)	(gallons)		(gallons)	(gallons)		(gallons)	(gallons)		(gallons)	(gallons)		(gallons)	(gallons)
Santa Rita Pit (Estrella and East)	67.60	1,103,747,279	0.60	-	1,052,169,823	0.57	-	301,914,617	0.57	-	0	-	-	-	-	-	-
Reservoir 9	72.00	2,737,148	0.18	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Reservoir 4a (Overflow Pond)	2.70	1,368,574	0.13	-	922,231	0.13	-	0	-	-	-	-	-	-	-	-	-
Reservoir 2a (Overflow Pond)	1.31	684,287	0.60	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Reservoir 17	3.39	9,149,896	0.60	-	6,563,393	0.60	-	0	-	-	-	-	-	-	-	-	-
Frog Pond	0.53	1,500,000	0.00	-	1,500,000	-	-	1,500,000	-	-	1,500,000	-	-	1,500,000	-	-	1,500,000
PLS Tank at Ivanhoe Concentrator	0.10	300,000	1.00	-	172,837	1.00	-	0	-	-	-	-	-	-	-	-	-
5900 PLS Sump	0.66	299,131	0.60	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Lee Hill Sump #1	0.20	60,000	0.60	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Lee Hill Sump #2	0.25	36,000	0.60	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Tailings Thickener	3.20	6,777,710	1.00	-	2,708,483	1.00	-	0	-	-	-	-	-	-	-	-	-
6525 Raffinate Tank	0.04	80,000	0.80	-	39,308	0.80	-	0	-	-	-	-	-	-	-	-	-
Reservoir 6	13.20	54,580,043	0.96	-	38,465,902	0.96	-	0	0.96	-	-	-	-	-	-	-	-
Reservoir 7	11.26	63,201,939	0.17	-	60,767,778	0.17	-	0	0.17	-	-	-	-	-	-	-	-
Reservoir 8	2.80	1,955,106	0.17	-	1,349,808	0.17	-	0	-	-	-	-	-	-	-	-	-
SX/EW PLS Feed Pond	0.53	1,260,000	0.90	-	653,431	0.90	-	0	0.90	-	-	-	-	-	-	-	-
SX/EW Raffinate Pond	0.75	1,824,766	0.80	-	1,061,786	0.80	-	0	0.80	-	-	-	-	-	-	-	-
SX/EW Raffinate Tank	0.12	900,000	1.00	-	753,336	1.00	-	0	1.00	-	-	-	-	-	-	-	-
East Headwall Impoundment	0.46	273,715	0.60	-	0	-	-	-	-	-	-	-	-	-	-	-	-
East Lampbright Sumps	0.64	1,200,000	0.60	-	711,693	0.60	-	0	0.60	-	-	-	-	-	-	-	-
Lampbright PLS Tank	0.09	185,923	0.50	-	129,778	0.50	-	0	0.50	-	-	-	-	-	-	-	-
South and Lampbright Stockpiles	1,414.00	471,300,000	1.00	982,702,110	-815,387,698	0.70	947,888,406	-301,914,617	0.38	685,606,059	0	0.32	570,860,849	0	0.29	518,078,053	0
Total Volume in the NMA	**-**	596,681,492		-	351,081,889	-	-	0	-	-	0	-	-	0	-	-	0
South Mine Area																	
Tailing Pond 7	1,169.00	161,491,756	0.82	1,056,456,000	0	0.71	1,056,456,000	0	0.71	1,056,456,000	0	0.71	1,054,353,600	0	0.71	1,049,623,200	0

When the evaporation of leach stockpiles become negative (evaporations exceeds addition of water), remaining water bodies will be fed to the stockpile to expediate drainage and will be removed from the water body for the following year.

Due to the rapid rate of evaporation in the stockpiles, the second year surface area was not reduced since surface evaporation is minimal except for the Santa Rita Pit where the reduction was based on volume % reduction.

Evaporative losses on the waste rock stockpiles were not taken into account to maintain a conservative estimate of evaporation and is considered minimal in relation to leach stockpile evaporation.

The Frog pond will be maintained for dust control.

Table 5 Evaporation and Water Treatment Plant Flow Rates

	North Mine Area									South Mine Area		
	Evaporation System Water Loss				Interceptor Wells, Runoff, and Seepage Flow Rates				Water Treatment Plant Influent	Evaporation Water Loss	Interceptor Wells and Continental Mine Flow Rates	
	Stockpile Evaporation System Flow Rate	Stockpile Evaporation System Water Loss	Santa Rita Pit Enhanced Evaporation System Water Loss (less brine)	Interceptor Wells, Runo-off, and Seepage Included in Stockpile Evaporation System Water Loss	NMA Interceptor Wells Flows (Lampbright, Princess Shaft, Oswaldo Shaft, 2 other Wells TBD)	Facilities Stormwater Runoff	Waste Rock Stockpiles Storm Water Runoff	Stockpile Seepage	Treatment System Flow Rate	Tailings Pond 7 Evaporation Water Loss	Tailing Pond 7 Interceptor Well Flows	Continental Mine Flows
Year	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
1	21,000	4,318	-	1,496	377	52	89	978	-	2,010	1890	120
2	2,378	2,378	-	1,430	377	52	76	924	-	1,915	1796	120
3	1,304	1,304	-	931	377	52	76	425	-	1,826	1706	120
4	1,086	1,086	-	712	377	52	76	207	-	1,737	1620	116
5	986	986	-	612	377	52	76	107	-	1,647	1539	107
6	-	-	571	-	377	52	76	60	1,938	-	1462	98
7	-	-	541	-	377	52	76	30	1,857	-	1389	90
8	-	-	536	-	377	52	76	25	1,780	-	1320	83
9	-	-	535	-	377	52	76	23	1,708	-	1254	77
10	-	-	512	-	377	52	55	22	1,640	-	1191	72
11	-	-	491	-	377	52	34	22	1,576	-	1132	67
12	-	-	478	-	377	52	21	22	1,516	-	1075	64
13	-	-	450	-	377	44	1	22	1,459	-	1021	60
14	-	-	411	-	377	5	1	22	1,405	-	970	57
15	-	-	406	-	377	0	1	22	1,354	-	922	55
16	-	-	406	-	377	0	1	22	1,305	-	876	53
17	-	-	406	-	377	0	1	22	1,259	-	832	51
18	-	-	406	-	377	0	1	22	1,216	-	790	49
19	-	-	406	-	377	0	1	22	1,175	-	751	47
20	-	-	406	-	377	0	1	22	1,136	-	713	46
21	-	-	406	-	377	0	1	22	1,099	-	678	44
22	-	-	406	-	377	0	1	22	1,064	-	644	43
23	-	-	406	-	377	0	1	22	1,030	-	611	42
24	-	-	406	-	377	0	1	22	998	-	581	40
25	-	-	406	-	377	0	1	22	968	-	552	39
26	-	-	406	-	377	0	1	22	940	-	525	38
27	-	-	406	-	377	0	1	22	939	-	525	37
28	-	-	406	-	377	0	1	22	938	-	525	36
29	-	-	406	-	377	0	1	22	937	-	525	35
30	-	-	406	-	377	0	1	22	935	-	525	33
31	-	-	406	-	377	0	1	22	934	-	525	32
32	-	-	406	-	377	0	1	22	933	-	525	31
33	-	-	406	-	377	0	1	22	932	-	525	30
34	-	-	406	-	377	0	1	22	931	-	525	29
35	-	-	406	-	377	0	1	22	930	-	525	28
36	-	-	406	-	377	0	1	22	929	-	525	27
37	-	-	406	-	377	0	1	22	928	-	525	26
38	-	-	406	-	377	0	1	22	927	-	525	25
39	-	-	406	-	377	0	1	22	926	-	525	24
40	-	-	406	-	377	0	1	22	925	-	525	23

41	-	-	406	-	377	0	1	22	924	-	525	22
42	-	-	406	-	377	0	1	22	924	-	525	22
43	-	-	406	-	377	0	1	22	923	-	525	21
44	-	-	406	-	377	0	1	22	922	-	525	20
45	-	-	406	-	377	0	1	22	921	-	525	19
46	-	-	406	-	377	0	1	22	920	-	525	18
47	-	-	406	-	377	0	1	22	919	-	525	17
48	-	-	406	-	377	0	1	22	918	-	525	16
49	-	-	406	-	377	0	1	22	917	-	525	15
50	-	-	406	-	377	0	1	22	917	-	525	15
51	-	-	406	-	377	0	1	22	916	-	525	14
52	-	-	406	-	377	0	1	22	915	-	525	13
53	-	-	406	-	377	0	1	22	914	-	525	12
54	-	-	406	-	377	0	1	22	914	-	525	12
55	-	-	406	-	377	0	1	22	913	-	525	11
56	-	-	406	-	377	0	1	22	912	-	525	10
57	-	-	406	-	377	0	1	22	912	-	525	10
58	-	-	406	-	377	0	1	22	911	-	525	9
59	-	-	406	-	377	0	1	22	910	-	525	8
60	-	-	406	-	377	0	1	22	910	-	525	8
61	-	-	406	-	377	0	1	22	909	-	525	7
62	-	-	406	-	377	0	1	22	904	-	525	2
63	-	-	406	-	377	0	1	22	902	-	525	0
64	-	-	406	-	377	0	1	22	902	-	525	0
65	-	-	406	-	377	0	1	22	902	-	525	0
66	-	-	406	-	377	0	1	22	902	-	525	0
67	-	-	406	-	377	0	1	22	902	-	525	0
68	-	-	406	-	377	0	1	22	902	-	525	0
69	-	-	406	-	377	0	1	22	902	-	525	0
70	-	-	406	-	377	0	1	22	902	-	525	0
71	-	-	406	-	377	0	1	22	902	-	525	0
72	-	-	406	-	377	0	1	22	902	-	525	0
73	-	-	406	-	377	0	1	22	902	-	525	0
74	-	-	406	-	377	0	1	22	902	-	525	0
75	-	-	406	-	377	0	1	22	902	-	525	0
76	-	-	406	-	377	0	1	22	902	-	525	0
77	-	-	406	-	377	0	1	22	902	-	525	0
78	-	-	406	-	377	0	1	22	902	-	525	0
79	-	-	406	-	377	0	1	22	902	-	525	0
80	-	-	406	-	377	0	1	22	902	-	525	0
81	-	-	406	-	377	0	1	22	902	-	525	0
82	-	-	406	-	377	0	1	22	902	-	525	0
83	-	-	406	-	377	0	1	22	902	-	525	0
84	-	-	406	-	377	0	1	22	902	-	525	0
85	-	-	406	-	377	0	1	22	902	-	525	0
86	-	-	406	-	377	0	1	22	902	-	525	0
87	-	-	406	-	377	0	1	22	902	-	525	0
88	-	-	406	-	377	0	1	22	902	-	525	0
89	-	-	406	-	377	0	1	22	902	-	525	0

90	-	-	406	-	377	0	1	22	902	-	525	0
91	-	-	406	-	377	0	1	22	902	-	525	0
92	-	-	406	-	377	0	1	22	902	-	525	0
93	-	-	406	-	377	0	1	22	902	-	525	0
94	-	-	406	-	377	0	1	22	902	-	525	0
95	-	-	406	-	377	0	1	22	902	-	525	0
96	-	-	406	-	377	0	1	22	902	-	525	0
97	-	-	406	-	377	0	1	22	902	-	525	0
98	-	-	406	-	377	0	1	22	902	-	525	0
99	-	-	406	-	377	0	1	22	902	-	525	0
100	-	-	406	-	377	0	1	22	902	-	525	0

Table 6 Water Treatment Plant Water Balance – Years 6-100

	UF/RO Feed			Brine		Effluent		
	NMA	SMA	Total	Reject	To Evaporation	UF/RO Permeate	SMA Bypass	Total
Year	(gpm)	(gpm)	(gpm)	(%)	(gpm)	(gpm)	(gpm)	(gpm)
6	377	970	1,347	0.15	202	1,145	591	1,736
7	377	914	1,291	0.15	194	1,097	566	1,663
8	377	860	1,237	0.15	186	1,051	543	1,595
9	377	810	1,187	0.15	178	1,009	521	1,530
10	377	763	1,140	0.15	171	969	500	1,469
11	377	719	1,096	0.15	164	932	480	1,412
12	377	677	1,054	0.15	158	896	462	1,358
13	377	637	1,014	0.15	152	862	445	1,306
14	377	600	977	0.15	146	830	428	1,258
15	377	564	941	0.15	141	800	413	1,212
16	377	530	907	0.15	136	771	398	1,169
17	377	499	876	0.15	131	744	384	1,128
18	377	469	846	0.15	127	719	371	1,089
19	377	440	817	0.15	123	694	358	1,052
20	377	413	790	0.15	119	672	346	1,017
21	377	387	764	0.15	115	649	335	984
22	377	363	740	0.15	111	629	324	953
23	377	339	716	0.15	107	609	314	923
24	377	317	694	0.15	104	590	304	894
25	377	296	673	0.15	101	572	295	867
26	377	277	654	0.15	98	555	286	842
27	377	276	653	0.15	98	555	286	841
28	377	275	652	0.15	98	554	286	840
29	377	274	651	0.15	98	553	286	839
30	377	274	651	0.15	98	553	285	838
31	377	273	650	0.15	97	552	285	837
32	377	272	649	0.15	97	552	284	836
33	377	271	648	0.15	97	551	284	835
34	377	271	648	0.15	97	550	284	834
35	377	270	647	0.15	97	550	283	833
36	377	269	646	0.15	97	549	283	832
37	377	269	646	0.15	97	549	283	831
38	377	268	645	0.15	97	548	283	831
39	377	267	644	0.15	97	547	282	830
40	377	267	644	0.15	97	547	282	829
41	377	266	643	0.15	96	546	282	828
42	377	265	642	0.15	96	546	282	827
43	377	265	642	0.15	96	545	281	826
44	377	264	641	0.15	96	545	281	826
45	377	263	640	0.15	96	544	281	825
46	377	263	640	0.15	96	544	280	824
47	377	262	639	0.15	96	543	280	823
48	377	262	639	0.15	96	543	280	823

49	377	261	638	0.15	96	542	279	822
50	377	261	638	0.15	96	542	279	821
51	377	260	637	0.15	96	541	279	820
52	377	260	637	0.15	95	541	279	820
53	377	259	636	0.15	95	540	279	819
54	377	258	635	0.15	95	540	279	818
55	377	258	635	0.15	95	539	278	818
56	377	257	634	0.15	95	539	278	817
57	377	257	634	0.15	95	538	278	817
58	377	256	633	0.15	95	538	278	816
59	377	256	633	0.15	95	538	278	815
60	377	256	633	0.15	95	538	277	815
61	377	255	632	0.15	95	537	277	814
62	377	252	629	0.15	94	535	275	810
63	377	250	627	0.15	94	533	275	808
64	377	250	627	0.15	94	533	275	808
65	377	250	627	0.15	94	533	275	808
66	377	250	627	0.15	94	533	275	808
67	377	250	627	0.15	94	533	275	808
68	377	250	627	0.15	94	533	275	808
69	377	250	627	0.15	94	533	275	808
70	377	250	627	0.15	94	533	275	808
71	377	250	627	0.15	94	533	275	808
72	377	250	627	0.15	94	533	275	808
73	377	250	627	0.15	94	533	275	808
74	377	250	627	0.15	94	533	275	808
75	377	250	627	0.15	94	533	275	808
76	377	250	627	0.15	94	533	275	808
77	377	250	627	0.15	94	533	275	808
78	377	250	627	0.15	94	533	275	808
79	377	250	627	0.15	94	533	275	808
80	377	250	627	0.15	94	533	275	808
81	377	250	627	0.15	94	533	275	808
82	377	250	627	0.15	94	533	275	808
83	377	250	627	0.15	94	533	275	808
84	377	250	627	0.15	94	533	275	808
85	377	250	627	0.15	94	533	275	808
86	377	250	627	0.15	94	533	275	808
87	377	250	627	0.15	94	533	275	808
88	377	250	627	0.15	94	533	275	808
89	377	250	627	0.15	94	533	275	808
90	377	250	627	0.15	94	533	275	808
91	377	250	627	0.15	94	533	275	808
92	377	250	627	0.15	94	533	275	808
93	377	250	627	0.15	94	533	275	808
94	377	250	627	0.15	94	533	275	808
95	377	250	627	0.15	94	533	275	808
96	377	250	627	0.15	94	533	275	808
97	377	250	627	0.15	94	533	275	808

98	377	250	627	0.15	94	533	275	808
99	377	250	627	0.15	94	533	275	808
100	377	251	628	0.15	94	533	275	808

Reject is based on 2007 Van Riper where NMA water was 75% permeate and due to our water quality peaking at an SO4 of 1523 which is below even the 5,000 TDS water that was tested. In addition, the SMA water tested was able to get to 90% permeate with a feed of 1100 SO4.
This Balance maximizes the SMA flow bypass to minimize flows from the UF/RO reject to the evaporations system.

Table 7 Water Treatment Plant Sulfate Balance

	Sulfate Sources		UF/RO Sulfate			Effluent Sulfate	
	SMA Sulfate	NMA Interceptor Well Sulfate	Feed	Permeate	Brine Sulfate	SMA Bypass	Total
Year	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
6	1,450	1,571	1,484	10	9,836	1,450	500
7	1,450	1,571	1,485	10	9,846	1,450	500
8	1,450	1,571	1,487	10	9,856	1,450	500
9	1,450	1,571	1,488	10	9,866	1,450	500
10	1,450	1,571	1,490	10	9,877	1,450	500
11	1,450	1,571	1,492	10	9,887	1,450	500
12	1,450	1,571	1,493	10	9,899	1,450	500
13	1,450	1,571	1,495	10	9,910	1,450	500
14	1,450	1,571	1,497	10	9,921	1,450	500
15	1,450	1,571	1,498	10	9,933	1,450	500
16	1,450	1,571	1,500	10	9,945	1,450	500
17	1,450	1,571	1,502	10	9,957	1,450	500
18	1,450	1,571	1,504	10	9,970	1,450	500
19	1,450	1,571	1,506	10	9,982	1,450	500
20	1,450	1,571	1,508	10	9,995	1,450	500
21	1,450	1,571	1,510	10	10,008	1,450	500
22	1,450	1,571	1,512	10	10,021	1,450	500
23	1,450	1,571	1,514	10	10,035	1,450	500
24	1,450	1,571	1,516	10	10,048	1,450	500
25	1,450	1,571	1,518	10	10,062	1,450	500
26	1,450	1,571	1,520	10	10,075	1,450	500
27	1,450	1,571	1,520	10	10,076	1,450	500
28	1,450	1,571	1,520	10	10,076	1,450	500
29	1,450	1,571	1,520	10	10,077	1,450	500
30	1,450	1,571	1,520	10	10,078	1,450	500
31	1,450	1,571	1,520	10	10,078	1,450	500
32	1,450	1,571	1,520	10	10,079	1,450	500
33	1,450	1,571	1,520	10	10,079	1,450	500
34	1,450	1,571	1,520	10	10,080	1,450	500

35	1,450	1,571	1,521	10	10,080	1,450	500
36	1,450	1,571	1,521	10	10,081	1,450	500
37	1,450	1,571	1,521	10	10,081	1,450	500
38	1,450	1,571	1,521	10	10,082	1,450	500
39	1,450	1,571	1,521	10	10,082	1,450	500
40	1,450	1,571	1,521	10	10,083	1,450	500
41	1,450	1,571	1,521	10	10,083	1,450	500
42	1,450	1,571	1,521	10	10,084	1,450	500
43	1,450	1,571	1,521	10	10,084	1,450	500
44	1,450	1,571	1,521	10	10,084	1,450	500
45	1,450	1,571	1,521	10	10,085	1,450	500
46	1,450	1,571	1,521	10	10,086	1,450	500
47	1,450	1,571	1,521	10	10,086	1,450	500
48	1,450	1,571	1,521	10	10,086	1,450	500
49	1,450	1,571	1,522	10	10,087	1,450	500
50	1,450	1,571	1,522	10	10,087	1,450	500
51	1,450	1,571	1,522	10	10,087	1,450	500
52	1,450	1,571	1,522	10	10,088	1,450	500
53	1,450	1,571	1,522	10	10,089	1,450	500
54	1,450	1,571	1,522	10	10,089	1,450	500
55	1,450	1,571	1,522	10	10,089	1,450	500
56	1,450	1,571	1,522	10	10,090	1,450	500
57	1,450	1,571	1,522	10	10,090	1,450	500
58	1,450	1,571	1,522	10	10,090	1,450	500
59	1,450	1,571	1,522	10	10,091	1,450	500
60	1,450	1,571	1,522	10	10,091	1,450	500
61	1,450	1,571	1,522	10	10,091	1,450	500
62	1,450	1,571	1,523	10	10,093	1,450	500
63	1,450	1,571	1,523	10	10,095	1,450	500
64	1,450	1,571	1,523	10	10,095	1,450	500
65	1,450	1,571	1,523	10	10,095	1,450	500
66	1,450	1,571	1,523	10	10,095	1,450	500
67	1,450	1,571	1,523	10	10,095	1,450	500
68	1,450	1,571	1,523	10	10,095	1,450	500
69	1,450	1,571	1,523	10	10,095	1,450	500

70	1,450	1,571	1,523	10	10,095	1,450	500
71	1,450	1,571	1,523	10	10,095	1,450	500
72	1,450	1,571	1,523	10	10,095	1,450	500
73	1,450	1,571	1,523	10	10,095	1,450	500
74	1,450	1,571	1,523	10	10,095	1,450	500
75	1,450	1,571	1,523	10	10,095	1,450	500
76	1,450	1,571	1,523	10	10,095	1,450	500
77	1,450	1,571	1,523	10	10,095	1,450	500
78	1,450	1,571	1,523	10	10,095	1,450	500
79	1,450	1,571	1,523	10	10,095	1,450	500
80	1,450	1,571	1,523	10	10,095	1,450	500
81	1,450	1,571	1,523	10	10,095	1,450	500
82	1,450	1,571	1,523	10	10,095	1,450	500
83	1,450	1,571	1,523	10	10,095	1,450	500
84	1,450	1,571	1,523	10	10,095	1,450	500
85	1,450	1,571	1,523	10	10,095	1,450	500
86	1,450	1,571	1,523	10	10,095	1,450	500
87	1,450	1,571	1,523	10	10,095	1,450	500
88	1,450	1,571	1,523	10	10,095	1,450	500
89	1,450	1,571	1,523	10	10,095	1,450	500
90	1,450	1,571	1,523	10	10,095	1,450	500
91	1,450	1,571	1,523	10	10,095	1,450	500
92	1,450	1,571	1,523	10	10,095	1,450	500
93	1,450	1,571	1,523	10	10,095	1,450	500
94	1,450	1,571	1,523	10	10,095	1,450	500
95	1,450	1,571	1,523	10	10,095	1,450	500
96	1,450	1,571	1,523	10	10,095	1,450	500
97	1,450	1,571	1,523	10	10,095	1,450	500
98	1,450	1,571	1,523	10	10,095	1,450	500
99	1,450	1,571	1,523	10	10,095	1,450	500
100	1,450	1,571	1,523	11	10,089	1,450	500

Table 8 Enhanced Evaporation Salt Balance

	Facilities						Waste Rock Stockpile Runoff								Stockpile Seepage						UF/RO		Enhanced Evaporation		
	Ivanhoe Concentrator Runoff		Chino Main Office Buildings		SX/EW Runoff		West Side of West Waste Rock Stockpile Runoff		Northeast Waste Rock Stockpile Runoff		Southwest Lampbright Waste Rock Stockpile Runoff		Kessel Waste Rock Stockpile Runoff		East Side of West Stockpile Seepage		South Stockpile Seepage		North, Main, and South Lampbright Seepage		Brine		Total Dissolved Concentration of Feed	Mass of Salt	Volume of Salt
Year	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(mg/min)	(mg/L)	(tons/year)	(yds^3/year @ 77 lbs/ft^3)
6	2,400	163,678	2,400	138,728	2,400	171,640	47,950	6,022,188	47,950	1,998,903	47,950	1,848,348	47,950	3,937,584	199,667	15,971,222	199,667	13,174,692	199,667	16,567,856	9,836	1,987,318	21,167	35,907	34,543
7	2,400	163,678	2,400	138,728	2,400	171,640	47,950	6,022,188	47,950	1,998,903	47,950	1,848,348	47,950	3,937,584	199,667	15,971,222	199,667	6,060,358	199,667	502,656	9,846	1,906,594	13,927	22,432	21,580
8	2,400	163,678	2,400	138,728	2,400	171,640	47,950	6,022,188	47,950	1,998,903	47,950	1,848,348	47,950	3,937,584	199,667	15,971,222	199,667	2,787,765	199,667	502,656	9,856	1,828,753	12,941	20,491	19,712
9	2,400	163,678	2,400	138,728	2,400	171,640	47,950	6,022,188	47,950	1,998,903	47,950	1,848,348	47,950	3,937,584	199,667	15,971,222	199,667	1,282,372	199,667	502,656	9,866	1,756,678	12,529	19,577	18,833
10	2,400	163,678	2,400	138,728	2,400	171,640	47,950	6,022,188	47,950	1,998,903	47,950	1,848,348	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,877	1,688,927	11,198	16,769	16,132
11	2,400	163,678	2,400	138,728	2,400	171,640	47,950	6,022,188	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,887	1,625,501	10,105	14,519	13,967
12	2,400	163,678	2,400	138,728	2,400	171,640	47,950	3,705,962	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,899	1,564,958	9,420	13,142	12,642
13	2,400	163,678	2,400	138,728	2,400	100,861	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,910	1,507,298	8,287	10,943	10,528
14	2,400	49,546	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,921	1,453,242	8,756	10,707	10,300
15	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,933	1,402,069	8,880	10,649	10,244
16	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,945	1,353,058	8,940	10,620	10,217
17	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,957	1,307,650	8,996	10,594	10,192
18	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,970	1,264,405	9,051	10,569	10,167
19	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,982	1,223,323	9,104	10,545	10,145
20	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	9,995	1,184,402	9,154	10,523	10,123
21	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,008	1,146,923	9,204	10,501	10,102
22	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,021	1,111,606	9,251	10,481	10,082
23	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,035	1,077,731	9,297	10,461	10,063
24	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,048	1,046,018	9,341	10,443	10,046
25	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,062	1,015,747	9,384	10,425	10,029
26	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,075	987,637	9,423	10,409	10,013
27	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,076	986,196	9,425	10,408	10,012
28	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,076	985,475	9,426	10,408	10,012
29	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,077	984,034	9,428	10,407	10,011
30	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,078	983,313	9,429	10,406	10,011
31	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,078	981,871	9,431	10,405	10,010
32	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,079	981,151	9,433	10,405	10,010
33	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,079	979,709	9,435	10,404	10,009
34	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,080	978,988	9,436	10,404	10,008
35	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,080	978,268	9,437	10,403	10,008
36	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,081	976,826	9,439	10,403	10,007
37	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,081	976,105	9,440	10,402	10,007
38	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,082	974,664	9,442	10,401	10,006
39	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,082	973,943	9,443	10,401	10,006
40	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,083	973,222	9,444	10,400	10,005
41	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,083	971,781	9,446	10,400	10,004
42	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,084	971,060	9,447	10,399	10,004
43	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,084	970,339	9,448	10,399	10,004
44	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,084	969,619	9,449	10,398	10,003
45	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,085	968,177	9,451	10,397	10,002
46	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,086	967,456	9,452	10,397	10,002
47	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,086	966,736	9,453	10,397	10,002
48	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,086	966,015	9,454	10,396	10,001

49	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,087	965,294	9,455	10,396	10,001
50	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,087	964,573	9,456	10,395	10,000
51	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,087	963,853	9,457	10,395	10,000
52	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,088	963,132	9,458	10,395	10,000
53	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,089	961,690	9,460	10,394	9,999
54	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,089	960,970	9,461	10,393	9,998
55	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,089	960,249	9,462	10,393	9,998
56	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,090	959,528	9,463	10,392	9,998
57	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,090	958,807	9,465	10,392	9,997
58	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,090	958,087	9,466	10,392	9,997
59	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,091	957,366	9,467	10,391	9,996
60	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,091	957,366	9,467	10,391	9,996
61	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,091	956,645	9,468	10,391	9,996
62	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,093	952,321	9,474	10,388	9,994
63	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
64	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
65	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
66	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
67	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
68	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
69	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
70	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
71	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
72	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
73	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
74	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
75	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
76	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
77	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
78	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
79	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
80	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
81	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
82	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
83	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
84	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
85	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
86	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
87	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
88	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
89	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
90	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
91	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
92	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
93	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
94	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
95	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
96	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
97	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992

98	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
99	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,095	949,438	9,478	10,387	9,992
100	2,400	0	2,400	0	2,400	0	47,950	39,678	47,950	13,170	47,950	12,178	47,950	41,204	199,667	15,971,222	199,667	399,710	199,667	502,656	10,089	949,625	9,477	10,387	9,992

Table 9 Capital and O&M Costs

Table 10 Capital Costs

Table 11 Equipment Maintenance and Replacement

Table 12 Labor Costs

Table 13 Power Costs

Table 14 Reagent Costs

Table 15 Analytical Costs
