FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.401)

Permittee Name: **Mt. Hamilton LLC**

Project Name: **Centennial-Seligman Project**

Permit Number: **NEV2013103 (New 2014)**

A. Location and General Description

Location: The Centennial-Seligman Project (CSP) is an open-pit gold mining, milling, and cyanide heap leach operation located in central White Pine County. The CSP is operated by Mt. Hamilton LLC (the Permittee) as a joint venture between Solitario Exploration and Royalty Corporation (80 percent interest) and Ely Gold and Minerals Inc. (20 percent interest).

The CSP is located within portions of Sections 5, 8, 9, 10, 15, 16, 17, 19, 20, 21, and 22, Township 16 North, Range 57 East, Mount Diablo Baseline and Meridian. The project site is located within the historic White Pine Mining District, approximately 36 miles west (by air) of Ely, and 25 miles southeast (by air) of Eureka. The Project Area is bordered by Newark Valley to the west and Railroad Valley and Pogonip Ridge to the east. The historic Monte Cristo town site is within the Project Area boundary and Mt. Hamilton is located east of the Project site. Elevations in the CSP area range between 6,900 to 10,745 feet above mean sea level (amsl), and the area receives on average 11.41 inches of precipitation annually.

Total Project Area disturbance is 714 acres; of which 474 acres is public land administered by the United States Forest Service (USFS) Humboldt-Toiyabe National Forest--Ely Ranger District, and 240 acres is private land. Within the Project Area are five patented claims controlled by the Permittee, including two private parcels ("Admin" and "Buchanan") separated by USFS land and connected by existing pre-1981 roads. The Heap Leach Pad (HLP); Process Solution Ponds; Adsorption, Desorption, and Recovery (ADR) Plant; stockpile, borrow source, and laydown areas; Class III Waivered Landfill; Petroleum Contaminated Soils (PCS) Holding Pad; crushing, screening, and conveyance circuits; and ancillary support facilities are located on private land.

Site Access: To access the Project site, proceed east approximately 28 miles from Eureka or west approximately 44 miles from Ely on U.S. Highway-50 (US-50) to the junction of White Pine County Road-5 (WPCR-5). Proceed south on WPCR-5 for approximately 9.6 miles to the mine site access road; the Administration Complex is located an additional 4 miles south via an access road of WPCR-5.

General Description: The CSP is authorized to process up to 3.0 million tons of gold ore annually using chemicals. The facilities at CSP are required to be designed, constructed, operated, and closed without any release or discharge from the fluid management system except for meteorological events which exceed the design storm event.

Operations are expected to last approximately 8 years. Active cyanide leaching application onto the HLP is expected to begin when economic ore is encountered and will continue beyond the end of mining until recovery drops below economic levels. HLP draindown, closure, and reclamation will require approximately 3 additional years. The closure and reclamation of supporting facilities and post-closure monitoring, with the exception of an evapotranspiration (ET) cell and associated downgradient groundwater monitoring, will require approximately 3 years. The ET cell operation and associated groundwater monitoring is projected to continue for 25 years after construction of the ET cell, bringing the entire Project life to approximately 40 years.

B. Synopsis

History: Phillips Petroleum Co. (Phillips) acquired much of the current Centennial-Seligman Project area in 1968 in an attempt to further delineate the tungsten-copper-molybdenum deposits first discovered during the late 1940s. In 1984 Northern Illinois Coal, Oil and Resources Mineral Ventures (later renamed Westmont Gold Inc.) entered into a joint venture with Phillips and Queenstake Resources Ltd. (now Veris Gold U.S. Inc.) to explore the property for open-pit mineable gold-silver mineralization. In early 1989, the Centennial and Seligman gold deposits were identified and in 1993 a subsidiary mining company, Mt. Hamilton Mining Company (MHMC) was created to further develop and exploit the deposits.

Rea Gold Corp. (Rea) acquired MHMC in June 1994 and by November of 1994 was actively mining the Seligman deposit. Rea constructed a waste rock disposal facility (WRDF), HLP, and small process facility and initiated ore placement and cyanide leaching in early 1995. The planned mining of the Centennial deposit was not initiated as Rea ceased all mining in June 1997. Active cyanide leaching continued on the HLP until Rea's bankruptcy filing in November 1997. In 2002, the Bankruptcy Trustee abandoned all of the unpatented claims, allowing them to lapse for failure to pay the annual maintenance fees.

Centennial Minerals Company LLC (Centennial) staked claims covering the Centennial Deposit in late 2002, and in 2003 purchased all of the patented mining claims and Fee lands from the Bankruptcy Court. Augusta Resource Corporation (Augusta), through its 100 percent owned subsidiary Diamond Hill Minerals Ltd (DHM), acquired a leasehold interest in the property from Centennial in late 2003. Under an agreement with Augusta dated November 15, 2007, Ivana Ventures Inc.

(Ivana) acquired 100 percent of the shares of DHI. Ivana changed its name to Ely Gold and Minerals Inc. (EGMI) in 2008.

On 26 August 2010, Solitario Exploration and Royalty Corporation (SERC) signed a Letter of Intent with EGMI to obtain an 80 percent interest in the CSP. In December 2010, Solitario and EGMI entered into a joint venture agreement and formed Mt. Hamilton LLC to further develop and operate the CSP.

Geology/Lithology: The CSP is located on the western flank of Mt. Hamilton in the White Pine Mountain Range. The range runs for approximately 51 miles from Beck Pass in the north to Currant Pass in the south. To the west of the range are the Duckwater tribal lands and the northern arm of Railroad Valley. Jakes Valley and the northern portion of the White River Valley lie to the east. To the south are the Horse and Grant Ranges. The area is drained by ephemeral drainages which originate in the mountain blocks and flow onto alluvial fans.

The two major folds present in the project area include the Hoppe Springs anticline and the Silver Bell syncline to the west. The folded units are a package of Cambrian-to-Pennsylvanian-age sedimentary rocks, but only the Cambrian age units are present in the Project area. The igneous intrusives were the cause of district-wide contact metamorphism that resulted in hornfels and skarn alteration of the Cambrian-age host rock units.

The units that host gold mineralization are the Middle Cambrian Secret Canyon Shale and the Upper Cambrian Dunderberg Shale. Both units consist of calcareous laminated mudstones with thin limestone interbeds. The Dunderberg Shale overlies the Secret Canyon, and both of these units are exposed at the surface in the CSP area.

Mineralogy: Mineralization at the CSP consists of skarn-hosted tungsten, molybdenum, and copper (with and without zinc) with later epithermal gold and silver. Gold mineralization is primarily hosted in a 200 to 300 feet thick skarn horizon, bounded by upper (200 feet thick) and lower (450 feet thick) hornfel units. The bounding hornfels had lower permeability and were therefore less receptive to late-stage mineralization. The interbedded skarn in the Centennial area was subject to late-stage, low-angle faulting. These faults were conduits to late mineralizing solutions and oxidation. The result is an oxide-hosted epithermal gold deposit overprinting a retrograde poly-metallic skarn. The main Centennial precious metal mineralization is contained within a south dipping (15° to 20°) tabular zone that ranges from 20 to 250 feet in thickness.

Seligman area ore grade mineralization appears to be largely stratiform in shallow-dipping, bedding-parallel, structurally and chemically prepared zones with local high angle, cross-cutting, possible "feeder" zones. At Centennial, the mineralization is controlled by late low-angle structures that are discordant to bedding and oxidized to significant depth. Gold grades of samples within the retrograde alteration range from <0.001 troy ounces per ton (oz/t) to 0.995 oz/t. The occasional high grades appear to be associated with crosscutting structures and veins within the skarn.

The ore lithology at Centennial consists primarily of oxidized metasediments and some igneous rock (Seligman Stock), with a much smaller percentage of un-oxidized equivalents of the same rock types. Weathering and oxidation of original sulfide mineralization resulted in the formation of oxide mineralization (with low sulfide mineral residuals) from which gold is recoverable by cyanide heap leaching. Gold is present as free gold, residing in iron oxide minerals or quartz, and adsorbed on clay minerals. Sulfosalt-bearing veins consisting primarily of quartz (SiO_2) and stibnite (Sb_2S_3) with minor, variable amounts of sphalerite (ZnS), galena (PbS), pyrite (FeS_2), covellite (CuS), bornite (Cu_5FeS_4), chalcopyrite ($CuFeS_2$), bournonite ($PbCuSbS_3$), and jamesonite ($Pb_4FeSb_6S_{14}$) typically occur within the mineralized zones and may be associated locally with the higher grades of gold and particularly silver.

Ore, Leached Ore, and Waste Rock Characterization: Representative samples of ore, leached ore, and waste rock were characterized to determine the potential for acid generation (PAG) and mobility of constituents. Characterization tests performed included the Meteoric Water Mobility Procedure (MWMP), Acid-Base Accounting (ABA), and Humidity Cell Testing (HCT).

MWMP characterization tests were performed on ore, leached ore, and waste rock material to determine the dissolution of specific metal and metalloid constituents during a precipitation event. MWMP characterization results from the ore and waste rock material showed elevated arsenic, antimony and mercury concentrations from one or more material types.

The MWMP leachates for the rinsed spent ore samples show some potential for metal and metalloid release under alkaline pH conditions (pH=10 standard units or SU). These high pH conditions are attributed to lime addition during metallurgical testing and results in the preferential mobilization of aluminum, arsenic, antimony, iron, lead and mercury at concentrations above the Profile I reference values in the MWMP test. These constituents are predicted to be elevated in the heap drain down solution during closure and are generally about an order of magnitude higher than seen in the MWMP results for the waste rock and ore samples.

The results of the ABA and HCTs indicate that the majority of the ore, leached ore, and waste rock material is likely to be neutralizing and presents a low risk for acid generation. From the ABA tests, 75 percent of the 97 samples tested were non-acid forming. A small number of ABA samples did show a higher potential for acid generation, including a few samples of ore-grade skarn and igneous intrusive material samples. ABA test results for the remaining samples with low acid neutralization potential and low acid generation potential values were inconclusive and kinetic testing was initiated to address these uncertainties. The samples classified as uncertain from the ABA testing did not generate acid during the HCTs.

From the HCT results, there was an initial flush of mercury from two of the six HCTs, but mercury release from the remaining HCTs was low, indicating that the potential mercury impacts to groundwater or surface water are limited. This potential is further reduced by the depth to groundwater that exceeds 1,000 feet below ground surface (bgs) and the absence of any surface water resources downgradient of the mine facilities. One of the igneous intrusive samples was seen to generate more acidic leachates (pH 4.0 to 5.0) during the HCT, and this sample also showed leaching of iron, manganese, and sulfate at concentrations above the Profile I reference values.

The leached ore samples were also found to contain significant neutralizing capacity and were predicted to be non-acid generating based on the ABA results. HCTs on this material were not initiated. With excess neutralizing capacity available, net acid conditions are unlikely to develop at Centennial. However, several metals and metalloids are likely to mobilize under circum-neutral to moderately alkaline pH conditions.

Waste Rock Management and Disposal: The results of the geochemical characterization program indicate that the bulk of the CSP waste rock material is non-PAG (approximately 90 percent) and there is limited potential for metals to mobilize from the waste rock dumps and potentially impact waters of the State. Waste rock classified as PAG is limited to the igneous rock containing un-oxidized sulfide, which is expected to comprise approximately 10 percent by volume of the total waste from the Centennial and Seligman pits.

Geochemical modeling completed for the CSP has demonstrated that PAG waste rock can be blended with non-PAG waste rock with no resultant degradation of waters of the State of Nevada. Therefore, segregation of PAG is not required at this time. Management of waste rock is achieved by blending the small amount of PAG waste rock with non-PAG material. To ensure that the WRDF is constructed as a blended mass pursuant to the WRMP, the Permittee tracks and quantifies the PAG tonnage mined and placed within the WRDF and will continue to do so throughout the life of the CSP.

The Permit requires the sampling, monitoring and testing of waste rock generated by the CSP on a quarterly basis. If the monitoring program indicates greater quantities of acid generating material being encountered than originally predicted (i.e., in excess of 10 percent of the total waste rock volume), then the Permittee will investigate, evaluate, and implement alternative waste rock management practices and revise the WRMP.

Pursuant to the WRMP, blast hole samples are collected and characterized to provide analytical data to define ore and waste. Ore and waste limits are determined by cyanide-soluble gold and silver analysis above the designated cut-off grade, currently at 0.006 ounces per ton; however this gold cut-off grade may be adjusted during the course of the CSP in response to changes in economics.

Material below cut-off grade is designated as waste rock. Ore and waste is physically flagged by the ore-control geologist on active mining benches both before and after blasting. The tonnage of ore and waste mined is tracked by a mine production reporting system that includes truck counts and dig-face surveys.

Waste rock is further designated as PAG or Non-PAG based on lithology and the presence of visible sulfide. This determination is carried out during blast hole logging by the ore control geologist. The geochemical characterization of the CSP waste rock has defined sulfide-bearing igneous rock as PAG material. The amount of PAG encountered on each bench is quantified by determining the tonnage of rock each PAG blast hole represents as a function of the blast hole spacing and the bench height. The total amount of PAG mined on each bench is tabulated.

Waste rock will be placed in the existing Cabin Gulch WRDF, located approximately 0.5 miles northwest of the Centennial Pit and 0.5 miles southwest of the Seligman Pit. The Cabin Gulch WRDF was originally constructed as a "valley fill" design by Rea during the 1990s and current plans indicate that it will continue to be operated as such during the life of the CSP.

In most cases, end dump methods will be used to place the waste rock as a blended mass. The Cabin Gulch WRDA has been redesigned for waste rock placement in four lifts: a large single lower lift (the Lower Cabin Gulch WRDF) and three smaller upper lifts (the Upper Cabin Gulch WRDF). The upper lifts are intended to facilitate high elevation removal of overburden with a high component of oxide and Non-PAG colluvium.

The Lower Cabin Gulch WRDF will be constructed as a single lift with an overall height of 1,100 feet and serve as an extension of the original 1997 Cabin Gulch valley fill. The reclaimed slope will be 2.5H:1V. Material placed in this facility will be a combination of waste rock from both the Centennial and Seligman deposits. At closure the top surface area of the Lower Cabin Gulch WRDF will be regraded to restrict infiltration and will be crowned or tapered to be free draining.

The Upper Cabin Gulch WRDF will be constructed in three lifts 120 feet high at an overall slope with setbacks of 2.5H:1V. The reclaimed slope angle will be 2.5H:1V. Material placed in this facility will be mined from the upper levels of the Centennial deposit and placed roughly at the same elevation mined.

Current plans indicate that some non-PAG waste rock will also be used for infrastructure foundations, such as road fill, Crusher Pad construction, or for reclamation purposes elsewhere on the mine site. Toward the end of the mine life, options for pit backfill will be evaluated based on economic criteria and considering potential future ore.

Pursuant to the WRMP, the Permittee will survey the crest advance of all of the active waste rock facilities monthly and report the volume of waste rock added to the WRDF quarterly. Waste rock added to the facilities will be quantified from ore control and reconciled using dump crest surveys. Waste rock flagged as PAG in shot rock at the mine will be tracked to the lift where it is placed in the Cabin Gulch WRDF. The time period over which the PAG is encountered, mined and placed will also be recorded. Ore control will quantify the amount of PAG mined and the proportion of PAG versus non-PAG placed for each reporting period. The operator will use this tracking method to ensure placement of PAG as a blended mass. Results will be reported on a quarterly basis. Should the mine close prematurely, the Permittee will know where PAG waste rock is exposed at the surface for remediation.

Sampling and characterization of waste rock generated by the CSP is performed on a quarterly basis. If the ongoing monitoring program indicates that greater quantities of potentially acid generating material are encountered than originally predicted, then the Permittee will remodel the PAG to Non-PAG distribution and assess if adjustments need to be made to the existing WRMP.

The Permittee expects to carry out additional waste rock geochemical characterization in the future. If future mine plans or geochemical characterization indicates that PAG segregation is necessary, an updated waste rock management plan will be submitted in which PAG placement is segregated and chemically stabilized.

Mining: Mining will occur in two open pits, the Centennial Pit and an expansion of the existing Seligman Pit, historically referred to as the Northeast Seligman Mine, at elevations ranging from 8,140 to 9,456 feet amsl. Current plans call for mining in the Seligman Pit first to access near surface ore with minimal overburden, followed by the phased development of the Centennial Pit. The sequencing and timing of pit development could change depending on the results of ongoing ore body characterization and economic conditions.

The Seligman Pit will have maximum dimensions of 1,440 feet wide by 2,250 feet long by 780 feet deep with a volume of 8.6 million cubic yards (cu yd). The Centennial Pit will have maximum dimensions of 1,600 feet wide by 2,000 feet long by 600 feet deep with a volume of 24.4 million cu yd. The Seligman Pit will be constructed in one phase, based on current planning, and the Centennial Pit will be segregated into four phases for production scheduling. Both pits will include two-way, 80-foot wide ramps with maximum in-pit road grades of 8 percent.

Conventional open pit mining methods (truck and shovel/loader) will be used to remove ore and waste from the pits. Production benches in the Seligman Pit will be 32 feet wide with 60 vertical feet between catch benches (triple bench configuration, approximately 20 vertical feet each) and bench face slope angles of 70 degrees. Production benches in the Centennial Pit will be 28 feet wide with 60 vertical feet between catch benches and bench face slope angles of 70 degrees. Overall inter-ramp slope angles in both pits will average approximately 50 degrees. Bench heights may vary depending upon mining requirements or rock geotechnical properties. Rock mass stability analyses indicate high safety factors for slopes developed in hornfels, skarn and igneous intrusive lithologies. Structural evaluations to date have concluded that discontinuities are generally oriented favorably for slope stability.

The combined average mining rate of ore and waste will vary from approximately 10,000 to 45,000 tons per day over the life of the mine. Approximately 85 million tons of material will be mined from both open pits, with approximately 22 million tons of ore planned for extraction over a ten-year period. Waste rock will be hauled to the WRDF for permanent placement. Ore will be loaded into haul trucks for transport to an ore stockpile and primary crushing facility and eventually conveyed to an ore pass. The ore will drop through the ore pass for underground conveyance secondary crusher and to the processing facilities on the Buchanan Parcel.

Closure of the pits will include construction of berms, where constructible, outside of the anticipated pit wall ravel perimeter to limit public access. Pit backfilling is not proposed, however some backfilling of waste into previously mined areas may occur depending on pit conditions.

Groundwater conditions at the Project indicate the regional water table lies in excess of 1,200 feet below the bottom of both proposed pits. Only minor amounts of perched groundwater are anticipated to enter the pit either during operations or post-closure. Depending upon the balance between surface water runoff and evaporation, there is the potential that the pits may temporarily accumulate surface water during spring melt and/or large storm events. However, during operation at the historic NES Mine, standing water in the pit never accumulated in sufficient quantities to affect operations. If isolated, perched saturated zones are encountered, diversion ditches and sumps will be installed as necessary to maintain safe operating conditions within the pits. Accumulated snowmelt or runoff collecting in the bottom of the pits and/or pit sumps and benches is expected to evaporate based on the net evaporation rate of 51.5 inches annually and an annual precipitation rate of 11.41 inches.

Primary Crushing and Ore Transfer: Run-of-mine ore is transported by 100-ton haul trucks to the Crusher Facility located west of the Centennial Pit at an elevation of 8,450 feet amsl. The ore is either discharged directly to a jaw crusher feed bin or stockpiled on a soil pad with a permeability of 1 x 10^{-5} cm/sec when compacted in two, 6-inch layers at 92 percent of maximum dry density (American Society for Testing and Materials [ASTM] Method D1557).

Ore crushed to minus 4-inch passing will be dropped approximately 350 feet through a steel-lined 42-inch diameter vertical ore pass to an underground chamber, where it will be reclaimed and loaded onto a conveyor. A second 42-inch-diameter steel-lined raise will be installed near the ore feed raise to house power and water lines and a ventilation system and to provide an emergency escapeway.

From the underground chamber, the crushed ore will be conveyed via 36-inch wide conveyor through a 10-foot diameter adit/reclaim tunnel over a distance of approximately 3,540 feet and 15-percent decline to the exit portal. Ore exiting the adit/reclaim tunnel portal will be discharged onto a series of conveyors to a coarse ore stockpile area within the Secondary Crusher Pad and identical in construction to the Primary Crusher Stockpile Pad area. The Secondary Crusher Pad is located east of the HLP at an elevation of approximately 7,551 feet amsl.

Secondary Crushing, Adit Drainage Water Management, and HLP Loading: Beneath the coarse ore stockpile area is a 36-inch-wide conveyor inside a 10-foot-diameter tunnel. The conveyor discharges to the Secondary Cone Crusher for particle size reduction to minus 3/4-inch. Discharge from the Secondary Cone Crusher will be fed at a rate of 550 tons per hour via an overland conveyor, a series of portable ("jump") conveyors, and a radial stacking conveyor to the high-density polyethylene (HDPE) lined HLP.

Any groundwater intercepted in the adit/reclaim tunnel will flow to the exit portal, where it will be collected and routed by pipe to HDPE-lined process ponds and incorporated into the process circuit. Volumetric flow rate and water chemistry will be monitored quarterly. Depending on water chemistry characterization results and make-up water requirements, the adit water may be piped for discharge into either the system of stormwater diversion and perimeter channels for off-site release, or to a groundwater infiltration basin which will require its own separate Permit.

Heap Leach Pad: The Permittee has opted not to utilize the existing Rea HLP. In its place, the Permittee will construct a new 100-acre, 22.8 million ton HLP and solution collection/conveyance channel. The HLP will be located on moderately sloping and generally uniform topography southwest of the Centennial Pit. The HLP will be operated initially with solution application rate of 2,400 gpm and increasing up to the Permitted maximum rate of 3,200 gpm when secondary leaching is initiated during the third year of HLP operation.

Maximum height will be 220 feet above the lowest point of the geosynthetic liner surface.

Leachate will be collected by a system of perforated pipes at the base of the pad and report to the pregnant solution pond. Solution will be pumped from the pregnant solution pond to the processing plant by a submersible pump. Plant barren solution will flow to the barren solution pond after extraction of gold and silver. After the addition of sodium cyanide solution, barren solution will be pumped from the barren solution pond with submersible pumps into a booster pump to maintain solution application to the ore. The two solution ponds and the event pond (all double-lined with HDPE) have been designed to contain the 25-year, 24-hour storm event in addition to operational capacity. Each component of the operational water management system is described in greater detail in the following sections.

The topography of the HLP area slopes from east to west with a naturally-occurring topographic depression approximately located along the longitudinal axis of the leach pad. The HLP will be constructed in north-to-south and west-to-east directions from an elevation of 7,264 feet amsl at the toe of the process ponds to an elevation of 7,640 feet amsl at the crest of the eastern perimeter road. The slope of the lined base receiving ore will range from approximately 13 percent upslope from the stability berm and toe pad to 17 percent at the eastern boundary of the heap leach pad. The stacked ore height will gradually increase as it progresses from west to east until reaching its apex. Large column height/percolation tests performed in 2011 confirmed the feasibility of a stacking height of 220 feet without agglomeration using a solution application rate 0.004 gallon per minute per square foot (gpm/sq ft).

The HLP is designed to accommodate an ore stacking rate of 8,333 tons per day (3 million tons per year), an average dry ore unit weight (under load) of 107 pounds per cubic foot, an ore lift/bench height of 24 feet and width of 36 feet, a primary solution application rate of 0.004 gpm/sq ft and a secondary solution application rate of 0.001 to 0.002 gpm/sq ft (beginning in year 3), and a 90-day ore leach cycle. Total area under leach will be 600,000 sq ft.

Construction of the HLP is planned for four phases and all have been approved for construction. In addition to base preparation, perimeter containment, and stability berm installation, Phase I construction will include the ADR pad, process ponds, solution channel, access roads, and the temporary stormwater diversion channel.

Prior to developing each phase, the pad and perimeter berm footprint will be cleared and grubbed of existing vegetation. Phase I construction will also include clearing, grubbing, and cut-to-fill grading in the areas where the process ponds, plant, and lime storage silo will be constructed. Growth media will be removed to a minimum average depth of approximately 2 feet from the base of each phase and stockpiled for later use as growth media cover at the HLP. The growth media will be hauled and stockpiled at the south end of the private parcel where the administration building is situated west of the HLP.

Following clearing and grubbing, minor regrading of the leach pad base will be performed to smooth out the final surface for underliner construction and liner installation. Regrading will generally consist of minimal amounts of cut on high areas to obtain a maximum slope of 3H:1V and filling in incised drainages and low areas to promote solution drainage. The pad for each phase will be graded to follow the existing terrain and direct solution flows to the system of overliner collection pipes and, generally, to either the northern or southern perimeter of each cell. Base preparation for Phase I and Phase II will also include the cut-to-fill grading of a relatively level stability pad and berm along the western toe of each phase. The 150-foot-wide pad will be sloped at 2 percent to the earthen stability berm along the western cell boundary and 1.5 percent toward the south (Phase I) or north (Phase II). This compound slope will result in an overall 2.5 percent slope to the southeast (Phase I) or northeast (Phase II).

The HLP liner system will consist of a compacted 12-inch thick, low-permeability soil sub-liner layer overlain by 80-mil HDPE, textured on both sides. Sub-liner soils will be derived from cut-to-fill within the HLP footprint. When mixed with a 3-percent bentonite admixture, the underliner soils will achieve a permeability of 1×10^{-6} cm/sec when compacted in two, 6-inch layers at 95 percent of maximum dry density (ASTM Method D1557). Locally-available low-permeability soils meeting may also be obtained and used for the underliner layer in place of the bentonite admixture.

The final sub-liner surface will be smooth-rolled and any protrusions removed prior to liner installation. To protect the primary liner and complete the solution recovery system, a 3-foot thick overliner layer comprised of crushed ore will be placed with the radial stacker and then carefully spread uphill with a small, low-ground-pressure dozer over the primary liner and network of collection pipes. This layer will protect the synthetic liner and pipe network during subsequent stacking operations.

The geomembrane liner will be extended up the interior slopes of the perimeter containment berms, and over the stability berm, phase divider berms, and cell divider berms. The solution conveyance channel will be constructed with the same liner and sub-liner configuration as the HLP.

Pregnant Solution Collection and Recovery System Piping and Containment: The Pregnant Solution Collection and Recovery System (PSCRS) will consist of a network of collection pipes designed to collect leach solution and transport it to the process ponds. The pipe network will utilize three different pipe sizes and two types, consisting of 4-inch, 12-inch, and 24-inch diameters and both perforated, corrugated, smooth-interior HDPE (also referred to as corrugated polyethylene tubing, or "CPT") and solid-wall smooth HDPE pressure pipe.

A network of 4-inch-diameter collection pipes (corrugated, smooth interior, perforated HDPE) will be placed oblique to the base grade in an approximate herringbone configuration and serve as the first collection point for pregnant solution. These pipe "laterals" will be installed cross-gradient to achieve an approximate 4 percent flow line slope, and will be placed at 25-foot intervals (i.e., 25 feet on center) as construction progresses upslope. The laterals will convey solution to the 12-inch-diameter and 24-inch-diameter solution pipes. This general configuration will be replicated in subsequent phases. The 12-inch-diameter solution collection pipes (corrugated, smooth interior, perforated HDPE) will be placed on the downslope side of each cell, along the side of the cell or phase divider berm (except in Cells 3A and 3B, where the solution pipe will extend up the natural swale that projects in an east to northeast alignment through each cell).

In Phase I and Phase II, the 12-inch-diameter corrugated perforated HDPE solution pipes will connect to standard 12-inch-diameter solid-wall HDPE pipes at the interior toe of the stability berm. The solid-wall HDPE pipes will extend through a lined notch in the stability berm and connect to the two solution conveyance pipes by a combination of tees, elbows, and valves in the solution channel. Solution collected from the heap leach pad will then be conveyed to the pregnant solution pond or barren solution pond via two 24-inch-diameter corrugated HDPE solid-wall pipes in the solution channel.

At the time of Phase I and Phase II construction, the 12-inch-diameter solution pipes will extend to the downslope toe of the phase divider berm on the eastern perimeter of each cell. There they will be capped for future extension into the "B" section of each cell. The exception will be the collection header in Cell 3A, which will be extended through the phase divider berm to capture stormwater runoff that may pool on the upslope side of the berm.

During Phase Ill and Phase IV construction, a lined notch will be constructed through the phase divider berm and the 12-inch-diameter solution pipe from the upslope (or "B" section) cell will connect to the solution pipe in the downstream (or "A" section) cell. Solution flow from each cell will be monitored through monitoring ports installed where the 12-inch diameter collection pipe projects through the stability berm notch along the western perimeter of the "A" section of each cell.

The Barren Solution Collection and Recovery System (BSCRS) is designed for a cyanide leach solution application rate of 3,200 gpm at 0.004 gpm/sq ft. The actual pumping rate will depend on losses on the heap and the timing of operation of a secondary leach cycle concurrent with the primary leaching circuit.

Solutions applied to the HLP will be distributed from the Barren Solution Pond via a submerged pump feeding a booster pump and 12-inch-diameter steel distribution header at the HLP base. Every 240 feet on the header, at cell dividers, there will be a reducer and valve followed by 8-inch-diameter HDPE piping to the heap. The 8-inch-diameter HDPE piping will connect to 4-inch diameter HDPE pipe at 350-foot intervals. The 4-inch-diameter HDPE pipe will be drilled and tapped on both sides to accommodate solution distribution through 175-foot long emitter lines extended over the ore surface. The primary leach rate of 0.004 gpm/sq ft will be maintained for the first two years of operation. Beginning in the third year, an additional 800 gpm of barren solution will be applied to sections of the HLP undergoing secondary leaching at a rate of 0.001 to 0.002 gpm/sq ft. The maximum permitted amount of pregnant leach solution flow collected from the base of the leach pad is 3,200 gpm.

The solution conveyance channel consists of a lined trapezoidal channel, which will convey stormwater as open channel flow, and process solution within 24-inch diameter corrugated HDPE pipes to the pregnant solution pond or, if necessary during storms, the barren solution pond. The solution conveyance channel will be constructed with the same liner and sub-liner configuration as the HLP. The lined solution channel incorporates two 4-inch diameter perforated corrugated HDPE pipes to accelerate drainage of liquids entrained in the solution channel drain rock to minimize hydraulic head development over the liner system.

Pregnant, Barren, and Event Pond Design: The Pregnant, Barren, and Event ponds are all designed to remain fully functional and contain process fluids and accumulations resulting from the 100-year, 24-hour storm event falling on the HLP and other processes components contributing to the pond inventory. All ponds are double-lined and are designed to accommodate 2-feet of freeboard.

The ponds will be constructed as part of the Phase I HLP construction and will include foundation preparation, LCRS installation, and a double-liner system. The pond areas will be cleared and grubbed of existing vegetation and topsoil will be hauled to the growth media stockpile. A synthetic drainage layer (incorporating either Agru Drain Liner™ as the secondary liner or geonet between the primary and secondary liners) will be included between the primary and secondary liners in the ponds to act as a separating, highly-transmissive layer to intercept and transport leakage to the LCRS sump.

The Pregnant, Barren, and Event ponds are each designed with a LCRS sump. The LCRS is located at the center of the Pregnant Solution Pond and at the north end of the Barren Solution and Event ponds. Available sump capacities are 1,500 gallons, 3,300 gallons, and 6,300 gallons for the Pregnant, Barren and Event ponds, respectively.

Each sump will include drainage gravel placed 2 feet deep and wrapped in an 8 ounce per square yard (oz/sq yd) nonwoven geotextile. Each sump will be underlain by the secondary 60-mil HDPE liner and overlain by the geonet and primary 80-mil HDPE liner. The soil beneath the secondary liner will be amended as necessary and compacted to create a 2-foot-thick layer with a maximum permeability of 1×10^{-7} centimeters per second (cm/sec). An HDPE riser pipe will be located between the primary and secondary liners and extend to the pond crest to allow leak detection monitoring and removal of solution collected in the sump. The ponds will require cuts and fills of up to 30 feet to accommodate the design pond geometries in the proposed location.

Pregnant solution from the HLP will be piped to the Pregnant Solution Pond via 24-inch diameter pipes or channel flow in the lined solution conveyance channel. The pregnant solution pond will have crest dimensions of 160 feet long by 180 feet wide with 3H:1V interior side slopes and an operating depth of 20 feet at a corresponding pond water elevation of 7,295.5 feet amsl.

Barren solution will flow by gravity through a 12-inch diameter steel pipe to the Barren Solution Pond from the ADR plant. Stormwater will be conveyed to the pond within the HDPE-lined Solution Conveyance Channel. In addition, solution collected from the HLP that does not meet the process criteria for pregnant solution will be directed to the Barren Solution Pond for recirculation. If necessary, excess stormwater captured with draindown in the HLP solution collection system can be directed to the barren solution pond in the solution conveyance pipes. Further, overflow from the pregnant solution pond during upset conditions will also be conveyed to the barren solution pond through an internal spillway channel connecting the two ponds. The Barren Solution Pond will have crest dimensions of 215 feet long by 215 feet wide with 3H:1V side slopes and an operating depth of 20 feet.

The Event Pond is sized to accommodate spring snow melt and precipitation falling directly into the pond, HLP and adjacent areas as a result of the 25-year, 24-hour storm event. The Event Pond will have crest dimensions of 740 feet long by 170 feet wide with 3H:1V interior side slopes and an operating depth of 20 feet at a corresponding pond water elevation of 7,315.5 feet amsl.

The 12-hour operating volume for the pregnant solution pond was determined from a process pumping rate of 3,200 gallons per minute, whereas the operating volume for the barren solution pond accounts for both the 3,200 gpm primary application rate and the secondary application rate of up to 800 gpm, as well as predicted losses (i.e., fresh ore wet-up and evaporation from the heap surface). The freeboard volume for each pond was calculated based on a minimum freeboard depth of 2 feet and the dead storage volume was determined based on an assumed required pump draft of 4 feet. To accommodate the volume of rainfall that falls on the leach pad and process ponds during mine operation, it was assumed that the entire 25-year, 24-hour storm depth (2.87 inches) will report to the process ponds.

Rainfall on the HLP will enter the solution process either as infiltration through the heap or as surface runoff into the channel formed between the perimeter berm and toe of the heap. Infiltrating storm flows will be collected by the perforated 4-inch-diameter collector pipes and 12-inch-diameter solution pipes. The stormwater collected on the HLP pad can report to either the Barren or Pregnant Solution ponds, but design capacity has been provided in the Event Pond and it is intended for the two solution ponds to overflow into the Event Pond via internal spillways during moderate to large storm events. In the event stormwater is first sent to the Pregnant Solution Pond (primarily via pregnant solution pipes) and the pond's capacity is reached, solution will flow into the Barren Solution pond through an internal spillway between the two ponds. Once the Barren Solution Pond reaches capacity, stormwater will flow into the Event Pond via an internal spillway.

HLP, WRDF, and Process Pond Stability Analyses: Slope stability analyses were performed for the HLP, WRDF, and process ponds using the predictive computer modeling program SLIDE (Version 5.026). SLIDE is a 2-dimensional slope stability analysis program for evaluating the factor of safety, or probability of failure, for circular and non-circular failure surfaces in a defined slope section. SLIDE analyzes the stability of slip surfaces using vertical slice limit equilibrium methods (e.g., Bishop, Janbu, Spencer, etc.). Individual slope surfaces can be analyzed, or random search methods can be applied to locate the critical slip surface for a given slope. Deterministic (safety factor) or probabilistic (probability of failure) analyses can be carried out. The following sections summarize the determination of the seismic hazard for the project site, the input parameters used in the stability analyses, and the result of the analyses.

A seismic hazard analysis was performed for the above components using a Probabilistic Seismic Hazard Analysis (PSHA) to estimate ground accelerations expressed as a percent chance of exceedence for a given time period and is expressed with a recurrence interval. A peak ground acceleration of 0.083g (where g is the gravitational force equal to 32.2 feet per second, squared) with a 10 percent probability of exceedence in 50 years, was estimated from the 2008 USGS National Seismic Hazard map. A peak acceleration of 0.1g was used to represent seismic conditions for the pseudo-static heap leach pad stability analyses.

The stability of the west-facing slope of the leach pad was evaluated both for the initial lift of the ore at the stability berm and toe pad during operations and for the full height of the final regraded configuration of the reclaimed heap leach pad at the end of the Project. In addition, the overall stability of the final configuration of the lower (and largest) WRDF was evaluated. The stability analyses also took into account the 3-percent bentonite admix sub liner placement design.

For all analyses, the factors of safety (FOS) under static condition and pseudo-static conditions are higher than the required minimum FOS of 1.3 and 1.05, respectively. Therefore, the proposed heap leach pad and WRDF configurations will be stable as proposed under both static and pseudo-static conditions for both the initial lift and final grading configurations.

The SLIDE predictive modeling program (version 5.026) was also used to analyze the static and pseudo-static stability of the critical embankment cross-section though the process solution ponds. The critical cross section was selected based on the underlying ground slope, overall embankment height, the final configuration of the slope, and the foundation materials. The stability analysis for the process solution ponds was completed using random circular surface generation and block failure surface generation with Spencer's method.

The process pond embankment was also analyzed using the computer program Settle3D (version 2.010) to evaluate the potential for settlement to affect the process ponds and the integrity of its liner system. The results of the settlement analyses indicate a maximum predicted differential settlement of 0.74 inches over the footprint of the pond and embankment. This predicted differential settlement is not large enough to compromise the integrity of neither the pond embankment nor its liner system. The total predicted settlement is expected to be immediate and therefore is not anticipated to adversely affect the pond throughout the facility life.

ADR Plant Design and Operations: A carbon ADR circuit will be utilized at the Project and is proposed to be located west of the HLP. The ADR plant will have all the mercury controls installed as currently required by the State of Nevada. The ADR plant consists of the following:

- Carbon-in-column (CIC) area (including 5-tank Carbon Column Circuit [each tank 8,500 gallons], acid wash, carbon stripping, and carbon regeneration areas);
- Smelting Area - also includes electrolytic cells; and
- Mercury Control Area - includes the Cyanide Addition Area floor drainage.

Containment within the process building includes sealed concrete floor slabs and 6-inch high curbs along the ADR building perimeter to prevent leakage and spillage outside of the containment footprint.

The carbon columns, acid wash, carbon stripping and carbon regeneration are all located within the 60-foot by 100-foot CIC area of the ADR building. Available secondary containment within the entire CIC area is approximately 22,000 gallons. Spills from this area will gravity drain to the CIC sump located at the southeastern corner of the CIC area. The collected fluids will be pumped over the safety screen and discharged by gravity flow together with the plant barren solution into the barren solution pond via a 12-inch diameter steel pipe.

The largest fluid-containing tank in the CIC area is the Strip-Hold tank with a capacity of 10,000 gallons. A 6-inch-high curb constructed around the carbon stripping area (containing the Strip-Hold tank) will provide containment of incidental spills in this area. In the event of any solution exiting containment as a result of a spill, the solution will flow to the CIC sump.

Electrolytic cells and the induction smelting furnace are located within a 40-foot by 64-foot section of the ADR building with an available secondary containment of approximately 9,500 gallons. No vats or tanks will be installed in this area. A sump located adjacent to the northern wall of the area will be used to collect incidental spills.

The Cyanide Addition and Mercury Control areas are located adjacent to the western wall and outside of the ADR building within 14-foot by 20-foot and 14-foot by 64-foot areas, respectively. A chemical-resistant sealed concrete floor slab and 12-inch-high curbs along the slab perimeter will provide secondary containment. The curb between the two areas is constructed to a height of 6 inches to convey any spills from the Cyanide Addition Area into the Mercury Control Area. The largest tank in the Cyanide Addition Area is the Cyanide Storage Tank, with a volume of 10,000 gallons. To meet the required 110-percent containment capacity, a containment of 11,000 gallons is necessary; however the combined containment volume for both the Cyanide Addition and Mercury Control areas is 11,534 gallons. Therefore sufficient containment capacity is available.

Water Supply and Management: The steady state make-up water requirement for the project is approximately 500 acre-feet per year. The primary water source will be the Primary Production Well located at the mouth of Seligman Canyon. A backup well at the same location as the Primary Well will provide a backup supply of water during periods of maintenance of the Primary Well. Water rights have been secured to provide adequate production for make-up demand. Water conveyance from the Primary Well to the private land will be through an eight- to ten-inch diameter HDPE pipe. The buried pipeline alignment will follow existing roads to the extent possible but is situated to avoid any known sensitive resources.

A secondary well will be established at an alternate location to provide redundant production to the Primary Well. It is anticipated that peak demand exceeds water rights currently in place and additional water rights are under application to fulfill that need.

Chemical Storage and Use: Hydrocarbon products, including lubricants, oils, antifreeze, and used oil will be stored at the mine operations and truck shop facility. These reagents will be transported, stored, and used in accordance with federal, state, and local regulations. Diesel fuel and hydrocarbon products will be stored in primary containment (tanks, tote bins, and barrels) within secondary containment to prevent releases to the environment. Used oil and used containers will be disposed of or recycled according to federal, state, and local regulations.

Waste and Petroleum Contaminated Soil (PCS) Management: Used solvents are the only identified potential hazardous wastes at this time. Used oil and coolant will also be stored at the mine operations and truck shop facility and at the processing facility within secondary containment. The materials will be either recycled or disposed of off-site in accordance with state and federal regulations. Used containers will be disposed of or recycled off site according to federal, state, and local regulations. Any petroleum contaminated soil, when generated, will be containerized and transported off-site to an appropriate storage facility in accordance with Division regulations.

Solid wastes generated by the mine and process departments will be collected in dumpsters near the point of generation. Industrial solid waste will be disposed of off-site at appropriate facilities.

Stormwater Diversion Structures: Stormwater diversion channels and ditches will be constructed around the surface facilities and roads as required to control storm water run-on to these sites. Surface water control ditches and sediment retention structures will be constructed in accordance with Best Management Practices (BMPs) as outlined in the Handbook of Best Management Practices. Diversion ditches are sized to contain a 100-year/24-hour storm event. Diversion ditches will route storm water to natural channels that exist prior to construction. Sediment ponds will be constructed with armored spillways that divert water to natural channels. Run-on diversion channels and ditches will remain as permanent features after final reclamation and mine closure where they are not reclaimed. The open pits themselves are internally drained with little external catchment and will not require diversion of surface water. Sediment ponds will be constructed at the lower limit of the expected ultimate reclaimed WRDF and the Crusher Pad. Rip rap will be used to ensure flow underneath the fill in the lowest part of the gulch containing the Crusher Pad.

The United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) WinTR-55 program was used to calculate peak flow rates for each drainage area upgradient of the HLP and process ponds for two stages of leach pad development — initial construction through the completion of HLP Phase II, and full pad construction through post-closure (i.e., complete build out of HLP Phases III and IV). Based on calculated peak flow rates and channel flow line slopes, two geometries were developed for the temporary and permanent diversion channel alignments utilizing Manning's equation for normal depth hydraulic calculations. The geometry of the temporary diversion channel is a diversion berm forming a v-ditch, and the permanent diversion channel is a trapezoidal channel where the potential exists for higher flow depths.

For the temporary diversion channel, a v-ditch with 3H:1V side slopes and a 0.6 to 2.1 percent flow line slope, a minimum channel depth of 1.5 feet is required. The full flow capacity of the v-ditch is 21 cubic feet per second (cfs), which exceeds the predicted peak discharge of 17 cfs for the 100-year, 24-hour storm event.

The permanent diversion channel is designed as a trapezoidal channel geometry consisting of a 12-foot floor width, 2H:1V side slopes, and a minimum design depth of 2 feet. With a 12.2 percent flow line slope, the hydraulic analysis resulted in a full flow capacity of 310 cfs, which exceeds the predicted peak discharge of 141 cfs for the 100-year, 24-hour storm event.

Rip-rap sizing and the associated roughness coefficients for rip-rap-lined open channels were determined from the methodology outlined by the United Stated Department of Interior, Office of Surface Mining (USDI-OSM), Surface Mining Water Diversion Design Manual. The permanent diversion channel will be armored with a 15-inch-thick layer of rip-rap with a median rock diameter (D_{50}) of 12 inches for erosion protection. The temporary diversion channel will not require armoring because the low flow velocities are not expected to create excessive erosion.

C. <u>Receiving Water Characteristics</u>

Groundwater: The mapped potentiometric surface in the Mt. Hamilton area indicates the local ground water level is between 5,500 and 6,500 feet amsl. The Seligman Canyon Primary Well and a backup production well (Backup Well) located 30 feet away from the Primary Well have been developed in a productive fractured bedrock aquifer located to the northwest of the mining areas. Measured static water levels in the two wells are approximately 6,898 feet amsl. Groundwater monitoring well MW-01 is upgradient of the HLP and MW-02 is downgradient. MW-03 and MW-04 will be located downgradient of the HLP, ADR Plant, and Process Ponds. MW-05 will be located downgradient of the Waste Rock Disposal Areas. The static water levels range from MW-01 and MW-02 are 6,789 and 6,933 feet amsl respectively.

Pump testing on the Primary Well and on MW-02 show good transmissivity. The static water levels in these wells are believed to be representative of the potentiometric surface in the area. The static water level in MW-01, completed in tight bedrock with low transmissivity, is believed to be less representative of the regional potentiometric surface.

Exploration bore hole drilling at the existing NES mine has penetrated to depths up to 1,500 feet below ground surface (bgs), equivalent to 7,710 feet amsl. Drillers have reported that none of the exploration drill holes have encountered the ground water table. The planned lowest elevations of the open pits will be several hundred feet higher than the maximum depths of the bore holes. The planned minimum elevation of the Centennial and Seligman Open Pit floors is 8,440 feet amsl and 8,140 feet amsl, respectively. Except for precipitation and minor perched ground water there will be no inflows of water into the pits. No persistent standing water is expected within the open pits based on past mining during the Rea operation. Over the past several drilling seasons there has been no long-term standing water in the open pits, even after the winter of 2011, which was a high precipitation year. Based upon the above data and observations, dewatering of the pits will not be required nor pit lakes forming at the end of mining.

Groundwater Chemistry: Groundwater quality for the Seligman Canyon Primary Well (SCW-01P) and Back-up Well (SCW-01B) meets Profile I reference values for all parameters. Groundwater samples have been taken at the two ground water monitoring wells, MW-01 and MW-02. Characterization results indicate that the background groundwater quality from both sites meets the Division's Profile I reference values for most parameters with the following exceptions:

- MW-01 routinely exceeded the Profile I reference values (RVs) for arsenic (0.039 mg/L vs. 0.010 mg/L RV)), manganese (0.15 mg/L vs. 0.10 mg/L RV), and total nitrogen (26 mg/L vs. 10 mg/L).
- MW-02, cadmium concentration exceeded the Profile I RV for (0.006 mg/L vs. 0.005 mg/L RV) on one occasion.

Surface Water Hydrology: The Project is located almost entirely within the USGS Hydrographic Basin-10 for the State of Nevada, hydrographic area-154 (Newark Valley). The Project is located near the east side of the basin, which drains west toward Newark Valley.

Hydrographic area 154 is typical of arid drainage basins in Nevada where precipitation is generally insufficient to support perennial stream flow. Small ephemeral channels begin in the higher elevations of the White Pine Range and convey water to the lower valleys.

Surface Waterways, Springs, and Seeps: Hoppe Spring, Seligman Spring, and Monte Cristo Spring are located within the CSP area. Geologic mapping conducted in the area in the 1990s indicates a seasonal surficial discharge of water along an alluvial-bedrock interface that may be responsible for a vegetative response that indicates the area may contain more surface moisture than surrounding areas.

Flow was observed from Hoppe Spring in 2011 after an exceptionally wet year but little or no flow has been observed in years prior to 2011, or afterwards. Flow from Monte Cristo Spring has not been observed for the past several years. No observational records exist for Seligman Spring. No other surface water resources have been identified downgradient of the proposed mine facilities. There are no perennial waters within the Project Area or within a one-mile radius of the Project or drinking water supply wells within a five-mile radius of the Project.

Boundaries and Areas of Upgradient Watersheds: One sub-area watershed exists upgradient and to the east of the Buchanan Parcel. The hydrologic analysis of the watershed upgradient of the HLP was performed. Utilizing the WinTR-55 computer program, the United States Department of Agriculture (USDA) TR-55 methodology was used to calculate the 100-year, 24-hour peak flood discharge for the drainage area upgradient of the diversion channel. The 100-year, 24-hour storm event was modeled, using an area of 753 acres. The results indicate that peak flows from the upgradient watershed for the 100-year, 24-hour storm event could be as high as 162 cubic feet per second. Stormwater from the upgradient watershed will be intercepted by a diversion channel prior to reaching the process area.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the facility to construct, operate and close, subject to the conditions within the Permit, is being sent to the **Ely Times** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

E. Proposed Determination

The Division has made the tentative determination to issue the Permit.

F. Proposed Effluent Limitations, Schedule of Compliance, Special Conditions

See Section I of the Permit.

G. Rationale for Permit Requirements

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping process solution will be placed on required routine monitoring of leak detection systems as well as routinely sampling downgradient monitoring well(s) and surface water. Specific monitoring requirements can be found in the Water Pollution Control Permit.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 United States Code (USC) 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations [CFR] 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by:	*Rob Kuczynski, P.E.*
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Permit Revision 00: *Fact Sheet Revision (00):*	*New Permit and Fact Sheet for Centennial-Seligman Project*