FACT SHEET

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

Permittee Name:	**Bell Mountain Exploration Corp.**
Project Name:	**Bell Mountain Mine Project**
Permit Number:	**NEV2020115**
Review Type/Year/Revision:	**New Permit 2021, Fact Sheet Revision 00**

A. Location and General Description

Location: The Facility is located in Churchill County entirely on public land administered by the US Bureau of Land Management, Carson City District, Stillwater Field Office, in the Fairview mining district, within portions of Sections 1-3, 10-12, and 15 of Township 15 North (T15N), Range 34 East (R34E); and portions of Sections 2, 3, 10, 11, 14, 15, 22, 23, 26, 27, 34, T16N, R34E, Mount Diablo Baseline and Meridian approximately 40 air miles east of the town of Fallon.

Site Access: From Fallon, travel east on US 50 for approximately 42 miles to Earthquake Fault Road. Turn south on Earthquake Fault Road and travel south on Earthquake Faults Road for approximately 7.5 miles to the mine entrance road.

General Description: The Bell Mountain Mine Project facilities consist of four open pit mines (the Spurr, Varga, Sphinx and East Ridge pits), two waste rock disposal facilities, a heap leach pad, an activated carbon adsorption (ACA) plant, an event pond, primary and secondary crushers, one downgradient groundwater monitoring piezometer well, a water supply well, and ancillary facilities for administrative, operational, and maintenance support. As proposed, the project has a life of up to five years and has been permitted at an ore production rate of 1,500,000 tons per year.

All facilities are required to be designed, constructed, and must be operated and closed in such a manner as to prevent discharge or release of process fluids in excess of those standards established in regulation except for meteorological events which exceed the design storm event.

B. Synopsis

History

The Bell Mountain Mine Project is located within the historic Fairview mining district. The property was discovered in 1914 and a shallow shaft was sunk. In 1916, the Spurr adit was driven below the shaft. The property was investigated again in 1948, but no production was reported. In the mid 1960’s, the Lovestedt adit was driven below the Spurr adit from the west.

In 1978, American Pyramid Resources acquired the property and drove the Varga adit eastward under the Varga deposit, but did no drilling. They also drove the Sphinx adit in 1982. A feasibility study for American Pyramid was prepared in 1982, but the project did not go forward.

The property was optioned by Santa Fe Mining in 1984, which drilled exploratory reverse circulation (RC) holes, largely in the Varga deposit, and carried out heap leach metallurgical testing.

Alhambra Mines optioned the property in 1986, and drilled several underground long-holes in the Spurr deposit.

N.A. Degerstrom acquired the property in 1989 and drilled RC and core holes in the Varga, Spurr and Sphinx deposits. N.A. Degerstrom also conducted metallurgical testing, mine design work and obtained full permitting for mine operations from the Division on 25 February 1992 under Water Pollution Control Permit (WPCP) NEV0091026 as Bell Mountain Mine. Due to falling metal prices, the project was shelved.

Globex Nevada acquired the property in 1994 and optioned it to ECU Gold Mining Inc. in 1995. ECU drilled core holes in 1996, but did not continue. Platte River Gold optioned the property from Globex in 2004 and drilled RC holes. They also returned the property to Globex.

WPCP NEV0091026 expired on 24 February 1997. The Permit was not renewed and was canceled at the request of the Permittee, Globex. The record was closed by the Division on 03 October 2008.

Laurion Mineral Exploration optioned the property from Globex in 2010. Laurion drilled RC holes in the Varga and Spurr zones during the 2010 year and RC holes in the Sphinx zone in 2011.

Late in 2013, Lincoln Resource Group (Lincoln) executed a Purchase Agreement with Laurion. Lincoln conducted drilling mainly focused in the Varga area with somewhat lesser focus divided between the Spurr and Sphinx areas. In late 2014, the title to the claims on the property reverted back to Laurion via quitclaim deed.

In 2015, Boss Power Corp. (Boss) and its wholly owned subsidiary Bell Mountain Exploration Corp. (BMEC) entered into a Purchase Agreement in which Boss and BMEC acquired right title and interest in the property. In July 2015 Boss changed its name to Eros Resources Corp (Eros). In 2017, Eros conveyed to BMEC all of the right, title and interest of Eros in the property. BMEC is the current Permittee.

Geology:

The Bell Mountain property lies on the east side of the Fairview Range. In the Fairview Range, the pre-Tertiary basement consists of limited exposures of Jurassic metasedimentary rocks which are cut by a Cretaceous granodiorite intrusion. These rocks are overlain by a complex series of intermediate to rhyolitic lavas, ashflow tuffs, volcaniclastic sediments and small dacitic to rhyolitic intrusive domes and dikes.

The principal rock units at Bell Mountain are stratified rhyolitic ashflow tuffs. The ashflow tuff sequence is relatively monotonous, varying only in the intensity of welding. Individual units can be broken out based on lithology, welding features, and alteration. The geologic package consists of three surficial deposits, two intrusive units, three extrusive tuff units and features controlling mineralization at the property.

The Bell Mountain deposit has been characterized as a low sulfidation epithermal vein system. Mineralization at the property is separated into four deposit bodies – the Spurr deposit on the western end of the Varga-Spurr fault, the Varga deposit in the central part, the Sphinx deposit approximately 2,000 feet southeast of the Varga on a northwest trending structure and the East Ridge deposit on an east-northeast trending structure approximately one mile northeast of Varga. All four are composed of complex structurally controlled veins, stockworks and hydrothermal breccias.

At Bell Mountain, gold-silver mineralization is strongly structurally controlled. The primary control is an east-northeast trending zone of faulting, named the Varga-Spurr fault, which can be traced for more than 6,000 feet. The Varga-Spurr fault dips steeply to the south and has experienced normal and dextral displacement. It is offset slightly in a right lateral sense by a set of northwest trending, steeply dipping faults of similar strike length. Both fault sets have quartz-calcite veins and stockworks, gold-silver mineralization and pervasive silicification. Minor disseminated mineralization is present in silicified wallrocks. The intersection of the NE and NW vein sets, particularly in the Varga area, localized a significant volume of mineralization.

The quartz-calcite veining is primarily seen as variably intense stockwork zones of braided veins and veinlets which may be up to 130 feet wide. Within the stockwork, the dips of individual veins are highly variable, but the overall dip of the body of mineralization as a whole is nearly vertical.

The Spurr vein strikes nearly east-west, dips 45 to 55 degrees to the south and is 10 to 49 feet wide. There are several small northwest trending crossing faults which offset the vein a few meters. Calcite is the most abundant vein mineral in the Spurr deposit, with lesser amounts of quartz occurring as 0.4- to 8-inch veins concentrated near the vein walls. The calcite vein is generally strongly banded. The vein material is completely oxidized to depths of current drilling.

The Sphinx deposit contains at least two sub-parallel veins with other smaller splits which trend northwesterly. Vein and stockwork widths in the crosscuts ranged from 10 to 30 feet. Veins here are quartz with little calcite, are often banded and have a bluish tinge. Minor silicification is present, surrounded by argillic alteration, which is stronger than elsewhere on the property. The veins dip steeply toward the southwest.

The East Ridge Deposit consists of east-northeast trending quartz-calcite veins which dip steeply to the south. Quartz is the predominant vein material with lessor calcite. The width of the vein is 3 to 13 feet. The vein is exposed in outcrops and surface cuts for approximately 820 feet. The vein is cut by sparse northwest northeast trending fractures that locally host quartz-calcite veinlets and may continue out into the hanging wall for up to 9 feet. The west and east ends of the deposit are not well defined and are interpreted as weakening sheeted veinlets and stockwork zones.

All ore and waste at Bell Mountain is oxidized; no sulfidic ore or waste have been encountered or identified during exploration drilling at the Project site.

Meteorology:

Site climate data have been obtained from the Western Regional Climate Center meteorological stations located at Desatoya Mountain. Pan evaporation data has been derived from the Central Nevada Field Lab in the Reese River Valley.

The Desatoya Mountain Station lies at an elevation similar to the Bell Mountain Mine site. Additionally, the aspect is similar to the Project. Consequently, precipitation for the two sites should be nearly the same. Annual precipitation recorded at the Desatoya Mountain RAWS station is 5.72 inches.

The average annual evaporation for the site is 62.64 inches, based on evaporation data from the Desatoya Mountain RAWS station, approximately 30 miles northeast of the Project site. Penman Potential Evapotranspiration (PET) values from the RAWS station were averaged for each month during the period January 1998 to March 2019. The Desatoya Mountain Penman PET estimates are considered comparable to the Bell Mountain site based on similar elevations and UTM northing. The Desatoya Mountain RAWS PET data was adjusted for an elevation difference of +100 feet to the elevation at Bell Mountain.

The point precipitation depths for the 24-hour 10-year, 25-year, 100-year and 500-year storm events were obtained from the National Oceanic and Atmospheric Administration (NOAA) Point Precipitation Frequency Estimates Atlas 14. According NOAA estimates, the 25-year 24-hour rainfall storm event is 2.13 inches, the 100-year 24-hour rainfall storm event is 2.77 inches, and the 500-year 24-hour rainfall storm event is 3.58 inches.

Mining:

The project will generate four pits. All waste rock and ore to be mined is oxidized; no sulfidic material has been encountered in drilling to the total depths of each planned pit or to the total depth of any drill hole. As currently planned, the Spurr Pit will extend to a depth of 255 feet from crest to toe and occupy an area of 6.8 acres. The Varga pit will have a total depth of 360 feet from crest to toe and encompass an area of 14.4 acres. The Sphinx Pit will be 180 feet total depth from crest to toe and encompass 6.6 acres. The East Ridge Pit will extend 220 feet from crest to toe and encompass a total of 6.3 acres.

A pit slope stability study was prepared to provide open pit slope design recommendations for use in mine pit planning. The recommendations for pit slope angles were used for the mineral resource model pit optimizations and pit designs. The pit slope recommendations are relatively comparable to many active open pit mining operations in the region. The Permittee will monitor pit wall stability throughout the active life of each open pit. Geotechnical monitoring of mine high-walls and pit crest is required periodically to verify stability and to make sure that each pit is operated within geotechnical design parameters.

Ore will be mined employing conventional drilling, blasting and front-end loading into haul trucks from 20-foot (ft) blast height benches resulting in final 40-ft high double bench pit faces. The ore will be loaded into end-dump trucks for haulage to the crusher area. An average of 5,000 tons/day of ore will be mined and delivered to the crusher, and then placed on the heap leach pad as crushed ore.

The groundwater table has not been encountered in modern drilling at the mineral deposits to the limits of drilling. Drilling completed at the Varga Pit area indicates that groundwater is greater than 280 feet below the planned deepest level of the Varga Pit. No groundwater was reported in the drill hole log to its total depth. No dewatering is therefore planned, and no pit lake is expected to form at the Varga Pit.

Three rotary holes were drilled in the hanging wall of the Spurr deposit in 1965. Groundwater was encountered approximately 300 feet below the deepest level of the planned Spurr Pit. No dewatering is therefore planned, and no pit lake is expected to form at the Spurr Pit.

In December 2019, a groundwater depth test hole was drilled in the area of the planned heap leach pad nearby to the Sphinx pit. The hole was drilled to a total depth of 510 below ground surface. No groundwater was encountered to the total depth of the hole confirming that groundwater is deeper than 510 feet in the area. No dewatering is therefore planned, and no pit lake is expected to form at the Sphinx Pit.

Waste Rock Disposal Facilities:

The mine pits will generate an estimated total 3.8 million tons (2 million cubic yards) of waste rock. The waste rock disposal areas (WRDAs) were selected to minimize disturbed acreage and haulage distance. Topsoil suitable for growth medium will be scalped from the waste WRDAs footprints and removed to stockpiles and stored for use in final reclamation.

Waste rock will be deposited at the Main WRDA and the East Ridge WRDA. Initially, waste rock from the Spurr and Varga pits will be placed as fill material for haul road construction. Waste from the Sphinx Pit will be used for fill material for construction of the ACA Plant pad during initial pre-stripping of overburden. As the haul roads reach their design configuration, waste from the mine pits will be used to partially backfill the eastern portion of the Spurr Pit with the remainder hauled to the Main WRDA for disposal. As mining advances, waste from the Sphinx Pit will be hauled to the Main WRDA with the remainder used as fill material for haul roads. The last pit to be mined will be the East Ridge Pit in Year 4 of the operation. Waste from the East Ridge Pit will be disposed at the East Ridge WRDA with the remainder used as fill material for the East Ridge Haul Road.

The area set aside for waste rock disposal covers approximately 1,060,000 square feet and will be graded on all sides to maintain maximum slopes of 2.5 horizontal to 1 vertical (2.5H:1V). Stability analysis of the Main WRDA resulted in minimum static factors of safety of 1.9 during operation and 2.6 in reclaimed condition. Minimum pseudostatic factors of safety are 1.07 during operation and 1.76 in reclaimed condition.

During placement of waste rock in the Main WRDA, large portions of the facility will be at the angle of repose. However, most of the waste facility footprint will be buttressed against the opposite hillside and crusher access road fill. As the WRDA expands down gradient, waste rock from the Spurr and Varga pits will merge and form a down-gradient slope of about 2.5H:1V. Based on existing roadway fill slopes, the angle of repose of the waste rock will be approximately 40º.

Stability analysis of the East Ridge WRDA resulted in minimum static factors of safety of 1.9 during operation and 2.5 in reclaimed condition. Minimum pseudostatic factors of safety are 1.07 during operation and 1.76 in reclaimed condition.

During operations, the physical characteristics of the WRDAs will be monitored regularly by mine personnel with periodic inspection by a qualified engineer. Operations personnel will be instructed to look for unusual signs of settlement, seeps and erosion. A qualified engineer will conduct formal safety inspections using a checklist contained in the project Monitoring Plan.

During reclamation, the WRDAs will be graded to a maximum slope of 2.5H:1V, capped with a 1-ft growth media cover and revegetated.

An extensive characterization program was conducted on the waste rock using Meteoric Water Mobility Procedure (MWMP) – Profile I, Acid Neutralizing Potential: Acid Generating Potential (ANP:AGP) testing in accordance with the Nevada Modified Sobek Procedure, and humidity cell testing. A total of 75 drill intervals were sampled and composited into 35 samples for MWMP and Acid Base Accounting (ABA) testing (i.e., static testing) to assist with predicting the likely response of the Bell Mountain rock system to exposure to the weathering environment in a post- mining scenario.

The ABA testing of the 35 composite samples selected for the static testing program showed that the total AGP of all of the 35 samples was at the detection limit of 0.62 kg CaCO3 eq/t, and the ANP ranged from 1.76 to 374 kg CaCO3 eq/t, and averaged 25.1 kg CaCO3 eq/t. The Net Neutralization Potential (NNP) ranged from 1.14 to 373.0 kg CaCO3 eq/t, and averaged 24.5 kg CaCO3 eq/t. Paste pH values ranged from 8.08 to 9.5, and averaged 8.82. The Bell Mountain rock system is acid neutralizing, not acid generating.

The MWMP testing in the static testing program indicated that aluminum, arsenic, manganese, nickel, antimony, and thallium were elements in the waste rock, ore, and the ultimate pit wall that may be mobilized briefly by the proposed action.

Most of these elements were mobilized at levels that would be anticipated from these types of rocks, and at levels no greater than those from the surrounding rocks.

During modern exploration drilling, the groundwater table was not encountered to the limits of drilling, approximately 600 feet below ground surface. The proposed four mine pits would not encounter groundwater; no pit lake formation is anticipated. With low annual precipitation and the absence of shallow groundwater associated with the Project area, implementing the proposed design features would likely preclude trace elements in mined materials and pit walls from mobilizing into the subsurface environment.

Kinetic testing consisted of five composite samples of the Lithic Tuff unit that were determined to have some of the lowest neutralization capabilities coupled with highest contributions of Constituents of Concern (COCs). During testing, one sample had to be discontinued, because it could not be evaluated accurately due to excess clays which resulted in a lack of infiltration. The discontinued sample contained stockwork quartz-calcite veinlets.

The other four samples were found to contain enough amounts of mobilized clay minerals that very fine-grained particles were mobilized. The analytical results respective to aluminum, iron, and manganese exceeded the NDEP Profile 1 reference values. Removal of the clays using finer filters prior to analysis resulted in reduction of all COCs well below the NDEP Profile 1 reference values for the final four samples.

Operational monitoring of the waste rock facilities will be done in accordance with the Permit requirements. Randomly selected locations on the surface of the WRDA will be collected monthly to determine the potential for acid rock drainage and mobilization of potential contaminants.

Heap Leach Pad:

The heap leach pad (HLP) will be constructed in two phases. Phase 1 will be the lower two thirds of the proposed HLP area (approximately 1,440,000 sq. ft.) and Phase 2 will be the upper one third of the area (approximately 808,000 sq. ft.).

The Phase 1 portion of the Heap Leach Pad will terminate at the top of a topographic peninsula oriented northeasterly approximately 1,200 feet up the pad and then will go across the pad in a northeasterly direction. The Phase 1 lining system will terminate in an anchor trench along the boundary, except in the first two valleys encountered where the lining system will be extended into the Phase 2 area to a fixed elevation to provide temporary storage of meteoric water above the pad liner. In these two areas, the liner system will terminate in an anchor trench constructed on contour at the designated elevation. This configuration will provide a lined pool where runoff will be temporarily impounded until it is drained by a 12-inch Advanced Drainage Systems (ADS) pipe that has been installed as a future solution header for Phase 2 operation. The runoff will be impounded by a temporary berm of crushed ore placed on overliner at the upstream side of Phase 1. The temporary ore berm will be approximately 15 feet high and will be removed during Phase 2 construction and possibly be used as overliner in the transition area.

A dilute cyanide (NaCN) solution will be applied to the heap via drip emitters at a proposed rate of 600 gallons per minute (gpm) at 0.004 gallons per minute per square foot (gpm/sf). The nominal application rate of barren solution with adjusted CN levels is also 600 gpm plus estimated seasonal adjustments for evaporation. The maximum area under leach for the HLP is 150,000 square feet.

Run-of-mine (ROM) ore will be delivered by 35 to 45-ton haul trucks to a stockpile in the crushing area. Ore transported from the mining areas will be temporarily stored at the ore stockpile. The ore stockpile will be loaded by end dumping the ore onto the footprint of the ore stockpile. All ore is oxidized. Stockpiled ore will be loaded by a loader and fed into the crusher. The crushed ore will be delivered to the HLP by trucks or conveyors. A dozer will be used to manage and place the material.

Ore will be stacked on the HLP to a maximum heap height of 160 feet from toe to crest. Based on a crushed material tonnage factor of 100 pounds per cubic foot, the HLP will accommodate approximately 6.2 million tons of crushed ore.

The HLP will be constructed as a valley-fill type pad. The grading plan calls for minor cuts and fills to smooth the subgrade prior to placement of the underliner. At the southwestern end of the heap leach pad, up to 15 feet of fill will be used to flatten the grade of the pad to enhance stability. In this area, up to 3 feet of fine-grained soil may be removed and stockpiled for production of bentonite-amended soil underliner.

The HLP will have a composite liner system. The composite liner system consists of an 80-mil high density polyethylene (HDPE) geomembrane placed above a prepared 6-inch-thick amended soil/clay layer with a maximum hydraulic conductivity of 1×10^{-6} centimeters per second (cm/s) (prepared sub-base) or a geosynthetic clay layer (GCL) in accordance with NAC 445A.415 and NAC 445A.434 and related subsections.

A 24-inch-thick protective layer will be placed over the geomembrane to protect the geomembrane from damage by vehicles and/or conveyors working within the leach pad limits and/or during ore loading. The 24-inch-thick protective layer will consist of minus 2-inch crushed and screened ore or waste rock.

A network of perforated pipe is located on top of the leach pad liner within the overliner. The pipelines will promote leachate and stormwater collection and flow from the pad area to minimize solution build-up over the liner in areas of active leaching. The pipe network, drainage material, and the ore lifts have been designed to limit hydraulic head on the leach pad to less than 1-foot.

The solution collection piping consists of 4-inch-diameter perforated ADS pipes spaced on 40-ft centers. These pipes have been sized to collect and convey 100 percent (%) of the solution flow plus coincident 100-year 24-hour rainfall concentrated in a 2-hour period. The lateral collectors transport leachate to the header pipes.

The header pipes will be constructed of 8-inch-diameter N-12 perforated ADS pipe in areas above the 1% sloping pad and 10-inch-diameter perforated ADS pipe across the 1% sloping pad.

These will then carry the solutions to the pad exit point where they discharge individually into an open tank where the flow can be observed. The discharge from the open tank will be routed to a horizontal pregnant solution tank in a HDPE pipeline. Overflow pipes will be provided for the open tank and pregnant tank so that excess flows can be routed to the event pond. Similar to the lateral pipe system, the header pipes have been sized to collect and convey 100% of the solution flow. The pregnant solution pipes convey solution to the ACA plant for processing to remove precious metals. Barren solutions are sent to the barren solution tank where cyanide and pH levels are adjusted and then returned to the heap in the barren solution pipeline with pumps.

The HLP leak detection system will consist of 1-inch diameter, Schedule 80, Poly Vinyl Chloride (PVC) perforated pipes installed in pea gravel below the primary liner under each solution collection header pipe on the pad.

At HLP closure, ore lifts placed at the angle of repose, with 30-ft wide intra-lift benches, built at an overall slope of 3H:1V, will be graded down to allow for construction of the cover system. With this design, the slope faces of the heap will be 3H:1V average.

For reclamation and closure, the HLP will be covered with growth media and revegetated. The cover system for the heap leach pad will be designed to remove water that is not removed as runoff from the system by evapotranspiration. The cover system has been selected to meet the prescribed requirement of 2 feet of growth media. The cover system for the facility would consist of the following (from top to bottom):

- Vegetation consisting of native grasses and sagebrush.
- A 2-foot-thick layer of onsite soils consisting of gravelly silty sand.
- Existing spent ore (varies in thickness).
- Existing leach pad solution collection system ADS pipes surrounded by drainage aggregate).
- Existing leach pad liner system (HDPE and amended clay soil or GCL).
- 6-inches of compacted native subgrade

HLP Seismic Stability:

An assessment was made to establish seismic parameters needed for HLP slope stability analyses.

The Fairview Fault is the closest active fault in the vicinity of the project. The closest portion of the Fairview fault trace to the HLP is about 1.3 miles (2.1 km) west of the HLP site. In 1954, there was dip-slip movement on the Fairview Fault of up to 15 feet, related to a magnitude 7.1 earthquake, which produced a fault scarp 30 miles long. The selected earthquake event recurrence interval for the estimated peak ground acceleration (PGA) was 1 in 500 annual frequency of exceedance (approximately 10% probability of exceedance (PE) in 50 years). This PGA value meets the requirements for input to the pseudo-static stability analyses for heap leach pads per the Nevada Division of Environmental Protection, Bureau of Mining Regulations and Reclamation (Division). The estimated PGA for the 10% PE in 50 years is 0.27 gravity in the central area of the proposed HLP.

The seismic stability of the reclaimed heap leach facility was reviewed for circular or planar failures of the reclaimed heap using a horizontal ground acceleration of 0.27 gravity. The minimum static factor of safety against slope failure was estimated to be 1.3 and the associated minimum pseudo-static factor of safety was found to be 1.05.

No active or recent faulting (Holocene), older Quaternary faulting, or inferred fault traces have been identified within the HLP site. Therefore, potential ground rupture from seismic activity in the area is not a concern with the HLP design and solution containment.

HLP Slope Stability

A geotechnical report was prepared to evaluate slope stability at the HLP area. Based on the findings of the geotechnical report, the downstream end of the HLP is defined by an 11-ft high stability berm constructed with compacted mine overburden. This berm has a 2H:1V upstream slope and a 3H:1V downstream slope. It divides the Phase 1 heap leach pad from the ACA plant and event pond platform.

Three smaller stability enhancement berms will be constructed approximately 250 feet upstream of the southeastern end of the heap leach pad and parallel to the downstream stability berm. These berms are approximately 5 feet high and will be constructed as compacted fills with local borrow. The upstream and downstream sides of these berms will be constructed with 3H:1V slopes.

The southwest side of the HLP is an existing hillside that has a natural slope of approximately 18 degrees (3H:1V). This slope will be reconstructed in places with fill generated from haul road construction along the southwest side of the HLP. The fills will be constructed at a 3H:1V slope. The edge of the haul road will be used to anchor the HDPE liner and will have a 24-inch high safety berm.

The operational monitoring program for the HLP will include regular visual inspection by operations personnel and measurement of significant displacement at the crest of each lift by the mine engineer. Engineering, survey, and operations staff, as well as equipment operators, will observe the facility frequently and will be trained to look for and recognize signs of instability. The mine engineer will maintain an ongoing assessment of the accumulated data.

Solution Processing:

The Bell Mountain solution processing plans consist of an ACA process plant and an event pond. Gold bearing solution (aka pregnant solution) will be collected from the bottom of the HLP by a drainage collection system and delivered via gravity flow to the Pregnant Solution Storage Tank located in the Process Area.

The ACA Plant and sodium cyanide (NaCN) Storage Area will be housed in a laminated vinyl-insulate covered 105-ft x 80-ft Sprung fabric building on a concrete slab floor. The slab and 3 feet beyond its perimeter will be underlain at a depth of 1.5 feet by an 80-mil HDPE geomembrane and amended soil underliner. The geomembrane will be graded to drain to the Event Pond.

The pregnant solution will be pumped from the Pregnant Storage Tank to a series of five carbon-in-column (CIC) tanks, where the gold in solution will be recovered by activated carbon as the solution flows by gravity through the series of tanks. Each tank will hold approximately 3 tons of carbon. The solution flowing from the last tank in series will be non-gold bearing (aka barren solution) and will be pumped to the Barren Solution Storage Tank. The Barren Solution Storage Tank will have a nominal capacity of 6,000 gallons. Sodium cyanide will be added to the barren solution prior to the Barren Solution Storage Tank. From the Barren Solution Storage Tank, the barren solution will be pumped to the HLP for irrigation of the ore. The maximum solution flow rate for the processing plant is 600 gallons per minute.

The carbon will be moved in batches upstream through the circuit to replenish each tank as gold-rich carbon (aka loaded carbon) is removed from CIC Tank #1.

Loaded carbon from CIC tank #1 will pass through a screen before reporting to a supersac. The screen undersize water will be returned to the process. The supersacs will be allowed to further dewater within containment prior to being shipped to a third-party off-site for processing.

The platform for the ACA Plant and the Event Pond will be on a 360-ft-wide x 630-ft-long valley fill immediately downstream of the heap leach pad. The area between the HLP stability berm and the event pond will flow into the event pond. The plant site, solution tank pads, and pipeline corridors will be lined and graded to drain into the event pond for collection and return into the process circuit. These non-impounding areas will be lined with 80 mil HDPE on a single layer of GCL. An assay laboratory will also be housed within the ACA Plant structure.

Event Pond:

The 312-ft-long x 232-ft-wide x 16-ft-deep Event Pond is double lined with HDPE with a drain layer between the liners. The drain layer will either be a HDPE drainage net or HDPE drain liner which is constructed with a dimpled surface to allow drainage between the solid liners. The drainage layer will discharge fluids to a leak detection sump in the north side of the event pond adjacent to the plant. The leak detection system will be 35-ft x 35-ft x 5-ft-deep sump in the pond consisting of pea gravel covered with geotextile. The calculated volume of the sump is 4,490 gallons assuming a 30% void space in the pea gravel. A perforated PVC pipe will be installed within gravel, and a solid PVC monitoring pipe will extend to the surface between the primary and secondary HDPE pond liners.

The calculated safe (2-ft dry freeboard) storage capacity of the Event Pond is 15.3-acre feet (ac-ft) (667,632 cubic feet). Brim-full capacity is 18.5 ac-ft (806,016 cubic feet). The full 100-year 24-hour event, totaling 2.77 inches, would generate 12.5 ac-ft (546,791 cubic feet) from the leach pad. The event pond was designed to accommodate this full inflow, while providing for 24-hour emergency draindown and 2.65 ac-ft (115,508 cubic feet) of operating fluid storage capacity.

The event pond composite-lined system will consist of the following components from bottom to top:

- Compacted fill surface.
- 80 mil smooth (or textured) HDPE geomembrane secondary liner
- Drainage layer (dimpled primary or secondary liner) or geogrid draining to leak detection sump.
- 80 mil textured HDPE primary liner with a textured side up.

Stormwater Diversion Controls:

There are three stormwater diversion channels that will be implemented prior to construction to protect the integrity of the project facilities.

The West Diversion Channel will be constructed above the northwest end of the HLP to divert surface flows during storm events from entering the leach pad. This channel will be constructed to divert a 500-year, 24-hour precipitation event (3.58 inches) around the HLP facility. The channel is small with a depth of 3.0 feet and a bottom width of 2.5 feet and will have 2H:1V side slopes. The maximum flow rate following the 500-year event is 41 cubic feet per second (cfs) and will flow at a maximum depth in the channel of approximately 1.5 feet leaving a freeboard of 1.5 feet to the top of the channel. The duration of flow following a 500-year event will be approximately 24 hours, with the period of elevated flow rates less than 4 hours.

The East Diversion Channel is predominantly a series of three natural drainages that will be diverted around the growth media stockpile and northeast corner of the plant site platform during operation. This channel will not be needed following closure because the growth media stockpile and the portion of the plant site that lies within the existing drainage will be removed with the excavated material used for cover material. A 100-year, 24-hour precipitation event (2.77

inches) will generate a maximum flow rate of 440 cfs. The duration of the elevated flow rate will be approximately 12.3 hours.

The channel will have 2H:1V side slopes and will have a depth of 6.0 feet. The alignment of the channel will be adjusted so that the bottom is in bedrock where possible to minimize riprap requirements. At predicted flow rates, the maximum flow depth will be 4.0 feet leaving approximately 2.0 feet of freeboard.

The East Diversion Channel will discharge into a stilling/detention basin immediately downstream of the plant site. This basin will reduce the peak flow rate to approximately 200 cfs during operation so that it can be passed under the Sphinx haul road in two 48-inch-diameter culverts. During closure, these culverts will be removed and the road will cross the streambed in the same location that it does now.

The Sphinx Diversion Channel involves moving the existing streambed and access road against the hillside southwest of the Sphinx Pit. The relocated channel will be a minimum of 20-ft-wide x 4.0-ft-deep. The channel will generally be excavated in the streambed alluvial material and hillside colluvium. It will be located adjacent to the Sphinx open pit and may require fill on the side nearest the pit for safety. The natural gradient of the existing streambed is 3.8% in the reach below the plant site to the Y below the location of the Sphinx pit. The velocity of flow for the 100-year event will be approximately 18.7 feet per second (ft/s) with a maximum predicted flow of 650 cfs. The velocity of flow for the 500-year event will be approximately and 19.7 ft/s with a maximum predicted flow of 764 cfs.

The Sphinx Diversion Channel will accommodate a 500-year event following closure. Addition riprap may be required along the embankment between the channel and the Sphinx pit. The Sphinx Diversion Channel terminates in an existing drainage channel approximately 300 feet south of the Sphinx pit.

Ancillary Facilities:

Ancillary support for the Project includes but is not limited to a water conveyance pipeline, an administrative building, a warehouse building, a contractor’s yard, 3 fueling areas on containment, and a truck wash bay facility.

Water for the mining operation and dust control will be sourced from a water well in the Stingaree Valley approximately 8 miles north of the Bell Mountain mine site. Water will be conveyed along a buried pipeline beginning at the well and traversing along a water pipeline corridor to the mine site. Water quality monitoring of the well water will be done periodically in accordance with the WPC Permit.

Above-ground diesel and gasoline fuel storage tanks will be located at the administration area, crusher/contractor’s yard, and the ACA plant areas. The ground surface of the fuel storage areas will be lined with a single layer of 60-mil HDPE liner overlying prepared subbase. Spill containment will accommodate 110% of stored volume of the tanks. Operating personnel will make daily inspections of ground conditions surrounding lined containment areas for fuel storage areas. Any fuel leak captured on the containment will flow to a sump where it will be collected and removed to a Nevada state approved disposal facility.

The wash bay, located on the Main WRDA, will be lined with 80-mil HDPE liner overlain by 18 inches of protective aggregate base rock. A 1-ft high berm will surround the perimeter of the wash bay pad. The wash bay liner will be sloped to drain to a drop inlet. From the drop inlet, water and fluids will drain along a 6-inch N12 ADS drain pipe to the lined heap leach pad. The wash bay area will also be used by contractors to perform minor vehicle maintenance.

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

The Project is primarily located within the Nevada Department of Conservation & Natural Resources-Division of Water Resources (NDWR) Hydrographic Region number 10 (Central Region), Administrative Groundwater Basin 124 (Fairview Valley).

Additionally, a small portion of the East Ridge Haul Road lying east of the East Ridge deposit is located within Basin 126 (Cowkick Valley). Groundwater Basins 124 and 126 are classified by the State Engineer as “Designated” under Order O-715 as ground water basins coming under the provisions of Chapter 534, NRS (Conservation and Distribution of Underground Waters).

The Project is located near the east side of the Fairview Valley basin which is a closed basin draining to Labou Flat lying west of Fairview Peak. Groundwater Basin 124 is typical of arid drainage basins in Central Nevada where precipitation is generally insufficient to support perennial stream flow. Small ephemeral channels begin in the higher elevations and convey water to the low valleys.

NDWR data was used to determine recorded groundwater depths within 5-miles downgradient to the Project facilities. A water test well was drilled 3.4 miles southwest and downgradient to the Project facilities, to a depth of 648 feet bgs. According to the well log the well is listed as a dry well and was abandoned. No other well logs within 5-miles downgradient were available for review.

Groundwater has not been encountered in modern drilling at the mineral deposits to the limits of drilling. In December 2019 a groundwater depth test hole was drilled in the area of the planned heap leach pad. The hole was drilled to a total depth of 510 below ground surface. No groundwater was encountered to the total depth of the hole confirming that groundwater is deeper than 510 feet in the area of the planned heap leach pad and processing facilities.

Because of the absence of groundwater at the Project area, no groundwater to a minimum depth of 510 feet below ground surface is available for water quality testing. During construction of Project facilities a monitoring hole will be drilled down gradient of the planned heap leach pad and processing facilities to serve as a groundwater detection hole. A piezometer will be installed at the maximum depth of the hole to detect any groundwater infiltration.

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 published on the Division website: https://ndep.nv.gov/posts/category/land. 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 the public notice is posted to the Division website. 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 or 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 new Permit.

F. Proposed Limitations, Schedule of Compliance, Monitoring, 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 U.S. Code 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 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service (the 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: Shawn Gooch, P.E.
Date: 16 September 2021

Revision 00: New Permit.