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

Permittee Name: **Coeur Rochester, Inc.**

Project Name: **Rochester Mining Project**

Permit Number: **NEV0050037**
Review Type/Year/Revision: **Renewal 2026, Fact Sheet Revision 00**

A. Location and General Description

Location: The Rochester Mining Project is located on public land administered by the Bureau of Land Management (Humboldt River Field Office) in Pershing County, in the south-central portion of the Humboldt Range, approximately 26 miles northeast of the town of Lovelock. The facilities are within portions of Sections 2-5, 8-11, 13-17, 20-29, and 31-35 of Township 28 North (T28N), Range 34 East (R34E); and Section 5 of T27N, R34E, Mount Diablo Baseline and Meridian.

General Description: The Rochester Mining Project includes two open pit mines, the Rochester Mine and the Nevada Packard Mine, eight Waste Rock Disposal Sites (WRDS), ore crushing facilities, six permitted valley-fill heap leach pads (HLPs), eight permitted process ponds (including a test evaporation cell), six stormwater basins, Stage V Groundwater Underdrain pond, two permitted silver and gold recovery process plants utilizing Merrill-Crowe zinc precipitation, a refinery, and ancillary facilities. Facilities are required to be designed, constructed, operated and closed without any discharge or release in excess of those standards established in regulation except for meteorological events that exceed the design storm event.

B. Synopsis

General

Mineral development at the site of the current Rochester mine began in the early 1980's by ASARCO Exploration, Inc. In 1983, ASARCO sold the rights to the deposit at the current Rochester mine to Coeur d'Alene Mines Corporation, now Coeur Mining, and they formed Coeur Rochester, Inc. (CRI), the current Permittee. CRI was first issued water pollution control permit NEV0050037 in 1987 and has maintained the permit since that time.

Mining from the two pits at CRI was suspended in August of 2007, but leaching of ore placed on pads and metals recovery continued. In February 2011, the Permittee resumed mining in the Rochester Pit and began construction of the Stage III HLP according to the design included in the major modification submittal of June 2010. In 2015, a major modification and renewal approved the expansion of the Stage IV HLP and the construction of the new Stage V HLP which has not yet been constructed as of the 2026 renewal. With the approval of the 2018 major modification and renewal, the Project is authorized to process up to 21.9 million tons (MT) of ore per year and construct the Stage VI HLP. In April of 2024, an EDC was approved to raise the beneficiation rate to 32 million tons per year.

Geology/Mineralization

The current Rochester Mine lies within the historical Rochester mining district located in the Humboldt Mountain Range of western-central Nevada. The Humboldt Range is a north-south oriented, up-thrown fault block bounded on the west by the Humboldt River valley and on the east by Buena Vista valley. Dominant fault structures in the area include the north-south trending Black Rock Fault which passes through the Rochester Mine. Quaternary alluvium, colluvium, and minor lacustrine sedimentary deposits fill the valleys and basins between mountain ranges.

The prevailing geology of the area includes a thick series of Triassic volcanic and meta-volcanic rocks overlain by limestone of the same age. The volcanic rocks, known as the Koipato Group, include, from oldest to youngest, the Limerick Greenstone, the Rochester Rhyolite, and the Weaver Rhyolite. Dominant geologic units within the Rochester Mine and making up the Rochester pit ore body include the Rochester and Weaver Formations, which contain high silica content with varying degrees of secondary silicification. The Packard Pit ore body consists mainly of oxidized Weaver formation. Locally, Cretaceous granodiorite intrudes the Weaver and Rochester units and have hydrothermally altered both units. The Natchez Pass and Prida Limestones along the north, west, and eastern flanks of the Humboldt range are all fault contacts.

Mining

Open Pits

Rochester Pit: The Rochester pit is an open pit with a planned final elevation at the lowest point of 5,500 feet above mean sea level (ft amsl). Mining operations in the Rochester Pit were suspended in August 2007 along with the Packard pit though leaching and mineral processing continued. Mining in the Rochester pit resumed in 2011. Waste rock has been deposited in the pit in designated areas as permitted by mining, including some potentially acid generating (PAG) material in areas above the historic water table. The appearance of a pit lake in late 2007 during the cessation of mining was earlier than previously predicted, and results of water quality analyses of samples from the pit lake have been mixed (see *Rochester Pit Lake* section below). Deliberate dewatering is not done for the Rochester Pit, but drawdown from the use of the Production Wells is sufficient to prevent water accumulation in the pit during mining activities. See *Production Well Field* below.

With the Divisions approval of the 2018 major modification and renewal, an expansion of the Rochester Pit was approved. The expanded pit would produce approximately 300 million tons of ore material and approximately 220 million tons of waste rock while deepening the pit from 5,975 to 5,500 ft amsl. Waste rock will be deposited in designated areas within the pit and serve as pit backfill. Once mining and pit backfilling efforts are completed, a pit lake will form in the Rochester Pit (see *Rochester Pit Lake* section below).

Packard Pit: The Nevada Packard pit is 25 to 200 feet deep (averaging approximately 100 feet) and terminates approximately 140 feet above groundwater. Oxide waste rock was placed into one of eight WRDS near the pit or into in-pit backfill facilities as mining permitted. The ore was hauled to the crushing facilities at the Rochester mine site. Mining activity in the Nevada Packard Pit was suspended in August 2007.

With the Divisions approval of the 2018 major modification and renewal, an expansion of the Packard Pit was proposed. The expanded Packard Pit would produce approximately 45 million tons of waste rock while deepened to an elevation of approximately 5,500 ft amsl or approximately 80 feet above the existing groundwater elevation. However, additional characterization of the Packard Pit is warranted prior to mining and was incorporated into the Permit as a Schedule of Compliance (SOC) item.

Rochester Pit Lake

A pit lake began forming in the Rochester Pit in early April 2007, immediately after mining began on the 5,975-foot bench. This was 85 to 100 years earlier than predicted in the March 2004 draft report "Coeur Rochester Hydrology and Hydrochemistry of the Post-Mining Pit." The initial pit lake was relatively shallow (approximately 18 feet deep), and was found to be contaminated with cyanide, which caused the Division to take enforcement action. The Permittee, with Division approval, installed a pumping system by which pit lake water was conveyed to the Barren Pond, after which the cyanide concentrations in the pit lake abated to below laboratory detection levels by the end of May 2007. The ensuing investigation, including analysis of groundwater samples from four new monitoring wells in the BRF aquifer, determined that the BRF aquifer was not degraded, suggesting limited connectivity between the pit lake and the BRF aquifer. The cyanide could not flow directly from process components to the pit lake, leaving sabotage as a possible explanation.

After the cyanide removal, the pit lake chemistry was initially similar to the 2004 model predictions, with only pH, cadmium, nitrate, and thallium exceeding the Profile I reference values. However, in the fourth quarter of 2008 pH began to decrease and nitrate and dissolved metals concentrations (aluminum, cadmium, copper, iron, lead, manganese, thallium, and zinc) began to rise. The Permittee has undertaken further study of the pit lake hydrogeology including predictions of the influence of sulfidic rock in the pit. A short-term amendment test program in June of 2009 was successful in raising the pit lake pH to 9.0 SU by adding hydrated lime. The lime amendment program continued as required by the Permit to maintain the pit lake pH between 6.5 and 8.5 SU.

Since a pit lake formed, the Division modified the Permit to include monitoring requirements for the waters therein. The pumping facilities installed by the Permittee, which were used to convey pit lake solution to the Barren Pond until the cyanide concentration was reduced below laboratory minimum detection levels have been removed and are no longer active. A revised pit lake model and pit closure plan must be submitted with each Permit renewal application, or upon any change which could potentially impact pit lake water quality. Additionally, the Permittee added three monitoring wells (TH-1, TH-2, and TH-3) to characterize the extent of the water source contributing to the pit lake. TH-3 was subsequently plugged and abandoned in March 2010 as the rising pit lake inundated the 6,000 ft amsl bench on which it was collared.

The Permittee conducted a revised pit lake study in February of 2009 to provide the basis for long-term resolution of the pit lake water quality issue. The three main approaches evaluated were: 1) allow the pit lake to remain but amend the lake, as required, in a way that will prevent acid generation; 2) complete backfill of the pit lake with waste rock of a type that will be acid neutralizing; and 3) partial backfill of the pit lake with waste rock of a type that will be acid neutralizing.

A revised study was submitted in June 2010, along with the proposal for major modification (Stage III HLP), which further refined the backfill alternatives and provided more detailed modeling of the three configurations. This report predicted that the no-action scenario (allow pit lake to remain) would initially continue the current flow-through hydrology with potential degradation of groundwater, followed by a long-term (200 years or more) hydrologic sink pit lake with no potential for groundwater degradation, but with potential adverse health impacts to human, terrestrial, and avian life. The predicted pit lake chemistry shows long-term (200 years or more) elevated concentrations of antimony (0.023 milligrams per liter [mg/L]), cadmium (0.033 mg/L), and manganese (0.64 mg/L).

The partial backfill (to approximately 6,150 ft amsl) scenario also predicted a hydrologic sink but with only seasonal expression of groundwater above the backfill surface. Pore water chemistry for this case was predicted to include long-term (200 years or more) elevated concentrations for pH (8.7 SU), antimony (0.015 mg/L), arsenic (0.019 mg/L), cadmium (0.008 mg/L), and selenium (0.083 mg/L). The seasonal wetland for this scenario was predicted to show long-term (200 years or more) elevated concentrations for antimony (0.053 mg/L), arsenic (0.047 mg/L), cadmium (0.018 mg/L), manganese (0.18 mg/L), selenium (0.27 mg/L), and thallium (0.007 mg/L). The seasonal wetland also resulted in Hazard Quotient (HQ) of greater than 1 for boron uptake to Mule Deer in the Screening Level Ecological Risk Assessment (SLERA) report.

The 2010 study included an increased backfill scenario (to approximately 6,175 ft amsl) which also included a seasonal expression of groundwater above the backfill surface, but which reduced evaporation enough to produce a weak flow-through system (approximately 2 gpm) instead of a sink. Pore water chemistry for this case was predicted to include long-term (200 years or more) potential for degradation of groundwater, with exceedances for pH (8.6 SU), cadmium (0.006 mg/L), and lead (0.027 mg/L). The seasonal wetland for this scenario was predicted to show long-term (200 years or more) elevated concentrations for cadmium (0.008 mg/L), lead (0.044 mg/L), and manganese (0.16 mg/L). The potential risks to human, terrestrial, or avian life created by the seasonal wetland were not addressed in the SLERA and the Division has requested an update to address this issue.

In response to these results, the Division requested a fourth case be run with an additional increase in the backfill sufficient to prevent both surface expression of the groundwater and eliminate the evapo-concentration effect. This case was run with a selected backfill elevation of 6,250 ft amsl and results were submitted in August 2010, showing long-term (200 years or more) exceedance only for pH (9.6 SU) and a flow-through rate of approximately 22 gpm. The report also stated that the chemistry of the pit hydrogeologic system was such that the high pH did not create a potential for exceedances of Profile I constituents.

An EDC was received by the Division on 12 December 2013 requesting to maintain the pit backfill elevation at 6,175 ft amsl. The EDC was supported by the 9 January 2012 Updated Coeur Rochester Geochemical Evaluation technical memorandum by Schlumberger Water Services, the 3 June 2014 Updated Baseline Hydrologic and Geochemical Characterization Report by Schlumberger Water Services, and the 16 February 2015 Water Quantity and Quality Impact Analysis by Schlumberger Water Services.

In summary, predicted pore water chemistry results in good water quality in the backfill with respect to an alkaline pH, available alkalinity, and eliminating exceedances for sulfate, nitrogen, and zinc. Exceedances for cadmium, manganese, selenium, and thallium are predicted to occur. However, these increased concentrations will not affect the surrounding groundwater system because a permanent hydraulic sink would be maintained.

The seasonal hydraulic expression that is predicted to form will be alkaline and possess elevated concentrations of fluoride. The geochemical model predicts additional exceedance of boron and selenium with regard to the Profile III standard. However, observed concentrations of these elements in the pore water do not support these exceedances. The seasonal hydraulic expression will evapo-concentrate and seasonally form salts on the ground surface. Upon inundation during winter and spring months, the salt crust will dissolve back into solution. The EDC was approved by the Division in June 2016.

Evaluation of the different scenarios is ongoing and will continue as future studies are conducted and the models refined. The Division has established the requirement in the Permit that the final configuration must minimize the impoundment of surface drainage and must not degrade waters of the State or adversely affect the health of human, terrestrial, or avian life, pursuant to NAC 445A.429.

In September 2011, the Waste Rock Management Plan was updated to include specific monitoring and testing requirements for backfill placed in the pit. Testing and reporting required by the Permit for backfill material are: 1) Weekly records of backfill tonnage placed, Total in-pit, In-pit PAG site (above 6,250 ft amsl), and In-pit below 6,250 ft amsl; 2) Weekly records of tons of lime and limestone amendment added; 3) Results of all LECO and Sobek analyses conducted on site; 4) Monthly certified lab confirmations of one LECO total sulfur and LECO pyritic sulfur on a sample split from material sampled and tested on site for the same parameters (for comparison of site results to lab results); and 5) Monthly certified lab confirmation of ANP/AGP from same split for validation of 0.4 percent total sulfur and 0.05 percent pyritic sulfur criteria.

As of September 2011, backfill activity had resulted in complete elimination of the pit lake and was ongoing. Monitoring well MW-49 was installed in the pit after completion of the backfill to monitor groundwater in the location of the recently backfilled pit lake. In late 2015 Monitoring well MW-49 was found to be damaged beyond repair presumably by the consolidation of the pit backfill material. An EDC to replace MW-49 with MW-49R was approved by the Division in February 2016 and subsequently completed adjacent to MW-49 and to the same depth interval in March 2016.

With the 2018 Major Modification expansion of the Rochester Pit down to the 5,500 feet amsl elevation, an evaluation of the water impacts to both quantity and quality was performed. The expanded pit will create four sub-pits of varying depths, titled sub-pits 1, 2, 3, and 4. Sub-pits 1, 2, and 3 will coalesce to form a singular pit lake, while sub-pit 4 will have a seasonal pit-lake but not establish a permanent lake or coalesce with the other lakes. To mitigate this seasonal pit lake, both scenarios (discussed below) propose to amend non-PAG waste rock and backfill sub-pit 4 to 25 feet above the maximum predicted rebound elevations. Two geochemical models were prepared for sub-pits 1, 2, and 3, and two separate closure scenarios evaluated: 1) the open pit scenario, and 2) the partial backfill scenario.

The open pit scenario evaluates closure of the pit in the as-is condition with no backfill placed and no treatment of the lake water. The Rochester Pit Lake would recover to an elevation of 5,943 feet amsl after approximately 300 years when sub-pits 1, 2, and 3 will coalesce to form a single pit lake. The single largest contribution to the Rochester Pit Lake is the BRF, with maximum inflows reaching 88 gallons per minute after 17 years of filling. Total evaporative discharge from the recovered Rochester Pit Lake in the open pit scenario is estimated to be 141.7 gpm with 68.2 gpm of this demand being met from groundwater inflow and the remainder derived from surface water.

Geochemical results of the predictive model determined that the initial chemistry of sub-pit 1, 2 and 3 will be acidic with aluminum, cadmium, copper, fluoride, lead, and selenium concentrations in excess of Division Profile III reference values. The quality of sub-pit 1 will become more neutral during filling due the inflow of neutral groundwater from the BRF and a decrease in the exposure of PAG material in the final pit wall due to submergence. Once sub-pits 1, 2, and 3 coalesce, there will be the creation of a single 88-acre pit lake. At the recovery elevation of 5,943 feet, the Rochester Pit Lake will meet all Division III Profile reference values with the exception of cadmium (0.155 mg/L).

The partial backfill scenario will alter the water balance of sub-pits 2 and 3 by preventing direct precipitation from falling directly into the sub-pit and preventing evaporation until the pit lakes coalesce above the backfill elevation. In this scenario, sub-pits 2, 3 and 4 will be backfilled with 0.5, 1.5, and 3.1 million tons of amended waste rock, respectively. The backfill material (non-PAG waste rock with total sulfur ≤ 0.05percent) will be amended with lime at a rate of approximately 3.44 tons of lime per 1000 tons of backfill to reach an overall 3:1 ANP/AGP ratio. A lime consumption rate of 17 percent for the backfill material was determined and incorporated into the required amendment tonnages.

The Rochester Pit Lake recovery reaches the 5,949-foot elevation approximately 300-years after the cessation of mining and after sub-pits 1, 2, and 3 coalesce to form a single pit lake. The initial chemistry of sub-pit 1 is the same as mentioned above and once the three pits coalesce, cadmium (0.157 mg/L) remains above the Divisions Profile III reference values. Partially backfilling of sub-pits 2 and 3 does not allow the expression of an acid pit lake during filling and reduces risk to terrestrial and avian life during this period.

Waste Rock Disposal Facilities

There are currently eight un-reclaimed waste Rock Disposal Sites (RDSs) at the Rochester Mine. These include the North RDS, South RDS, East RDS, West RDS, Charlie RDS, Packard RDS, Rochester In-Pit RDS, and the Packard In-Pit RDS. Potentially Acid Generating (PAG) material has been evaluated using Division approved methods, and any material flagged as PAG will be handled in accordance with the currently approved Waste Rock Management Plan (WRMP). For the Rochester mine, PAG material is defined as having a sulfur percentage of greater than 0.23 wt% total sulfur, though prior to 2018 it was defined as greater than 0.40 wt% sulfur.

Active RDS's: As of the 2026 renewal, a haul road runs through the North RDS, which additionally has a small low-grade ore stockpile in its footprint. Portions of the North RDS are in the footprint of the expanded Rochester pit authorized as part of POA 11, and so will be mined through. The North RDS also has a historic PAG cell, see *Potentially Acid Generating Rock*, below. The South RDS similarly has portions that are within the expanded Rochester Pit footprint and will be mined through. A Class III waivered landfill is within the footprint of the South RDS. Despite portions scheduled to be mined out, the South RDS is one of the facilities actively receiving waste rock from mining activities as of the 2026 renewal. The West RDS is the other facility actively receiving waste rock from mining activities as of the 2026 renewal. This facility also has portions that will be mined through with the expansion of the Rochester Pit footprint. The West RDS contains the currently active PAG encapsulation cell. The Rochester In-Pit RDS is also currently actively used, in accordance with the restrictions of PAG placement as explained below, see *Potentially Acid Generating Rock*. Expansion of the West RDS and South RDS will be accomplished through the expansion of the current footprints by 194 and 120 acres, respectively, which will provide an additional 134 MT of capacity at the West WRDS and 163 MT of capacity at the South WRDS. Both WRDSs are designed to remain stable during seismic events and utilize collection channels and sediment control basins to protect waters of the State.

Inactive RDS's: The East RDS is not currently receiving waste rock from mining activities, but it contains both the primary haul road between Rochester Pit to the Primary Crusher dump pad, as well as a small ore stockpile near the Primary Crusher dump pad. The Charlie RDS has portions that are within the anticipated expanded footprint of the Rochester Pit and will be mined through. Other than this, the Charlie RDS is not currently utilized for any activities. The Packard RDS is located near the currently inactive Packard Pit and is not currently utilized. However, this RDS is expected to be reactivated and expanded once mining resumes in the Packard Pit. While included with the 2018 Major Modification and renewal, the Packard RDS will be designed and permitted as a separate modification. Similarly, the Packard In-Pit RDS will remain inactive until mining resumes in the Packard Pit area, at which time it will be permitted as a separate modification.

Potentially Acid Generating Rock: As of the 2020 WRMP, an average of 20.5% of material mined from the Rochester Pit under POA 11 will be PAG Material. PAG material is only authorized for disposal in the Rochester In-PIT RDS if it is encapsulated above the historic groundwater elevation of approximately 6,250 ft amsl. Non-acid-generating rock, amended as required with lime to achieve 3 to 1 (3:1) ratio of acid neutralizing potential to acid generating potential (ANP/AGP), will be placed in the eastern portion of the pit to preclude a long-term pit lake.

With the approval of the POA 10 major modification in 2015, two PAG cells were permitted within the North and West RDS. PAG material that is encountered during mining was placed within the PAG cells and is encapsulated in accordance with the approved POA 10 waste rock management plan (WRMP). The same PAG encapsulation practices are utilized in the 2018 POA 11 WRMP, but in the expanded West RDS. PAG material is not permitted in the South RDS, as CRI did not perform a seepage analysis on this expansion. While PAG is currently defined as having a sulfur concentration of 0.23 wt% sulfur, prior to the 2018 WRMP PAG was defined as having greater than 0.40 wt% sulfur.

Material exhibiting a PAG character, when stored in existing RDSs, will be encapsulated within non-PAG waste rock. The PAG material will be placed on a nominal 50-foot thick non-PAG waste rock base, placed a minimum of 20 feet internal from any final regraded dump face, and placed to accommodate a minimum 20-foot thick non-PAG cover. When placed in in-pit WRDSs above the saturation zone, the non-PAG material will be encapsulated with 50 feet of non-PAG waste rock that will have a total sulfur content of ≤ 0.05percent or, if between 0.05 to 0.23, will need to be amended to an ANP/AGP ratio of greater than or equal to 3. However, new in-pit waste rock dumps are not anticipated and only the portions of the existing dumps would remain. Only non-PAG waste rock with total sulfur less than 0.05 percent that is amended to an ANP/AGP ratio greater than or equal to 3 will be allowed to be backfilled into the pit.

<u>Ore Stockpiles</u>

There are two temporary ore stockpiles, one within the footprint of the North Rock Disposal Site (RDS), and one located within the footprint of the East RDS. These temporary stockpiles consist of run-of-mine (ROM) which is used to feed the Primary Crusher during inclement weather. While an Ore Stockpile Management Plan was required and approved in January of 2021, it only applied to Limerick Crushing Circuit Primary, Secondary, and Final Product stockpiles. Temporary ores stockpiles were not included in this plan. Approximately 4.5 MT of low-grade ore stockpile material has been processed through 2010. This material has been leached on the Stage II and Stage IV HLPs as either run-of-mine (ROM) or crushed ore.

In addition to the active ore stockpiles managed through the Ore Stockpile Management Plan, there is a historic ore stockpile that was originally used to feed the X-Pit Crusher. The X-Pit crusher was decommissioned in 2024, with final demolition completed in September of 2025, and this ore stockpile was left in place pending either reclamation activities or conditions that economically favor moving the ore to the active process area.

Ore Crushers and Conveyors

The original X-Pit ore crushing facilities include primary, secondary, and tertiary systems. The primary crusher reduced ore to 9-inch minus, the secondary reduced it further to 3-inch minus, and the tertiary crusher reduced the ore to 3/8-inch minus. Calcium hydroxide was added at this stage to ensure proper alkalinity (pH 11 standard units [SU]) was achieved for cyanide processing. The scalping and tertiary crusher systems were relocated approximately 1,600 feet north of their original location, on the slope to the east of the secondary crushing system. The primary and secondary systems were connected to the overland conveyor system at the head of the third stage of the conveyor. Mining and crushing operations were suspended in August 2007 but were restarted in 2011 for the loading of the Stage III HLP.

Originally, a 7,500-foot, four-stage overland conveyor system was designed to take tertiary crushed ore to the Stage IV heap leach facility. This conveyor system consisted of two 48-inch-wide overland conveyors, transfer chutes, stacking conveyors, and a truck load-out belt. Mining and crushing operations were suspended in August 2007. With resumed mining in 2011, the overland conveyor was relocated to deliver crushed ore to the Stage III HLP and included three 48-inch overland conveyors, transfer chutes, stacking conveyor, and a truck load-out belt. With the approval of the 2015 major modification and renewal, the overland conveyor was relocated to deliver crushed ore to the Stage IV HLP. The overland system included two overland conveyors, transfer chutes, a stacking conveyor, and a truck load out. In 2018, a high-pressure grinding roll (HPGR) was installed to replace the tertiary crushing

With the 2020 renewal, a new primary crusher and conveyor system was planned to follow the equipment access road to the east of the Stage VI HLP. This area is known as the Limerick Primary Crushing Facility and is in active operations as of the 2026 renewal. Ore is dumped into the primary crusher using haul trucks. It is then conveyed to the secondary and tertiary crushers, and finally to the truck loadout area.

Due to the possibility of the expanded Rochester pit to process PAG ore materials, the Division required that appropriate containment be utilized in these loadout platform areas. Due to the nature of these loadout areas, each stockpile will have a dead and live load area. The dead load area will be placed on the platform while the live load area consists of ore directly above the reclaim tunnel. The dead area will have a longer residence time while the live load area will have a short residence time due to the materials being directly above the reclaim tunnel.

The Permittee will construct the dead zones of non-PAG materials. When PAG ores are processed, they will only be placed in the live load areas which have short retention times and will not provide enough storage time for meteoric water to infiltrate and cause seepage that could degrade waters of the State. The Permittee is required to provide a Standard Operation Procedure for the operation of these loadout facilities. If during inspection of these loadout areas it is determined that they are not being operated as specified in the submitted plan, then the Division may require that containment be constructed in these areas to protect waters of the State.

In July of 2025, an EDC was submitted to construct a heated maintenance pad at the head of the primary crusher unit at the Limerick Crushing Facility, called the Primary Crusher Rebuild Pad. The pad is heated using a hydronic system, in which a mix of water and propylene glycol is heated in an attached pumping building (the mechanical connex) and then circulated throughout the concrete pad. Heating will allow the Crusher Rebuild Pad to be utilized year-round. The EDC was approved in October of 2025.

Processing Facilities

Heap Leach Facilities

There are six valley-fill HLPs Permitted at the Rochester Mine. Each pad is subdivided into phases. The Stage I HLP, built in 1986, covers approximately 85 acres. The Stage II HLP, built in 1988, is located adjacent to and upgradient (south) of the Stage I HLP, covering approximately 129 acres. The Stage IV HLP initially covered approximately 215 acres. The 2015 major modification and renewal increased the footprint by 78 acres to 293 acres. The Stage III HLP design proposal was included with the application for major modification of 2010 and was approved by the Division for construction by the Division in February 2011. The Stage III HLP, built in 2011, is located adjacent and upgradient (south) of the Stage II HLP, and covers approximately 143 acres. The Stage V HLP was included in the 2015 major modification and renewal and covers 123 acres, but as of the 2026 renewal, has not yet been constructed. The Stage VI HLP, which was included in the 2018 Major Modification and renewal covers an area of approximately 496 acres. While included in the 2018 major modification and renewal, the Packard HLP will be designed and permitted as a separate modification.

The HLPs and associated ponds were designed and constructed to contain the 25-year, 24-hour storm event volume and solutions resulting from a 24-hour drain-down. The HLPs were designed to withstand the run-off resulting from a 100-year, 24-hour storm event.

Stage I Heap Leach Pad: The Stage I HLP was constructed in two phases (Phases IA and IB) and loaded with ore through 1990 to a height of 200 feet. It covers approximately 3.4 million square feet and is lined with 80-mil high density polyethylene (HDPE). Beneath the synthetic liner is a 2-inch-thick layer of sand (3/8-inch minus) which was placed directly on cleared, grubbed, and compacted native material. In selected areas of coarse-grained native material, 6 inches of compacted fine-grained material was placed prior to placement of the sand layer. High clay zones were removed and backfilled with granular material.

There is a shallow, main collection channel which branches to the southeast and to the southwest. Unique to this main collection channel, underneath the channel's synthetic liner and on both sides of the lowest point of the channel, are underdrain recovery systems which are filled with one-inch rock and 12-inch diameter perforated HDPE pipe encapsulated with geotextile. The perforated pipes in the rock-filled recovery systems for Phase IA report to Catch Basin East (CBE) and Catch Basin West (CBW), located north of the facility. The recovery system for Phase IB is identical but reports to the South American Canyon Sump (SAC), located east of the facility. The catch basins and sumps collect solution, along with greater quantities of spring and meteoric water, for reintroduction into the process circuit. Note that, although the Phase IA and IB underdrain systems drain to opposite sides of the leach pad, the subbase was graded such that all pregnant solution draining down from both phases of the leach pad is directed to the North Dike on the Phase IA side.

Dikes were constructed at both the northern and southern ends of the pad to contain pregnant solutions. The dikes are compacted, rock-filled structures with filter rock covering the rock fill and clays covering the filter rock. An 80-mil HDPE liner was placed on the upstream side of each dike. The Stage I South Dike was constructed to a height of 34 feet and has a crest width of 25 feet with an upstream slope of 3 horizontal to 1 vertical (3H:1V) and a downstream slope of 2H:1V. The North Dike (Phases IA and IB) was constructed to a height of 40 feet with an upstream slope of 3H:1V and a downstream slope of 2H:1V.

Hydraulic relief pipes are located in the main collection channel above the synthetic liner which initially entered the double-walled pipe passing through the North Dike of Stage I to the pregnant ponds. In 1991, the downgradient pregnant ponds were taken out of service when the counter-current fluid management system was installed and the primary pipe to the diverter/pregnant ponds was plugged. Due to leakage emanating from the area of the booted location (upgradient side of the North Dike embankment), the secondary pipe was later modified to report to a container in a concrete vault, known as the diverter box, located south of the pregnant ponds. From the diverter box, a dedicated sump pump conveys the leakage to the pregnant sump on the north end of the ponds. In November 2007, the Permittee submitted an application to modify the draindown system from the Stage I North Dike Sump to the Pregnant Sump with the intention of limiting the head on the liner by providing a completely passive draindown path to the Pregnant Sump. This design was approved by the Division and construction of the modification was completed in January 2009. Decommissioning of the diverter box was completed in October 2009. The Permit was modified to increase the maximum allowable head on the liner from 1 foot to 2.5 feet because the design does not allow draindown below 1.1 feet.

Leakage from the Stage I HLP was detected in 1991. The Permittee took immediate action to determine the location of the leak and the extent of the groundwater contaminant plume. From the time the leakage was first detected, numerous studies have been completed, characterizing the hydrogeology of the Stage I area and the magnitude and extent of the contaminant plume in attempts to further understand and mitigate actual groundwater impacts. The results of these studies indicate that a source of the leakage is beneath the northern part of the Stage I HLP, and the seepage emanates from near the Stage I boot sleeve and is partially or wholly hydrologically connected to the sub-drainage perforated pipes connecting the Stage I HLP to two catch basins, Catch Basin East (CBE) and Catch Basin West (CBW).

Attempts to remediate the contaminant plume using sodium hypochlorite are believed to be the cause of high chloride concentrations observed in monitoring well WI-17R. In 2009, the Permittee agreed to convert WI-17R to a pump-back well to provide additional remediation of the chloride plume. The conversion was completed in June 2010.

To address the pad source, the Permittee was required to either close the Stage I heap or to provide an acceptable alternative. The Permittee chose to chemically stabilize the Stage I heap. Multiple treatments with a carbon-rich solution (Green World Science) were applied in 1999 and 2000, in an attempt to precipitate toxic constituents out of the leach solution and sequester them in the HLP. This treatment did not result in complete chemical stabilization of the HLP. In 2000, the HLP was regraded and 6 to 10 inches of topsoil cover was placed on the entire pad and the pad was then reseeded. Application of fluid, including freshwater, to the leach pad, other than direct meteoric precipitation, is currently prohibited by the Permit.

A Corrective Action Plan was approved by the Division on 29 May 2003 for containing and mitigating the leakage from both the pad and the high chloride source. Monitoring well WI-16 was converted to a remedial collection well and continues to pump contaminated groundwater to the preg sump. Shallower contamination is captured by remedial collection well WI-17R and by the existing Catch Basin Central (CBC) sump which is connected to a French drain system underneath the East and West Pregnant Ponds. Four new monitoring wells (MW-30 thru MW-33) were also installed, including some in the productive aquifer in the Black Ridge Fault (BRF) located just west of the Stage I pad. As of the 2026 renewal, the BRF aquifer is not degraded and the contaminant plume is being monitored. If warranted based on future monitoring reports, additional mitigation may be required.

In November 2009, due to compromised well casing in WI-29, a replacement well was installed (WI-29R) in an effort to further investigate exceedances evident in WI-29, which may be caused by migration of the Stage I plume. Similarly, due to MW-30 having been screened too high compared to the water table (the well is dry approximately half of each year), a replacement well (MW-30R) was installed.

Based on analytical results from samples taken at WI-29R, it was determined that the well should be converted to a remedial collection well. A work plan was submitted by the

Permittee as part of an engineering design change (EDC) in June 2011 and approved by the Division in January 2012. The conversion was completed in April 2012.

In 2012, a work plan was submitted to install 4 pump-back wells to help remediate the plume area. This plan was approved by the Division in January of 2013, and pump-back wells MW-50, MW-51, MW-52B, MW-53B, and MW-54 were installed. In August of 2021, and EDC was approved by the division to replace MW-50, as the casing of the original MW-50 had become compromised. MW-50R was placed into service in June of 2022. Two monitoring wells, MW-52A and MW-53A, were also installed and have been dry for the period of record, as of the fourth quarter of 2024.

In September 2010, the Permittee installed a weather station to gather detailed meteorological data to be used for final planning for permanent closure. The station is approximately 33 feet high and can measure solar radiation, relative humidity, temperature, precipitation, and wind speed/direction.

In June of 2011, an EDC was submitted to widen the haul road and conveyor corridor road which added a liner extension to the Stage I HLP. This EDC was approved in June 2011. As-builts were submitted and approved by NDEP in September of 2011.

Stage II Heap Leach Pad: The Stage II HLP was constructed in four phases starting in 1988 (Phases II, III, X, XI). Based on engineering evaluations of stability and settlement, as well as maintaining the integrity of the liner system, the Stage II HLP has a maximum Permitted height of 330 feet with crushed ore and ROM ore. This HLP covers approximately 6.0 million square feet and was designed and built similar to Stage I, with the exception of greater widths of HDPE liner material, which reduced the number of seams over the surface area. The HLP was designed and approved by the Division, and the initial construction phases of the pad built, prior to the 1989 regulations (NAC 445A.350-447). However, quality assurance and control information is available. The underdrain recovery system under the synthetic liner reports to the Stage II sump (ST-II), located to the east of the HLP. Phase X was constructed on the southeast side of the Stage II facility, post-regulation, and Phase XI was built in 2004.

The process piping at the Stage II North Dike was replaced to provide more efficient flow back to the top of the Stage II heap when operating with both pumps simultaneously. The Division modified the Permit in 2007 to allow for up to 65 percent of pump capacity when both pumps are operating simultaneously within the system. The rate of application of process solution to the Stage II HLP is limited by the Permit to a maximum of 3,000 gallons per minute (gpm). However, a 2016 EDC was approved by the Division resulted in a decrease in solution application to a maximum of 1,500 gpm.

In fall of 2006, the liner at the northwest edge of the Stage II heap was extended to prevent leach material from sliding off the HLP. This liner extension was installed on unprepared base and perforations and tears were evident during the Division inspection of April 2007. In response to Division directives, the Permittee submitted a design package in September

2007 for the replacement of this liner, regrading of the subbase, and the addition of a geosynthetic clay layer (GCL) under the new HDPE liner to address these issues. This design package was reviewed and approved by the Division in January 2008. Construction was completed in July 2008.

In July of 2011, an EDC was submitted to widen the haul road and conveyor corridor road which added a liner extension to the Stage II HLP. This EDC was approved by the Division in July of 2011 and construction completed by September 2011.

Relocation of Stage I and Stage II Heap Leach Pad Spent Ore

The expanded Rochester Pit that was approved with the 2018 Major Modification and renewal requires expansion of the pit in all directions and deepening of the pit to an approximate elevation of 5,500 feet amsl. This requires the east highwall to be pushed back approximately 900 feet into the area of the Stage I and Stage II HLP's. The Stage I HLP and a portion of Stage II will need to be removed in order to expand the pit to the proposed extents. While final designs and removal procedures were not provided with the Major Modification, preliminary details were provided.

The Stage I and II HLP spent ore could be placed on top of the existing Stage IV HLP (above the currently permitted elevation) or placed on the approved and not yet constructed Stage V HLP. Both areas would provide geomembrane lined storage of the relocated spent ore. Removal of this material would be performed by a loader or shovel which would load haul trucks. The approximate spent ore to be removed from the Stage I and Stage II are 25 million tons, and 15 million tons, respectively. The Stage II HLP will be set back and benched/buttressed to provide stable slopes.

Once the spent ore is removed, the low-hydraulic conductivity soil layer and geomembrane liner would be removed in a way that would not allow solution to leave containment. The remaining containment would be modified/constructed to ensure that containment of process solutions and spent ore is maintained into closure.

In February of 2024, CRI submitted an EDC to begin removing spent ore from the Stage I and Stage II HLPs. The EDC included details of geotechnical investigations of the Stage I, II, and III HLP's and construction sequencing of the planned offload. Also included was the construction of new Stage III barren and pregnant solution lines. The EDC was approved in June of 2024, and CRI relocated 3,655,591 tons of spent ore from Stage I/II to the Stage IV HLP in 2024. In September of 2025, CRI began construction of the new Stage III barren and pregnant solution lines. Construction was completed in October, and a temporary use authorization was granted by the Division on October 23rd, pending the submission of the complete record of construction.

In May of 2024, during initial ore offload operations, CRI was granted permission to add fresh water to the Stage I and II HLPs for dust control purposes, provided that application rates were kept as minimal as possible.

Stage III Heap Leach Pad: In June 2010, the Permittee submitted an application for a Major Modification proposing to construct the Stage III HLP in two phases. The design is for a valley-fill configuration but with a flow-through design which does not impound solution within the heap. A total of 45 to 50 MT of ore will be placed on the Stage III heap, over an area of approximately 143 acres, with a maximum height above the synthetic liner of 400 feet. The leach pad is constructed directly south and southwest of the Stage II HLP but the fluid management systems for each will be segregated.

The leach pad design calls for grading and filling of the valley to produce a flat area of approximately 5 acres within the valley bottom. A system of shear keys and trenches were constructed in this area to stabilize the heap and provide a meandering flow path for drain down prior to exiting the heap fluid collection system.

The liner system for the leach pad consists of (bottom to top) a prepared subgrade, a GCL, and an 80-mil HDPE liner. The GCL has a permeability rating of $1x10^{-6}$ centimeters per second (cm/s) or less and was placed using conventional overlapping and sealing techniques. Crushed ore was placed on top of the HDPE liner to act as an overliner, within which a system of leachate collection pipes were placed. The collection system will consist of 4-inch diameter slotted HDPE lateral pipes which drain to 12-inch diameter HDPE slotted trunk lines or secondary headers. These in turn drain to 20-inch diameter HDPE slotted primary headers which convey solution through the shear key area and terminate at the cutoff wall.

The cutoff wall is located at the north end of the leach pad and is designed to direct leachate flow into the 22-inch diameter pregnant solution pipe. The wall consists of a 5-foot tall concrete stem wall, penetrated by the 22-inch diameter pipe. A second 22-inch diameter pipe penetration is included as a contingency but was capped initially and only used if required at some future date. The 22-inch diameter HDPE or steel pregnant solution pipe exits the cutoff wall and conveys leachate to the pregnant solution tank approximately 1,000 feet downgradient. Over the length of this span, the pipe is enclosed within a 30-inch diameter secondary containment pipe.

The pregnant solution tank is a cylindrical steel tank with a working capacity of approximately 47,500 gallons (gal), located on a concrete pad adjacent to the Contingency Pond. The design is such that any upset condition or overflow of the tank will drain across the pad and into the pond. Under normal operating conditions, the drain down from the heap will run through the tank and out through the exit pipe, an 18-inch diameter HDPE or steel pipe, expanding to 22-inch diameter after approximately 25 feet, and running downgradient to the process building. This section of the pipeline also runs within a 30-inch diameter HDPE secondary containment pipe.

The Contingency Pond measures approximately 323 feet by 505 feet at the crest, with a total depth of approximately 22 feet. The pond liner system consists of (bottom to top) a prepared subbase, a 60-mil HDPE secondary liner, a geonet, and a 60-mil HDPE primary liner. The leak detection and recovery system consists of the geonet and a gravel-filled sump (2,603 gal effective capacity) from which an 8-inch diameter HDPE pipe extends up to the crest to allow inspection and evacuation of fugitive solution. The pond is designed to contain the direct precipitation on the leach pad resulting from the 25-year, 24-hour storm event, along with 24 hours of drain down, without passing the minimum required freeboard of 2 feet. In addition, the pond is capable of containing the direct precipitation on the leach pad resulting from the 100-year, 24-hour storm event, along with 24 hours of drain down, without overtopping the embankment.

The pond will be maintained empty during normal operation. Diversion of solution into the pond will only be the result of shut-down during routine maintenance, upset conditions, or storm events. Industry best practices will be used to minimize wildlife exposure to pond fluids.

In November 2012, the Permittee submitted a minor modification proposing to add a buttress at the downstream foot of the Stage III HLP. The need for the buttress was identified by the design engineer (Knight Piésold) after re-evaluating the properties of the GCL under saturated conditions, which could result in reduced stability as constructed. The buttress was designed to reinforce the Stage III heap and eliminate the stability issues, as confirmed by analysis results submitted with the design. The upstream face of the buttress includes a GCL overlain by 80-mil HDPE geomembrane.

The buttress as designed will cover the original cutoff wall solution collection area. Two additional conveyance pipe outlets through the wall were added as part of the buttress design to provide additional contingency in case of pregnant pipe blockage. The design also provides a single 18-inch diameter HDPE pipe located on the upstream embankment of the buttress and terminating below the cutoff wall just upstream of the pregnant pipe inlets. This pipe allows for inspection and, if necessary, evacuation of fluid behind the wall in the event all four pregnant pipes become blocked or are otherwise unusable. If this should occur, the Permittee is required by the Permit to cease application of solution and initiate closure of the pad immediately. The minor modification was approved by the Division in March 2013.

The Stage III HLP was originally permitted with a limit on the rate of solution application of 5,000 gpm. In October 2013, the Permittee submitted an EDC proposing the increase of the Permit limit to 6,500 gpm. Supporting documentation submitted with the EDC showed that the solution conveyance system was capable of handling the increased flow without modification, including under storm conditions. The EDC was approved by the Division in October 2013. In June 2014 the Permittee submitted an EDC proposing to increase the solution conveyance again this time to a flow rate of 7,500 gpm. The increase required system modifications including a pressurized bypass of the pregnant tank. The EDC was approved by the Division in July 2014. In July of 2016, an EDC was approved by the Division that again permitted the increase of solution application to Stage III from 7,500 gpm to 8,300 gpm.

In October of 2016, the Permittee observed ponded solution on the northern portion of Stage III where there had previously been a haul road. It was determined that a low permeability zone was created on the heap that did not allow for proper percolation of leach solution and subsequently caused ponding. To alleviate the observed ponding, the Permittee installed a series of drains in the vicinity of this pond to create a pathway for ponded solution to bypass the compacted low permeability zone. The drains were approved by the Division as an EDC in November of 2016.

Stage IV Heap Leach Pad: The Stage IV HLP was designed and approved prior to the promulgation of the 1989 regulations (NAC 445A.350-447) and constructed in several phases starting in 1994 (Phases VI, VII, VIII, IX, XII, XIIIa,b,c). The heap height is currently permitted to a maximum of 330 feet. The Stage IV HLP was built using an 80-mil HDPE liner (which extends up the embankment). The leak collection and recovery systems consist of 4-inch diameter poly vinyl chloride (PVC) perforated pipes identified as Leak Detection Lines (LDLs) located beneath the liner but above the 12-inch thick, compacted, low-permeability subbase (maximum permeability 4.0 x 10^{-8} cm/sec). However, the leak detection system only extends to Phase VI, which is the limit of the area where process fluid is impounded. At the southeast corner of Stage IV the leak detection sump includes a single HDPE-lined overflow pond to store excess fluids in the leak detection system. Process fluid accumulated in this pond is limited to 20-day residence.

Stage IV also has a system of Underdrain Lines (UDLs) located beneath the 12-inch thick subbase designed to recover groundwater (e.g., springs/seeps). Both the LDLs and the UDLs consist of perforated pipelines located in gravel-filled trenches surrounded by geotextile. The LDLs and the UDLs report to separate sumps where the fluids are pumped back to the fluid management system.

A network of hydraulic relief perforated pipelines is located above the HDPE liner. The 4-inch diameter PVC perforated pipes are spaced 40 feet apart to recover pregnant solution and minimize hydraulic head on the liner system. The hydraulic relief pipes direct the pregnant solution to the solution collection sump where it is pumped into 18-inch diameter return lines to the process plant. If a breach of one of these pipelines were to occur, the process solution would gravity flow back to the Stage IV HLP via a synthetically-lined ditch.

Process solution was detected in underdrain UDL-3 in August of 2004, indicating the presence of a leak in the liner system on the middle to north side of the leach pad. Cell 2 of the leach pad is believed to be the source of the leakage. Therefore, no solution application has been allowed on Cell 2 since 10 August 2004. A new monitoring well (MW-44), installed in 2007 to test for groundwater degradation near the UDL-3 sump, shows no degradation.

In July 2011, the Permittee submitted an EDC, proposing to install 280 gravity injection wells on the Stage IV HLP, and the proposal was approved by the Division in August 2011. Injection wells were installed at a minimum of 100 feet apart and no closer than 40 feet away from the HLP crest. The bottom of each well was to be at least 100 feet above the top of the HLP liner. Initially, 20 wells were constructed and operated. The proposal was to follow with an expansion of up to a maximum of 280 wells. The installed gravity injection wells proved to be inefficient and were abandoned in 2014 and no additional wells have been constructed/installed since that time.

On 23 September 2021, the Permittee submitted an EDC proposing to install 171 low- and high-pressure injection wells and five observation wells on the Stage IV HLP. No wells will be located within 200 feet of the "No Leach Zones" or directly over the "Interlift Liner" areas. The wells will be spaced approximately 120-feet apart and set back from the side slope of the HLP by 100 feet. No two adjacent wells will be injected simultaneously. No well will be installed closer than 50 feet above the synthetic liner.

The Permittee proposes to perform both low pressure and high pressure pumping on individual zones within respective installed wells. It is proposed to deliver approximately 3,000 gpm to the injection well project from existing sources of solution application on the HLP. This total flow rate is distributed between both low- and high- pressure wells. Any excess solution which is not utilized for injections would be distributed elsewhere via existing surface application methods. Barren solution shall not be applied to the surface of an area under active injection. Total solution flow, including surface and injection well application methods, to the HLP will not exceed 9,000 gpm.

A slope stability evaluation per regulatory criteria was performed to evaluate the stability of the HLP during high pressure solution pumping. Analyses were performed using the Morgenstern-Price method and the Entry and Exit circular failure surface search method. Various scenarios were evaluated that consider maximum pore pressures and horizontal seismic coefficient ("static" = 0 and "pseudo-static" = 0.07). This horizontal seismic coefficient is consistent with that used for the slope stability analysis performed in the Stage IV HLP stability analysis performed (September 2012 and January 2021). Slope stability analyses were performed for the respective sections using the conventional limit equilibrium approach as implemented in the computer program SLOPE/W. The factors of safety for the sections evaluated, all exceed the regulatory criteria of 1.3 for static conditions and 1.05 for pseudo-static conditions.

The EDC was approved by the Division on 29 September 2021 and Revision 01 to the 2020 Permit and Fact Sheet were issued.

In February 2015, the Permittee submitted an application for renewal and a major modification to expand the Stage IV HLP and construct the Stage V HLP. There were several modifications to Project operations associated with the major modification proposed in the application, including an expansion of approximately 78-acres to the existing Stage IV HLP including increase of the allowable maximum Stage IV HLP stacking height from 330 feet to 400 feet, installation of the Stage IV and V HLP conveyor system, associated load-out points, ore stockpiles, maintenance road, realignment of the Stage IV haul road, construction of secondary access roads, and a utility corridor to accommodate process solutions and fresh water supply pipelines; construction of the approximately 123-acre Stage V HLP (actual 3D surface area of liner limits) located to the south of the existing Stage IV HLP with an associated conveyor, contingency pond, process solution tanks, and underdrain management pond; relocation of a portion of utilities within the footprint of the proposed Stage V HLP including the existing power line and poles to a new alignment corridor and relocation the 100-year, 24-hour event stormwater diversion ditch; relocation of the electrical building, core shed, abandonment of monitoring well WI-24, and relocation of production well PW-2A to accommodate the Stage V HLP, and installation of production well PW-2B. (See *Stage V Heap Leach Pad* below for further discussion); and storage of PAG material within the footprint of the North and West WRDSs

Stage IV 2015 Heap Leach Pad Expansion

In 2015, the Permittee proposed to expand the leach pad liner surface of the existing Stage IV HLP. Construction activities (completed in 2019) included: clearing and grubbing; growth medium stripping and stockpiling; subsurface preparation; heap leach pad liner and solution collection system placement; and completion of other ancillary work within the proposed disturbance area for access, control, and stormwater management. Subsurface preparation included scarifying, moistening, and re-compacting the top 8 inches of the stripped area to a minimum of 90 percent of the maximum Modified Proctor dry density pursuant to ASTM Method D 1557 as well as grading and performing cut and fill as necessary for the facility design. Cut and fill areas were compacted to 90 percent of the maximum dry density pursuant to ASTM Method D 1557 within 2 percent of the optimum moisture content. The underliner consists of GCL with a maximum permeability of 1 x 10^6 cm/sec. This was overlain by an 80-mil textured HDPE liner. A well-graded granular overliner material was placed over the HDPE liner to a thickness of between 36 inches and 5 feet. The solution drainpipe system consists of perforated lateral pipes and perforated collector pipes installed above the pad liner within the overliner. All lateral and collector pipes are ADS N-12 dual-wall smooth interior pipes or approved equal. A series of 4-inch diameter perforated lateral pipes on 20-foot centers feed into 8-inch, 12-inch or 18-inch collector pipes placed at strategic locations.

Standard construction equipment was utilized where practical (excavators, compactors, articulating dump trucks, dozers) with smaller equipment utilized as necessary depending upon field conditions. Long-term operating and maintenance access to the facility is provided by an access road inside the facility perimeter fence adjacent to the expanded leach pad area. Stormwater management structures were also constructed outside the toe of the expanded heap leach pad. The Stage IV HLP expansion is expected to add approximately 70 MT of ore storage capacity to the facility. Leach solution from the expanded area is directed to the existing solution management system via an expanded solution collection pipe network. Knight Piésold completed a water balance evaluation of the existing Stage IV HLP solution management system's capability to handle the additional liner area and increased ore volume. Results indicate the existing fluid management system is capable of containing both leach application draindown and stormwater flow from the 25-year, 24-hour design storm event, and withstanding the 100-year, 24-hour storm event, as required by Permit guidelines. By operating the facility with the storage level at least 27 feet below the dike crest, the system will have adequate contingency storage for the design event. The additional liner acreage will not change the permitted Stage IV HLP solution application rate (0.005 gpm per square foot) or overall solution flow to the HLP (9,000 gpm).

In order to minimize the permitted and disturbed areas for ore processing, an evaluation of increasing the ultimate leach pad height from 330 feet to 400 feet was completed. This analysis shows that at 400 feet the stability of the Stage IV HLP meets all NDEP-BMRR requirements associated with liner integrity, solution flow, solution collection pipe integrity, and overall leach pad stability with a static factor of safety of 1.3 and a pseudo-static factor of safety of 1.1. The additional ore material was generated from previously permitted mining activities. The allowable maximum leach pad height will not affect overall solution management as both the unit solution application rate per square foot and total allowable solution throughput in gpm will not change.

A future proposal to increase the permitted ore stacking height was provided with the 2018 Major Modification. This preliminary assessment determined that an additional 33 million tons of ore could be stored on the Stage IV if it were raised to an elevation of 6,970 ft amsl. At this elevation and by maintaining overall slopes of 2.5H:1V, the maximum ore height would be approximately 690 feet above the liner surface. Detailed engineering design displaying that this configuration would stable and protective of the liner system has yet to be submitted, but would be incorporated, along with other various details, as a modification to the Permit.

Stage IV Metallurgical Test Cells

In January of 2026, the permittee submitted a request to construct metallurgical testing cells on top of the Stage IV interlift heap leach pad. These test cells will be used for leaching tests by metallurgical engineers employed by CRI. Up to ten cells will be constructed. These test cells will consist of grading and compacting leach pad ore, which will then be covered with 80-mil HDPE liner left over from other on-site projects and secured with an anchor trench. Test cells will be sloped downward using a slope angle of 1 horizontal to 3 vertical (1H:3V), to an approximate depth of 10 feet below leach pad ore surface. Test cells will measure approximately 120 feet by 120 feet to the edges of the liner, with interior measurements of 94 feet by 94 feet. An underdrain collection system of perforated HDPE pipe and an overliner material comprised of clean crushed rock will direct pregnant leach solution to a sump. Pregnant leach sumps will consist of a crushed material below the grade of the leach pad ore and will NOT be hydrologically separate from the Stage IV HLP. Each cell will contain approximately 6,462 tons of ore, to a maximum height of 15 feet above the test cell liner. Only existing process solutions are planned to be added to the test cells, and no chemicals other than those already permitted on the Stage IV HLP will be added without written permission from the Division. The test cells are expected to remain in place for the remaining life of mine and operated in 6- to 12-month testing cycles. Upon closure of the Stage IV HLP, test cell liner and piping will be removed and disposed of in accordance with the approved closure plans.

Because these test cells are not hydraulically separate from the Stage IV heap leach facility, they are considered an extension of the HLP for the purposes of solution management. Only chemical solutions approved for addition to the Stage IV HLP are permitted to be used on the test cells, and leach solution applied to the metallurgical test cells is considered leach solution applied to the Stage IV HLP and is included in the 9,000 gpm or 0.005 gmp/ft^2 solution application restrictions. Location and amount of ore on every test cell is to be reported to the Division in CRI's annual report.

Stage V Heap Leach Pad: The Stage V HLP is designed to contain approximately 50 MT of ore and will be located to the south of the expanded Stage IV HLP. As of the 2026 renewal, Stage V has not yet been constructed.

Stage V HLP construction activities will generally include: clearing and grubbing; growth medium stripping and stockpiling; subsurface preparation; HLP liner and solution collection system placement; and completion of other ancillary work within the proposed disturbance area for access control and stormwater management. Subsurface preparation will include scarifying, moistening, and re-compacting the top 8 inches of the stripped area to a minimum of 90 percent of the maximum Modified Proctor dry density pursuant to ASTM Method D 1557 as well as grading and performing cut and fill as necessary for the facility design. The Stage V HLP will be constructed with an 80-mil HDPE liner overlying a GCL with a maximum permeability of 1 x 10^{-6} cm/sec or bentonite amended native soil compacted to a maximum permeability of 1 x 10^{-5} cm/sec in the valley bottom where it will be underlain by a process component monitoring system or a maximum permeability of 1 x 10^{-6} cm/sec on sloped areas. The pad will drain via a drain-pipe network system within the overliner to dedicated solid solution pipes routing the pregnant solution to the pregnant tank. The Stage V HLP will be engineered to an approximate height of 400 feet, with overall slopes ranging from 2.7H:1V to 2.5H:1V.

Stability analysis performed on the Stage V HLP indicated that heap did not meet the minimum factor of safety against failure without additional support. Therefore, a buttress fill is provided at the northern toe of the Stage V HLP facility to improve its stability. The crest of the buttress will be constructed to an elevation of 6,050 feet. The upstream slope will be at 2.5H:1V and the downstream slope will be 2H:1V. A crest width of 30 feet is provided. Suitable fill from the excavation of the perimeter storm water channels or rock fill from the open pit shall be used for the construction of the buttress. The material will be placed in lifts. Compaction will be performed with vehicular trafficking of haul trucks. The optimum lift thickness and number of passes for compaction will be determined in the field by a test fill constructed by the contractor. Approximately 360,000 cubic yards of fill will be required for the construction of the buttress. A flow-through section will be incorporated into the buttress to prevent head build-up in the unlikely event of a failure in the solution conveyance piping. The flow-through section is in a separate alignment from the solution pipes and will consist of a rock-filled channel that would conduct solution directly to the Contingency Pond. The channel will be lined all around and its invert will be just above the top of the soffit of the three solution collection pipes. The rock fill will be surrounded with geotextile to protect the channel liner and prevent migration of fines from the ore heap into the rock fill. Flow through the three solution collection pipes will accommodate the maximum leaching throughput without exceeding the top of the cutoff wall, thus preventing flow in the rock-filled channel. In the highly unlikely event of complete collapse of all three solution pipes, the rock-filled channel is designed to conduct the maximum leaching throughput to the Contingency Pond. This will prevent the buttress from becoming a solution retaining structure.

Ore will be transported to the Stage V HLP stockpile located to the west of the Stage V contingency pond by the proposed conveyor system. Well-graded granular overliner material will be placed on the liner to a minimum depth of 3 feet. Ore will be placed on the heap leach pad in lifts approximately 50 feet thick. The surface of each lift will be ripped to facilitate process solution percolation. The ore material will come from previously permitted mining activities.

Ore will be leached with a weak cyanide solution applied to the surface using a drip irrigation system. The Stage V HLP application rate will be approximately 0.005 gpm per square foot and overall solution flow to the HLP will be up to approximately 7,000 gpm. Pregnant solution will be collected in the underlying solution collection pipe network, routed through the buttress, and into the Stage V double contained pregnant solution tank. From here, solution will be routed to the Merrill-Crowe plant for final processing. Operating flexibility is provided in the pumping and pipeline systems to allow various flow routes to be utilized under a variety of circumstances, such as allowing recirculation of pregnant solutions from either pad to the other.

The Stage V Contingency Pond will be constructed to the north of the Stage V HLP. It will consist of 80-mil HDPE primary and secondary liners with a separate geonet leak detection system placed between the primary and secondary HDPE liners. This leak detection system incorporates a 3,112 gal sump that allows for the observation and evacuation of fugitive solutions if needed. The design volume of the Stage V Contingency Pond is 18 million gal with 2 feet of freeboard. This is sufficient capacity to contain the volume of solution draindown for 24 hours in addition to the added contribution from the 25-year, 24-hour storm.

The Stage V HLP is designed to accommodate and mitigate potential impacts to springs and seeps in the area. The proposed underdrain system will be oversized to accommodate a flow of approximately 100 gpm. The underdrain system will be sloped to drain to the north toward American Canyon. Flows from the underdrain system will be collected in a lined pond, the Stage V Underdrain Pond, which will be located adjacent to the Stage V Contingency Pond. This pond will be configured to allow flows from the pond to be directed to either the stormwater diversion or to the Stage V HLP process solution system.

The Stage V HLP will also be constructed over the stormwater sediment ponds located within the proposed Stage V HLP footprint. The pond berms will be graded prior to HLP construction and existing materials or equipment removed or buried in place. Stormwater will be managed using the relocated 100-year, 24-hour diversion. The Stage V HLP and its associated tanks and Contingency Pond are sized to be operated to withstand and fully contain process fluids and projected stormwater accumulations resulting from the 25-year, 24-hour storm event.

The footprint of Stage V HLP will cover Production Well (PW-2A), Monitoring Well (WI-24), and the American Canyon Spring (ACS). Flows from American Canyon Spring will continue to be monitored as the groundwater underdrain system listed in Permit Part I.D.18. WI-24 will be properly abandoned and a new downgradient well (MW-55) established on the north side of Stage V HLP. The other monitoring location, PW-2A, will not be replaced. Monitoring of the existing locations will continue until the construction of the Stage V HLP commences. These proposed monitoring locations were approved by the Division by EDC in June of 2016.

Well MW-55A was initially drilled in March of 2025 but failed to encounter significant groundwater. A second well, MW-55B was drilled in April of 2025, but MW-55A was not abandoned. Both wells remain on the permit.

Stage VI Heap Leach Pad: The Stage VI HLP is located entirely within an area referred to as Limerick Canyon (within the Lovelock Valley – Oreana Subarea [NDWR groundwater basin 73A]), located to the northwest of the existing mine infrastructure. The Stage VI HLP will be constructed in three phases, with phase specific areas of approximately 9.5, 7.7, and 4.4 million square feet (ft^2) or approximately 496 acres. The HLP is authorized to be stacked to a maximum height of 400 feet above the liner surface and provide an ultimate ore storage capacity of 300 million tons. The pad has been designed to meet or exceed the minimum design criteria described by Nevada Administrative Code 445A.434.

The Stage VI HLP site consists of varying thicknesses of alluvium overlying highly weathered decomposed bedrock. Groundwater flow in the area of Stage VI occurs in the bedrock hydrologic unit with perched zones and limited saturated zones observed within the alluvium. Piezometric levels within the bedrock unit are higher than the alluvial unit leading to the conclusion that the alluvium in Limerick Canyon acts as an aquatard. Piezometric water elevations range from 50 to 160 feet below the ground surface. However, the depth to first encountered groundwater, as opposed to the piezometric surface, should be considered the depth at which groundwater is situated due to these confining conditions.

Subsurface investigations in the area of the Stage VI HLP determined that the alluvial materials consisted mostly of clayey sand/gravel, sandy clay, silty sand, and gravelly clay with generally low hydraulic conductivities ($1x10^{-5}$ cm/sec or less) and relative density/consistency ranging from dense to very dense. In areas where first-encountered groundwater was within 100 feet of the ground surface, hydraulic conductivity testing of the encountered materials was performed. The results of this testing displayed that these subsurface materials demonstrate overall low hydraulic conductivities, generally less than $1x10^{-6}$ cm/sec. These results therefore confirm that, even though groundwater is relatively close to the surface, the design of the HLP does not require additional engineering design to be protective of waters of the State.

Growth media within the footprint of the Stage VI facility was stripped and stockpiled for future use in reclamation activities. The footprint was then graded to generally follow the native ground that slopes from east to west and produce slopes ranging from 10 to 0.7 percent. The foundation is composed of a 150-foot zone that drains at a negative one percent slope from the toe of the perimeter berm into the HLP. At 150 feet, the slope of the foundation grading changes to a 1 percent grade for an additional 350 feet. To avoid impounding solution, the foundation zone transitions to a minimum slope of 0.7 percent that drains toward the outlet of the HLP.

The Stage VI HLP is designed to utilize a conventional composite system with an 80-mil HDPE liner placed over a moisture conditioned and compacted (+3 percent of optimum moisture and to 95percent of maximum dry density) one foot thick low-hydraulic conductivity soil layer ($1x10^{-6}$ cm/sec or less) or GCL with similar hydraulic properties. The low hydraulic-conductivity soil layer (LHCSL) or GCL will be placed above random fill that has been compacted to a minimum of 95 percent of the maximum dry density. The LHCSL will extend approximately 1,000 to 1,500 feet from the western edge of the HLP. However, to produce the desired friction angle, a 1/8- to 1/4-inch-thick friction layer consisting of crushed ore (non-PAG) with 90 percent passing a 3/8-inch sieve will be smooth drum rolled into the surface of the LHCSL to produce an impervious layer with a roughened surface. In areas of the HLP footprint that do not receive a LHCSL, a bentonite GCL was placed.

NAC 445A.434 states that HLPs are not to impound solution and must promote the horizontal flow of process fluids. A number of overliner (or drainage layer) sources were tested to determine their hydraulic conductivity up to design loads equivalent to 400 feet of heap loading. In addition, these samples of overliner were also tested to determine that they would be protective of the liner. Results of this testing determined that 2000-pound pressure crushed ore would provide acceptable drainage quantitates and be protective of the synthetic liner.

In April of 2026, when constructing the Stage VI Phase 2 expansion, overliner material produced for the project did not meet specification. Specifically, the overliner material was specified to have a grain size of 0% to 10% passing #200, but the produced material has a grain size of between 6% and 11% passing #200. Additionally, the overliner is specified to have a plasticity index of less than 7, with the produced material having a plasticity index of between 4 and 10. The final, most crucial specification is that the overliner material was specified to have a permeability of greater than $5x10^{-2}$ cm/s, however the produced material has an average permeability of only $3x10^{-2}$ cm/s, with some samples having a permeability as low as $1x10^{-2}$ cm/s. Rather than decline to use this out-of-specification material, the Permittee contacted the Division requesting to decrease the pipe spacing of the tertiary piping from 25-feet on center to 20-feet on center, and to increase the overliner material in some areas from 24 inches back up to 36 inches. These changes will be documented specifically in the Record of Construction.

A solution collection piping system, constructed directly on top of the synthetic liner and within the placed overliner, is also incorporated into the design to facilitate collection and drainage of solution from beneath the ore. The primary dual 24-inch diameter pipelines (four sets) are fed by 12-inch, 15-inch, and 18-inch diameter secondary perforated collection pipes as well as the 4-inch and 6-inch diameter tertiary pipes. These solution collection pipelines have been designed to flow at 50 percent full or less to account for pipe deformation, some sedimentation build up, and to handle flows from precipitation and storm events.

At the outlet of the HLP there is an outlet berm that directs flow from the four sets of primary dual perforated 24-inch pipelines into a header that distributes the flow to three 30-inch solid walled pipelines. The outlet berm is geomembrane lined and constructed on top of the HLP liner system so that there are no penetrations through the HLP lining system. The outlet berm is depressed below the perimeter berm and contains a spillway that is depressed below the outlet berm. In the event of a large storm event, flows that overtop the outlet berm would be routed to the Contingency Pond via the solution collection channel.

The three 30-inch solid walled pipelines, once outside of the outlet berm, transfer to 24-inch carbon steel pipelines that travel in a synthetically lined solution collection ditch to the Pregnant Tank, which has a capacity of approximately 320,890 gallons. The Pregnant Tank is situated within a double synthetically lined and leak detected sump, along with the Barren Tank, adjacent to the northeast corner of the double synthetically lined and leak detected Contingency Pond (see section *Stormwater and Emergency Ponds* below for further discussion). The pregnant and barren tanks have the same capacity and are constructed of concrete that utilizes waterstops at all construction joints to create a leak proof tank. The Pregnant Tank has overflow pipelines that are designed to convey a maximum flow rate of 31,200 gpm which is the same flow rate that the pregnant pipelines can carry to the tank based on the head that could develop as the result of the 100-year, 24-hour storm event. The Barren Tank utilizes overflow pipelines designed to convey the maximum flow rate of the Stage VI Merrill-Crowe system (13,750 gpm).

The sump housing the pregnant and barren tanks is rectangular in shape and constructed below grade to a maximum depth of approximately 30 feet with surface dimensions of approximately 240 feet by 200 feet. The tanks are placed on top of an overliner layer that will allow for any accumulated solution to be removed by a 12-inch diameter riser pipeline. The remainder of the sump is backfilled with common fill to the crest of the sump. Synthetic liner and berms are placed on the surface of the backfilled material to direct any release from the barren and pregnant lines to the Contingency Pond.

A system for monitoring seepage through the HLP composite liner system under areas of concentrated flow is included in the design. The leak detection system is installed under all primary dual 24-inch pipelines and consists of an 80-mil HDPE lined trapezoidal channel that is backfilled with select gravel and capped with a non-woven geotextile. A perforated 4-inch diameter corrugated polyethylene pipe is placed within the gravel to provide for additional flow capacity. Where the primary collection pipelines transition at the 30-inch header, the 4-inch perforated pipeline transfers to a 6-inch solid walled HDEP pipeline within a 10-inch solid walled HDPE pipeline. Solution flowing in the select gravel and 4-inch perforated pipeline will be routed into the 6-inch solid-walled pipeline through the use of a LHCSL plug. The 6-inch and 10-inch solid walled pipes run parallel to the solution collection channel and transfer solution to a synthetically lined area to the south of the Pregnant Tank. The leak detection ports are labeled S6LD-1 (furthest north) through S6LD-4 (furthest south).

Stability analysis performed on the Stage VI HLP indicated that the heap met the minimum factors of safety for all static cases considered but did not meet the minimum factors of safety for pseudo-static conditions. Due to the pseudo-static results, a slope deformation analysis was performed to assess the potential displacement of slopes under seismic loading. The analysis indicated a media displacement of less than 2 inches. Any displacement experienced during an event is expected to occur incrementally along a distance of approximately 2,500 feet. Such displacement would occur along the liner interface and not within the HDPE liner itself, and therefore would not compromise the overall stability and integrity of the heap nor result in ore moving outside of the heap limits.

Potential compression settlement beneath the Stage VI heap was assessed to quantify the range of potential vertical deformation within the foundation materials caused by the increase in static loads from placement of ore on the heap. Settlement results indicate that total settlements under the ultimate loading of 400 feet of stacked ore will be approximately 1.4 to 3.2 feet across the horizontal profiled evaluated. Because of the large distanced across the facility, these settlements are within allowable limits to maintain the design slopes.

Stormwater controls for Stage VI have been designed to withstand the discharge of the peak flows from a 100-year, 24-hour storm event and, when remaining in place for the life of mine, designed to convey the 500-year, 24-hour storm event within the freeboard of the channel. The non-contact and contact stormwater channels will consist of trapezoidal channels with 2.5H:1V side slopes and variable base widths and depths. Rip-rap was incorporated into the non-contact design based on the cross-sectional geometry, minimum channel profile slope, and peak flows. Contact stormwater (i.e, water that runs off stripped surfaces and roadways) will be routed to either the East or West sediment collection ponds around Stage VI or, in the case of the West RDS or South RDS, to their own respective sediment basins. Flows will be released slowly through perforated risers to natural drainages. Contact stormwater from the West RDS or South RDS will be routed to their own individual sediment control basins.

Stormwater flows generated from the HLP will be contained within trapezoidal channels that are formed by the synthetically lined perimeter berm and the offset of the heap slope. Flows will be directed around the HLP to the outlet of the solution collection piping where, in the event of a large storm event, the flows will be routed to the Contingency Pond.

The Stage VI heap leach pad design includes two reinforced concrete tanks (pregnant and barren) for the management of solution to and from the heap leach pad. The concrete tanks are contained within a geomembrane lined sump, shaped as a trapezoidal pond, which is designed to have two layers of 80-mil HDPE geomembrane separated by a 200-mil-thick geonet which slopes to a leak detection sump. The tank sump is divided with a 6-foot-high lined berm so that each tank is in a separate contained area. Each side of the sump has a 12-inch-diameter vertical riser for detection and collection of fluid above the primary geomembrane. During construction, groundwater was unexpectedly encountered in the sump excavation and, therefore, a construction dewatering sump was permitted and installed.

During construction of the Pregnant and Barren Tank Sump, groundwater was pumped from the construction dewatering sump so that the geomembrane layers and low hydraulic conductivity soil layer could be installed, the concrete tanks constructed, and the sump area backfilled. After backfill of the sump area was completed, pumping of the construction dewatering sump was stopped. Shortly after groundwater pumping was stopped, water was detected in the leak detection system (between the two geomembrane liners) in quantities that exceed the Permit limit threshold. Based on tests performed on-site, CRI theorizes, and NDEP-BMRR concurs, that the water entering the leak detection system is groundwater coming up from underneath the secondary liner.

In order to maintain a functioning leak detection system which can adhere to the Permit limit thresholds and ensure containment of process solutions, CRI proposed to make two design changes: 1) Install an HDPE liner inside the barren and pregnant solution concrete tanks to minimize the potential for leakage; and 2) Change the permit compliance point to the vertical risers (S6TB-B and S6TB-P) above the primary liner instead of between the two geomembrane liners.

On 14 December 2022 the Permittee submitted an EDC to change the point of compliance for leak detection monitoring of the Pregnant and Barren Tank Sump. In addition, the EDC include lining the interior of both tanks with AGRU Sure-Grip HDPE liner.

Installation of a HDPE Liner Within the Pregnant and Barren Tanks

The Permittee proposed to install AGRU Sure-Grip concrete protective HDPE liner inside both the pregnant and barren tanks. The system utilizes the AGRU Sure-Grip HDPE liner which has v-shaped studs placed against the inner concrete walls and floor. The AGRU Sure-Grip HDPE liner is attached to the tank through induction welding to plastic discs which are bolted and epoxy affixed to the concrete. The bolts are embedded 2-7/8 inches into the concrete on the inside walls of the tanks. After the bolt holes are drilled, the holes are cleaned to remove dust and fragments, partially filled with epoxy resin, then the ¼-inch 304 Stainless Steel all-thread is inserted into the hole such that epoxy fully coats the hole and the bolt. The embedment depth of 2-7/8 inches will avoid interference with the reinforcing steel bars which are at a depth of 3 inches. The v-shaped studs create a gap between the liner and the concrete wall for transmission of leakage. A vertical HDPE pipe is installed in two corners of each tank for detection, collection and removal of leakage.

Any collected water will be removed with a wide-base submersible pump which only require a few inches of water to operate. This system will minimize the head on the walls of the tanks which will greatly reduce the potential for leakage from the tanks. The tanks currently have an epoxy coating installed on the inner concrete walls which further acts to reduce the potential for leakage. The epoxy placed in the embedment holes will act to perpetuate the integrity of the epoxy coating.

Change Leak Detection Flow Rate Point of Compliance

CRI proposed to change the leak detection flow rate compliance point from the leak detection sump between the two liners (S6TS-LD), to the two vertical risers above the primary liner (S6TS-B and S6TS-P, previously S6TB-B and S6TB-P). Similar to the risers in the concrete tanks, fluid (if present) will be removed by wide-base submersible pumps which only require a few inches of water to operate. Each riser will allow for the independent monitoring of each side of the sump area.

Although the sump is backfilled, some precipitation may infiltrate through the backfill and report to the vertical risers. The area of the sump that is not covered by concrete tanks, or geomembrane liner that slopes to the Contingency Pond, is 0.65-acres. Conservatively assuming the site receives 15-inches of precipitation on a wet year, and that 5 percent of the water infiltrates over the year, each vertical riser could report approximately 18 gallons per day of precipitation. This approximation is conservative because the backfill is clayey material and therefore the infiltration rate is likely to be considerably less than 5 percent. A note was added to the Permit Limitations as Part I.G.29 that makes allowance for demonstrating that accumulated water in the sump is of meteoric origin. The EDC was approved by the Division on 20 December 2022.

<u>Packard Heap Leach Pad:</u> The proposed expansion of the Packard Pit would necessitate the expansion of the associated Packard WRDS and the construction of a new Packard Flat HLP. The Packard Flat HLP would be constructed in a similar fashion as the Stage VI HLP and would provide a capacity of approximately 60 million tons when stacked approximately 250 feet above the composite liner system. Ore would be crushed by the relocated N-Pit crusher currently in use at the Rochester Pit and be loaded onto the heap leach pad at a rate of 5 million tons per year. Solution application to the HLP would be approximately 5,000 gpm.

The Packard Flat HLP will utilize a similar pregnant and barren solution tank system as Stage VI and its own Merrill-Crowe recovery circuit. This design requires only one pond for emergent discharge from the plant and solution collection in the event of a design storm event. The pond is designed to contain an operating volume of 2 million gallons, run-off from a 100-year, 24-hour event, and the resultant volumes from a 24-hour power outage. This results in a required capacity of approximately 36 million gallons.

While included in the 2018 major modification and renewal, the Packard HLP will be designed and permitted as a separate modification.

Vehicle Wash Bay Solids Leaching
In January 2014, the Permittee submitted an EDC proposing to leach solids of mine ore grade from the vehicle wash bay on the Stage II, Stage III, and Stage IV HLPs. The EDC was approved by the Division in May 2014 with the following requirements:

1. The semi-annual analysis of draindown samples from any HLP with wash bay solids include Total Petroleum Hydrocarbons Extractable (TPH-E);
2. The material shall be free of Total Petroleum Hydrocarbons (TPH) gasoline (non-detect);
3. The material shall be confirmed to not be hazardous waste as determined pursuant to 40 Code of Federal Regulations (CFR) 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846; and
4. The quantity and location where wash bay solids are deposited shall be reported annually.

Ponds

Pregnant Ponds: The East and West pregnant ponds, built in 1986, have not been used for containment of pregnant solution since the conversion of the Stage I HLP to a counter-current system in 1991. The Permittee intends to leave them in place and use them for closure as outlined in the tentative closure plan. Each pond has 2.6 million gal of storage volume at 2 feet of freeboard. The ponds were re-lined once with 80-mil HDPE, without prior Division approval or as-built documentation, and the East Pond was partially relined again in 2006, with a new "upper" leak detection system and port (EP-U) which were approved by the Division and documented. EP-U was disconnected in 2009 following the discovery that the sump had been rendered non-functional during construction (perforation in liner at bottom of sump).

The original synthetic liner was placed on geonet over geotextile. The geotextile was placed on two compacted lifts of soil. In the mid-section of each pond is a perforated pipe placed between the original synthetic liner and the clay Low Hydraulic Conductivity Soil Layer (LHCSL) as part of the leak detection system. These pipes were connected to, and had gradients toward, the external monitoring sumps (East [EP] and West [WP] Pregnant Sumps). The perforated pipes transition to solid as they enter the LHCSL. Underneath the clay LHCSL is a gravel layer that extends up the sideslopes of the ponds. Perforated French drain pipes are located within the gravel layers, tracing both pond bottoms before reporting to CBC. Both the leak detection systems and the French drains are vented to the surface. The clay LHCSL was designed to meet $1x10^{-5}$ cm/s permeability or less. Due to the lack of as-built documentation of the pond reconstruction, fluid residence time in both ponds was limited to 20 days for each emergency situation that results in impoundment of process fluid. After receiving Division approval in 2010, the Permittee partially filled the West pregnant pond with fresh water for a passive evaporation test.

In May 2011, the Permittee submitted an EDC proposing to rebuild the East and West ponds with new HDPE liner and new leak detection sumps. The design of each pond called for a liner system of (from bottom to top) a prepared subgrade, a 60-mil HDPE drain-liner (studded) geomembrane secondary liner, and 60-mil HDPE smooth geomembrane primary liner. The space created by the studs on the secondary liner provides a leak path for conveyance of fugitive solution to the collection and recovery sump. The sump is filled with free-draining gravel with a perforated 8-inch diameter PVC pipe for inspection and evacuation of fluid. The net fluid capacity of the sump is approximately 75 gal. The EDC was approved by the Division in May 2011 and construction completed in October 2011. The modification of these ponds from single to double lined removed the 20-day process solution storage limit on the ponds and the East Pregnant (EP) and West Pregnant (WP) leak detection ports from the Permit. The removed ports were replaced by the newly constructed East (EP-UL) and West (WP-UL) leak detection and recovery systems.

In 2019, the East Pregnant Pond leak detection (EP-UL) exceeded the quarterly and annual permit limits. After investigation, it was believed that the secondary liner was compromised, not the primary liner. CRI removed the entire primary liner and repaired holes in the secondary liner. CRI submitted an EDC/as-built in October of 2019 to convert the East Pregnant Pond to a single-lined pond with a 20-day storage limit for process solution. The Division approved the as-built in October of 2019.

In July of 2025, the Permittee submitted an EDC to change the West Preg Pond into a freshwater storage pond, to facilitate easier access to fresh water for dust control. Fresh water would be filled into the West Preg Pond from the TW-1 freshwater storage tank. The EDC was approved by the Division on July 18, 2025.

Barren and Storage Ponds: The Barren and Storage ponds were also built in 1986, to essentially the same design as the two pregnant ponds. The Barren Pond, also known as the South Barren Pond is connected via a transfer channel to the Storage Pond but, like the two pregnant ponds, has not been used to contain process solution since 1991 with the exception of short-term (less than 20-day) upset conditions. The Barren Pond was re-lined in 2002, placing a new 80-mil HDPE liner over the original synthetic liner, with new geotextile in between, and installing a new upper leak detection port (SB-U). However, this construction was completed prior to obtaining approval from the Division and as-built information was not sufficient to document the quality of the construction. As a result, the residence time of process fluid in this pond is limited to 20 days.

The North Barren (NB) and South Barren (SB) sumps are the original leak detection sumps for the Storage and Barren ponds, respectively. These ponds also have French drain systems located beneath the clay LHCSL. The clay LHCSL was designed to meet $1x10^{-5}$ cm/s permeability or less. The French drains consist of a gravel layer that extends up the side slopes of the ponds. Perforated pipes are located within the gravel layers, tracing the pond bottoms before reporting to Catch Basin North (CBN). Both the leak detection systems and the French drains are vented to the surface. Solids accumulate in the Storage Pond and require periodic removal, which must be carried out consistent with the requirements for disposal of process material.

An EDC was submitted in 2014 to reline the South Barren Pond and covert the pond to a double-lined and leak detected pond. The EDC proposed to repair the existing primary liner and utilize it as the new secondary liner while a new 80-mil HDPE liner was installed above the new secondary liner that functions as the primary liner. The EDC was approved by the Division in August of 2014 and construction was completed in December of 2014 with as-builts approved by the Division in February of 2015. This construction removed the 20-day limit on the South Barren Pond and abandoned the SB and SB-U leak detection systems and replaced them with the new SB-UL leak detection system.

The Storage Pond, also known as the North Barren Pond, has a capacity of 748,000 gal at 3 feet of freeboard and receives process solution from the process plant, following the zinc precipitation process. This pond was rebuilt in 2004 with Division approval to include an 80-mil HDPE primary liner and geonet over the original synthetic liner, a new perforated leak detection pipe at the downgradient part of the pond bottom, and a leak recovery pipe located between the two synthetic liners that daylight at the pond crest (NB-U). The conversion of this pond to a double-synthetically lined and leak detected system resulted in the removal of the 20-day process fluid storage limitation for this pond. The solution from this pond is pumped to the process plant.

In February 2008, the Permittee submitted an EDC, which was subsequently approved by the Division, proposing to replace parts of the Stage II pregnant solution piping system along the north side of the pregnant ponds and resurface the area with shotcrete. The modification provided mitigation of releases around the pregnant sump as well as increasing the gravity draindown from the Stage I pad. Approval was granted by the Division and construction was completed in January 2009.

As discussed above, the Stage VI HLP will not utilize pregnant and barren ponds, but will utilize a Pregnant Tank and Barren Tank, each of which have a capacity of 320,890 gallons. The Pregnant Tank is situated within a double synthetically lined and leak detected sump, along with the Barren Tank, adjacent to the northeast corner of the Contingency Pond. The pregnant and barren tanks will be constructed of concrete that utilizes waterstops at all construction joints to create a leak proof tank. The sump will be rectangular in shape and constructed below grade in a rectangular sump to a maximum depth of approximately 30 feet with surface dimensions of approximately 240 feet by 200 feet. The tanks will be placed on top of an overliner layer that will allow for any accumulated solution to be removed by a 12-inch diameter riser pipeline. The remainder of the sump will be backfilled with common fill to the crest of the sump. Synthetic liner and berms will be placed on the surface of the backfilled material to direct any release from the barren and pregnant lines to the Contingency Pond.

<u>Stormwater and Emergency Ponds</u>: Three stormwater and emergency management ponds were built to provide additional storage capacity during emergency situations such as power outages and extreme storm events. One pond is located in South American Canyon and was constructed with a compacted clay base with permeability of $1x10^{-5}$ cm/s or less. The South American Canyon Pond is not considered to be a lined pond and as such if it

were to receive process solution it would be considered a release with appropriate reporting and mitigation. The second pond was divided into two ponds in Sage Hen Flats, north of the process plant area and south of American Canyon Springs. This pond is now in the footprint of Stage V HLP. The third pond (the Stage IV LDL Sump Overflow Pond, S4OP), located east and downgradient of Stage IV in American Canyon, was constructed with an 80-mil HDPE liner overlaying a compacted clay base and has a capacity of 234,000 gal. This pond also has a pumpback system.

As discussed above, Stage VI will utilize a double-synthetically lined (80-mil HDPE) and leak detected pond to manage stormwater from the HLP or upsets from the Merrill-Crowe Plant. The Contingency Pond is rectangular in shape with crest dimensions of 560 feet by 810 feet. The pond utilizes an internal divider berm at a level 5 feet below the pond crest that splits the pond into a north and south compartment. The divider berm has a 1-foot deep spillway to direct overflow into the south compartment. The pond is designed with the ability to contain a 3-million-gallon operating inventory, 24 hours of draindown (13,750 gpm), resulting runoff from the 100-year, 24-hour storm event plus a 25 percent contingency, the direct precipitation from the 100-year, 24-hour storm event on the pond, and maintain a 3-foot freeboard. This results in the need for the pond to contain approximately 55 million gallons. The north and south compartments have a capacity of 21 and 25 million gallons, respectively, at the divider spillway elevation, and the pond has a capacity of 55.5 million gallons to the freeboard elevation. The pond has a total volume of 65.5 million gallons at the pond crest.

Test Evaporation Cell: In February 2010, the Permittee submitted an EDC for the addition of an evaporation test cell to verify evaporation rates used in closure calculations. The cell measures approximately 115 feet by 160 feet at the crest and approximately 8 feet deep. The EDC was approved by the Division and construction was completed in August 2010.

The cell construction consists of (from bottom to top) compacted bedding material, 60-mil HDPE secondary liner, geonet, and 60-mil HDPE primary liner. A leak detection and recovery sump (140-gal effective capacity) is located at the northwest corner, with inspection and evacuation of solution carried out through a 6-inch diameter PVC pipe. Crushed mine rock was used to fill the cell and two monitoring standpipes, constructed of 6-inch diameter slotted PVC pipe, were installed to allow inspection of solution levels within the fill material. Barren solution from the process plant is diverted into the cell and calculations of evaporation made based on inflow rate, pond dimensions, and changes in observed water level in the standpipes. This data will then be used for calculation of evaporation rates upon which the Final Plan for Permanent Closure will be based.

In August 2010, fluid began reporting to the leak detection sump of the cell and by October 2010 the Permittee was reporting approximately 200 gal per day evacuated from the sump. Use of the pond has been suspended and investigations of the source of leakage have been undertaken. The Division required that the cell be repaired or replaced and confirmation given that waters of the State will not be degraded.

In May 2011, the Permittee received approval for the rebuilding of the test evaporation pond. All fill material was removed and the HDPE primary and secondary liners replaced according to the specifications in the previously Division approved EDC. Gradation of fill materials was controlled to exclude rocks which had potential to damage the liners. The newly rehabilitated pond was hydraulically tested with fresh water with no evidence of leaks. The Division approved introduction of solution into the pond in September 2011.

In June 2013, in response to ongoing difficulty accurately measuring the net evaporation from the test ET cell, the Permittee submitted an EDC for the redesign thereof including an upgraded dosing system and revised distribution pipe network. The EDC was approved by the Division in August 2013 and construction was completed in December 2014. As-builts were submitted in January of 2015 and the cell was commissioned in spring of 2015.

The Permittee submitted a non-fee review in February 2018 for the replacement of the Evaporation Cover overflow tank and containment after the existing tank and containment were found to be compromised. As-builts were submitted in April 2018 and approved by the Division in May 2018.

In 2021, the Permittee presented data that included the updated evaporation rate of 1.5 gpm/acre. This rate was used in the 2022 Final Plan for Permanent Closure submitted to the Division in May of 2022. As of the 2026 renewal, this cell is still active, and reports are submitted to the Division annually as an attachment to the Annual Report.

Evapo-transpirative Cover Study: In June of 2016, the Permittee submitted an Evapotranspiration (ET) Cover Study to satisfy a Permit Schedule of Compliance Item to develop site-specific infiltration rates for closure cover modeling. In May of 2017 the Permittee submitted a Basis of Design Report, and in January of 2018 an EDC was submitted for the ET Cover Study and Work Plan. The Division approved this EDC in March of 2018 and the four cover test plots were installed on the Stage II HLP in 2018. The Division approved the as-built report in April of 2019. In 2024, three of the cover test plots were removed to allow for the initial removal of the Stage II HLP spent ore. The remaining test plot was still being monitored as of the 2026 renewal.

Process Plants

Rochester Process Facility and Rochester Refinery: The Rochester Merrill-Crowe facilities and Rochester Refinery were built in 1986. The pregnant solution that is processed for silver and gold recovery originates from the Stage II, Stage III, and Stage IV HLPs. The pregnant solution is clarified with one of three clarifiers, as necessary, then de-aerated where dissolved oxygen is removed using two de-aeration towers. Zinc dust is added to the solution to precipitate precious metals, which are filtered out of solution with one of six filter presses. Filter precipitate is cleaned from the presses on a scheduled basis, dried, mixed with fluxes, and smelted in a reverberatory furnace to recover precious metals. During the drying process, mercury is removed by retorts, trapped in a condenser, transferred to storage containers, then ultimately shipped off-site for proper disposal.

Secondary containment is provided (both internal and external to the building) for solutions that could escape primary containment.

In March 2008, an EDC was submitted to the Division proposing to extend the concrete secondary containment on the south side of the process building in the area of the Wet Electrostatic Precipitation (WESP) scrubbers. This EDC was approved by the Division and construction was completed in July 2008. In April of 2008 an EDC to expand the containment for the building and add two additional retort ovens was approved. In July of 2025 an EDC was approved to remove the filter press and add a fifth retort oven, as well as expanding the building apron along the east side of the building.

In 2020, the last remaining facility that would purify mercury to the 99.5% required to be accepted for storage by a Treatment Storage Disposal Facility closed, and the Permittee was no longer able to ship their mercury offsite for disposal. In 2021, an EDC was submitted to construct an Elemental Mercury storage yard to the east of the Rochester Refinery. This yard consists of a bermed concrete pad, and mercury is stored in containment flasks, protected from wind and weather, and stored on a seismic-resisting racking system. The ROC was approved by the Division in July of 2022.

On the western side of the process plant, between the Pregnant and the Barren ponds, is the cyanide mixing and barren sump area. An EDC was approved by the Division on 15 November 2007, which included the removal of one of the 20,000-gal cyanide tanks, replacing it with a 10,000-gal caustic solution tank and associated piping. The redesigned reagent facilities include provision for caustic addition to the cyanide solution, optimizing the leaching process chemistry for improved metals recovery. Construction of the modified system was completed in June 2008.

Both the cyanide and the caustic reagent storage facilities are located within a concrete secondary containment area located on the south side of the South Barren (SB) Pond. The secondary containment area was designed to drain into the SB Pond should an accidental release of liquid cyanide from the storage tanks occur. Sodium cyanide is transported to site as solid briquettes or concentrated liquid cyanide. If briquettes are used barren solution is added and the dissolved briquette solution is transferred to the storage tank from the delivery trucks. Liquid cyanide is directly transferred from trucks to the storage tank. Cyanide solution is directly metered into the barren process stream from the storage tank. This system minimizes the exposure potential to both humans and wildlife. As part of the EDC of 15 November 2007, a concrete containment apron was added around the Barren Sump to collect overspray of process solution and provide a drainage path into the Barren Pond.

West of the reagent mixing area is an on-site laboratory. Samples processed in the laboratory include mine drill hole samples, exploration and development drill hole samples, and water quality monitoring samples.

In March 2010, the Permittee submitted an EDC to the Division proposing to modify the laboratory waste neutralization sump to a configuration which provided means for visual detection of leaks from the sump. This was accomplished by installing a new HDPE sump above ground outside the lab building, raised several inches above ground so that leaks would be immediately apparent. The design also included a drain line to convey excess fluid to the barren sump by gravity. This modification was approved by the Division in July 2010, and construction completed in September 2010.

In conjunction with the 2014 EDC to reline the South Barren Pond, the lab neutralization bin was modified to drain directly into the SB Pond rather than into the barren sump.

In April 2012, the Permittee submitted an EDC proposing to make several improvements in the Process Plant. These included the addition of a portable filter press and a fourth permanent filter press to increase throughput of the Merrill-Crowe system, replacement of the existing de-aerator pump with a 250 horsepower (hp) variable frequency drive (VFD) pump, installation of a new "bathtub" cooled filter feed pump and 400 hp VFD control system, installation of a new concrete spillway and bridge to provide secondary containment for all piping, draining to the North Barren Pond, installation of a new 80-mil HDPE-lined secondary containment for the Stage IV barren pipeline along a new route (old buried barren pipeline abandoned), re-plumbing of the Stage II pregnant pipeline directly to the clarified tank (and abandonment of the old connection to the Stage IV barren Pipeline), adaptation of the clarified and unclarified tank overflow lines to be directed to the new concrete spillway, and provision of a new bypass line from the Stage IV pregnant pipeline into the clarified tank. The EDC was approved by the Division in April 2012, and work was completed in August 2012.

In October 2012, the Permittee submitted an EDC proposing to construct additional concrete containment for air pollution control equipment added as part of the Tier 2 Phase 2 Mercury Operating Permit. The containment was designed to drain to a sump from which any fluid will be pumped directly to the existing mercury trap on the WESP. The EDC was approved by the Division in October 2012 and construction completed the same month.

In January 2013, the Permittee submitted an EDC proposing to add another deaeration tower on new concrete secondary containment. The additional containment was designed to be located directly south of and adjacent to the existing deaeration tower, with an opening in the stem wall between the two to allow any leakage to flow into the clarified solution area containment which overflows to the North Barren Pond. The EDC was approved by the Division in January 2013.

In April 2013, in response to exceedances of the Profile I reference value for weak acid dissociable (WAD) cyanide in well TB1, the Permittee submitted an EDC proposing the replacement of the barren sump. The new design proposes a concrete vault design lined with HDPE double-wall panels. The new design will allow monitoring of the space between the two HDPE panels for leakage, and evacuation thereof if necessary. Provision will also be made for elimination of overspray of solution from the pumps and for tying into the adjacent cyanide off-load areas and process ponds. As part of this effort, TB1 was replaced by TB1R due to difficulty obtaining samples from TB1 (damaged casing). The EDC was approved by the Division in June 2013.

In August 2013, the Permittee submitted an EDC proposing the addition of another filter press on new containment adjacent to the process building. The new concrete slab and stem wall system would contain minor spills and overflow larger upsets back into the main process building area. The EDC was approved by the Division in September 2013. The additional equipment resulted in a total design flow capacity of 13,750 gpm through the process plant. The Permit requires that solution application to the HLPs be managed such that the flow to the plant does not exceed the plant capacity.

In January 2014, the Permittee submitted an EDC proposing to reconfigure the barren pipelines exiting the barren sump to allow more flexibility for directing flow from the pumps to the different HLPs. The EDC was approved by the Division in May 2014.

In July of 2014, CRI submitted an EDC for the installation of a barren tank and cyanide off-loading system with associated containments. This also included a spillway from the refinery to the south barren pond. The Division approved the EDC in March of 2015. As-builts were submitted for the barren tank portion in April of 2016 and approved the same month. In August of 2016, CRI submitted a letter of intent to abandon and close the barren sump. CRI provided the as-builts of the sump in January of 2017 and the Division approved the abandonment of the barren sump in March of 2017.

In response to a release of process solution from the cyanide off-load area, in 2019 the Permittee submitted an EDC to extend the concrete containment to the south of the existing containment. The new concrete containment pad covers an area of approximately 1,300 ft^2 and utilizes a 6-inch-thick concrete slab and 6-inch-tall curbing to route any releases to the South Barren Pond. Waterstops were utilized at all construction and cold joints to ensure a leak proof containment. The EDC was approved by the Division on 12 February 2020.

The Permittee submitted an EDC in July of 2014 to add two new cyanide tanks and associated piping. The EDC was approved by NDEP in March of 2015. The Permittee completed the addition of one cyanide tank and associated piping in August of 2017. As-builts were submitted in September of 2017 and approved by the Division the same month.

<u>Limerick Process Facility:</u> After the construction of the Stage VI HLP, a second Merrill-Crowe facility was constructed in the northern section of the mine known as Limerick Canyon. The Limerick process plant is enclosed in a rectangular, stand-along, pre-engineered steel structure with steel siding and roofing. All mechanical equipment and solution storage are hosted on a concrete slab with 12-inch-high stem walls to provide containment for 110% of the largest vessel. All pipelines leading to and from the Merrill-Crowe Plant are routed through HDPE-lined channels with rub sheets placed as necessary. Overflow piping is installed through the concrete stem wall at the location of the

geomembrane lined trench to direct overflow from the Merrill-Crowe Plant to the Contingency Pond. Caustic and cyanide storage tanks are located outside the building on the North side, also in concrete containment. Zinc and diatomaceous earth are stored inside the building and at the nearby Limerick warehouse. Additionally, a small anti-scalant tank is located by the Stage IV barren tank for the addition of anti-scalant to the barren and pregnant solutions. The facility process circuit utilizes seven clarifiers, two de-aeration towers, and a zinc precipitation circuit and a four filter presses. The filter precipitate is cleaned from the presses weekly, dried, and then shipped to the Rochester Refinery, where it will be mixed with fluxes and smelted in a reverberatory furnace to recover precious metals.

In November of 2024, an EDC was submitted to modify the Limerick facility to allow for the dissolution of solid sodium cyanide brickettes, rather than continue to import liquid sodium cyanide. This is done by importing solid sodium cyanide brickettes and solid caustic brickettes together in an isotainer. The isotainer is placed in the current cyanide offload area, and site water will be added until all the brickettes have dissolved. Additions to the facility include the installation of a mixing tank and containment to the north side of the existing cyanide offload facility. The tank will have a nominal volume of 25,000 gallons, though as of the 2026 renewal it has not yet been installed.

<u>Production Well Field</u>

Fresh water is currently obtained from three production wells: PW-1B, PW-2B, and PW-4A. PW-1A and PW-2A were replaced with PW-1B and PW-2B in 2021, and the original wells were converted to piezometers for static water level monitoring. Production well PW-3 has been replaced by PW-3A which supplies the potable water system and is permitted through the Bureau of Safe Drinking Water. The well field is located along a 2.5-mile section of the north-south trending BRF zone in Sage Hen Flats. Water rights have been obtained from the Nevada State Engineer. Original production wells installed in 1985 and 1986 ranged in depth from 996 to 1,203 feet below ground surface (bgs). From the production wells, water is pumped to the Number One Storage Tank (TW-1), located southeast of the on-site laboratory. The non-potable water from TW-1 (20,000 gal capacity) is pumped up to TW-2 (350,000 gal capacity) located by the pit overlook (ready line area) and then distributed to the crushing facilities (if active), the maintenance shop and warehouse building and the process facilities. In 2024 TW-2, also known as the Yanke Tank, was moved to accommodate the planned expansion of the Rochester Pit.

Ancillary Facilities

Ancillary facilities include administrative buildings, parking areas, fresh water supply and storage, fuel storage, explosive storage, power, communications, and landfill. The two-story mine maintenance shop and warehouse building are located west of the laboratory. A variety of petroleum products are used to maintain and operate vehicles and mobile equipment and are stored in the maintenance shop or warehouse, or in the fuel storage facilities, located west of the maintenance shop. Fuel storage facilities include one vertical, above-ground, 7,050-gal unleaded gasoline storage tank within a bermed concrete containment area near the maintenance shop. Greases, oils, and antifreeze are also stored at the maintenance shop.

With the 2018 Major Modification, the Division approved the installation of on-highway and off-highway fueling stations located to the west of the Stage VI Merrill-Crowe Plant and to the east of the Stage VI HLP, respectively. The off-highway and on-highway fuel islands are designed to provide 110 percent containment of 5,000- and 30,000-gallon tanks, respectively. Both facilities will be constructed of concrete and utilize waterstops at all concrete joints to create a leak-free containment. Both facilities will also utilize concrete pads so that haul trucks/vehicles that are fueling will be fully contained.

A second, larger fuel storage area than the one located at the maintenance shop, known as the Yanke Tank Fuel Area, was located at the ready-line west of the primary crusher. It contained three horizontal, above-ground, diesel fuel storage tanks with 50,000-gal, 10,000-gal, and 8,000-gal capacities in a bermed concrete secondary containment. The Yanke Tank Fuel area was decommissioned in 2023-2024 because the area is within the expanded footprint of the Rochester Pit approved with POA 11.

In October of 2023 an EDC for a new fuel island was approved. The new fuel replaced the fuel island near Yanke Tank. The fuel island includes concrete containment and a fueling skid composed of a 30,000-gallon diesel tank, which is double-walled with a visual leak detection system to alert operators of fuel presence within the outer tank void. Additionally, a ‘doghouse’ (Pump and Oil Product Tank Enclosure) was constructed with 105% containment for largest lube tank, two 250-gallon oil tanks, a 1800-gallon Diesel Exhaust Fluid (DEF) tank, and an interior floor and “pan” lube/equipment portion sprayed with Polyurea liner for spill containment.

In December 2012, the Permittee submitted a non-fee review proposing the construction of a new bulk oil and lubrication connex with appropriate containment. The connex would be located on a concrete slab and stem wall foundation designed to contain any leaks or spills from the oil and lubricant containers. The proposal was approved by the Division in December 2012.

In July of 2025 an EDC for a new Bulk Oil Storage Facility at the Limerick Canyon processing plant was submitted. This storage facility would store 55-gallon drums of oil and 250-gallon totes of ethylene glycol and consist of a concrete foundation and stem walls. The containment volume of the concrete flooring is 2,723 gallons with a 60-gallon floor sump. The storage capacity of the building is restricted to no greater than 2,475 gallons of any combination of fluids. The EDC was approved in October of 2025.

Historic Landfill Discovery and Characterization
In October of 2023 when excavating along the road for installation of a water line intended for dust suppression activities, CRI personnel discovered landfill debris, including oil containers, oil filters, and oily debris. This location was previously used as a laydown area within the footprint of the East RDS during the construction of the new Limerick Primary

Crushing facility and was intended to be cleared for use as a managed ore stockpile. Given the depth of the discovered debris, it is suspected that the area was used as a landfill in the 1980's. The Division was notified of the discovery in November of 2023, after CRI initiated investigations that included excavation of test pits to determine the extent of the contamination and the collection of soil samples. Later laboratory investigations showed elevated levels of total petroleum hydrocarbons, polycyclic aromatic hydrocarbons, semi-volatile organic carbons, and volatile organic carbons at varying depths and to varying degrees. Testing using the Toxicity Characterization Leaching Procedure (TCLP) for compliance with the Resource Conservation and Recovery Act (RCRA) was also completed, and showed some exceedances for barium, lead, and selenium. As of the 2026 renewal CRI and the Division were in discussion about the best methods of remediation for this area.

C. <u>Site Hydrology and Background Water Quality</u>

Due to the complex site hydrology/hydrogeology and the scope of this fact sheet, reference is made to the original application and other hydrology documentation submitted to the Division. There are three primary hydrogeologic units: an upper aquifer in the unconsolidated valley fill sediments, a lower aquifer in the bedrock zones, and the most productive aquifer which occurs within the Black Ridge Fault (BRF) zone. Inter-aquifer connections are present as evidenced by in-pit pump test results which suggest that the pit lake water may be flowing slowly toward the BRF. However, faults compartmentalize the groundwater as evidenced by variability in groundwater elevations which range from approximately 5,750 ft amsl to approximately 6,255 ft amsl in the monitoring wells. Lateral subsurface flow is predominantly in a northerly direction and there is evidence of local upward movement of groundwater resulting in springs along the fault zones.

The quality of the upper aquifer is reported as moderate with neutral pH, moderate concentrations of total dissolved solids (TDS), and low to moderate concentrations of trace constituents. Based on quarterly monitoring of wells in the area, background water quality has been shown to meet all Division Profile I reference values (e.g., wells WI-27, TB-3), or to have exceedances for iron and/or manganese only (e.g., wells WI-1, WI-15). The principle ionic constituents include calcium, sodium, chloride, and bicarbonate. The hydraulic conductivity in the saturated zone is low.

The lower aquifer is locally separated from the upper aquifer by a higher permeability dry zone at the contact between the sediment and bedrock layers in the area of the Stage I pad and process plant. Water from the lower aquifer has a neutral pH, low concentration of TDS, some sulfates, and low trace constituent concentrations. Based on quarterly monitoring of wells in the area (e.g., wells MW-25, MW-30, MW-33, MW-44), background water quality meets all Division Profile I reference values. The principal ionic constituents in the deep aquifer include calcium, sodium, bicarbonate and chloride. Hydraulic conductivity in the lower aquifer is lower than in the upper aquifer as evidenced by water level measurements in the monitoring wells.

Water from the BRF aquifer shows similar background chemistry to the deep aquifer, with the exception that some monitored locations (e.g., wells PW-2A, WI-24, MW-35, MW-45, MW-46, MW-47) have shown exceedances of Profile I reference values for manganese, and/or iron, and/or titanium, and/or slightly low pH in the quarterly reports. The slightly low pH has only been seen in well MW-35 (the location of which within the BRF is uncertain) and in one analysis from MW-46. The production wells, which are screened within the BRF aquifer and show depth to water of approximately 304 ft, are Permitted for domestic use.

In June 2011, the Permittee submitted an EDC proposing to abandon wells MW-30, MW-31, MW-32, MW-36, MW-38, MW-39, MW-40A, MW-41A, MW-42, MW-43, TB-1A, TB-2, TB-4, TB-5, and WI-29 due to consistently dry conditions; to convert WI-29R to a remediation well; and to change the monitoring frequency in wells MW-48, MW-30R, and WI-29R from monthly to quarterly. The EDC was approved by the Division in July 2011 but with the exception that the Division required that wells MW-30 and MW-41A were retained and the monitoring of MW-48 was maintained as monthly due to ongoing concerns with nitrate + nitrite as nitrogen levels. The WI-29R conversion was completed in April 2012 and all wells were abandoned by February 2012.

In May 2012, in response to comments on the Final Plan for Permanent Closure, the Permittee submitted a work plan for the installation of pumpback wells MW-50 to MW-54. These wells are alluvial wells designed to remediate groundwater in the area north of the Stage I HLP. The work plan was approved by the Division in January 2013 and wells installed in 2013.

All natural drainage channels at the site are ephemeral in nature, flowing seasonally or during times of high precipitation, although some of the springs are perennial. Springs exist in American Canyon, South American Canyon, Lower American Canyon, Limerick Canyon, Weaver Canyon, and Woody Canyon. American Canyon Spring exhibits a long-term exceedance of nitrate + nitrite (as nitrogen), but no other indications of process contamination. The exceedance was previously determined to be due to the upgradient septic leach field. The septic system was upgraded accordingly with a new sewage plant in 2012.

Spring/stream flow in Limerick, Rochester, and Weaver Canyon, which were included into the Plan of Operations with the 2018 Major Modification, is mostly ephemeral, with the exception of short reaches within the Limerick Canyon and Packard Flat drainages that have perennial stream flow supported by spring discharge.

Groundwaters in the area of Limerick Canyon are classified as a sodium-chloride type in the alluvial aquifer and as a sodium-bicarbonate type in the bedrock aquifer. Alluvial groundwater is considered to be good quality and meets all Division Profile I reference values. Bedrock groundwater has a slight exceedances of manganese (0.39 mg/L) but meets all other Profile I reference values. Limerick Canyon Spring (LC)-1 and LC-2 meet Profile

I reference values while springs LC-3 and LC-4 have slight exceedances of total dissolved solids (approximately 1000 mg/L) and arsenic (approximately 0.02 mg/L). McCarty Spring meets all Division profile I reference values except for arsenic (approximately 0.02 mg/L). All springs, with the exception of McCarty Spring, appear to be derived from the mixing of surface runoff and alluvial and bedrock groundwater. McCarty Spring appears to be derived from bedrock groundwater due to similarities in water chemistry and the aquifer hydraulics.

Groundwater in the area of Packard Flat area is defined as a calcium chloride type in the alluvial aquifer and a combination of calcium chloride type mixed with sodium, bicarbonate, and sulfate in the bedrock aquifer. Alluvial groundwater generally meets all Division Profile I reference values with the exception of arsenic (max 0.19 mg/L) and occasionally manganese. Consistent exceedances of iron and manganese were noted in Packard Well #2. Bedrock groundwater generally meets Profile I reference values with the exception of one piezometer producing an exceedance of chloride. There are a number of springs in the area of Packard Flat that generally display good quality and meet Profile I reference values with the exception of TDS and arsenic. Spring flows are thought to be derived from surface water runoff discharging into thin stream bed alluvial deposits as the spring elevations area significantly higher than the bedrock groundwater elevations.

Diversion ditches were built and are required to be maintained to divert stormwater runoff away from process components.

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 renewed Permit.

F. Proposed Limitations, Schedule of Compliance, Monitoring, and Special Conditions

See Section I of the Permit.

G. Rational 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 wells 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.

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