

STATE OF NEVADA
Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Mining Regulation and Reclamation

Water Pollution Control Permit

Permittee: **Nevada Iron LLC
Buena Vista Mine
550 E Plumb Lane B-161
Reno, NV 89509**

Permit Number: **NEV2014122**
Review Type/Year/Revision: **Renewal 2024, Revision 00**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **Buena Vista Mine**, in accordance with the limitations, requirements and other conditions set forth in this Permit. The Permittee is authorized to mine and process by physical separation up to **11,500,000 tons** of iron ore per year.


The facility is located on private property in Churchill County, Sections 4, 5, 7, 8, 9, and 17, Township 24 North, Range 34 East, Mount Diablo Baseline and Meridian, approximately 33 miles south/southeast of the town of Lovelock, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 8 September 2014, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application, which may affect the Permittee's ability to comply with applicable regulations or Permit conditions.

This Permit is effective as of **08 March 2024**, and shall remain in effect until **10 July 2025**, unless modified, suspended, or revoked.

Signed this **22nd** day of **February 2024**.



Robert Kuczynski, P.E.
Chief, Bureau of Mining Regulation and Reclamation

D. Monitoring Requirements:

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
1. <u>Water Supply Well (WS-TW1)</u>	Profile I ⁽¹⁾ and Uranium ⁽⁴⁾ static water elevation and collar elevation (feet amsl)	Annually
2. <u>Pond Leak Detection (sump capacity)</u> Process Water Pond (PP-LDP) (2,975 gallons)	Average daily accumulation (gpd)	Weekly ⁽⁷⁾
3. <u>Process Solution</u> Process Water Pond (PP-S) Raw Water Pond (RW)	Profile I ⁽¹⁾ and Uranium ⁽⁴⁾	Quarterly
4. <u>Mined Materials</u> Overburden (O) Waste Rock (WR) Dry Stack Tailings (DST)	MWMP ⁽⁸⁾ -Profile I ⁽¹⁾ and Uranium ⁽⁴⁾ and NMSP ⁽⁹⁾⁽¹⁰⁾	Quarterly
5. <u>Site Monitoring Wells</u> Downgradient Wells (MW-2 and MW-3)	Profile I ⁽¹⁾ and Uranium ⁽⁴⁾ static water elevation and collar elevation (feet amsl)	Quarterly
6. <u>PCS Shipped Offsite</u>	PCS volume shipped offsite (cubic yards)	Quarterly, when removed

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

Abbreviations and Definitions:

AMSL = above mean sea level; ANP/AGP = Acid Neutralizing Potential:Acid Generation Potential ratio; ASTM = American Society for Testing and Materials; CaCO₃ = calcium carbonate; EPA = U.S. Environmental Protection Agency; epilimnion = the uppermost layer in a stratified lake; gal = gallons; gpd = gallons per day; gpm = gallons per minute; hypolimnion = a lower layer in a thermally stratified lake below the metalimnion; ln = natural logarithm with base e; metalimnion = a middle layer in a thermally stratified lake characterized by a temperature decrease with depth; mg/L = milligrams per liter; monimolimnion = the lower layer in a chemically stratified lake that does not mix with other layers; MWMP = Meteoric Water Mobility Procedure; N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; NMSP = Nevada Modified Sobek Procedure; NTU = nephelometric turbidity unit; P = phosphorous; pCi/L = picocuries per liter; PCS = Petroleum-Contaminated Soil; PCU = platinum cobalt units; pH = the negative of the base 10 logarithm of the activity of the hydrogen ion; PQL = Practical Quantitation Limit; Q = calendar quarter of the year; SU = standard units for pH measurement; SWE = snow water equivalent; * = multiplication symbol; > = greater than; ≥ = greater than or equal to; < = less than; °F = degrees Fahrenheit; µg/L = micrograms per liter; µS/cm = micro-Siemens per centimeter

Footnotes:

(1) Profile I:

General Chemistry Parameters		
Acidity ⁽²⁾	Chloride	pH (± 0.1 SU)
Alkalinity (as CaCO ₃) Bicarbonate ⁽³⁾ Total ⁽³⁾	Fluoride	Sulfate
	Nitrate + Nitrite (as N)	Total Dissolved Solids
	Nitrogen Total (as N)	WAD Cyanide
Metals Dissolved		
Aluminum	Chromium	Potassium
Antimony	Copper	Selenium
Arsenic	Iron	Silver
Barium	Lead	Sodium
Beryllium	Magnesium	Thallium
Cadmium	Manganese	Zinc
Calcium	Mercury	--

- a. Initiate kinetic testing⁽¹¹⁾ or
- b. Request to waive kinetic testing for the individual samples. The request must be made in writing and must be approved in writing by the Division to be considered valid.

(11) Kinetic testing (humidity cell testing) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method D 5744-18 Option 'A' (or the most current approved method); tests shall be run for a minimum of 20 weeks and for a longer duration if warranted or recommended by the analytical laboratory or required by the Division; samples shall be collected weekly (all weeks) and measurements shall be recorded for redox potential (Eh), pH, specific conductance ($\mu\text{S}/\text{cm}$) from a raw, non-filtered aliquot; acidity and/or alkalinity (as determined by the raw extract pH), sulfate, iron (total), plus ferric and ferrous speciation only if pH < 5 SU), shall be analyzed following coarse filtration of the extract; and dissolved calcium and magnesium; Following coarse filtration of the extract, samples for Profile I metals shall be filtered, digested, and analyzed for the dissolved fraction; samples requiring Uranium⁽⁴⁾ and Profile III⁽¹⁷⁾ analysis shall be unfiltered, digested (as applicable) and analyzed for total recoverable concentrations during weeks 0, 1, 2, 4, 8, 12, 16, and 20; 4-week extracts thereafter (i.e., week 24, 28, 32, etc.) shall be analyzed by a Nevada-certified analytical laboratory for Profile I⁽¹⁾, Uranium⁽⁴⁾, and Profile III⁽¹⁷⁾ parameters, as applicable, and specific conductance ($\mu\text{S}/\text{cm}$) and acidity and/or alkalinity shall be recorded as required by the extract pH; Final results reported shall include initial and final static test results⁽⁹⁾, a Profile I⁽¹⁾, Uranium⁽⁴⁾, and Profile III⁽¹⁷⁾ analysis of the final leachate, all kinetic test results above, and any additional analyses required by the Division. The Division will not consider a request to terminate an HCT until at least week 20. Under no circumstance will the HCT be placed on 'hold' pending Division review.

If the kinetic test results indicate acid generation conditions exist, the Permittee shall manage these materials in accordance with the Division-approved Waste Rock Management Plan, or if management of potentially acid generating material is not covered in the Waste Rock Management Plan submit in writing, within 30 days, the methods proposed for providing containment of these materials and the anticipated impact this acid generation potential may have on final stabilization of all components affected as defined in Nevada Administrative Code (NAC) 445A.359.

- (12) For presence of water, state whether the pit surface is dry, damp, or wet (ponded or flowing water).
- (13) A continuous temperature-conductivity profile shall be completed for the entire water column at the deepest location in each pit lake.
- (14) Field measurements (e.g., temperature, specific conductance, pH, Eh, etc.) shall be made at the Project site concurrent with the monitoring activity using a calibrated instrument, and do not require analysis by a laboratory certified or approved by the State of Nevada as otherwise specified in Part II.E.5. Field measurements must be accompanied by appropriate calibration information.

- (18) Provide a visual evaluation of each waste rock storage facility for physical stability (e.g., stable, unstable, or slope failure), presence of water and seepage. If visibly unstable, or slope failure, describe. For presence of water, identify whether the surface and toes of the waste rock storage facility are dry, damp, or wet (ponded or flowing water). If seepage is emanating from any portion of a waste rock storage facility, the Permittee shall perform the required monitoring for seeps.
- E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.
- F. All sampling and analytical accuracy shall be in accordance with Part II.E.
- G. Permit Limitations
1. The daily accumulation or flow exceeding 150 gallons per day averaged over the quarter in the leak detection sump identified in Part I.D.2.
 2. The daily accumulation or flow exceeding 50 gallons per day averaged over the year in the leak detection sump identified in Part I.D.2.
 3. Failure to meet a Schedule of Compliance date or requirement.
 4. All analytical samples shall be analyzed as mentioned in the Footnotes or Section II.E. as applicable.
 5. Except as otherwise allowed by this Permit, a minimum 2-foot freeboard shall be maintained in all ponds.
 6. The dry stack tailings crest elevation shall not exceed 4,500 feet amsl unless approved pursuant to a revised slope stability analysis.
 7. Tailings material may not be removed from the DSTDF, except with prior written authorization from the Division.
 8. PCS that exceeds screening levels shall be disposed of off-site at a permitted facility.
 9. Only chemicals approved by the Division may be used in the fluid management system. See the Fact Sheet for a list of approved chemicals.
- Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.
- H. The facility shall maintain automated or manual calibrated rain and snow gauge(s), which shall be monitored every day that the site is manned to record precipitation (inches of water, including snow water equivalent). A written and/or electronic record of precipitation data, and any other weather data required in Part I.D, shall be maintained on site and shall be submitted to the Division upon request, with each Permit renewal application, and pursuant to Parts II.B.1 and II.B.2, as applicable, in a Division-approved electronic format.
- I. The Permittee shall inspect all control devices, systems and facilities weekly. Drainage and containment systems shall also be inspected during, when possible, and after major storm events. These inspections are performed to detect evidence of:

study. The evaluation shall consider modeling methodology, current conditions, changes to site operations and physical conditions, and monitoring results since model approval. The determination shall compare modeled predictive vs. observed conditions whenever possible.

2. The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with any application to renew or modify the Permit that could affect the WRMP. A revised WRMP must also be approved prior to initiating mining or in-pit backfill activities not previously approved. The WRMP must include representative characterization data for all anticipated waste rock and overburden in accordance with the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation," in addition to a detailed description of how, when, and where the materials will be managed and monitored, and appropriate controls to eliminate any potential to degrade waters of the State, if applicable. Approval may require modification of the Permit and payment of modification fees. If the Permittee determines that renewal of the Permit will not affect the WRMP, in lieu of an updated WRMP, the Permittee may submit to the Division for review and approval an evaluation and determination of the continued suitability and adequacy of the existing Division-approved WRMP. The evaluation shall consider current conditions, changes to site operations and physical conditions, and monitoring results since WRMP approval.

II. General Facility Conditions and Limitations

A. General Requirements

1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage, or other event over which Permittee has little or no control) exists for such revision.
2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.
3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

B. Reporting Requirements

1. The Permittee shall submit quarterly reports, in a Division-approved electronic format, which are due to the Division on or before the 28th day of the month following the quarter and must contain the following:

- iv. A table of total monthly precipitation amounts and other weather data, as applicable, recorded in accordance with Parts I.D.9 and I.H, reported for either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter
 - v. An updated version of the facility monitoring and sampling procedures and protocols, as applicable;
 - vi. Provide any changes to monitoring locations in the past year as mentioned in Part II.C.5.
 - vii. Graphs of leak detection flow rates, pH, total dissolved solids (TDS), sulfate, chloride, nitrate + nitrite (as N), fluoride, zinc, manganese, and arsenic concentration (as applicable), versus time for all fluid sampling points. These graphs shall display either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter. Additional parameters may be required by the Division if deemed necessary.
- b. Submit the following items to the Closure Branch:
- a. An updated Tentative Plan for Permanent Closure (TPPC) and Final Plan for Permanent Closure (FPPC), as applicable, incorporating any new site information that may impact these plans. The Plans shall be prepared in accordance with the current version of the Division guidance documents “Tentative Plans for Permanent Closure Guidance” and “Preparation Requirements & Guidelines Permanent Closure Plans & Final Closure Reports,” as applicable.
3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.
- a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.
 - b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations (CFR) Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.
 - c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal

- iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;
 - iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and
 - v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.
- c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:
- i. Determine the effect and extent of each incident;
 - ii. Minimize any potential impact to the waters of the State arising from each incident;
 - iii. Minimize the effect of each incident upon domestic animals and all wildlife; and
 - iv. Minimize the endangerment of the public health and safety which arises from each incident.
- d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure and post-closure monitoring are complete. Therefore, unless permanent closure and post-closure monitoring have been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.
2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.
3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all applications for

3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:
 - a. The exact place, date, and time of the inspection, observation, measurement, or sampling, and
 - b. The person(s) who inspected, observed, measured, or sampled.
3. Samples must be taken, preserved, and labeled according to Division approved methods.
4. Standard environmental monitoring chain of custody procedures must be followed.
5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.
6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I, and Profile III.. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples shall be analyzed by methods listed in 40 CFR Part 136 Table 1B, as applicable, by a laboratory certified for that method by the State of Nevada – Bureau of Safe Drinking Water Laboratory Certification Program. Samples for Profile I metals shall be filtered, digested, and analyzed for the dissolved fraction, all other Profile I parameters and samples requiring uranium analysis shall be unfiltered, digested (as applicable) and analyzed for the total recoverable fraction; samples for Profile III metals shall be unfiltered, digested, and analyzed for the total recoverable fraction, all other Profile III parameters analysis shall be unfiltered, digested (as applicable) and analyzed for the total recoverable fraction; samples requiring Uranium and Profile R analysis shall be unfiltered, digested (as applicable) and analyzed. For additional guidance, please see the Profile Analytical Lists on the website of the Division: <https://ndep.nv.gov/land/mining>. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the “<” symbol.