

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

Water Pollution Control Permit

Permittee: **Gold Standard Ventures (US) Inc.**
South Railroad Project
P.O. Box 1897
Elko, NV 89803

Permit Number: **NEV2020120**
Review Type/Year/Revision: **New Permit 2026, 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 **South Railroad Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to beneficiate up to **12,000,000 tons** of ore per year.

The facility is located in Elko County, within Sections 13 through 16 and Sections 20 through 28, Township 30 North (T30N), Range 53 East (R53E); Mount Diablo Baseline and Meridian, approximately 25 miles southwest of the town of Elko, 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 May 30, 2025, 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 ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **Month Day, Year**, and shall remain in effect until **Month Day-1, Year+5**, unless modified, suspended, or revoked.

Signed this _____ day of **Month Year**.

Ashley Taylor, P.E.
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Facility Conditions and Limitations

A. In accordance with operating plans and facility design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the facility in accordance with those plans;
2. Contain within the fluid management system all process fluids including all meteoric waters which enter the system as a result of the 25-year, 24-hour storm event; and
3. Not release or discharge any process or non-process contaminants from the fluid management system.

B. Schedule of Compliance:

1. Thirty days prior to the initiation of process components, the Permittee shall submit to the Division a written notice of intention to begin operation pursuant to Nevada Administrative Code (NAC) 445A .426.
2. Thirty days prior to the initiation of process components, the Permittee shall schedule a reasonable time for the Division to conduct a facility inspection to ascertain compliance of the constructed facility with the approved design and Permit.

The schedule of compliance items above are not considered completed until approved in writing by the Division.

C. The facilities covered by this Permit consists of the following:

1. Mine Areas and Waste Rock Locations

- a. Dark Star Main Pit (dry), Dark Star North Pit (dry), and Pinion Pit (dry);
- b. Dark Star West Waste Rock Disposal Facility (WRDF), Dark Star East WRDF;
 - i. Double lined leak detected pond(s) – East WRDF Stormwater Collection Pond and West WRDF Stormwater Collection Pond, including but not limited to retention structures, and as applicable, all associated sumps, pumps, pipelines, tanks, ditches, and valves to contain, convey, and control solution within the system
 - ii. Groundwater collection and conveyance systems, including but not limited to retention structures, and as applicable, all associated sumps, pumps, pipelines, tanks, ditches, and valves to contain, convey, and control solution within the system;
- c. Pinion WRDF;

2. Processing Components (Processing Building, HLP)

- i. Crushing and conveying system;
- ii. Heap Leach Pad:
 1. HLP, Phase 1 and 4, solution application systems, solution collection systems, solution tanks, solution trenches and leak detection and monitoring system;

2. Double lined leak detected pond(s) – Pregnant Solution Pond and Event Pond;
 3. The Adsorption Desorption and Recovery (ADR) processing plant and 2 Carbon-in-Column trains, including but not limited to, all tanks, basins, containment, sumps, pumps, and piping necessary to interconnect the process components;
 4. Groundwater collection and conveyance systems, including but not limited to retention structures, and as applicable, all associated sumps, pumps, pipelines, tanks, ditches, and valves to contain, convey, and control solution within the system;
3. Other Sources
- i. Maintenance Locations (i.e. truck wash, laydown yard, etc.);
 - ii. Fueling facilities;
 - iii. Chemical storage and Off-load areas; and
 - iv. Onsite laboratory and chemical storage areas.

D. Monitoring Requirements:

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
1. <u>Water Supply</u> Make Up Water	Profile I ⁽¹⁾ and Uranium ⁽⁴⁾	Initially then annually
2. <u>Leach Pad, Leak Detection</u> HLP-LD-1, HLP-LD-2, HLP-LD-3, HLP-LD-4, HLP-LD-5, HLP-LD-6	Average daily accumulation (gpd)	Quarterly average of weekly measurements ⁽⁷⁾ (once commissioned)
3. <u>Pond Leak Detection and Recovery Sumps (sump capacity)</u> Pregnant Solution Pond (PSP-LD) (580 gal) Event Pond (EP-LD) (580 gal) East WRDF Collection Pond (EWRDF-LD)(XXX gal) West WRDF Collection Pond (WWRDF-LD) (XXX gal)	Average daily accumulation (gpd)	Quarterly average of weekly measurements ⁽⁷⁾ (once commissioned)
4. <u>Process Solution</u> Pregnant Pond (PP) Event Pond (EP)	Profile I ⁽¹⁾ and Uranium ⁽⁴⁾	Quarterly (once commissioned)

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
5. <u>Mined Materials</u> Each lithology mined as Waste Rock (WR); Leach Pad Ore (LO)	MWMP⁽⁸⁾ -Profile I⁽¹⁾ & Uranium⁽⁴⁾, NV-NAG⁽⁹⁾, NMSP⁽¹⁰⁾⁽¹¹⁾, On-site LECO testing results; LECO validation testing⁽¹⁹⁾; NV-NAG⁽⁹⁾ & NMSP⁽¹⁰⁾⁽¹¹⁾	Monthly; Monthly; Monthly
6. <u>Groundwater Collection Tanks</u> HLP-GWT-1, HLP-GWT-2, HLP-GWT-3, HLP-GWT-4, HLP-GWT-5, DSE-GWT-1, DSW-GWT-1	Average daily accumulation (gpd); Profile I⁽¹⁾ & Uranium⁽⁴⁾	Quarterly average of daily measurements⁽⁷⁾; Quarterly
7. <u>Site Piezometers</u> PZ22-03, PZ22-01, PZ22-02, DR19-29, Pinion: PZ21-01, PR20-06, PZ21-02, PR20-31, PR20-38, PC20-03	Hydraulic head (feet)	Quarterly average of weekly measurements
8. <u>Site Monitoring Wells</u> DR18-111, DR18-112, DS-DG-01, DS-DG-02, DS-DG-03, DS-DG-04, DS-DG-05, DS-UG-01, DSM-BF-01 MW-4, Pin-DG-01, Pin-DG-02, Pin-DG-03, Pin-UG-01, HLF-DG-01, HLF-DG-02, HLF-UG-01	Profile I⁽¹⁾ & Uranium⁽⁴⁾, water and collar elevation (feet AMSL)	Quarterly (once Commissioned)

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
9. <u>Dixie Creek - Springs and Seeps</u> <i>Streams:</i> ST1, ST2, ST6, ST8 <i>Springs/Seeps:</i> PG1, PG2, PG3, PG4, PG5, SP1, SP3, SP4, SP5, SP6, SP7, SP8, SP9, SP38, SP35, SP36, SP34, SP37, SP31	Surface Water Profile Dixie Creek ⁽¹⁴⁾ and flow rate	Quarterly
10. <u>Trout Creek Springs and Seeps</u> <i>Streams:</i> ST3, ST4 <i>Springs/Seeps:</i> SP10	Surface Water Profile Trout Creek ⁽¹⁵⁾ and flow rate	Quarterly
11. <u>PCS Shipped Offsite</u>	PCS volume shipped offsite (cubic yards)	Quarterly, when removed
12. <u>Waste Rock Storage Facilities</u> East Darkstar WRDF, West Darkstar WRDF, Pinon WRDF; Each seep that is flowing	Physical stability, presence of water ⁽¹²⁾ ; Profile I ⁽¹⁾ and Uranium ⁽⁴⁾ , photograph, field pH (SU), field specific conductance (µS/cm)	Semi-Annually (Q2 and Q4); Semi-Annually, when flowing (Q2 and Q4)
13. <u>Weather Station Facility</u> Ambient Conditions	Ambient temperature, (min/max), relative humidity (%), wind speed (mph), wind direction (azimuth degree), total precipitation (inches), solar irradiance (W/m ²), and SWE (inches)	Monthly Average of Daily Measurements

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; e = the base of the natural logarithm with approximate value of 2.718; Eh = chemical reduction potential; EPA = U.S. Environmental Protection Agency; gal = gallons; gpd = gallons per day; gpm = gallons per minute; ln = natural logarithm with base e; meq/L = milliequivalents per liter; mg/L = milligrams per liter; MWMP = Meteoric Water Mobility Procedure; N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; NMSP = Nevada Modified Sobek Procedure; P = phosphorous; pCi/L = picocuries per liter; PCS = Petroleum-Contaminated Soil; 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; RDL = Reported Detection Limit; SU = standard units for pH measurement; TPH = total petroleum hydrocarbons; WAD = weak acid dissociable; WRMP = Waste Rock Management Plan; * = 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)	Fluoride	Sulfate
Bicarbonate ⁽³⁾	Nitrate + Nitrite (as N)	Total Dissolved Solids
Total ⁽³⁾	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	--

- (2) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as CaCO₃ equivalent).
- (3) All sample analyses resulting in a pH value greater than or equal to 4.5 SU shall be analyzed for Alkalinity (Bicarbonate and Total).

- (4) Uranium (total) shall be reported in mg/L and have the reference value of 0.03 mg/L. If uranium (total) concentration is ≥ 0.030 mg/L, analysis for the Profile I⁽¹⁾, Uranium, and Profile R⁽⁵⁾ is required in the subsequent quarter.

- (5) Profile R:

Parameter	Reference Value/Unit
Gross Alpha ⁽⁶⁾	pCi/L
Adjusted Gross Alpha*	15 pCi/L
226Radium	pCi/L
228Radium	pCi/L
226Radium + 228Radium	5 pCi/L

*Adjusted gross alpha is gross alpha minus uranium activity in pCi/L.

- (6) If the sample location is known to have a TDS greater than 1,000 mg/L, gross alpha must be analyzed using an appropriate method, e.g. EPA 00-02, EPA 900.0. Additionally, if the reported gross alpha activity is less than or equal to 15 pCi/L and the uncertainty of the adjusted gross alpha analysis is greater than or equal to 15 pCi/L is acceptable (e.g. 36 ± 21 pCi/L would be acceptable since the low range is at 15 pCi/L). Please utilize the appropriate method to minimize the uncertainty. See Profile R analyte list on the Division's website for additional information.
- (7) Sumps must be inspected and evacuated on a more frequent basis than weekly if the fluid level is above the top of the sump or the invert of any pipe which discharges into the sump, whichever level is lower, or if the potential exists to exceed the sump capacity. Records are required documenting volume, date, and time of extraction to show that sumps are maintained in this condition.
- (8) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E 2242-13 (or the most current method).
- (9) Nevada Net Acid Generation (NV-NAG) shall be performed by a Nevada-approved laboratory, in accordance with the most current update.
- (10) Nevada Modified Sobek Procedure (NMSP) shall be performed by a Nevada-approved laboratory, using a LECO-type analysis, in accordance with the most current update. The NMSP is a specific static test or acid-base accounting test.
- (11) When static testing⁽¹⁰⁾ characterization of Mined Materials is not in agreement with the initial characterization or has a NMSP ANP/AGP ratio less than 1.2 and a sulfide sulfur greater than or equal to 0.15 percent by weight, the Permittee shall notify the Division in writing within 10 days of receipt of the sample result, and either:
- Initiate kinetic testing⁽¹²⁾ or
 - 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.

- (12) 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 $\text{pH} < 5$ 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⁽¹⁾ metals shall be filtered, digested, and analyzed for the dissolved fraction; samples requiring Uranium⁽⁴⁾ 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⁾ parameters 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⁽¹⁰⁾, a Profile I⁽¹⁾, Uranium⁽⁴⁾ 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.

- (13) 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.
- (14) Surface Water Profile – Dixie Creek (per NAC 445A.1236 and 445A.1466):

General Chemistry Parameters		
Alkalinity (as CaCO_3) Bicarbonate ⁽³⁾ Total ⁽³⁾	Fluoride	Sodium Adsorption Ratio (SAR) ⁽¹⁸⁾
	Hardness (as mg/L CaCO_3) ⁽¹⁷⁾	Sulfate
	Nitrate (as N)	Sulfide, Total (as undissociated hydrogen sulfide)

Ammonia, Total (as N)	Nitrite (as N)	Total Dissolved Solids
Chloride	Nitrate + Nitrite (as N)	Total Suspended Solids
Color (PCU)	Nitrogen, Total (as N)	Turbidity (NTU)
Cyanide, Free	pH (± 0.1 SU)	--
Dissolved Oxygen	Phosphorus, Total (as P)	--
Metals		
Aluminum	Chromium (III), Dissolved ⁽¹⁶⁾	Nickel, Dissolved
Antimony, Total	Chromium (VI), Dissolved ⁽¹⁶⁾	Potassium
Arsenic, Dissolved	Copper, Dissolved	Selenium, Total
Barium, Total	Iron, Total	Silver, Dissolved
Beryllium, Total	Lead, Dissolved	Sodium
Boron, Total	Magnesium	Thallium, Total
Cadmium, Dissolved	Manganese, Total	Zinc, Dissolved
Calcium	Mercury, Dissolved	--
Chromium, Total	Molybdenum, Total	--

(15) Surface Water Profile – Trout Creek (per NAC 445A.1236 and 445A.1442):

General Chemistry Parameters		
Alkalinity (as CaCO ₃) Bicarbonate ⁽³⁾ Total ⁽³⁾	Fluoride	Sodium Adsorption Ratio (SAR) ⁽¹⁸⁾
	Hardness (as mg/L CaCO ₃) ⁽¹⁷⁾	Sulfate
	Nitrate (as N)	Sulfide, Total (as un-dissociated hydrogen sulfide)
Ammonia, Total (as N)	Nitrite (as N)	Total Dissolved Solids
Chloride	Nitrate + Nitrite (as N)	Total Suspended Solids
Color (PCU)	Nitrogen, Total (as N)	Turbidity (NTU)
Cyanide, Free	pH (± 0.1 SU)	--
Dissolved Oxygen	Phosphorus, Total (as P)	--
Metals		
Aluminum	Chromium (III), Dissolved ⁽¹⁶⁾	Nickel, Dissolved

Antimony, Total	Chromium (VI), Dissolved ⁽¹⁶⁾	Potassium
Arsenic, Dissolved	Copper, Dissolved	Selenium, Total
Barium, Total	Iron, Total	Silver, Dissolved
Beryllium, Total	Lead, Dissolved	Sodium
Boron, Total	Magnesium	Thallium, Total
Cadmium, Dissolved	Manganese, Total	Zinc, Dissolved
Calcium	Mercury, Dissolved	--
Chromium, Total	Molybdenum, Total	--

- (16) Analyze and calculate for chromium species only if total chromium exceeds 0.005 mg/L.
- (17) Hardness = $(2.497 * Ca) + (4.118 * Mg)$, where Ca is the calcium concentration in mg/L and Mg is the magnesium concentration in mg/L.
- (18) Sodium Adsorption Ratio (SAR) = $Na + / [(Ca^{2+} + Mg^{2+})/2]$ 0.5, where Na is the sodium concentration in mg/L, Ca is the calcium concentration in mg/L, and Mg is the magnesium concentration in mg/L.
- (19) Validation testing of on-site LECO results shall be a certified lab confirmation of one LECO total sulfur and one LECO pyritic sulfur on a sample split from material samples and tested onsite for the same parameter and then compared to on-site test results. If more than three consecutive validation tests, or more than five tests in a 12-month period, show a variance of greater than 25% between on-site and laboratory testing, the Permittee must submit to the Division a written explanation and work plan to address this variance.
- 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/port/pipe identified in Part I.D.2 and I.D.3.
 2. The daily accumulation or flow exceeding 50 gallons per day averaged over the year in the leak detection sump/port/pipe identified in Part I.D.2 and I.D.3.
 3. The Dark Star Main Pit shall not be mined below 6,580 feet above mean sea level (60 feet above the water table).
 4. The Dark Star North Pit shall not be mined below 6,520 feet above mean sea level (50 feet above the water table).
 5. If water is encountered during mining, the Permittee shall notify the Division by the next regular business day per Part II.B.4 and shall not deepen the pit further.

6. Failure to meet a Schedule of Compliance date, Continuing Investigation, or requirement.
7. All analytical samples shall be analyzed as mentioned in the Footnotes or Section II.E, as applicable.
8. The storage of process solution in a single-lined pond for more than 20 consecutive days for any single event.
9. Except as otherwise allowed by this Permit, a minimum 2-foot freeboard shall be maintained in all ponds.
10. Heap leach pads, as measured vertically from the top of the synthetic liner for any point on the pad, constructed in excess of a maximum permitted elevation of 300 feet over minimum 80-mil thickness HDPE synthetic liner or 80-mil thickness LLDPE primary liner.
11. The cumulative solution application rate to the heap leach pad should not exceed the permitted 5,500 gallons per minute (gpm). Additionally, the solution application rate *per unit area* should not exceed 0.0033 gpm/ft².
12. The facility shall not degrade waters of the State to the extent that applicable water quality standards or reference values, and background concentrations, are exceeded.
13. The following surface water quality standards apply to Humboldt Region: South Fork at the Humboldt and its tributaries, including Dixie Creek, in accordance with NAC 445A.1236 and 445A.1446 or better water quality if established by the Division:

<u>Parameter</u>	<u>Standard or Standard Calculation Equation</u> ^(d) (µg/L, except as noted)
Alkalinity (as CaCO ₃)	≥ 20 mg/L
Ammonia, Total (as N)	mg/L per NAC 445A.118 ^(d)
Antimony, Total	146
Arsenic, Dissolved ^(a)	50
Barium, Total	2.0 mg/L
Beryllium, Total	100
Boron, Total	750
Cadmium, Dissolved ^{(a)(b)}	$(1.101672 - \{\ln(\text{hardness})(0.041838)\}) * e^{(0.7409\{\ln(\text{hardness})\} - 4.719)}$
Calcium	Measure and report (as mg/L calcium) for hardness determination
Chloride	230 mg/L
Chromium, Total	100
Chromium (III), Dissolved ^{(a)(d)}	$(0.860) * e^{(0.8190\{\ln(\text{hardness})\} + 0.6848)}$
Chromium (VI), Dissolved ^(a)	11

<u>Parameter</u>	<u>Standard or Standard Calculation Equation</u>^(d) (µg/L, except as noted)
Color	75 PCU
Copper, Dissolved ^{(a)(d)}	$(0.960) * e^{(0.8545 \{ \ln(\text{hardness}) \} - 1.702)}$
Cyanide, Free ^(a)	5.2
Dissolved Oxygen	≥ 6.0 mg/L
Fluoride	1.0 mg/L
Hardness ^(b)	Calculate and report (as mg/L CaCO ₃)
Iron, Total ^(a)	1.0 mg/L
Lead, Dissolved ^{(a)(d)}	$(1.46203 - \{ \ln(\text{hardness})(0.145712) \}) * e^{(1.273 \{ \ln(\text{hardness}) \} - 4.705)}$
Manganese, Total	200
Magnesium	Measure and report (as mg/L magnesium) for hardness determination
Mercury, Dissolved ^(a)	0.77
Molybdenum, Total ^(a)	1.65 mg/L
Nickel, Dissolved ^{(a)(d)}	$(0.997) * e^{(0.8460 \{ \ln(\text{hardness}) \} + 0.0584)}$
Nitrate (as N)	10 mg/L
Nitrite (as N)	0.06 mg/L
pH	6.5 – 9.0 SU
Phosphorus, Total (as P)	100
Sodium Adsorption Ratio (SAR) ^(c)	8 meq/L
Selenium, Total ^(a)	5.0
Silver, Dissolved ^{(a)(d)}	$(0.85) * e^{(1.72 \{ \ln(\text{hardness}) \} - 6.59)}$
Sulfate	250 mg/L
Sulfide, Total (as un-dissociated hydrogen sulfide) ^(a)	2.0
Thallium, Total	13
Total Dissolved Solids	500 mg/L
Total Suspended Solids	25 mg/L
Turbidity	10 NTU
Zinc, Dissolved ^{(a)(d)}	$(0.986) * e^{(0.8473 \{ \ln(\text{hardness}) \} + 0.884)}$

(a) The standard may be exceeded once every three years per NAC 445A.1236.

- (b) For calculated aquatic life standards, hardness (as mg/L CaCO₃) is determined via the equation in Part I.D., Footnote (17). See Part I.D., Abbreviations, for reference. Include all calculated standards with each monitoring report, as applicable.
- (c) For calculated aquatic life standards, sodium adsorption ratio (SAR) is determined via the equation in Part I.D., Footnote (18). See Part I.D. Abbreviations for reference. Include all calculated standards with each monitoring report, as applicable.
- (d) For a complete list of applicable surface water standards, refer to NAC 445A.118, 445A.121, 445A.122, 445A.1236, and 445A.1466.

14. The following surface water quality standards apply to Humboldt Region: Humboldt River at Battle Mountain and its tributaries, including Trout Creek, in accordance with NAC 445A.1236 and 445A.1442 or better water quality if established by the Division:

<u>Parameter</u>	<u>Standard or Standard Calculation Equation^(h)</u> (µg/L, except as noted)
Alkalinity (as CaCO ₃)	≥ 20 mg/L
Ammonia, Total (as N)	mg/L per NAC 445A.118 ^(h)
Antimony, Total	146
Arsenic, Dissolved ^(e)	50
Barium, Total	2.0 mg/L
Beryllium, Total	100
Boron, Total	750
Cadmium, Dissolved ^{(e)(f)}	$(1.101672 - \{\ln(\text{hardness})(0.041838)\}) * e^{(0.7409\{\ln(\text{hardness})\} - 4.719)}$
Calcium	Measure and report (as mg/L calcium) for hardness determination
Chloride	70 mg/L
Chromium, Total	100
Chromium (III), Dissolved ^{(e)(h)}	$(0.860) * e^{(0.8190\{\ln(\text{hardness})\} + 0.6848)}$
Chromium (VI), Dissolved ^(e)	11
Color	75 PCU
Copper, Dissolved ^{(e)(h)}	$(0.960) * e^{(0.8545\{\ln(\text{hardness})\} - 1.702)}$
Cyanide, Free ^(e)	5.2
Dissolved Oxygen	≥ 5.0 mg/L
Fluoride	1.0 mg/L
Hardness ^(f)	Calculate and report (as mg/L CaCO ₃)
Iron, Total ^(e)	1.0 mg/L
Lead, Dissolved ^{(e)(h)}	$(1.46203 - \{\ln(\text{hardness})(0.145712)\}) * e^{(1.273\{\ln(\text{hardness})\} - 4.705)}$

<u>Parameter</u>	<u>Standard or Standard Calculation Equation^(h)</u> (µg/L, except as noted)
Manganese, Total	200
Magnesium	Measure and report (as mg/L magnesium) for hardness determination
Mercury, Dissolved ^(e)	0.77
Molybdenum, Total ^(e)	1.65 mg/L
Nickel, Dissolved ^{(e)(h)}	$(0.997) * e^{(0.8460 \{ \ln(\text{hardness}) \} + 0.0584)}$
Nitrate (as N)	10 mg/L
Nitrite (as N)	1.0 mg/L
pH	7.0 – 8.6 SU
Phosphorus, Total (as P)	100
Sodium Adsorption Ratio (SAR) ^(g)	8 meq/L
Selenium, Total ^(e)	5.0
Silver, Dissolved ^{(e)(h)}	$(0.85) * e^{(1.72 \{ \ln(\text{hardness}) \} - 6.59)}$
Sulfate	250 mg/L
Sulfide, Total (as un-dissociated hydrogen sulfide) ^(e)	2.0
Thallium, Total	13
Total Dissolved Solids	520 mg/L
Total Suspended Solids	50 mg/L
Turbidity	50 NTU
Zinc, Dissolved ^{(e)(h)}	$(0.986) * e^{(0.8473 \{ \ln(\text{hardness}) \} + 0.884)}$

(e) The standard may be exceeded once every three years per NAC 445A.1236.

(f) For calculated aquatic life standards, hardness (as mg/L CaCO₃) is determined via the equation in Part I.D., Footnote (17). See Part I.D., Abbreviations, for reference. Include all calculated standards with each monitoring report, as applicable.

(g) For calculated aquatic life standards, sodium adsorption ratio (SAR) is determined via the equation in Part I.D., Footnote (18). See Part I.D. Abbreviations for reference. Include all calculated standards with each monitoring report, as applicable.

(h) For a complete list of applicable surface water standards, refer to NAC 445A.118, 445A.121, 445A.122, 445A.1236, and 445A.1442.

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 at least daily 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, and during (when possible) and after major storm events. These inspections are performed to detect evidence of:
 1. Deterioration, malfunction, or improper operation of control or monitoring systems;
 2. Sudden changes in the data from any monitoring device;
 3. The presence of liquids in leak detection systems; and
 4. Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.
- J. Prior to initiating permanent closure activities at the facility, or at any process component or other source within the facility, the Permittee shall submit and obtain approval from the Division, in writing, of a final plan for permanent closure.
- K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.2325, as applicable, starting July 1 after the effective date of this Permit and every year thereafter until the Permit is terminated or the facility has received final closure certification from the Division.
- L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan.
- M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State. Any water used for dust suppression from a wash-bay before or after an oil/water separator must be tested for compliance with Profile I and TPH standards initially and then quarterly thereafter. Any water not meeting the Profile I and TPH standards may not be used outside of containment without Division approval.
- N. Continuing Investigations:
 1. Updated Groundwater Flow Model: The Permittee shall submit to the Division for review and approval an updated groundwater flow model with any application to renew and/or modify the Permit that could affect the predictive groundwater flow model. Groundwater flow model shall conform to the most recent Division guidance documents for groundwater flow models, including but not limited to the Bureau of Mining Regulation and Reclamation's "Guidance for Hydrogeologic Groundwater Flow Modeling at Mine Sites". The study shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data and mitigations to reduce the potential to degrade groundwater, as applicable. If the Permittee determines that renewal of the Permit will not affect the groundwater flow model; or any underground

- model, pit lake study, ecological risk assessment, fate and transport model, or any corrective action plan; then in lieu of the aforementioned models, studies, and assessments, 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 models, studies, and assessments. The evaluation shall consider modeling methodology, current site conceptual model, changes to site operations and physical conditions, and monitoring results. The determination shall compare modeled predictive vs. observed conditions whenever possible. The Division may require an update to any of the aforementioned studies as part of an application to renew or modify the Permit if the Permittee's determination is not approved by the Division.
2. Updated Waste Rock Management Plan: 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.
 3. Updated Tentative Plan for Permanent Closure: With each application for renewal or any application for modification that could affect the existing approved TPPC, the Permittee shall submit to the Division for review and approval an updated Tentative Plan for Permanent Closure (TPPC) in accordance with the most recent Division guidance document.

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:
 - a. Monitoring results from the leak detection sumps identified in Parts I.D.2 and I.D.3, reported on Nevada Division of Environmental Protection (NDEP) Form 0590 or equivalent;
 - b. Analytical results of the solution collected from monitoring locations identified in Parts I.D.4 and I.D.8, reported on NDEP Form 0190 or equivalent;
 - c. Water and collar elevations for site monitoring wells identified in Parts I.D.4 and I.D.8;
 - d. Analytical results and test parameters of the MWMP-Profile I and Uranium, and NMSP testing for the materials identified in Part I.D.5, reported on NDEP Form 0190 and NDEP Form 0620 as appropriate, or equivalent;
 - e. 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 material (for comparison of site results and lab results).
 - f. Tables or graphs of monitoring results for the piezometer locations identified in Part I.D.7;
 - g. A summary of the volume of PCS shipped offsite I.D.11;
 - h. Monitoring results from the groundwater conveyance and collection tanks identified in Part I.D.6, reported on NDEP Form 0590, and NDEP Form 0490 as appropriate, or equivalent;
 - i. Analysis results of the surface water quality from monitoring locations identified in Parts I.D.9 and I.D.10, reported on NDEP Form 0190, or equivalent.
 - j. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent;
 - k. Analytical results and other monitoring results of the waste rock storage facilities from monitoring locations identified in Part I.D.12, reported on NDEP Form 0190 or equivalent, as applicable;
 - l. For any kinetic test initiated, continued, or terminated with Division approval during the quarter, provide a brief report of the test status and an evaluation of the results to date, which shall include all analytical data generated from the date testing was initiated through the reporting quarter;

- m. A summary of all monitoring locations which had uranium greater than or equal to 0.03 mg/L with the planned next step of sampling per Footnote (4);
- n. A summary of the sumps emptied, photographed, and repaired during the quarter per I.D. Footnote 7.

Facilities which have not initiated mining or construction, must submit a quarterly report identifying the status of mining or construction. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

- 2. The Permittee shall submit an annual report, in a Division-approved electronic format, by February 28th of each year, for the preceding calendar year, which contains the following:
 - a. Submit the following items to the Regulation Branch:
 - i. Analytical results of water quality samples collected from water supply wells identified in Part I.D.1, reported on NDEP Form 0190 or equivalent;
 - ii. A synopsis of releases on NDEP Form 0390 or equivalent;
 - iii. A brief summary of site operations, including the number of tons of ore milled or placed on heaps (as applicable) during the year, construction and expansion activities, and major problems with the fluid management system;
 - iv. A table of total monthly precipitation amounts and other weather data, as applicable, recorded in accordance with Parts I.D.13 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), WAD cyanide, fluoride, zinc, 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:
 - i. 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: 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 hazardous substance, as defined in NAC 445A.3454, 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 to or exceeds 25 gallons or 200 pounds, or that is discovered in at least 3 cubic yards of soil, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. The release shall be reported through the online reporting system available at <http://www.ndep.nv.gov> or an oral report shall be made by telephone to (888) 331-6337. A written report shall be provided within 10 days in accordance with Part II.B.4.b.
4. The Permittee shall report to the Administrator any noncompliance with the Permit, including any exceedances or deviations from Part I.G.
 - a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular workday from the time the Permittee has knowledge of the circumstances. This report shall include the following:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Name, address, and telephone number of the facility;
 - iii. Date, time, and type of incident, condition, or circumstance;
 - iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;
 - v. Human and animal mortality or injury;
 - vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and
 - vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.

- b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:
 - i. A description of the incident and its cause;
 - ii. The periods of the incident (including exact dates and times);
 - 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 Permit modifications and renewals, shall be submitted in a Division-approved electronic format.
5. The Permittee shall submit any new or updated Universal Transverse Mercator (UTM) location data for all monitoring points specified in Part I.D, expressed in meters and decimals of a meter, using the Nevada Coordinate System of 1983 (also known as the North American Datum of 1983 or NAD83, ref NRS 327.005), with each Permit renewal, as-built report, and monitoring plan update, as applicable. Data shall be submitted electronically to the Division in Excel format.
6. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.
7. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
8. The Permittee is required to retain during operation, closure, and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.
9. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.
10. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;

2. Have access to and copy any record that must be kept per the conditions of this Permit;
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 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, Uranium (total), Profile R, and Surface Water Profile parameters. 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 Surface Water Profile parameters shall be analyzed in accordance with NAC 445A.1236 and other applicable surface water regulations; 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.

F. Permit Modification Requirements

1. Any material modification, as defined at NAC 445A.365, plan to construct a new process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.414, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.
2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.
3. The Permittee shall notify the Division in writing at least 30 days before the introduction of process solution into a new process component or into an existing process component that has been materially modified, or of the intent to commence active operation of that process component. Before introducing process solution or commencing active operation, the Permittee shall obtain written authorization from the Division.
4. The Permittee must obtain a written determination from the Administrator of any planned process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.
5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Keith Johnson, P.E. and Natasha Zittel, P.E.

Date: October 9, 2026

Revision 00: New Permit