STATE OF NEVADA

Department of Conservation and Natural Resources

Division of Environmental Protection

Bureau of Mining Regulation and Reclamation

Water Pollution Control Permit

Permittee: **Barrick Cortez Inc.**
Pipeline Project
HC66 Box 1250
Crescent Valley, Nevada 89821-1250

Permit Number: **NEV0093109**
Review Type/Year/Revision: **Renewal 2017, 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 **Pipeline Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to process up to **45,000,000 tons** of ore per year.

The facility is located in Lander County within portions of Sections 28-33, Township 28 North (T28N), Range 47 East (R47E); Sections 3-10 and 13, T27N, R47E; and Sections 1 and 12, T27N, R46E, Mount Diablo Baseline and Meridian, approximately 30 air-miles southeast of the town of Battle Mountain, 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 17 May 1993, 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 **Day Month 2017**, and shall remain in effect until **23 January 2022**, unless modified, suspended, or revoked.

Signed this _____ day of **MONTH 2017**.

_____

Joseph Sawyer, 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. At least 30 days prior to initiating construction of any phase of the approved Phase III and Phase V Area 28 Tailings Storage Facility Cell 4, the Permittee shall provide a written notice of intent to construct to the Division identifying the phase or phases to be constructed and the Permittee shall commence construction only upon receipt of written approval and any relevant Permit stipulations from the Division. In the event the proposed construction of an approved phase will vary materially from the approved design, a Permit modification, as determined by the Division, will be required and the Permittee shall submit the appropriate fee and all necessary engineering design information for Division review and approval prior to initiating construction.

2. Unless otherwise required by the Division, the previously approved, but not yet installed, downgradient alluvial monitoring wells SH-03A and SH-04A, to be located adjacent to the northeast sides of Phases 3 and 2, respectively, of the Area 30 South Area Heap Leach (SAHL) Facility, shall be installed when nearby dewatering is reduced to the extent that the water table will rebound into the alluvial section in those areas.

3. No construction of any of the Deep South Expansion Project may commence without written approval of the Division. Approval may require appropriate documentation be submitted, reviewed and approved by the Division. The reports include but are not limited to Rock Characterization, Waste Rock Management and component designs.

C. The fluid management system covered by this Permit consists of the following process components:

1. The Area 28 Cell 1-Cell 2 Tailings Storage Facility (TSF), solution collection systems, decant tower, and leak detection systems;

2. Area 28 integrated heap leach cells 2, 2-3, and 3, solution application systems, solution collection systems, solution trenches, and leak detection systems;

3. Area 28 carbon-in-column (CIC) metals recovery facility, Cell 1 pregnant solution pond (PP), Cell 1 tailings underdrain solution pond (UDP), and Area 28 stormwater event pond;
4. The Area 28 Cell 4 TSF embankment, liner system, underdrain solution collection and conveyance system, reclaim solution recovery and conveyance system, Underdrain Outlet Pipelines, lined solution channels, leak detected Cell 4 Underdrain Collection Tank, leak detected Cell 4 Underdrain Event Pond and leakage collection and recovery system (LCRS) sump, Cell 4 Underdrain Bypass Pipeline, and Cell 4-to-Cell 1 Underdrain Reclaim Pipeline;
5. Area 30, South Area Heap Leach (SAHL) Facility Phase 1, Phase 2, Phase 3, and Phase 4 construction, the heap leach pad subgrade leak detection system, solution collection systems, solution trenches, SAHL CIC recovery plant, SAHL pregnant solution ponds 1 & 2 (PP1 & PP2), SAHL barren solution pond (SA-BP), and SAHL stormwater pond;
6. Mill #2 Facility, the Plant Spill Pond (PSP), CIC and carbon-in-leach (CIL) equipment, storage tanks, thickeners, refinery, mercury scrubber, and secondary containment systems;
7. All process solution pipelines between the Mill #2 facility and all heap leach and tailings facilities, lined trenches and other secondary containment, and leak detection systems;
8. The "Pipeline Project" portion of the Cortez Underground Exploration Project Water Handling System, including but not limited to, the single-layer high density polyethylene (HDPE)-lined Contact Water Containment Pond, pipelines, pipeline LCRS, tanks, basins, and sumps;
9. The single-layer 60-mil HDPE-lined Pipeline Underground Ore Stockpile Pad and associated protective overliner layer, 60-mil HDPE-lined and leak detected Pipeline Underground Ore Stockpile Pad Stormwater Pond, and lined fluid conveyance channel; and
10. All piping, valves, pumps, tanks, basins, sumps, secondary containment, leak detection systems, and other equipment used in conveyance, control, storage, or detection of process fluids between process components.

D. Monitoring Requirements:

Identification	**Parameter**	**Frequency**
1. Leak Detection Sumps and Ports - *capacity* *Area 28 Facility:* Underdrain Barren Pond (UP) *380 gal* Pregnant Pond (PP) *380 gal* Underdrain Solution Channel (USC) *12 gal* Pregnant Solution Channel (PSC) *15 gal* Cell 1 South (C1S) *12 gal* Cell 1 Channel North (abandoned C1NSC) and Channel South (abandoned C1SSC) combined (C1SC) *12 gal* Cell 2 Pad (C2) *14 gal* Cell 2 Solution Channel (C2SC) *15 gal* Cell 3 Pad (C3) *15 gal* Cell 3 Solution Channel (C3SC) *14 gal* Cell 4 Underdrain Event Pond (C4UEP) *2,000 gal* Plant Spill Pond (PSP) *175 gal* *Area 30 SAHL Facility:* SAHL Barren Pond (LDBP) *1,170 gal* SAHL Process Pond 1 (LDPP1) *1,170 gal* SAHL Process Pond 2 (LDPP2) *1,170 gal* SAHL Transfer Channels: Center (LDTRC) *19 gal* South (LDTRS) *29 gal* North (LDTRN) *30 gal* SAHL Collection Channels: 1 South (LDCC1) *29 gal* 1 North (LDCC1N) *22 gal* 2 North (LDCC2N) *29 gal* 2 South (LDCC2S) *30 gal* SAHL Leach Pad 2002: Cell 1 (SALD1) *29 gal* Cell 2 (SALD2) *35 gal* Cell 3 (SALD3) *29 gal* Cell 4 (SALD4) *37 gal* *Other Facility Components:* Pipeline Underground Ore Stockpile Pad Stormwater Pond (POS-LD) *1,485 gal*	Average daily accumulation (gpd)	Weekly[(1)]

Identification	**Parameter**	**Frequency**
2. Cell 4 TSF Pipelines and Tanks *TSF Underdrainage Pipelines:* Underdrain Outlet Pipeline 1 (C4UOP1) Underdrain Outlet Pipeline 2 (C4UOP2) *Leak Detection Ports:* Tailings Pipeline (C4TPLD) Flushing Pipeline (C4FPLD) Decant Pipeline (C4DPLD) Underdrain Collection Tank (C4UCTLD)(13)	Average flow (gpm)	Weekly
3. Piezometer Measurements Cell 1 Phase II Crest Standpipe: 1201, 1202, 1203, 1204, 1206, 1207; Cell 1 Downstream Embankment Electric 1208, 1209, 1210, 1211; Cell 2 Electric: 41, 42, 43, 44, 45, 47, 48, 49; Cell 2 Electric: 23, 24, 25, 26; Cell 2-3 Leach Electric: 37, 38; Cell 4 Supernatant Pool Electric: BP-1A-2, BP-1B-2, BP-2-2, BP-3-2,BP-4-2; Cell 4 Basin Underdrain Electric: BP-5-2, BP-6-2, BP-7-1, BP-7-2, BP-8-2, BP-9-1, BP-9-2	Hydraulic head (feet)	Monthly
4. Process Solution Area 28 Pregnant Pond (PS) Area 28 Underdrain (Barren) Solution (US) Cell 4 Underdrain Collection Tank (C4UCTS) Cell 4 Underdrain Event Pond (C4UEPS) Tailings Slurry liquid fraction (TS) Area 30 SAHL Barren Pond (SA-BP) Area 30 SAHL Process Pond 1 (PP1) Area 30 SAHL Process Pond 2 (PP2)	Profile I(2)	Quarterly
5. Leach Pad Ore Area 28 Cell 2 (SL-2) Area 28 Cell 3 (SL-3) Area 30 SAHL Phase 2002 Construction (SSAL-1) Area 30 SAHL Phase 2004 Construction (SSAL-2) Area 30 SAHL Phase 2007 Construction (SSAL-3)	ANP/AGP(3)(4)	Quarterly for any quarter material is placed

Identification	**Parameter**	**Frequency**
6. Mined Materials Alluvial Overburden (AO) Waste Rock (WR-x) Carbon Ore Stockpile (CO) Low-grade Ore Stockpile (LO) Pipeline Underground Ore Stockpile (POS);	MWMP(5)-Profile I(2), ANP/AGP(3)(4);	Quarterly;
Cell 1-2 TSF Tailings Solids (C1-2TS) Cell 4 TSF Tailings Solids (C4-TS)	ANP/AGP(3)(4);	Quarterly;
Arturo Ore	MWMP(5)-Profile I(2), ANP/AGP(3)(4), Quantity Shipped (tons)	Quarterly

Identification	**Parameter**	**Frequency**
7. Site Monitoring Wells *Area 28 Alluvial Wells:* Process Ponds Downgradient (SMA-11) Process Ponds Downgradient (SMA-12) Cell 1-2 TSF/Solution Ponds Downgradient (SMA-13) Cell 1-2 TSF/Heap Leach Pad Downgradient (SMA-14R) Cell 1-2 TSF Upgradient (SMA-15R) Cell 4 TSF Cross-gradient (SMA-17) Cell 4 TSF/Tank/Pond Downgradient (IM-59S) Cell 4 TSF Cross-gradient (IM-61D) *Bedrock Wells:* Cell 1-2 TSF Upgradient (SMA-16R) Cell 3 Heap Leach Pad Cross-gradient (SMB-20) Mill #2 Downgradient (SMB-21R) Mill #2 Upgradient (SMB-22) General Site (OW-4S) *Area 30 SAHL Alluvial Wells:* Phase 3 Pad Upgradient (SH-02A/R) Phase 1 Pad Downgradient (SH-05A) *Area 30 SAHL Bedrock Wells:* Process Facility Upgradient (SH-01B) Phase 2 Pad Downgradient (SH-04B) Phase 1 Pad Downgradient (SH-05B) *CAP for SH-06A Nitrate Monitoring wells(14)* Shallow (SH-06A/OS) Deep (SH-06A/OD) Shallow (AW-13/OS) Deep (AW-13/OD)	Profile I(2), water and collar elevations (feet AMSL)	Quarterly
8. Water Supply Dewatering Wells with identification; Mill #2 Make-Up Water (MMW)	Profile I(2); Profile I(2)	Quarterly (by well); Annually

Identification	**Parameter**	**Frequency**
9. Cortez Underground Exploration Project Contact Water(7) Monitoring		
Contact Water flow at Area 28 (CW-F28) Contact Water flow at Area 30 (CW-F30);	Average flow (gpm);	Weekly;
Contact Water quality at discharge (CW-D);	Profile I(2);	Quarterly;
Contact Water Containment Pond (CWCP)	Date(s) and reason(s) used	Quarterly, when used
10. Cortez Underground Exploration Project Contact Water(7) Pipeline ('C-2') Road Crossing Leak Detection Ports		
Station 'C-2' 84+41 (C2-84/41) Station 'C-2' 404+00 (C2-404/00) Station 'C-2' 457+50 (C2-457/50) Station 'C-2' 468+00 (C2-468/00) Station 'C-2' 502+00 (C2-502/00)	Volume evacuated (gal)	Weekly(1)
11. Petroleum-Contaminated Soil (PCS) Screening Analysis		
Each approved on-site disposal location, by PCS source type	VOCs(8), SVOCs(9), TPH(10)	Quarterly after provisional placement(13)
12. PCS Hazardous Waste Determinations		
Each PCS source	Hazardous waste determination(12)	When required(14)
13. PCS Management		
Each disposal location by PCS source type	PCS volume added, volume removed and destination, total volume present (cubic yards)	Quarterly
14. Pumpback Well		
Area 30 SAHL Alluvial Well:		
Process Facility Downgradient (SH-06A)	Profile I(2)(14), water and collar elevations (feet AMSL); Average flow (gpm)	Quarterly; Weekly

Identification	**Parameter**	**Frequency**
15. Mill Throughput	Average Tons per day processed	Quarterly

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:

gal = gallons; gpm = gallons per minute; gpd = gallons per day; AMSL = above mean sea level; mg/L = milligrams per liter; MWMP = Meteoric Water Mobility Procedure; ANP/AGP = Acid Neutralizing Potential:Acid Generation Potential ratio; $CaCO_3$ = calcium carbonate; N = nitrogen; SU = standard units; WAD = weak acid dissociable; ASTM = American Society for Testing and Materials; PCS = Petroleum-Contaminated Soil; VOCs = volatile organic compounds; SVOCs = semi-volatile organic compounds; TPH = total petroleum hydrocarbons; µS/cm = microSiemens per centimeter

Footnotes:

(1) The sump 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.

(2) Profile I:

Alkalinity (as $CaCO_3$):	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium
Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH (± 0.1 SU)(15)	WAD Cyanide
Barium	Iron	Potassium	Zinc
Beryllium	Lead	Selenium	-

(3) When static testing(4) characterization of Mined Materials or Leach Pad Ore shows the potential for acid generation as set forth in the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation,"

the Permittee shall, as applicable, notify the Division in writing and initiate kinetic testing(6) within 10 days.

If the kinetic test(6) results indicate acid generation conditions exist, the Permittee shall 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.

(4) Acid Neutralizing Potential/Acid Generating Potential (ANP/AGP, also known as static testing or acid-base accounting) shall be performed by a Nevada-approved laboratory, using a LECO-type analysis, with full sulfur speciation, in accordance with the 2015 Update Nevada Modified Sobek Procedure.

(5) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E2242 (or the most current method).

(6) Kinetic testing (humidity cell testing) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method D5744-07 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, pH, specific conductance (µS/cm), acidity and/or alkalinity (as deemed appropriate by the laboratory), sulfate, iron (total, plus ferric and ferrous speciation if total iron > 0.6 mg/L and pH < 5 SU), and dissolved calcium and magnesium; weekly filtered extracts per the method will be digested and analyzed for total recoverable concentrations during week 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(2) parameters, and specific conductance (µS/cm) and acidity and/or alkalinity shall be recorded as recommended by the analytical laboratory; final results reported shall include initial and final static test results(4), a Profile I(2) analysis of the final leachate, all kinetic test results above, and any additional analyses required by the Division.

(7) Use or storage of Contact Water other than in process or within approved containment, respectively, must have prior written Division authorization.

(8) Volatile Organic Compounds (VOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8260.

(9) Semi-Volatile Organic Compounds (SVOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8270.

(10) Total Petroleum Hydrocarbons (TPH) analyzed by a Nevada-certified laboratory using EPA Method 8015 Modified. If any gasoline-range petroleum is suspected, or if the source-type is unknown, both TPH-P

(purgeable) and TPH-E (extractable) are required. Otherwise, only TPH-E is required.

(11) Each segregated source type of PCS must be sampled separately pursuant to the approved sample collection protocol. For approved on-site disposal locations, analyses are required only in quarters when PCS has been provisionally placed subject to screening results.

(12) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed 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. Operator knowledge must be adequately described and sufficient to justify the determination.

(13) Estimated average weekly flow in the leak detection grooves in the concrete under the tank.

(14) In accordance with the approved SH-06A work plan, and any approved modifications or amendments thereof, which are hereby incorporated into this Permit by reference, the Division may require the analysis of additional parameters, including, but not necessarily restricted to, total organic carbon, total Kjeldahl nitrogen, and total phosphorus, for SH-06A and any other specified wells.

(15) All sample analysis resulting in a pH value less than or equal to 5.0 SU shall also be analyses for acidity (mg/L $CaCO_3$ equivalent).

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 sumps and ports identified in Parts I.D.1, I.D.2 (leak detection ports only), and I.D.10.

2. The daily accumulation or flow exceeding 50 gallons per day averaged over the year in the leak detection sumps and ports identified in Parts I.D.1, I.D.2 (leak detection ports only), and I.D.10.

3. Failure to meet a Schedule of Compliance date or requirement.

4. The hydraulic head, as measured by the piezometers located beneath the drainage blanket and the downstream toe of the Area 28 Cell 1 TSF embankment and as measured by the piezometers located beneath the drainage blanket of the basin and supernatant pool areas of the Area 28 Cell 4 TSF,

shall be managed to maintain the integrity and function of the liner, the embankment, and the fluid management systems in accordance with the approved designs, NAC 445A.437, and NAC 445A.438.

5. The Area 28 Cell 1 and Cell 1-2 TSF, and the Area 28 Cell 4 TSF, shall be constructed and operated in accordance with all approved design criteria.
6. During normal design operating conditions, a minimum 6-foot freeboard shall be maintained in the Area 28 Cell 4 TSF above the supernatant pool, and the pool shall be managed to remain within its maximum design areal limits as marked on the north and south embankment crests. A minimum 1-foot freeboard is required above the tailings solids outside of the supernatant pool area. Once Phase III of the Area 28 Cell 4 facility is completed, the Area 28 Cell 4 supernatant pool shall be managed to remain within the middle of the facility and maintain a minimum of 50 feet from the geomembrane liner. The pool shall not contact the geomembrane liner once the pool has been established around the entire facility.
7. The storage of process solution in a single-lined pond for more than 20 consecutive days for any single event.
8. Heap leach pads may be constructed, as measured vertically from the top of the synthetic liner for any point on the pad, to a maximum elevation of 350 feet for Area 28 heap leach pads and to a maximum elevation of 300 feet for any phase of the Area 30 SAHL heap leach pad.
9. The hydraulic head, as measured on the Cell 2-3 Leach Expansion piezometers located in the overliner material, shall be managed to maintain the integrity and function of the heap leach pad and liner fluid management systems in accordance with the approved component design, NAC 445A.434, and NAC 445A.438.
10. The cumulative solution application rate to the Cell 1, Cell 2-3, and Cell 3 heap leach pad shall not exceed 8,300 gpm. The cumulative solution application rate to the Area 30 SAHL pad shall not exceed 21,000 gpm. In no circumstance shall the application rate per unit area to either facility exceed 0.005 gpm per square foot.
11. Material used for construction of the Area 28 Cell 4 TSF and all access ramps is limited to characterized net neutralizing waste rock or approved fill material.
12. Maintain a minimum 2-foot design freeboard in all process ponds and the Contact Water Containment Pond, when used.
13. PCS that exceeds screening levels shall not be placed at an on-site disposal location.
14. Material loaded on the Pipeline Underground Ore Stockpile Pad shall be placed with a minimum set-back distance of 10 feet from the interior berm toe

and may be placed to a height not to exceed 40 feet as measured vertically from the top of the overliner layer;

15. The Pipeline Underground Ore Stockpile Pad overliner layer and access ramp layer shall be maintained at no less than the design thickness of 3 feet and 2 feet, respectively.
16. The maximum operating level for the Pipeline Underground Ore Stockpile Pad Stormwater Pond is 9.5 feet below the pond crest.
17. The Pipeline Underground Ore Stockpile Pad Stormwater Pond and LCRS sump may be evacuated only to approved containment unless otherwise authorized by the Division.
18. The maximum throughput rate for Mill #2 shall not exceed 5,475,000 dry tons per year.
19. The facility shall not degrade waters of the State to the extent that applicable water quality standards, and background concentrations, are exceeded.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

H. The facility shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water). A written and/or electronic record of daily accumulations of precipitation shall be maintained on site.

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 must have an approved final plan for permanent closure.

K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 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 Soils (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan. The approved PCS Management Plan and the Division

Guidance for Mine-Site PCS Management Plans are hereby incorporated into this Permit by reference.

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.

N. Continuing Investigations:

1. The Permittee shall submit to the Division for review and approval an updated groundwater flow model, pit lake study, and ecological risk assessment with each Permit renewal and with any application to modify the Permit that could affect the pit lake predictive model. The study and assessment shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data, alternative pit lake or backfill scenarios, and mitigations to reduce ecological risk, as applicable. Approval may require modification of the Permit and payment of modification fees.

2. The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with each Permit renewal and with any application to 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.

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 both hard copy and 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 monitoring of the leak detection sumps and ports identified in Parts I.D.1, I.D.2, and I.D.10, reported on Nevada Division of Environmental Protection (NDEP) Form 0590 or equivalent;

   b. Monitoring results for piezometers identified in Part I.D.3;

   c. Water and collar elevations for monitoring wells and pumpback wells identified in Parts I.D.7 and I.D.14;

   d. Analytical results for the solution collected from monitoring locations identified in Parts I.D.4 and I.D.9, reported on NDEP Form 0190 or equivalent;

   e. Analytical results of the water collected from monitoring locations identified in Parts I.D.7, I.D.8, and I.D.14, reported on NDEP Form 0190 or equivalent;

   f. Analytical results of the MWMP and/or ANP/AGP testing, as applicable, for the materials identified in Parts I.D.5 and I.D.6 reported on NDEP Form 0190 or equivalent;

   g. The average weekly flow for the monitoring locations identified in Parts I.D.2 (Underdrainage Pipelines), I.D.9, and I.D.14;

   h. The mill throughput for the quarter identified in Part I.D.15;

   i. Date(s) and reason(s) for use of the Contact Water Containment Pond, identified in Part I.D.9, during the quarter;

   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, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.11 through I.D.13, pertaining to the approved PCS Management Plan;

   l. An updated list of all PCS sources managed under the approved PCS Management Plan, with any new or changed sources highlighted, reported on NDEP Form PCS-01 or equivalent; current screening levels for each

on-site disposal location; and a detailed explanation of any revisions to screening levels; and

m. For any kinetic test initiated, continued, or terminated with Division approval, during the quarter in accordance with Parts I.D.5, I.D.6, and I.D. Footnotes (3) and (6), 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.

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 both hard copy and Division-approved electronic format, by February 28th of each year, for the preceding calendar year, which contains the following:

   a. Analytical results of the water quality sample collected from the Mill #2 make-up water supply identified in Part I.D.8, reported on NDEP Form 0190 or equivalent;

   b. A synopsis of releases, reported on NDEP Form 0390 or equivalent;

   c. A brief summary of site operations, including the number of tons of ore milled or placed on heaps during the year, construction and expansion activities, and major problems with the fluid management system;

   d. A table of total monthly precipitation amounts recorded in accordance with Part 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;

   e. A graph of the average weekly flow, in gallons per minute, for the monitoring locations identified in Part I.D.9, for the five-year history previous to the date of submittal;

   f. An updated version of the facility monitoring and sampling procedures and protocols;

   g. An updated evaluation of the closure plans using specific characterization data for each process component with respect to achieving stabilization; and

   h. Graphs of leak detection flow rates, and 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 a five-year history previous to the date of submittal. Additional parameters may be required by the Division if deemed necessary.

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 for in-State callers or (775) 687-9485 for out-of-State callers, 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 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 to or exceeds 500 gallons or 4,000 pounds, 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. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.

   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 work day 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 is complete. Therefore, unless permanent closure has 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, shall be submitted in both hard copy and a Division-approved electronic format.
5. 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.
6. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
7. 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.
8. 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.
9. 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, analytical methods performed, laboratory reference numbers, sample dates, and laboratory test dates.
6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and 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 parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division. 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.410, 445A.412, 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: Natasha Zittel
Date: 27 March 2017

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