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

Permittee Name: **Nevada Gold Mines LLC**

Project Name: **Dee Gold Mine**

Permit Number: **NEV0050005**
Review Type/Year/Revision: **Renewal 2024, Fact Sheet Revision 00**

A. Location and General Description

Location:

The facility is located in Elko County, Sections 2, 3, 4, 9, 10, 15, and 16 of Township 36 North (T36N), Range 49 East (R49E) and Sections 28, 29, 32, 33, 34, and 35 of T37N, R49E. The Dee Gold Mine (Project) is located approximately 30 miles northwest of Carlin, Nevada.

The total disturbance for the Project is 803 acres. The private lands, approximately 8 acres, are owned or controlled by Nevada Gold Mines LLC. (Permittee) and the unpatented mining claims, approximately 795 acres, are held by the Permittee on U.S. Bureau of Land Management (BLM), Elko District Office, Tuscarora Field Office administered lands.

The Dee Gold Mine can be accessed from Interstate 80 via the Carlin exit, Exit 280 and traveling northwest on the Nevada State Route SR766 for approximately 27 miles via the Barrick Goldstrike facilities.

General Description:

The Project is in post-closure monitoring status. The operation consisted of one open pit, six waste rock storage facilities, three conventional cyanide heap leach pads (HLPs) 1-9, 10, and 11 (West Basin) each with associated pregnant (preg) and barren solution ponds and stormwater ponds, a conventional gold milling and crushing facility, two tailings impoundments, and ancillary support facilities.

B. Synopsis

History:

The Dee deposit was discovered in 1981 by Cordex geologist G.W. (Dee) Delamare. Heap Leaching began in 1981 with the development of two test heaps by the partnership of the Dee Gold Mining Company and Rayrock Mines Inc. Based upon the test data, a decision was made to proceed with production scale heap leaching. Full scale mining and processing operations at the Project commenced in 1984. In the 1980s, ownership of the Dee Mine was listed as Cordex Syndicate (Rayrock Yellowknife Resources 44%, International Corona Corp. 44%, and a private stake holder at 12%). In 1999, Glamis Gold Ltd. purchased Rayrock Yellowknife Resources Inc. and became the operator of the Dee Mine. In addition to open pit mining, the Glamis Dee Mining Company (DMC) began underground production from the Dee Deep North deposit in October 1999.

The original Water Pollution Control Permit (Permit) NEV50005 was issued in 1989 by the Nevada Division of Environmental Protection (Division). The open pit mine operated from 1984 through 2000. Beginning in 1999, the Project included an underground

operation in the bottom of the pit, which operated through 2000. In 2005, DMC entered into a joint venture agreement with Barrick Gold Corporation (Barrick Dee Mining Venture) to explore and further mine in the open pit. In November 2012, DMC sold its portion of ownership of the facility to Barrick Gold Exploration Inc. The Division was notified of the change in ownership, the Permit and Fact Sheet were updated and the Permit was transferred from DMC to the Permittee in May 2013. The Permit was renewed in 2018 with the Permittee name changing from Barrick Gold Exploration Inc. to Barrick Goldstrike Mines Inc. following submission of transfer documents.

In July 2019, Nevada Gold Mines LLC (NGM), a joint venture between Barrick Gold Corporation and Newmont Goldcorp Corporation was created. NGM represents the combination of various Nevada operations, of which the Dee Gold Mine is included. The 2019 Permit was renewed changing the Permittee from Barrick Goldstrike Mines, Inc. to NGM.

The Permittee had two active Water Pollution Control Permits at this site: the Dee Gold Mine Project and the Storm Underground Mine (NEV2004109); this allowed access into the open pit to conduct exploration drilling activities and underground mining in the Storm portal. However, the Storm orebody was mined out and went into closure in 2013.

The processing of the Project's ore was conducted through two types of hydrometallurgical processes, the high grade ore went through a conventional Carbon-in-Leach (CIL) and Carbon in Pulp (CIP) milling operation which began operation in September 1984; the remaining ore was processed on three heap leach facilities and corresponding Carbon-in-Column (CIC) plants. The mill facilities were shut down in early 2001 and closure was completed in 2005. Associated with the milling operation were two engineered tailings disposal facilities, Tailings Dam 1 (TD-1) and Tailings Dam 2 (TD-2). TD-2 closure was complete in 2003 and TD-1 closure was complete in 2005. The three heap leach facilities were closed in phases, with the Heap 1-3 being combined with Heap 4-9 as a single fluid management system (collectively Pad 9); closure was completed in 1999. Heap Leach Pad 10 (phase I-IV) closure was complete in the fall of 2000; Pad 11 (West Basin Heap Leach, phase I-IV) closure was complete in 2001.

The 2024 renewed Permit shall remain in effect until 5 August 2029.

Figure 1 below provides a site map including all components and monitoring locations specific to Dee Mine**.**

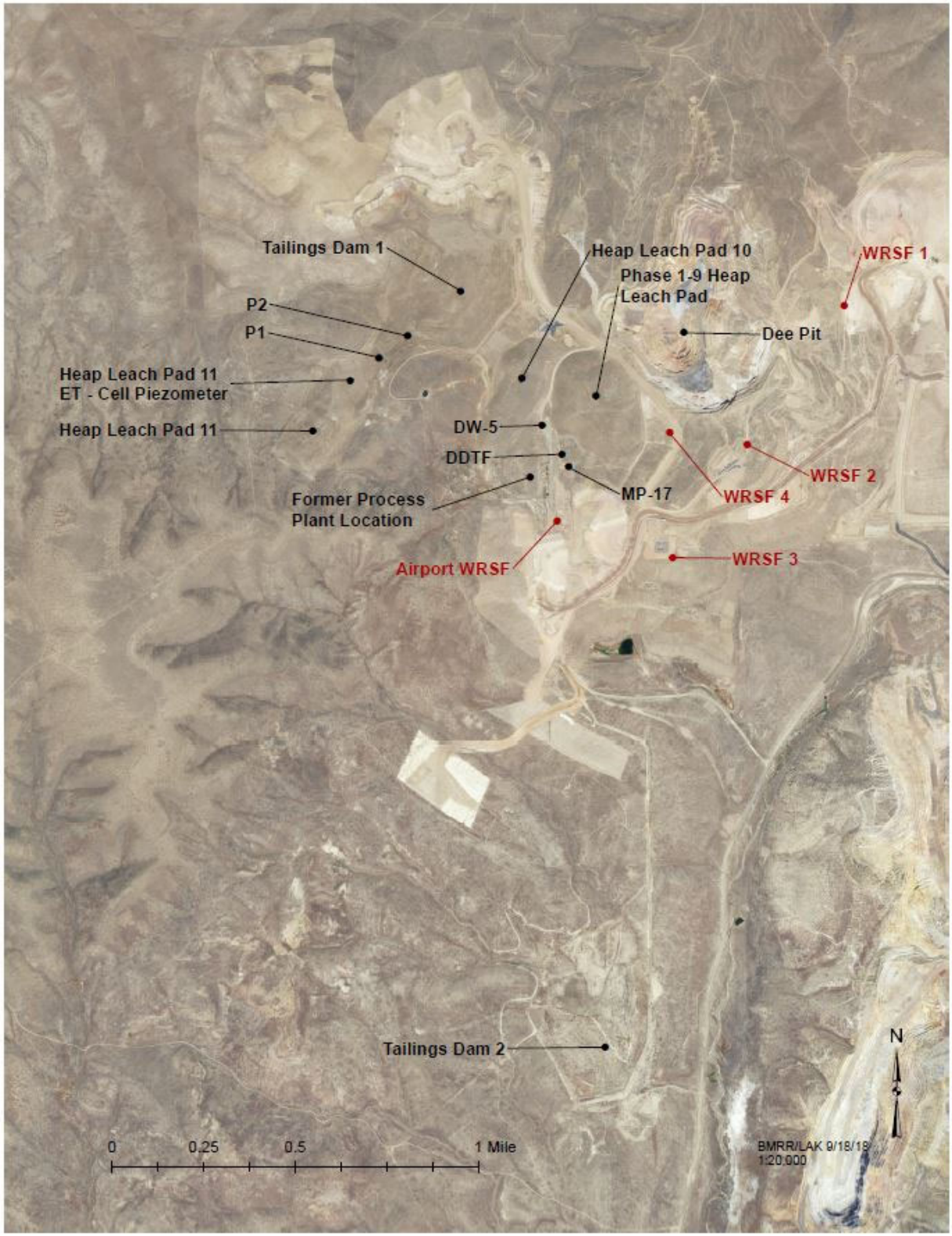

Figure 1: Dee Gold Mine facility locations.

Geology:

In general, the stratigraphy at the mine consists of Paleozoic chert with interbedded shale and limestone lenses overlain by a sequence of Quaternary and Tertiary alluvium, colluvium, and volcanic deposits. The Paleozoic rock section is westerly dipping, but is intensely contorted in fault zones.

The Dee Pit exposes four different rock units; from youngest to oldest:
- Tertiary Carlin Formation clays, silts, tuffs, and gravels;
- Devonian Rodeo Creek Formation laminated calcareous siltstones, mudstones and sandstones;
- Devonian Bootstrap Formation massive limestone; and
- Ordovician Vinini Formation cherts, shales, and mudstones.

Ninety-five percent of the rock mined from the pit was oxidized, and contained less than 0.5 percent (%) sulfides. The remaining 5 % of unoxidized material contains 0.5 % to 3.0 % pyrite, stibnite, and trace amounts of other sulfides. This unoxidized, carbonaceous, sulfide-bearing rock exists in a portion of the limey siltstones in the bottom 160 feet of the ultimate pit.

The Project is situated on a structural window through Ordovician siliciclastic rock that exposes Devonian carbonate rocks which are excellent hosts of gold mineralization. This window through the Roberts Mountain Thrust is called the Bootstrap Window and is located approximately 37 miles northwest of Elko, Nevada, within the Carlin Trend.

Pit

There is one open pit at the Project site; it is monitored under the Storm Underground Mine Permit (NEV2004109). It was partially backfilled with waste rock from the nearby portal and does not contain water.

Process facility

A Final Plan for Permanent Closure (FPPC) was submitted to the Division on 9 November 2001 titled *"Final Permanent Closure Plan – Facilities – Process and Non-Process Components"*. All process components were dismantled and removed between 2004 and 2005. The mill, shop, and warehouse buildings were dismantled and sold to salvage operations. In 2005, all mill and crusher foundations were broken up and buried with 5 feet of cover. The mill site, crusher, shop, warehouse, and office areas were then re-contoured, graded and seeded. All of the process and non-process facilities were closed per the FPPC in 2005 and documented in the reclamation release documents submitted to the Division.

Heap Leach Pads (3)

Heap leaching at the Project site began in 1984, prior to the 1989 promulgation of Nevada mining regulations, with the development of two test heaps. The test heaps were designed and constructed by Kappes, Cassiday & Associates of Reno, Nevada, with a clay subgrade and a polyvinyl chloride (PVC) liner. The solution draining from the test heaps reported to a preg pond through a set of CICs and then to a barren solution pond. Following completion of leaching, the leached material from the test pads was removed to TD-1.

Pads 1, 2, and 3 were constructed in 1984 similarly to the test heaps. The pads were constructed with a minimum of 2-feet of compacted clay. Solution ditches were also constructed with a clay layer and a 40-mil thick Hypalon™ (chlorosulfonated polyethylene synthetic rubber) liner placed over the clay. These three pads have not had application of process solution since 1988. The leached material on Pad 2 was moved to Pad 10 in 1995 for re-leaching. Both remaining pads utilized the solution ponds at Heap Leach Pads 4-9. The *"Final Permanent Closure Report for Heap Leach Pads 1, 2, 3, and Low Level Leach Dee Gold Mine"* was submitted to the Division in June 1995. The collection piping from pads 1-3 were connected to the Drain Down Treatment Facility (DDTF) at Pads 4-9 for post-closure monitoring. In 1998 DMC placed cover material on the heap leach pad complex starting at Heap Leach Pads 1-3, then extending to cover the Pad 4-9 complex. Final grading and seeding was complete in the fall of 1998.

Pads 4, 5, 6, 7, and 8 were designed, constructed and operated between 1985 and 1988. Pads 4, 5, and 6 were constructed with a clay subbase, while Pads 7 and 8 were modified to incorporate a high-density polyethylene (HDPE) pad liner over the 2-foot clay subbase. Pad 8 completed the liner between 4, 6, and 7. In 1992 the construction of Pad 9 allowed the incorporation of Pads 4-9 into one integrated facility, thereafter being treated as one facility, designated as Pad 4-9. DMC submitted a closure report for this facility titled, "*Final Permanent Closure Plan for the Dee Gold: Heaps 4 through 9"* on 30 August 1995. In April of 1998, DMC submitted an updated plan titled, *"Heap Leach Pads No. 4 – No. 9 Permanent Closure Plan"*.

The closure work completed included the following:

- Construction of an evapo-transpiration (ET) cover on Pads 1-9;
- Closure of the Pad 9 Barren Pond;
- Stabilization of Pad 9 through chemical treatment;
- Closure of the Pad 9 Preg Pond;
- Construction of the DDTF by converting the Pad 9 Preg Pond to a treatment basin; and,
- Closure of the Pad 9 Stormwater (Holding) Pond.

All re-sloping, grading and seeding of Pads 1-9 was completed by November 2000. See Table 1 for leach pad characteristics.

Heap Leach Pad 10 includes cells I – IV, preg and barren solution ponds, and a storm event pond. All phases of Leach Pad 10 are similarly designed. The leach pad and solution collection ditches are designed as double-lined systems and were equipped with leak detection and recovery systems. The primary liner consists of 60-mil HDPE placed over 12 inches of compacted clay. A total of 2.54 million tons of run-of-mine (uncrushed) ore was placed on Pad 10 from 1992 through 1995. Ore was placed in 20-foot lifts to an ultimate height of 100 feet. Production leaching operations began in 1992 and continued until the second quarter of 1995 when application of cyanide ceased. Freshwater rinsing was initiated in the fall of 1995, which continued during the summer months through the fall of 1998. In September of 1998 DMC submitted a closure plan to the Division for this facility titled, *"Dee Gold Mine Final Permanent Closure Plan for Heap Leach Pad 10"*.

The closure work completed includes the following:

- Construction of an ET Cover;
- Closure of the Storm Event Pond;
- Conversion of Pad 10 Barren Pond into an ET Cell for TD-1;
- Closure of Pad 10 Preg Pond; and,
- Pipe draindown to Pad 9 DDTF.

All re-sloping, grading and seeding of Pad 10 was completed by November 2001.

Heap Leach Pad 11 (Phase I – IV) (West Basin Heap Leach) and associated ponds were Permitted in 1994, as part of the Permit renewal application. Although Phases II, III, and IV were permitted, they were never constructed. Only Phase I, cell 1 and cell 2 were completed. A total of 2.82 million tons of run-of-mine ore was stacked on Pad 11. Production leaching operations began in May 1995 and continued until the third quarter of 2000 when application of cyanide ceased. Fresh water rinsing took place during the fall of 2000, after which the heap was allowed to drain. A report titled, *"Final Permanent Closure Plan for Heap Leach Pad 11 – West Basin"* was submitted to the Division and the BLM in May 2001.

The closure work completed includes the following:

- Construction of an ET cover;
- Construction of ET Cell in the Pregnant Pond;
- Closure of Barren Pond and pond leak detection ports; and
- Closure of leak detection and recovery (LDR) systems for collection ditches.

All re-sloping, grading and seeding of the heap was completed by the winter of 2001/2002.

Table 1: Heap Leach Pad Characteristics

Pad	Pad Size (acres)	Pad Base[(a)]	Begin Operations	Complete Operations	Complete Closure	Total Height (feet)	Total Tons
Test	0.78	8 in. clay	Oct 1984	Apr 1985	1985	20	28,500
1	2.70	2 ft. clay	Apr 1985	Jun 1988	1998	48	173,650
2	1.96	2 ft. clay	Jun 1985	Sep 1986	1995	51	157,925
3	1.25	2 ft. clay	Jul 1985	Nov 1987	1998	44	93,210
4	5.77	2 ft. clay	Mar 1986	Mar 1994	1998	95	623,425
5	3.81	2 ft. clay	Jun 1985	Mar 1994	1998	66	292,755
6	4.32	2 ft. clay	Jan 1987	Mar 1994	1998	62	436,437
7	3.50	2 ft. clay & 40-mil HDPE	Aug 1988	Mar 1994	1998	51	250,796
8	2.08	2 ft. clay & 60-mil HDPE	Dec 1988	Mar 1994	1998	128	843,415
9	2.22	2 ft. clay & 40-mil PVC	Mar 1992	Mar 1994	1998	110	701,040
10	19	1 ft. clay & 60-mil HDPE	May 1995	Sep 2000	2000	100	2,400,000
11	45	1 ft. clay & 60-mil HDPE	May 1995	Sep 2000	2002	200	3,000,000

The current Arturo Mine (Water Pollution Control Permit [WPCP] NEV2013101) mine plan calls for the existing Dee HLPs (No. 1-11), now located within the footprint of the Arturo Mine West Waste Rock Dump Facility (WRDF), to be excavated and the material

relocated to the proposed Arturo Mine HLP 12 facility. The existing heap leach pad liners and drainage systems will be excavated and placed within the proposed Arturo Mine West WRDF.

Process Ponds (8)

A total of eight process ponds were constructed at the Project site, a preg, barren, and stormwater pond for each of the Pad 9 and 10 complexes, and a preg and barren pond at the Pad 11 complex. The Pad 10 basins also included an emergency overflow pond. All ponds have been closed and reclaimed.

Pregnant Pond 9 was constructed in spring 1985. A leak detection system consisting of French drains was cut into the clay and backfilled with gravel around a 2-inch diameter perforated drain pipe. Drains were connected to a sump in the southeast corner of the pond.

In 1994, elevated cyanide levels were detected in surface monitoring site US1. An investigation into the source of the cyanide levels identified a breach in the 40-mil HDPE primary liner of the Pad 9 preg pond. The pond was drained and inspected. Based upon the results of the inspection, age of the liner, and the pre-regulation status of the facility, DMC chose to upgrade the pond liner system to present regulatory standards.

DMC conducted the following activities to upgrade the pond to present regulatory standards:

- Inspected and repaired the existing 40-mil HDPE liner;
- Identified a low area in the pond and installed a 6-inch diameter HDPE pipe along the pond side. This pipe was installed above the 40-mil HDPE liner;
- Installed geonet above the 40-mil HDPE liner; and
- Relined the entire pond with 60-mil HDPE liner.

On 6 April 1998, DMC submitted a revised closure plan of the Pad 4-9 facility in the report *"Final Closure Plan of Heap Leach 4-9"*. The Permittee proposed a number of scenarios for the management of the draindown including treatment, soil attenuation via a leach field, and a combination of a bioreactor with a leach field. Design considerations included in-situ soils or run-of-mine materials. The final decision was a treatment facility partially back-filled with material to store and passively treat the draindown, including facilitating plant growth on the cap. One half of the treatment basin was designed to act as a wetland and the other as a dry ET facility. The Division has been unable to locate the as-built documents for the treatment basin.

Construction of the Pad 9 Barren Pond was completed during the summer of 1985. It was constructed with a clay base and was equipped with a leak detection system. The primary liner was constructed with 60-mil HDPE. An underdrain system was used to collect solution from the pond. The pond was modified in 1994 and equipped with secondary containment. DMC designed and installed a gravity overflow system; to accomplish this, the pond liner was cut, two 6-inch diameter HDPE pipes were installed with the invert of the pipe at a minimum of 2-feet below the crest of the pond, the pipes were booted through the liners, and the discharge of the pipes were placed in the existing storm event pond.

The Pad 9 Stormwater Pond construction involved the modification of the previous dual preg/barren ponds that were used for the 1984 test heaps. The dual ponds were used

periodically as a stormwater pond from 1985 to 1989. Upon completion of the last phase of Pad 9 construction the Hypalon™ liner in the dual pond was removed and replaced with an HDPE liner. At the same time, the capacity of the pond was expanded by removing the central berm. This pond provided added storm event storage capacity. The Pad 9 stormwater pond was deemed a holding pond for the Pad 9 draindown solution while the DDTF was being constructed in 2000. When the DDTF was commissioned, and the heap solution was directed to the treatment facility, the stormwater pond was kept in service for a few years to manage solutions if needed. The Pad 9 Stormwater Pond was closed and backfilled in 2003.

The Pad 10 Heap Leach facility consisted of preg, barren, and overflow ponds (with the latter being referred to as the "Storm Event Pond") constructed in July 1992. The Pad 10 preg and barren ponds were double-lined and equipped with leak detection systems. The primary liners consisted of 60-mil HDPE with a 40-mil HDPE secondary liner in the two process ponds. A geo-grid drainage layer placed between the primary and secondary liners served as a leak detection layer. The geonet layer drained to a leachate collection and riser sump where solution could be extracted and sampled. The Pad 10 overflow pond was single-lined with 60-mil HDPE and a leak detection and recovery pipe.

During excavation of the Pad 10 preg and barren ponds, groundwater was intercepted. An inspection of the excavation revealed that a small perched water table had developed on the old topsoil surface buried by valley fill. A sump was excavated in the bottom of each pond and water was pumped out into the adjacent drainage. A permanent gravel-filled ditch and sump were constructed in the preg and barren ponds. A 10-inch diameter access pipe was installed into the dewatering sump to facilitate the removal of any additional perched water. In 1995 after being in service for 3 years, the preg pond was bypassed and re-permitted as a single-lined pond due to chronic leakage from the primary liner.

A report titled, *"Dee Gold Mine Final Permanent Closure Plan for Heap Leach Pad 10"* was submitted to the Division and BLM in September 1998 as the FPPC for the closure of the preg, barren, and overflow ponds. In July 2000, due to the final sloping required on the leach pad, the Pad 10 overflow pond was closed. DMC submitted a request titled *"Heap Leach Pad 10 Storm Event Pond Closure"* to the Division and the BLM, which was approved in August 2000. The pond liner was cut, folded and buried by the sloping of the Heap Leach 10. A closure report titled, "*Heap Leach Pad 10 Storm Event Pond Closure; Final Report"* was submitted in September 2000.

In December 2001, a report titled, *"Heap Leach Pad 10 Closure of Process Components Report"* was submitted; it chronicles the closure of the Pad 10 Preg Pond and the piping of the 10 Heap Leach draindown to the DDTF. During the summer of 2001, DMC completed the cleaning of sludge in the solution ponds at Pad 10 by washing the sludge to a collection point where the slurry was pumped to TD-1. Both the Pad 10 preg and barren ponds were cleaned in this manner.

Draindown from Pad 10 was diverted temporarily to the barren pond to allow for closure of the preg pond. The liner was cut and folded into the center, and the pond was backfilled with inert overburden fill, sloped and covered by the final sloping of the 10 Heap Leach. The Pad 10 draindown solution was then piped to the engineered DDTF for final treatment and to allow the closure of the Pad 10 Barren Pond.

The Pad 10 Barren Pond was closed as an ET basin to serve primarily as a secondary overflow for the adjacent TD-1 Collection Sump. This work was completed in the fall of 2002 and the as-built was submitted to the Division and BLM in September 2002.

The Pad 11 process ponds were designed and constructed in 1994 along with the pad construction. The preg and barren solution ponds are double-lined and equipped with leak detection systems that report to TD-1. The ponds were designed and constructed to accommodate an operating solution volume of 1-million gallons plus a 100-year, 24-hour storm event. Total pond capacity including the center connecting slot is 4 million gallons. No storm event pond was constructed because of the proximity of the TD-1 facility to act in this capacity.

The Pad 11 Preg and Barren Ponds were constructed similarly with a geo-grid drainage layer placed between the primary and secondary synthetic liners that served as the leak detection layer. The geonet layer drains to a leachate collection sump which was piped horizontally through the pond embankment.

A report titled, *"Final Permanent Closure Plan for Heap Leach Pad 11 – West Basin"* was submitted to the Division and BLM in May 2001. The Pad 11 Barren Pond was closed in the 2nd Quarter 2002 by placing hydrocarbon-contaminated soil from the wash pad collection sump into the bottom of the pond, cutting and folding the liner over the material, and burying the pond with overburden fill. The Pad 11 Preg Pond was transformed into an ET Cell within the pond liner system in the 3rd quarter 2002. A 10-inch diameter slotted PVC pipe (Pad 11 ET piezometer) was inserted into the low point of ET Cell 1 for monitoring of solution level and chemistry. The Pad 11 ET piezometer was sampled for the first time in the 4th quarter of 2002. See Table 2 for pond details.

A second cell, ET Cell 2, was constructed (date unknown) immediately downgradient of ET Cell 1 as a dirt fill pond (thought to be unlined but not confirmed) containing perforated pipes, a piezometer (P1), and a control valve. The control valve, which remains in the open position, is located on the ET Cell 2 dike; the dike forces solution to collect on the downstream side of the cell and minimizes surface expression. As an additional safety feature, a pipe was installed through the Cell 2 dike to allow flow to the ET field below ET Cell 2. The ET field has a piezometer, P2, and control valve to allow flow to TD1, as needed. Water quality at P1 and P2 is monitored on a semi-annual basis.

On 20 September 2024, the Division approved excavation and burial of the overflow pipe connecting HLP-11's ET-Cell 2 to Tailings Dam 1 (TD-1) as the minimal draindown flow can be managed by ET-Cell 2. This work was completed by Canyon Construction early October 2024 and the quality control completed by Newfields. The Record of Construction (ROC) was submitted to the Division on 2 December 2024 and is currently under review.

Table 2: Pond Construction Details

Solution Pond	Primary Liner	Secondary Layer/Liner	Begin Construction	Complete Construction	Complete Closure
9 Pregnant	40-mil HDPE 60-mil HDPE	+2 ft. clay 40-mil HDPE	2/17/85	4/17/85	2000
9 Barren	60-mil HDPE	+2 ft. clay	5/19/85	8/9/85	1999
9 Storm	60-mil HDPE	+2 ft. clay	9/2/84	9/23/84	2003
10 Pregnant	60-mil HDPE	40-mil HDPE	6/15/92	9/16/92	2001
10 Barren	60-mil HDPE	40-mil HDPE	6/15/92	9/16/92	2002
10 Storm	60-mil HDPE	40-mil HDPE	6/15/02	9/16/92	2000
11 Pregnant	60-mil HDPE	60-mil HDPE	4/01/94	11/1/94	2002
11 Barren	60-mil HDPE	60-mil HDPE	4/1/94	11/1/94	2002

The 2018 Permit renewal included a schedule of compliance (SOC) item requiring an investigation and report on the design, functional status, and potential for groundwater degradation from the Pad 11 ET Cell, piezometer, and ancillary pipes and valves.

As per SOC Item I.B.3 of the 2018 Permit renewal, the Permittee submitted the required information on 15 January 2019. Following review and comment, the Division approved the investigation report on 12 March 2019, thereby formally closing out the SOC item.

Heap Leach Pad Draindown Treatment Facility

The DDTF was designed, engineered, and built in 2000 to manage the solutions from the Pad 9 and, later, Pad 10 heap leach facilities. It was designed by Shepherd Miller, Inc. (SMI) and submitted to the Division in June 2000. The facility was designed to contain materials which promote attenuation of various constituents of the pad draindown and forms both a woodland (north basin) and a wetland (south basin) environment to facilitate evapo-transpiration of pad solutions. DMC submitted a report titled *"Drain-down Solution Treatment Design"* dated June 2000 by SMI for the facility. After approvals and closure of the preg pond, the DDTF was constructed in the area formerly occupied by the Pad 9 Preg Pond. An as-built report titled *"Dee Gold Mine Heap Leach Drain Down Treatment Facility"*, dated 16 November 2000 by SRK Consulting, was submitted and approved by the Division to divert draindown from Pad 4 thru 9 into the DDTF where it is discharged to the environment. It was constructed by converting the Pad 1-9 Preg Pond to a treatment cell. The sludge was removed and placed on Pad 11. Both the primary and secondary liners in the pond were moved to a corner of the pond and buried under the access road. The pond's underlying clay layer was ripped. A French drain constructed of 4-inch diameter perforated pipe was installed on the north and east sides of the basin to prevent surface runoff from entering the DDTF. The perforated pipe was then buried in limestone. Draindown from the heap leach pad was diverted to the storm water (overflow) pond while construction took place.

The denuded Preg Pond was then partially backfilled with run-of-mine overburden from the Vinini Formation. The wetland area of the DDTF was smooth-rolled with a compactor. A pipe corridor was installed in a 1% grade from a dosing tank to the distribution boxes. Clay was used to form containment berms within the wetland area on the west, north, and

east sides. The berms were then drum rolled for compaction. One foot of compacted clay was installed for the base of the wetland area. The base was sloped at +/- 0.5% slope away from the distribution boxes, located along the east side of the basin. Six-inch schedule 40 polyvinyl chloride (PVC) pipe was installed from the dosing tank to the distribution boxes; 4-inch diameter schedule 40 PVC pipes were attached to the distribution boxes and run to the basin's clay bottom. These were then attached to 4-inch diameter perforated pipe for draindown dispersal. Vinini chert was placed on top of the perforated pipe to provide adequate drainage. Four feet of alternating Vinini formation material and growth media made up the remainder of the backfill for the wetland portion of the DDTF.

Construction of the woodland side of the DDTF was basically the same as the wetland area with the difference of a ripped floor to enhance infiltration. Four feet of Vinini Formation material and growth media were installed as the remainder of the pond backfill.

In the fall of 2000, DMC initiated the vegetation of the DDTF by harrow applying standard seed mix on the woodland side and a selected wetland mix for the saturated area. DMC also planted several hundred willow cuttings in the wetland for germination in the spring of 2001. In May 2001, DMC also planted 800 saplings of willow, cottonwood, pinion, juniper and Ponderosa pine in the combined fields. In 2001, approval was given by the Division to divert the draindown from Pad 10 into the DDTF.

The 2018 Permit renewal included an SOC item requiring an investigation of the DDTF and the ancillary piezometer MP-17. A Corrective Action Plan (CAP) is required if there is actual or potential groundwater degradation.

On 15 January 2019, as required per SOC Item I.B.2 of the 2018 Permit renewal, the Permittee submitted a work plan for the investigation of the DDTF and MP-17. Following review and comment, the Division approved the work plan on 5 March 2019. The approved work plan included the simultaneous injection of two tracers into the DDTF. MP-17 will be monitored on a weekly basis for a minimum of 12 weeks. The Permittee began the tracer test in early May 2019 and was conducting the approved monitoring during the 2019 Permit renewal. The 2019 Permit renewal includes an SOC item requiring the completion and reporting of the investigation.

Beginning in May 2019, the Permittee commenced a study utilizing the concurrent injection of dye tracers. The Study entailed the direct injection of approximately 4,000 gallons of warm dewatering water containing 20 kilograms of reagent grade potassium bromide salt and ~630 milliliters (mL) of 21% rhodamine WT dye into the DDTF piezometer. Prior to injection, samples were collected from both the DDTF and MP-17 to determine background nitrate/nitrite, bromide, and rhodamine WT concentration. Post-injection sampling began on the following day and then twice a week for the next 13 consecutive weeks.

In October 2019, the Permittee submitted the results of the tracer study. The Study indicated no evidence of tracer compound migration from the DDTF to MP-17, therefore, the DDTF appears to be functioning as designed and is not a source of degradation to MP-17. The Division approved the Study in December 2019.

As a result of the Study, the source of nitrate degradation was still unknown. Upon further investigation, e.g. review of archived documents, it was determined that during active

operations, investigations indicated that a major source of cyanide in the heap leach area was due to small punctures and tears in the pregnant pond liner. Based on the data provided in the historical documents, the Division believes that the nitrate concentrations exhibited at MP-17 may be a vestige of historic releases. As such, based upon the age and nature of historic releases and the lack of evidence of ongoing or potential sources of groundwater contamination, the Division has determined that no remedial action is warranted at the present time.

During a closure inspection on 29 September 2022, a large rill on the western perimeter of the Phase 1-9 HLP was discovered to be cutting through the reclamation cover layers and eroding into the spent ore. The eroded material was deposited in a small stormwater basin off of the clay lined containment at the edge of the HLP. A repair plan was submitted by NGM in December 2022 and following discussions, a revised plan was submitted in August 2023 with Division approval on 24 August 2023. During the September 2023 closure inspection, additional repairs were requested by the Division which included construction of a protective berm around well DW-5 and repairs to the stormwater management features (basin and channels) adjacent to the area of rilling. Work was conducted and repairs completed in early November 2023; This included installation of a culvert on the southeast corner of the pond where meteoric water can flow to the DDTF if needed.

Tailings Impoundments (2)

The unlined Tailings Dam 1 (TD-1) was constructed by DMC in multiple stages beginning in 1984 (prior to the 1989 promulgation of Division mining regulations), with the final lift completed in 2000. The facility operated intermittently from 1984 until the mill closed in January 2001. A total of 3.6 million tons of tailings are stored in the 87-acre impoundment. A report titled, *"Final Permanent Closure Plan Tailings Dam 1"* was submitted to the Division and the BLM in July 2001. In June 2001, DMC completed construction of a permanent sump at the toe of the blanket drain of TD-1. A formal closure plan for the TD-1 Sump LDR system was submitted as a separate document. Approval was granted by the Division to close the TD-1 Sump per the closure plan, and in late 2001, the sump was buried and the drain pipe was directed to the Pad 10 Barren Pond (ET Cell). All reclaim solution was evaporated and placement of an overburden cover was completed in 2005. An engineering design change (EDC) to complete final closure was submitted and approved by the Division in September 2004. In October 2004, tails were covered and a stormwater diversion channel was constructed to collect and divert water from the tailings. All remaining tailings were reclaimed during the 3rd quarter of 2005 and seeding was completed in November of that year.

On 25 September 2024, an EDC was approved to allow the existing closed TD-1 facility to be over-dumped with a maximum of 50 feet of run-of-mine (ROM) waste from the Arturo Pit with the contingency that it will not impact the existing TD-1, HLP-10, or HLP-11 containment or seepage collection systems. The placement of 50 feet of waste rock over TD-1 is anticipated to produce a short term (3-5 years) increase in draindown from the tailings. The TD-1 ET Cell will continue to collect and manage seepage water from TD-1 during construction. The piezometer located within TD-1 ET Cell (TD1-PZ) will be monitored monthly for collar and water elevation and quarterly for a Profile 1 analysis in

both the Dee and Arturo Permits as soon as the EDC buttress work commences. If construction is delayed or postponed, NGM may request a reduction in monitoring frequency from monthly to quarterly for collar and water elevation, provided that draindown flowrates remain stable or decrease. Once construction has resumed, NGM will resume monthly monitoring at TD1-PZ for collar and water elevation. Monthly monitoring will be provided in quarterly reports.

Tailings Dam 2 (TD-2) is unlined and was constructed by DMC in two stages beginning in 1986, with the final lift completed in 1987 and a maximum height of 60 feet, covering 67 acres. TD-2 was placed into service in the fall of 1986 and operated intermittently until 1999. A total of 2.5 million tons of tailings are stored in the impoundment. In January of 1990, a seep was discovered below TD-2. Field investigations indicated that solution was seeping under the dam and into the drainage blanket. A French drain interceptor trench with a pump-back recovery system was immediately installed to contain the seepage. Subsequently, another seep was discovered 800 feet north of the French drain system. DMC instituted a monitoring and remediation system to control and collect seepage. A report titled, *"Final Permanent Closure Plan for Dee Gold Tailing Dam 2"* was submitted to the Division and the BLM in December 1995. DMC constructed an inert overburden cover in the TD-2 impoundment in a series of stages, incorporating both growth media cover and inert overburden cover. Surface runoff was directed away from the face of the dam, and utilizing drainage channels consisting of run-of-mine material to prevent erosion, off the rear of the impoundment.

The TD-2 Remediation System was shut down on 26 September 2002, with the approval from the Division. The closure report was submitted to the Division and BLM for approval on 7 October 2002; it was approved by the Division on 30 October 2002, and the BLM on 18 November 2002. Monitoring and remediated system wells were plugged, and the facility was closed and all reclamation work completed by September 2003; the facility was removed from Permit monitoring requirements.

Underground

Construction of the Dee North Underground Mine commenced in February 1999 and concluded the first week of December 2000. Development was through a decline established in the northeast wall of the Dee Pit. Ore was processed at the existing process plant. The area was mined through Zone 5 at the 5,090 feet above mean sea level (AMSL). This area is now included with Barrick's Storm Underground Mine Project (WPCP NEV2004109).

Waste Rock Storage Facilities (WRSF) (6)

WRSFs numbers 1-4 were constructed concurrently with the onset of mining operations. The Airport and Phase B WRSFs were added in 1994 and 1995, respectively. The WRSFs are composed of greater than 99 % oxide rock lithologies. Each of the WRSFs was reclaimed to a final slope of 2.5 Horizontal (H):1 Vertical (V) to 3H:1V. Reclamation (grading and seeding) on the final portion of the waste rock stockpile and several ancillary roads was completed between 2004 and 2005 with the exception of the Airport WRSF.

The location of the Phase B WRSF is not clear, but is presumed to be part of the Airport WRSF. The latter has since been covered by the Arturo Mine (WPCP NEV2013101) West

WRSF; very little of it remains in daylight. The Arturo Mine (WPCP NEV2013101) plan calls for the East WRSF to over-dump the Dee Mine 1 – 4 WRSFs. As a result, all 6 of the Dee WRSFs have had monitoring requirements removed from WPCP NEV0050005 2018 Permit renewal.

Monitoring Well and Piezometers

Monitoring well DW-5 has previously been included with the Storm Underground Mine Permit. As of the 2018 Renewal of the Dee Mine Permit, the Division decided to include the well in NEV0050005 as it is adjacent to the DDTF. Per the Annual 2017 Monitoring Report (22 February 2018), the depth to water in this well is 2,077 feet below ground surface (bgs) due to the cone of depression caused by the Nevada Gold Mines LLC North Block Project (WPCP NEV0091029) dewatering activities. Repeated problems with sampling this well has led the Permittee to request the Division to approve the American Society for Testing and Materials (ASTM) D7929-14 method for HydraSleeve. The Division approved this passive method for sampling on 19 December 2017. Sampling has resumed and results are included in Table 3 below. DW-5 has been sampled since 2006 and was first reported dry in the second quarter of 2022. NGM requested a temporary reduction in monitoring as there is additional risk of monitoring equipment getting caught in the 2,000 foot deep dry well. As approved in the EDC dated 30 January 2023, sampling of DW-5 would be reduced to BIENNIAL (every other year, odd years) on contingency that if there is overdumping in the vicinity of DW-5, becomes inaccessible, or rendered inoperable, then a new monitoring well must be installed as it is the only deep well in the area for groundwater monitoring. Monitoring of DW-5 will resume once dewatering at the Goldstrike Mine ceases, currently projected for 2033. All other monitoring wells installed for the active mining operation in the 1980s and 90s have been closed per Nevada Division of Water Resources regulations.

Piezometer MP-17 was installed downgradient of the DDTF and is monitored semi-annually. Depth to water averaged 4.3 feet bgs over the 2nd Quarter 2023 and 4th Quarter 2024 . The piezometer measures water downgradient of the DDTF basins in the drainage basin between the DDTF and Airport WRSF. The 2018 Permit renewal included an SOC item requiring the Permittee to determine if the water in MP-17 represents degraded groundwater or a temporary infiltration mound. The Permittee conducted a tracer study in October 2019 which resulted in no evidence of degradation and was approved by the Division in December 2019. The Division further concluded that the nitrate concentrations exhibited at MP-17 may be a vestige of historic releases, possible contribution from leakage at the Pad 9 PVC lined ditch.

The Pad 11 Piezometer was installed in ET Cell 1 adjacent to the Heap 11 Pad; Piezometers P1 and P2 were installed in Pad 11 ET Cell 2.

Table 3 (below) represents the most recent solution concentrations only for constituents considered of interest or currently elevated.

Table 3: Monitoring Location Data

Constituents of Concern	Division Profile I Reference Values (mg/L)	DW-5[(a)] Concentration as of 2Q2021 (mg/L)	DDTF[(a)] Concentration as of 2Q2024 (mg/L)	Pad 11 Piezometer Current Concentration as of 2Q2024 (mg/L)	Pad 11 Piezometer Current Concentration as of 2Q2024
Lab test date	…	4-15-2020	6-18-2024	6-18-2024	6-18-2024
Aluminum	0.2	<0.050	<0.080	<0.080	<0.080
Antimony	0.006	<0.0025	0.0826	0.00294	0.665
Arsenic	0.01	<0.005	0.143	0.0294	0.139
Cadmium	0.005	<0.001	<0.0020	<0.0020	<0.0020
Fluoride	4	1.1	1.43	0.489	2.77
Iron	0.6	<0.1	0.175	<0.100	0.182
Magnesium	150	14	19.6	29.4	35.2
Manganese	0.1	0.063	<0.015	0.0946	<0.0080
Mercury	0.002	<0.00045	<0.000200	<0.000200	<0.000200
Nitrate + Nitrite (as N)	10	<0.1	25.6	14.1	25.8
pH (SU)[(b)]	6.5 – 8.5	7.49	7.9	7.7	8.86
Selenium	0.05	<0.005	0. 025	0.00986	0.0938
Sulfate	500	4.7	180	233	487
Total Dissolved Solids	1,000	310	893.7	832	1048
WAD Cyanide	0.20	<0.010	0.0268	<0.0050	0.044

(a) DW-5 last sampled in 2nd Quarter 2021, has remained dry since
(b) SU = Standard Units

C. Receiving Water Characteristics

In 1990, prior to active dewatering, the static water elevation beneath the pit was 5,070 feet AMSL. By April 2000, the static water elevation in the pit area decreased to 3,678 feet AMSL, due to the dewatering activities of a neighboring mine. The pre-mining depth to groundwater in the vicinity of the mine was estimated at 290 feet bgs, or 4,780 feet AMSL. Annual precipitation ranges from 7 to 12 inches per year with a pan evaporation of 42 inches per year.

Groundwater occurs in the surficial sediments, the Carlin Formation and bedrock of the Roberts Mountain Formation. The occurrence of groundwater is complicated and tends to be related to the lithology. Where the sediments are dominated by continuous layers of fine-grained and clay-rich material, water levels are higher and might be considered perched. The complex sequence of surficial sediments shows typical semi-confined conditions with the upper layers being unconfined.

Groundwater in the underlying Carlin Formation is probably in continuity with the overlying sediments. Flow in the unit is controlled by its lithology and groundwater conditions can be considered to be semi-confined rather than confined since vertical flow is apparently taking place.

Surface water is located within the Boulder Creek watershed within the Boulder Flat Hydrographic Area 61. The headwaters of Boulder Creek are in the Tuscarora Mountains located east of the Arturo Mine (WPCP NEV2013101). The Project area is dominated by unnamed, relatively steep, ephemeral channels that drain toward Boulder Creek. Boulder Creek in located immediately east of the Project area. The stream is typically dry from late

June or July until March. Antelope Creek is approximately 1.8 miles to the northwest of TD-1. No perennial streams reach the Project area.

Three small unlined stormwater impoundments currently exist within the Project area that are used for runoff management and sediment control for the Arturo Mine Project (WPCP NEV2013101) or stock watering. The largest of these is approximately 2 acres in size, which was built in 1964 by the BLM as a detention pond to reduce sedimentation in the Boulder Creek resulting from wildfires and was modified by the DMC over time. An additional impoundment is located a short distance downgradient. The upper impoundment receives surface runoff from the existing Dee Mine Project components as well as waste rock seepage from the Airport WRSF through a limestone-filled French drain. The lower impoundment was originally created as a temporary stock watering feature. The third impoundment is a small detention pond located outside of the Project area in Section 15, Township 36 North, Range 49 East, Mount Diablo Baseline and Meridian. Additional stormwater controls have been constructed to support the Arturo Mine Project (WPCP NEV2013101) as needed.

Seeps occur within the mine boundary and several are associated with historic sediment and runoff control features, while others are at or near the toes of the existing WRSF (Cedar Creek, 2009). No flow monitoring is required due to the flows being either non-existent or small and seasonal. Water quality monitoring of the seep and upper retention basin, associated with the Airport WRSF, is covered under the Arturo Mine Project (WPCP NEV2013101) and consist of Division Profile I analyses on a quarterly basis. The Dee Gold Mine Permit (NEV0050005) does not require monitoring of WRSFs.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the facility to construct, operate and close, subject to the conditions within the Permit, is being published on the Division website: https://ndep.nv.gov/posts/category/land. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date the public notice is posted to the Division website. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, or intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

E. Proposed Determination

The Division has made the tentative determination to issue the renewed Permit.

F. Pathway to Final Closure and Permit Termination

In accordance with NAC 445A.409 and 445A.446, for final closure and Permit termination the Permittee must demonstrate to the Division that: 1) all sources at the facility have been stabilized, removed, or mitigated; 2) any applicable requirements in NAC 445A.429, 445A.430, and 445A.431 have been achieved; and 3) sufficient post-closure monitoring has occurred to verify the adequacy of these actions to ensure the long-term protection of waters of the State, human health, and wildlife under the physical, chemical, and climatic conditions reasonably expected to occur at the site. If the facility includes a long-term trust and/or requires perpetual treatment or maintenance, post-closure monitoring may never be reached and the Division may not be able to terminate the Permit.

The pathway to final closure and Permit termination at this facility includes the following specific actions:

- Monitor the facility through major storms and large winter/spring seasons to verify that closed components and the fluid management system remain functional with no potential for degradation of waters of the State;
- Discuss with the Division whether the facility is ready for final closure and Permit termination. If so, submit for review and approval a request for final closure and Permit termination including a demonstration of compliance with all applicable closure requirements (e.g., NAC 445A.379, 445A.409, 445A.424, 445A.429, 445A.430, 445A.431, 445A.446, 445A.447).

The Division may require additional actions if warranted in accordance with site conditions and applicable statutes, regulations, orders, and Permit conditions.

G. Rationale for Permit Requirements

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, except as approved by the Division in accordance with NAC 445A.432, the facility must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The 2024 Permit renewal includes an SOC item to update the FPPC incorporating any new site information that may impact these plans.

The primary method for determining compliance with Permit conditions will be placed on required routine sampling of the monitoring well and piezometers as well as visual inspections of closed facilities. Specific monitoring requirements can be found in the Water Pollution Control Permit.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 CFR Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service (the Service) is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance

with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Crystal Borotto
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