



Freeport-McMoRan Chino Mines Company
P.O. Box 10
Bayard, NM 88023

Sherry Burt-Kested
Manager, Environmental Services
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September 24, 2020

Priority Mail

Mr. Jerry Schoeppner
Director, Energy, Minerals and Natural Resources Department
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Schoeppner:

Re: Freeport-McMoRan Chino Mines Company
Mining Act Permit No. GR009RE Revision 18-1

Enclosed for your signature is Permit No. GR009RE Revision 18-1 with the signature of the authorized representative of Freeport-McMoRan Chino Mines Company (Chino). Chino thanks both the Mining and Minerals Division and the New Mexico Environment Department for the many hours of collaborative work to update Chino's Closure / Closeout Plan and issue this revised permit.

If you have any questions, please contact me at 575-912-5927.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sherry Burt-Kested".

Sherry Burt-Kested, Manager
Environmental Services
2020924-001

cc: (email) Holland Shepherd, EMNRD MMD
cc: (email) Kurt Volbrecht, NMED

REISSUED PERMIT NO. GR009RE
PERMIT REVISION 18-1: UPDATED SITE WIDE CLOSURE/CLOSEOUT PLAN
CHINO MINE
EXISTING MINING OPERATION

MINING AND MINERALS DIVISION
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

This Permit No. GR009RE is reissued under Permit Revision 18-1 (“Permit” or “Revision 18-1”) by the Director of the Mining and Minerals Division (“MMD”) of the New Mexico Energy, Minerals and Natural Resources Department to:

Freeport-McMoRan Chino Mines Company (“Chino”)

(“Permittee”) for the Chino Mine, located in Grant County, New Mexico, whose mailing address is:

P.O. Box 10
Bayard, NM 88023

This reissued Permit No. GR009RE/Permit Revision 18-1:

1. Approves and incorporates an updated Closeout Plan and Cost Estimate for the Chino Mine, Permit No. GR009RE;
2. Approves the financial assurance (“FA”) in the total Net Present Value (“NPV”) amount of \$228,393,363 held in a Cash Trust and through a Third Party Guarantee. Also held as FA are individual surety bonds retained for the Chino North Haul Road, 3A Stockpile and North Lampbright Waste Rock Stockpile. The total FA retained is \$237,278,796.
3. Supplants and supersedes earlier modifications and revisions related to Permit No. GR009RE. To the extent that the provisions and requirements of this Revision 18-1 conflict with the provisions and requirements of the Modifications identified below, the provisions and requirements of this Revision 18-1 shall govern.
 - a. Modification 04-1, a change to the reclamation schedule.
 - b. Modification 05-1, a reduction to 12” of cover material required at Groundhog No. 5.
 - c. Modification 06-1, a deletion of Permit Section 8.T; requirement for Chino to provide a revised Closeout Plan application by August 31, 2008; modifying language requiring both paper and electronic copies of the submittal; changes the approved Design Limits map for the North Mine Area.
 - d. Modification 06-2, an adjustment of the financial assurance amount by eliminating the formerly required New Mexico Gross Receipt Tax and increasing the amount of FA required for reclamation due to special handling required for cover material.

- e. Modification 06-3, a change in the Groundhog No. 5 reclamation schedule.
- f. Modification 07-1, a change in the Groundhog No. 5 reclamation schedule.
- g. Modification 08-2, a change in the fertilizer and seed mix change.
- h. Modification 08-3, an extension of time to complete tailings reclamation.
- i. Modification 09-1, a change in the Groundhog No. 5 reclamation schedule.
- j. Modification 09-2, a change in the Operator name.
- k. Modification 10-1, a change in the reclamation schedule for Lake One and Reservoir No. 5.
- l. Modification 11-1, a change in the reclamation schedule for Groundhog No. 5.
- m. Modification 12-1, a change in the Design Limit map for the North Mine Area, specifically combining several units into one unit. The units combined into one unit include: South Stockpile Unit, West Stockpile Unit, Northeast Stockpile Unit, North Pit Stockpile Unit, Lee Hill Stockpile Unit, Lambright Stockpile Unit, Santa Rita Open Pit Unit, and the Beneficiation Unit.
- n. Modification 12-2, financial assurance release for Pond B, Pond C, Pond 6E and Pond 6W.
- o. Modification 13-1, financial assurance release for Pond 1, Pond 2, and Pond 4.
- p. Modification 13-2, approval of the Whitehouse Area cover material stockpile.
- q. Modification 14-1, a change in the reclamation schedule for Groundhog No. 5.
- r. Modification 14-2, approval of the 3A Waste Rock Stockpile.
- s. Modification 14-3, financial assurance release for Lake One.
- t. Modification 15-1, modification to the test-plot workplan to eliminate the requirement for an upward migration study.
- u. Modification 15-2, approval of the North Haul Road.
- v. Modification 16-2, a change in the seed mix and wildlife monitoring requirements.

- w. Modification 16-3, a change in the reclamation schedule for Reservoir No. 5.
 - x. Modification 16-4, adjustment of the value of the Trust.
 - y. Modification 16-5, a change in the Third-Party Guarantee from Freeport-McMoRan, Inc. to Freeport Minerals Corporation.
 - z. Modification 17-1, approval of Reclamation Cover Material.
 - aa. Modification 17-3, changes to the Trust Agreement (*approval incorporated into this reissued Permit No. GR009RE/Revision 18-1*).
4. Replaces or incorporates all previously approved Revisions to Permit No. GR009RE:
- a. Revision 01-1, original permit after incorporation of the Closeout Plan.
 - b. Revision 16-1, approval of the North Lampbright Waste Rock Stockpile.
 - c. Revision 17-2, 9 Waste Rock Stockpile (*approval incorporated into this reissued Permit No. GR009RE/Revision 18-1*).
5. Leaves unchanged the status of applications for revisions to Permit No. GR009RE that were not approved:
- a. Revision 08-1, Section 2 New Unit Stockpile (submitted; withdrawn).
 - b. Revision 08-4, Chino Updated Closeout Plan (submitted; not approved).

Definitions and Abbreviations

Whenever any terms defined in the Rules are used in this Permit, including any documents incorporated herein by reference, those definitions shall apply. In addition, whenever the terms listed below are used in this Permit, including any documents incorporated herein by reference, the following definitions shall apply:

Interbench Slope The outslope ground surface between terrace benches.

North Mine Area All of the Chino Mines facilities north and east of Bayard, New Mexico which includes, but is not limited to, the Santa Rita open pit, stockpiles, SX/EW plant, reservoirs, pumping stations, seepage impoundments, storm water detention ponds, mill facilities, maintenance area, former precipitation plant, Groundhog Mine area, Oswaldo #3 Mine, Star Mine shaft, and Ivanhoe Concentrator. See *Plate 2: North Mine Area Location*

Map in the CCP Update dated February 14, 2018.

NMAC	New Mexico Administrative Code
NMSA	New Mexico Statutes Annotated
OPSDA	Open Pit Surface Drainage Area. Defined by §20.6.7.7.B(42) NMAC as “the area in which storm water drains into an open pit and cannot feasibly be diverted by gravity outside the pit perimeter, and the underlying ground water is hydrologically contained by pumping or evaporation of water from the open pit.”
Pipeline Corridor	All of the Chino Mine facilities south and east of Bayard and north and east of Hurley, which includes the concentrate, tailing and process water pipelines, the associated spill containment structures, the pipeline subgrade and access roads as shown in <i>Plate 3: Pipeline Corridor Area Location Map</i> in the CCP Update dated February 14, 2018.
Pit Perimeter	The physical edge of the open pit. The interior area of the pit perimeter is waived from the MMD requirement to meet an SSE or PMLU. The pit perimeter is depicted on <i>Figure 8-1: Post Mining Land Use and Waiver Areas in the North Mine Area</i> within Addendum #2 – Chino Responses to Technical Comments letter entitled “Revision Application 18-1 for the Updated Closure Closeout Plan,” dated August 15, 2018, prepared by Chino.
PMLU	Post-Mining Land Use. Defined in §19.10.1.7.P(5) NMAC.
Reservoirs	All surface impoundments used for impacted or non-impacted storm water control, process water make-up, seepage collection, emergency water management, pregnant leach solution (“PLS”) collection. Reservoirs include, but are not limited to, Axiflo Lake, Reservoir Nos. 2, 4A, 5, 6, 7, 8; PLS ponds and tank at the SX/EW; and the PLS tank on the west side of the South Stockpile. Reservoirs do not include tailings impoundments.
RCM	Reclamation Cover Material. For the North Mine Area, RCM is defined as “pre-mining salvaged soils, overburden from un-mineralized Tertiary volcanic rocks and igneous rock, Paleozoic sedimentary rocks (e.g. Colorado Formation), and intrusive dikes and sills sourced from the Upper South Stockpile, STS2 and/or Whitehouse Stockpile.”

For the South Mine Area, RCM is defined as in-situ material sourced from the Gila Group/Formation/Conglomerate, piedmont alluvial materials, and Datil Group materials as depicted in *Figure 3-9: Geologic Map of the South Mine Area* of the CCP Update dated February 14, 2018.

South Mine Area	All of the Chino Mine facilities south and east of Hurley, New Mexico, which includes, but is not limited to, Lake One area, tailings impoundments, Pond 7 seepage interceptor system, Axiflo Lake, and all property included within the Permit Area as displayed on <i>Plate 4: South Mine Area Location Map</i> in the CCP Update dated February 14, 2018.
SSE	Self-Sustaining Ecosystem. Defined in §19.10.1.7.S(2) NMAC.
Stockpile	All leach ore stockpiles, and other rock piles associated with mining disturbances at the Chino Mine Facility. Leach ore stockpiles are those that have been leached, are currently being leached or have been placed in a pile for the purpose of being leached. These include, but are not limited to, South, West, and the Main Lampbright Leach Stockpile. Other rock piles include all non-leach material from the Open Pit, exclusive of material sent to the mill. These include the 3A Stockpile, the Southwest Lampbright Stockpile, North, Northeast and the Northwest Stockpiles as well as the North Lampbright Waste Rock Stockpile authorized but not constructed. Reclamation Cover Material (RCM) stockpiles includes material to be used in the future to reclaim mine facilities. These include Whitehouse, Upper South, and STS stockpiles.
Tailings Impoundments	All the tailings impoundments owned and operated by Chino Mines Company located near the town of Hurley in Grant County, New Mexico, which are part of the Chino Mine Facility. Tailing Impoundments include Pond 1, Pond 2, Pond B, Pond C, Pond 4, Pond 6-East, Pond 6-West and Pond 7.

Section 1. STATUTES AND RULES

- A. This Permit is issued under authority of the New Mexico Mining Act, NMSA 1978, §69-36-1, *et seq.* (1993, as amended through 2020) (“Act”) and New Mexico Mining Act Rules, Title 19, Chapter 10 of the NMAC (“Rules”).
- B. This Permit is subject to the Act, the Rules, and any other applicable regulations, which are now or hereafter in force under the Act; and all such regulations are made a part of this Permit by this reference.

Section 2. PERMIT REVISION PACKAGE

A. The Permit Application Package for Revision 18-1 (“PAP 18-1”) consists of:

1. *Chino Mine Closure/Closeout Plan Update* (“CCP Update”), dated February 14, 2018, prepared by Golder Associates on behalf of Freeport-McMoRan Chino Mines Company (“Chino”);
2. Addendum #1 – Electronic mail from Chino entitled “Lucky Bill Canyon Groundhog No. 5 Stockpile, MMD Permit GR009RE,” dated June 11, 2018, requesting a change of the reclamation completion schedule for Groundhog No. 5 Stockpile from June 30, 2018, until December 31, 2024;
3. Addendum #2 – Chino responses to technical comments letter entitled “Revision Application 18-1 for the Updated Closure Closeout Plan,” dated August 15, 2018, prepared by Chino;
4. Addendum #3 – Chino request entitled “Incorporating 9 Stockpile Financial Assurance Cost Estimate into Revision 18-1 Permit No. GR009RE Cost Estimate” dated February 13, 2019;
5. Addendum #4 – Chino request entitled “Addendum to 2018 Closure-Closeout Plan” for the construction of the East In-Pit Stockpile and South In-Pit Stockpile dated March 12, 2019;
6. Public notice #1 documentation, dated March 14, 2018, regarding Chino’s submittal of *GR009RE Revision Application 18-1, 2018 Closure Closeout Plan Update*;
7. Public notice #2 documentation, dated March 28, 2019, regarding MMD’s notice of determination of Administratively Complete Application, dated March 11, 2019;
8. Addendum #5 – Chino submittal entitled “Financial Assurance Cost Estimate and Net Present Value Calculation” for Revision 18-1 to Permit No. GR009RE, dated March 20, 2019;
9. Addendum #6 – Response to technical comments on earthwork cost estimate and net present value from Chino dated July 30, 2019, based on MMD’s letter dated June 17, 2019;
10. Hearing Officer Report in the Matter of Revision 18-1 for the 2018 Updated Closure/Closeout Plan for Chino Mine, Grant County, New Mexico, Permit No. GR009RE dated August 25, 2019, submitted by Ms. Felicia L. Orth, Hearing Officer;
11. Addendum #7 – Response to technical comments on earthwork cost estimate and net

present value from Chino dated January 23, 2020, based on MMD's letter dated January 8, 2020;

12. Addendum #8 – Response to technical comments on Closure / Closeout Plan and Reclamation Cost Estimate dated April 8, 2020, submitted by Chino in response to a joint agency NMED and MMD letter dated January 21, 2020;
13. Addendum #9 – Chino submittal of Net Present Value calculation dated June 16, 2020;
14. Addendum #10 – Chino submittal of FA Proposal dated August 5, 2020.
15. Addendum #11 – Third Party Guarantee Certificate of Face Value Adjustment in the amount of \$89,582,363 dated August 28, 2020, and fully executed (final signature) on September 17, 2020.

Section 3. PERMIT AREA

- A. The permit area is delineated in PAP 18-1 in *Figure 3-1: Chino Mine Facilities Map*. The permit area encompasses portions of the following areas:
 1. Township 17 South, Range 11 West: Sections 30 and 31;
 2. Township 18 South, Range 11 West: Sections 6, 7, 8 and 17;
 3. Township 17 South, Range 12 West: Sections 14, 15, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35 and 36;
 4. Township 18 South, Range 12 West: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 29, 30, 31, 32, and 33;
 5. Township 19 South, Range 12 West: Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 32, 33, 34, and 35;
 6. Township 20 South, Range 12 West: Sections 2, 3, and 4.

Section 4. DESIGN LIMITS

- A. The Design Limits/Facility Boundary for units in the North Mine Area are identified on *Plate 2: North Mine Area Location Map* within the CCP Update;
- B. The Design Limits/Facility Boundary for units in the Pipeline Corridor are identified on *Plate 3: Pipeline Corridor Area Location Map* within the CCP Update;

- C. The Design Limits/Facility Boundary for units in the South Mine area are identified on *Plate 4: South Mine Area Location Map* within the CCP Update.

Section 5. FINDINGS OF FACT

- A. The Permittee has paid the permit revision fee of \$5,000.00 as required by §19.10.2.201 NMAC.
- B. The application for permit revision has been reviewed in accordance with §19.10.5.505 NMAC and has been determined to be a revision in accordance with §19.10.5.505.B and §19.10.5.505.B(1) NMAC.
- C. As required by §19.10.5.505.B NMAC and the requirements for a revision, public notice and an opportunity for public hearing was performed as required by §19.10.9 NMAC.
- D. As required by §19.10.5.505.B(2) NMAC, the application for permit revision was accompanied by sufficient information for the Director to determine whether any of the factors listed in §19.10.5.505 NMAC are present.
- E. As required by §19.10.5.505.B(3) the Director has consulted with the applicable state agencies including State Forestry Division, New Mexico Department of Game and Fish, Historic Preservation Division, New Mexico Environment Department, and the Office of the State Engineer.
- F. As required by §19.10.5.505.B(3) NMAC, the Director has consulted with the following tribal entities: Fort Sill Apache Tribe, Hopi Tribe, Mescalero Apache Tribe, Navajo Nation, Pueblo of Acoma, Pueblo of Isleta, Pueblo of Zuni, and the White Mountain Apache Tribe.
- G. As required by §19.10.5.505.C NMAC, the application for permit revision was in a format acceptable to the Director.
- H. As required by §19.10.5.505.D NMAC, the permit revision meets the requirements of §19.10.5.507 (“Existing Unit Standards”) and §19.10.5.508 NMAC (“New Unit Standards”) and the requirements of paragraphs 1, 2, 4, 5, and 6 of subsection H of Section 69-36-7 of the Act.
- I. The permit area will achieve a self-sustaining ecosystem appropriate for the life zone of the surrounding areas following closure unless conflicting with the approved post-mining land use as required by Section 69-36-7(H)(4) of the Act.
- J. NMED Written Determination dated September 11, 2020, and signed by the NMED Cabinet Secretary on September 17, 2020, that Freeport-McMoRan Chino Mines Company has demonstrated that the activities proposed or authorized for the Chino Mine are expected to

achieve compliance with all applicable air, water quality and other environmental standards if carried out as described in NMMA Permit No. GR009RE and associated state and federal environmental permits.

- K. As required by §19.10.9 NMAC, a request for public hearing on Revision 18-1 was received. A public hearing was conducted on July 24, 2019, starting at 5:30 pm at the Grant County Commission Meeting Room, Grant County Administration Center, 1400 Highway 180 East, Silver City, New Mexico 88061.

Financial Assurance and Instrument

- L. The financial assurance for reclamation of the Chino Mine is in the form of:

1. Cash trust in the minimum amount of \$138,811,000.00.
2. Third Party Guarantee, issued by Freeport Minerals Corporation, in the amount of \$89,582,363 after adjustment to reflect Net Present Value (“NPV”).
3. Surety Bond No. SU1142400, issued by Arch Insurance Company, in the amount of \$254,800 after adjustment to reflect NPV, for the **North Chino Haul Road**.
4. Surety Bond No. SU1142402, issued by arch Insurance Company, in the amount of \$5,048,702 after adjustment to reflect NPV, for the **3A Waste Rock Stockpile**.
5. Surety Bond No. SUR0042184, issued by Argonaut Insurance Company in the amount of \$3,581,931 after adjustment to reflect NPV, for the **North Lampbright Waste Rock Stockpile**.

In determining the appropriate cost estimate and NPV for the Chino Mine financial assurance instrument, the Division used and accepted data and a methodology that are acceptable for this Revision 18-1.

Section 6. COMPLIANCE REQUIREMENTS

- A. The Permittee shall conduct mining and reclamation operations only as described in the approved PAP 18-1, this Permit or any revisions or modifications approved by the Director, as required by §19.10.5.505 NMAC.
- B. This permit revision 18-1 is issued pursuant to NMSA 1978, Section 69-36-1 et. seq. and Title 19, Chapter 10 NMAC. Permittee may be required to comply with other federal, State, county or local laws or ordinances before or while undertaking the activity that is the subject of this permit revision. MMD does not, by issuing this permit revision or otherwise, make any

comment on Permittee's compliance with such other laws. It is Permittee's sole responsibility to investigate and comply with the requirements of such other laws.

- C. Since the Permit Area is partially on land managed by the Bureau of Land Management ("BLM") Las Cruces Field Office, the expiration or termination of landholder authorization to conduct mining operations on the property automatically suspends the Permittee's authority to continue mining on the property. Such suspension does not include reclamation operations by the Permit issued under §19.10.5 NMAC.
- D. The Permittee shall obtain and maintain all environmental permits required for the permit area, including, but not limited to, the Mine Plan of Operations submitted to the BLM, Discharge Permit(s) issued by the New Mexico Environment Department ("NMED"), and water rights granted by the New Mexico Office of the State Engineer. Revocation or termination of such a permit or the forfeiture of financial assurance related to such a permit is adequate grounds for the Director to issue a cessation order under authority of §19.10.5 and §19.10.11 NMAC.

Section 7. AGENCY RIGHT OF ENTRY

- A. The Permittee shall allow the authorized representatives of the Director, without advanced notice, upon presentation of appropriate credentials, and without delay:
 - 1. To enter upon, or through, any mining or reclamation operation at any time, as provided for in §19.10.11.1101.E(1) NMAC for the purpose of conducting inspections and to determine if the Permittee is in compliance with the Permit requirements and conditions; and
 - 2. At reasonable times, and without delay, have access to and copies of any records associated with permitting and compliance required by the Act, §19.10 NMAC or the Permit.

Section 8. PERMIT COVERAGE / ENVIRONMENTAL COVERAGE

- A. This Permit shall be binding on any person(s) and/or corporate or business entities conducting mining and reclamation operations under this Permit.
- B. The Permittee shall take all necessary steps to minimize any adverse impact to the environment or public health and safety resulting from non-compliance with any term or condition of the Permit, the Rules or the Act.
- C. The Permittee shall maintain this Permit until reclamation is complete at the site.

Water Rights

- D. This Permit does not grant or create any water rights. Nor does MMD, by approving this Permit

or otherwise, make any comment on the water rights that the Permittee may or may not have available for use in the area covered by the Permit. Permittee is solely responsible and obligated to comply with all state and federal laws related to water rights sufficient to support the activities contemplated by the Permit.

Surface and Mineral Rights

- E. The Permit does not grant or create any property rights. Nor does MMD, by issuing this Permit or otherwise, make any comment on the surface or mineral rights that the Permittee may or may not have in the area covered by the Permit; only that the Permittee has provided a statement of basis on which the Permittee has a right-to-enter the property to conduct mining and reclamation. Permittee is solely responsible to take whatever steps are necessary to ensure that Permittee has property rights sufficient to support the activities contemplated by the Permit.

Cultural Resources

- F. The Permittee shall comply with all other state and federal requirements and standards as applicable, including without limitation any applicable requirements of the Cultural Properties Act, NMSA 1978, Section 18-6-1 to 27 and the regulations promulgated pursuant thereto.

Section 9. GENERAL OBLIGATIONS AND CONDITIONS

In accordance with §19.10.5.506.I NMAC, the Director may approve a closeout plan subject to conditions necessary to meet the requirements of the Act and §19.10 NMAC. The conditions outlined in this section are required for the Permittee to meet certain requirements of the Rules.

- A. The Permittee shall notify MMD 30-days prior to performing any permanent closeout/reclamation activities at the mine site.
- B. The conditions specified in this Permit are required to mitigate the disturbance within the Permit Area and to ensure stabilization of the Permit Area and minimize future impacts to the environment and protect air and water resources. The conditions specified in this Permit are necessary to reclaim the Permit Area to the conditions that allow for establishment of the designated PMLUs of wildlife habitat and industrial uses.

C. Construction Quality Assurance Plan

- 1. The Permittee shall submit a Construction Quality Assurance (“CQA”) plan to MMD for approval not less than 180 days prior to, or an acceptable time agreeable to MMD, before commencement of any reclamation activities and shall implement the CQA plan only after MMD approval. The design will include detailed engineering designs addressing slopes, surface erosion controls and stormwater management structures for MMD approval. The

CQA plan shall include: a description of work to be conducted and identification of borrow areas. Design specifications may be modified during the final engineering design with MMD approval.

2. The CQA shall be supplemented to include a final report to be submitted to MMD not more than 180 days after construction completion. The report shall include a summary of work conducted, as-built drawings and final design specifications for slopes, covers and for stormwater management structures. The CQA final report shall describe, at minimum, as-built drawings, a final topographic map with no greater than two-foot contour intervals for the top surfaces and no greater than ten-foot contour intervals for the outslopes, and construction photographs.

D. North Mine Area Stockpiles – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

The following conditions apply to:

- Upper South Stockpile
- STS2 Stockpile
- Whitehouse Stockpile
- Southwest Lampbright Waste Rock Stockpile
- 3A Waste Rock Stockpile
- Main Lampbright Leach Stockpile
- South Lampbright Leach Stockpile
- South Stockpile
- West Stockpile

1. Surface Shaping and Stormwater Management

- a. Reclamation design shall conform with Section 6.1.1 (“Stockpiles”) and *Table 6-1: Summary of Key Design Criteria for Facilities to be Closed* of the CCP Update, and shall meet the standards of §19.10.5.507.A NMAC (“Existing Unit Reclamation Standards”).
- b. Permittee shall regrade the inter-bench slopes to a minimum of 3.0H:1.0V except for the western slope of the West Stockpile, which shall be regraded to an inter-bench slope of no steeper than 2.5H:1.0V.
- c. Inter-bench slope lengths shall not exceed 200 feet for all stockpiles except for the western portion of the West Stockpile, which shall be regraded so that inter-bench slope lengths shall not exceed 175 feet.

- d. Terrace bench widths shall be a minimum of 15 feet. Bench longitudinal slopes shall be no greater than 5%. Bench cross slopes and channels shall be between 1% and 5%.
 - e. Permittee shall regrade all stockpiles in a manner that promotes positive drainage to the exterior perimeter of the stockpiles and eliminates, to the extent practicable, ponding on the top surface and final cover surfaces. Permittee shall construct the top surface to a minimum final grade of between 1% and 5% to direct stormwater to surface water conveyance channels.
 - f. Surface water conveyance channels shall be constructed where necessary to adequately direct surface water off the covered stockpile surfaces. All post-closeout, permanent water conveyances and channels shall be designed and constructed to convey the peak flow generated by the 100-year, 24-hour storm event, at a minimum. Surface water conveyance channels and other surface water control structures shall be constructed with appropriately sized riprap to withstand the peak flow generated by the 100-year, 24-hour storm event, at a minimum.
 - g. Permittee shall regrade all stockpile outslopes located outside of the OPSDA to facilitate covering and revegetation of the outslopes at closeout of the mine. The boundary delineation of the OPSDA and its use to determine areas subject to reclamation may be redefined based on future studies as required by NMED or as otherwise determined by NMED. **[Attached Figure 1: OPSDA and AOPHC]**
 - h. The portions of the interior slopes of the West Stockpile, and South Stockpile and Upper South Stockpile that are located outside of the pit perimeter but inside the OPSDA are granted a waiver from the requirement of achieving an SSE under authority of §19.10.5.507.B NMAC. The portions of the West Stockpile, South Stockpile and Upper South Stockpile that are waived from reclamation shall be updated every five years during CCP updates.
2. Cover Placement Plan
- a. Stockpile top surface and outslopes shall be covered with a minimum thickness of 36-inches of RCM. The textural characteristics of the cover material shall be supportive of an SSE.
 - b. Cover placement for RCM stockpiles such as Upper South, STS2 and Whitehouse Stockpiles is not required; however a minimum thickness of 36-inches of RCM shall be left in-place where RCM is present over potentially acid generating (PAG) material or where PAG material is encountered during RCM excavation.

3. Revegetation Plan

- a. Top surface and outslopes shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.
- b. All stockpile sources used as borrow for RCM shall be graded for stormwater control, compacted surfaces shall be ripped to a minimum depth of 24-inches, and revegetated according to the requirements of Appendix A, Seeding Methods and Revegetation Standards, of this Permit. All slopes and high walls created by excavation of borrow, unless part of the operational pit development, shall be no steeper than 3.0H:1.0V.

4. Post-Mining Land Use

- a. The PMLU for stockpiles shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix A, Seeding Methods and Revegetation Standards, of this Permit;
 - ii. Wildlife use shall be documented by conducting wildlife surveys including, but not limited to, deer pellet count surveys and bird diversity surveys in accordance with Section 9.R.4 Wildlife Monitoring of this Permit.
 - iii. The results of the wildlife surveys shall not be a condition of or given consideration with regard to financial assurance release.

E. North Lampbright Waste Rock Stockpile – Subject to Existing Unit Reclamation Standards and New Unit Reclamation Standards (§19.10.5.507.A and §19.10.5.508 NMAC)

The following conditions apply to the North Lampbright Waste Rock Stockpile (“NLWRS”):

1. Construction Criteria

During construction and operation of the NLWRS, the Permittee shall facilitate closure regrading efforts by optimizing lift height and setbacks and remain in compliance with the basis for the cost estimate, including:

- a. Construction of the NLWRS up to an elevation of approximately 6,800-feet over the northern outslope of the existing Main Lampbright Leach Stockpile;

- b. Constructed by end dumping in lifts of variable height and bench widths that are compliant with the overall reclamation plan to facilitate final closure;
- c. Overall design of the NLWRS at approximately 3.5H:1.0V overall slope to facilitate final closure.

2. Surface Shaping and Stormwater Management

During reclamation, the NLWRS shall meet the key design criteria for closure of the NLWRS as shown in *Table 4-1: North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino, including:

- a. Stockpile regrading to interbench slopes of between 3.0H:1.0V and 3.3H:1.0V.
- b. Maximum uninterrupted slope length of 200-feet for outslopes.
- c. Terrace benches of a sufficient width to break up the slope and provide for stormwater management.
- d. Bench longitudinal slopes at maximum of 5%.
- e. Top surface graded at a minimum final grade of 1%.
- f. Regrading to achieve the conveyance of surface water to the exterior perimeter of the stockpile.
- g. Slope channels located, to facilitate stormwater management.
- h. Use of riprap and energy dissipation structures as appropriate.
- i. Placement of at least 36-inches of suitable cover material on the top slopes, outslope surfaces, and haul roads that are located on potentially acid-generating (PAG) material.
- j. Revegetation in accordance with Appendix, A Seeding Methods and Revegetation Standards, of this permit.
- k. Implementation of a moderate maintenance program until cover vegetation meets standards.

3. Cover Placement Plan

- a. Rubio Peak Formation is conditionally approved as suitable cover material for

reclamation of the NLWRS pending the results of test-plot evaluation of this material.

- b. Top surface and out slopes of NLWRS shall be covered with a minimum thickness of 36-inches of approved RCM.

4. Revegetation Plan

- a. Approximately 86 acres of the NLWRS is subject to the reclamation standards of §19.10.5.507.A NMAC (“Existing Unit Standards”). This 86-acre area is the southern portion of the NLWRS where it overlaps with the north facing out slope of the Main Lampbright Leach Stockpile as depicted in *Figure 6-2: Disturbed Areas Associated with Proposed North Lampbright Waste Rock Stockpile Extension Area of North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino.
- b. The NLWRS will cover approximately 187 acres of disturbed and undisturbed acres. Of these, approximately 101 acres of the NLWRS is subject to the reclamation standards of §19.10.5.508 NMAC (“New Unit Standards”). This 101-acre area is the northern portion of the NLWRS as depicted in *Figure 6-2: Disturbed Areas Associated with Proposed North Lampbright Waste Rock Stockpile Extension Area of North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino.
- c. Chino is currently conducting, and shall continue to conduct, a test-plot study to demonstrate that the use of the Rubio Peak Formation, proposed for placement on the NLWRS, will support a successful, self-sustaining plant community, and meet Existing Unit and New Unit Standards. The conditional approval of this alternative cover material for the NLWRS does not change any other cover material requirements of Permit No. GR009RE.
- d. The cost estimate for the reclamation of the NLWRS is based upon the use of a conditionally approved alternative cover material that is undergoing testing in an approved test-plot study. If the results of the test-plot study indicate, as determined by MMD, that alternative or additional closeout actions are necessary to allow for the establishment of an SSE, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) NMAC, MMD may require that the Permittee submit a request to modify or revise the Permit in accordance with §19.10.5.504.B and §19.10.5.505.B NMAC.

5. Post-Mining Land Use

- a. The PMLU for the NLWRS shall be wildlife habitat. Compliance with §19.10.5.507.A and §19.10.5.508 NMAC shall be achieved by the following:

- i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix, A Seeding Methods and Revegetation Standards, of this Permit;
- ii. Wildlife use shall be documented by conducting wildlife surveys including, but not limited to, deer pellet count surveys and bird diversity surveys in accordance with Section 9.R.4 Wildlife Monitoring of this Permit.
- iii. The results of the wildlife surveys shall not be a condition of or given consideration with regard to financial assurance release.

F. 9 Waste Rock Stockpile – Subject to Existing Unit Reclamation Standards and New Unit Reclamation Standards (§19.10.5.507.A and §19.10.5.508 NMAC)

The following conditions apply to the 9 Waste Rock Stockpile (“9WRS”):

1. Construction Criteria

During construction and operation of the 9WRS, the Permittee shall facilitate closure regrading efforts by optimizing lift height and setbacks and remain in compliance with the basis for the cost estimate, including:

- a. Construction of the 9WRS up to an elevation of approximately 7,000-feet above mean sea level;
- b. Constructed by end dumping in lifts of variable height and bench widths that are compliant with the overall reclamation plan to facilitate final closure;
- c. Overall design of the 9WRS at approximately 3.5H:1.0V overall slope to facilitate final closure to 3.0H:1.0V inter-bench slopes.

2. Surface Shaping and Stormwater Management

During reclamation, the 9WRS shall meet the key design criteria for closure of the 9WRS as shown in *Table 5-1: Summary of Key Design Criteria for Closure of the 9 WRS within 9 Waste Rock Stockpile Closure/Closeout Plan*, dated March 30, 2017, prepared by Golder Associates on behalf of Chino, including:

- a. Stockpile regrading to inter-bench slopes no steeper than 3.0H:1.0V.
- b. Maximum uninterrupted slope length of 200-feet for outslopes.

- c. Terrace benches of sufficient width. to break up the slope and provide for stormwater management.
- d. Bench longitudinal slopes at maximum of 5%.
- e. Top surface graded at a minimum final grade of 1%.
- f. Regrading to achieve the conveyance of surface water to the exterior perimeter of the stockpile, where applicable.
- g. Slope channels located, where possible to facilitate stormwater management.
- h. Use of riprap and energy dissipation structures as appropriate.
- i. Run-on from the surrounding terrain control by perimeter channels located around the stockpile.
- j. Surface water conveyance canals designed to accommodate the peak discharge resulting from the 100-year, 24-hour storm event.
- k. Implementation of a maintenance program until cover vegetation meets standards.

3. Cover Placement Plan

- a. Stockpile top surface and outslopes shall be covered with a minimum thickness of 36-inches of RCM. The textural characteristics of the cover material shall be supportive of an SSE.

4. Revegetation Plan

- a. The 9WRS total footprint is approximately 159 acres of which approximately 60 acres is subject to the reclamation standards of §19.10.5.507.A NMAC (“Existing Unit Standards”). This area is the north portion of the 9WRS as depicted in *Figure 1-3: Proposed 9 Waste Rock Stockpile at Final Build-Out within 9 Waste Rock Stockpile Closure/Closeout Plan*, dated March 30, 2017, prepared by Golder Associates on behalf of Chino.
- b. The 9WRS total footprint is approximately 159 acres of which approximately 99 acres of is subject to the reclamation standards of §19.10.5.508 NMAC (“New Unit Standards”). This area is the south portion of the 9WRS as depicted in *Figure 1-3: Proposed 9 Waste Rock Stockpile at Final Build-Out within 9 Waste Rock Stockpile Closure/Closeout Plan*, dated March 30, 2017, prepared by Golder Associates on behalf of Chino.

5. Post-Mining Land Use

- a. The PMLU for 9WRS shall be wildlife habitat. Compliance with §19.10.5.507.A and §19.10.5.508 NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix, A Seeding Methods and Revegetation Standards, of this permit.
 - ii. Wildlife use shall be documented by conducting wildlife surveys including, but not limited to, deer pellet count surveys and bird diversity surveys in accordance with Section 9.R.4 Wildlife Monitoring of this Permit.
 - iii. The results of the wildlife surveys shall not be a condition of or given consideration with regard to financial assurance release.

G. North Mine Area In-Pit Stockpiles or Open Pit Perimeter Stockpiles – Subject to Top Surface Reclamation Only

The following conditions apply to the following in-pit stockpiles located within the pit perimeter boundary, and apply to the following stockpiles located inside the OPSDA and are covered by the conditional MMD waiver area:

- Lee Hill Leach Stockpile
- East In-Pit Waste Rock Stockpile
- South In-Pit Waste Rock Stockpile
- North In-Pit Waste Rock Stockpile
- North Waste Rock Stockpile
- Northwest Waste Rock Stockpile
- Northeast Waste Rock Stockpile

1. Surface Shaping and Stormwater Management

- a. Reclamation design shall conform with Section 6.1.2 (“Waiver Areas within the OPSDA”) and *Table 6-1: Summary of Key Design Criteria for Facilities to be Closed* of the CCP Update.
- b. Permittee shall establish positive drainage by constructing the top surface to a minimum final grade of between 1% and 5% to direct stormwater to surface water conveyance channels.
- c. Armored channels shall be constructed, at a minimum, to convey peak flows generated

from 100-year, 24-hour storm events. Surface water conveyance channels shall be constructed to direct surface water off the surfaces of the stockpiles to the nearest open pit sump.

2. Cover Placement Plan

- a. The top surface of these units shall be covered with a minimum thickness of 36-inches of RCM.

3. Revegetation Plan

- a. The top surface shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

4. Post-Mining Land Use

- a. The PMLU for these units shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix, A Seeding Methods and Revegetation Standards, of this permit;
 - ii. Wildlife use shall be documented by conducting wildlife surveys including, but not limited to, deer pellet count surveys and bird diversity surveys in accordance with Section 9.R.4 Wildlife Monitoring of this Permit.
 - iii. The results of the wildlife surveys shall not be a condition of or given consideration with regard to financial assurance release.

5. Miscellaneous

- a. Process water pipelines located within the footprint of the conditionally waived areas that will not be part of the post-closure water management and water treatment system shall be removed and disposed of in an approved manner.
- b. All aboveground electrical systems and infrastructure, including outdoor lighting and transmission lines, not used for PMLU purposes or not necessary for site operation and maintenance, including water treatment, shall be removed.

H. Santa Rita Open Pit & Waiver Area – Subject to Existing Unit Reclamation Standards (§19.10.5.507.B NMAC)

The Santa Rita/Chino Mine open pit is located within the OPSDA as delineated in the CCP Update and has been granted a conditional waiver from the requirement of achieving an SSE or PMLU as required by §19.10.5.507.B NMAC. The open pit waiver area is based on the pit perimeter and OPSDA. Closure/closeout activities within the waiver area shall focus on safety measures, wildlife and public access restrictions, and short-term and long-term water management. **[Attached Figure 1: OPSDA and AOPHC]**

The interior of the waiver area shall meet the following requirements:

1. Environmental Standards

- a. All applicable federal and state environmental laws, regulations, and standards shall be met through short-term and long-term management and treatment of process water as documented in Section 6.3 (“Water Management and Treatment Plan”) and Appendix C of the CCP Update entitled “Chino Mine Closure/Closeout Plan Update Water Management and Treatment Scope of Work” prepared by Golder Associates, dated February 14, 2018, and as required by NMED as required by DP-1340 or other applicable discharge permits.

2. Public Health and Safety

Permittee shall ensure that the Santa Rita/Chino Mine open pit does not pose a current or future hazard to public health or safety and shall take measures in accordance with Section 6.1.3 (“Santa Rita Open Pit”) of the CCP Update to limit future access to the Chino Mine pit area to authorized personnel by implementing the following measures at closeout:

- a. Vehicle and pedestrian access shall be controlled by a minimum of 6-foot high chain link fencing and/or a water diversion and exclusion berms constructed around the circumference of the Chino Mine open pit.
- b. Berms shall be a minimum of 10-feet wide and 5 to 10-feet high with side slopes angled at 1.5H:1.0V.
- c. To allow pit access for maintenance activities by authorized personnel, locked gates shall be placed in appropriate locations in association with the berm/fence combination.
- d. Signs shall be posted on the fencing at 500-foot intervals and at all access points, warning of the potential hazards present.
- e. Visual inspections to monitor stability of the pit walls on a quarterly basis to identify

potential failure areas, which may adversely impact the environment and public health or safety. If failure areas are identified through monitoring, the Permittee shall propose measure to mitigate the hazard within 30-days of identification for MMD approval.

f. All constructed safety measures shall be maintained throughout the post-closure period.

3. Wildlife

a. Permittee shall take all appropriate measures, including but not limited to hazing and exclusionary techniques, after closeout to minimize adverse impacts to waterfowl and other wildlife resulting from collection of water in the open pit.

4. Miscellaneous

a. All aboveground electrical systems and infrastructure, including outdoor lighting and transmission lines, not used for PMLU purposes or not necessary for site operation and maintenance, including water treatment, shall be removed or buried.

I. **Groundhog No. 5 Stockpile (Modification 05-1)**

1. A minimum thickness of 12 inches of suitable RCM shall be applied to the top surfaces and outslopes of the Groundhog No. 5 Stockpile.
2. Reclamation of Groundhog No. 5 Stockpile shall be performed in accordance with the scope of work detailed in:
 - a. *Groundhog No. 5 Stockpile Construction Quality Assurance and Reclamation Completion Plan*, prepared by Telesto Solutions Inc., dated February 2020.
 - b. Chino response to MMD comments on the *Groundhog No. 5 Stockpile Construction Quality Assurance and Reclamation Completion Plan* dated April 30, 2020.
 - c. *MMD Approval of Groundhog No. 5 Stockpile Construction Quality Assurance and Reclamation Completion Plan*, dated May 6, 2020.
3. Reclamation of Groundhog No. 5 Stockpile shall be also performed in accordance with the NMED conditional approval letter dated December 20, 2019, and any other applicable NMED requirements.
4. The reclamation schedule for Groundhog No. 5 Stockpile is specified in *Table 1: Reclamation Schedule* in this Permit Revision 18-1 and shall be completely reclaimed no later than December 31, 2024, as requested by Chino in Addendum #2 to the CCP Update Application. However:

- a. MMD encourages Chino to complete reclamation of Groundhog No. 5 Stockpile substantially prior to December 31, 2024.
- b. Additional time extensions for the completion of reclamation of Groundhog No. 5 Stockpile shall not be approved by MMD in the absence of a circumstance or event, outside of Chino's control, that makes reclamation of Groundhog No. 5 stockpile impracticable within the schedule specified in *Table 1: Reclamation Schedule*. Approval of an application for standby status shall not relieve Chino from completion of reclamation of Groundhog No. 5 Stockpile in accordance with this paragraph.

J. Surface Impoundments – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

The following conditions apply to all impoundments located outside of the OPSDA or waiver area or impoundments and components not required as part of the short-term or long-term water treatment plan including:

- Storage tanks for process waters, seepage collection water, and extracted ground water/pit water
- Stormwater catchments
- Dams
- Reservoirs

1. Surface Shaping and Stormwater Management

- a. Reclamation design shall comply with Section 6.1.4 (“Surface Impoundments”), *Table 3-3: Chino Mine Surface Impoundments EOY 2018* and *Table 5-1: Post-Closure Surface Impoundments* in the CCP Update.
- b. Surface components (e.g., booster pumps, sumps, pipeline systems, drip line systems, electrical distribution systems, control systems, etc.) not required for post-closure purposes shall be closed through removal of all systems, removal or burial of pipelines, removal of tanks, removal of infrastructure prior to regrading, and proper disposal of these materials.
- c. Impoundments located within the OPSDA or waiver area that are not planned to be part of the short-term or long-term water treatment system shall be graded to drain at closure.

2. Cover Placement Plan

- a. Synthetic liners, if present and outside the regraded toe of stockpile facilities or waiver area, shall be removed or ripped.
- b. Impoundments not part of the PMLU shall be covered with a minimum of a total of 36-inches of RCM.

3. Revegetation Plan

- a. Impoundments not required for short or long-term water treatment shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

4. Post-Mining Land Use

- a. The PMLU for these units shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

5. Miscellaneous

- a. All aboveground electrical systems and infrastructure, including outdoor lighting and transmission lines, not used for PMLU purposes or not necessary for site operation and maintenance, including water treatment, shall be removed or buried.
- b. Buried process water pipelines and other pipelines shall be capped and/or disposed in accordance with NMED Rules.
- c. Where soil contamination exists in impoundment soils outside the waiver, Permittee shall remediate the soils as required by NMED and to a condition allowing for re-establishment of an SSE or approved PMLU.

K. Buildings and Structures – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

The following conditions apply to facilities listed below that are not designated as part of the industrial PMLU listed within *Table 5-2: Summary of Buildings/Structures to be Removed/Reclaimed* of the CCP Update and as shown in Figures 2A, 2B, and 2C in Addendum #2 to PAP 18-1:

- Mine Maintenance Facilities
 - Wash Shop
 - Maintenance Shop
 - Storage
 - Storage Shed
 - Primary Crusher
 - Wash Shop Wastewater
 - Shop Fast Fuel
- SX/EW Plant Area
 - Plant PLS Feed Pond
 - Raffinate Pond
 - Wash Rack
 - Temporary Storage
- Ivanhoe Concentrator/Precipitation Plant Area
 - Wet Recycle Crush Plant
 - Portable Storage Shed
 - Hoist House and Headframe
 - Used Oil Pad

1. Planned Closure/Closeout Activities

- a. Reclamation design shall comply with Section 6.1.5 (“Buildings and Structures”) and *Table 5-2: Summary of Buildings/Structures to be Removed/Reclaimed* of the CCP Update, and shall meet the standards of §19.10.5.507.A NMAC (“Existing Unit Reclamation Standards”).
- b. All buildings, tanks and structures that will not be required for water treatment or designated as an Industrial PMLU shall be demolished, removed, and/or buried.
- c. Demolition specifications shall be submitted for MMD approval at least 180 days prior to implementation.
- d. Removal or burial of all debris and visually affected soil and or near the surface in unpaved areas, and disposal of debris or affected soil in an appropriate manner.
- e. Stormwater shall be diverted from paved areas and along access roads at the Mine Maintenance Facilities area, Ivanhoe Concentrator/Precipitation Plant area, SX/EW plant area, and South Mine Area through ditches and culverts to exiting sediment/storm water control ponds.

2. Cover Placement Plan

- a. Impacted or affected areas shall be covered with a minimum thickness of 36-inches of RCM.
- b. Where footings, slabs, walls, pavement, manholes, vaults, storm water controls, and other foundations are not included in the industrial PMLU, abandoned in-place over non-acid generating material, and not demolished, they shall be covered with a minimum of 24-inches of RCM. The covered foundation areas shall be graded for stormwater control.

3. Revegetation Plan

- a. Covered footings, slabs, walls, pavement, manholes, vaults, stormwater controls, and other foundations not included in the industrial PMLU shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

4. Post-Mining Land Use

- a. The PMLU for these units shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

L. **Buildings and Structures Designated for an Industrial Post-Mining Land Use**

The following conditions apply to facilities pursuant to *Section 8.2: Industrial Post-Mining Land Use* and *Table 8-3: Buildings and Structures Designated for Industrial Post Mining Land Use (PMLU)* of the Updated CCP that are approved for an Industrial PMLU:

1. Buildings and structures not required to be demolished within the SX/EW Plan Area, Mine Facilities Area, and Ivanhoe Concentrator Area shall have a PMLU of industrial use.
2. Permittee shall provide to MMD a building inspection certification signed by a professional engineer that the buildings area in good condition, meet all applicable codes, are structurally sound, meet all zoning requirements, meet all local ordinances, and all utilities are operable. This certification shall be provided to MMD once every 5 years thereafter.
3. Permittee shall provide a general erosion control plan to be implemented at closeout for the area covered by the industrial PMLU. The plan shall describe the installation of erosion

control features to include, but not limited to, road design construction, berms, culverts, diversions, dikes, sediment control ponds, revegetation, water bars, armoring or rip rapping.

4. Permittee shall not be released from requirements of the New Mexico Mining Act and Rules for those areas approved as industrial until the industrial PMLU has been implemented. Implementation shall be demonstrated as follows:
 - a. If soil contamination exists in and around all buildings and facilities for industrial use, the Permittee shall demonstrate that any required remediation has been completed for these areas to be utilized for the industrial PMLU.
 - b. The Permittee shall demonstrate that Permittee have either entered into long term contractual commitments for the sale, lease or occupancy of a substantial portion of the areas approved for industrial PMLU use with commercial businesses, or can demonstrate to a reasonable certainty that such contractual commitments shall be executed either in conjunction with the release of the permit from the Mining Act or shortly thereafter. MMD shall determine whether the Permittee has complied with those requirements.
 - c. Where structures are to be located on or near post-mine filled slopes, mine cuts, or overburden piles; demonstrate that these features are stable or not a hazard to the structures that will remain as part of the PMLU. Such demonstration requires a stability analysis prepared by a geotechnical engineer or equivalent and may rely on previously submitted information.
 - d. Demonstrate that revegetated areas within the industrial PMLU provide sufficient cover to stabilize those areas where reseeding has occurred.
 - e. Provide documentation that the area comprising the industrial PMLU meets state and federal requirements.
5. Miscellaneous
 - a. All aboveground electrical systems and infrastructure, including outdoor lighting and transmission lines, not used for PMLU purposes or not necessary for site operation and maintenance, including water treatment, shall be removed or buried.
 - b. Process water pipelines and other pipelines shall be capped and/or disposed in accordance with NMED Rules.

M. Ancillary Facilities – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

Ancillary facilities that are not part of or support an industrial PMLU, or other PMLU that requires the continued use of the ancillary facility, shall be reclaimed in accordance with Section 6.1.6 (“Ancillary Facilities”) in the CCP Update. Reclamation requirements of the North Chino Haul Road are described separately in Section 9.M Borrow Material Areas and Miscellaneous Disturbed Areas of this Permit.

Ancillary facilities include, but are not limited to:

- Utility and structure foundations
- Electrical distribution system (e.g., power lines, poles, converters, substations)
- Haul roads and access roads
- Pipelines and pipeline corridors
- Footings, slabs, walls, pavements, structures, manholes, vaults, stormwater controls and other foundations.
- Explosives, fuel and reagent storage areas
- Exploration holes/wells

1. Planned Closure/Closeout Activities

- a. All ancillary facilities not needed for either an industrial or wildlife PMLU shall be reclaimed, removed or buried.
- b. Permittee shall bury or remove and properly dispose of all pipelines and associated materials where not previously addressed in this Permit that are not necessary for the site operation and maintenance, including water treatment. All pipeline corridors shall be graded for stormwater control, ripped or covered with a minimum of 24-inches of approved RCM and revegetated according to the requirements of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.
- c. Pipeline corridors located outside the regraded footprint of stockpiles and outside the OPSDA shall be inspected and characterized for evidence of past spills. Impacted areas shall be removed or covered with 36-inches of RCM.
- d. Process water pipelines shall be removed or buried.
- e. Culverts not necessary for the PMLU shall be removed.
- f. Haul roads and access roads not required for closure and post closure access, the industrial PMLU, or for water treatment shall be reclaimed to achieve a wildlife PMLU.

- g. Utility structures, footings, slabs, walls, pavement, manholes, vaults, stormwater controls and other foundations located outside the OPSDA/waiver area that are not needed for the industrial PMLU shall be removed or reclaimed in place.
 - h. Electrical Distribution System. Permittee shall removal all electrical systems and infrastructure, including outdoor lighting and transmission lines, not used in the industrial PMLU or not necessary for the site operation and maintenance, including water treatment. The Permittee shall maintain the remaining portion of the electrical distribution system for the PMLU in satisfactory condition that complies with all applicable building codes and regulations. Power poles not required for the electrical distribution system of the industrial PMLU or water treatment shall be removed unless left in place as raptor habitat as approved by MMD.
 - i. Explosives, Fuel, and Reagent Storage Areas. Permittee shall remove and properly dispose of explosives, fuel, and reagent chemicals and materials. All storage areas shall be graded for stormwater control, ripped or covered with a minimum of 24-inches of approved RCM, and revegetated according to the requirements of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.
 - j. Exploration Holes/Wells. Permittee shall properly abandon and seal all exploration holes within the permit area. Wells and holes shall be abandoned in accordance with requirements from the New Mexico Office of the State Engineer where no longer required for post-closure operations, maintenance or monitoring. If Permittee conducts exploration within the permit area that creates a new disturbance, the Permittee shall identify the general areas or locations within the permit area where exploration activities have taken place and provide general design information regarding measures that will be taken to minimize disturbance, enhance stability and control erosion. The Permittee shall also identify any areas of new disturbance due to exploration activities in each annual report submitted to MMD.
2. Cover Placement Plan
- a. Any ancillary facility located on potentially acid-generating material shall , regraded, covered with a minimum of 36-inches of RCM and revegetated.
 - b. Any ancillary facility located on native soils or bedrock shall be ripped to a depth of 18 to 24 inches, where feasible, then regraded and revegetated.

3. Revegetation Plan

- a. Any ancillary facility disturbed area shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

4. Post-Mining Land Use

- a. With the exception of maintenance roads and infrastructure corridors, the PMLU for these units shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

N. Borrow Material Areas and Miscellaneous Disturbed Areas – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

The following conditions apply to borrow material areas or miscellaneous disturbed areas located in the Permit Area including, but not limited to:

- 200-acre maximum of miscellaneous disturbances in the North Mine Area
- 35-acre miscellaneous area located in the South Mine Area
- RCM borrow areas Razorback Ridge, James Canyon, A, B, C, D, E, F and H in the South Mine Area

1. Planned Closure/Closeout Activities

- a. Borrow material areas shall be reclaimed as described in accordance with Section 6.1.7 (“Borrow Areas”) in the CCP Update.
- b. Any borrow areas shall have slopes no steeper than 3.0H:1.0V and shall be graded for stormwater control to minimize erosion to promote long-term stabilization.
- c. If needed, armored channels shall be constructed, at a minimum, to convey peak flows generated from 100-year, 24-hour storm events.
- d. Permittee is authorized to disturb areas, up to a maximum of 200 total acres, within the North Mine Area permit area in order to obtain materials to mitigate small changes to disturbances that may occur due to the operation of the mine without a modification or revision to the permit.

- e. Disturbance of the areas described in the previous paragraph, shall be reported to MMD in the annual report. Disturbance shall be reclaimed to a PMLU of wildlife habitat.

2. Revegetation Plan

- a. The borrow areas and other disturbed areas shall be reclaimed and revegetated in accordance with the reclamation and revegetation methods set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

3. Post-Mining Land Use

- a. The PMLU for these units shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation methods in the reclaimed areas shall be completed using the methods of Appendix A, Seeding Methods and Revegetation Standards, of this Permit;
 - ii. Wildlife use shall be documented by conducting wildlife surveys including, but not limited to, deer pellet count surveys and bird diversity surveys in accordance with Section 9.R.4 Wildlife Monitoring of this Permit.
 - iii. The results of the wildlife surveys shall not be a condition of or given consideration with regard to financial assurance release.

O. North Chino Haul Road – Subject to New Unit Reclamation Standards (§19.10.5.508 NMAC)

The following conditions apply to the North Chino Haul Road:

1. Public Safety

- a. Permittee shall ensure that portions of the North Haul Road that remain in use during or after the reclamation period will not pose a current or future hazard to public health or safety and will take measures to limit future access to roads to authorized personnel. Where practicable and necessary to restrict access by unauthorized personnel and provide for public safety, fencing shall be placed along or near roads to prevent trespass and provide for public safety.

2. Surface Shaping and Stormwater Management

- a. Operational travel surfaces of the North Chino Haul Road shall be ripped to a depth of 18 to 24 inches reggraded and reseeded according to MMD approved methods.

- b. Demolition of the North Chino Haul Road overpass shall be conducted in accordance with NMDOT permits, requirements and specifications.
- c. During reclamation, measures shall be taken to provide for the stabilization of the disturbances that will minimize future impact to the environment and protect air and water resources.

3. Cover Placement Plan

- a. Placement of RCM at closeout should not be necessary. Construction of the North Haul Road was contingent upon use of non-acid generating material or material that has the potential to generate contaminated leachate.
- b. If acid-generating material is encountered during closure, a minimum of 36-inches of RCM shall be applied.

4. Revegetation Plan

- a. Top surface and outcrops shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

5. Post-Mining Land Use

- a. The PMLU for the North Chino Haul Road shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

P. Pipeline Corridor and South Mine Area – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

The following conditions apply to:

- Axiflo Lake
- Southern portion of Tailings Ponds 6E and 6W
- Tailing Pond 7 and interceptor system
- Filter plant
- Various surface impoundments and tanks
- Pipeline Corridor
 - Various process water, fresh water and tailing concentrate pipelines

- Various haul roads and mine access roads
- Various tailing impoundment equipment including, but not limited to, maintenance facilities, slurry cyclones, cranes, footings, slabs, walls, pavement, manholes, vaults, stormwater controls, etc.

1. Surface Shaping and Stormwater Management

- a. Reclamation design shall comply with *Table 6-1: Summary of Key Design Criteria for Facilities to be Closed* and Section 6.2 (“Pipeline Corridor Area and South Mine Area Reclamation Plan”) of the CCP.
- b. Permittee shall regrade to inter-bench slopes of no steeper than 3.0H:1.0V for Tailing Ponds 6E and 6W and Axiflo Lake, and no steeper than 4.0H:1.0V for Tailing Pond 7.
- c. Inter-bench slope lengths shall not exceed 200-feet for Axiflo Lake and Tailing Ponds 6E and 6W and 300-feet for Tailing Pond 7. Bench widths shall be a minimum of 15-feet.
- d. Permittee shall regrade these units in a manner that promotes positive drainage to the exterior of the facility and eliminates, to the extent practicable, ponding on the top surface and final cover surfaces.
- e. Permittee shall construct the top surface of Tailing Ponds 6E and 6W to a minimum final grade of 0.5% toward surface water conveyance channels located on the north side of the area to be reclaimed.
- f. Permittee shall construct the top surface of Axiflo Lake to a minimum final grade of 0.5% toward an outlet channel on the east side of the area to be reclaimed.
- g. Permittee shall construct the top surface of Tailing Pond 7 to a minimum final grade of 0.5% toward an HDPE-lined attenuation basin that shall be constructed on the north portion of Tailing Pond 7. Surface water that accumulates within the attenuation basin shall be directed to a constructed outlet channel.
- h. Armored channels shall be constructed, at a minimum, to convey peak flows generated from 100-year, 24-hour storm events.

2. Cover Placement Plan

- a. The top surface and outslopes of these units shall be covered with a minimum of a total of 36-inches of RCM.

3. Revegetation Plan

- a. Top surface and outcrops shall be reclaimed and revegetated in accordance with the reclamation and revegetation standards set forth in Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

4. Post-Mining Land Use

- a. The PMLU for these units shall be wildlife habitat. Compliance with §19.10.5.507.A NMAC shall be achieved by the following:
 - i. Vegetation in the reclaimed areas shall meet approved MMD revegetation standards of Appendix A, Seeding Methods and Revegetation Standards, of this Permit;
 - ii. Wildlife use shall be documented by conducting wildlife surveys in Axiflo Lake and the southern portions of Tailings Ponds 6E, 6W, and 7 including, but not limited to, deer pellet count surveys and bird diversity surveys in accordance with Section 9.R.4 Wildlife Monitoring of this Permit.
 - iii. The results of the wildlife surveys shall not be a condition of or given consideration with regard to financial assurance release.

5. Miscellaneous

- a. Pipelines located within the regraded footprint of the tailings ponds that will not be part of the PMLU or post-closure water management and water treatment system shall be closed in accordance with NMED Rules.
- b. All aboveground electrical systems and infrastructure, including outdoor lighting and transmission lines, not used for PMLU purposes or not necessary for site operation and maintenance, including water treatment, shall be removed or buried.
- c. Buried process water pipelines and other pipelines shall be capped and/or disposed in accordance with NMED Rules.

Q. Other Non-Specified Areas – Subject to Existing Unit Reclamation Standards (§19.10.5.507.A NMAC)

- 1. The following condition applies to any other disturbances within the permit area resulting from the mining operation not identified specifically in the CCP Update. This condition is required in order to reclaim the permit area to a condition that allows for re-establishment of an SSE as required by §19.10.5.507.A NMAC.

2. Unless otherwise approved, all areas previously disturbed and not identified specifically as a mine unit or borrow area shall be regraded for stormwater control, ripped or covered with a minimum thickness of 24-inches of RCM and revegetated in accordance with the requirements of Appendix A, Seeding Methods and Revegetation Standards, of this Permit.

R. Water Management and Treatment Plan

1. Permittee shall implement short-term and long-term water treatment as described in Section 6.3 (“Water Management and Treatment Plan”), Appendix C (“Water Management and Treatment Scope of Work”) of the CCP Update, and pursuant to NMED requirements for the 100-year closure period.
2. Process water sources shall be managed and/or treated throughout the site reclamation activities and until applicable water quality standards are met as determined by NMED requirements. Process water likely to be sent to the proposed water treatment system may include, but is not limited to:
 - a. Residual process solutions from the leach operation such as pregnant leach solution and raffinate.
 - b. Meteoric water that infiltrates through the leach stockpiles to seepage collection.
 - c. Stormwater runoff that comes into contact with un-reclaimed leach stockpiles.
 - d. Process waters from the Continental Mine.
 - e. Meteoric water that infiltrates through the waste rock stockpiles to seepage collection.
 - f. Stormwater runoff that comes into contact with un-reclaimed waste rock stockpiles.
 - g. Stormwater runoff that comes into contact with un-reclaimed pit walls.
 - h. Water removed from the existing open pit sumps.
 - i. Impacted groundwater captured in seepage collection and interceptor well systems.
3. Compliance and/or enforcement of water management and treatment shall be in accordance with NMED requirements.

S. Post-Closure Monitoring and Maintenance

Post-closure monitoring and maintenance shall be conducted as described in Section 7.0

("Closure and Post-Closure Monitoring, Reporting, and Contingency Plans") of the CCP Update.

1. Erosion and Drainage Control Structures [Section 7.1 of the CCP Update]

The following conditions apply to the reclaimed areas, including all borrow areas. The conditions for the reclaimed areas are required to mitigate the disturbances within the Permit Area and provide for stabilization of the permit area that will minimize future impact to the environment and protect air and water resources in accordance with §19.10.1.7.R(1) NMAC. The conditions are being imposed so that reclamation will result in re-establishment of an SSE as required by §19.10.5.507.A NMAC and to meet applicable environmental standards as required by 69-36-11.B(4) of the Act and §19.10.5.506.J(5) NMAC.

- a. The Permittee shall visibly inspect reclaimed lands for signs of excessive erosion and shall mitigate significant erosion features to prevent further degradation of the site.
- b. Drainage channels, diversion structures, retention ponds, and auxiliary erosion control measures shall be inspected for compliance with best management practices as described by nationally recognized standards such as the U.S. Natural Resource Conservation Service or other equivalent standard deemed acceptable by MMD.
- c. Inspections shall be conducted monthly for the first year following completion of reclamation construction activities for each unit, and quarterly thereafter.
- d. Reclaimed areas shall additionally be inspected for evidence of erosion after storm events of one inch or greater in any one-day period.
- e. Inspections shall continue until the specific units are released under the New Mexico Mining Act.
- f. The Permittee shall report evidence of significant rill, gully, or sheet erosion on any reclaimed area within 7 days of discovery. The Permittee shall report evidence of major instability or potential failure within 24-hours of discovery. The Permittee shall then provide MMD and NMED a written report that describes the nature and extent of erosion and a corrective action plan. The Permittee shall provide the written report and the corrective action plan within 30-days of discovery. The corrective action plan shall describe the efforts necessary to rectify the problem. The plan shall be implemented as soon as practical following approval by MMD.
- g. Erosion control measures that are damaged or ineffective shall be repaired or redesigned as necessary to maintain their designated functions. If erosion control problems develop, the Permittee shall implement solutions to solve or mitigate the

problem using generally accepted and appropriate erosion control measures. Long-term erosion control measures will include revegetation, the installation of berms, designed channels, and sediment containment structures, as necessary, and shall be designed for a minimum of a 100-year, 24-hour storm event. Short-term erosion control measures may include, but not be limited to, revegetation, silt fences, hay bales, water bars, and mulching.

2. Ground Water and Surface Water Control Facilities [Section 7.2 of the CCP Update]

- a. Closure and post-closure monitoring of all groundwater and surface water control facilities shall be conducted as described in Section 7.2 of the CCP Update, DP-1340 and NMED requirements.

3. Revegetation Success Monitoring [Section 7.3 of the CCP Update]

The following conditions are required to reclaim the Permit Area to a condition that allows for re-establishment of an SSE as required by §19.10.5.507.A NMAC and to meet applicable environmental standards as required by 69-36-11.B(4) of the Act and §19.10.5.506.J(5) NMAC.

- a. Permittee shall notify MMD at least two weeks prior to any monitoring conducted pursuant to this Permit to allow MMD an opportunity to accompany personnel of the Permittee.
- b. The Permittee shall submit a vegetation monitoring plan, for MMD approval, 90-days before vegetation monitoring is conducted.
- c. The Permittee shall conduct a qualitative vegetation monitoring of both volunteer revegetation and re-seeded areas during the third year after seeding. Results of the vegetation monitoring shall be provided to MMD. The Permittee shall inter-seed or re-seed those areas that have volunteer vegetation as well as other areas, if necessary. Quantitative monitoring shall be performed again in year 6 after reseeded, and then every 2-years during the last 4-years prior to application for release of financial assurance. Revegetation monitoring shall include, at a minimum, survey of canopy cover, plant diversity, and woody stem density. The monitoring shall be conducted to meet statistical adequacy during the 2-years of the last 4-years prior to release of financial assurance.
- d. The canopy cover survey and woody stem density survey shall be conducted using the survey techniques approved by MMD.

4. Wildlife Monitoring [Section 7.4 of the CCP Update; Modification 16-2]

- a. Permittee shall notify MMD at least two weeks prior to any wildlife monitoring conducted as required by this Permit to afford MMD an opportunity to accompany personnel of the Permittee.
- b. Permittee shall document wildlife use areas to be reclaimed for a post-mining wildlife habitat as follows:
 - i. Deer pellet group counts shall be conducted seasonally in year 6 after reseeding, and in 2-years of the last 4-years prior to release of financial assurance; and
 - ii. Bird diversity surveys shall be conducted twice (seasonally) in year 6 after reseeding, and then every 2-years during the last 4-years prior to application for release of financial assurance.
- c. The deer pellet group counts and the bird diversity surveys shall be conducted in the same years that the quantitative vegetation surveys are conducted as required in Appendix A, Seeding Methods and Revegetation Standards, of this Permit. Results of the surveys will be evaluated to determine wildlife-use trends during re-establishment of an SSE.
- d. The Permittee shall perform the wildlife monitoring surveys in accordance with the MMD approved wildlife monitoring work plan. The results of these surveys shall not be a condition with regard to bond release.
- e. Proposed changes to the approved wildlife monitoring work plan shall be submitted to MMD at least 45-days prior to Permittee's implementation of the proposed changes.

5. Public Health and Safety [Section 7.5 of the CCP Update]

- a. Permittee shall ensure that the Santa Rita/Chino Mine open pit area does not pose a current or future hazard to public health or safety and shall take measures to limit future access to the Santa Rita pit area to authorized personnel by implementing the following measures at closeout:
 - i. Permittee shall submit written details and maps of berm and fence locations that will be placed to restrict access by unauthorized personnel and provide for public safety within 180-days of cessation of operations.
 - ii. Permittee shall conduct annual visual inspections for erosion and slope stability of the interface of the conditionally waived stockpile areas and the non-waived stockpile areas.

- iii. Permittee shall conduct quarterly visual inspections of the pit walls to identify signs of slope instability.
- iv. Permittee shall report areas of instability or failure, which may adversely impact the environment or public health no later than 24-hours after discovery and shall propose mitigation measures within 30-days of identification for MMD approval.

T. Annual Adjustment of OPSDA and Conditional Waiver Area [Section 7.6 of the CCP Update]

- 1. Permittee shall submit a potentiometric map of the North Mine Area and the South Mine Area annually.
- 2. Permittee shall submit a map delineating the OPSDA and the MMD waiver areas every five years or in CCP Updates.

U. Reclamation Cover Material Handling Plan

- 1. Permittee shall submit an updated Reclamation Cover Material Handling Plan within 180 days after approval of this Permit.

V. Pit Material Handling Plan

- 1. The Permittee shall submit an updated Pit Material Handling Plan within 180 days after approval of this Permit.

W. Administrative Order on Consent

1. Submittals

- a. The Permittee shall submit to MMD for review any proposals approved by NMED for the areas under the Administrative Order on Consent (“AOC”) such as remedial investigations and feasibility studies that may affect the CCP Update. Approvals required by the AOC that may affect the closeout plan or any other New Mexico Mining Act requirements shall be provided to MMD for approval.

2. Permit Modifications

- a. If any of the AOC submittals indicate that additional or alternative closeout actions are necessary to ensure the establishment of an SSE, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) NMAC, the MMD may require that the

Permittee submit a request to modify or revise the permit. MMD will review the submittal to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B NMAC.

X. National Environmental Policy Act Documents

1. Submittals

- a. The Permittee shall submit to MMD any proposals approved by the U.S. Bureau of Land Management (“BLM”) under the National Environmental Policy Act. If any of the Chino submittals to BLM indicate that additional or alternative closeout actions are necessary to ensure the establishment of an SSE; and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) NMAC, the MMD may require that the Permittee submit a request to modify or revise the permit. MMD will review the submittal to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B NMAC.

Y. Additional Studies

1. Revegetation

The conditions for test plots are required so that the Permittee can demonstrate that proposed revegetation and reclamation measures or alternative revegetation and reclamation measure will reclaim the Permit Area to a condition that allows for re-establishment of an SSE as required by §19.10.5.507.A NMAC.

- a. Test-plot studies for proposed RCM or conditionally approved RCM shall be conducted as required by MMD. At a minimum, the test-plot study will be designed to measure and evaluate cover placement depth relative to the following:
 - i. Woody plant density.
 - ii. Percent canopy cover.
 - iii. Plant diversity.
 - iv. Relative erosion rates of covered and uncovered slopes.
- b. The Permittee shall submit a test-plot study workplan to MMD prior to construction or implementation of a test plot. The Permittee shall include in the workplan, for MMD approval, the methodologies used for vegetation studies, statistical analysis for the test plots, and vegetation monitoring frequency. The methods shall be consistent with monitoring methodologies used for reclaimed areas at the mine site.

- c. Test-plot studies shall analyze cover/soil suitability parameters such as texture, CEC, WHC, organic matter, soil microbiological activity, pH, EC and, metals or other parameters as required, including physical and hydraulic characteristics. The Permittee shall also include additional information as required by other agencies.
- d. The Permittee shall submit to MMD no later than 90-days after test-plot construction, a report of the as-built vegetation test plots. This report shall include, at a minimum, a written description with maps of each of the test plots including number, size, location and any analytical data. This information shall also be provided in tabular form. The test-plot construction report shall include a description of deviations from the workplan, if any. The maps included with this report shall include the locations of the borrow source(s). The report shall also include actual cover thickness data generated from a random grid-sampling regime (no less than 5 excavations per plot). The cover thickness data shall be presented in both plan view maps and in tabular form.
- e. Vegetation monitoring reports shall provide a discussion of observed erosion, the success or failure of specific revegetation efforts, evaluate trends, and identify limitations to plant establishment.

2. Studies for Other Agencies

- a. The Permittee shall submit to MMD copies of any work plans or studies for reclamation or closeout of the permit area and affected areas required by NMED or other agencies. If any submittals to NMED or other agencies indicate that additional or alternative closeout actions are necessary to meet New Mexico Mining Act requirements, the MMD may require the Permittee to submit a request to modify or revise the permit. MMD will review the request to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.10.5.505.B NMAC.

Z. Financial Assurance

The following conditions are required to ensure that adequate financial assurance is provided for the site, as required by §19.10.5.506.J(2) and §19.10.12 NMAC.

- 1. The Permittee may apply for and obtain release of financial assurance in accordance with §19.10.12.1210 NMAC.
- 2. The Permittee shall evaluate the adequacy of the financial assurance at least every five years as part the CCP Update unless otherwise directed by MMD.
- 3. The Permittee shall not be released from the requirements of the Mining Act for those areas approved as industrial until the industrial PMLU has been implemented.

4. The Permittee shall be responsible at all times to maintain financial assurance in a form or forms and in an amount sufficient to meet the requirements of the Mining Act Rules. In addition, the Permittee shall review the amount of funds in the Chino Trust based upon the valuation report provided by the Trustee to MMD and NMED at the end of each calendar year and shall provide additional financial assurance as follows:
 - a. If, at any annual review conducted under this paragraph, the amount of funds in the Trust plus any other financial assurance provided by Chino, excluding all amounts covered by a third-party guarantee, are not equal to or greater than twenty-five percent (25%) of the total amount of financial assurance required under this Permit at that time (based upon a net present value calculation), then Chino shall provide additional financial assurance such that the total value of all trust funds plus other financial assurance provided by Chino is equal to or greater than twenty-five percent (25%) of the total amount of financial assurance required under this Permit.
 - b. The Permittee shall report the ending balance of the Chino CCP Trust for each calendar quarter to MMD and NMED no later than April 30, July 31, October 31, and January 31 of each year.
 - c. The Permittee shall review the amount of fund in the Chino CCP Trust based upon the valuation reported provided by the Trustee to MMD and NMED as of the end of every calendar quarter and shall provide additional financial assurance as follows:
 - i. If the amount of funds in the Chino CCP Trust is not equal to or greater than the minimum account balance of \$138,811,000 for the previous consecutive 90-Business Days ending on the last day of the calendar quarter, then within 210-days after the end of the calendar quarter, the Permittee shall make payment sufficient to bring the Chino CCP Trust account balance to \$138.811.000 (“**Supplemental Payment**”). To make this Supplement Payment the Permittee may establish a cash account pursuant to 19.10.12.1208.D or may establish a separate trust fund in a form approved by the Director in accordance with §19.10.12.1208.E NMAC in an amount such that the total of all trust funds provided as financial assurance for Chino equals at least \$138,811,000. When the amount of funds in the CCP Trust has been equal to or greater than the minimum account balance of \$138,811,000 for at least two consecutive quarters after the Supplemental Payment is made and the total amount of financial assurance, without considering the Supplemental Payment, is sufficient to meet the requirements of the Mining Act Rules, the Permittee may request that all amounts in a cash account or separate trust fund established to receive the Supplemental Payment be returned to Permittee.

- ii. Business Day is defined as any day that is not a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by law to remain closed.
- 5. The Permittee shall not replace the Chino CCP Trust with other forms of financial assurance.
- 6. Earnings on invested funds shall be retained in the Chino CCP Trust.
- 7. The Director may require adjustment of the financial assurance as provided in §19.10.12.1206 NMAC.
- 8. Cost of administering the Chino CCP Trust and any taxes payable to the Chino CCP Trust shall be paid from the Chino CCP Trust.
- 9. MMD, NMED and the Permittee shall establish a management committee composed of members within State Government with experience in financial matters and investments and an equal number of members designated by Chino who shall meet annually regarding the performance of the Trust and possible adjustments to the Trust managers and advisors.
- 10. Permittee shall submit annual financial soundness tests for any guarantor providing a Third-Party Guarantee as required by 19.10.12.1208.G(8) NMAC.

AA. Water Quality

- 1. The Permittee shall submit to MMD a copy of any proposals approved by NMED involving groundwater modeling, geochemical characterization and modeling, and cover infiltration necessary for closure. The Permittee shall submit any studies required by NMED related to the CCP Update to MMD. If any of these submittals indicate that additional or alternative closeout actions are necessary to meet the requirements of the New Mexico Mining Act and Rules, the MMD may require the Permittee to submit to MMD a request to modify or review the permit. MMD will review the request to determine if a modification or revision of this permit is required by §19.10.5.504.B and §19.105.505.B NMAC.

BB. Reclamation Schedule

- 1. The reclamation schedule shall be as described in *Table 10-1: Reclamation Schedule* within the CCP Update.
- 2. The reclamation of units at Chino shall begin in accordance with the schedule identified in *Table 1: Reclamation Schedule* below, unless earlier reclamation is required by other agencies or is initiated under the requirements of Section 9.CC Temporary Cessation of this Permit.

3. During reclamation, measures shall be taken to provide for the stabilization of the disturbances that will minimize future impact to the environment and protect air and water resources.
4. Permittee may submit to MMD for approval a request to modify or revise the Reclamation Schedule pursuant to 19.10.5.505 NMAC.
5. Permittee's performance of reclamation shall not be construed to modify or limit the Permittee's existing obligations or requirements set forth in other state or federal permits.

Table 1: Reclamation Schedule (From Table 10-1 in the CCP)

Unit	Anticipated Start Date for Reclamation to Begin^{1, 2, 3, 4, 5}	Anticipated Duration (Years)⁶
Axiflo Lake	4 years following cessation of milling operations to allow for water management	1.5
Southern ends of ponds 6E and 6W	180 days following reclamation of Pond 7 to allow for water management	2
Tailing Pond 7	4 years following cessation of short-term ETS period	7.5
Tailing Pipeline Corridor	4 years following cessation of milling operations and water management	2
Tailing Borrow Areas	1 year following reclamation of Tailings Ponds	5
3A Stockpile	180 days following cessation of mining operations	1.5
9 Waste Rock Stockpile	180 days following cessation of mining operations	1.5
North Stockpile	180 days following cessation of mining operations	1.5
Northeast Stockpile	180 days following cessation of mining operations	1.5
Northwest Stockpile	180 days following cessation of mining operations	1
North Lampbright Stockpile	180 days following cessation of mining operations	3.5
Southwest Lampbright Stockpile	180 days following cessation of mining operations	3.5
West Stockpile	2 years following cessation of short-term ETS period	4.5
Lee Hill Leach Stockpile	2 years following cessation of short-term ETS period	1.5

East In-Pit Leach Stockpile	2 years following cessation of mining operations	1.5
South In-Pit Leach Stockpile	2 years following cessation of mining operations	1.5
Main Lampbright Stockpile	5 years following cessation of short-term ETS period	4.5
South Lampbright Stockpile	5 years following cessation of short-term ETS period	4.5
South Stockpile	3 years following cessation of short-term ETS period	5
Upper South Stockpile	1 year following completion of reclamation of South Stockpile	2
STS2 Stockpile	1 year following completion of reclamation of South Stockpile	1.5
East Pit Access Area	1 year following reclamation of Lampbright Stockpile	1
Reservoirs (not part of Water Treatment Plant)	5 years following cessation of leaching operations	3
Industrial PMLU Areas	10 years following cessation of leaching operations	3.5
Groundhog No. 5 Stockpile	Completion by no later than December 31, 2024. See Section 9.I of this Revision 18-1 for additional details.	

Definitions for activities described in Table 10-1:

1. “Cessation of milling operations” means the cessation of operation at the Ivanhoe Concentrator and related facilities when there is no intent to resume operations.
2. “Cessation of mining operations” means the cessation of ore recovery and waste haulage operations at the Chino Mine when there is no intent to resume operations.
3. “Cessation of leaching operations” means the cessation of copper recovery operations at the Chino Mine SX/EW Plant and related leaching stockpiles and infrastructure when there is no intent to resume operations.
3. “Start date” is defined as the date that work plans or engineering designs describing how the unit is to be closed or reclaimed have been submitted.
4. “Cessation of short-term ETS period” means the cessation of the short-term evaporative treatment system.

5. “Anticipated duration” for facility reclamation does not include regulatory design review and approval processes.
6. “Intent to resume operations” means that the operations have been suspended for a continuous period of no longer than two years due to anticipated temporary market conditions, government orders, or similar circumstances but are being maintained in a state of general readiness such that the operations could resume within a period of less than 180 days, as evidenced by remaining ore reserves and considering all of the following as a whole: (1) public statements of management concerning the status of the mining operations, such as in 10K and 10Q reports; (2) maintaining a staff on site to maintain equipment and facilities in an operable state; (3) conducting other ongoing mining operations such as drilling and operational mine planning, and (4) any other relevant factors that demonstrate an intent to resume operations. On or before 30 days before each 180 days after the suspension of operations or the effective date of this Revision, whichever is later, the Permittee shall report to MMD on the intent to resume operations according to the criteria listed in this paragraph.

CC. Compliance with Environmental Permits

1. During the term of the permit issued under authority of §19.10.5 NMAC, the Permittee shall maintain in effect all environmental permits required for the Permit Area. Revocation or termination of such a permit or the forfeiture of financial assurance related to the Permit Area by another governmental agency is adequate ground for the Director to issue a cessation order under authority of §19.10.11 NMAC.

DD. Temporary Cessation

1. If due to a temporary cessation of mining operations, milling operations, or leaching operations as defined for Table 10-1 at the Chino Mine for a period exceeding 180 days as provided in 19.10.7.701.A NMAC, and the Permittee wishes to suspend reclamation activities in accordance with the schedule provided in *Table 1: Reclamation Schedule* above, the Permittee shall submit an application for a permit revision for standby status in accordance with §19.10.5.505 and §19.10.7 NMAC. The permit revision for standby may apply specifically to mining operations, milling operations, leaching operations, or a combination of the three.

EE. Closure/Closeout Plan Renewal

1. The Permittee shall submit an application for a revision of this Permit including an updated Closure/Closeout Plan pursuant to 19.10.5 NMAC at the same time it submits an application to renew Discharge Permit 1340 which provides the New Mexico Environment Department’s approval of the CCP Update .

FF. Changes, Modifications, or Revisions to the Permit

1. Earlier modifications or revisions to a portion, or portions, of the permit may be required if changes at the mine warrant such action as determined by the MMD Director.
2. Any changes, modifications or revisions to the approved Permit must be approved, in writing, prior to implementation.

GG. Annual Report and Fees

1. Permittee shall submit annual reports as required by §19.10.6.610 NMAC, and any fees as required by §19.10.2 NMAC. The Permittee shall identify any areas of new disturbance in each annual report submitted to MMD.

HH. Permit Term

1. Permittee shall maintain this Permit until reclamation is completed at the site. The term of this Permit is governed by §19.10.5 NMAC.

Section 10. CONCLUSIONS OF LAW

- A. The Director has jurisdiction over the Permittee and the subject matter of this proceeding.
- B. PAP 18-1 is complete, accurate, and complies with the requirements of the Act and Sections §19.10.5.502 NMAC and §19.10.5.503 NMAC and with conditions described in this Permit Revision document.
- C. PAP 18-1 is complete, accurate, and complies with the requirements of Section §19.10.5.505 NMAC. The Permittee is permitted, under authority of the New Mexico Mining Act, to conduct mining and reclamation operations at the Chino Mine, Grant County, New Mexico, upon the condition that the Permittee complies with the requirements of this Order, the Act, the Rules, and Permit No. GR009RE and all revisions thereof and modifications thereto.

CERTIFICATION

I certify that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals responsible for obtaining the information; I believe the submitted information is true, accurate, and complete.

I certify that I have read, understand and will comply with the requirements of this Permit Revision 18-1. I also agree to comply with the performance and reclamation standards and requirements of the Permit, the Rules, and the Act, and allow the Director to enter the permit area without delay for the purpose of conducting inspections.

Chad D. Tietz

Authorized Representative of the Permittee

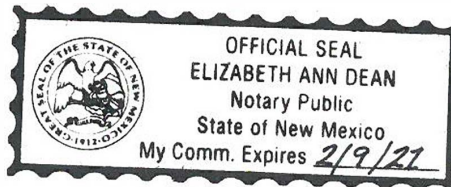
President and General Manager of Chino Acquisition LLC
Title and Freeport-McMoRan Chino Inc., General Partners of
Freeport-McMoRan Chino Mines Company
Company

Subscribed and sworn to before me this 24 day of September, 20 20

Elizabeth Ann Dean
Notary Public

My Commission Expires


Feb. 9, 20 21



ORDER

NOW THEREFORE, IT IS HEREBY ORDERED that reissued Permit No. GR009RE, incorporating the Closeout Plan and allowing Chino Mines Company to conduct closeout and reclamation operations in Grant County, New Mexico, is approved. The Permit may not be transferred without approval by the Director. The Permit is subject to all conditions set out in the Director's Findings of Fact, General Obligations and Conditions, Conclusions of Law, and Order.

By Order of the Director, Mining and Minerals Division, Energy, Minerals and Natural Resources Department, of the State of New Mexico.

By: 

Jerry Schoeppner, Director
Mining and Minerals Division
Energy, Minerals and Natural Resources Department

Date: 9/29/2020

Appendix A

Seeding Methods and Revegetation Standards

Seeding Methods

After placement of RCM on top slopes and outcrops in accordance with this Permit Revision 18-1, the Permittee shall leave the seedbed in a roughened condition to reduce overland flow and promote the infiltration of water. This soil surface confirmation and the high rock fragment content of the topdressing may preclude the use of a drill seeder, which is the preferred methodology for reseeding. If drill seeding is not feasible, seed shall be broadcast and covered using a chain- or tire-drag. Certified weed-free straw or native grass mulch shall be applied at a rate of at least two tons/acre and stabilized using a tackifier emulsion or by crimping. Long-stem mulch is preferred over shorter materials. The mulch shall be certified weed-free and contain a minimum of viable seeds associated with the mulch source (e.g., barley or wheat seeds). Permittee shall design, construct and maintain best management practices for erosion control according to nationally recognized standards of the U.S. National Resources Conservation Service or alternative equivalent standards.

Seed Mix

The primary reclamation seed mix proposed for the Chino Mine includes warm season grasses, perennial shrubs, and forbs. A list of alternate or substitute species is included if some species on the primary list are unavailable is included. With the exception of white sweet clover, all the species are native, and most occur at Chino. White sweet clover was included in the mix since it may improve the nitrogen status of the topdressing if the seed is inoculated with viable rhizobium bacteria. The seed mix was selected to provide early establishment of ground cover, erosion control, and diversity in grown forms. The seed mix is designed for application prior to the summer rains and the seeding should be completed by the end of June.

A list of species for the seed mix is included in *Table 8-1: Proposed Interim Seed Mix and rates for the Chino Mine Reclamation Sites* of the Update CCP:

Species	Life-Form	Duration	Seasonality	Rate
Primary				
Blue grama (<i>Bouteloua gracilis</i>)	Grass	Perennial	Warm	0.50
Side-oats grama (<i>Bouteloua curtipendula</i>)	Grass	Perennial	Warm	1.5
Black grama (<i>Bouteloua eriopoda</i>)	Grass	Perennial	Warm	0.10
Green sprangletop (<i>Leptochloa dubia</i>)	Grass	Perennial	Warm	0.25
Plains lovegrass (<i>Eragrostis intermedia</i>)	Grass	Perennial	Intermediate	0.05
Apache plume (<i>Fallugia paradoxa</i>)	Shrub	Perennial	NA	0.10
Mountain mahogany (<i>Cercocarpus montanus</i>)	Shrub	Perennial	NA	1.5
Winterfat (<i>Eurotia lanata</i>)	Shrub	Perennial	NA	1.0

White prairie clover (<i>Dalea candida</i>)	Shrub	Perennial	NA	0.25
Globe mallow (<i>Sphaeralcea sp.</i>)	Forb	Perennial	NA	0.1
Blue flax (<i>Linum lewisii</i>)	Forb	Perennial	NA	0.25
Total PLS (lb/ac)				5.6
<i>Alternate</i>				
Sand dropseed (<i>Sporobolus cryptandrus</i>)	Grass	Perennial	Intermediate	TBD
Tobosa (<i>Hilaria mutica</i>)	Grass	Perennial	Warm	TBD
Bush muhly (<i>Muhlenbergia porteri</i>)	Grass	Perennial	Warm	TBD
Squawberry (<i>Rhus trilobata</i>)	Shrub	Perennial	NA	TBD
Fourwing saltbush (<i>Atriplex canescens</i>)	Shrub	Perennial	NA	TBD
Prairie coneflower (<i>Ratibida columnaris</i>)	Forb	Perennial	NA	TBD
White sweet clover (<i>Melilotus alba</i>)	Forb	Annual	NA	TBD

Vegetation Success Standards and Success Monitoring

Canopy Cover

The numerical standard for canopy cover shall be 70% of the reference area for existing units and 90% for new units. The reference area to be used for the vegetation success standard in the North Mine Area is the Rustler Canyon reference area. The reference area to be used in the South Mine Area is the South Mine reference area located just west of Tailing Pond 6.

Shrub Density

The standard for shrub density shall be 60% of the shrub density based on the reference area used.

Plant Diversity

The plant diversity standard is shown below and shall be utilized for the Chino Mine. These standards for canopy cover, shrub density, and plant diversity shall be applicable to the naturally revegetated areas as well.

Class	Seasonality	Number	Minimum Occurrence (% Cover)
Perennial Grass	Warm	3	1.0
Perennial Shrub	NA	2	1.0
Perennial Forbs	NA	2	0.1

Revegetation Success Monitoring

The reclaimed and reference areas shall be monitored periodically after the final grading and the initial establishment of vegetation on the reclaimed lands. Regular inspections will be made to

determine the initial success of the seeding. Thereafter, vegetation monitoring shall be conducted periodically starting three years after initial establishment of vegetation on the reclaimed lands. Vegetation shall be monitored more frequently in the years prior to financial assurance release determination than in the mid-term period.

Figure 1: Post Mining Land Use and Waiver Areas in the North Mine Area (from Figure 8-1 in Addendum #2 to PAP Rev. 18-1)

