

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**Tony Delfin**  
Acting Cabinet Secretary

**Fernando Martinez, Director**  
Mining and Minerals Division



November 8, 2016

Thomas L. Shelley, Manager  
Freeport-McMoRan Cobre Mining Company  
P.O. Box 10  
Bayard, NM 88023

**RE: Transmittal of Approved Permit Revision 14-1  
Cobre to Chino Haul Road Project, Permit No. GR002RE  
Grant County, New Mexico**

Dear Mr. Shelley:

The New Mexico Mining and Minerals Division (“MMD”) hereby acknowledge the approval of Permit Revision 14-1 for the Cobre to Chino Haul Road Project, Permit No. GR002RE. The Cobre to Chino Haul Road Project area is located within the permit boundaries of Permit GR002RE and lies situated upon federal (BLM) land and private lands owned by Cobre within the Hanover-Fierro Mining District in Grant County, New Mexico. The proposed project incorporates a Closeout Plan and New Unit Standards for the Cobre Haul Road New Unit Expansion Area into Permit GR002RE; and expands the approved permit boundary and design limits within the Cobre Mine Permit Area in order to facilitate the transportation of copper ore from Cobre’s mining facilities to Freeport-McMoRan Chino Mines Company facilities for beneficiation; and approves an increase in the required financial assurance for the Continental Mine in the amount of \$632,612. If you have any questions, please contact me at (505) 476-3436 or via e-mail at: [james.hollen@state.nm.us](mailto:james.hollen@state.nm.us).

Sincerely,

James Hollen, Permit Lead – GR002RE  
Mining Act Reclamation Program (“MARF”)

**Enclosures:** *Permit Revision 14-1 to Permit GR002RE*

**cc:** Fernando Martinez, Director, MMD  
Holland Shepherd, Program Manager, MARP/MMD  
Doug Haywood, Program Manager, Las Cruces District Office, BLM  
Allyson Siwik, Executive Director, GRIP  
Michael Johnson, R.G., Chief, Hydrology Bureau, NMOSE  
Dr. Matthew Wunder, Ph.D., Chief, Ecological & Environmental Planning Division, NMDG&F  
Dr. Bob Estes, Ph.D., Archaeologist, NMDCA-HPD  
Kurt Vollbrecht, Program Manager, MECS/NMED-GWQB  
Mine File GR002RE



**Section 2 (14-1).**                    **PERMIT APPLICATION PACKAGE**

- A. The Permit Revision Package (“PRP”) is comprised of the following documents:
1. Permit Revision Application including Closeout Plan requesting to change the permit boundary and design limits to facilitate the construction of a haul road linking the Chino and Cobre Mines, dated August 22, 2014, submitted by Cobre.
  2. Cobre letter dated September 16, 2014, providing electronic copies of Permit Revision Application and Closeout Plan documents.
  3. Cobre letter dated October 3, 2014, providing proof of completed initial public notice.
  4. Cobre letter dated October 29, 2014, providing corrected information and replacement figures and pages to previously submitted materials deemed to be in errata.
  5. Cobre letter dated November 6, 2014, providing proof of completed public notice requirements pursuant to administratively complete application.
  6. Cobre letter, dated December 3, 2014, providing a “Memorandum of Record” in conjunction with questions raised by private landowner regarding land status.
  7. Cobre letter, dated April 24, 2015, requesting a 30 day extension to respond to Agency and Public Comment.
  8. Cobre letter, dated July 27, 2015, providing Cobre’s response to Agency and Public Review Comments.
  9. Cobre letter, dated November 23, 2015, providing supplemental responses to Agency Comments.
  10. Cobre letter, dated March 11, 2016, including an updated “Cobre Haul Road Closeout Plan”, dated February 2016, and Cost Estimate.
  11. Cobre letter, dated October 25, 2016, providing financial assurance in the form of a joint BLM-MMD Surety Bond (Surety Bond No. SU1142399).

**Section 3 (14-1).**                    **PERMIT AREA AND DESIGN LIMITS**

- A. The Cobre Mining Act Permit Boundary is expanded to include approximately an additional 31 acres, revising the Permit boundary designated in Section 3.A of the Permit Revision 01-1 of Permit GR002RE. The new Cobre Mining Act Permit Boundary is represented in:
1. Figure 2Rb – dated, June 2, 2015, Proposed MMD Boundary Application for

GR002RE.

- B. The unit shown in Figure 2Ra of the PRP, and identified as the Cobre Haul Road New Unit Expansion Area, is approved as a new unit and will increase the Cobre design limits to include approximately 100 additional acres, and is subject to the reclamation standard of §507.A of the Rules and the New Unit requirements of §508 of the Rules. Within 90 days of approval of this Revision, Permittee shall provide to MMD an updated Figure indicating all approved design limits for the Continental Mine.

**Section 4 (14-1).**

**FINDINGS OF FACT**

- A. The Permit Application and Closeout Plan are complete and contain all of the information required, with the conditions outlined in this revision document, as required by §19.10.5.503.F.1 and §19.10.5.506.J.1-6 NMAC.
- B. The Permittee has provided written information stating the name and official business address of the applicant and its agent for service of process, as required by §19.10.5.503.F.2 NMAC.
- C. The Permittee has provided the required signature and certification, as required by §19.10.5.503.F.3 NMAC.
- D. The Permittee is in compliance with §19.10.2 NMAC regarding fees.
- E. The Permit Application has been determined to be administratively complete, as required by §19.10.5.506.D NMAC.
- F. The Permit Application and Closeout Plan have been determined to be approvable, as required by §19.10.5.506.G NMAC.
- G. Public notice for the Permit Application was provided as required by §19.10.9 and §19.10.5.503.F.5 NMAC. Public notice for the Closeout Plan Permit Revision was provided, as required by §19.10.9 and §19.10.5.506.J.1 NMAC.
- H. The Director has consulted with the applicable state and federal agencies as required by 19.5.503.C NMAC.
- I. MMD provided the 14-1 PRP to the following tribal entities and requested review and comment: the Hopi Tribe, the White Mountain Apache Tribe, the Mescalero Apache Tribe, the Pueblo of Isleta, the Fort Sill Apache Tribe, and the Navajo Nation. Comments from the Hopi Tribe, the Navajo Nation and the White Mountain Apache Tribe were received by MMD. In response to the comments from the Hopi Tribe, MMD has provided copies of the cultural resource surveys of the CHR area to the Hopi Tribe. The Navajo Nation and the White Mountain Apache Tribe responses stated that they did not anticipate any impacts to their traditional cultural properties.

- J. The Permittee has provided satisfactory joint BLM-MMD financial assurance to complete the Closeout Plan in the amount of \$632,612 based on the net present value calculation as required by §19.10.5.506.J.2 NMAC. The financial assurance instruments are in forms acceptable to the Director. The reclamation cost estimate for the 9 acres of BLM land within the proposed CHR footprint totals \$53,983. The reclamation cost estimate for the proposed CHR on Cobre's private property totals \$685,550, for a combined total current value of \$739,533.
- K. The approved Post-Mining Land Use ("PMLU") for the CHR is wildlife habitat. The CHR Closeout Plan, subject to conditions in this Permit Revision, demonstrates that the work to be done will reclaim disturbed areas within the CHR unit to a condition that allows for the re-establishment of a self-sustaining ecosystem following closure, appropriate for the life zone of the surrounding areas.
- L. The Bureau of Land Management ("BLM") conducted an Environmental Assessment of the Amendment No. 5 to Mine Plan of Operations for the Continental Mine. A record of decision and a finding of no significant impact was issued by the BLM on May 13, 2015.
- M. Pursuant to §19.10.5.506.J(5) NMAC, The Secretary of the Environment Department provided a written determination on September 14, 2015, stating that the Permit applicant has demonstrated that the activities to be permitted or authorized will be expected to achieve compliance with all applicable air, water quality, and other environmental standards if carried out as described in the Closeout Plan.

**Section 8 (14-1).**

**COMPLIANCE REQUIREMENTS**

This permit revision incorporates the language and obligations of Permit No. GR002RE Rev. 01-1, in addition to subsequently approved permit revisions and modifications of GR002RE Rev. 01-1.

- A. The Permittee shall conduct mining and reclamation operations only as described in the approved 14-1 PRP, the Permit, and any revisions or modifications approved by the Director.
- B. This Permit Revision is issued pursuant to NMSA 1978, Section 69-36-1 et. seq. and Title 19, Chapter 10 NMAC. The Permittee shall comply with all other state and federal requirements, local and county ordinances and standards including without limitation the Cultural Properties Act, NMSA 1978, Section 18-6-1 to 27 and regulations promulgated pursuant thereto, and 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. The Permit Revision does not grant or create any water rights. Nor does MMD, by approving this Permit Revision 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 Revision. 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 Revision.

**Section 9 (14-1). GENERAL OBLIGATIONS AND CONDITIONS FOR EXISTING FACILITIES AND NEW UNITS**

The conditions outlined in this section are required for the Permittee to meet the requirements of the New Mexico Mining Act Rules. This Permit is subject to the following conditions:

**A. COBRE HAUL ROAD NEW UNIT EXPANSION**

The following conditions apply to the CHR as identified on Figure 2Rb – June 2, 2015, Proposed MMD Boundary Application for GR002RE and Closeout Plan for the Cobre Haul Road. The conditions for the CHR New Unit are required to mitigate the disturbances within the Unit area and, to the extent practicable, provide for stabilization of the Unit area following closeout that will minimize future impact to the environment and protect air and water resources in accordance with §19.10.7.R.(1) of the Rules. The conditions are required to operate the Unit area in compliance with the standards and requirements for New Units as required by §19.10.5.508 of the Rules. The conditions are also required to reclaim the Unit area to a condition that allows for re-establishment of a self-sustaining ecosystem as required by §19.10.5.507.A of the Rules. The specifications contained in this Section may be modified in final engineering design with MMD approval.

**1. Surface Shaping and Stormwater Management**

- a) The Permittee shall regrade the CHR in a manner that ensures long term stability and positive drainage from areas to be covered and revegetated and eliminates, to the extent practicable, ponding on final cover surfaces. The Permittee shall construct top surfaces and final cover surfaces to direct stormwater away from covered surfaces and provide other erosion controls if required by MMD.
- b) The Permittee shall provide MMD with detailed plans for stormwater management and best management practices for erosion control for MMD approval, at least 180 days before implementation. MMD may, in its discretion, approve and authorize implementation of the plan less than 180 days after it is submitted. The Permittee shall design, construct, and maintain best management practices for erosion control identified by the U.S. Natural Resource Conservation Service or alternative equivalent standards.

**2. Cover Placement Plan**

- a) The CHR will be constructed according to the designs submitted with the PRP using a balanced cut and fill design to minimize grade changes and to use locally available material for use as cover material at closeout during final reclamation. Upon closeout, operational travel surfaces of the CHR shall be ripped to a depth of 18 to 24 inches and regraded. Regraded surfaces of the CHR shall incorporate bermed

material into the road and regraded out slopes as shown on Figure AR4-February 17, 2016, and Figures A7R-A11R of the February 2017 Closeout Plan for the CHR. The textural characteristics of the cover material shall be supportive of a self-sustaining ecosystem and shall be determined through on-going test plot studies. A modification to the Permit may be necessary pursuant to Condition M.1 (a). Design specifications in Condition A.2 of this Permit Revision may be modified during the final engineering design with MMD approval.

- b) Colorado Formation overburden, or other approved materials for cover, shall be excavated by employing a balanced cut and fill design utilizing locally available cover materials from within the CHR footprint. Samples of the CHR overburden material shall be taken during excavation of the material and then analyzed in accordance with an MMD approved sampling plan as required by Condition M.5 of Revision 01-1 to Permit GR002RE. Within 90 days of approval of this Revision, Permittee shall provide to MMD a plan for sampling CHR overburden at regular intervals throughout the length of the CHR as construction progresses to determine the suitability of the overburden as a growth media for revegetation of the CHR at reclamation.
- c) The CHR, including all sources used as borrow for rip rap and cover material, unless part of the operational mine area, shall be graded for stormwater control, and where located on non-acid-generating material shall be ripped or covered to a depth of 18 to 24 inches and revegetated according to the New Unit requirements in Appendix C, Part C of GR002RE 01-1. Where located on acid-generating material, the surfaces shall be covered with topdressing to a minimum depth of 36 inches and revegetated according to the requirements of Appendix C, Part C of GR002RE 01-1. The CHR will be reclaimed in accordance to the proposed Closeout Plan (CP); however, this plan can be modified under the final design and construction quality assurance/construction quality control (“CQA/CQC”) plan.
- d) Roads required for continued site maintenance and operation will be proposed in the final closeout engineering design for approval by MMD. These roads will be maintained within the CHR New Unit Expansion for access. Culverts shall be removed on all haul roads where practicable and as required by paragraph f) below. The ripped and/or covered surfaces shall be graded for stormwater control.
- e) Pursuant to 19.10.5.508.B(4)(d)(ii) NMAC, drainage control structures shall be used, as necessary to, control runoff and to minimize erosion, sedimentation and flooding. Drainage facilities shall be installed as road construction progresses and shall be capable of handling, for overland flow, a 10-year, 24-hour precipitation event unless site-specific characteristics indicate a different standard is appropriate. Culverts and drainage pipes shall be constructed and maintained to avoid plugging, collapsing, or erosion.
- f) Culverts in ephemeral drainages will remain in place with the exception of the 883 foot long southernmost culvert that will be removed at reclamation, as shown in

Figure A11R of the Closeout Plan. Road crossings over the forest access road and Hanover Creek will be removed and demolished.

### 3. **Construction Quality Assurance Plan**

- a) The Permittee shall submit a final design and construction quality assurance/construction quality control (“CQA/CQC”) plan to MMD for approval not less than 180 days prior to proposed commencement of reclamation and shall implement the plan after MMD approval. If applicable, the design will include detailed engineering designs addressing slopes, surface erosion controls and stormwater management structures for MMD approval. The CQA/CQC plan shall include: a description of work to be conducted and identification of borrow areas, if applicable. Design specifications may be modified during the final engineering design with MMD approval.
- b) The Permittee shall submit a final CQA/CQC report to MMD not more than 180 days after reclamation construction completion. This report shall provide summaries of the quality assurance data, documenting that the project was completed according to the approved final design and CQA/CQC plan with significant exceptions explained. The report shall include a summary of work conducted, as-built drawings, soil testing results, laboratory analytical reports, and quality assurance data for out slopes, covers and for stormwater management structures. The final report shall provide a final topographic map with no greater than two-foot contour intervals for the top surfaces and no greater than ten feet for out slopes, and construction photographs

### 4. **Topsoil Salvaging**

As described in the July 27, 2015 PRP document, salvageable topsoil from construction of the CHR shall be collected and stockpiled for use in reclamation of the CHR. Topsoil stockpiles shall be constructed and maintained to prevent mass movement. The Permittee shall commit to using a variety of erosion control measures, as needed, if erosion control problems develop. Erosion control measures may include, but not be limited to: silt fences, hay bales, water bars, and mulching.

### 5. **Revegetation Plan**

Covered, ripped surfaces shall be revegetated in accordance with revegetation standards set forth in New Unit requirements in Appendix C, Part C of GR002RE 01-1. Seeding Methods and Revegetation Standards for New Units.

### 6. **Post-Mining Land Use**

The PMLU for the CHR shall be wildlife habitat. The CHR shall be included in the post reclamation wildlife monitoring activities required under Revision 01-1 of GR002RE, Section 9.F.5(b)-(d). Compliance with §19.10.5.507.A NMAC shall be achieved by the following:

- a) vegetation in the reclaimed areas shall meet the approved MMD revegetation



standards of Appendix C, Part C “Vegetation Success Standards And Success Monitoring for New Units” of Revision GR002RE, 01-1.

- b) wildlife use shall be documented by conducting wildlife surveys including, but not limited to, deer pellet count surveys and bird diversity surveys;
- c) the results of the wildlife surveys shall not be a condition of, or given consideration with regard to financial assurance release;
- d) Cobre shall take measures at closeout, to minimize adverse impacts to waterfowl and other wildlife, resulting from ponding or water impounded in the CHR area. Such measures will involve a hazard evaluation and then implementation of the appropriate mitigation measures to be used at closeout; and
- e) the Permittee shall establish wildlife habitat features, such as rock piles and/or brush piles, to promote floral and faunal diversity.

#### **7. Public Health and Safety**

The Permittee shall ensure that the CHR does not pose a current or future hazard to public health or safety and will take measures to limit future access to the CHR only to authorized personnel by implementing the following measures at closeout:

- a) where practicable and necessary to restrict access by unauthorized personnel and provide for public safety, fencing shall be placed around the perimeter of the CHR area, as described in the CHR PRP.
- b) signage posted, on fencing at 500-1000 foot intervals and at all access points, warning of potential hazards present;
- c) visual inspections to monitor stability of the CHR 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 measures to mitigate the hazard within 30 days of identification for MMD approval; and
- d) to allow access for maintenance activities by authorized personnel, locked gates will be placed in appropriate locations.

#### **8. Wildlife Protection**

Cobre shall take measures during mining and at closeout at the CHR, to minimize adverse impacts to wildlife, based on site-specific characteristics, by taking the following measures pursuant to 19.10.5.508.B(2) NMAC:

- a) restricting access of wildlife and domestic animals to toxic chemicals or otherwise harmful materials; and

- b) minimizing harm to wildlife habitat during mining.
- c) Cobre shall fence, as necessary, all revegetated areas to exclude, to the maximum extent practicable, livestock and unauthorized human activity. Fences shall be maintained until release of the areas under the Mining Act has been achieved.
- d) reclaiming areas of wildlife habitat if not in conflict with the approved post mining land use.

#### **9. Access Road**

A smaller road (approximately 12 to 14 feet in width, approximately 5 acres of disturbance) will remain on the footprint of the original CHR to provided access for post-closure maintenance and monitoring. Drainage control structures along the access road shall be used, as necessary to, control runoff and to minimize erosion, sedimentation and flooding. Pursuant to 19.10.5.508.B(4)(d)(ii) NMAC, drainage facilities shall be installed as necessary and as road construction progresses and shall be capable of handling a 10-year, 24-hour precipitation event unless site-specific characteristics indicate a different standard is appropriate. Any culverts and drainage pipes installed along the road shall be constructed and maintained to avoid plugging, collapsing, or erosion pursuant to 19.10.5.508.B(9) NMAC.

#### **10. Site Stabilization and Surface Configuration**

Final slopes and drainage configurations shall be compatible with a wildlife post-mining land use. All reconstructed slopes, embankments and roads shall be designed, constructed and maintained to prevent mass movement.

#### **11. Blasting**

Blasting shall be conducted to prevent injury to persons or damage to property not owned by the operator. Fly rock shall be confined to the Permit Area. Pursuant to 19.10.5.508.B(11) NMAC, a detailed blasting plan to control adverse effects to structures shall be submitted for MMD approval prior to blasting.

### **B. ADDITIONAL STUDIES**

#### **1. Revegetation**

This condition applies to the CHR n at the Continental Mine. The conditions for test plots are required so that the Permittee can demonstrate that proposed revegetation and reclamation measures or alternative revegetation and reclamation measures will reclaim the Permit area to a condition that allows for re-establishment of a self-sustaining ecosystem, as required by §19.10.5.507.A of the Rules.

- a) If the results of the test plot study required in Condition M.1 of the Revision 01-1 of Permit GR002RE indicate that alternative or additional closeout actions are necessary to allow for the establishment of a self-sustaining ecosystem; and/or necessary to 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.

**2. Studies for Other Agencies**

The Permittee shall submit to MMD copies of any work plans or studies for reclamation or closeout of the CHR New Unit Expansion 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, 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.

**C. FINANCIAL ASSURANCE**

The following conditions are required to ensure that adequate financial assurance is provided for the site, pursuant to §19.10.5.506.J.2, §19.10.12.1202.B, §19.10.12.1204.A, §19.10.12.1206.A, and §19.10.12.1210 NMAC.

1. The Permittee may apply for and obtain release of financial assurance in accordance with §19.10.12.1210 NMAC.
2. The Director may require the Permittee to evaluate the adequacy of the financial assurance approved as a part of the Permit. If upon review of the evaluation, MMD determines that a change to the financial assurance amount or form is required, the Permittee shall submit to MMD a request to revise the Permit. The Permittee may request a change to the financial assurance in accordance with §19.10.12 NMAC.
3. Cobre has provided financial assurance in the amount of \$632,612 based upon the net present value calculation, using an approved form of financial assurance pursuant to Part 12 of the New Mexico Mining Act Rules, which was approved on November 3, 2016, by MMD and Bureau of Land Management (“BLM”) as beneficiaries.

**D. POST-CLOSURE MONITORING AND MAINTENANCE**

**1. Erosion**

For the CHR post-closure monitoring and maintenance of erosion, the Permittee shall comply with Section 9.O.1 of Revision GR002RE 01-1.

The following conditions apply to the reclaimed areas. The conditions for the reclaimed areas are required to mitigate the disturbances within the Cobre Haul Road New Unit Expansion Area and provide for stabilization of the Cobre Haul Road New Unit Expansion 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 also required to reclaim the Cobre Haul Road New Unit Expansion Area to a condition that allows for re-establishment of a self-sustaining ecosystem, 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 and 19.10.5.508.D 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. Excessive erosion shall be defined through the studies in Condition O and Appendix C of Revision 01-1 of this Permit. Where installed in the Cobre Haul Road New Unit Expansion, drainage channels, diversion structures, retention ponds, and auxiliary erosion control measures will be inspected in accordance with nationally recognized standards of the U.S. Natural Resource Conservation Service or alternative equivalent best management practices. Inspections shall continue until the specific units are released under the New Mexico Mining Act. Inspections shall be conducted monthly for the first year following completion of reclamation construction activities for each unit, and quarterly thereafter. Reclaimed areas shall, additionally, be inspected for evidence of erosion after storm events of one inch or greater in any one-day period. Inspections shall continue until the specific units are released under the New Mexico Mining Act, unless continued inspections are required by other agencies.
- b) The Permittee shall report evidence of significant rill, gully, or sheet erosion on any reclaimed area within 24 hours of discovery. The Permittee shall then provide MMD a written report that describes the nature and extent of erosion and a corrective action plan, according to the following schedule. The Permittee shall provide the report within 30 days of discovery. The corrective action plan shall describe the efforts necessary to stabilize the affected area. The plan shall be implemented as soon as practical following regulatory approval.
- c) Erosion control measures that are damaged or ineffective shall be repaired, or re-designed as necessary. The Permittee shall commit to using a variety of erosion control measures, as needed, if erosion control problems develop. Long-term erosion control measures will include the installation of berms, designed channels, and sediment containment structures, as necessary, and shall be designed for a 100-year, 24-hour storm event. Short-term erosion control measures may include, but not be limited to: silt fences, hay bales, water bars, and mulching.

## 2. **Vegetation Monitoring**

The following condition is required to reclaim the CHR to a condition that allows for re-establishment of a self-sustaining ecosystem, 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, §19.10.5.506.J.5 and §19.10.5.508.E NMAC.

The Permittee shall conduct qualitative vegetation monitoring of both volunteer revegetation and re-seeded areas during the third year after seeding. Results of the vegetation sampling 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 vegetation monitoring shall be performed at the sixth year after planting and also for two of the final four consecutive years prior to financial assurance release. Revegetation monitoring shall include, at a minimum, canopy cover, plant diversity, and woody stem

density. The monitoring shall be conducted to meet statistical adequacy during the 2 consecutive years prior to financial assurance release. The canopy cover survey and woody stem density survey shall be conducted using the survey techniques approved by MMD. The Permittee shall submit a vegetation monitoring plan, for MMD approval, 90 days before vegetation monitoring is conducted. Cobre shall fence, as necessary, all revegetated areas to exclude, to the maximum extent practicable, livestock and unauthorized human activity. Fences shall be maintained until release of the areas under the Mining Act has been achieved.

**3. Wildlife Monitoring**

The Permittee shall include the CHR in the wildlife monitoring workplan required by Condition O.3 of Permit Revision 01-1 to Permit GR002RE.

**4. Notification**

The Permittee shall notify MMD at least two weeks prior to any wildlife monitoring conducted pursuant to this Permit to allow MMD an opportunity to accompany personnel of the Permittee.

**E. RECLAMATION SCHEDULE**

The Reclamation Schedule is required pursuant to §19.10.5.506.B.1 NMAC. The reclamation of the CHR shall begin in accordance with the approved reclamation schedule in Revision GR002RE 01-1, unless earlier reclamation is required by other agencies or is initiated under the requirements. The reclamation shall be completed within 2 years after it is initiated.

1. The Permittee's performance of reclamation shall not be construed to modify or limit the Permittee's existing obligations or requirements pursuant to other state or federal permits.
2. The Permittee shall provide to MMD annual reports of actual reclamation activities for the CHR, in conjunction with the annual report required by Section 9.A of GR002RE 01-1.

During reclamation, measures shall be taken to provide for stabilization of disturbances that will minimize future impact to the environment and protect air and water resources.

The Permittee may submit, for MMD approval, a request to modify or revise the Reclamation Schedule for the CHR.

**F. COMPLIANCE WITH ENVIRONMENTAL PERMITS**

Pursuant to 19.10.5.509.C NMAC, during the term of the Permit issued pursuant to 19.10.NMAC, the Permittee must maintain environmental permits required for the CHR. Revocation or termination of such a Permit or the forfeiture of financial assurance related to the CHR by another governmental agency is adequate grounds for the Director to issue a cessation

order pursuant to 19.10.11 NMAC.

**G. CLOSEOUT PLAN UPDATE**

Upon approval of a revised site wide Closure Closeout Plan required under Revision GR002RE 01-1, the Permittee shall submit updates to the CCP for the CHR on the same schedule as required under Section 9.T. of Revision GR002RE 01-1. Modifications or revisions to a portion, or portions, of the Permit may be required prior to submission of the revised, Updated Closeout Plan if the submittals, or studies warrant, in MMD's judgment, such action.

**Section 10 (14-1).**

**CONCLUSIONS OF LAW**

- A. The Director has jurisdiction over the Permittee and the subject matter of this proceeding.
- B. The PRP is complete, accurate, and complies with the requirements of the Act and §19.10.5.502 and §19.10.5.503 of Rules with conditions described in this Permit Revision document.
- C. The PRP is complete, accurate, and complies with the requirements for Closeout Plans in the Act and §19.10.5.505, §19.10.5.506, §19.10.5.507.A NMAC and 19.10.5.508 NMAC. The Permittee, Cobre, is permitted, pursuant to the New Mexico Mining Act, to conduct mining and reclamation operations at the Continental Mine, Grant County, New Mexico, upon the condition that the Permittee complies with the requirements of the Order, the Act, the Rules, the Permit Conditions, and requirements imposed by this permit.

**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. 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.

Thomas J. Shelley  
Authorized Representative of the Permittee

MANAGER  
Title

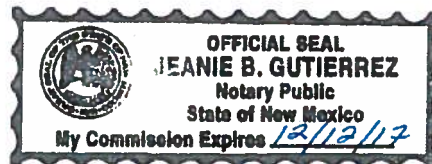
FREEPORT-MCMORAN COBRE MINING COMPANY  
Company

Subscribed and sworn to before me this 7 day of November, 2016

Jeanie B. Gutierrez  
Notary Public

My Commission Expires

12/12/17  
(date)



**ORDER**

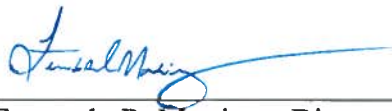
NOW THEREFORE, IT IS HEREBY ORDERED that Permit Revision 14-1 of the Continental Mine Permit, incorporating the Closeout Plan and New Unit for the CHR and allowing Freeport-McMoRan, Cobre Mining Company, Inc., to conduct closeout and reclamation operations in Grant County, New Mexico, is approved.

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

Mining and Minerals Division

The State of New Mexico

By:



\_\_\_\_\_  
Fernando R. Martinez, Director  
Mining and Minerals Division  
Energy, Minerals and Natural  
Resources Department

DATED: \_\_\_\_\_

11/7/2018



**Appendix C**

**C. Vegetation Success Standards And Success Monitoring for New Units**

The post-mining land use for all unconstructed units is wildlife habitat. The success of vegetation shall be determined on the basis of tree or shrub stocking (density) and ground cover.

**Canopy Cover**

A proportional canopy cover standard will be determined based on quantitative vegetation data and on the interpretation of the community structure and ecological conditions in the reference area. The numerical standard derived from the proportional standard may vary over time to account for temporal differences in canopy cover associated with climatic variations. Thus, the numerical standard may increase or decrease based on reference area measurements, but the proportional standard will remain fixed. The numerical standard for canopy cover of living perennial plants shall be 90% of the native canopy cover of the reference area to within a 90% statistical confidence and shall be adequate to control erosion.

The reference area to be used for the vegetation success standard is the reference area as shown in the July 31, 2003 File Memorandum.

**Shrub Density**

The standard for shrub density shall be 90% of the shrub density in the reference area with an 80% statistical confidence and shall be adequate to control erosion.

**Plant Diversity**

The following plant diversity standard (shown below) shall be utilized:

<b>Class</b>	<b>Seasonally</b>	<b>Number</b>	<b>Minimum occurrence (% cover)</b>
Perennial grass	Warm	3	1
Perennial grass	Cool	2	0.5
Perennial shrub	NA	2	1
Perennial forbs	NA	2	0.1

NA= Not applicable.

The above standards for ground cover, shrub density, and plant diversity shall be applicable to the naturally revegetated areas as well.

**Revegetation Success Monitoring for New Units**

The reclaimed and reference areas will 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 will be conducted periodically starting three years after initial establishment of vegetation on the reclaimed lands. Vegetation will be monitored more frequently in the years prior to financial assurance release determination than in the mid-term period. At a minimum, the vegetation will be monitored for two consecutive years prior to bond release.