



NEW MEXICO
ENVIRONMENT DEPARTMENT



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RYAN FLYNN
Secretary
BUTCH TONGATE
Deputy Secretary

MEMORANDUM

DATE: April 23, 2015

TO: Holland Shepherd, Program Manager, Mining Act Reclamation Program

FROM: Brad Reid, Ground Water Quality Bureau
John Moeny, Surface Water Quality Bureau
Neal Butt, Air Quality Bureau

THROUGH: John Hall, NMED Mining Act Team Leader 

RE: **NMED Comments, Freeport-McMoRan Copper and Gold, Continental Mine Return to Operating Status, MMD Permit GR002RE, Revision 15-1**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on February 24, 2015 requesting NMED review and provide comments on the above referenced MMD permitting action. The Revision 15-1 request is to return the mine to operating status and is supplemented with information including an updated Closure/Closeout Plan and a revised Financial Assurance estimate. MMD requested comments by April 27, 2015 in accordance with Section 19.10.5.506.E NMAC. NMED has the following comments:

Air Quality Bureau

The Air Quality Bureau comments are attached under separate letterhead.

Surface Water Quality Bureau

“The Surface Water Quality Bureau has reviewed the request from Freeport McMoRan Copper & Gold entitled *Request to revise Permit GR002RE to Return to Operating Status* for the Continental Mine and Mill located near Fierro, New Mexico. Surface water in the area include Hanover Creek, a small drainage adjacent the mine that runs perennially for short distances where ground water surfaces in the drainage bottom. There are also several perennial springs in

Holland Shepard

April 23, 2015

Page 2

the area. Both Hanover Creek and the perennial springs are unclassified perennial waters-of-the-state and are presumed to support the uses specified in Section 101(a)(2) of the federal Clean Water Act. These include: primary contact, livestock watering, warm-water aquatic life and wildlife habitat (NMAC 20.6.4.99). A Multi-Sector General Permit is currently in place to address point-source pollution from within the permitted mine boundary and prevent contamination to surface waters. The 2014 update to the closure/closeout plan details the management of stormwater and seepage which is collected and sent via pipeline to the Chino facility for inclusion in their water management system.

Assuming the permit requirements are adhered to and best management practices are implemented and maintained, the SWQB does not anticipate any negative impacts to surface water quality following a return to operating status at the Continental Mine and Mill.”

Ground Water Quality Bureau

The updated Closure/Closeout Plan and revised financial assurance estimate was submitted to NMED as part of the renewal application for Discharge Permit 1403 (DP-1403) (“Application”). The Application was submitted to NMED by Freeport-McMoRan Copper and Gold - Continental Mine in August 2009 and supplemented with additional information on December 12, 2014. These documents will be incorporated into the administrative record for DP-1403.

Technical review of the Application pursuant to the Water Quality Act (WQA) and the Water Quality Control Commission (WQCC) Regulations, including the Copper Mine Rule (20.6.7 NMAC), is currently underway. As such, comments will be submitted under separate letterhead directly to Freeport-McMoRan Copper and Gold - Continental Mine with copy to MMD as these reports are critical to development of the draft Ground Water Discharge Permit. NMED will coordinate response to these documents with MMD prior to issuance of a comment letter(s) to Freeport-McMoRan Copper and Gold - Continental Mine.

Determination

NMED is not providing a determination at this time.

If you have any questions, please contact John Hall at (505) 827-1049.

cc: Phyllis Bustamante, Acting Bureau Chief, GWQB
James Hogan, Bureau Chief, SWQB
Richard Goodyear, Bureau Chief, AQB
Fernando Martinez, Division Director, EMNRD-MMD
James Hollen, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, GWQB-MECS



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ENVIRONMENT DEPARTMENT

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Ryan Flynn
Cabinet Secretary

Butch Tongate
Deputy Secretary

MEMORANDUM

DATE: April 3, 2015

TO: Keith Ehlert
Mining Environmental Compliance Section
Ground Water Quality Bureau

FROM: Neal Butt
Environmental Scientist & Specialist, Air Quality Bureau

RE: Request for Review and Comment, Application for Revision 15-1,
Return to Operating Status, Continental Mine Freeport-McMoRan Cobre Mining Co.
Permit GR002RE.

The New Mexico Air Quality Bureau (AQB) has completed its review of the submittal from Freeport-McMoRan Cobre Mining Company ("Cobre") entitled, *Request to Revise Permit GR002RE to Return to Operating Status*, dated December 23, 2014, and the associated *Freeport-McMoRan Cobre Mining Company 2014 Continental Mine Closure/Closeout Plan Update*, dated December 2014. Pursuant to the New Mexico Mining Act Rules, the AQB has the following comments:

Air Quality Permitting History

The AQB has issued NSR Air Quality Permit No. 0298M5 which combined the following Construction Permits into a single Construction Permit for the Chino and Cobre operations: NSR 1089-M1 (Cobre Mine); NSR 1964-M1R1 (Hanover Solution Extraction Plant); NSR 376-M5R3, R2, R1, M4, M3, M2 (Chino Mine - Hurley Facility); NSR 298-M3, M4, M4R1, M4R2 (Ivanhoe Concentrator); and GCP-2-3629 (Chino Mine Screening Plant). After issuance of 298M5 on 1/20/2012, the permits 1089, 1964, 376 and 3629 above are void.

Details

Cobre owns and operates existing mining operations located in southwestern New Mexico, including the Cobre Continental Mine and all associated facilities. The Continental Mine is located near Fierro, in Grant County, New Mexico. Cobre has submitted an application to revise mining Permit GR002RE to end standby status and return to operating status. Cobre intends to commence surface mining operations and transport ore to Freeport-McMoRan Chino Mining Company for milling and leaching, with an anticipated start date of mid-2016. Cobre is not requesting any changes to already approved units, its permit boundary or design limits with this application.

The updated Closure/Closeout Plan describes the closeout measures to address disturbances at Cobre that will be undertaken to end standby status and return to operating status.

Air Quality Requirements

The New Mexico Mining Act of 1993 states that “Nothing in the New Mexico Mining Act shall supersede current or future requirements and standards of any other applicable federal or state law.” Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. Current requirements which may be applicable in this mining project include, but are not limited to the following:

Subsection A of 20.2.72.200 NMAC, *Application For Construction, Modification, NSPS, And NESHAP - Permits And Revisions*, states that: “Permits must be obtained from the Department by:

(1) “any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard (e.g. PM, TSP). If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review [. . .]”; and

(3) “Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, *New Source Performance Standards* {e.g. *Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants*}, 20.2.78 NMAC, *Emission Standards for Hazardous Air Pollutants*, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant;”

Also, Paragraph (1) of Subsection A of 20.2.73.200 NMAC, *Notice Of Intent* states that:

“Any owner or operator intending to construct a new stationary source which has a potential emission rate greater than 10 tons per year of any regulated air contaminant or 1 ton per year of lead shall file a Notice Of Intent with the department.”

Permitting Requirements for Regulated Equipment and Sources of Fugitive Dust (e.g. PM , TSP)

The Air Quality Bureau regulates particulate matter emissions from stationary sources that process mined materials via: 20.2.15 NMAC, *Pumice, Mica, and Perlite Processing*; 20.2.19 NMAC, *Potash, Salt or Sodium Sulfate Processing Equipment – PM*; 20.2.42 NMAC, *Coal Mining and Preparation Plants – PM*; and 20.2.72 NMAC, *Construction Permits*. The emissions from equipment and activities such as crushers, screens, conveyors, baghouses, material drop and transfer points, haul roads, and storage piles must all be considered in determining applicability under 20.2.72 NMAC. Please contact the Permit Section for additional guidance.

Fugitive dust is a common problem at mining sites. Fugitive dust emissions are regulated generally by 20.2.72.200.A NMAC (e.g., 10 lbs./hour or 25 TPY). However, specific strategies to control fugitive dust may be left up to the discretion of the owner / operator of the source. The following control strategies can be included in a comprehensive facility dust control plan (from EPA's *Compilation of Air Pollutant Emission Factors, AP-42*):

Unpaved haul roads and traffic areas: paving of permanent and semi-permanent roads, application of surfactant, watering, and traffic controls, such as speed limits and traffic volume restrictions.

Paved roads: covering of loads in trucks to eliminate truck spillage, paving of access areas to sites, vacuum sweeping, water flushing, and broom sweeping and flushing.

Material handling: wind speed reduction and wet suppression, including watering and application of surfactants (wet suppression should not confound track out problems).

Bulldozing: wet suppression of materials to "optimum moisture" for compaction.

Scraping: wet suppression of scraper travel routes.

Storage piles: enclosure or covering of piles, application of surfactants.

Miscellaneous fugitive dust sources: watering, application of surfactants or reduction of surface wind speed with windbreaks or source enclosures.

The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this determination does not supersede the requirements of any current federal or state air quality requirement. The Air Quality Bureau or the US Environmental Protection Agency may implement additional requirements, regulations and standards for the control of fugitive dust sources in the future. This written determination does not preclude the applicability of any forthcoming state or federal regulations.

If you have any questions, please contact me at (505) 476-4317.

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

F. David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Fernando Martinez, Director
Mining and Minerals Division



February 24, 2015

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
New Mexico Environment Department - Groundwater Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

**RE: Request for Review and Comment, Application for Revision 15-1, Continental Mine
Freeport-McMoRan Copper & Gold, Cobre Mining Co. Permit GR002RE**

Dear Mr. Vollbrecht:

The New Mexico Mining and Minerals Division ("MMD") received a submittal from Freeport-McMoRan Copper & Gold, Cobre Mining Company ("Cobre") titled, "Request to Revise Permit GR002RE to Return to Operating Status", dated December 23, 2014, and supplemented with additional information on February 12, 2015 ("Application") including an updated Closure/Closeout Plan and Revised Financial Assurance Estimate. The updated Closure/Closeout Plan describes the closeout measures to address disturbances at Cobre that will be undertaken upon return to operating status. MMD is processing the Application under Permit Revision 15-1. The Continental Mine is located near Fierro, in Grant County, New Mexico. This notification of permit application is being submitted to you pursuant to 19.10.5.506.E NMAC. The Application may be viewed by visiting the Mining and Minerals Division website at:

<http://www.emnrd.state.nm.us/MMD/MARP/GR002RE-2.html>

MMD requests that you review this application and provide any comments you may have pursuant to 19.10.5.506.E NMAC, before April 27, 2015. Please contact me at (505) 476-3436, or via email at james.hollen@state.nm.us with any questions or comments you may have regarding the application or this request.

Sincerely,

James Hollen, Permit Lead – Permit GR002RE
Mining Act Reclamation Program ("MARF")/MMD

cc: Holland Shepherd, Program Manager, Mining Act Reclamation Program, MARF/MMD
Mine File GR002RE

Hollen, James, EMNRD

From: Roth, Daniela, EMNRD
Sent: Friday, February 27, 2015 4:01 PM
To: Hollen, James, EMNRD
Subject: RE: Request for review and comments, for the application for revision, Cobre Mine (Permit No. GR002RE, Revision 15-1)

Dear James Hollen

Thank you for giving me the opportunity to review and comment on the permit revisions and the updated closeout plan for the Freeport-McMoRan Copper and Gold, Cobre Mining Company in Grant County, New Mexico (Permit No. GR002RE, Revision 15-1). I do not anticipate any impacts to state listed endangered plant species from the revisions or closeout plan as described. However, I highly recommend the development and inclusion of a weed management plan to address the management and eradication of invasive species once reclamation has taken place.

Please let me know if I can be of further help.

Sincerely,

Daniela Roth

BOTANY PROGRAM COORDINATOR
EMNRD-Forestry Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505
(505)476-3347 (Phone)
(505)476-3330 (Fax)
<http://www.emnrd.state.nm.us/SFD/>

Hollen, James, EMNRD

From: Myers, Kevin, OSE
Sent: Monday, March 16, 2015 11:56 AM
To: Hollen, James, EMNRD
Subject: Continental Mine GR002RE Mod 15-1

James,

On February 24, 2015, the Hydrology Bureau of the New Mexico Office of the State Engineer (NMOSE) received from MMD a request for review and comment on an updated closeout plan for the Revision 15-1 of Permit No. GR002RE, Continental Mine (Revision). Operated by the Freeport-McMoRan Copper & Gold Continental Mining Inc., the Continental Mine is located in Grant County. The mine is north of the highway 152 and about 2 miles north of Hanover. The Revision consists of a updated closure/closeout plan dated December 2014 (Updated CCP). The Updated CCP was prepared by Telesto Solutions Incorporated (Telesto). NMOSE has reviewed the Revision and has the following comments.

1. Page 5, Section 1.3.3, 2nd bulleted item. Continental Pit a Hydrologic Sink. The Updated CCP indicates that the Continental Pit will function as an evaporative sink. Stage 1 Abatement Plan (2005), and Stage 1 Abatement Report (2011) plus an updated groundwater study in 2008 by Telesto identified the Continental Pit as a hydrologic sink. The 2008 study constructed a 37-layer groundwater flow model with 12 material properties for geologic units or structures. Overall, the Updated CCP may overstate the evaporation associated with pit lake and Barringer fault as an barrier to flow. Based on the results of the groundwater flow model and depiction of potentiometric surface, the conceptual model may need some reconsideration and clarification. Specifically, the following points are made from reviewing portions of supporting documents for Updated CCP:
 - A. The evaporative losses may be overestimated in Supplemental Groundwater Study (Telesto October 2008, page 4 and Table 2-1) or Dynamic Systems Model (DSM) by using the lake evaporation of 55.8 inches per year. This estimate includes adjustment of the Chino Mine pan evaporation by multiplying by 0.7. Referencing the SCS 1972 map for gross lake evaporation, the estimate would be 45 inches per year. These estimates do not include the rainfall, which would decrease the effect of potential evaporation mentioned in Section 10.1.2 (Telesto October 2008, pages 48-49, test for flow-through conditions) to a net evaporation. Section 6.7.1 (Telesto October 2008, page 29), the aerial recharge was limited to approximately 2.7 to 5.7 percent of mean annual precipitation. A net evapotranspiration (ET) is mentioned for the groundwater flow model (Section 6.7.2), yet ET may not be the appropriate parameter for the pit area. Thus, for the DSM of the pit area or other pit lake estimates, a net evaporation should be considered for estimating pit lake elevation.
 - B. The 1990s dewatering rate may underestimate inflow to the re-pressurized hydrologic system. The 1993-1997 estimates of 119.6 to 150.6 gpm (Telesto October 2008, Section 5.4.1, page 21) for annual dewatering rates of Continental underground mine workings may underestimate because of decades of dewatering that preceded 1993-1997 rates. After additional adjustments based on other underground seeps from the 1990s, the range of pit inflow became 119 to 178 gpm. During calibration (Section 7.3.3, Telesto October 2008), certain model parameters were adjusted so the simulated mine inflow rate of 183.5 gpm was within or near the target range of 119 to 178 gpm. Relatively small changes for the pit inflow would affect the size of the pit lake. Provide an estimate of uncertainty for the pit inflow amount.
 - C. Barringer Fault is characterized as a low permeability barrier (Section 5.2.6, Telesto October 2008, page 18). Figure 5.1 (Telesto October 2008) suggest a partial flow-through or recharge zone on the south side of the Continental pit that flows southeast. Section 5.2.6 (October 2008 Telesto) cites the TH-98-5 test hole 24-hour aquifer test as another basis for low hydraulic conductivity could be related to the fault zone without ruling out other features that may show a similar response. In Table 7.1 and Section 7.2 (page 38, Telesto October 2008) for calibration purposes, the initial value of hydraulic conductivity for the Barringer

Fault were lowered three orders of magnitude from field measurements. Figures 14 and 15 (Updated CCP) show groundwater flow across Barringer Fault. Equipotential lines are widely and narrowly spaced on either side of fault. Overall, without consideration for underground mine workings that may provide hydraulic connections, the entire length of the Barringer Fault appears to have variable properties rather than simply a low permeability feature.

- D. If the Barringer Fault is conceptualized as a low permeability barrier to ground water flow along its entire length, the fault cuts Continental Pit, such that a pit lake would straddle the fault. So, some explanation would be required why no leakage would occur from the part of pit lake that may form south of the Barringer Fault.
 - E. Note that Continental Pit bottom elevation cited as 6,725 feet (Section 5.3.5, page 20, Telesto October 2008) is incorrect, and 6,275 feet is correct (page 49, Section 10.1.2, Telesto October 2008). Figure 6 from Updated CCP show Continental Pit bottom at approximately 6,275 feet.
2. Table 8; Figure 13; Figure 14; Figure 15; Section 9.1 – Appendix B; Table B.3; Table B.5; Wells-Stockpile Worksheet #15; Wells-Stockpile Worksheet #17; Wells-Stockpile Worksheet #18; Appendix B.2.7; Table 2- Appendix B.3; Cost estimate for wells addresses 7 wells for monitoring to be plugged at the end of 99 years. Cost estimate should address final disposition (i.e., plugged, continued use, frequency of replacement) of entire 40-well network.
 3. Appendix C – Water Management worksheet#2. Two of seven wells are listed as inceptor wells for sampling. Pumping wells may need replacement during Updated CCP's 99-year post mining period for this cost estimate.
 4. Section 5.1.3, page 29 & 33; Table 3; Reclamation Drawing Sheet 10 and Table C-1. As indicated in Updated CCP, surface water features have been and will be created by mining of the Continental Pit and the Hanover Pit. These surface water features may need permits pursuant to 19.26.2.15 NMAC (excerpt of regulations cited below) for non jurisdictional structure as an excavation that fills with water. The timing of the permits may depend on when pit lake forms. Also, some of the other impoundments listed in Table 3 may need permits pursuant to 19.26.2.15 NMAC. Applicant should contact NMOSE District 3 (Deming) for permitting, if necessary, of non jurisdictional impoundments:

19.26.2.15 PONDS AND OTHER IMPOUNDMENTS: A permit is required to capture or store surface water in an impoundment. An application to capture and store surface water shall be filed pursuant to 19.26.2.10 NMAC or 19.26.2.11 NMAC unless the impoundment of water is authorized as a livestock watering impoundment under 19.26.2.14 NMAC. A permit to appropriate water is required for an impoundment created by constructed works, sand and gravel operations, or mining operations, including excavations that fill with water. Dams exceeding 10 feet in height or that can store in excess of 10 acre-feet shall meet the requirements of 19.25.12 NMAC.

A. Form - content: An application for an impoundment shall be filed pursuant to the requirements of 19.26.2.10 NMAC or 19.26.2.11 NMAC. In addition to the information required for an application filed under 19.26.2.10 NMAC or 19.26.2.11 NMAC, an application for a pond or other impoundment shall also include: the name of the proposed impoundment, the location of the impoundment using public land survey system, latitude and longitude, or the New Mexico state plane coordinate system, the maximum depth of the impoundment, the perimeter of the impoundment, the maximum surface area, the estimation of annual evaporative losses, the slope(s) of the interior basin, the outlet conduit size and slope, a table showing the stage, surface area and storage capacity of the impoundment, and the time to empty the impoundment.

B. Flood control: No permit to appropriate water is required for an impoundment when the primary purpose of the impoundment is flood control, provided the outlet drains the impoundment (from the spillway crest) in 96 hours. The water shall not be detained in the impoundment in excess of 96 hours unless the state engineer has issued a waiver to the owner of the impoundment.

[19.26.2.15 NMAC - N, 1/31/2005]

If you have question about the above, contact me.

Kevin Myers, Hydrologist
Hydrology Bureau - NM OSE
P.O. Box 25102
Santa Fe, NM 87504-5102
Ph: (505) 476-7402
Fax: (505) 476-0220

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Susana Martinez
Governor

STATE OF NEW MEXICO
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HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING
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PHONE (505) 827-6320 FAX (505) 827-6338

April 27, 2015

James Hollen
Permit Lead
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Request for Review and Comments, Application for Revision 15-1, Continental Mine Freeport-McMoRan Copper & Gold, Cobre Mining Co. Permit GR002RE

Dear Mr. Hollen:

I am writing in response to your request for review and comment on the above referenced permit revision received at the Historic Preservation Division (HPD) March 30, 2015.

According to our records, there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties within the permit area. Although there are no cultural resources listed on the State or National Register, numerous cultural resource surveys have been conducted in the permit area. Most recently, a cultural resources survey for the proposed haul road was conducted by Dos Rios Consultants in August 2012 for the Bureau of Land Management (BLM), Las Cruces District Office.

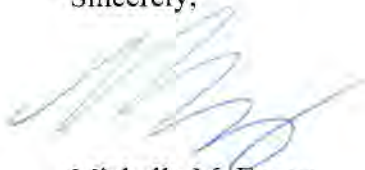
According to the application submitted by Freeport-McMoRan Cobre Mining Company, planned mine facilities include mining at the Hanover Mountain deposit, expanding the existing waste rock facilities into the expanded southern waste rock facility, creation of the northern overburden stockpile and development of new internal haul roads. As mentioned above, numerous cultural resource surveys have been conducted in the permit area and the planned mine facilities, along with closeout activities, could adversely affect many archaeological sites.

HPD encourages Freeport-McMoRan to discuss proposed mine facilities with a professional archaeologist to determine which archaeological sites might be impacted by mining activities. Any activities on lands managed by the Bureau of Land Management are subject to review under Section 106 of the National Historic Preservation Act and the

BLM must be consulted regarding potential affects to cultural resources. In addition, permits from the Army Corp of Engineers and EPA must also comply with Section 106 and effects on historic properties must be considered.

If you have any questions concerning these comments, please do not hesitate to contact me. I can be reached by telephone at (505) 827-4064 or by email at michelle.ensey@state.nm.us.

Sincerely,



Michelle M. Ensey
Archaeologist

Log: 101141



White Mountain Apache Tribe

Office of Historic Preservation

PO Box 1032

Fort Apache, AZ 85926

Ph: (928) 338-3033 Fax: (928) 338-6055

To: James Hollen, New Mexico Mining and Minerals Division

Date: March 03, 2015

Re: Application for Revision 15-1, Continental Mine, Freeport McMoRan & Gold, Cobre Mining Company Permit No. GR002RE

.....
The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, February 24, 2015. In regards to this, please attend to the following checked items below.

► ***There is no need to send additional information unless project planning or implementation results in the discovery of sites and/or items having known or suspected Apache Cultural affiliation.***

N/A - The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethno-historic study and interviews with Apache Elders. The tribe's ***Cultural Heritage Resource Director Mr. Ramon Riley*** may be contacted at (928) 338-3033 for further information should this become necessary.

► Please refer to the attached additional notes in regards to the proposed project:

We have received and reviewed information regarding the above "Request to Revise Permit GR002RE to Return to Operating Status", located near Fierro, in Grant County, New Mexico, and we have determine the proposed plans will ***not have an impact*** on the White Mountain Apache tribe's (WMAT) historic and/or traditional cultural properties. Regardless, any/all ground disturbing activities should be monitored ***if*** there are reasons to believe that there are human remains and/or funerary objects are present, and if such remains and/or objects are encountered they shall be treated with respect and handled accordingly until such remains are repatriated to the affiliated tribe.

Thank you. We look forward to continued collaborations in the protection and preservation of place of cultural and historical significance.

Sincerely,

Mark T. Altaña -THPO

White Mountain Apache Tribe
Historic Preservation Office



Herman G. Honanie
CHAIRMAN

Alfred Lomahquahu Jr.
VICE-CHAIRMAN



March 6, 2015

Fernando Martinez, Director, Mining and Minerals Division
Attention: James Hollen
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Application for Revision 15-1, Continental Mine, Freeport McMoRan Copper & Gold, Cobre Mining Company Permit No GR002RE

Dear Mr. Martinez,

This letter is in response to your correspondence dated February 24, 2015, regarding an Application for Revision 15-1, Return to Operating Status, from Freeport McMoRan Copper & Gold, Cobre Mining Company, Permit No GR002RE, in Grant County. The Hopi Tribe claims cultural affiliation to earlier identifiable cultural groups in New Mexico. The Hopi Cultural Preservation Office supports identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, and we consider the archaeological sites that are habitations of our ancestors to be "footprints" and Hopi Traditional Cultural Properties. Therefore, we appreciate your continuing solicitation of our input and your efforts to address our concerns.

As we stated in the enclosed letter dated October 14, 2014, the Hopi Cultural Preservation Office is interested in consulting on any proposal in New Mexico with the potential to adversely affect prehistoric sites. We are not aware of any Hopi Traditional Cultural Properties in this project area. However, to enable us to determine if this application may affect cultural resources significant to the Hopi Tribe, please provide us with a copy of the cultural resources survey of the area of potential effect for review and comment. If prehistoric cultural resources are identified and will be adversely affected by project activities, we request continuing consultation on this proposal including being provided with a copy of any proposed treatment plans for review and comment.

Should you have any questions or need additional information, please contact Terry Morgart at tmorgart@hopi.nsn.us. Thank again you for your consideration.

Respectfully,



Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

Fred S. Vallo, Sr., Governor
Robert MoQuino, 1st Lt. Governor
Kurt Riley, 2nd Lt. Governor
Jonathan Sims, Tribal Secretary
Christopher J. Garcia, Tribal Interpreter



PUEBLO OF ACOMA
OFFICE OF THE GOVERNOR

25 Pinsbaari Drive

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Telephone: (505)552-6604

Fax: (505)552-7204



March 12, 2015

By e-mail:fernando.martinez@state.nm.us; original to follow by US Mail

Fernando Martinez, Director
Mining and Minerals Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Request for Consultation, Application for Revision 15-1, Continental Mine,
Freeport-McMoRan Copper & Gold, Cobre Mining Company, Permit No. GR002RE**

Dear Director Martinez,

Acoma accepts your invitation to engage in government-to-government consultation on the amended application for Revision 15-1 to the Continental Mine Permit No. GR002RE. While this project is located outside the Acoma Culture Province, the area of exclusive Acoma Aboriginal Title lands, Acoma has many ties to the south in the vicinity of proposed mine site. The consultation must be in person to discuss sensitive issues surrounding the Pueblo of Acoma cultural resources that may be affected by the application. Acoma is happy to host the consultation, or, if necessary, to travel to your offices in Santa Fe, or Chestnut Law Office, PA, in Albuquerque. Please contact Ann Rodger, Attorney at (505) 842-5864 when you and other agency representatives would be available for this consultation.

Sincerely,

PUEBLO OF ACOMA

Fred S. Vallo, Sr.
Governor

cc by e-mail: Holland Shepherd: holland.shepherd@state.nm.us
James Hollen: james.hollen@state.nm.us
2nd Lt. Governor Kurt Riley: 2nd_lt@puebloofacoma.org
Tribal Interpreter Chris Garcia: interpreter@puebloofacoma.org
Franklin Martinez, Director Realty and Natural Resources: fmartinez@puebloofacoma.org
Damian R. Garcia, Historic Preservation Office: dr Garcia@puebloofacoma.org
Ann Berkley Rodgers, CLO: abr@chestnutlaw.com



Gila Resources Information Project

Promoting Healthy Communities by Protecting Our Environment Since 1998

April 27, 2015

James Hollen
Mining and Minerals Division/Mining Act Reclamation Program
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: Comments on Cobre Mining Company 2014 Continental Mine Closure/Closeout Plan Update, GR002RE Revision 15-1

Dear Mr. Hollen:

On behalf of the Gila Resources Information Project (GRIP), I am submitting comments on the Cobre Mining Company 2014 Continental Mine Closure/Closeout Plan (CCP) Update for permit GR002RE Revision 15-1.

A review of the Updated CCP (2014), the Stage 1 Ground Water Abatement Plan, including the 2005 Addendum and the 2011 Interim Stage 1 Abatement Plan, revealed several issues of long-term concern to GRIP.

EOY 2019 Mine Configuration

1. Please clarify that EOY 2019 planned configuration will in fact be the “year with the greatest area of disturbance requiring reclamation.” Cobre is unlikely to begin operations in 2016, so it doesn’t seem possible that EOY2019 will really be the year with the greatest area of disturbance.

Main Tailings Impoundment

1. The CCP states on p. 13 “Tailings samples have been classified as Not Potentially-Acid Generating (NPAG). GR002RE approves the upper foot of tailings material for use in a three-foot thick cover.” Have test plots proven that tailings materials is an adequate cover material for reclamation? Has MMD approved this tailings material as cover for closure/closeout reclamation of the MTI?

Continental Pit

1. Nowhere in any of the CCP documents is the final depth of the pit lake estimated. An estimate of 190.1 years is given for the lake to reach “equilibrium hydrologic conditions”

which is then contradicted in the text cited from Condition 85 stating that "... there is a chance that after filling for over 200 years the pit water level (as predicted) would reach the elevation of the drift to the historical Union Hill/Republic Underground Workings. If this were to occur, then the drift would have to be plugged for the pit to remain a terminal sink." The predicted final elevation of the Continental Pit Lake should be provided in the CCP.

2. The water quality predicted for the Continental Pit Lake "...is expected to have a near-neutral pH (7.0) and a chemical composition dominated by calcium and bicarbonate. Metal concentrations are predicted to be low as a result of the near-neutral pH." However, the 2011 report states that, "Selenium is the only constituent that is predicted to be out of compliance with NMED surface water regulations for wildlife use within the 300-year simulation period." This is not unexpected because selenium, an amphoteric element, is soluble at both low and high pH. Given that the pit lake will act as wildlife habitat for migrating waterfowl, selenium in the water will pose a hazard to any birds or other wildlife drinking pit lake water.
3. Continuing the discussion above, a pit lake will become an "attractive nuisance" to wildlife, particularly migratory waterfowl. Over time, other wildlife (coyote, deer, rabbits, small mammals) can be expected to breach the chain-link fences around the pit and drink pit water. What are other methods that could be implemented to prevent wildlife from accessing the pit lake and drinking potentially hazardous pit lake water?
4. Allowing the formation of a "terminal sink pit lake" is irresponsible environmental management. According to the CCP, Cobre has no plans to pump and treat water in the Continental Pit and has applied for and received a waiver to be exempted from meeting NMAC 20.66.2.3103 water quality standards in the pit lake as well as an exemption from creating an SSE (Self-Sustaining Ecosystem) at the pit.
5. Finally, allowing a pit lake to form in a desert environment is a waste of valuable groundwater. No estimates are provided as to the final volume of water in the Continental Pit Lake, but we can assume that hundreds of millions of gallons of MIW (Mine Influenced Waters) will end up in the pit lake, with evaporation or the poisoning an occasional bird or deer its only function. Were options analyzed for preventing a pit lake from forming?
6. What is the possibility that rising water in the Continental Pit will reach the level of the Union Hill/Republic adit and flood additional underground workings? Is it possible that water from the Continental Pit will flow into the bottom of the Hanover Mountain pit at the 6700' MSL elevation?

Other Facilities

1. Section 3.1.5 on page 15 of the CCP provides conflicting information regarding availability of suitable cover material for "other stockpiles." "The principal finding of the borrow materials investigation was that traditional topsoil resources were limited in the vicinity of the Continental Mine. Area soils found were considered marginally suitable, mainly because they are shallow and/or occur on steep slopes. Salvaging and stockpiling identified the

limited topsoil resources within the footprints of planned facility expansions is included in the plan, where practicable.” But yet that section concludes by stating, “There are adequate volumes of reclamation cover material at the Continental Mine for all existing and planned operations.” Cobre should clarify these contradictory statements. Is there or isn’t there sufficient cover material for stockpiles?

Hanover Mountain

1. In the Updated 2014 CCP, Sheet 10 (Hanover Mountain deposit reclaimed post end of year 2019 mining) shows that the lowest elevation to be mined on Hanover Mountain will be 6700 feet MSL on the southeast flank of the mountain. Cross section A-A’ shows a series of benches surrounding this low point, and plan views of the Hanover deposit show that the Cobre Haul Road (CHR) will exit the mountain just south of this low point. The Description of Planned Mining Facilities section of the CCP indicates that stormwater will be contained within the Hanover Mountain excavation area at EOY 2019.

Unless stormwater is pumped from this low point, a small pit lake will form at the 6700 foot level on Hanover Mountain upon completion of mining, even if mining does not intercept the water table.

This issue needs clarification to guarantee that a second pit lake does not form when mining of the Hanover Mountain deposit is finished.

2. Will stormwater be pumped out of the 6700 foot level to a pond? Will stormwater be directed into Grape Gulch?
3. What is the highest water level predicted for the Continental Pit lake when it achieves hydrologic equilibrium? From Figure 12-A (Generalized Geology) it appears that both the Continental Pit and Hanover Mountain are on the downthrown side of the Barringer Fault. If the “equilibrium” water level is above 6700 feet MSL, will there be an impact on the bottom of the Hanover Mountain excavation from groundwater flooding?
4. From the information provided, it appears that a second pit lake will form in the bottom of the Hanover Mountain excavation, even if it is only seasonal.
5. The exposed rock material in the Hanover Mountain excavation will be Colorado Shale, which as noted elsewhere, contains sulfide minerals and is not buffered by alkalinity from carbonate rocks. Consequently, one would expect the water quality of any “pit lake” forming at the Hanover Mountain excavation to be poor, with low pH values and elevated levels of Mn, SO₄, TDS, Zn, and Se.

Standby Status

1. After a century of intermittent mining, Cobre is a marginally economic ore deposit. Given the current (April 2015) economic conditions (the price of copper is down 40% since 2011 and

down 30% over the last 9 months) and the prospects for a continued depressed copper market, FMI stated at a recent Community Partnership meeting, that Cobre is unlikely to reopen in 2016 despite its application to come off of standby status. Cobre is nearing the end of its 20 years on standby status and GRIP is very concerned about the possibility of FMI walking away from the Cobre mine without reclaiming the mine site. If no mining occurs at Cobre by the end of this 20-year period, FMI should be required to implement all elements of the Cobre Closure/Closeout Plan according to the schedule specified in the CCP.

Reclamation Performance Objectives

1. Fugitive dust should be included as a performance objective for stockpiles on p. 28.
2. Stockpile Cover and Revegetation discussion on p. 29 is missing mention of cover thickness and revegetation.
3. Hanover Mountain Deposit Cover and Revegetation discussion on p. 30 is missing any mention of revegetation.

Cover Design and Materials

1. Discussion on p. 31 indicates that soils, non-acid generating OB, carbonate rock, tailings and leach cap materials are adequate sources of cover for areas disturbed by mining activities. Has MMD approved these materials as cover?

Post-mining Land Use Designation

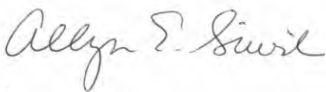
1. First paragraph in discussion of Industrial PMLU on page 35 seems to be incomplete. Sentence is cut off.

Revegetation Success Guidelines

1. Discussion on p. 37 states that highwalls of the Hanover Mountain deposit provide valuable wildlife habitat. In what way? This is an assertion that is not backed up by any evidence.

Thank you for consideration of our comments.

Sincerely,



Allyson Siwik
Executive Director