State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

David Martin
Cabinet Secretary - Designate

Fernando Martinez, Director Mining and Minerals Division



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

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CERTIFIED MAIL -RETURN RECEIPT REQUESTED

September 10, 2013

Mr. Thomas L. Shelley, Manager Reclamation Freeport-McMoRan Copper & Gold Tyrone Operations P.O. Drawer 571 Tyrone, NM 88065

Re: Comments on Application for Release of Financial Assurance for Jersey Lily, Snowflake and Virtue Mines, Modification 13-1, Permit No. GR008RE

Dear Mr. Shelley,

The New Mexico Mining and Minerals Division ("MMD") received a letter from Freeport-McMoRan Copper & Gold, Tyrone Operations ("Tyrone") entitled, "Release of Financial Assurance for Jersey Lilly [Lily] Mine Permit, GR008RE," ("Application"), dated January 8, 2013, requesting financial assurance release for the reclamation at the Jersey Lily, Snowflake and Virtue mines ("JLSV mines"). Tyrone also submitted two vegetation monitoring reports, one from vegetation success monitoring performed in September 2011, and one from vegetation success monitoring performed in August 2012, in fulfillment of Condition 8.F of Permit No. GR008RE for the JLSV mines, in support of the Application. MMD reviewed the Application and provided comments and requested additional information in letter to Tyrone, dated February 8, 2013. Tyrone sent letters to MMD in response to MMD's comments that included additional information requested by MMD, dated April 29, 2013 and May 13, 2013.

In accordance with 19.10.12.1210.B(4) NMAC, MMD provided notice of receipt of the Application to other state agencies, and in accordance with 19.10.12.1210.B NMAC, MMD conducted inspections of the JLSV mines on June 28, 2013 and July 19, 2013. The inspections included staff from the New Mexico Environment Department ("NMED"), the New Mexico Department of Game & Fish ("NMDG&F") and the Gila Resources Information Project ("GRIP"). MMD has received written comments from the NMDG&F and GRIP. The comments received from the NMDG&F and GRIP are attached. MMD has reviewed the Application and the information provided by Tyrone in support of the Application, comments from the agencies and GRIP, and the two inspections of the JLSV mines, and the provides the following comments:

Jersey Lily Mine

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1. It appears that the mine facilities at the Jersey Lily Mine that consist of one shaft, two adits, a waste pile and an access road have been reclaimed in accordance with the requirements of Permit No. GR008RE. The shaft and two adits have been closed using bat-compatible metal barriers and the disturbed areas including the waste pile and the access road have been revegetated to meet the permit requirements. The NMDG&F comment letter, dated July 16, 2013, expressed concern regarding the vegetation success monitoring methodology for the JLSV mines, including the transect locations and the reported monitoring precision. However, the results showed that the 15 percent vegetation canopy cover requirement has been met.

Snowflake Mine

1. The mine facilities at the Snowflake Mine consists of one shaft, three adits, a waste pile and an access road. Tyrone Mine staff reported to MMD during the inspection on June 28, 2013, that during a recent inspection of the mine by Tyrone that two of the closed mine adits appeared to have not been completely closed or had re-opened since they were blasted shut in 2001. They stated that they would perform corrective actions to close the adits completely within two weeks. A follow-up inspection was performed by MMD on July 19, 2013 to inspect the corrective actions taken to close the two adits. During the inspection it was observed that one adit had been completely closed and the other adit had a small opening left in-place for bat habitat, according to Tyrone staff. The approved closeout plan for the Snowflake Mine includes the complete closing of the mine adits, as Tyrone determined that the reclaimed Jersey Lily Mine provided adequate local bat habitat. In order to complete the reclamation of the Snowflake Mine, Tyrone shall completely close all of the mine adits. Once the remaining open mine adit is completely closed, Tyrone shall inform MMD so that a confirmation inspection may be scheduled. MMD cannot approve the release of financial assurance for the Snowflake Mine until it has determined that the requirements of the closeout plan and the permit have been met. The other reclamation requirements for shaft, adits, waste pile and access road closure and revegetation for the Snowflake Mine appear to have been met by Tyrone. The results of the 2011 and 2012 revegetation monitoring reports showed that the 15 percent vegetation canopy cover requirement has been met.

Virtue Mine

1. The mine facilities at the Vitue Mine consists of one shaft, two adits, one stope opening, one waste pile, and an access road. MMD provided comments on reclamation issues at the Virtue Mine in MMD's letter, dated February 8, 2013. In that letter, MMD discussed the erosion issues of the access road to the Virtue Mine and the re-disturbance of the Virtue Mine area by exploration activities performed by Tyrone in 2006. As noted in MMD's letter, in 2007 Tyrone performed corrective actions for the erosion issues in the access road and reclaimed the re-disturbed areas of the mine. During the inspection on June 28, 2013, MMD observed that the lower portion of the access road had eroded, leaving a significant erosion gully, destabilizing the access road. The approved closeout plan for the Virue Mine states that the access road will be maintained for inspections and local ranch access. Tyrone shall propose corrective actions in accordance with the

Re: Comments on Application for Release of Financial Assurance for Jersey Lily, Snowflake and Virtue Mines, Modification 13-1, Permit No. GR008RE September 10, 2013
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approved closeout plan to address the erosion at the Virtue Mine access road. After MMD approves the proposed corrective actions and Tyrone performs the corrective actions for the erosion issues, MMD will confirm that the erosion has been mitigated, and then will continue processing the application for financial assurance release. After the financial assurance for the JLSV mines has been released, MMD would appreciate Tyrone's commitment to maintain the access road into the future.

2. Tyrone stated in the April 29, 2013 letter to MMD that the area of the Virtue Mine that was disturbed in 2006 and reclaimed in 2007 (including seeding) is 1.11 acres. Pursuant to 19.10.12.1204.A NMAC, the permittee shall maintain the financial assurance for a period of 12 years after the last year of augmented seeding, fertilizing or irrigation. Financial assurance shall be maintained for the cost of a third party to re-establish vegetation at the portion of the Virtue mine that was reclaimed and received augmented seeding in 2007 for a period of 12 years after the last date of augmented seeding. Tyrone shall provide MMD with a third party cost estimate including direct and indirect costs for a third party to re-establish vegetation on 1.1 acres of the Virtue Mine within 30-days of receipt of this letter. MMD will review the cost estimate and after approving it, Tyrone will be required to maintain financial assurance for the amount of the approved cost estimate until MMD releases the financial assurance in accordance with 19.10.12.1210 NMAC. The reclamation requirements for shaft, adits, stope opening, waste pile and access road closure and revegetation for the Virtue Mine, other than those discussed above, appear to have been met by Tyrone.

Please respond to the above comments within 30-days of receipt of this letter.

Please contact me at 505-476-3432 or at <u>David.Ohori@state.nm.us</u> if you have any questions.

Sincerely,

David R. Ohori, Permit Lead

Mining Act Reclamation Program ("MARP")

Enclosures

cc: Holland Shepherd, MARP Program Manager

Allyson Siwik, GRIP Mine File (GR008RE)

GOVERNOR Susana Martinez



DIRECTOR AND SECRETARY TO THE COMMISSION James S. Lane, Jr.

Daniel E. Brooks, Deputy Director

STATE OF NEW MEXICO DEPARTMENT OF GAME & FISH

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RECEIVED R. TOM ARVAS JUL 3 1 2013 MINING & MINERALS DIVISION HAUL M. KIENZLE III Visit our website at www.wildlife.state.nm.us

Chalman Tucumcarl, NM THOMAS "DICK" SALOPEK

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July 16, 2013

David Ohori, Permit Lead **EMNRD Mining & Minerals Division** 1220 South St. Francis Drive Santa Fe NM 87505

Jersey Lily, Snowflake & Virtue Mine, Modification 13-1 to Permit GR008RE; NMGF Project No.15683

Dear Mr. Ohori:

In response to your letter dated May 17, 2013, the New Mexico Department of Game & Fish (NMGF) has reviewed the above referenced document. Freeport-McMoRan Tyrone, Inc. (FMI), is requesting the release of all financial assurance for the Jersey Lily, Snowflake & Virtue (JLSV) Mine. The JLSV mines were small underground operations that mined non-sulfide bearing rock. Operations ceased in 1987. Total surface disturbance at the three sites was approximately 22 acres. Reclamation activities were completed in 2001. Reclamation included construction of bat-compatible gates at some openings, blasting and/or backfilling other openings, and revegetation of the roads, dumps and other disturbance areas. A site inspection was conducted on June 28, 2013, with representatives of MMD, NMGF, FMI and the Gila Resources Information Project.

The approved vegetation success standard for JLSV is 15% total vegetation canopy cover. This standard seems very low since the surrounding habitat can clearly support over two times that much. We have some questions about the monitoring methodology, including the location of the transects, and how a precision of 0.1% was achieved using a published method that estimates cover by classes spanning 5-25% each. However it is apparent that 15% standard has been met at the Jersey Lily and Snowflake locations, and probably at Virtue as well.

There is extensive soil erosion associated with the road to the Virtue mine. A gully along the inner edge of the road is causing mass subsidence of the graded road surface. Large gullies originate along the lower side of the road and extend well beyond the area of original disturbance. In addition, the road surface up to the shaft and adit has very poor vegetative cover, possibly not meeting the 15% success standard. Reasons for this poor performance might include compaction, grazing or 4-wheeler traffic.

Thank you for the opportunity to comment on this permit action. We recommend the complete release of financial assurance for reclamation of the Jersey Lily and Snowflake locations. The state should retain sufficient financial assurance to stabilize and revegetate the Virtue site. If there are any questions, please contact Rachel Jankowitz at 505-476-8159, or <a href="mailto:right)right representation of the Jersey Lily and Snowflake locations." The state should retain sufficient financial assurance to stabilize and revegetate the Virtue site. If there are any questions, please contact Rachel Jankowitz at 505-476-8159, or <a href="mailto:right)right-rig

Sincerely,

Matthew Wunder, Chief

Conservation Services Division

cc: USFWS NMES Field Office

Kevin Rodden, SW Area Habitat Biologist, NMGF Kurt Vollbrecht, NMED Groundwater Quality Bureau Allyson Siwik, Gila Resources Information Project August 16, 2013

David Ohori Mining and Minerals Division Energy, Minerals and Natural Resources Department 1220 South St. Frances Drive Santa Fe, NM 87505



RE: Comments on Financial Assurance Release for Jersey Lily, Snowflake and Virtue Mines, Modification 13-1, Permit No. GR008RE

Dear Mr. Ohori:

Thank you for the opportunity to inspect reclamation work at the Jersey Lily, Snowflake and Virtue (JLSV) mines on June 28. I also appreciate the follow-up photographs from July 30th of additional work done at the Snowflake mine.

Gila Resources Information Project (GRIP) is pleased with the work completed by Freeport-McMoRan (FMI) to safeguard adits and shafts while also preserving bat habitat at the JLSV mines.

However, we are concerned that sufficient erosion control measures have not been implemented. During our inspection on June 28, it was observed that water bars had not been constructed on the Virtue mine access road contrary to what is noted on FMI's maps, and there was an extensive amount of erosion as indicated by the deep gullying that had taken place alongside the access road to the Virtue mine.

GRIP recommends that these erosion issues be addressed prior to release of financial assurance.

We thank you for consideration of our comments.

Sincerely,

Allyson Siwik

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Cc: Kurt Vollbrecht, Mining Environmental Compliance Section/NMED Rachel Jankowitz, NMDGF