



Susana Martinez, Governor

Environment Department  
Ryan Flynn  
Cabinet Secretary-Designate

Energy, Minerals and Natural Resources Department  
David Martin  
Cabinet Secretary-Designate

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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

December 6, 2013

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

**RE: Application for Financial Assurance Release, Little Rock Mine, Permit No. GR007RE and DP-1236**

Dear Mr. Shelley:

The New Mexico Mining and Minerals Division (“MMD”) and the New Mexico Environment Department (“NMED”) received a submittal from Freeport-McMoRan Copper & Gold, Tyrone Operations (“Tyrone”), entitled, “Request for Release, Part 2 Non-mining Financial Assurance, Little Rock Mine GR007RE and DP-1236”, (“Application”), dated January 15, 2013. The Application requested a release of financial assurance (“F.A.”) for the reclamation work completed at the leach stockpile and precipitation plant (“Part 1”), and at the historic mining disturbance at the Ohio Mine and open pit areas (“Part 2”) at the Little Rock Mine.

MMD reviewed the Application, and is processing it as Modification 13-1 to Permit No. GR007RE. NMED is processing the Application as an amendment to DP-1236. MMD sent Tyrone a comment letter on the Application, dated February 11, 2013, requesting additional information in support of the Application, including the application fee, proof of public notification, additional technical information regarding the reclamation completed at the Little Rock Mine, and a cost estimate of the cost of reclamation that has not yet been completed. Tyrone responded to the MMD comments in a letter to MMD and NMED, dated May 28, 2013. In that letter, Tyrone provided the modification application fee and additional information that was requested by MMD.

On June 26, 2013, MMD sent request for comment letters to the other state agencies in accordance with 19.10.1210.A(4) NMAC. MMD conducted inspections of the reclamation completed at the Little Rock Mine on June 27, 2013 and on July 18, 2013 in accordance with 19.10.12.1210.B NMAC. MMD staff along with staff members from NMED and the New Mexico Department of Game & Fish (“NMDG&F”), and a representative of the Gila Resources Information Project (“GRIP”) attended one or more of the inspections.

MMD received a letter from the NMDG&F and an e-mail from the New Mexico Office of the State Engineer (“NMOSE”) commenting on the Application. Copies of the letter and e-mail are attached.

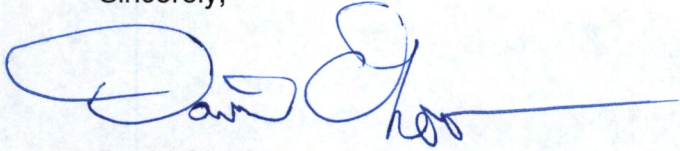
Please review and respond to the comments from these agencies. In addition, please respond to the following MMD comments:

1. Condition 8.G.2 of Permit Revision 10-1 to Permit No. GR007RE requires the demolition of the Ohio Mine dam and the excavation of the sediments from the bottom of the reservoir behind the dam. Plans for the closeout of the Ohio Mine dam are required to be submitted to MMD for approval at least 180 days prior to implementation. During the June 27, 2013 inspection by MMD, the Ohio Mine dam was observed to left in place. Tyrone staff commented during the inspection that the Little Rock mine plan, at that time, planned for mining out the Ohio Mine area sometime in 2016. Since the Ohio Mine Dam has not been mined out nor has it been demolished pursuant to Condition 8.G.2 of Revision 10-1, what is the basis for Tyrone's request for financial assurance release for the closeout of Ohio Mine dam?
2. During the inspection on June 27, 2013, the mine openings at the Ohio Mine area were inspected. All of the mine openings had been closed, except for one opening, identified by Tyrone staff as Adit No.1 that was in close proximity to Shaft #5. Shaft # 5 had apparently been closed by backfilling with mine rock, however, Adit No. 1 had not been completely closed. Please see the NMDG&F comment letter regarding the closing of the mine openings. In addition, please state how the requirements of Condition 8.G.1, Mine Openings, of Permit Revision 10-1 to Permit No. GR007RE have been or will be met.
3. During the inspection conducted on July 18, 2013, an area located near the northern portion of the reclaimed copper leach stockpile adjacent to the expanded open pit highwall crest ("area of concern") was observed to have cracks in the ground surface near the highwall crest. This area of the open pit highwall is located approximately 50 feet or less from the reclaimed copper leach stockpile. NMED and MMD staff expressed concern about the possible instability of the highwall in this area and the effect of a failure of the highwall on the reclaimed copper leach stockpile. The Tyrone staff at the inspection indicated that they would provide additional information including a map showing the open pit highwall and the reclaimed copper leach stockpile and a cross-sectional diagram showing the extent of the reclaimed copper leach stockpile material and the open pit highwall. In September 2013, MMD and NMED received copies of a map and a cross-sectional diagram of the area of concern. MMD and NMED staff subsequently met with Tyrone staff in October 2013 to discuss MMD's and NMED's concerns regarding the stability of the open pit highwall located in this area. Following the discussion of MMD's and NMED's concerns, NMED, MMD and Tyrone agreed that Tyrone will implement a program to monitor the area of concern and report to MMD and NMED, on a regular basis, the status of the open pit highwall crest. Based on the review of the monitoring reports, NMED and MMD may require Tyrone to submit a corrective action plan to prevent or mitigate impacts to the reclaimed copper leach stockpile from the erosion or failure of the open pit highwall. Please submit an open pit highwall monitoring plan for the area of concern within 60 days of receipt of this letter.

Please respond to the above comments within 30 days of receipt of this letter, except as indicated in Comment # 3, above. Once MMD and NMED deem the Application technically approvable, MMD and NMED will notify Tyrone and request that Tyrone submit a proposed joint F.A. instrument to MMD and NMED within 30-days of receipt of the technically approvable letter.

Please contact either David Ogori at 505-476-3432 or [David.Ogori@state.nm.us](mailto:David.Ogori@state.nm.us) or Keith Ehlert at 505-827-9687 or [Keith.Ehlert@state.nm.us](mailto:Keith.Ehlert@state.nm.us) if you have any questions.

Sincerely,



David Ohori  
Mining Act Reclamation Program ("MARP")  
Mining and Minerals Division



Keith Ehlert  
Mining Environmental Compliance Section ("MECS")  
Ground Water Quality Bureau

Enclosures

cc: Holland Shepherd, Program Manager, MARP  
Kurt Vollbrecht, Acting Program Manager, MECS  
Allyson Siwik, Gila Resources Information Project  
Mine File (GR007RE)  
DP-1236

STATE OF NEW MEXICO  
DEPARTMENT OF GAME & FISH

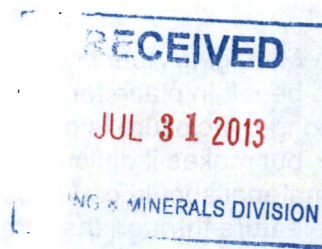


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July 3, 2013

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

*Little Rock Mine, Adjustment of Financial Assurance, Modification 13-1 to Permit GR007RE;  
NMDGF Project No. 15699*

Dear Mr. Otori:

In response to your letters dated 12 June and 26 June 2013, the New Mexico Department of Game and Fish (Department) has reviewed the above referenced document. Freeport-McMoRan Tyrone, Inc. (FMI) is requesting the release of a small portion of the financial assurance for reclamation actions completed at the leach stockpile and precipitation plant. The state will retain sufficient funds for monitoring and maintenance, pending final revegetation success. FMI also requests adjustment of the financial assurance amount covering the old pit and Ohio Mine areas to reflect current mining activity in the old pit and the planned mining of the Ohio Mine area in the near future. The state currently holds separate financial assurance for reclamation of the active Little Rock Mine which would not be affected by this release. A site inspection was conducted on 27 June 2013 by representatives of EMNRD Mining and Minerals Division, the Department, FMI, and the NM Environment Department.

Based on the results of bat surveys conducted in 2009, Dr. Scott Altenbach (University of New Mexico) and the staff of Ecosphere Environmental Services recommended the following closure methods for the Ohio Mine features:

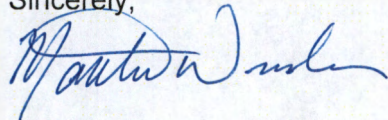
- **Adit 1** can be closed by any means at any time.
- **Adit 2** can be closed by any means at any time, or simply left undisturbed until mine expansion occurs in the area.
- **Adit 3** should be closed by any means during the warm season (April through September) to avoid any potential disruption to hibernating bats.
- **Adit 4** can be closed by any means at any time.
- **Ohio Mine shaft #5**, the closure recommendation is to exclude bats from the feature until the shaft is backfilled or otherwise destroyed because the shaft does provide bat habitat and a bat was seen in the feature. The exclusion should consist of 1" chicken wire placed securely over the collar of the shaft during the cold season (early October-through the end of March). As discussed in Step 4.3.3, Exclusions for Destructive

Closures in *Managing Abandoned Mines for Bats* (Sherwin et al. 2009), the exclusion wire should be left in place for at least 3 to 5 nights immediately prior to closure of the feature or longer if closure is delayed. The exclusion material allows the bats to leave the feature, but makes it difficult to return. The difficulty in navigating through the exclusion material should cause bats to seek alternate roosts rather than continuing to access the feature through the wire. The exclusion material should be monitored frequently for effectiveness and to prevent loss of entangled bats or other wildlife species until the shaft is destroyed.

At the time of the Ohio Mine area inspection it was not entirely clear which of the above listed mine features were being evaluated. Most features had been closed, but at least one had a gap remaining at the opening. FMI should ensure the above recommendations are followed.

Thank you for the opportunity to comment on this permit action. We do not expect any significant adverse impact to wildlife or important habitat. If there are any questions, please contact Rachel Jankowitz, Mining Habitat Specialist at 505-476-8159 or [rjankowitz@state.nm.us](mailto:rjankowitz@state.nm.us).

Sincerely,



Matthew Wunder, Chief  
Environmental Planning Division

cc: USFWS NMES Field Office  
Kurt Vollbrecht, NMED Groundwater Quality Bureau

## Ohori, David, EMNRD

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**From:** Myers, Kevin, OSE  
**Sent:** Wednesday, July 10, 2013 2:50 PM  
**To:** Ohori, David, EMNRD  
**Cc:** Johnson, Mike S., OSE; Manning, Adrain L., OSE; Ehlert, Keith W., NMENV  
**Subject:** OSE comments for GR007RE Little Rock Mine - Request for Modification 13-1, Adjustment of Financial Assurance  
**Attachments:** figure1\_littlerock.pdf; Figure2\_LittleRock.pdf; figure1A\_littlerock.pdf; Figure2A\_LittleRock.pdf

David,

On June 26, 2013, NM OSE Hydrology Bureau (OSE) received a request from MMD for review and comment of Modification 13-1 of GR007RE – Little Rock Mine – request for adjustment of financial assurance (FA). Applicant is Freeport McMoRan Tyrone, Inc. (FMI). OSE has reviewed the modification request for adjustment of FA from \$1,520,113 to \$353,280, which is proposed to continue as a similar FA instrument of a surety bond. OSE has no comments related to amount of the FA adjustment or specific FA instruments.

In support of this proposed modification, FMI correspondence dated January 15, 2013 and May 28, 2013 mentions plugging older exploration boreholes as described in a December 2, 2010 plan and documented in a May 31, 2011 Little Rock Drillhole Plugging Report (Report). The drilling activity required locating, evaluating and re-entering unsealed boreholes without re-drilling. Re-entered boreholes ranged from 8 to 580 feet below land surface. Boreholes were sealed by placement of tremmie pipe near bottom of open hole for placement of sealant from bottom to top. The Report's Table 1 shows 22 out of 59 older drillholes that FMI successfully located and plugged in 2011. Using the OSE WATERS database, there are fifty plugging records (dated from 2008 to 2012) located under OSE file number GSF-4548POD1 through POD50. From Table 1 Report, 20 of 22 boreholes could be matched based on drillhole identification and GSF-4548POD numbers found on plugging records. Based on the OSE files, FMI submitted six additional plugging records (GSF-4548POD17, CR+100-36; GSF-4548POD18, CO-34; GSF-4548POD33, DF+100-53+150; GSF-4548POD23, DA-56; GSF-4548POD26, DC+100-55; and GSF-4548POD11, C+120-48) for drillholes not listed in Report's Table 1. In contrast, Report's Table 1 has two plugged drillholes (CQ+100-38; and DA-54) that lack a corresponding plugging record in OSE WATERS database. So, for the proposed permit modification, 27 older exploration drillholes were plugged.

Also, GSF-4548-POD 1 through POD8 and POD34 through POD50 have plugging records for borehole that were likely (based on conversation with FMI) part of an effort to identify the depth to water without installation of a well. Boreholes were plugged in 2008, 2011 and 2012. FMI filed Plugging records for these 25 PODs, which are unrelated to the plugging of older drillholes. All of these PODs were sealed from bottom to top.

Figures 1 and 2 illustrate the location of the GSF-4548 POD1 thru POD50 and two drillhole locations without a POD or plugging record. Figure 1A and 2A show identical location with drillhole nomenclature used by FMI. Little Rock pit design limit was approximately located based on outline from Report's Map 1 dated 5-17-2011.

FMI may provide OSE District III (Deming Office) plugging records for two drillholes (CQ+100-38; and DA-54). FMI may contact OSE District III for any further requirements or questions. If FMI submitted these plugging records previously, please re-submit them.

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(575) 546-2851

If you have any questions about the above, please 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

<http://www.ose.state.nm.us/>



Figure 1 - Little Rock - FMI Tyrone  
 GSF-4548POD1 thru POD50  
 Aerial Photo 2011

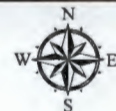
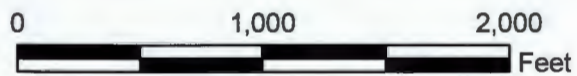








Figure 2 - Little Rock - FMI Tyrone  
 Selected PODs from  
 GSF-4548POD1 thru POD50  
 Aerial Photo 2011



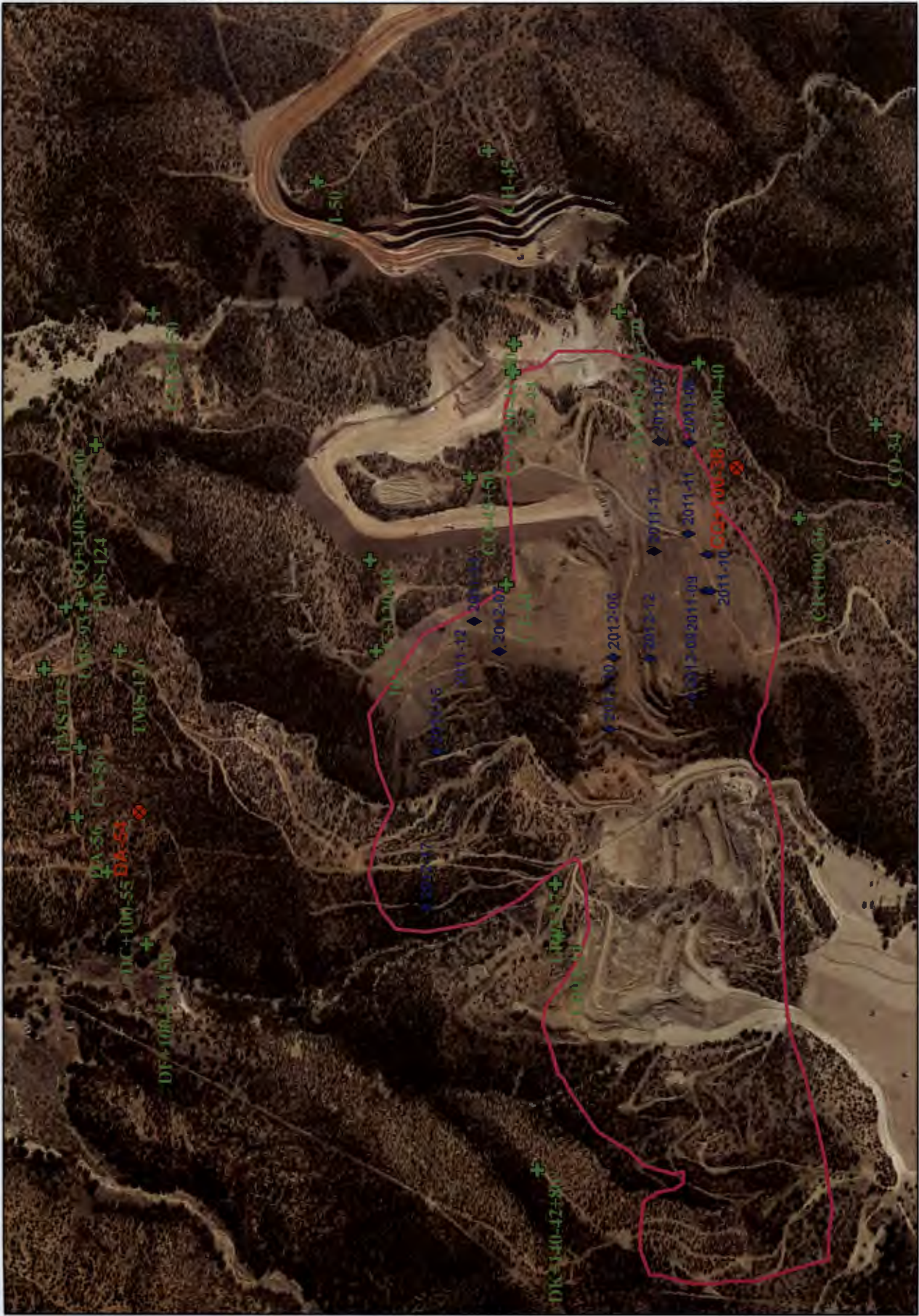


Figure 2A - Little Rock - FMI Tyrone  
 Drillhole names  
 Aerial Photo 2011

