



Freeport-McMoRan Cobre Mining Company  
P.O. Box 10  
Bayard, NM 88023

Thomas L. Shelley  
Environmental/Sustainable Development  
Telephone: 575-912-5227  
e-mail: tshelley@fmi.com

RECEIVED

MAY 08 2017

MINING & MINERALS DIVISION

May 2, 2017

**Certified Mail #70153010000206574533**  
**Return Receipt Requested**

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

Dear Mr. Hollen:

**Re: Freeport-McMoRan Cobre Mining Company -**  
**(Cobre), Permit GR002RE Revision 14-1 Cobre Haul Road**

Cobre Mining Company (Cobre) received Permit Revision 14-1 to Permit No. GR002RE on November 7, 2016. In accordance with permit condition 9.11 of Revision 14-1 to Permit GR002RE, attached is the Cobre Haul Road Blasting Plan.

Cobre plans to begin construction work next month and kindly requests a prompt review. Cobre will set up a meeting to address any concerns or questions. In the meantime, if you any questions regarding this submittal please contact Lynn Lande at (575) 912-5235 or via email at [Lynn.Lande@fmi.com](mailto:Lynn.Lande@fmi.com).

Sincerely,

Thomas L. Shelley, Manager  
Reclamation

TLS:ml  
Enclosure  
20170502-200

xc: Holland Shepherd, MMD

# Cobre Mining Company

## Cobre Haul Road Blasting Plan

### INTRODUCTION

Cobre Mining Company (Cobre) received Permit Revision 14-1 to Permit No. GR002RE on November 7, 2016. The Cobre haul road spans a total of 3.5 miles from the Chino Mines Company (Chino) to Cobre. Cobre submitted the detailed engineering design for the haul road to the Mining and Minerals Division (MMD) in a letter dated November 23, 2015. Attachment 1 to that letter provides the plan and profile drawings. The primary cut sections are illustrated on the profiles. The majority of the blasting is expected to occur within the primary cut sections along the haul road. Cobre will utilize rock-blasting techniques to assist excavation and construction of the road.

Permit condition 9.11 of Revision 14-1 to Permit GR002RE states that *“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 plan to control adverse effects to structures shall be submitted for MMD approval prior to blasting.”*

The intent of this document is to provide the MMD with a blasting plan that:

- Meets Permit No. GR002RE Revision 14-1 Condition 9.11 and 19.10.5.508.B(11) NMAC requirements
- Prevents injury to persons or damage to property not owned by the operator
- Controls and confines fly rock to the Cobre Permit Area
- Controls adverse effects to structures

Cobre will complete Cobre Haul Road blasting, in a manner that avoids injury to persons or damage to property not owned by Freeport and confines flyrock to the permit area.

#### **1.0 PLAN TO PREVENT INJURY TO PERSONS OR DAMAGE TO PROPERTY NOT OWNED BY Cobre**

Cobre will hire a licensed blasting contractor to conduct all blasting activities on the Cobre Haul Road. The contractor will conduct the blasting for this project in compliance with the Alcohol, Tobacco, Firearms, and Explosives (ATF) regulations, and procedures. Cobre and the contractor will adhere to all applicable regulations and procedures.

Prior to blasting, the contractor will define boundaries of each blasting area. The contractor will define a clearing distance for equipment and personnel (including the general public). The

contractor will guard the area, based on site conditions specific to the blast design. The contractor following the blast will inspect the area to ensure that the blast was fully detonated.

Sections 3.0 and 4.0 provides additional measures Cobre will take to prevent injury to persons or damage to property not owned by Cobre.

## **2.0 PLAN TO CONTROL AND CONFINE FLY ROCK TO THE COBRE PERMIT AREA**

To control and confine fly rock to the Cobre Permit Area, Cobre and the contractor will use the following, but not limited to, conventional measures such as:

- large cuts will be constructed with 25 ft. benches and the drill hole depth will be suitable for that configuration
- limit shallow blasting (~3 ft. drill hole depth)
- small diameter drill holes
- sequential or delay firing of drill holes
- secondary blasting
- appropriate stemming depth and material

Section 4.0 provides additional measures Cobre and the contractor will use to control and confine fly rock to the Cobre Permit Area.

## **3.0 PLAN TO CONTROL ADVERSE EFFECTS TO STRUCTURES**

Cobre will hire a licensed blasting contractor to conduct all blasting activities on the Cobre Haul Road. A Cobre blasting engineer will review plans to ensure that all regulatory obligations are met. The blasting contractor will monitor all blasts using approved seismograph equipment at areas of interest. The contractor will evaluate all blasts vibrations to the United States Bureau of Mines chart RI-8507 for structural damage assessment and adjust the design when appropriate.

## **4.0 SUMMARY**

Cobre and the contractor will conduct blasting activities, on the Cobre Haul Road, in a manner that avoids injury to persons or damage to property not owned by Freeport and confines flyrock to the permit area.

Blasting for this project will be in compliance of Alcohol, Tobacco, Firearms, and Explosives (ATF) regulations and safe blasting procedures. Cobre and the contractor will adhere to all applicable regulations and procedures.