

State of New Mexico
Energy, Minerals and Natural Resources Department

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Governor

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Cabinet Secretary

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

Fernando Martinez, Director
Mining and Minerals Division



7008 0500 0001 4875 1150

CERTIFIED MAIL – RETURN RECEIPT REQUEST

June 27, 2014

Lynn A. Lande
Chief Environmental Engineer
Freeport-McMoRan Copper & Gold, Tyrone Operations
P.O. Drawer 571
Tyrone, NM 88065

RE: Construction of the 9AX Borrow Material Stockpile, Permit Modification 14-1, Permit No. GR010RE, Tyrone Mine

Dear Ms. Lande,

The New Mexico Mining and Minerals Division (“MMD”) received an application to modify Permit No. GR010RE for the construction of an extension to the 9A waste rock stockpile at the Tyrone Mine from Freeport-McMoRan Copper & Gold, Tyrone Operations (“Tyrone”), dated April 25, 2014 (“Application”). The Application referred to the expanded 9A stockpile area as the “9AX borrow material stockpile” that would encompass approximately 46 acres (prior to reclamation) adjacent to the existing 9A stockpile, within the existing mine area unit at the Tyrone Mine. The source of the borrow material for the 9AX stockpile is waste rock from the Little Rock Mine.

The Application provided information on the construction and reclamation of the proposed 9AX stockpile including a cost estimate for reclaiming the proposed 9AX stockpile. MMD performed a review of the Application and, pursuant to 19.10.5.505.B(3) NMAC, sent copies of the Application to other state agencies, requesting their comments. MMD performed site visits to the proposed 9AX stockpile area on March 26, 2014 and June 5, 2014. Tyrone submitted additional information in support of the Application in an e-mail, dated May 21, 2014, including a plan view drawing (Figure 7) showing the proposed operational (before reclamation) boundary of the proposed 9AX stockpile and the boundary of the adjacent 9A stockpile after reclamation. MMD provided preliminary comments on the Application in a conference call with Tyrone on June 2, 2014. Tyrone submitted a revised reclamation cost estimate and revised drawings to MMD via e-mail on June 13, 2014.

MMD has reviewed the Application and supporting information received from Tyrone and has received comments from other state agencies. MMD provides the following comments on the Application in addition to providing copies of the comments received from other state agencies (attached):

MMD Comments

1. Revision 01-1 to Permit No. GR010RE approves the use of Gila Conglomerate, or other approved cover material, as cover material for the stockpiles at the Tyrone Mine, including the 9A stockpile. Revision 01-1 provides for the demonstration that alternate cover material(s) will meet MMD requirements through the test plot studies. The "leach cap" material has been proposed by Tyrone as an alternate cover material. The suitability of the leach cap material is currently undergoing evaluation in the test plot studies and the test plot studies using leach cap cover material have not yet been completed. Therefore, the use of leach cap as cover material for the 9AX stockpile cannot be approved. In addition, the "cost savings" discussed in the Conceptual Closure Cost Estimate section of the Application, cannot be considered in the proposed modification (Modification 14-1) to Permit No. GR010RE. Please revise the cost estimate to include placement of a three foot thick cover of Gila Conglomerate on the proposed 9AX stockpile.
2. The Application and cost estimate should also include stormwater drainage features to handle a 100 year, 24-hour storm event for Gila Conglomerate cover material on the reclaimed 9AX stockpile. Please revise the Application and cost estimate to include these features.
3. MMD is continuing to review the proposed cost estimate including the revised cost estimate that Tyrone sent to MMD on June 13, 2014 and may have additional comments in the future.
4. The Application, as revised, projects that a 100 foot "buffer" will be provided between the reclaimed 9AX stockpile and the McCain Spring. Based on MMD's site visit on June 5, 2014 and the comments received from the New Mexico Dept. of Game & Fish ("NMDG&F") on the Application, MMD is concerned that the McCain Spring will potentially be adversely affected by the reclaimed 9AX stockpile. The McCain Spring appears to be a unique and important source of water for wildlife (e.g., several javelina were observed at the McCain Spring during the June 5th site visit). MMD feels that a 100 foot buffer may be insufficient to protect the spring from the activities occurring during the construction and reclamation of the 9AX stockpile, and that the buffer zone should be increased. In addition, a berm, or other best management practices should be constructed and maintained along the toe of the reclaimed 9AX stockpile to prevent stormwater runoff from the reclaimed 9AX stockpile from impacting the spring. Please revise the application to address these concerns.
5. The Introduction section of the Application states that, "Adjustments to the existing financial assurance will be addressed more definitively as part of the 2013 CCP update." Adjustment to the financial assurance for the proposed 9AX stockpile closeout plan shall be addressed under Permit Modification 14-1. In this

RE: Construction of the 9AX Borrow Material Stockpile, Permit Modification 14-1, Permit No. GR010RE,
Tyrone Mine
June 27, 2014
Page 3

case, in accordance with 19.10.12.1201.A NMAC, Tyrone shall provide a financial assurance proposal to MMD following MMD's determination that the permit modification application is approvable, but prior to the permit modification approval. Alternately, the updated closeout plan that MMD is currently processing under Revision 09-1 may be revised to include the proposed 9AX stockpile, however, this action would delay the approval of the proposed 9AX stockpile until MMD approves Revision 09-1.

Please respond to the MMD comments and the comments from other state agencies within 30 days of receipt of this letter.

Please contact me at (505) 476-3432 or at David.Ohori@state.nm.us if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Ohori", with a long horizontal flourish extending to the right.

David R. Ohori
Permit Lead
Mining Act Reclamation Program ("MARF")

Enclosures

cc: Holland Shepherd, Manager, MARP
Keith Ehlert, Mining Environmental Compliance Section, Ground Water Quality
Bureau, New Mexico Environment Dept.
Allyson Siwik, Gila Resources Information Project
Mine File (GR010RE)

Ohori, David, EMNRD

From: Myers, Kevin, OSE
Sent: Friday, June 06, 2014 1:31 PM
To: Ohori, David, EMNRD
Cc: Johnson, Mike S., OSE
Subject: NMOSE comments for Construction of 9AX Stockpile, Tyrone Mine, Modification 14-1, MMD
Attachments: 19S.15W.9.400_WATERS_6-6-2014queryPLSS.pdf; 19S.15W.10.330_WATERS_6-6-2014queryPL

David,

NMOSE Hydrology (NMOSE) received a request for comments from MMD for the Construction of 9AX Stockpile, Tyrone Mine, No. GR010RE (Modification) from Freeport McMoRan Copper and Gold – Tyrone Operations. NMOSE has reviewed the Modification proposed 9AX stockpile as covering approximately 60 acres with a maximum thickness of 355 feet of leachcap material from the following comments:

1. Using the NMOSE WATERS database (see attached pdf files), there are multiple points of diversion or monitoring well project. The Waters database may be incomplete or have errors as to the specific locations, so there may be more bo proposed footprint for 9AX stockpile. No wells are shown on Figures 2 and 4 of the Modification.
2. NMOSE recommends that all wells (boreholes, wells, PODs) be plotted on a similarly sized map such as Figure 2 or 4 if the need, if any, for wells that may need to be plugged and abandoned or better protected and casing extended beca within the footprint of the stockpile.
3. If any wells require plugging and abandonment, the plugging must follow 19.27.4 NMAC Regulations.

If you have any questions 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

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



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant							
									Source	q q q	Sec	Tws	Rng	X	Y
GSF 02513	GSCG		0	PHHELPS DODGE CORPORATION	GR	GSF 02513			4 3 4	09	19S	15W	181518	3618970*	
GSF 02514	GSCG		0	PHHELPS DODGE CORPORATION	GR	GSF 02514			2 4 4	09	19S	15W	181928	3619179*	
GSF 04154		MON	0	PHHELPS DODGE TYRONE, INC.	GR	GSF 04154			4 4 4	09	19S	15W	181928	3618979*	
GSF 04193		MON	0	PHHELPS DODGE TYRONE, INC.	GR	GSF 04193		Shallow	3 4 4	09	19S	15W	181728	3618979*	

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 4

PLSS Search:

Q4: SE **Section(s):** 9 **Township:** 19S **Range:** 15W

Sorted by: File Number

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant				X	Y					
								Source	6416 4	Sec			Tws	Rng			
GSF 02205	GSCG		0	PHELPS DODGE CORPORATION	GR	GSF 02205	R	Shallow	1	3	3	10	19S	15W	182137	3619188	
GSF 03664	GSCG MON		0	PHELPS DODGE TYRONE, INC.	GR	GSF 03664			2	3	3	10	19S	15W	182337	3619188	
SD 02260 1	GSCG IRR	11791.081		PHIELPS DODGE CORPORATION	GR	GSF 03664			2	3	3	10	19S	15W	182337	3619188	

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 3

PLSS Search:

Q16: SW **Q4:** SW **Section(s):** 10 **Township:** 19S **Range:** 15W

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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GOVERNOR
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Alexandra Sandoval

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Daniel E. Brooks

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507

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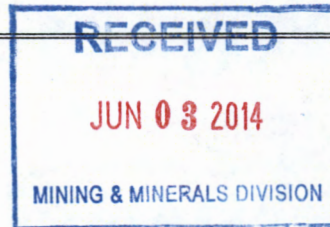
For information call: (888) 248-6866

www.wildlife.state.nm.us

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Cimarron
THOMAS "DICK" SALOPEK
Las Cruces

May 27, 2014

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



RE: Tyrone Mine, Construction of 9AX Stockpile, Modification 14-1 to Permit No. Gr010RE; NMDGF Project No. 16308

Dear Mr. Otori:

In response to your letter dated May 7, 2014, the New Mexico Department of Game & Fish (Department) has reviewed the above referenced document. Freeport-McMoRan Tyrone, Inc. proposes to expand the 9A Stockpile as a future source of cover or borrow material. The proposal would expand the currently approved footprint by 46 acres.

Figure 2 of the draft permit modification document shows that the expanded stockpile will reach within 100 feet of McCain Spring. If the spring is flowing, or has potential to flow when the current drought period ends, the stockpile should be configured to minimize potential impact by increasing the width of the buffer. We also recommend creating a berm above the spring to catch any material that might fall or wash down from the stockpile. Moving the edge of the stockpile a little south would also reduce constriction of the strip of native habitat that currently allows wildlife passage between the mine pit and the tailing ponds.

Thank you for the opportunity to comment on this permit action. If there are any questions, please contact Rachel Jankowitz, Habitat Specialist, at 505-476-8159 or rjankowitz@state.nm.us.

Sincerely,

A handwritten signature in blue ink that reads "Matthew Wunder".

Matthew Wunder, Ph.D.
Chief, Ecological and Environmental Planning Division

cc: USFWS NMES Field Office
Kurt Vollbrecht, NMED Groundwater Quality Bureau
Kevin Rodden, SW Regional Habitat Biologist, Department



STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

Susana Martinez
Governor

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338



June 5, 2014

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

Re: Request for Comments, Construction of 9AX Stockpile, Tyrone Mine, Modification 14-1,
Permit No. GR010RE

Dear Mr. Otori:

I am writing in response to your request for comment on the above referenced modification, received at the Historic Preservation Division (HPD) May 9, 2014.

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 area proposed for the 9AX borrow material stockpile. The stockpile area however, has not been completely surveyed in order to identify archaeological sites. Archaeological survey in adjacent areas have identified archaeological sites, thus there is a potential for archaeological sites to exist within the stockpile area.

In order to prevent inadvertent damage to cultural resources, this office recommends that an archaeological consultant conduct an archaeological survey of any areas that have not been surveyed previously, or were surveyed more than 15 years ago, in order to determine whether ground disturbing activities associated with the permit modification will have an effect on significant archaeological sites.

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: 99184



NEW MEXICO
ENVIRONMENT DEPARTMENT



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RYAN FLYNN
Secretary

BUTCH TONGATE
Deputy Secretary

MEMORANDUM

June 16, 2014

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

FROM: Keith Ehlert, NMED Acting Mining Act Team Leader

RE: **NMED Comments, Construction of 9AX Stockpile, Tyrone Mine, Modification 14-1, Permit No. GR010RE**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on May 12, 2014 requesting comments on a submittal from Freeport McMoRan Copper and Gold, Tyrone Operations (Tyrone) titled *Draft Modification to the Closeout Plan GR010RE; Construction of the 9AX Borrow Material Stockpile (Application)*, dated April 25, 2014. NMED has reviewed the Application and comments from the Air Quality Bureau, Surface Water Quality Bureau, and Ground Water Quality Bureau are submitted jointly in this memorandum. The Air Quality Bureau comments are attached under separate letterhead. The Surface Water Quality Bureau has no comments at this time.

Ground Water Quality Bureau Comments

Tyrone shall provide topographic maps to NMED on a quarterly basis showing the configuration of the 9AX Stockpile as construction progresses. The topographic maps shall include the portion of the 9A Stockpile in proximity to the 9AX Stockpile, the portion of the 2A Leach System that is located east of the 9AX Stockpile, and any facilities, such as PLS collection ponds, located between the 9AX Stockpile and the 2A Leach System. The map shall have a contour interval no greater than 10 feet and shall be drawn at a scale of 1 inch equals 400 feet or larger. Within 120 days after completion of the 9AX Stockpile, Tyrone shall provide a similar topographic map showing the completed configuration of the 9AX Stockpile.

If you have any questions, please contact Keith Ehlert at (505) 827-9687.

xc: Jerry Schoeppner, Chief, GWQB
James Hogan, Chief, SWQB
Richard Goodyear, Chief, AQB
Fernando Martinez, Director, EMNRD-MMD
David Otori, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS



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Deputy Secretary

DATE: May 28, 2014

TO: Keith Ehlert
Acting Mining Act Team Leader
Ground Water Quality Bureau

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

RE: **Request for Comments, Construction of 9AX Stockpile, Tyrone Mine,
Modification 14-1, Permit No. GR010RE**

The New Mexico Air Quality Bureau (AQB) has completed its review of the above mentioned mining project. Pursuant to the New Mexico Mining Act Rules (e.g. 19.10.5.506 NMAC), the AQB has the following comments:

Air Quality Permitting History

The AQB has issued an NSR air quality permit (No. 2448) and a Title V permit (P147) to this facility.

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 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. 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*, 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, Subsection A of 20.2.73.200 NMAC states that:

(1) “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.”

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.

Details.

Freeport-McMoRan Tyrone Inc. is proposing a change to the Closeout Plan for the Tyrone Mine, Modification 14-1, Permit No. GR010RE, to authorize a 46 acre expansion beyond the currently approved existing footprint of the 9A Stockpile, while remaining within the currently-approved design limits. Within this area, 23 acres will occur on currently disturbed ground. The proposal to use this location as a borrow material stockpile would facilitate closure of the nearby leach and waste rock stockpiles. The leach cap borrow material that will be used to construct the 9AX Stockpile will be derived from the Little Rock Mine. The leach cap is highly and deeply weathered igneous intrusive rock that is inert and has no useful mineral value. At full build-out, the stockpile will contain an estimated 22 million tons of potential borrow material and occupy approximately 60 acres (14 of those acres will occur on the existing 9A Stockpile) resulting in a stockpile expansion of 46 acres. The 9AX Stockpile will be constructed at an angle of repose to minimize surface disturbance during operation. The 9AX Stockpile will have a maximum thickness of approximately 355 feet. The reclaimed inter-bench slopes will be constructed at gradients equal to or less than 3.0: 1 with slope lengths no longer than 300 feet. The average height of the reclaimed stockpile is approximately 100 ft. and the average slope length is 220 ft. long, therefore terrace benching is not necessary.

Fugitive Dust

Fugitive dust is a common problem at mining sites. The AQB does not regulate fugitive dust; however, we do recommend controls to minimize emissions of particulate matter from fugitive dust sources. 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. Seeding during mine reclamation will introduce vegetation, which will further reduce dust generation.

The AQB or the US EPA may implement requirements, regulations and standards for the control of fugitive dust sources in the future. This written determination does not supersede the applicability of any forthcoming state or federal regulations.

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