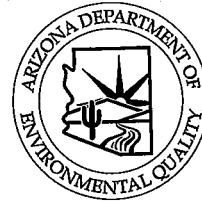


Janice K. Brewer  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.azdeq.gov



Henry R. Darwin  
Director

July 13, 2012  
REVISED

Freeport-McMoRan  
Copper Queen Branch  
Attention: Rebecca Sawyer  
36 West Highway 92  
Bisbee, Arizona 85603

Re: Mitigation Order on Consent No. P-121-07  
Fourth Quarter Groundwater Monitoring Report; Travel Time Analysis for Leading edge of the Sulfate Plume; and Extension Letter for Feasibility Study and Mitigation Plan

Dear Ms. Sawyer:

The Arizona Department of Environmental Quality ("ADEQ") has reviewed the above referenced documents submitted by Freeport Mc Moran Copper & Gold Inc. and will comment on each of the documents in the following three separate sections:

#### Fourth Quarter 2011 Groundwater Monitoring Report

ADEQ has reviewed the Fourth Quarter Groundwater Monitoring Report on the sulfate groundwater plume associated with the Freeport McMoRan Corporation Copper Queen Branch and has no comments.

#### Technical Memorandum – Travel Time Analysis

The technical memorandum on the travel time analysis using Darcy's Law seepage discusses the usage of average hydraulic gradients prior to reaching the influence of the Arizona Water well field. ADEQ considers the use of average hydraulic gradients appropriate for areas that are not impacted by pumping from the AWC well field but does not agree it is an accurate depiction for groundwater that is within the area influenced by the AWC well field. ADEQ requests that two travel time analyses be completed. The first should be completed using the regional hydraulic gradient, up to the beginning of the influence of the AWC well field. The second should be completed using the hydraulic gradients caused by the AWC well field. This would give a relatively accurate depiction of travel time in the regional aquifer and then the travel time in the aquifer that is impacted by pumping from the AWC well field.

ADEQ noted a discrepancy in Section 7 Conclusion Regarding Travel Time Calculations in the last sentence of the first paragraph which states that "the sulfate plume has not been observed at well TVI-

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

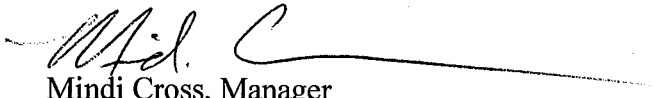
875." Based upon the Fourth Quarter 2011 Groundwater Monitoring Report, sulfate was detected in TVI-875 at 262 milligrams per liter (mg/l) which is above the 250 mg/l standard. The data for TVI-875 since monitoring of this well, starting in February 2008, indicates that sulfate has ranged in concentration from 226 mg/l to 312 mg/l. This sentence should be modified.

Proposed Schedule for the Mitigation Plan and Feasibility Study

ADEQ is in agreement with the revised schedule to extend the timeframes for submittal of the mitigation plan and feasibility study with one exception. A specific date should be assigned to submit the Mitigation Plan for the existing wells that may be impacted by the sulfate plume in the future instead of leaving it undetermined.

Please submit the revised documents within thirty (30) days of receipt of this letter. If you any questions regarding this correspondence, please do not hesitate to call me at (602) 771-2209.

Sincerely,



Mindi Cross, Manager  
Water Quality Compliance Section

Cc: Stuart Brown, Freeport-McMoRan Copper & Gold  
Jim Norris, Clear Creek Associates  
Michael A. Fulton, Director, Water Quality Division, ADEQ  
Jerry Smit, Manager, Groundwater Section, ADEQ  
David Haag, Senior Hydrologist, Groundwater Section, ADEQ