



December 30, 2003

Mr. Mark Taylor  
Wyoming Department of Environmental Quality  
Land Quality Division  
1043 Coffeen Avenue, Suite D  
Sheridan, Wyoming 82801

**RE: Permit to Mine No. 478  
Follow-up of Reported Disposal Well Fluid Spill at Christensen Ranch Project**

Dear Mr. Taylor:

This letter serves as follow-up notification of the event reported by Tom Nicholson to you on 12/16/03, and to the Wyoming Department of Environmental Quality (WDEQ) Spill Response Office (Mr. Joe Hunter) on 12/15/03. The event was initially reported as the loss of approximately 1,000 gallons of disposal well feed fluid.

As required under Chapter IV, Section 4 of the Water Quality Division (WQD), all spills of "hazardous" substances that enter or threaten to enter waters of the state and any spill greater than 420 gallons must be reported to the WDEQ-WQD within 24 hours of discovery of the event. The event was reported because the volume was thought to exceed the 420-gallon reporting threshold. During the subsequent investigation, it has been determined that the event did not meet the criteria of a reportable spill as the volume was less than 420 gallons and the substances did not enter or threaten to enter waters of the state.

#### **INVESTIGATION SUMMARY**

On December 13, 2003 at approximately 10:50 AM, during a routine facility inspection, a leak was detected on the high-pressure segment of the injection line feeding Disposal Well No. 1 (DW-1). The well was immediately turned off. The leak was caused by a pinhole failure in the threading of a 2-inch pipe nipple. Due to the internal pressure (~1,180 psi), a fluid stream was spraying out and was easily observed.

The injection pressure and flowrate for the disposal well are continuously recorded. The data indicates that the leak most likely started around 10:12 A.M. when a slight downward trend in the injection pressure began. The pipe-nipple that failed was located a few feet upstream of the injection pressure monitoring instrument so the data is considered very indicative of the event. The leak location was downstream from the injection flow meter location. There was no variation in the injection flow prior to shut down at 10:51 AM.

The recorded data indicates a leak duration of approximately 40 minutes. If the pinhole allowed even 10 gallons per minute to escape, the total released volume would be only 400 gallons. This volume is considered conservatively high as the pinhole was only washed out to a length of 2 millimeters along a single thread groove. Even at 1,180 psi, it seems unlikely that 10 gallons per minute could exit a hole that small.

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The spilled fluid soaked into the location almost immediately and therefore none of the fluid was recoverable. This also indicates that the volume of the spill could not have been significantly large. A soil sample from the spill site was obtained and submitted for uranium, thorium and radium 226 analysis. The results are not available yet.

## CONCLUSION

An internal review of the 12/13/03 reported spill concluded that the event did not meet the reporting criteria of WQD Chapter IV, Section 4. COGEMA Mining, Inc. herein notifies the WDEQ of this conclusion.

Please contact me if you require any additional information related to this event and/or notice.

Sincerely,



Wayne Heili  
Operations Manager

cc: Joe Hunter, WDEQ – Spill Response Coordinator  
E. Brummett, NRC – Project Manager  
C. Cain, NRC – Region IV Branch Chief  
T. Nicholson, D. Wichers, COGEMA