

Johnson Camp Mine  
Aquifer Protection Permit P-100514  
Place ID # 5683, LTF # 77396  
Significant Amendment

**I. Introduction:**

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an Aquifer Protection Permit (APP) for the subject facility that covers the life of the facility, including operational, closure, and post-closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards (AWQS) at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

**II. Permittee & Facility Location:**

Excelsior Mining JCM, Inc.  
3048 N. Seven Dash Road  
Dragoon, AZ 85609

**III. Facility Description:**

Johnson Camp Mine (JCM) is an open pit base metal mining/extraction operation located near the town of Dragoon in Cochise County, Arizona, approximately 60 miles east of Tucson. The mine property includes approximately 3,092 acres (about 4.8 square miles), and the mine is located in the southern half of the property.

Mine facilities include two inactive open pits (the Burro Pit and the Copper Chief Pit); three heap leach pads; four process solution impoundments; four non-stormwater ponds; two inactive non-stormwater ponds; a solvent extraction / electrowinning (SX/EW) plant; former crushing, agglomeration, and conveying systems; and supporting infrastructure.

Current activities consist of site maintenance and security, and circulating process solution through the heap leach pads to maintain freeboard in the pregnant leach solution (PLS) and raffinate ponds, and to allow process solution to evaporate. Planned activities consist of use of the ponds to contain process solution from the Gunnison Copper Project (APP No. 511633).

During the Stage 1 operations of the Gunnison Copper Project (APP P-511633), PLS will be pumped to the JCM impoundments (APP No. P-100514) for processing at the SX/EW plant. Raffinate will be stored, re-acidified, and pumped back to the Gunnison Copper Project wellfield.

**IV. Amendment Description:**

The purpose of this amendment is to approve and incorporate modifications to the ponds discussed below:

This amendment incorporates permit changes following inertness demonstration of the Waste Rock Stockpile as per the Compliance Schedule Item (CSI) No. 7 under LTF No. 64109. The permit changes include removal of the Waste Rock Stockpile, and SWCP #51 through #56 as APP discharging facilities. The POC wells CW-1 CW-2, CW-5, and CW-6 that were required to be installed, were also removed from the APP since they are located downgradient of the Waste Rock Stockpile. The pollutant management area (PMA) was redrawn, and the permittee identified two provisional POC wells (see Table 2.4-1 of the permit.

**V. Regulatory Status**

Currently, there are no open enforcement actions for this facility.

**VI. Best Available Demonstrated Control Technology (BADCT):**

APP facilities at this facility include three leach pads, four process solution ponds and a sump (Intercept Sump) that is buried by Leach Pads #1 and #2, four non-stormwater ponds (two of which are buried beneath Leach Pad #3), and two inactive secondary containment ponds (non-stormwater ponds) formerly associated with Solution Pond #1 that will be closed at mine closure.

**VII. Compliance with Aquifer Water Quality Standards (AWQS):**

The facility has three monitoring wells identified as Data Continuity Wells located south of the heap leach pads, upgradient of the regional groundwater flow direction.