CHEVRON QUESTA MINE

(Formerly Molycorp)

(TAOS COUNTY)
NEW MEXICO

EPA ID# NMD002899094 Site ID: 0600806

EPA REGION 6

U.S. CONGRESSIONAL DISTRICT 03

Contact: Gary Baumgarten 214-665-6749

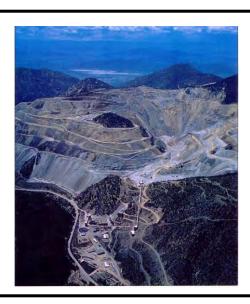
Chevron Questa Mine

Laura Stankosky 214-665-7525

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Background

The Chevron Questa Mine site (Site), formerly Molycorp, Inc., is located in and near the village of Questa, Taos County, New Mexico. The Site includes a former molybdenum mine and milling facility located on three square miles of land and tailing ponds located on approximately one and a half square miles of land, which are currently owned by Chevron Mining Inc. (CMI). A nine-mile long pipeline running along State Highway 38 connects the milling facility to the tailings ponds. Mining operations at the site began at the mine in 1920. Open pit mining was conducted from 1965 to 1983 and resulted in over 328 million tons of acid-generating waste rock being placed into nine piles surrounding the open pit. Over 100 million tons of tailing have been disposed at the tailing ponds.



Current Status _

EPA re-proposed the Molycorp, Inc. site to the National Priorities List (NPL) of Superfund Sites in March 2011. The site was placed on the NPL on September 16, 2011. As part of the listing, EPA changed the name of the site to the Chevron Questa Mine Superfund site based on comments received during the public comment period. EPA selected the remedy in a December 20, 2010 Record of Decision (ROD).

EPA, the State of New Mexico (State) and CMI entered into negotiations for CMI to conduct early actions at the Site. On March 7, 2012, EPA and CMI reached an agreement (Administrative Order on Consent or AOC) for CMI to perform removal actions at the Site beginning in 2012. The removal actions will consist of (1) removal of PCB-contaminated soil at the Mill Area with off-Site treatment/disposal, (2) removal of



historic tailing spill deposits along the Red River riparian corridor, (3) removal of contaminated sediment at Eagle Rock Lake and installation of an storm-water control structure for the lake inlet, and (4) the piping of unused irrigation water within the eastern diversion channel adjacent to the tailing facility. Field

work began in June 2012 with a pre-construction meeting and health and safety meeting. Removal of PCB-contaminated soil in the mill area began in July 2012, and was completed in October 2012. Installation of the storm-water control structure for Eagle Rock Lake inlet began October 29, 2012, and was completed in December 2012. Cleanup of historic tailing spills at the Lower Dump Sump started February 11, 2013, and was completed in August 2013. Cleanup of tailing spills along the former tailings pipeline adjacent to State Highway 38 started September 2013, and completed in September 2014. Work to pipe unused irrigation water within the eastern diversion channel adjacent to the tailing facility began in October 2013 and completed in September 2014. Work to remove contaminated sediment at Eagle Rock Lake is scheduled to begin early January 2015.

On September 25, 2012, another AOC was signed which set forth early design actions that CMI will conduct at the Site. The early design work involves additional ground water investigation at the tailing facility, design support investigations for ground water extraction wells and expanded seepage collection systems, characterization of Spring Gulch waste pile borrow material, a waste rock pile pilot project, a slope stability analysis for the waste rock piles and treatability studies for water treatment.

The Pre-Design Borrow Characterization of Spring Gulch Waste Rock and Toxicity Review Work Plan was approved in August 2013. Field work at Spring Gulch began in August 2013 and concluded in September 2013. The field work at Spring Gulch included excavation and sampling of test pits and drilling and sampling of boreholes. CMI submitted a report in April 2014 documenting the field work and findings. The draft report is under review by EPA, NMED and MMD. The water treatability studies began in September 2013 and work concluded in Spring 2014. CMI is drafting a report to document the results of the water treatability studies. Field work to implement the Pre-Design Investigation Work Plan for upgrades to seepage barriers and well extraction systems began in December 2013. Following a break for the holidays, field work restarted in January 2014 and is ongoing.

As required under the September 2012 AOC, CMI initiated the multi-stakeholder facilitated process to develop and evaluate remedial design options for the waste rock piles. CMI set up a technical working group (TWG) in which experts retained by EPA, NMED, MMD, and other stakeholders were invited to participate. The TWG will provide technical expertise to assist CMI in the development and evaluation of design options for the waste rock piles. The TWG will provide input relating to EPA's Selected Remedy as well as the regulatory requirements and Performance Standards set forth in the ROD. The TWG will provide factual findings from that process to CMI for consideration in preparing deliverables for EPA review. The TWG has met on the following dates: January 23-24, 2013; March 7-8, 2013; April 1-3, 2013; May 8-9, 2013; July 23-25, 2013; August 28-29, 2013; November 19-21, 2013; January 22-24, 2014; March 11-13, 2014; April 30 – May 2, 2014; June 9-11, 2014.

Benefits -

The selected remedy outlined in the ROD will allow EPA to mitigate threats to public health and the environment from the release or potential release of hazardous substances, pollutants, and contaminants at or from the Site.

National Priorities Listing (NPL) History •

Site Hazard Ranking System Score: 50

Proposed Date: May 11, 2000 Re-proposed Date: March 10, 2011 Final Date: September 16, 2011

Site Description

Location: The Site is located 4 miles east of Questa, Taos County, New Mexico. The tailings

ponds are located 1 mile west of Questa.

Population: An estimated 1,100 people live within a mile of the tailings ponds. There are no people

currently living within one mile of the mine site.

Setting: The mine site and milling facility are located in the Sangre de Cristo Mountains and the

tailing facility is located in the Rio Grande rift basin. The mine and tailings ponds are bounded to the south by the Red River, a tributary of the Rio Grande. The Red River is home to a State fish hatchery located 2 miles downstream of the tailings ponds and is designated as a Wild and Scenic River in the vicinity of its confluence with the Rio Grande. Over the years numerous breaks in the pipeline resulted in the spilling of tailings into and along the flood plain of the Red River, threatening the fishery and nearby endangered species habitats. Tailing seepage from the tailings ponds and acidic metal-laden leachate generated from the weathering of the waste rock piles (referred to as acid rock drainage or ARD) at the mine site has contaminated ground water and surface water. Past operating practices at the tailing facility has resulted in adjacent surface soil being contaminated with molybdenum. A small lake, known locally as Eagle Rock Lake, is located along the Red River riparian corridor and receives its water from the river through an inlet gate. Sediments in Eagle Rock Lake are contaminated with heavy

metals.

Hydrogeology:

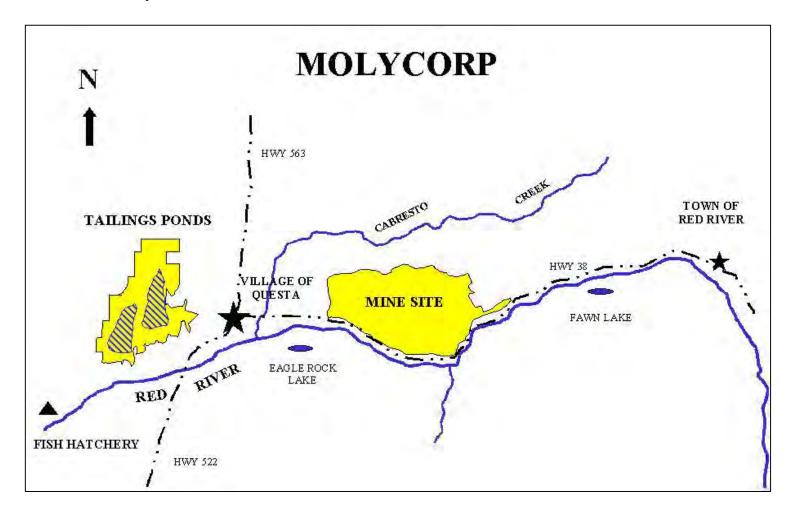
Mine Site — Contaminated ground water within side drainage basins flow into the Red River alluvial aquifer. Some of the ground water within the alluvial aquifer flows into the Red River as seeps and springs at zones of upwelling. Acidic, metal laden seepage at the toe of the Capulin and Goat Hill North rock piles is captured and directed to the underground mine workings. The dewatering of the underground mine workings has created a zone of capture for the deep bedrock ground water. Molycorp uses water collected from the underground workings and the alluvial aquifer (via pumping wells) for production water in its milling operations.

Tailings Ponds — Ground water is present beneath the tailings ponds in an upper alluvial aquifer and a basal volcanic aquifer. Saturation of the tailings has created a partial mounding of ground water beneath the ponds. Seepage from the tailings ponds has moved both downward into the underlying aquifers and laterally to ground surface as seeps. Seepage-impacted water is extracted by collection systems and discharged to the Red River via a permitted outfall (002 Outfall).

Principal Pollutants:

Heavy metals, including aluminum, arsenic, cadmium, chromium, cobalt, fluoride,

lead, manganese, molybdenum, sulfate and zinc.





Signed: December 20, 2010

Remedy Selected:

<u>Mill Area</u> – Excavate PCB-contaminated soil and dispose at off-site treatment/disposal facility, cover with 3 feet of amended, non-acid generating waste rock in areas designated for forestry and revegetate;

Mine Site Area – Source containment by regrade of waste rock piles to slopes ranging between 3 horizontal to 1 vertical and 2 horizontal to 1 vertical interbench slopes, with partial/complete removal of waste rock to accommodate slope requirement, cover with 3 feet of amended, non-acid generating waste rock and revegetate; operate seepage interception and ground water extraction systems, dewater underground mine, treat water, provide temporary alternate water supply if necessary, and temporary well drilling restrictions;

<u>Tailing Facility Area</u> – Source containment by regrade, cover, and revegetation of tailing impoundments, upgrade of existing seepage collection (drains and wells), piping of irrigation water in eastern diversion channel, ground water extraction and water treatment, control access to site by physical barriers, including exclusion fence to restrict access by deer and elk, provide wildlife drinkers, provide temporary alternate water supply if necessary, and temporary well drilling restrictions;

Red River, Riparian, and South of Tailing Facility Area – Remove molybdenum-contaminated soil and tailing spill deposits and on-site disposal;

Eagle Rock Lake - Inlet storm water controls, dredge sediment and on-site disposal.

Contacts

EPA Remedial Project Manager:	Gary Baumgarten	214.665.6749
	Laura Stankosky	214.665.7525
EPA Community Involvement Coordinator:	Janetta Coats	214.665.7308
EPA Attorney:	John Emerson	214.665.3137
EPA Region Public Liaison	Donn R. Walters	214.665.6483
EPA State Coordinator:	Kathy Gibson	214.665.7196
New Mexico Environment Department:	Joe Fox	505.222.9560
EPA Region 6 Superfund Toll Free Number:		800.533.3508