

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Tuesday, May 29, 2007

From: Jeffery Crowley

To: Matt Taylor, EPA - Region 4

Shane Hitchcock, EPA - Region 4

Subject: Final POLREP

Brewer Gold Mine

1/2 Mile N. of Intersection of SR 265 and CR 110, Jefferson, SC

Latitude: 34.6422000

Longitude: -80.4097000

| | | | |
|--------------------------|--------------------|----------------------------|----------------|
| POLREP No.: | 16 | Site #: | 04MQ |
| Reporting Period: | 12/9/1999/11/30/06 | D.O. #: | 04001 |
| Start Date: | 12/9/1999 | Response Authority: | CERCLA |
| Mob Date: | 12/9/1999 | Response Type: | Time-Critical |
| Demob Date: | | NPL Status: | NPL |
| Completion Date: | 11/30/2006 | Incident Category: | Removal Action |
| CERCLIS ID #: | SCD987577913 | Contract # | 68S40205 |
| RCRIS ID #: | | | |

Site Description

The Brewer Gold Mine Site (Site) is one of the oldest and most productive gold mines in the eastern United States. The Site has a history of gold mining dating back to the Revolutionary War. Reclamation/closure planning began after mining ceased in 1993. Starting in 1996, the company began treating acid mine wastewater on site as per National Pollution Discharge Elimination System (NPDES) permit requirements. Late in 1999 Brewer stopped paying its employees, in effect shutting down the Site's wastewater treatment facility. With no treatment taking place the acid mine water was being released directly into nearby Little Fork Creek, a tributary of the Lynches River. The acid pH and heavy metals content of this wastewater could potentially destroy most or all aquatic life in the creek and possibly the river. The ecosystem in and around the creek and river is sensitive and contains species that are classified as Federally Endangered, Critically Imperiled Statewide, or of State concern.

South Carolina Department of Health and Environmental Control (DHEC) requested emergency response assistance because the State lacked the funding to manage this incident. EPA responded and assumed the responsibility for operating the wastewater treatment facility.

The Site consists of a approximately 225 acre mining pit, a waste rock disposal area, and three pads where an acid solution was used in order to release the gold from the ore.

Current Activities

EPA completed the following removal activities:

Northwest Trend Pit

In February of 2002, activities began to drain the sludge from the Northwest Trend Pit. Wastewater was contained in a steady head tank, treated, and then pumped to the Pad-6 Pond. Magnesium oxide was added as a neutralizing agent to remove sediments. The neutralizing agent was later switched to hydrated lime. In November of 2004, a dredge was installed to help pump out the sludge more efficiently from the Northwest Trend Pit.

About 19.02 MG of metal hydroxide sludge has been removed from the Northwest Trend Pit.

The USCG provided oversight for the Northwest Trend Pit, and ERT was used as a resource for sludge removal. Gemini Services operated the treatment system and provided general site maintenance.

Groundwater

An extraction well and four monitoring wells were installed in the B-6 pit area in August 2000. After

installation, contaminated groundwater was pumped out of the B-6 pit and sent to the Pad-6 Pond for treatment. Contaminated groundwater was pumped out of the wells at a rate of 100gpm.

ERT/REAC provided oversight for the installation of the wells and Geotech completed the installation.

Pad-6

In the Spring of 2004, 15 to 17 acres of exposed rock face in Pad 6 were capped. The exposed rock was producing acidic drainage which drained into Little Fork Creek. Two layers of clay, topsoil seeded with erosion control grasses, and a straw matting on top of the topsoil were used to cap the exposed rock face. The area was then graded and dressed.

A total of 356.2 MG of acidic water that was collected in the Pad-6 pond area was treated and discharged into the Little Fork Creek. The discharges into Little Fork Creek met NPDES standards. CMC Inc. treated the contaminated water from December 1999 to May 2002 and Kemron Environmental Services treated the water from June 2002 to November 2006.

Planned Removal Actions

None

Next Steps

EPA placed the site on the NPL on April 27, 2005. With the NPL listing, responsibility for the site shifted from the emergency response program to the remedial or long-term cleanup program. In August 2005, EPA completed a focused RI/FS that recommended continued treatment of the contaminated water in the existing wastewater treatment plant as an interim action. The Interim Action Record of Decision (ROD) was signed September 29, 2005. The Interim Remedial Design was completed June 16, 2006, and the interim Remedial Action began on December 1, 2006. This completed the emergency removal. EPA is concurrently conducting a site wide RI/FS to identify and evaluate a permanent remedy. The RI/FS is scheduled for completion in the Fall of 2007 with the final ROD scheduled for completion in September 2009.

Key Issues

None

Estimated Costs *

| | Budgeted | Total To Date | Remaining | % Remaining |
|---------------------------|-----------------------|-----------------------|---------------------|--------------------|
| Extramural Costs | | | | |
| ERRS - Cleanup Contractor | \$5,340,000.00 | \$5,119,364.00 | \$220,636.00 | 4.13% |
| IAGs - USCG | \$25,000.00 | \$16,909.00 | \$8,091.00 | 32.36% |
| START | \$50,000.00 | \$0.00 | \$50,000.00 | 100.00% |
| ERT/REAC | \$200,000.00 | \$170,200.00 | \$29,800.00 | 14.90% |
| Intramural Costs | | | | |
| | | | | |
| Total Site Costs | \$5,615,000.00 | \$5,306,473.00 | \$308,527.00 | 5.49% |

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

Disposition of Wastes

None. Wastes were treated and capped on site.