

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Ore Knob Mine Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #20
Progress Update
Ore Knob Mine Site
A4ND
Ore Knob, NC
Latitude: 36.4086670 Longitude: -81.3238890

To: Terrence Byrd, EPA

From: Terrence Byrd, On-Scene Coordinator

Date: 6/7/2010

Reporting Period: 02/20/10-06/22/2010

1. Introduction

1.1 Background

Site Number:	A4ND	Contract Number:	
D.O. Number:		Action Memo Date:	11/3/2008
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:		Incident Category:	Removal Action
NPL Status:	NPL	Operable Unit:	
Mobilization Date:	10/20/2008	Start Date:	10/20/2008
Demob Date:		Completion Date:	
CERCLIS ID:	NCN000409895	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal

1.1.2 Site Description

The Site contains areas affected by mining, including three principal areas that were directly affected by mining along with other areas, primarily downstream, where hazardous substances have come to be located. The three principal areas include the 1950s Mine and Mill Area, the 19th Century Operations Area and a Main Tailings Impoundment. The Action memo recommends response actions to address threats from the main tailings impoundment.

The 1950's Mine and Mill Area comprises 15 acres and is located northwest of the intersection of Ore Knob Road and Little Peak Creek Road, just north of Highway 88. This area contains derelict ore bins, concrete mill foundations, a transformer building, other ruins, a small sawmill currently in operation, two acres with about 10,000 cubic yards of tailings - now mostly covered with stumps, and a two acre former pond where process water was stored. Little Peak Creek starts just upstream of the former pond, flows through the former pond, and discharges into Peak Creek 2.5 miles downstream.

The 19th Century Operations Area and the Main Tailings Impoundment are located across Little Peak Creek Road, at the end of Ore Knob Mine Road. The 19th Century Operations Area includes a series of barren and nearly barren stretches of land (totaling about 5 acres) near the top of Ore Knob that contain waste rock dumps from at least 11 mine shafts as well as locations where ore was roasted to drive off sulfur and smelted to recover copper.

1.1.2.1 Location

Ore Knob, Ashe County, North Carolina

1.1.2.2 Description of Threat

The site is impacted by Acid Mine Drainage (AMD), causing several creeks and rivers to become sterile.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

1. 1. Diversion Channel

See Pol/Sitrep #17 for diversion channel description.

The right downstream banks of the channel are being redesigned to allow water to filter through without having soil slough from the embankments. A filtering system similar to the design of the dam will be implemented through all areas that are not reinforced by the mountainside.

Construction of the water dissipator at the end of the channel has begun. OSC received access from adjacent property owner allowing remediation on both sides of the creek bed. The area of Ore Knob Branch 150 downstream of the water dissipator will be dredged to remove tailings that have settled in the creek bed. The branch will be reinforced with rock as an erosion control mechanism. Sediment control measures including berms and rock check dams will be placed downstream before work begins on the branch.

A 1000 ft. fence has been placed along each side of the diversion channel at it deepest points as a safety measure. Warning signs have been placed along this area discouraging trespassing.

2. Site Ponds

See Pol/Sitrep #17 for Site Ponds description.

Pond 2 is still being filled with tailings that are excavated from the dam face and water dissipator. The area is being contoured to allow water to drain to the rear (south) of the tailings impoundment. The other three ponds are all filled and re-vegetated.

3. Tailings Dam

See Pol/Sitrep #17 for Tailings Dam description.

A. Sediment Pond

The sediment pond is periodically cleaned to maintain the maximum amount of freeboard.

B. Starter Dam

The Starter Dam has been completely constructed. The face was re-graded to an approximately 3.5:1 slope and the bottom most portion was excavated to the water table. It was then filled with filter sand covered with a water-permeable liner. Next, the sections were covered with small rock, backfilled, and seeded.

C. Shear Key

The Shear Key has been completely constructed and is functioning as planned.

D. Main Tailings Impoundment

The dam face of the Main Tailings Impoundment has been totally re-sloped. The filter drain is functioning as expected and the slope has been revegetated to prevent erosion.

4. Other/Miscellaneous

A public meeting was held in April to update residents of ongoing and upcoming activities at Ore Knob. Representatives from ERRB and Remedial Branches along with NCDENR and NC Dept. of Public Health were present to answer questions from the public and the press.

EPAs remedial program has conducted well sampling events at homes around the Ore Knob Mine Site. Wells that have levels of contaminants that are of concern are being given bottled water to drink as a precaution. Residents requesting to receive bottled water are receiving it also.

Constant precipitation has greatly hampered Site activities, increasing site costs and extending the project schedule.

Recycling

In an effort to reduce the carbon footprint of the Ore Knob Mine Site, all paper and plastics are being recycled and no construction waste is being generated on-site. All soils, rock and water is recycled for use onsite—thus eliminating transportation and disposal costs.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

PRPs have been identified and enforcement activities are underway.

2.1.4 Progress Metrics to date (approximate)

<i>Product Stream</i>	<i>Quantity (CY)</i>
Soil	141780
Tailings	78195
Rock	30330

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

Construction will continue on the water dissipator. Crew will continue to fill and raise Pond 2 to its proper grade.

2.2.1.2 Next Steps

2.2.2 Issues

In an effort to reduce the carbon footprint of the Ore Knob Mine Site, all paper and plastics are being recycled and no construction waste is being generated on-site. All soils, rock and water is recycled for use onsite, thus eliminating transportation and disposal costs.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$4,283,276.00	\$4,242,259.00	\$41,017.00	0.96%
IAGs	\$250,000.00	\$230,000.00	\$20,000.00	8.00%
USCG	\$60,000.00	\$50,000.00	\$10,000.00	16.67%
RST/START	\$250,000.00	\$200,000.00	\$50,000.00	20.00%
Intramural Costs				
Total Site Costs	\$4,843,276.00	\$4,722,259.00	\$121,017.00	2.50%

* 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.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.

POLREP #20 Last Updated 10/3/2011