U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Carpenter Snow Creek - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: **POLREP #2**
Progress
Carpenter Snow Creek
089X
Neihart, MT
Latitude: 46.9751143 Longitude: -110.6998538

To:
From: Steven Way, OSC
Date: 8/18/2014
Reporting Period: 8/11/14 - 8/15/14

1. Introduction

1.1 Background

Site Number:	089X	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	
Response Lead:	EPA	**Incident Category:**	
NPL Status:	NPL	**Operable Unit:**	OU 3
Mobilization Date:	8/11/2014	**Start Date:**	9/3/2013
Demob Date:		**Completion Date:**	
CERCLIS ID:	MT0001096353	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

CERCLA Time-Critical Removal Action

1.1.2 Site Description

The NPL Site is within the Neihart Mining District, approximately 50 miles southeast of Great Falls, Montana. The mine district was a relatively steady producer of silver, lead and zinc from its discovery in 1881 to the 1940s. Historic mining and milling operations generated substantial volumes of waste rock and mill tailings that remain within the Site and continue to release hazardous substance into the environment. In 1925, the Silver Dyke tailings dam failed due to an earthquake resulting in tailings being deposited along the length of Carpenter Creek. Erosion and subsequent re-deposition of the tailings along Carpenter Creek and erosion from the upper and lower tailings impoundments moved waste into the floodplains of Carpenter and Belt creeks at least as far as Monarch, MT, approximately 14 miles downstream.

The Site has been divided into three operable units (OU). This removal action included activities in OU 3, which contains the Silver Dyke mining complex including upper mine sites and tailings in Carpenter Creek to the confluence with Belt Creek. The three main areas focused on in the Removal Action were the upper and lower Carpenter Creek tailings, and the Silver Dyke tailings pile

1.1.2.1 Location

The Site is located on the northern flank of the Little Belt Mountains at elevations from approximately 5,100 feet Above Mean Sea Level (AMSL) along Belt Creek to 8,621 feet AMSL on Long Mountain. It is located in the southeastern end of Cascade County, Montana and primarily along Carpenter and Snow Creek and then along Belt Creek from the Town of Neihart extending downstream to Monarch, MT.

1.1.2.2 Description of Threat

Aquatic life surveys conducted in Carpenter Creek below the confluence with Sih-mem Creek, indicate populations of benthic invertebrates are severely impaired, and fish populations are absent. Investigations conducted by Montana Fish Wildlife and Parks and the EPA in 2010 and 2011 (FWP, 2011, 2012, and TechLaw, 2011, 2012) clearly indicate that metals contamination associated with ongoing contaminant releases impairs water quality and severely inhibits aquatic life in Carpenter Creek, and suggests that they are contributing to the impairment of aquatic life in Belt Creek below the confluence of Carpenter Creek.

Water quality in Carpenter Creek is poor throughout the drainage due to degrading influences from the Carpenter Snow Creek Site. Creek waters are subject to active tailings erosion as well as metals contaminants from mine adits. There are general water quality standards exceedences for metals including arsenic, cadmium, copper, lead and zinc, that can be attributed in part to the erosion. Much higher exceedences of metals have been measured during storm events which are directly a result of erosion of the tailings. These metals inhibit aquatic life in the drainage.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Site investigations by the State and MT Operations office determined that approximately 35,000 cubic yards of tailings remain on the slopes of the No Name Creek valley. This was the location of the former tailings impoundment that failed and dispersed tailings throughout the Carpenter Creek floodplain. Analyses of samples collected at the Site indicate the presence of high concentrations of heavy metals including zinc, cadmium and lead in waste and sediment. Routine run-off and high flows during spring snow melt continue to cause migration of the tailings materials from the Carpenter Creek and Silver Dyke tailings impoundment into the environment

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The objective of this removal action is to prevent continued releases from the estimated 35,000 cubic yards of tailings at the Silver Dyke tailings impoundment within No Name Creek drainage area. The action includes the following elements: (1) Removing the tailings from the hillside slopes and staging for disposal; (2) constructing an onsite repository, pending the repository decision; (3) placing the tailings in an onsite repository; (4) reclaiming/restoring removal area slopes. Designs have been developed.

See Pollution Report #1 for response actions completed in 2013.

2.1.2 Response Actions to Date

1. The response contractor mobilized to the Site on August 11, 2014, (arriving onsite 8/12/14), and equipment delivery began on August 12. Site preparations were initiated on August 13.

2. Site Preparations completed or underway include:

- Establishing utility locations and coordinating with North Western Power co operations
- Erosion controls / run-on and run-off controls are being placed around the work area.
- Road grading was started from the tailings area to the proposed repository site.
- Staging Area (Pioneer Lane / Carpenter Creek intersection) grading and prepared for trailer.
- Equipment access roads into the east slope tailings were established
- No Name creek diversion route was surveyed and access created for the diversion point. (12 inch corrugated pipe will be placed across the slope above the tailings.)

2.1.3 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Tailings	solids		NA		onsite
	solids		NA		

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

- Install approximately 1,000 ft of diversion pipe (12 inch) for No Name creek.
- Complete erosion control placement along haul road.
- Repository clearing – tree removal on approximately 2 acre area.
- West Slope tailings removal and consolidation onto the east slope will begin following diversion and erosion control placement.

2.2.2 Issues

None

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

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.