U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Tomichi Creek/Akron - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: **POLREP #2**
Tomichi Creek/Akron
08UM
Whitepine, CO
Latitude: 38.5400000 Longitude: -106.3940000

To:
From: Pete Stevenson, OSC
Date: 9/12/2015
Reporting Period:

1. Introduction

1.1 Background

Site Number:	08UM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	5/29/2015
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/10/2015	**Start Date:**	8/10/2015
Demob Date:		**Completion Date:**	
CERCLIS ID:	CON000802814	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Mining operations for lead and silver ore in the Tomichi Mining District started in 1880. The main ores in the Tomichi Mining District were lead and silver; zinc and copper sulfides were also present (CGS 2005). Mining was discontinued in 1952. There are over 75 mines in the district, and in excess of 90,000 tons of lead ore were extracted between 1901 and 1950. The ore was rich enough to be direct-shipped to smelters around the western United States, and at least five NPL Superfund sites received this ore, including the Colorado Smelter in Salida, and smelters in Leadville, Tooele, Midvale and Salt Lake City. The Site's seasonal population has been estimated to include 1,000 residents, as well as other recreational users.

The largest source of waste material documented in the district is the Akron Mill, which is located on NFS-managed lands adjacent to Tomichi Creek immediately-south of the town of Whitepine, Colorado. This Akron Mine and Mill property contains approximately 120,000 cubic yards of tailings (UOS 2010).

1.1.2.1 Location

The Site, populated seasonally by approximately 1,000 residents of all ages, encompasses areas in and around Whitepine, Colorado, in southeastern Gunnison County. The Tomichi Creek/Akron Site (Site) is situated on County Road 888 about 35 miles east of Gunnison, 10 miles west of Monarch Pass, and 10 miles north of U.S. Highway 50. Elevation of the Site is approximately 9,850 feet above mean sea level (TopoZone 2008). The Tomichi Creek/Akron Site includes four properties in the town of Whitepine and waste piles to the northwest of town, the Tomichi Mill property, the streamside area downstream of the Tomichi Mill (which may have been a historic tailings pond), Akron Mine and Mill, public lands between the two mills, roads over/around Akron Mill, Galena and Tomichi creeks and the Tomichi Creek floodplain (from immediately upstream of the Akron Mill to downstream of the Mile 8 tailings). Land use within the Site is primarily forest, recreation and residential.

1.1.2.2 Description of Threat

Of 32 soil samples collected on the Tomichi Mill property, 17 registered lead levels above 1,000 ppm and, of those, 11 were above 5,000 ppm. Seven samples at the wetlands/historic tailings pond immediately downstream of the Tomichi Mill contained lead at concentrations greater than 5,000 mg/kg, with the high lead concentration at 6%.

The residents and/or area visitors are at risk of unacceptable exposure to Site contaminants via several exposure routes including dermal absorption or inadvertent ingestion of contaminated dust, water or creek sediments. In addition, surface sheet flow resulting from precipitation events or snow melt/runoff produces continual movement of contaminated material into Tomichi Creek, a tributary of the Gunnison River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Samples collected at the Tomichi Mill property have lead concentrations ranging from 44 to 208,000 parts per million (ppm) (21%). Soil samples were collected at depths ranging from two to 16 inches. The highest lead concentration was found at a depth of two inches, which was collected from the base of the former Tomichi Mill. Though the area nearest the structures on the property has relatively low lead concentrations (below 800 ppm), high levels of lead are located in the "front yard" within 20 feet of the residences, as well as the mill property itself, which the residents utilize for a variety of purposes (START 2011).

Both surface water and sediment samples were collected from Tomichi Creek adjacent to the bridge leading to the Tomichi Mill property with lead concentrations of 3.40 µg/L, which is above the chronic lead standard set for Tomichi Creek by the Colorado Department of Public Health and Environment (CDPHE). The sediment sample had a lead concentration of 110 ppm (CDPHE 2012, EPA 905 2000).

A wetlands/historic tailings pond is located on USFS property immediately downstream of the tailing pile on the Tomichi Mill property. Seven sediment samples contained lead at concentrations greater than 5,000 mg/kg, with the highest lead concentrations at 6% (START 2013).

Water samples collected in the field activities showed that of the 16 separate locations, five had lead concentrations greater than the MCL. Many of these sample locations also exceeded the national secondary drinking water standards for metals including aluminum, iron and manganese.

Surface water and sediment samples were collected from Tomichi Creek down gradient from the wetlands. The surface water sample had a lead concentration of 3.6 µg/L and a zinc concentration of 93 µg/L, which exceeds the CDPHE chronic zinc standard for Tomichi Creek. The sediment sample from the creek bed had a lead concentration of 41,000 ppm, which is consistent with the tailings both on the Tomichi Mill property and in the wetlands immediately downstream (START 2011).

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

This time-critical Removal action involved the excavation and disposal of a lead and zinc contaminated tailings pile on the former Tomichi Mill property and adjacent historic tailings pond on lands administered by the U.S. Forest Service (USFS), adjacent to Tomichi Creek; the construction of engineered repositories at the Akron Mine and Mill USFS property; the excavation of contaminated soils from lots in the town of Whitepine and the road right of way; the removal or covering of waste rock from piles northwest of Whitepine; and the excavation and removal of tailings from the Mile Marker 8 tailings area. The excavated materials were transported for disposal to the USFS Akron Mine and Mill south pile repository. Conditions existing at the Site present a threat to public health and the environment and meet the criteria for initiating a Removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

Because the Site includes both private and USFS-managed lands, this Removal action is a coordinated action between the US Environmental Protection Agency (EPA) and USFS. EPA will be the lead agency for portions of the Removal action that occur primarily on private lands and the USFS will be lead agency on National Forest System (NFS) managed lands. This action involves no nationally significant or precedent-setting issues. This time-critical Removal action will not establish any precedent for how future response actions will be taken and will not commit EPA to a course of action that could have a significant impact on future responses or resources.

2.1.2 Response Actions to Date

Site construction began August 10, 2015**. Contaminated material was excavated from the Tomichi Mill property, the adjacent wetlands on USFS land, the NW pile on USFS land, and a small wetlands area near the road and creek just west of the Akron Mill. One lot in Whitepine was cleaned up and backfilled with clean topsoil and road base. The road through town was topped off with 4" of road base. The Tomichi Mill property and the adjacent wetlands were backfilled with clean topsoil and rocks borrowed from a designated area on USFS property. A total of 1200 cubic yards of borrow was used. The borrow area and all access roads used for the Removal to the Tomichi Mill property were made impassable with rocks, trees, and ditches. All disturbed areas were seeded with appropriate seed mix. USFS construction of the south pile is substantially complete.**

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

A separate Enforcement Addendum has been prepared providing a confidential summary of current and potential future enforcement actions.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
tailings-private		764 yds			

tailings-USFS1		789 yds			
tailngs-USFS2		214 yds			

2.2 Planning Section

2.2.1 Anticipated Activities

This Removal action is a joint action between EPA and USFS and was memorialized in a joint Action Memorandum and a Memorandum of Understanding.

USFS will accept in-kind work from EPA as a contribution for allowing wastes generated from private lands (an estimated 3,000 cubic yards in total of mine tailings and contaminated soil) to be incorporated into the USFS repository. This work will include removal of tailings from immediately downstream of the Tomichi Mill in the historic tailings pond along Tomichi Creek on USFS land. Wetlands vegetation will be removed, stockpiled, and replaced as appropriate. Tree root balls and trunks will also be utilized to enhance trout and beaver habitat.

EPA Removal actions include cleanup and restoration of the privately-owned Tomichi Mill property and placement and securing private land waste material at the USFS Akron Mine and Mill repository. The resulting savings from using the USFS repository will be used to conduct in-kind work consisting of cleanup and restoration of the historic Tomichi Mill tailings pond along Tomichi Creek on USFS land.

The north and south waste piles at the Akron Mine and Mill property on NFS-managed lands will be capped (largely in-place) by the USFS using a sustainable, naturally-vegetated soil and rock cover. Run-on and run-off controls, as well as sheet-flow controls on capped areas will be constructed. The north pile cap will be designed to accommodate 500-year+ (modeled) flood flows in Tomichi Creek. All waste rock and tailings will be removed from the floodplain where Tomichi Creek flows adjacent to the north pile repository and the floodplain will be re-established using locally-derived natural materials. The existing metal culvert pipe that is used to allow NFS Road 890 to cross Tomichi Creek will be removed, and the stream and floodplain will be restored. NFS Road 890 will be re-routed and reconstructed so that it crosses Tomichi Creek on a properly-sized, bottomless culvert arch-bridge and does not traverse tailings of the north waste pile. Provision for 500-year+ flood flows in Galena Creek will be designed in the historic location of the Galena Creek channel that will be re-established between the north and south capped waste repositories. A large earthen berm will be maintained and extended across the toe-of-slope of the south waste pile repository to preclude future migration of tailings and/or run-off from the repository from entering Tomichi Creek. Extensive Site access controls will be established and maintained to preclude use of capped waste piles for recreation.

One residential property within the town of Whitepine and the road right of way near this affected lot will undergo a surface scrape, followed by XRF verification sampling. Recycled asphalt or a similar material will be applied to the road, and topsoil will be placed on the scraped yard areas and native grass seed will be sown. Yard items, large rocks, and shrubs will be replaced as necessary.

USFS will cover the waste rock piles on USFS-managed land northwest of Whitepine with topsoil or other suitable material to encourage natural re-vegetation. The EPA will remove the smaller pile on private land to the Akron Mine and Mill repository.

USFS will remove the tailings at Mile 8 and place them in the Akron Mine and Mill repository. Appropriate wetlands vegetation will be removed, stockpiled, and replaced under USFS oversight.

USFS will be responsible for post removal site controls for the joint mine repository and future response actions in the event of a repository failure.

2.2.1.1 Planned Response Activities

The proposed actions will, to the extent practicable, contribute to any future remedial effort at the Site. However, no further federal action is anticipated at this time.

This time-critical Removal action, in conjunction with the USFS work on the Akron Mine and Mill property will collectively address the areas of concern for the entire district watershed at this time.

2.2.1.2 Next Steps

Participate in site walk Monday afternoon, 9/14/15.

Arrange for spring planting of trees on the Tomichi Mill property.

2.2.2 Issues

Steep slope restoration of the Tomichi Mill property will need to be monitored for sluffing.

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

3.1 Unified Command

3.2 Cooperating Agencies

EPA
USFS

4. Personnel On Site

EPA OSC occasioinally

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.