United States Environmental Protection Agency
Region IX
POLLUTION REPORT

Date: Monday, September 22, 2008
From: Michelle Rogow

Subject: Quicksilver found and Forest Service clean up begins
Altoona Mine Site
Shasta -Trinity National Forest, Castella, CA
Latitude: 41.1367000
Longitude: -122.5475000

POLREP No.:	11	**Site #:**	09PC
Reporting Period:	9/15/08-9/21/08	**D.O. #:**	9015
Start Date:	7/8/2008	**Response Authority:**	CERCLA
Mob Date:	7/7/2008	**Response Type:**	Time-Critical
Demob Date:		**NPL Status:**	Non NPL
Completion Date:		**Incident Category:**	Removal Action
CERCLIS ID #:		**Contract #**	EP-W-07-022
RCRIS ID #:			

Site Description

The Altoona Mine is an abandoned mercury mine located approximately 11 miles (as the crow flies) west of the town of Castella in Trinity County, California. The approximate geographic coordinates of the mine are 41 E 8'12.7" north latitude, 122 E 32'51" west longitude. The mine is located on private land within the Shasta-Trinity National Forest. The Shasta-Trinity National Forest is administered by the United States Forest Service (USFS).

The Altoona Mine site is comprised of an abandoned and backfilled vertical mine, with an adjacent ore processing area, former retort areas, and waste rock and tailings piles. There are collapsed remains of wooden structures at the ore processing area, and other collapsed wooden structures are scattered about the periphery of the mine site.

The mine was comprised of six levels of horizontal shafts which branch out from the main vertical shaft, and two levels of horizontal shafts which branch out from the second vertical shaft. The eight horizontal shafts comprise a total of over 10,000 linear feet.

The mine is located on an escarpment which faces southeast. The ore processing area is located immediately southwest of the surmised location of the main adit, and tailings piles are located southeast (downhill) of the processing area. The base of the tailings piles is approximately 80 feet below the elevation of the processing area.

Water from the mine flows from under the tailings piles, down Soda Creek to the east fork of the Trinity River, which is approximately one mile to the southeast of the mine. As no flowing water was found immediately upgradient of the mine, the water source of Soda Creek is assumed to be an underground source, which likely flows through mine passageways.

Current Activities

9/15/08 – EPA:1, USCG: 1, ERRS: 16, START: 3, Aramark: 3. In the morning, tailings which were staged in the repository were pushed across the floor and up the side slopes before the liner heated up. Throughout the day, ERRS hauled tailings and waste rock to the repository and compacted it in alternating lifts. At the end of the day, tailings were brought in and dumped at the edges of repository, in preparation for the next day's spreading onto the liner surface. Approximately 4,800 cubic yards of tailings and waste rock were placed in the repository. Towards the end of the day, native material was located on the southwestern side of the tailings piles. Work continued on improvement of the road to USFS lands. START set up PDRs, collected samples and conducted field analysis with the XRF. Samples were taken downstream of the tailings in private property, upstream of the USFS lands, and in some gaps of the USFS lands. 24 samples were collected and 15 were analyzed. PST assisted with site safety and sample preparation. Some members of the public were on site, looking for information on parcels owned by the Underwood's that were for sale. One ERRS operator demobilized and another one was mobilized to the site. Two START mobilized to the site.

9/16/08 – EPA:1, USCG: 1, ERRS: 16, START: 2, Aramark: 3. Throughout the day, ERRS hauled tailings and waste rock to the repository and compacted it in alternating lifts. At the end of the day, tailings were brought in and dumped at the edges of repository, in preparation for the next day's spreading onto the liner surface. Approximately 5220 cubic yards of tailings and waste rock were placed in the repository. ERRS continued work on access to USFS lands. Trees were limbed and BMPs were installed in the creek. A new subcontractor was on site to pump out the grey water tanks at camp. START set up PDRs, worked on preparation for confirmation sampling. GPS points of previously sampled areas were collected. 3 samples were collected and 7 were analyzed due to issues with the XRF. PST assisted with site safety and oversight. One START demobilized from site.

9/17/08 – EPA:1, USCG: 1, ERRS: 16, START: 3, USFS: 3, Aramark: 3. ERRS hauled tailings and waste rock to the repository and compacted it in alternating lifts. Debris and concrete were removed from the processing area and placed into the repository. Approximately 5140 cubic yards of tailings and waste rock were placed in the repository. ERRS began work on excavation of the USFS parcel and 174 cubic yards of material were hauled to the repository. USFS OSC Shipley arrived on site to coordinate with the EPA OSC on work on USFS lands. USFS representatives from the District were on site to coordinate with the EPA OSC. START set up PDRs, collected 34 confirmation samples from the southwest side of the tailings piles and conducted field analysis of 17 with the XRF. PST assisted with site safety and sample preparation. PST also assisted with pickup of food for camp from Castella. A reporter from the Mt Shasta Herald was on site to gather information for a story. An additional START arrived on site. Diesel was delivered.

9/18/08 – EPA:1, USFS: 1, USCG: 1, ERRS: 16, START: 3, Aramark: 3. ERRS hauled tailings and waste rock to the repository and continued compaction. More debris was removed from the processing area and placed in the repository. USFS OSC Shipley was on site to coordinate with the EPA OSC on work on USFS lands. Work continued excavating in Soda Gulch (aka the Altoona Mine Drain) on USFS lands. A pump was set up to divert water around excavation areas. Approximately 3800 cubic yards of tailings and waste rock and 146 cubic yards from the USFS lands were placed in the repository. START set up PDRs, collected 65 samples including: confirmation samples from the north and north east sides of the tailings piles and west side of the waste rock 2 area, and delineation samples from the processing area. START conducted field analysis of 40 samples with the XRF. PST assisted with site safety and sample collection. While sampling in an excavated area on the east side of the tailings piles, PST found quicksilver seeping out of the ground. The area was isolated, the Lumex was used for monitoring and sulfur was dusted in the area. The quicksilver appeared to be seeping from rocks and soil in the area. Stakebed truck would not start. Recycling was brought to town and tires for ATVs and gator were repaired/replaced.

9/19/08 – EPA:1, USFS: 1, USCG: 1, ERRS: 16, START: 3, USFS: 1, Aramark: 3. Throughout the day, ERRS hauled tailings and waste rock to the repository and compacted it in alternating lifts. ERRS continued work excavating in the USFS parcel along the stream. The USFS OSC Shipley was on site to coordinate work on USFS lands. Approximately 4300 cubic yards of tailings and waste rock and 585 cubic yards of material from the USFS lands were placed in the repository. START set up PDRs, collected 17 confirmation samples from the south side of the tailings piles and 21 delineation and 13 confirmation samples from the USFS area. START conducted field analysis of 63 samples with the XRF. Due to high concentrations of mercury in the processing area samples, START conducted sample preparation in level C. PST assisted with site safety and sample collection. New stakebed truck was picked up, but that one broke down as well.

9/20/08 – EPA:1, USCG: 1, ERRS: 16, START: 3, USFS: 1, Aramark: 3. Tailings and waste rock were excavated and hauled into the repository and compacted in alternating lifts. Approximately 4700 cubic yards of tailings and waste rock and 355 cubic yards from the USFS stream were placed in the repository. ERRS continued work re-excavating the southern portion of the stream, where confirmation samples were found to be high concentration. Restoration of the stream began with rock placement. The USFS OSC Shipley was on site to coordinate with the EPA OSC on work on USFS lands. A new stakebed truck was picked up and was used to pick up sulfur for stabilization. I-5 delivered Portland cement for stabilization. One of the generators at camp was replaced. START set up PDRs, collected 4 delineation and 10 confirmation samples in the USFS stream area. START conducted field analysis of 17 samples with the XRF. PST assisted with site safety, security and sample preparation. The CA DFG Warden for the area was on site for a visit and because rifle hunting season began. Numerous hunters came on site and were courteously escorted off site by PST.

9/21/08 –Aramark: 2, CHP: 2. The California Highway Patrol paid a visit to the camp and site to meet with the OSC regarding their investigation of the grey water truck accident and gather more information for their investigation. The OSC provided the officers with a site tour and discussion of operations. The

OSC also consulted with CHP on the ongoing hunting season and the potential for closing off the roads to the site to prevent access to hunters.

Planned Removal Actions

1. Fill repository with mine waste
2. Sample to confirm cleanup goals
3. Cap repository
4. Restore site and repository area

Next Steps

Excavate contaminated material. Fill repository with excavated material. Complete excavation in the stream channel. Find the end of the tailings!

Key Issues

1. The size of the repository
2. Defining the boundaries of contamination
3. Weather cooperation
4. Time

response.epa.gov/Altoona