

**United States Environmental Protection Agency**  
**Region IX**  
**POLLUTION REPORT**

**Date:** Saturday, August 16, 2008

**From:** Michelle Rogow

**To:** Peter Guria, EPA Region 9

Lynn Keller, EPA Region 9

**Subject:** Completion of berm, searching for repository bottom

Altoona Mine Site

Shasta -Trinity National Forest, Castella, CA

Latitude: 41.1367000

Longitude: -122.5475000

<b>POLREP No.:</b>	6	<b>Site #:</b>	09PC
<b>Reporting Period:</b>	8/10-8/17/08	<b>D.O. #:</b>	9015
<b>Start Date:</b>	7/8/2008	<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	7/7/2008	<b>Response Type:</b>	Time-Critical
<b>Demob Date:</b>		<b>NPL Status:</b>	Non NPL
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Action
<b>CERCLIS ID #:</b>		<b>Contract #</b>	EP-W-07-022
<b>RCRIS ID #:</b>			

**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**

8/10/08 - Aramark: 3. Crew had a day off. USCG communications technician arrived on site.

8/11/08 – EPA:1, USCG: 2, ERRS: 16, START: 3, URS: 1, Aramark: 3. All day ERRS conducted excavation of clean material from the repository, shaping of the excavation and constructing the berm on the southern side of the repository. Screen plant operations continued. Haul trucks worked to move soils to the screen area. URS continued oversight of excavation. Water was used for dust control in the repository and construction of the berm. The GCL and filter fabric arrived and was transloaded to the site. Sandbags and stingers arrived for liner installation. START continued collection of samples from the USFS area (including the stream where piles of tailings are located) and the southeastern side of the repository where an adit was identified. START continued air monitoring with PDRs. START collected 30 assessment samples from the USFS Soda Gulch area and conducted XRF analysis of 27 samples

collected. PST Comms Tech was on site and worked on the repeater and testing of the USCG radios. It was determined that the repeater battery was unable to be charged and so the Comms Tech took back the USCG radios, the battery and the solar panels. EPA worked with USFS on MOU and IAG.

8/12/08 – EPA:1, USCG: 1, ERRS: 16, START: 3, URS: 1, Aramark: 3, NW Linings: 5. All day ERRS conducted excavation of clean material from the repository and completed construction of the berm. Screen plant operations continued. Haul trucks worked to move soils to the screen area. GCL and filter fabric continued to be delivered. Dozer with winch for lining operations was delivered. URS continued oversight of excavation. Water was used for dust control in the repository and construction of the berm. Northwest Linings arrived on site and began to fill sand bags. Off road diesel was delivered. START continued collection of samples from the USFS area and the south and southwestern sides of the processing area (22 samples). START continued air monitoring with PDRs. START conducted XRF analysis of 25 samples collected. START reviewed information for the treatability study and updated data and maps for the site. START and PST conducted a Lumex assessment of the camp common and staff rooms to determine whether contamination was being transported back to the site. PST assisted with sample collection and preparation. The recycling was brought to town for exchange. EPA continued work on MOU and IAG with USFS.

8/13/08 – EPA: 2, USCG: 1, ERRS: 16, START: 3, URS: 1, Aramark: 3, SHN: 2, USFS: 5, NW Linings 5. All day ERRS conducted excavation of clean material from the repository. Screen plant operations continued. URS continued oversight of repository excavation. SHN surveyed the berm and survey staked bottom grade of repository. Water was used for dust control in the repository. NW Linings was on site filling sandbags to prepare for lining. USFS Shasta-Trinity Forest officials were on site to conduct a biological, hydrological and wildlife assessment to provide assistance with restoration of site consistent with native species and watershed. OSC Dunkelmann switched out with returning OSC Rogow. One load of HDPE and GCL was delivered to the site. Gator was injured with a branch, bled oil and was transferred to the ready line for treatment (repair). Oil spill was cleaned up. START continued XRF analysis of samples collected. START continued air monitoring with PDRs. START sent updated data to EPA GIS for revised mapping. PST assisted with sample collection and preparation. Aramark went to town to pick up food delivery for camp.

8/14/08 – EPA: 2, USCG: 1, ERRS: 16, START: 3, URS: 2, Aramark: 3, NW Linings: 5. All day ERRS conducted excavation of clean material from the repository. The screen plant continued operation. URS continued oversight of excavation and berm construction. Water was used for dust control in the repository and roads. URS lead design engineer was on site, to observe construction and provide feedback regarding implementation of design. Meeting between OSC, EQM, URS and Northwest Linings was held to discuss plan for lining. Skid loader, 308 excavator and forklift arrived. One load of HDPE liner and one load of GCL arrived on site. 2000 gallon septic tank at camp was replaced with 5000 gallon tank, due to capacity issues. EPA RPM Kloss arrived on site and began work with START on preparation of the treatability bench scale test. START collected samples of the processing area in order to determine the best area to collect a sample for the treatability study. These samples were analyzed and the location with the highest concentration was selected for the treatability study. START continued air monitoring with PDRs. START prepared samples for shipment to the Richmond lab. PST EMT brought Aramark staff, who had developed an abscess in his mouth to the walk in clinic.

8/15/08 – EPA: 2, USCG: 1, ERRS: 16, START: 3, URS: 2, Aramark: 3, SHN: 2. ERRS continued excavation of clean material from the repository. Grading of roads was conducted. NW Linings was on site in the morning. Rebar for liner installation was picked up and servicing of both gators was performed. URS continued oversight of excavation and working with surveyors to determine size of repository for revised calculations of liner quantities and disposal quantities. SHN worked on survey of the berm, repository bottom, and stockpile area. 1-5 Rentals was on site to repair equipment. START prepared samples for shipment to the Richmond lab. START continued air monitoring with PDRs. START collected assessment samples from the USFS Soda Gulch area and conducted XRF analysis of samples. PST continued to assist with site logistics and sample prep. START Clemens, Ellis and Haag demobed. URS Newton demobed.

8/16/08 – EPA: 1, USCG: 1, ERRS: 16, URS: 1, Aramark: 3. ERRS continued excavation of clean material from the repository. URS continued oversight of excavation and work on revised liner quantity estimate. Water was used for dust control in the repository and roads. Repair of a hole in the screen belt was conducted. EPA Kloss demobed.

8/17/08 – ERRS: 3, Aramark: 3. Two ERRS crew demobed en route to Navajo Hogans.

#### **Planned Removal Actions**

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

**Next Steps**

Complete excavation of the repository. Install liner.

**Key Issues**

1. The size of the repository
2. Defining the boundaries of contamination
3. Surrounded and smoked out on occasion
4. Time

**Estimated Costs \***

	<b>Budgeted</b>	<b>Total To Date</b>	<b>Remaining</b>	<b>% Remaining</b>
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$3,250,000.00	\$855,000.00	\$2,395,000.00	73.69%
IAGs	\$700,000.00	\$0.00	\$700,000.00	100.00%
USCG	\$20,000.00	\$6,000.00	\$14,000.00	70.00%
START	\$300,000.00	\$186,000.00	\$114,000.00	38.00%
Engineering	\$300,000.00	\$210,000.00	\$90,000.00	30.00%
REAC	\$100,000.00	\$50,000.00	\$50,000.00	50.00%
<b>Intramural Costs</b>				
USEPA - Direct (Region, HQ)	\$175,000.00	\$70,000.00	\$105,000.00	60.00%
USEPA - InDirect	\$1,554,467.00	\$495,720.00	\$1,058,747.00	68.11%
<b>Total Site Costs</b>				
	\$6,399,467.00	\$1,872,720.00	\$4,526,747.00	70.74%

\* 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.

[response.epa.gov/Altoona](http://response.epa.gov/Altoona)

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