

# SUPERFUND

## Fact Sheet

### Blackbird Mine, Idaho



U.S. Environmental Protection Agency

June 1998

#### PROGRESS CONTINUES ON CLEANUP AND INVESTIGATION AT THE BLACKBIRD MINE !

*This fact sheet includes information on three activities related to the Blackbird Mine:*

- 1) the first phase of cleanup to control major sources of contamination;**
- 2) investigation of the Panther Creek Inn; and**
- 3) the overall environmental investigation of the Blackbird Mine Site.**

#### 1) Cleanup Action Update

Initial cleanup at the Blackbird Mine site began in August 1995, to address waste rock and tailings, and associated contaminated surface and ground water at the site. Cleanup actions are planned to be completed by fall of 1998. The work is being performed by the mining companies with oversight by the U. S. Environmental Protection Agency (EPA). The objective of these cleanup actions is to control the release of contaminants from the mine, primarily copper, cobalt, and arsenic.

Cleanup consists of relocating waste rock piles, stabilizing and capping waste rock piles left in place, intercepting contaminated water for treatment, expanding the water treatment plant, constructing two water storage and diversion dams, and diverting clean water around waste rock piles. Cleanup is nearly complete with the exception of one of the dams, and the cap covering portions of the waste rock. These two remaining areas are planned to be completed by fall of 1998.

Concurrent with the cleanup actions, investigations are being conducted to evaluate the full nature and extent of remaining

(Continued on page 2)

#### Site History

Blackbird Mine is an inactive mine approximately 20 miles west of Salmon, Idaho in the Salmon National Forest in east central Idaho, Lemhi County. Cobalt, gold, silver, and copper ore were extracted from underground and open pit mining operations. The mining operations left an open pit (Blacktail Pit), several miles of underground workings, waste rock piles and a tailings disposal impoundment.

The environmental concerns at the site are primarily caused by the release of metals into Meadow, Blackbird, Big Deer and Panther Creeks. Dissolved metals, such as, cobalt, copper and iron, are released when snowmelt and rainwater seeps through the mine wastes, producing acid rock drainage. Metals and arsenic can also be released to streams when mine wastes are eroded by storm or snowmelt events. In the past, Panther Creek and its tributaries supported salmon and steelhead spawning habitat in

In May of 1993, EPA proposed the site to be placed on its National Priorities List (NPL) for further investigation and possible cleanup under Superfund authorities.

On November 18, 1994, EPA reached agreement with Potentially Responsible Parties (PRPs) to perform an investigation known as a Remedial Investigation/ Feasibility Study, and to evaluate cleanup alternatives for major source areas at the site. On June 14, 1995, EPA reached agreement with the PRPs to implement EPA's selected alternative for the cleanup of major sources. The PRPs, referred to as the Blackbird Mine Site Group, are Noranda Mining Inc., M.A. Hanna Co. and Alumet Corporation. The work is being performed by the companies under EPA oversight, and in consultation with the State of Idaho, U.S. Forest Service, and National Oceanic Atmospheric Association.



(Continued from Page 1)

contamination, and to identify other potential sources not being addressed by the cleanup actions. If necessary, cleanup of these other potential sources is currently scheduled for completion by the year 2001.

## 2) Panther Creek Inn

As part of the investigations, elevated concentrations of arsenic have been found in soils at the Panther Creek Inn (PCI) property, a small commercial operation and campground located approximately 10 miles east of the mine site where Blackbird Creek and Panther Creek meet. A fence has been erected around the PCI property where appropriate as an interim measure to reduce potential exposures to contaminated soils until a final cleanup decision has been made. Contaminated areas outside the fence around a cabin and the Inn have been covered with clean soil. This work was performed in April 1998.

The cleanup of the major source areas and tailings upstream along the Blackbird Creek will be completed by the end of this year. This will reduce the potential for recontamination of the PCI and cleanup at the PCI can proceed. Additional data at the PCI will be collected this summer, and a human health risk assessment will be completed. The risk assessment will evaluate the potential for any adverse health affects at the PCI under different exposure scenarios, such as camping. Cleanup alternatives will also be evaluated, and these reports will be made available for public review. EPA's preferred alternative for the PCI cleanup will be identified in a fact sheet. A 30 day public comment period will be held in the fall to solicit public input on the preferred alternative as well as the other alternatives evaluated. EPA will select an alternative after receipt and consideration of public comments. The final cleanup decision will be made and cleanup is expected to begin by the end of 1998.

Removal of readily erodible tailings from several locations along the banks of Blackbird Creek will also be performed as part of the cleanup at the PCI to reduce the potential for redeposition of these materials further downstream. Additional tailings or sediment removal along Blackbird Creek may occur at a later date if determined to be necessary during the investigative process.

## 3) Remedial Investigation/Feasibility Study Update

Investigative work planned for the 1998 field season includes surface water monitoring, and additional evaluations of stream deposit areas along Panther Creek from Blackbird Creek to the Salmon River to determine the nature and extent of contamination along Panther Creek. This evaluation will supplement an earlier evaluation of deposit areas along Panther Creek which was conducted in 1995.

### What's Next?

After cleanup actions are completed in 1998, EPA will monitor water quality and other conditions at the site and evaluate whether remaining source areas, soils, sediments, surface and ground water pose a risk to human health and the environment and require additional cleanup actions.

You will have an opportunity to comment on potential future site activities and final cleanup plans when EPA's proposed remedy for the final cleanup action is issued for public comment in a Proposed Plan. Informing residents and including them in decisions about final cleanup plans are important parts of the Blackbird Mine project.

According to the current schedule, the final cleanup decision for the Blackbird Mine site will be made in the year 2000. However, additional cleanup actions may occur between now and the year 2000 if necessary based on future studies.



### Health Agency Studies

The Agency for Toxic Substances and Disease Registry (ATSDR), District 7 Health Department, and Idaho Division of Health are preparing reports on the arsenic exposure investigation conducted in the Panther Creek drainage in October 1997. These reports should be available to the public in early July. **If you have any questions, please contact Ken Anderson at (208) 522-0310 at District 7 in Idaho Falls or Maura Mack at (208) 334-0606 in Boise.**

### Information Repositories

The Administrative Record includes all documents EPA has relied upon to support this cleanup action. Copies of records and reports are available at the following locations.

Salmon Public Library  
204 Main Street  
Salmon, ID

U. S. EPA  
Idaho Operations Office  
1435 N. Orchard  
Boise, ID

U. S. EPA  
1200 Sixth Avenue  
Records Center  
Seattle, WA  
(206) 553-4494

Extra copies of this fact sheet can be obtained from the Salmon-Challis National Forest Service Office, Highway 93 South (RR 2, Box 600), Salmon, Idaho.

### Questions

If you have any questions about the Blackbird Mine site, please contact:

- **Fran Allans at (208) 378-5775 or leave a message at 1-800-424-4372 and Fran will call you back.**

If you are not currently receiving EPA's fact sheets and would like to be on our mail list, please call:

- **Jeanne O'Dell, Community Involvement Coordinator, at (206) 553-6919 or toll free at 1-800-424-4372.**

*For those with impaired hearing or speech, please contact EPA's telecommunication device for the hearing impaired (TDD) at (206) 553-1698. To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting the number listed above.*

## SOME COMMON QUESTIONS AND ANSWERS:

**Question: What contaminant(s) from the mine are a health concern to people?**

**Answer:** Six contaminants (arsenic, copper, cobalt, manganese, nickel and zinc) have been found at the mine above background levels. The primary contaminant of potential health concern to people from the mine is arsenic. However, the potential health effects from the other contaminants will also be evaluated in EPA's risk assessment. EPA expects to conduct the risk assessment for the mine in 2000. Whether there is a potential health concern depends on the concentration of the contaminant found, and the type of exposure to the contaminant.

**Question: What contaminant(s) from the mine are a concern to aquatic life, plants and wildlife?**

**Answer:** Copper and cobalt are the potential contaminants of concern to fish and other aquatic life. Copper, cobalt, arsenic, manganese, nickel and zinc are the potential contaminants of concern for plants and wildlife. Whether there is a threat to aquatic life, plants or wildlife depends on the concentrations of these metals found.

**Question: Why was a fence put up at the Panther Creek Inn (PCI) & Campground and soil placed at the cabin and Inn?**

**Answer:** The Agency for Toxic Substances and Disease Registry (ATSDR) in December 1997 recommended that interim measures be taken to reduce the potential for exposures to arsenic in soils and to restrict site access. Elevated concentrations of arsenic have been found in soils at the Panther Creek Inn (PCI) from sediments

being deposited from the Blackbird Mine during high flow events. In April 1998 the fence was erected around some of the PCI property where appropriate, and soil was placed over contaminated areas outside the fence in front of the cabin and on both sides of the Inn as an interim measure. Soil was not removed from the property. The purpose of the interim measure is to reduce potential exposures to contaminated soils until a final cleanup decision is made.

**Question: When will the final cleanup decision at the PCI be made by EPA?**

**Answer:** The final cleanup decision will be made and cleanup is expected to begin by the end of 1998. EPA is in the process of preparing a human health risk assessment and a report to evaluate cleanup alternatives. EPA will identify its preferred alternative at the PCI from the alternatives evaluation and a 30 day public comment period will be held to solicit your input on the preferred alternative, as well as the other alternatives evaluated. After receipt and consideration of your comments, EPA will select an alternative.

**Question: Why wasn't the PCI cleaned up sooner?**

**Answer:** Cleanup actions have not been taken at the PCI sooner because of the potential for recontamination of the PCI from the release of contaminants from sources at the mine. Since the major sources will be addressed this year, work at the PCI can begin.

**Question: Could the PCI become recontaminated from tailings along Blackbird Creek and the water seeping from the West Fork of Blackbird Creek Tailings Dam which are not part of the cleanup of major sources that is underway?**

**Answer:** Removal of readily erodible tailings along Blackbird Creek will be performed as part of the cleanup at the PCI to reduce the potential for recontamination of PCI from the tailings along Blackbird Creek. Additional removal of tailings along Blackbird Creek may occur at a later date if determined to be necessary during the investigative process. Water seeping from the West Fork of Blackbird Creek Tailings Dam contains insignificant concentrations of arsenic (dissolved) so that there is not a potential for recontamination of PCI from this water. The need for additional actions at the tailings impoundment will be evaluated under the investigative process.

**Question: If I recreated at the PCI or around the mine is there a risk from breathing the dust blowing from the PCI soils or areas with arsenic at the mine?**

**Answer:** Preliminary risk calculations do not show a potential risk from inhaling dusts from soils at the PCI or from inhaling dust from the mine in the event you are near or at the mine.

**Question: Are the fish in Panther Creek safe to eat, and have the fish been sampled?**

**Answer:** Arsenic and other metals associated with the mine do not have the

potential to accumulate in fish tissue at levels which pose a human health concern. As part of previous studies, samples were taken of fish tissue in Panther Creek for metals (copper, cobalt, zinc, iron and lead), but not arsenic. Preliminary risk calculations do not show a potential risk from these metals. Studies of bioaccumulation of arsenic by fresh water fish at other sites (with higher concentrations of arsenic in sediments and surface water than Panther Creek), indicate that there is no accumulation of arsenic in the tissues of fish at concentrations that are a health concern. Therefore, it has not been determined necessary to sample the fish in Panther Creek.

**Question: Is it safe to drink, swim or wade in Panther Creek water?**

**Answer:** Concentrations of arsenic and other metals found in Panther Creek water downstream of the mine are below Federal safe drinking water standards and State water quality standards. In addition, preliminary risk calculations do not show a potential risk from arsenic and other metals by incidentally ingesting water or sediments from Panther Creek during activities such as camping, wading, swimming or tubing.

**Question: Is it safe to eat deer or elk from the Blackbird Mine area?**

**Answer:** The primary plants that deer and elk eat are not expected to take up arsenic into their foliage at levels that pose a health threat to deer, elk or humans. In addition, deer and elk have comparatively large forage areas, and it is highly unlikely that a significant portion of their diet would be composed of plant materials from around the mine. Studies of bioaccumulation of arsenic by plant-eating small mammals (such as

mice, etc.) at other sites indicate that there is no significant accumulation of arsenic in the tissues of mammals. Therefore, accumulation of arsenic in tissues of larger animals is not likely.

**Question: Has wildlife in the vicinity of the mine been impacted?**

**Answer:** The ecological risk assessment for wildlife has not yet been completed. Therefore, we do not know to what extent wildlife may be affected by the mine. EPA expects to conduct this assessment in 2000. We are not aware of direct impacts (such as die-offs or mortality) in wildlife. However, there have been habitat changes (such as loss of vegetation along creeks) that indirectly may affect wildlife in areas, such as along Blackbird Creek. The significance of these changes will be evaluated in the ecological risk assessment process.

**Question: Has Panther Creek Road been constructed from tailings and is the dust from the road harmful to inhale?**

**Answer:** In the past questions have been raised regarding whether Panther Creek Road may have been constructed or resurfaced with arsenic-contaminated tailings or waste rock from the Blackbird Mine. We have completed our investigation into this matter. We did not find elevated arsenic in samples collected from Panther Creek Road between Napias Creek and Blackbird Creek during sampling performed in October 1997. In addition, we interviewed numerous individuals from the Forest Service and former mine workers and have found no evidence that tailings or contaminated materials were used in construction or maintenance of the road.

**Question: Is the Deep Creek Campground safe to use?**

**Answer:** The campground can be used. The level of arsenic found at the campground as a result of sampling performed by the health agencies in October 1997 does not pose a health threat to a recreational user.

**Question: Is more sampling needed at the camp for Envirocon employees in Cobalt?**

**Answer:** In October 1997, the health agencies took samples at the Envirocon camp located at the Cobalt townsite. Based upon preliminary risk calculations, the concentrations of arsenic found in the sampling do not pose a health risk to the residents of the camp.

**Question: Are there other areas along Panther Creek where contaminated sediments/soils may have been deposited?**

**Answer:** Information and data to date does not suggest there is arsenic at concentrations of concern in widespread areas of overbank sediment deposits along Panther Creek streambanks. However, additional evaluations are planned to be performed this summer. These evaluations will supplement an earlier evaluation of sediment deposit areas along Panther Creek which was conducted in 1995.

**Question: Is it safe to work at the mine?**

**Answer:** The contractors performing work at the mine have maintained and implemented a comprehensive site health and safety plan to protect the health and safety of



employees and visitors at the mine. However, no work site is completely free from safety hazards. Safe work practices and the safety plan must be followed by all workers in order to maintain a safe workplace.

**Question: When did EPA first get involved at the Blackbird Mine Site?**

**Answer:** EPA first became involved at the site in 1993 when an agreement was reached with the mining companies to stabilize the West Fork of Blackbird Creek Tailings Dam. Subsequently, two agreements with the mining companies were reached in 1994 and 1995 to perform investigative work and the cleanup action on major sources at the mine. Work has been performed by the mining companies under EPA oversight.

**Question: How does the EPA keep the community informed of activities at the Blackbird Mine Site?**

**Answer:** At the onset of the cleanup and investigations, EPA contacted local officials and local governmental agencies to compile a mailing list to send fact sheets (such as this fact sheet) to the community. The mailing list was comprised of 379 names, and it has been expanded as information on additional interested parties has been received. There is also a community relations plan which tells the community how they can become

involved, and documents related to the site can be reviewed in the following information repositories.

Salmon Public Library  
204 Main Street  
Salmon, ID

U. S. EPA  
Idaho Operations Office  
1435 N. Orchard  
Boise, ID

U. S. EPA  
1200 Sixth Avenue  
Records Center  
Seattle, WA  
(206) 553-4494

**Who to Contact:**

If you have any questions regarding the Blackbird Mine contamination and cleanup and/or would like to meet with EPA please contact **Fran Allans at 208-378-5775 or leave a message at 1-800-424-4372 and Fran will call you back.**



United States  
Environmental Protection  
Agency

EPA Region 10  
Community Relations and Outreach  
1200 Sixth Avenue, ECO-081  
Seattle, Washington 98101-1128

BULK RATE  
POSTAGE & FEES PAID  
U.S. EPA  
Permit No. G-35