

# **Antamina Mine**







Fulgencio Diaz Laguna, environmental technician examines 5-year-old Queñual tree.

### **Operational Overview**

The Antamina mine, located in the Andes mountain range, 270 kilometers north of Lima, Peru, is one of the largest zinc/copper mines in the world. Teck Cominco has a 22.5% interest and is partnered with BHP Billiton (33.75%), Xstrata (33.75%) and Mitsubishi Corporation (10%). Antamina currently employs 1,460 workers, over 98% of whom are Peruvian. Antamina also provides indirect employment to a similar number of contractors. Antamina paid over US\$661 million in wages, taxes and local procurement during 2006.

### **Environmental Highlights**

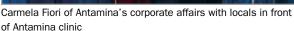
Antamina is committed to the efficient use of resources, the reduction and prevention of pollution and the protection of biodiversity. The port operation near the community of Huarmey earned ISO 14001 environmental certification in 2005. Work has started toward ISO 14001 certification of the mine site, which is scheduled for completion in 2008.

#### **Environmental achievements in 2006 include:**

- 99.9% compliance with environmental water quality limits at the mine and at the port facilities.
- Installation of an automated data acquisition system and radio telemetry, which will improve site-wide data collection and timely decision making for both water volume and water quality management.
- Installation of new environmental sample preparation and quality assurance lab was installed.

In September, an updated Environmental Management Plan (EMP) was officially approved by the Ministry of Energy and Mines. The EMP discussed changes to the mine operations since approval of the environmental impact statement and sought an increase in the monthly average production rate from 70,000 tonnes per day to 105,000 tonnes per day. The approval process involved workshops and information sessions in local communities around the mine, Huaraz and Huarmey. Antamina also completed a comprehensive revision of its Closure Plan, as required by the Ministry of Mines.







The community of Ayash Pichiu on the Ayash River near the mine.

### **Community Sustainability**

The Antamina mine influences an area with an estimated population of 220,000 people. The area stretches from the Andean region of Ancash to the coast, where the Company's port is located, and includes the communities along the 300 km pipeline route and access road.

In 2006, the Ancash Association (a corporate foundation sponsored by Antamina) and Antamina's Community Relations team adopted a new joint approach in order to improve relations with stakeholders. In 2006, the team worked together with the local government, nongovernmental organizations and communities to achieve the following significant results:

- Invested US\$1.25 million in 8 programs and 81 projects developed in education, tourism, organic agriculture, fishing and conservation of natural resources.
- Launch of a US\$2.25 million extraordinary fund to support sustainable development in the region. As a result, 35 capacity-building projects with 13 municipalities from three provinces were completed. The design and implementation of the projects entailed extensive consultation and community engagement.

In addition, as part of its commitment to local communities and in cooperation with the government of Peru, Antamina created a US\$65 million sustainability fund. The fund will be used to improve the health, welfare and education of indigenous populations that live in the areas near the mine site.

The operation continues to foster new forms of collaboration between the local government, communities, non-profit organizations and international agencies.



Xenodacnis parina, one of the highland bird species that utilize the Polylepsis forests and will benefit from the conservation area

# **Emergency Response to Incident with Tailings Decant System**

In April of 2006, due to changes in tailings discharge water quality, a Level 1 Alert was raised, activating Antamina's Crisis Management Team (CMT). The alarm level was raised to a Level 3 Crisis that evening owing to the increase in flows and the observed tailings solids near the drop shaft. Not knowing the location of the leak or how it would evolve, and not able to inspect the sidehill structure, it was decided to evacuate the village of Ayash and shut down the concentrator.

Following inspection of the components of the Stage 1 decant system, it was determined that the system was structurally sound and that the flows came from small cracks in the concrete sidehill channels. Once the hazard level was better understood and a sudden increase in flow was highly unlikely, the people of Ayash returned to their homes and the concentrator was restarted. In response, the sidehill channels were sealed by placing a concrete plug in the lower part of the channels, above the entry to the drop shaft and plunge pool. Concrete was placed in the sidehill channels to create a 33 m long plug, permanently sealing the section where cracking had occurred. The emergency was declared over in May. The early detection of an

# Spotlight

## Polylepis Project—Antamina

As part of its sustainable development strategy, Antamina is promoting conservation efforts in Huascaran National Park and surrounding areas. The Southern Conchucos Polylepis Corridor will restore and conserve the highly threatened Polylepis forest habitat endemic to the Andes. The project is a joint initiative with local communities, municipalities, and NGOs. The Southern Conchucos Polylepis Corridor will directly benefit 20 communities through employment, training, watershed management and human health by planting one million Polylepis trees. This is intended to improve habitat connectivity across 50,000 hectares between the protected Huascarán National Park and Huayhuash Reserve. The Polylepis forests and fauna they support are highly threatened as only 3% of the original forests remain today. The area surrounding Antamina is considered the highest priority for Polylepis conservation, which, along with two others in Peru and Bolivia, contain 48% of all threatened highland birds in the southern tropics.

The project is being managed by The Mountain Institute, which is a long-term partner of Antamina regarding conservation and community engagement. The Mountain Institute has extensive experience with the communities and issues of the region and will receive additional technical assistance from Conservation International and the Asociación Ecosistemas Andinos.

abnormal condition and activation of the Emergency Response plan allowed for a quick focused response to the situation.

### **Awards**

Antamina was awarded the Sustainable Development Prize by the National Society of Mining, Petroleum and Energy of Peru, for the Polylepis project—a project between Antamina, The Mountain Institute and local communities.

The IPAE (Peruvian Entrepreneurial Management Institute) recognized Antamina for its contributions in the development of education, art and culture with the Luis Hochschild Plaut award.

teckcominco

www.teckcominco.com

## **ANTAMINA MINE**

Peru, South America Corporate Affairs Management, Compañía Minera Antamina comcorp@antamina.com