


# Las Cruces

is a high-grade copper mine located in Andalucía, Spain, 20 kilometres from Seville.



|   |  |
|---|--|
| Type of mine                                    | Open pit copper mine   |
| Ownership                                       | 70 percent   |
| When it should start                            | Cathode production 2009  |
| Expected mine life                              | 15 years   |
| Land owned                                      | 907 hectares   |
| Land disturbed                                  | 408 hectares   |
| Distance from nearest town                      | 6 km from Gerena, Spain, 5 km from Guillena, Spain, 9 km from Salteras, Spain, 8 km from La Algaba, Spain and 20 km from Seville, Spain.           |
| Main activities in surrounding area             | Agricultural, minor industrial and residential.  |
| Employees                                       | 215  |
| Unionized employees                             | 214  |
| National employees                              | 189  |
| Female employees                                | 40   |
| Donations to the local community                | \$10,600   |
| Proportion of spending locally <sup>1</sup>     | 90 percent (within Europe)   |
| Methods of waste disposal                       | Dewatered leach residue disposal in an engineered, lined containment facility. Waste rock and overburden stored in surface containment facilities. |
| Emergency Preparedness and Response Plan (EPRP) | Yes (not consistent with MAC <sup>2</sup> guidelines).   |
| Tailings management system                      | Not applicable (leach residues dried before storage).  |
| Status of closure plan                          | Completed as part of operating permit application.   |
| Community relations committee                   | No   |
| Foundation (community development)              | No   |

1 Contributions to the local economy include the local purchase of goods and services, and total payroll (G3 Indicator EC6).

2 MAC is the Mining Association of Canada.

Las Cruces is owned by Inmet Mining (70 percent) and Leucadia National Corporation (30 percent). Las Cruces is in a semi-arid region, with only about 60 centimetres of rainfall per year. The mine has been developed under strict Spanish, Andalucian, municipal and European Union regulatory requirements designed to protect human health and the environment.

# Las Cruces' performance

## LAS CRUCES' 2008 PERFORMANCE AT A GLANCE

|   | 2008 target | 2008 results | 2009 objective |
|---|-------------|--------------|----------------|
| Lost Time Injury Frequency (LTIF)                     | 1.0         | 0.8          | 0.5            |
| Accident Severity                                     | 67          | 47           | 25             |
| Reportable environmental incident intensity           | 0.10        | 0.29         | 0.15           |
| Notices of Violation or warnings                      | 0           | 0            | 0              |
| Community Support                                     |             | \$10,600     | N/A            |
| Percentage of after-tax profits for community support |             | N/A          | 0.5            |
| Ore production (000s tonnes)                          |             | 0            | 305            |

2008 was a difficult year for Las Cruces as its Dewatering and ReInjection System (DRS) license was suspended in May resulting in Las Cruces being prohibited from conducting mining operations below the aquifer, in the bottom of the pit.

The DRS is a system of 69 water wells located in the proximity of the Las Cruces open pit that extracts water from the surrounding aquifer and reinjects it into the same aquifer through adjacent wells to prevent water from flowing into the pit. The DRS was designed as part of the open pit mining concept and was permitted by the water authority in October 2003 after a two-year review. The purpose of the DRS is to ensure that the regional aquifer is not affected by the operation of the mine. The aquifer is a formation of sand that lies approximately 150 metres below the surface and allows groundwater to accumulate.

On June 13, 2008 Las Cruces submitted a "Global Plan" to the water authority that responded to the concerns that led to the suspension of the DRS authorization. The proposal included two primary actions:

1. Purifying water extracted from the aquifer through a highly efficient reverse osmosis purification process prior to reinjection into the aquifer.
2. Relocating certain DRS extraction wells from above the mineralized zone to locations outside of the mineralized zones and to add additional wells to increase dewatering capacity.

In December, the water authority received a final report from the Spanish Geological Survey (IGME) of its assessment of the technical aspects of the Global Plan. The IGME report viewed the Global Plan positively and recommended lifting the suspension of the DRS authorization.

### Operate safely

Las Cruces safety performance during 2008 was outstanding, particularly when considered in the context of the peak construction period involving many contractors performing hazardous tasks. A total of 12 LTIs were reported and LTIF increased 57 percent from 2007. DIF and TIF declined 46 and 5 percent respectively and severity increased 16 percent to 47 lost work days per 200,000 hours from 40 in 2007. Work hours increased 73 percent and Las Cruces accounted for nearly half of all work hours within Inmet as a whole in 2008.

There was one potentially life-threatening injury during the year. A contractor working on the top of one of eight leaching reactors stepped onto a temporary cover over a porthole and fell 12 metres to the base of the reactor. The worker suffered several broken bones, but was immediately stabilized and transported to hospital. His injuries were significant and we are thankful that he has recovered. CLC's investigation revealed that although he had been provided with the appropriate working-at-heights training and personal protective equipment, he did not connect himself to an anchor point. Moreover, a dual lanyard was not present, which would have allowed him to move between anchor points while still being connected. Following an investigation, Spanish labour authorities levied a €300,000 fine against Las Cruces. Further investigation and clarification resulted in the fine being reduced to €30,000. Las Cruces continues to challenge this fine because it believes that it more than fulfilled its responsibilities in this instance.



The Las Cruces processing facility was ready for commissioning at the end of the year.

Las Cruces' good safety performance during the year was the result of its effort to build its safety systems and culture. Training was significantly increased and external safety professionals were retained to review safety systems and implement a modified work program. Las Cruces focused on safety in its preparations for the start-up of the hydrometallurgical plant. Risk assessments were performed for all jobs, a safety expert group was formed and health and safety documentation was completed. Las Cruces also moved forward with the implementation of the Inmet SECA Standards and incorporated safety objectives into organizational objectives and competencies. By taking these important steps Las Cruces plans to move to the start of operations well-prepared to further improve safety performance.

## Protect the environment

- Las Cruces reported 30 environmental incidents, including 22 petroleum spills, amounting to a total of 166 litres
- Four process reagent spills were reported from the reverse osmosis equipment
- All spills were quickly cleaned up and environmental impact was minimal

Las Cruces reported 30 environmental incidents during the year, including 22 petroleum spills, four spills of process reagent, three releases of untreated water and one spill of hazardous waste. The majority of the 22 petroleum spills resulted from hydraulic hose breaks on heavy equipment. The average spill size was eight litres and all spills were cleaned up immediately and any contaminated material disposed of according to regulations. The process reagent spills involved hydrochloric acid, sulphuric acid and aluminum chloride, all of which are used in maintenance of the engineered membrane water purification equipment that it uses to purify ground water. The releases of untreated water were all caused by pipe leaks that were repaired immediately. Such issues are common in new plants and Las Cruces' commissioning process is designed to detect and correct these types of issues. The spill of hazardous waste involved used oil which was detected in a storm water sump. After extensive investigation, we were unable to determine the exact cause or source of this material.



Prior to mining operations at Las Cruces, CLC implemented water treatment and water management facilities and systems that are best in class to ensure that the region's valuable water resources are protected.

Regarding environmental matters not related to the DRS, all construction workers received environmental training during the year, mainly focused on waste and spills management and handling of dangerous substances. CLC put particular emphasis in 2008 on improving the environmental performance of its mining contractor. The contractor's maintenance employees received weekly training on preventive maintenance practices and spill management, contributing to a significant improvement in their environmental performance.

CLC also made important progress with its concurrent reclamation program and to-date has completed:

- Restoration of 48 hectares of land disturbed by construction
- Topsoil addition to 138 hectares
- Tree planting on 26 hectares
- Maintenance on all previously restored areas

CLC completed the restoration of one of the local streams, finished diverting another, and began restoration of the newly diverted stream.

CLC worked hard to ensure its complete environmental monitoring program would be in place prior to the start of operations. CLC's ongoing monitoring programs will expand considerably once operation of the hydrometallurgical plant begins in 2009. During 2008, CLC continued to monitor water quality in ground and surface water, ponds and the reverse osmosis plants. CLC also monitored air quality, noise, wastes and fauna (birds such as the Great Bustard, the largest European land bird, and striped-neck terrapin, a species of turtle).

In November 2008, Las Cruces commissioned the second external audit of its ISO 14001 environmental management system. The audit identified one minor non-conformity which was fully addressed before the end of the year.

## Treat people and communities well

Las Cruces learned of the importance of good relationships with its local communities during the period of the DRS license suspension when it was subjected to negative press and accusations of environmental misdeeds. The good relationships Las Cruces had built were put to the test. Las Cruces learned that it needs to expand its community affairs activities to engage with a broader cross-section of community stakeholders.

Las Cruces spent considerable effort on outreach and increasing its external communications by hosting 60 tours of the construction site by various school and community groups. It also introduced a monthly newsletter describing key aspects of the project and the social and environmental programs and benefits that the project will deliver. The newsletter is distributed to 7,000 households in the four local communities of Gerena, Guillena, Salteras and La Algaba. In addition to the external newsletter, Las Cruces places

considerable value on its employees as ambassadors for the project and began publication of a bimonthly internal newsletter which is distributed to all employees. More than 1,000 visitors toured the site and learned about the project through direct interaction with Las Cruces employees. This is an important way for CLC to directly communicate its commitment to environmental protection and community involvement.

### Las Cruces' performance on 2008 SECA objectives

| 2008 SECA OBJECTIVES  | 2008 PERFORMANCE   |
|---|--|
| <p>1. Complete High Consequence Protocols (HCPs) and develop implementation plans.</p>          | <p><input checked="" type="checkbox"/> Las Cruces made significant progress in completing and implementing the HCP standards through the following:</p> <ul style="list-style-type: none"> <li>• All the safety procedures were reviewed to adapt to HCPs</li> <li>• HCPs documentation is being translated into Spanish</li> <li>• 1520 HCP training hours in 2008</li> </ul> |
| <p>2. Develop implementation plans for the SECA Standards at our majority-owned operations.</p> | <p><input type="checkbox"/> Basic plans were developed.</p>  |
| <p>3. Increase community affairs resources at our majority-owned operations.</p>                | <p><input checked="" type="checkbox"/> Las Cruces has one full-time community affairs professional, supplemented by external consultants who advise us on specific matters. The level of staffing will be re-evaluated once Las Cruces is in operation.</p>  |
| <p>4. Conduct a socio-economic assessment at each majority-owned operation.</p>                 | <p><input type="checkbox"/> Las Cruces participated in SEAT training and began development of its SEAT assessment.</p>   |
| <p>5. Develop energy and water conservation plans at each majority-owned operation.</p>         | <p><input checked="" type="checkbox"/> Plans for water and energy conservation were not developed during 2008 due to the suspension of mining activities and the extended period to commencement of operations. Once Las Cruces begins operations, energy and water conservation plans will be developed.</p>  |



The Las Cruces open pit at the ore level.