San Manuel Mine Closure

FACT SHEET

January 2002

BHP Copper To Initiate Closure Activities at San Manuel Mine

s part of its international copper reserves management strategy, BHP Copper Inc. (BHP) is closing its mining operations in San Manuel. The San Manuel smelter and processing facility will remain under its current care and maintenance status.

Since the mine went into care and maintenance status in June of 1999, BHP has continued to pump groundwater from the underground mine in San Manuel to sustain current operations. When the closure activities take place, BHP will stop pumping groundwater out of the underground mine. Once BHP stops pumping, the groundwater will recharge the underground mine, and mining operations will no longer be possible.

This closure will require the San Manuel Mine to reduce manpower from its current 174 employees to a workforce of less than 50 by September 2002.

Affected employees will receive a

similar suite of benefits as had been provided to employees affected in the reductions in 1999. This package proved successful in assisting employees in the transition to other employment opportunities. The current benefit will include a 60-day extended pay package and extended healthcare and life insurance coverage.

BHP's move toward closure was taken after extensive deliberation, planning and analysis. The company

found that the underground operations would not be profitable enough to resume mining in the foreseeable future, so BHP will begin working with state regulatory agencies to safely and effectively suspend pumping. BHP also will work with local and regional

> economic support agencies to help employees who may be affected by this decision.

History of the Mine Operation

he first mining activity in the area began in 1879. The Tiger Mine was established here in 1886 and the underground mine was first established in the 1940's. In 1952, a federal loan of \$94 million was made to Magma Copper Company to build the mine, plant, railroads and to start developing the community of San Manuel. By 1972, the mine was processing more than 60,000 tons per day of ore.

The development of the open pit mining operations began in 1985. By the 1990's, the operation included a large open pit solvent extraction-electro winning operation, an in-situ leaching process and mine. The San Manuel facility went into care and maintenance in June 1999.

What Will Happen When the Groundwater Pumping Stops?

BHP has been pumping groundwater out of the underground mine for more than 50 years, so it will take quite awhile for the groundwater to recharge the mine area.

BHP has a network of groundwater monitor wells in place and has been collecting groundwater level readings to develop baseline measurements. Most of the underground mining equipment has already been removed.

When BHP turns off the

underground de-watering pumps, gravity will allow the groundwater to begin flowing into the empty caverns of the underground mine. Since the pumping has been on going for more than 50 years, it will take a number of years for the groundwater to fill all the underground spaces.

As the underground spaces are filled, the groundwater will eventually reach up into the open pit mine. Here it will reach a balance and remain in the open pit.

Projected Water Levels Feet ← N **−**# below Feet ground below surface ground 0 1 surface Open Pit 0 Mine Mine **Tunnel** Shafts Levels Kalamazoo 2,675 Segment 2,675 San Manuel Mine Segment Tunnel 3,500 Mine Levels Shafts 3,750 3,500 3,750

The diagram shows the different elevations of the underground mine, as well as the open pit mine. There are two distinct bodies of copper ore in the mine. The Kalamazoo segment of the underground mine extends more than 3,500 feet below ground surface. The San Manuel segment starts at about 2,400 feet below ground surface. When pumping stops, the groundwater will fill in the two segments and rise into the open pit mine.

Environmental Protections In Place

As part of a closure plan submitted to the Arizona Department of Environmental Quality under the Aquifer Protection Program, a sophisticated computer groundwater model has been developed by BHP to predict the movement of this groundwater. The model

indicates that groundwater will move very slowly through the underground rock and soil, and any remaining solutions will naturally degrade over time. In addition, the model demonstrates that local drinking water supplies will not be impacted, even after 500 years.

To ensure that local water supplies are not adversely impacted, BHP will continue to monitor groundwater periodically at a number of locations around the mine site. This monitoring will continue to ensure compliance with environmental requirements and to protect groundwater.

For more information, contact Jeff Parker, San Manuel, Manager of Environmental Affairs, at (520) 385-3581.