

Mineral Resource

1997 AZ Copper Production

Cu - lb	Mine/Company
1,084,000,000	Morenci/Phelps Dodge
304,000,000	Ray/Asarco
252,000,000	Mission/Asarco
251,000,000	San Manuel, BHP*
246,000,000	Sierrita, Cyprus
246,000,000	Bagdad, Cyprus
157,000,000	Pinto Valley, BHP*
156,000,000	Miami/Cyprus
27,000,000	Tohono/Cyprus
19,000,000	Silver Bell/Asarco, Mitsui
3,000,000	Mineral Park/Equatorial**
2,000,000	Copper Queen/Phelps Dodge
2,744,000,000	TOTAL

* June 1, 1997 - May 31, 1998

** Cyprus sold property Sept., 1997

BOARD OF GOVERNORS

William J. Miller -
Phoenix - Chairman

Richard Oldham -
Quartzsite - Vice Chair-
man

Sydney Hoff-Hay
Phoenix - Secretary

Eric A. Nordhausen -
Tucson -Member

Ken C. Bennett -
Phoenix - Member

STAFF

H. Mason Coggin -
Director

Ken A. Phillips -
Chief Engineer

Nyal J. Niemuth -
Mining Engineer

Ann Turney - Admin-
istrative Assistant

Diane Bain - Editor

Marianne Char-
nauskas - Secretary

Glenn Miller - Curator

Susan Celestian -
Curator of Education

Tour Guides

Alice Rosenfeld
Ann Baker
Shirley Coté



Arizona Department of Mines & Mineral Resources
1502 West Washington
Phoenix, Arizona 85007

Address Correction Requested

Mining News

Summo Plans to Acquire Johnson Camp

Summo Minerals Corporation has signed a letter of intent to purchase Arimetco's interest in the Johnson Camp mine subject to a definitive agreement and the approval of the bankruptcy court. Summo has 150 days from September 15 for due diligence. Summo has been drilling the property.

Terms of the agreement call for a total payment of \$1.85 million and a 2 cent/lb royalty when the copper price exceeds \$1.05 per pound. The open-pit, heap leach mine has continued to produce some copper although mining has stopped.

Summo expects Johnson to produce 14 million pounds of copper annually for 10 years. The company claims the property has additional drill-indicated resources in excess of this that may be converted into reserves with additional drilling and test work. In addition, the property has the potential to produce cathode copper while the company continues to bring their Lisbon Valley, Utah project into production.

Summo's goal is to build a medium-sized low-cost copper producing company with properties in the U.S.

Arimetco International is no longer listed by the Toronto Stock Exchange as of June 12, 1998 after a year under suspension. Arimetco had filed for protection under the U.S. Bankruptcy Code at the end of May, 1997.

AMT International at Copper Creek

At the Tucson Section of SME on June 10, 1998 AMT International, a Canadian company, told of their plans to start mining in Pinal County. Plans include driving declines into a breccia zone, build-

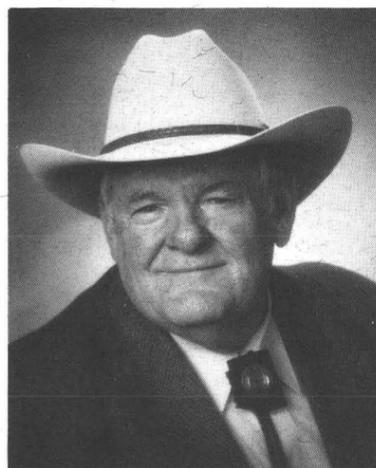
ing an underground concentrator, and producing ore by blast hole stoping from their 10.1 million ton deposit of 1.43 percent copper. Production could begin some time in 1999 or 2000.

They also purchased several other properties in the district and have an option on another 25 percent of BHP interests. In all, the property covers some 6,000 acres that the company feels involves most of the mining district. They plan to use a heavy media & flotation to concentrate the ores. BHP, Asarco, Cyprus and Phelps Dodge have shown an interest in buying their concentrates.

On July 1, 1998 AMT announced that they will purchase BHP's remaining 50 percent interest in the Copper Creek Project giving them outright ownership of 90 percent of the district.



Governor Jane Hull presents a proclamation to Polly Rosenbaum at Polly's 99th birthday party. The proclamation commemorated Polly's service to the State. The party, organized by former governor Rose Mofford and held at the Museum, was a great success. Eddie Basha sponsored the event.



H. Mason Coggin Retires

Department Director, H. Mason Coggin, will be retiring from ADMMR at the end of 1998. He expects to continue writing and publishing in his areas of special interest; mining, mining history, Arizona outdoors, and cowboy poetry. Coggin says, "At age 60 I can take advantage of retirement to prospect and tour surrounding states." Coggin's enthusiasm, his comprehensive knowledge of Arizona mining, and his ardent advocacy of mining and miners' rights will be greatly missed.

The Board is seeking candidates for the position. The Office of Director requires an engineering degree, mining industry experience, and Arizona registration. A familiarity with mining, permitting, fund raising, archiving, and museum operation is desirable.

Longer Work Days Underground

The Arizona Legislature passed a bill that allows miners to work longer than eight hours a day underground when provided for by a collective bargaining agreement between a company and its union. The legislation was put forward by BHP in response to extended travel times from the surface to the miner's underground work station. Employees under these restrictions could not participate in the incentive programs enjoyed by other employees.



Do you need this information in an alternative format? Please call the Department at 255-3795.

WEBSITE

ADMMR now has a website:

www.admmr.state.az.us

General information and select Department and Museum circulars and publications are featured. Expansion of the site is planned.

The Department is unable to receive e-mail at this time.

Carlotta Update

Although the Final Environmental Impact Statement and Record of Decision for Carlota Copper Project were upheld by the Forest Service at the end of October, 1997, the Plan of Operation has not yet been signed. On September 15, 1998, Carlota delivered a Reclamation Performance Bond for \$6.5 million to the Forest Service, so issuance of the Plan of Operation is expected soon.

The two civil lawsuits filed in U.S. District Court in Phoenix by groups opposing the project have been consolidated into one action that is being represented by the Western Environmental Law Center. Judge Roger Strand recently approved a litigation schedule that will culminate in oral arguments being heard on March 8, 1999. Carlotta Copper Company hopes for a decision within two to six months after that.

Dos Pobres/San Juan

The draft Environmental Impact Statement has been published by the Bureau of Land Management for Phelps Dodge's Dos Pobres/San Juan Project in Graham County. The public comment period will end November 25, 1998. Public hearings are scheduled at various locations in October.

The Dos Pobres and San Juan deposits contain 555 million tons of leachable material. A 16-year life is predicted for the mine.

Rip Rap

Grey Rock, LLC, along with Rock Systems, produced approximately 150,000 tons of rip-rap from barren overburden zones at Asarco's Mission copper mine in Pima County. The rock was needed for the Santa Cruz

River Stabilization Project that required material ranging from less than 3 inches up to 5 feet in diameter. Providing large, dense rock for rip-rap projects is always a challenge. Waste drilling and blasting procedures were changed at the mine to produce the nearly 28,000 tons of large boulders needed.

Arizona Portland Cement Expansion

Arizona Portland Cement, parent company, California Portland Cement, and corporate owner, Onoda, has received permits to expand the Rillito's plant in phases. Over the next five years the capacity will be increased to 2,300,000 tons per year. The initial phase will increase capacity to 1,560,000 tons per year and involves installing a new raw feed roller mill and converting the existing raw feed mill into a finish mill. The second phase, planned for completion in 2003, requires installing a second pre-calcining tower.

HARQUAHALA HOIST EXHIBIT

As the ore in the Harquahala Mine near Salome raked outside of the reach of the main shaft where it could not be extracted without extensive development work, an interior shaft or winze was sunk to reach the ore plunging below the sixth level of the mine. A hoist was installed at the head of this winze in 1894 where it continued to operate into the present century. One hundred years after it was installed in the mine it was rescued by Tom Foster and restored. That hoist and interpretation are now on exhibit in the Museum, on loan from Tom Foster. The Mineral and Mining Museum Foundation contributed funds for the documentation and interpretation of the exhibit and to move it to the Museum.

Museum Volunteers

Since 1993 volunteers have logged over 36,000 hours at the Museum! Of those, 20,485 have been by Maricopa Lapidary Society members. Way to go MLS!

If you have some time to donate and want to have a good time while doing it, call the Museum at 255-3795.

Museum Family Day and Mineral Sale

The 3rd Annual Family Day and Gem and Mineral Sale will be held Saturday, October 12 at the Museum from 10:00 am to 4:00 pm.

The Arizona Mineral and Mining Foundation, co-sponsor of the event, will be conducting a special mineral sale featuring minerals that have been stored away for the past 30 years! Mineral dealers from around the country will also be present.

Fun, hands-on activities are planned for all ages. Museum volunteers will teach jewelry making and demonstrate lapidary technics. Bring in minerals you wish to have identified. Admission and parking are free. Bring the family for a day of fun.

