

MUSEUM AND EDUCATION

Visitation Statistics. Almost 13,000 visitors came through the Museum from July through November. This included over 4,000 students. Totals from 1993 are expected to exceed 32,000 students. Several special exhibits and events contributed to these statistics.

Museum News. The restoration of the H. K. Porter Baby Gauge Locomotive was completed, the locomotive delivered and installed. A dedication for the locomotive was held on September 15, 1993. Approximately 100 people attended the dedication, presided over by Leroy Kissinger who returned from retirement for the event. Governor Rose Mofford, Representative Polly Rosenbaum and Edna Vinck were among those who spoke and lightly roasted Mr. Kissinger.

Advertising efforts donated to the museum by Nancy Turney, NTV Productions, Inc., Las Vegas, Nevada, resulted in an excellent public service announcement on the museum that was televised on Dimension Cable during the summer and early fall.

A collection of large, colored photographs of some of the museum minerals has been donated for display. These photographs have been hung in the museum where they add color and appeal. Some of the photographs depict mining's past and present.

The masonry-wrought iron fence to contain the outside exhibits, including the locomotive and headframe, has been designed and is now out for bid. It is slated for completion by the end of February. A temporary construction fence has been rented until the new one is completed.

The sale of the Commemorative Bricks and other donations has raised \$7,600 for the development of outside exhibits.

The Museum contributed to the Fabulous Fourth celebration over the Fourth of July and provided drinks and seating for dignitaries.

An exhibit of minerals, along with a collection of photographs on Bisbee, Arizona, were displayed for one week at Bank One. A display was also made for the Sun City Museum. Two cases of minerals and mining artifacts are currently being exhibited at Sky Harbor International Airport.

The Mineral and Mining Museum Foundation held a sale of their surplus minerals in October, raising nearly \$3,700 for the Museum.

One additional full time staff position has been requested for the position of Curator of Education for the museum. This person will preform a great number of duties including setting up educational programs and press releases. The request for this position was included in the 1994-95 budget proposal.

Mineral Resource

H. Mason Coggin, Director
Fall, 1993 Quarterly Report

Mining Law Changes Cost State Millions. The State of Arizona has lost over fifteen million dollars in economic benefits through the action of Congress. The first loss of \$9.5 million occurred when assessment work for the 95,000 mining claims was excused last September by recent changes in the mining law. The second loss was the outright payment to the BLM of six million dollars in claim "rentals" for the 30,000 claims remaining after the August 30, 1993 deadline.

The loss of over 60,000 mining claims in Arizona orphaned many properties that contained shafts, adits, prospect pits and other workings on the public domain. These abandoned claims no longer have a claim holder who may be held accountable for public liability, reclamation or environmental degradation. The liability has now passed to the state and federal government by default. There is no way to estimate the eventual cost of this acquired liability.

Confusion over interpretation and implementation of the changes has been great. The Department has fielded over 1,100 phone calls and visitors questions on the new rental fee requirements. To address some of the questions we produced a circular, *Annual Assessment Requirements Under Arizona Statute*. The Department gave a seminar on the subject to the State Association of County Recorders.

The anticipated "clean sheet" land status resulting from the loss of 60,000 claims simply did not happen. Many claim holders dropped all but one or two claims in a group which originally comprised a mineable block of claims. This resulted in a minor staking rush and a rash of new claim holders in some critical areas. The land status situation in some areas is now complicated by additional claim holders.

Mining Law Changes. At this writing it looks as if the 1872 mining law will be changed early next year. H.R. 322 the Mineral Exploration and Development Act has passed the House by an alarming majority while the Craig bill has cleared the Senate. A House Senate conference committee will be convened next year to iron out differences between the two versions.

H.R. 322 contains these articles that are particularly offensive to the mining industry.

- The system of patenting claims is abolished.
- A cumbersome new permitting process is established.
- An 8% royalty on gross value will be assessed.
- Stringent new reclamation requirements that may not be achievable are included.

These articles will impose significant new costs and regulatory burdens on the mining industry and will lead to significant job losses and a loss of revenue to the state and federal governments. The outlook is particularly gloomy for future mining on public lands. Mining interests are now looking for properties on private lands with proven reserves of minerals that can be leached, free milled or readily marketed. Most of the properties that meet this criteria have been acquired or have special problems that will keep them from being developed. Many mining companies have simply moved their exploration efforts out of the United States.

The antimining law propaganda has centered on the erroneous belief that under the law anyone can purchase valuable mineral land for a mere \$2.50 or \$5.00 an acre. Although that amount is a fee paid in one step of the patenting process it is in no way the total cost. Before land can be purchased under the mining law there are claim fees, application fees, surveying fees, title fees, and the cost of proving the deposit. The cost of proving the deposit runs from hundreds of dollars per acre to thousands. Most attempts to prove a deposit fail, but the exploration must be done anyway.



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Library and Archives. The Department has recently gained the entire collection of mineral deposit information from the William C. Cruchfield Trust. This collection weighed 2800 pounds on the scale at the New Mexico state line. Department personnel are in the process of cataloging and identifying this extensive collection but this is going very slowly. Volunteers to catalog this collection will be needed. Priorities will be rearranged to accommodate this great resource collection as soon as possible.

Former Department Director Leroy Kissinger donated copies of all of his privately produced reports on mines and prospects in Arizona and a portion of his technical library to the Department. William Chenoweth donated maps and files on many Arizona mines. Additional individuals too numerous to list, including prospectors, claim owners, and potential developers and investors donated reports on their properties.

Donated information, reports, maps, and books make up a very important portion of the mining and mineral resource information obtained by the Department. We actively encourage the donation of retired professionals' files, reports, and libraries. Information donated is used by those seeking to develop new mines in Arizona. Unlike many libraries and historical societies, mining and mineral resource information donated to the Arizona Department of Mines and Mineral Resources is used proactively by the agency's staff and the public.

Reviews of 1,717 files on mines, prospects, and mineral deposits were made by property owners and potential developers of mines in search of new targets for development. The Department staff meets with these individuals and corporate representatives to discuss Arizona's potential and to encourage private investment in this potential. Files on copper occurrences were of most interest followed by those on gold.

The library and archives needs conservation and preservation. The library has never been cataloged completely and there are many duplicates that should be pulled from the shelves and stored. Cataloging will require at least one additional staff member for approximately 6 months. The wooden bookcases should be replaced with open steel shelving extending from the floor to the ceiling. The wooden book cases give off gasses that can decrepitate the publications. There are many acid paper articles on

file that should be copied onto non-acid paper, laminated or otherwise protected. Help in preservation may be available through the state archives and several historical preservation groups.

A. L. Flagg Photos A collection of an estimated 2,000 photo negatives were donated to the department by Ed Flagg through the Arizona Mineral and Mining Foundation shortly before his death last fall. The photographs were made by Arthur L. Flagg during his adult life. Subjects include mines in Arizona, Mexico, Colorado and Idaho, as well as family and culture during the period from about 1909 to the 1940's. Several groups have shown an interest in printing these photographs and publishing them. Included in this group are the Capitol Times and Arizona Highways. It is the intention of the department to get as much exposure as possible from these photographs.

GSPED (Governors Strategic Partnership for Economic Development) and NAFTA (North American Free Trade Agreement) The director was the guest of the Arizona Public Service Company and the Phelps Dodge Corporation at a Mineral Reunion between the Mining Cluster of GSPED and their counterparts in Guymas, Sonora Mexico on November 16. Mexico offers many advantages for mineral producers in Arizona. The port of Guymas, an undeveloped resource, is connected to Arizona by rail and a modern four lane highway from Tucson. This may give Arizona an edge on exports that it does not now have through ports in California.

An opportunity is available to mine minerals in Arizona and send them to Mexico for additional processing to add value before exporting to Asia and Europe. An example of this type of product is gem stone production. Arizona leads the nation in this commodity. Development of this market will require some promotional work that could be done through the Department. A spirit of friendship and cooperation has been established between the Department and its counterpart in Sonora. It is the intention of the director to maintain this relationship through networking with his newly found connections in Sonora and Sinaloa.

Some products, such as graphite, are not found in Arizona but are found in Mexico. This source of new materials may potentially support development of mineral deposits and new uses of minerals in Arizona.

BADCT (Best Available Demonstrated Control Technology) The director is participating in a committee to rewrite the BADCT requirements for the Aquifer Protection Permits required by the Arizona Department of Environmental Quality. It is the BADCT interpretation that is currently delaying many Arizona mining operations and threatens to bring a halt to many others. Currently they are allowing the operators to design BADCT to suit specific site conditions. This has resulted in a disagreement between operators and the DEQ.

Minerals Marketing. Consumers of industrial minerals in electrical power plant air and water quality control were visited and interviewed. The need for a new source of limestone for the planned flue gas desulfurization facility at Salt River Project's Navajo Generating Station spurred a small "gold rush" for limestone deposits in the northern part of the state. Users of industrial minerals in paper processing and water treatment were also visited and interviewed.

The Department continues to receive inquiries for sources of industrial minerals for many applications. In particular we have received requests for information on zeolites for odor control, stone for decorative and landscape uses, pumice for garment finishing, and garnet for abrasives.

Arizona Mined Land Reclamation Bill.

Miners on private lands in Arizona will be burdened with yet another permitting requirement according to legislation proposed by Arizona Mining Association's lobbyist James Bush. This bill calls for mine operators to submit reclamation plans to an as yet unnamed agency for approval according to guidelines that have not yet been written. This bill is considered necessary to avoid expected federal legislation that could include the phrase, "Those states not having a mined land reclamation program will comply with the following ..." It is expected that the rules and regulations from this federal mandate will be directed toward coal mining. There is a concern that they will not be applicable to hard rock mining.

The proposed regulation will only involve current mines on private property. The bill is somewhat self funding by requiring a payment of \$1.00 per acre on mined lands. The amount of reclamation required by the bill is not clearly mandated by the legislation. It doubtful that this bill will be presented or passed without many changes.

Arizona Number One Mining State. On a more positive note, Arizona continues to rank as the nation's leading metal mining state. Despite heavy winter rains that hampered production at most of the major copper mines and low copper prices, Arizona continues to produce about 70 percent of the country's copper. In 1992 Arizona produced \$3,429,938,000 worth of minerals, including 213,995 ounces of gold and 1,271,220 tons of copper. Expansion projects are ongoing at several of Arizona's mines. Proposed new mines are continuing the slow permitting process. Arizona's rank as a top mining state is expected to continue for the foreseeable future.

PUBLICATIONS

OFR93-12 *Economic Geology of the Sierra Estrella, Maricopa and Pinal Counties, Arizona*, E.B. Melchiorre, 1993, 29 p. \$2.50

D41 *Arizona Mining Consultants*, N.J. Niemuth, 1993, 23 p. \$2.00

C47 *Annual Assessment Work Requirements Under Arizona Statue*, J.C. Lacy, 1993 3 p. \$.25

C48 *County Agencies Concerned with Mining and Mineral Resources in Arizona*, 1993, 4 p. \$.25

C49 *Federal Agencies Concerned with Mining and Mineral Resources in Arizona*, 1993, 5 p. \$.25

C50 *State Agencies Concerned with Mining and Mineral Resources in Arizona*, 1993, 5 p. \$.25

C51 *Pertinent Data for New or Prospective Mining Operations*, 1993, 5 p. \$.25

SR19 *From the Ground Up*, by former Governor Jack Williams, has been revised and is ready for publication. The funds for this publication have been provided by Phelps Dodge Corporation, 37 p. \$3.50

If ordering by mail, please add \$1.50 for postage, except for circulars (C).