U.S. Bureau of Mines

For most of this century, the U.S. Bureau of Mines (USBM) has been the primary Federal agency conducting scientific research and disseminating information on the extraction, processing, use, and conservation of mineral resources.

Founded in 1910 to deal with a wave of catastrophic mine disasters, the mission of the Bureau of Mines expanded over the years to include:

- The conduct of research to enhance the safety, health, and environmental impact of mining and processing of minerals and materials.
- The collection, analysis, and dissemination of information about mining and processing of more than 100 mineral commodities across the Nation and in more than 185 countries around the world.
- Analysis of the impact of proposed mineral-related laws and regulations upon the national interest.
- Production, conservation, sale, and distribution of helium for essential government activities

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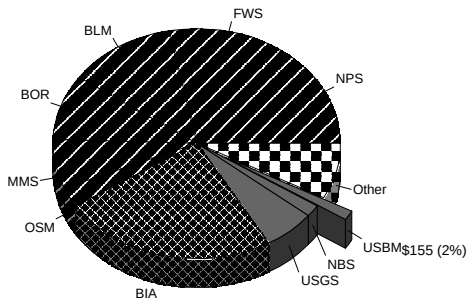
Figure 25

1995 U.S. Bureau of Mines Budget Authority
($ in millions)



Total DOI Budget Authority - $9,744 million

From its creation, the USBM was viewed, both nationally and internationally, as the focal point for new and emerging science and technology in the minerals field. Since entering competition in 1978, the Bureau of Mines won 35 "R&D 100" Awards, given annually by Research and Development magazine for the 100 most important research innovations of the year. This achievement is especially impressive considering the small size of the Bureau's research budget, compared to those of competing organizations, such as E.I. Du Pont De Nemours and Company, Westinghouse Electric Corporation, General Electric Company, Hitachi Ltd., the Department of Energy, and the National Aeronautics and Space Administration (NASA).

CLOSURE OF USBM

> *"We leave knowing that the proud accomplishments of this agency did make a difference in the quality of life we now enjoy, and they will continue to do so well into the 21st century."*
>
> USBM Director Rhea Graham

In September of 1995, Congress voted to close the Bureau of Mines and to transfer certain functions to other Federal agencies. With USBM's closure, almost $100 million, or 66%, of its 1995 programs ceased, and approximately 1,000 of its employees were dismissed. Certain specific health, safety, and materials programs were transferred to the Department of Energy, and certain minerals information activities moved to the U.S. Geological

Survey and the Bureau of Land Management. Closure of the Bureau of Mines, and the accompanying transfers of functions and employee layoffs were essentially complete in March of 1996.

The Bureau's Minerals Information functions are being transferred to the U.S. Geological Survey (USGS) in early 1996. The "Mineral Industry Surveys," "Mineral Commodity Summaries," and the "Minerals Yearbook" will continue to be published.

Additional legislation is pending in Congress that would terminate the Government's production of refined helium and begin the sale of crude helium.

User friendly technology is an integral part of providing timely and reliable minerals information to federal agencies, Congress, and the general public. Photo credit - U.S. Bureau of Mines.

A U.S. Bureau of Mines researcher assesses the mineral potential of Federal land. Photo credit - U.S. Bureau of Mines.

CUSTOMER SERVICE

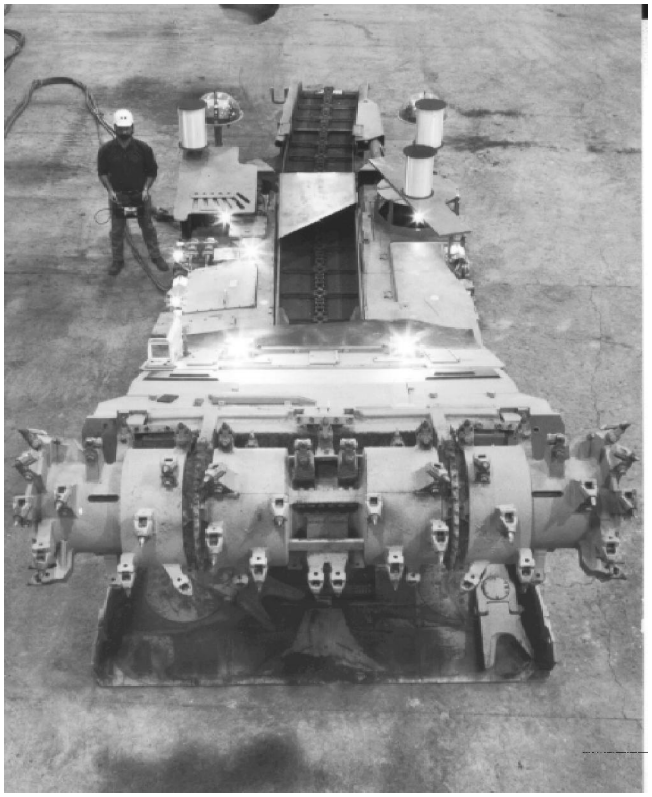
During 1995, the USBM had various customer interactions to evaluate needs, help set priorities, and guide its research and information gathering functions.

These interactions included:

- Use of written questionnaires to survey customers who use USBM publications.
- Use of focus group meetings to help address evolving issues of particular importance to customers.
- Conducted extensive benchmarking with 11 science and technology related organizations.

A LEGACY OF ACCOMPLISHMENTS

Since its founding 85 years ago, the numerous accomplishments of the Bureau of Mines have included



Helping mine workers survive underground disasters was a major part of the mission of the USBM. Photo credit - U.S. Bureau of Mines.

the identification and development of many new processes, including:

- Technologies that contributed to reduction of fatalities in mine disasters by 97 percent, from 3,000 in 1907 to 98 in 1993.

- Self-rescue equipment to allow miners to continue to breathe when caught in underground disasters.

- Low-cost methods to extract radium for cancer treatment.

- Production processes for titanium, which is critical for aerospace and automobile manufacturing, and zirconium, which is essential to nuclear naval vessels.

- Techniques to recover strategic and critical minerals, such as cobalt and chromium, to reduce U.S. vulnerability to import blockages in international crises, especially during the Cold War.

- Construction of manmade wetlands to limit pollution of waterways by acid mine drainage from nearby mining and mineral-processing operations.

- Methods to minimize damage from subsidence, the sinking of the surface of the earth above underground mines.

- Improved recycling of metals, plastic and paper from municipal wastes, including a technology, now used around the world, to recycle municipal solid wastes.

- Non-intrusive ways to recover minerals without disturbing the surface of the land.

- Use of bacteria to remove arsenic and cyanide from waste waters on public and private lands.

- Uncovering the world's largest deposits of lead and zinc at Alaska's Red Dog Creek, leading to hundreds of millions of dollars in capital investments for mine development.

These and other USBM accomplishments during the past century help ensure that, while the Bureau may have closed its doors, it leaves a valuable legacy.