

38TH

ANNUAL
REPORT

ARIZONA DEPARTMENT OF MINERAL RESOURCES

And

ARIZONA MINERAL MUSEUM

Fiscal Year 1976 - 1977

Mineral Building - Fairgrounds
Phoenix, Arizona 85007

JOHN H. JETT
DIRECTOR

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STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007

602/271-3791

September 30, 1977

Honorable Raul H. Castro
Governor of Arizona
State House
Phoenix, Arizona 85007

Dear Governor Castro:

In accordance with ARS 27-106, we are pleased to submit the annual report of the Department of Mineral Resources and the Arizona Mineral Museum. The report covers the Department's and the Museum's activities for 1976-1977. A complete financial statement and the Director's Quarterly Reports are included, all as required by ARS 27-106.

The mining industry's basic role in society is to provide vital, rare materials that are necessary for our present quality of life, balanced with an equitable evaluation of society's other needs.

Sometimes, the role is needlessly jeopardized, then other types of responsibilities become involved - an obligation to be heard - to ask questions - to present alternatives, and establish rational objectives.

It is the intent of the Department of Mineral Resources to meet all responsibilities in fulfilling its prime obligation to "aid in the promotion and development of the mineral resources of the State."

Respectfully,

BOARD OF GOVERNORS,
DEPARTMENT OF MINERAL RESOURCES
ARIZONA MINERAL MUSEUM

Ronald F. Teissere, Chairman
Curtis J. Ritter, Vice Chairman
(Mrs.) Anne Chesley, Secretary
Thomas A. Clary
Curtis A. Jennings

BOARD OF GOVERNORS

Ronald F. Teissere - Chairman - Tucson
(Term expires January 31, 1978)

Curtis J. Ritter - Kirkland
Vice Chairman
(Term expires January 31, 1980)

(Mrs.) Anne Chesley - Globe
Secretary
(Term expires January 31, 1981)

Thomas A. Clary - Miami
(Term expires January 31, 1982)

Curtis A. Jennings - Phoenix
(Term expires January 31, 1979)

STAFF PERSONNEL

Phoenix Office - Mineral Building, Fairgrounds - 271-3791

John H. Jett..... Director
Pennie Paynich..... Administrative Assistant
Glen Walker..... Mining Engineer
Ken A. Phillips..... Field Engineer
Glenn A. Miller..... Mineral Resources Specialist
Kathy Gordon..... Bookkeeper/Secretary
Bonnie Hein..... Secretary
Aleta Phillips..... Secretary
William H. Hammers..... Custodian

Tucson Office - Room 208, State Office Building - 882-5399

Gerald W. Irvin..... Mining Engineer

Mineral Museum - Mineral Building, Fairgrounds - 271-3791

Arthur W. Bloyd..... Curator

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ARIZONA'S MINERAL PRODUCTION

According to preliminary figures from the Bureau of Mines, the value of Arizona's mineral output in 1976 increased to \$1,693,992,000.00. This is a record high. Copper production exceeded one million tons - an all time high. A corresponding increase in molybdenum, gold, and silver, was also realized, since they are by-products of the copper industry.

A substantial increase in the value of other minerals, including non-metallics, was experienced, in part, resulting from higher prices for the product in addition to some increased production. Total value of production of minerals, other than that produced from the copper mines, was \$116,228,000.00 up over 15% from 1975. This does not include sand and gravel.

ARIZONA'S MINING ACTIVITY

The Department's Active Mines Directory, published in June, 1977, lists fifty-nine mines, with copper being most numerous. In addition to the copper mines, there are operating mines producing feldspar, lead, zinc, asbestos, salt, fluorspar, silica, high purity quartz, coal, hydra-frac sand, bentonite, limestone, gypsum, decorative stone, scoria, perlite, and dolomite. Hecla Mining Company started production and expects to reach planned capacity in 1977. Continental Oil Company decided to shelve indefinitely, its plans for a large copper mine near Florence. Hanna Mining Company and Getty Oil Company announced discovery of a large copper ore body near Casa Grande. Smelter emissions remained a problem with the industry and court decisions regarding pumping of water has created potential new problems for mining.

ARIZONA'S EXPLORATION ACTIVITY

The Directory of Exploration Companies published by the Department, includes only the major active companies known to the Department. There are fifty-four companies located in twelve different communities. In addition to the companies listed in the Directory, there are many small intermittent active operations. Arizona Prospectors Association, Gold Prospectors Association, Arizona Small Mine Operators Association, and more than forty Earth Science Clubs, are all active in looking for Arizona minerals. Educational programs and assistance were provided.

DEPARTMENT OF MINERAL RESOURCES' ACTIVITIES

The annual report of the Department must include the quarterly reports of the Director to the Board of Governors. These reports are based on the activities of the Department. The quarterly statistical reports of activities and lists of publications have been consolidated into one report. Highlights of the quarterly reports are provided.

Board of Governors - Two new members were appointed to the Board by Governor Castro. Mr. Tom Clary, Miami, Arizona, was appointed to fill the expired term of Chairman W. Heinrichs. Mr. Clary's term will expire January 31, 1982. Mr. Curtis Jennings was appointed to the Board, to fill the unexpired term of former member, Mr. Al Perry. Mr. Jennings' term will expire January 31, 1978.

Personnel - One field engineer and three secretaries resigned this year. The field engineer's position was not filled by fiscal year end. The three secretarial positions were filled.

Publications - A policy was adopted to impose a charge for some of the Department's publications, including direct printing and mailing costs. This charge applies to publications that are printed for special interest groups. There is still no charge for informational data vital to the prospector-small miner. A reproduction charge is also made for copies of the mine files. A Bill was introduced in the Arizona Legislature to establish a printing revolving fund. It did not pass. Monies received from these sales are deposited to the General Fund of the State and are not returned to the agency.

File Mapping - The first phase of plotting the Department's files on county maps has been completed. This includes the making of county maps, assigning file numbers, then locating files by numbers on the maps. Work will continue to refine the plotting. Free copies are being made available to County Recorders.

Mineral Reports - A new program was initiated to establish mineral reports on various commodities in Arizona. Each field engineer was assigned responsibility for several minerals with a report being prepared on each. First reports will be published in the next fiscal year.

Mohave County Custom Mill Study - One engineer had been assigned to the project. It was to be for a year at half time. This was not too practical, so the engineer worked about 80% of his time for nine months. The project was completed and a summary report written. We were without the services of this engineer for Department activities for three-fourths of the year.

OEPAD - One engineer was assigned to work full time with the Governor's agency, Office of Economic Planning and Development. He is conducting a study of Indian Reservations. It is expected the project will extend through the first quarter of the next fiscal year.

U.S. Air Force - Field engineers are working with Air Force personnel to do a mineral study on Luke Air Force Range. This will take considerable time and will not be completed until next fiscal year, second quarter.

Meetings and Conferences Attended - Governor's Commission on Arizona Environment, Interagency Energy Planning Office, State Planning and Coordinating Committee, Bureau of Land Management: Proposed surface regulations and new recording regulations, Advisory Committee to Bureau of Land Management, National Western Mining Conference, American Mining Congress, Association of State Mining Officials, Pacific Southwest Minerals Industry Conference, State Water Planning - SEAGO, NACOG, MAG, Symposium on Mineral Resource Taxation, Arizona Prospectors Association, Arizona Small Mine Operators Association - State and local.

Library Acquisitions - Mr. Fred Eldean of Scottsdale, donated a set of U.S. Geological Survey Annual Reports from the Second for the year 1880-1881 through the Twenty-eighth, for the year ending June, 1917 - a total of seventy-three volumes. He also contributed an additional forty-five miscellaneous volumes of data on the mineral industries.

Mr. E. M. Pennebaker of Scottsdale, donated 221 volumes of valuable mineral related books to the Department. There will be additional volumes.

STATISTICS - MINERAL RESOURCES

	<u>OFFICE VISITORS</u>	<u>INCOMING TELEPHONE CALLS</u>
Tucson	575	881
Phoenix	<u>1,240</u>	<u>4,304</u>
Total	1,815	5,185

The Engineers made 199 field contacts, 164 mine visits, and attended 40 meetings.

There were 2,203 files and books retrieved for use by the public. 5,636 reproductions were made.

Publications of the Department included 14 news releases, 5 reports, 20 information circulars, 6 directories and two booklets.

RECEIPTS AND EXPENDITURES

A Statement of Expenditures is attached. Personal funds and Employee Related funds returned to the State Treasurer were quite large due to resignations of employees. The large In-State Travel fund returned, represents the monies reserved for an engineer's travel who has a grievance filed against the Department.

Eight-hundred eighty dollars and sixty-two cents was deposited to the General Fund of the State. These were receipts from the sale of publications (\$401.12), and reproduction charges (\$379.50).

Donations to the Mineral Museum during Fiscal Year 1976-1977 totaled \$210.00.

MINERAL MUSEUM

Mineral specimens were placed on display in the Governor's Conference and Protocol Rooms. A mineral memento was made for the Tucson Trade Bureau to present to the Mayor of Zurich, Switzerland. A non-metallic mineral display, silver display, special exhibit at the Capitol, a gemstone display, Sun Sites Mineral Show exhibit, special feature in Arizona Republic newspaper, display for the Coliseum, making of teachers' educational kits, special field trips led by the Curator, assisting Maricopa County Fair and the Arizona State Fair, were some of the special activities of the Museum.

The Museum staff responded to 1,390 telephone calls, identified 697 mineral specimens, presented 143 programs, had 142 school classes (6,362 students) in for programs, worked with forty-seven special club meetings that were held at the Museum (night meetings usually), and welcomed a total of 49,308 visitors, including schools and clubs.



STATE OF ARIZONA
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ACTIVITIES REPORT FOR THE FIRST QUARTER
FISCAL YEAR 1976 - 1977

A policy was adopted by the Board that the Department will impose a charge on its publications. The charge will be equal to cost or less. A mailing charge is added. The policy went into effect July 1, 1976.

The Director and/or staff attended the following meetings: SMEA, State Directors of AIME, Arizona Mining Association, Governor's Commission on Arizona Environment, Interagency Energy Planning Office, American Mining Congress, officials of State Mining Associations, ASMOA, Water Symposium and Western Oil and Gas Association.

Work continued on plotting of mine files. Part of this work is being done in the Tucson office. Preliminary plotting was completed, new maps were ordered and have been received.

A decision was made to end the Department's participation in the Mohave County Custom Mill project. It was a joint decision. Two of the County employees have resigned for other work opportunities. The project of sampling will continue. The Department's engineers will audit the work monthly and give advice. The County will use other than CETA funds to continue the project. Our engineer will spend two weeks on underground sampling in October - then a final report will be written which will terminate our direct participation.

A study of coal was made by one of the engineers. We were able to obtain copies of the data on coal occurrence that the Building Products Company encountered in their drilling for clays (Pinedale area) and a copy of the study made by Bechtel for Arizona Public Service Company on the Deer Creek area.

Sample was arranged on some silica property for possibilities of smelter use. The Department did not pay for the sampling.

A study was made on time and expenses involved in a Minerals Availability System Study for the U.S. Bureau of Mines, relating to iron resources in Arizona. A separate report was submitted.

1st Qtr. Rpt. - FY 1976 - 1977
October 28, 1976

Drilling logs from a drilling program for uranium north of Lake Pleasant, were provided to the Department. Other companies have picked up copies from the Department's offices. Seven holes, 200 - 300 ft. deep, mineralization varying from 1 ft. of .007 up to 6 ft. of .02, with the ore horizon varying from 50 to 150 ft. deep, suggested additional drilling.

The engineers continued work on studies of Perlite, Silica, (Metallurgical), High purity Silica and Zeolites. Results will be published.

Impact Statement on Catalina Mountains was reviewed along with approximately thirty-five other projects submitted by the State Clearinghouse.

Government agencies assisted included: the Securities Division of the Corporation Commission, Arizona-Mexico Trade Commission, Senator Goldwater's Office, Pima County Assessor's Office, Clear Creek County (Colorado) Supervisor, IEPO, OEPAD, Yukon N.W. Territory, Attorney General's Office, U.S. Soil Conservation Office, State Mine Inspector's Office and the Bureau of Land Management.

In addition to the above, information was provided to TV stations, newspapers, and libraries, (including a library in San Francisco).

One engineer spent considerable time working with the White Mountain Apache Indian Tribe in preparation of a contract for the mining and administration of the same, relating to their iron properties. A separate report was submitted on this activity.

Assistance was provided to the American Mining Congress in obtaining letters and telegrams protesting passage of proposed Senate Bill 1302, relating to transfer of MESA from the Department of the Interior to the Department of Labor.

A total of \$109.33 was collected on sale of publications and reproductions of the files. \$74.45 was collected for file reproductions. 161 publications were sold. These monies were deposited to the State General Fund.



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ACTIVITIES REPORT FOR THE SECOND QUARTER
FISCAL YEAR 1976 - 1977

New programs were established for the department this quarter. Commodity studies will become one of the major activities of the department. Each engineer was assigned a group of commodities for their project and will work on detailed commodity reports. New office procedures were established to assist the public visiting the office. The engineers will rotate as "office engineer of the week" to be available all week to respond to visitors requesting technical assistance. A WATS line was checked on for possible use from Tucson and other parts of the State. Plans were being made to close the Tucson office and transfer personnel to Phoenix.

Work continued on plotting mine files on maps. The first phase of the project is nearing completion. The engineers sampled some clay prospects and sent samples to U. S. Bureau of Mines in Alabama for complete analysis (no charge for analysis). Some potential uranium deposits were sampled and assayed.

A number of County Recorders were contacted and left copies of our bulletins. They were particularly enthused about Law and Regulation, How to Patent a Mining Claim, Starting up a New Mining Operation, Assayers List, Gold Buyers List and How to Determine Land Status.

Negotiations were started to obtain copies of the War Minerals Reports written on Arizona Properties. This would come from the U. S. Bureau of Mines.

A week-end field trip was made with a ASARCO landman to obtain samples and data for use in a claim validation hearing.

Field work was terminated on the Mohave County Custom Mill Project. Final report writing will probably start in January.

Field trips were made looking at potential Silica deposits needed in Southern Arizona.

Several field trips were made with an Eastern company to study possible low grade coal deposits on the reservation and near New Mexico border. Data was obtained on these trips.

2nd Qtr. Rpt. - FY 1976 - 1977
March 3, 1977

A program was presented at the Coconino County Medical Society annual meeting. Gifted students at Cocopah school were also provided with a program.

A complete count was not maintained but at least forty two (42) old mines and prospects were discussed with the engineers and eight hundred and forty five (845) mine files were researched by the public during this period (actual count in Phoenix office only).

The Director and/or Engineers attended the following meetings or seminars during this quarter: Western Oil and Gas Association, Seminar with Copper Specialists from Russia, Governors Commission on Arizona Environment (2), Financial Advisory Committee to JLBC financial analyst (2), Interagency Energy Planning Office (2), State Advisory Board to Bureau of Land Management, Arizona Council of AIME, Hearings on new mining regulations, Water Planning hearings (SEAGO) and the American Mining Congress.

Other City, County or State agencies that were provided assistances included: State Corporation Commission, Mesa Legal Aid Society, State Highway Department (included field work), Phoenix Public Library, Planning Department, Department of Transportation and City of Tucson.

Federal agencies requesting our advice or assistance included: Luke Air Force Base (Salt mining effects), U. S. Forest Service, Albuquerque office (withdrawal and Advisory Board nominations), ERDA (uranium reserves), RCMP (stock promotion on property near Payson), Soil Conservation Service and Bureau of Land Management (suggested regulations).



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ACTIVITIES REPORT FOR THE THIRD QUARTER

FISCAL YEAR 1976 - 1977

The Department's new programs and procedures were initiated this quarter. Each engineer was assigned commodities for study and eventual commodity reports. This became the main focus of the Department activities. One engineer in the Tucson office was assigned to the Phoenix office. The second engineer keeps the Tucson office open two days a week minimum, with additional time by appointment or engineers availability.

A new procedure for offering service to office visitors was established in the Phoenix office. One engineer is assigned to be "office engineer of the week." Office visitors are referred to this engineer. One engineer was assigned to be the Department's liaison engineer with ASMOA.

The Mohave Custom Mill Project final report was written and submitted to the Mohave County Board of Supervisors.

A donation of 73 volumes of the USGS Annual Report, from the second report (1880-1881) through the twenty-sixth report (1904-1905), was made to the Department's Library.

Through the efforts of the engineers, the Department was able to obtain reproduction of the U. S. Bureau of Mines War Mineral Reports on Arizona properties. In addition, a bound volume of a complete set of these reports for the entire United States have been loaned to the Tucson office. They were put in Tucson so they would be readily available to the numerous exploration companies. The exploration companies were notified and most have studied them.

A program was presented to an ASMOA group of over 60 people. The new BLM regulations for claim staking and proposed regulations for surface mining, were discussed. A Brunton Compass demonstration was given, and claim mapping was discussed. This was to teach the prospectors how to comply with the new BLM mapping requirements.

Legislative hearings, both Subcommittee and full committee, and budget hearing were attended. The Chairman of the Board attended the Appropriations Subcommittee Hearings. Copper license plates, claim location and recordings, energy, and agency consolidation are subjects of some of the more pertinent legislation. A Bill was introduced to set up a revolving fund for the Department.

3rd Qtr. Rpt. - FY 1976 - 1977
April 27, 1977

The first phase of the mine file mapping program was completed. The maps are ready for public use. Additional work will be done as time permits.

A program on tungsten prospecting and mining was presented to the Arizona Prospectors Association.

Environmental Impact Statements and analysis of State Clearing House applications took considerable time for evaluation and response.

The engineers worked with personnel at Luke Air Force Base in preparing a report on the mineral resources of Luke Air Force Range. A rough draft has been completed. The report includes some general geology, reported mineralization and past mining activity.

One engineer was assigned to work with the Office of Economic Planning and Development. He is providing technical assistance to its Community Development Group in preparing "Environmental Service Needs on Arizona's Indian Reservations." Several months will be required. September, 1977 is the required completion date.

The Arizona Bureau of Mines was contacted to micro film all the old mine maps located during the Mohave County Custom Mill study. They are pleased with the opportunity. A copy of the film will be provided to the Department.

Two of the Department's long time secretaries resigned this quarter. Ms. Kathy Gordon, and Ms. Bernadette Hein have since joined the staff.

The Director and/or Engineer attended the following meetings and seminars:

- Governor's Commission on Arizona Environment. (2 - Director and Engineer each attended one)
- Interagency Energy Policy Office (OEPAD) Director attended
- BLM hearing - surface management (presented written data)
- National Western Mining Conference, Denver, Colorado (engineer attended)
- Pacific Southwest Minerals Industry Conference - Lake Tahoe, Nevada (engineer attended)
- State Planning and Coordinating Committee (OEPAD - Director attended)
- ASMOA (lecture on new BLM rules and on use of Brunton Compass for mapping) Director and engineer attended
- State Water Plan - meeting in Wilcox, Flagstaff, and Phoenix (engineer attended)
- Symposium on Mineral Resource Taxation (engineer attended)
- Arizona Prospectors Association (program presented by engineer).



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ACTIVITIES REPORT FOR THE FOURTH QUARTER

FISCAL YEAR 1976 - 1977

Field and engineering activity was reduced considerably this quarter due to resignation of one engineer, one engineer on loan to another State agency, and vacations. However, as minimum of travel funds were available that would have had the same effect on field activity. The office load was very heavy for the balance of the engineers.

State Legislative activity was monitored, some presentations were made to committees but nothing affecting the Department was passed into law. One piece of legislation was passed that may have some effect on the Department. It was a bill that changed the title and structure of the Arizona Bureau of Mines.

The mineral overlay maps of Pima and Maricopa Counties, made by the Department, were used and reproduced by the Department of Transportation's private consultants and an organization studying river bottom environments. These are not part of the mine file maps.

A number of Environmental Impact Statements or analysis were reviewed. Written and/or oral statements were submitted. They included a proposed mineral exploration program in the Mazatzal (U.S. Forest Service), Newmont Mining Company, Vekol Hills proposed project (Bureau of Indian Affairs), Salt River Transmission Line Project, Wilderness study of Aravaipa Canyon, BLM proposed land exchange with Planet Ranch, proposed Pennalino Mt. withdrawal, and approximately forty financial aid grants (a number of these were not pertinent to minerals, so comments were not offered). A proposed potash mining operation involving a land exchange between State Land Department and a real estate developer was studied. A recommendation favoring the mining was submitted.

Governmental Agencies requesting advice or assistance from the Department included the following: U. S. Bureau of Mines (Denver, Phoenix, Alabama), Fish and Game Commission, Bureau of Land Management (State and District), U. S. Department of Commerce (Washington), Northern Arizona Council of Governments, Central Arizona Council of Governments, Tucson Planning and Zoning Commission, Energy Research Development Agency, U. S. Forest Services, General Accounting Office (California-Washington D. C.), U. S. Department of Agriculture, State Land Department, State Mine Inspector's Office, Maricopa County Parks, Federal Bureau of Investigation, Arizona Department of Transportation, Oil and Gas Commission, Phoenix City Library, Coliseum Exposition Center, and OEPAD. The last agency listed was quite interested in the Mohave County Custom Mill Project and also needed assistance on severance taxes.

"Out of State" inquiries were numerous this quarter. It is interesting to note the wide range of activity. Some of the assistance requests came from the following: Southern California Edison Company (California), Minerals Corporation (Dallas, Texas), U. V. Industries (Salt Lake City, Utah), Cotter Corporation (Colorado), Minerals Exploration Company (Denver), Uraner Corporation (Colorado), Bendix Engineering Company (Colorado), Possehl Inc. (Connecticut), Chevron Resource (Colorado), Sunset Magazine (California), Reserve Oil and Mineral Company (Colorado), Nevada Land and Mining Company (Nevada), Rockwool Industries (Colorado), DMJ Corporation (California), Mobil Oil Corporation (Colorado), UOCO (Utah), Couer d'Alene Hardware (Idaho), Holmes and Narver (California), Crowley Company (Indiana), International Mining Consultants (Colorado), National Coal Association (Washington D. C.), G.T.E. Sylvania (Pennsylvania), Cities Service Company (Oklahoma), EPA (Boston), and Coal Week (New York). Other contacts were from Hinsdale, Illinois, Quebec, Canada, Van Nuys, California, Barbourville, Kentucky, Sudbury, Ontario, Canada, San Diego, California, and from the states of Texas and Florida.

Contacts with news media included assistance on gold panning article for Today Magazine, reporters from McGraw Hill, Arizona Republic, Arizona Daily Star, Phoenix Gazette, and an engineer's appearance on KOOL T.V. (filmed at the Museum).

Properties discussed with the engineers included: Last Frenchman, Allison, Silver Coin, Victoria, San Manuel Group, Lady Bug Lode, Big Stick, Waters, Power, Florida, Ajax, Ash Peak, Pinkham, Paymaster, West San Xavier, Sundad, Humbug, Abe Lincoln, New Planet, Yellow Jacket, Commonwealth, Kofa, Rackensack, March in Victory, Tonapah-Belmont, Four Peaks Amethyst, Frog Pond, White Hills, Silver Chalice, Copper Penny, Gold Spot, Billie Mark, Gold Dan, Cedar Tree, South Vulture, Black Butte, Three Musketeers, Old Booze, Transcendental and Tiger. Some properties were discussed more than once with different engineers on return visits to the Department.

In addition to the properties discussed with the engineers, one hundred and forty-one (141) property files were studied by visitors. Sixty-eight additional references were studied by the public and seven hundred and eighty-nine copies of file material was reproduced as requested.

Various minerals or commodities discussed by the engineers with the public included turquoise, zeolites, copper oxides, potash, asbestos, barite, fluorspar, slag dumps, sheet mica, silica, hi-purity quartz, feldspar, strontium, tungsten, gold, uranium, silver, bentonite, limestone, gypsum, clay, beryllium, coal, perlite, kaolin, soapstone, tuff, lead, copper, hematite, pumice, wolframite, talc, iron, columbite, and tantalite.

Additions to the Department's library were contributed by Mr. E. M. Pennebaker, a consultant in Phoenix. 221 volumes have been received. An additional like number will be added in the next quarter. A set of Economic Geology publications from 1929 through 1971 was included. Mr. Fred Eldean also donated 45 volumes to the library.

4th Qtr. Rpt. - FY 1976 - 1977
July 27, 1977

Slag dumps were discussed with three separate companies, involving either sand blasting material, rock wool manufacturing, or reprocessing for mineral recovery.

Discussions were held with two separate companies relating to Perlite expanding plants. A source of financing was located if needed.

The U. S. Department of Agriculture is interested in test lots of bentonite for soil conditioning, and also wanted locations of old tailing ponds to be used for research in revegetation.

Other projects included economics of an ore buying station for gold, silver, copper fluxing ores, gypsum for wallboard manufacturing, black sands, iron magnetite for solar heating experiments, clay samples to Alabama and Florida, mica for foreign consumption, royalty determinations on decomposed granite, designing sluice boxes, pad and heap leaching for gold and silver, and a display for the Pima County Fair.

Two developments of great interest to the prospector-small miner is the interest one major mining firm is showing in future possibility of custom milling and a second company's possible interest in custom smelting. The custom smelting would possibly involve an odd lot-ore stockpile buying station.

Microfilm copies of more than 2,000 old mine maps in Mohave County were obtained.

Seminars on State water problems and Water Quality were attended.

The Executive Director of the Coliseum and Exposition Center wants the mining industry to actively participate in the coming State Fair. Meetings were arranged, and held, with Industry personnel to discuss the problems involved.

STATEMENT OF EXPENDITURES

APPROPRIATION - Fiscal Year 1976 - 1977 \$ 246,600.00

EXPENDITURES:

Personal Services	\$ 181,947.34
Employee Related Expenditures	26,087.92
Travel - In State	8,298.33
Travel - Out-of-State	977.25

Other Operating Expenditures

Utilities	3,497.83
Telephone	3,795.73
Mtnce. & Supplies	2,792.89
Office Supplies	3,667.36
Field Supplies	376.82
Rent	1,500.00
Subscriptions and Library Books	1,336.43
Postage	1,246.85
Insurance	887.00
Miscellaneous	80.11

Capital Outlay - Equipment	<u>1,874.69</u>
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TOTAL EXPENDITURES	238,366.55
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Returned to General Fund	<u>8,233.45</u>
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TOTAL APPROPRIATION	\$ 246,600.00
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