

ANNUAL REPORT

The Geological Survey of Wyoming

July 1, 1974 to June 30, 1975

Prepared by

Dr. Daniel N. Miller, Jr.  
State Geologist and Executive Director

August 1975  
Laramie, Wyoming

## TABLE OF CONTENTS

Introduction	1
Organization	2
Major Accomplishments by Program	2
Problem Areas and Recommendations	5
Recommendations	5

## INTRODUCTION

The Wyoming Geological Survey is a State agency located on the University of Wyoming campus, established in 1933 and modified by the Legislature in 1957 and 1969 (Wyoming compiled statutes 9-264.1 to 9-264.10), and modified again in 1975. As designated by law, the Survey has eleven objectives and operates in an effort to provide information and public services involving the geology and mineral resources of the State. The Survey functions under an Advisory Board prescribed by law.

Since 1969 the activities of the Survey have steadily increased in order to assist with the orderly development of mineral activities in the State and with problems related to potentially impacted areas involving Wyoming's communities and people. In addition, the Survey's staff is now called upon frequently to act in an advisory capacity to State Legislators, Legislative committees, State agencies, and numerous State and Federal committees and councils. Furthermore, since the passage of the new land use and industrial plant siting legislation, the Survey's staff is also called upon to assist planning coordinators and officials in practically all of Wyoming's 23 counties. The Survey's principal objective is to supply the kinds of reports, maps, and data that are needed in order to respond to these obligations as well as to thousands of other requests from the mineral industries and the general public.

Overall operation of the Survey can be summarized into three broad categories as:

Services -- Compilation and continuous updating and maintenance of files and libraries of all published material, records, maps, and data relating to the surface and subsurface geology and mineral resources of the State; and distribution of this information upon request to county and state officials, state agencies, the minerals industries, research organizations, and the general public.

Investigations -- Through field investigations that contribute new geological information to the State concerning mineral resources, and other matters or problems that have a practical bearing on Wyoming's communities and people, and by arranging to conduct cooperative investigations with other state and federal agencies on problems of mutual concern or interest.

Publications -- By publishing timely and significant reports, maps, books, tables, graphs and charts, in an effort to communicate the results of the investigations to other agencies, the minerals industry, and the public.

## ORGANIZATION

The Geological Survey has as of FY-75, a staff of nine full-time people consisting of a director, four geologists and four supporting staff (secretary, clerk-steno, draftsman and editor). In addition, the Survey employs a varying number of part-time help when the occasion necessitates assistance with investigations and office activities.

Figure 1 illustrates the organizational structure, the present staff, the authorized positions for 1976, and the requested new positions for 1977-78.

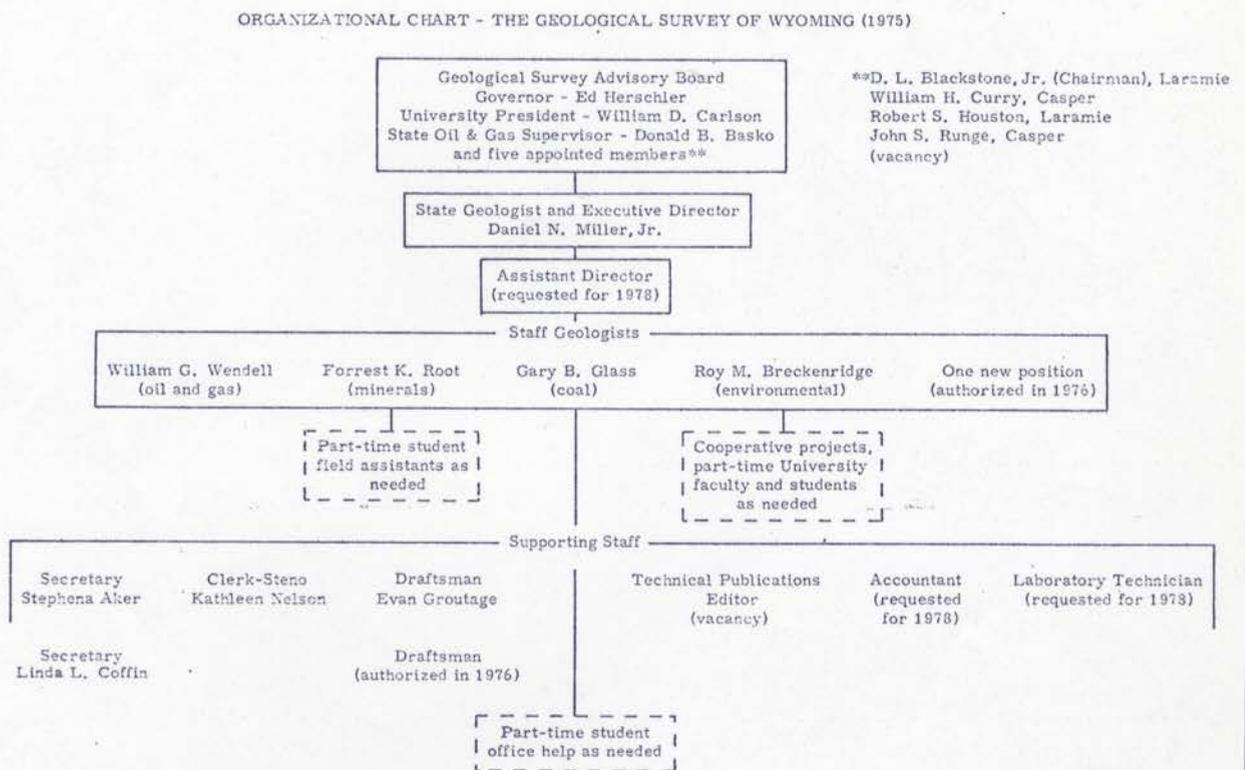


Figure 1

## MAJOR ACCOMPLISHMENTS BY PROGRAM

This agency operates at present under four separate budget categories, which, for purposes of this report are described as four separate programs. In reality they are subdivision categories of one overall program -- each being an integral step in the operation.

Administration -- The main thrust of the Survey's activities has been to expedite the public service aspect of the operation with emphasis on publication of reports and maps. About 70% of the Survey's total effort is presently being directed toward this end, and the results have been very good as illustrated in Figure 2 (Publication Sales).

The Survey continues to operate under very restrictive conditions with no laboratories or adequate work space for the Staff. However, the 1975 Legislature approved construction funds for the new Geological Survey Building, and work has begun. Occupancy is expected about September 1976 at which time the Survey's overall service capability will be greatly expanded.

All of the Survey's major responsibilities for investigations and inter-agency cooperation are handled under the Administrative category. During FY-75, the Survey responded to approximately 5000 requests for information regarding the State's geology and mineral resources. The State Geologist and staff served on the Wyoming Oil and Gas Conservation Commission, Interdepartmental Water Conference, the Interstate Oil and Gas Compact Commission, and the Department of Interior Oil Shale Environmental Advisory Committee; and participated in or gave assistance to the Department of Environmental Quality, State Board of Land Commissioners, the State Planning Coordinator, Department of Economic Planning and Development, and to numerous Legislative committees and other city, county, state and federal agencies or officials.

Publications -- FY-75 the Survey published five new items for large volume distribution and several other special publications for limited use. The volume of publications is totally dependent upon the publication funds available. Items published in FY-75:

- P.R. 14 - Geology of the Silver Crown Mining District, Wyoming
- R.I. 10 - Applied Geology and Archaeology: The Holocene History of Wyoming
- CRS-3 - Campbell County, Wyoming: Geologic Map Atlas and Summary of Economic Mineral Resources
- An updated 1975 supplement to "Mineral and Mining Laws of Wyoming, Second Edition"
- Review of Wyoming Coalfields, 1975

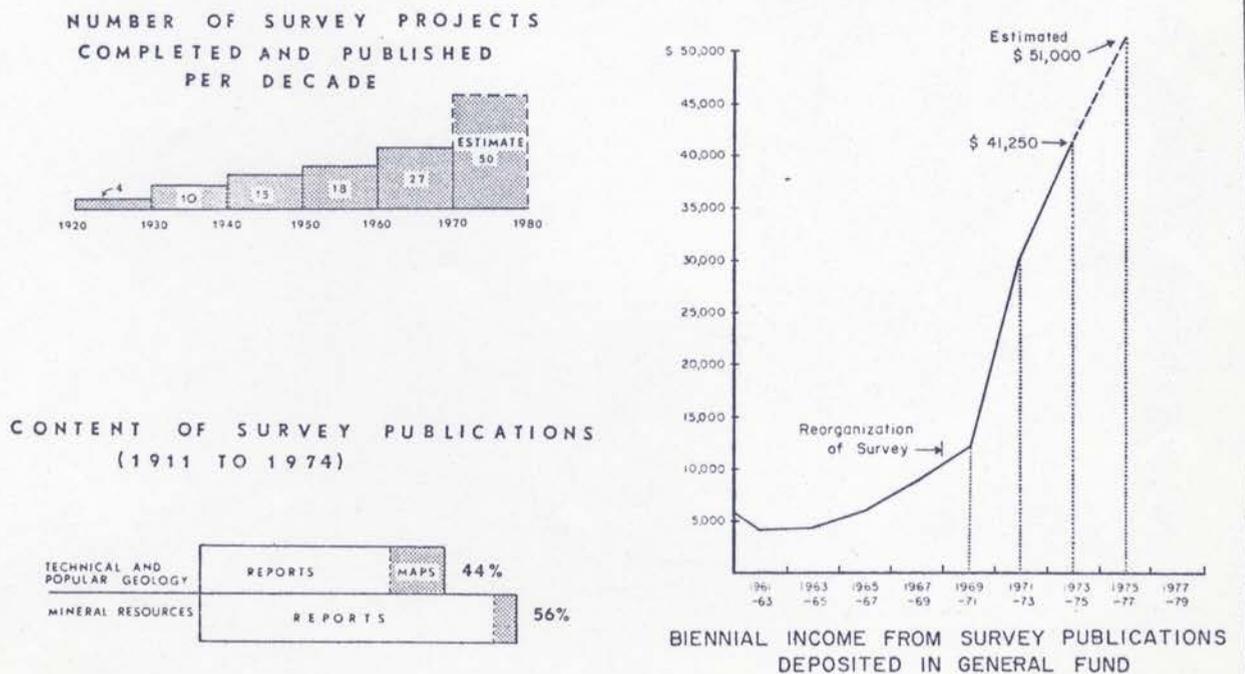


Figure 2

As shown in Figure 2, the income from the sale of publications increased about 34% to a high of \$41,250 for the biennium. Projections based on new publications completed in 1974 but not yet published should boost sales to \$51,000 during the next two years.

The dramatic increase in publication sales for the past several years can be attributed to interest in Wyoming's mineral resources, income to the State from mineral production, and to public concern regarding land use and environmental questions.

Figure 3 illustrates the economic changes that took place in 1974 that prompted much of the current interest in the State's geological and mineral resources publications.

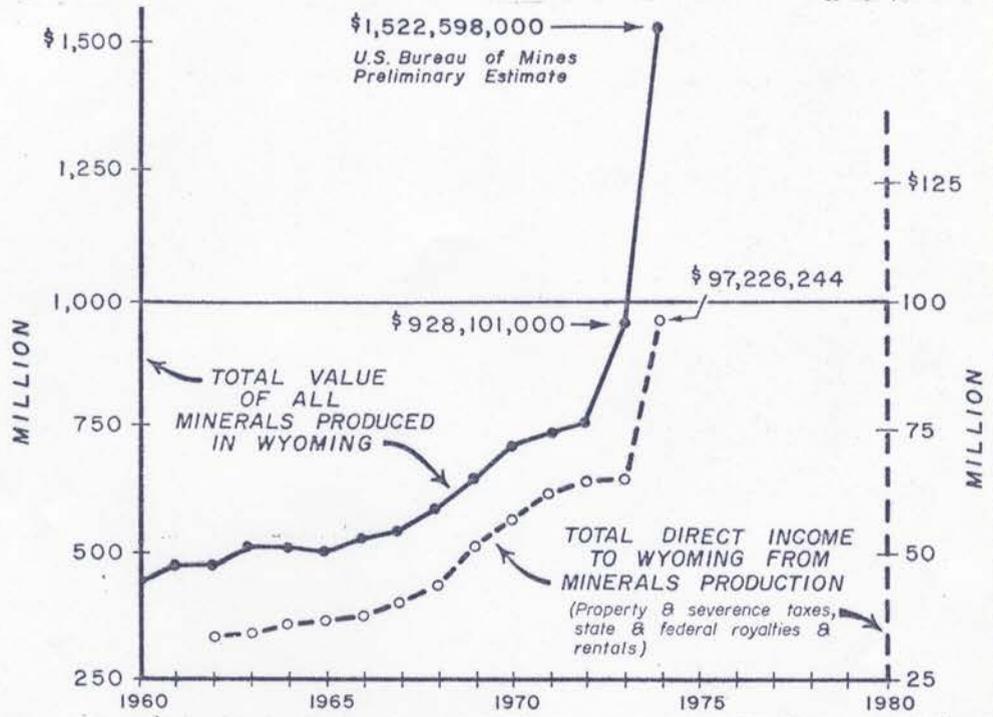


Figure 3

Cooperative Programs -- During FY 75, The Survey entered into and completed several cooperative programs with the U.S. Geological Survey and the U.S. Bureau of Mines related to mineral resource investigations. All projects were funded 100% by federal money and amounted to approximately \$46,000 for the fiscal year. Figure 4 shows the proportionate value of this income in relation to the State's Legislative appropriation.

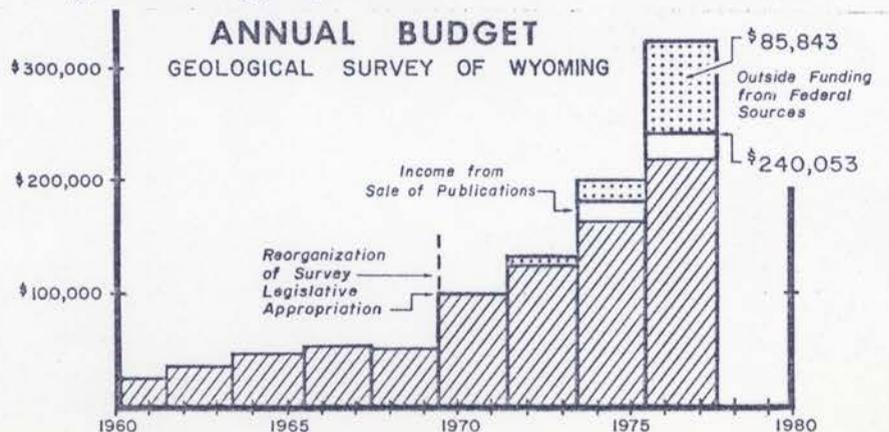


Figure 4

Capital Outlay -- Architectural planning for the new Geological Survey Building was completed during 1974, and construction funds amounting to \$930,212 were authorized by the Legislature. The contract was let to Spiegelberg Lumber and Building Company of Laramie who began excavation operations in June 1975. The mineral industries of the State have pledged to contribute \$10,212 to a Trust and Agency account for construction of the building.

Bids for construction were somewhat higher than what had been estimated and numerous changes had to be made in the construction plan. In addition, several alternate phases of construction had to be cut that eliminated a large part of the built-in furnishings. An additional request of \$55,650 to cover these changes has been submitted to the 1976 Legislature in the 1976-78 Biennial Budget Request, Budget No. 70.

### PROBLEM AREAS AND RECOMMENDATIONS

The Wyoming Geological Survey has no serious problems provided that the recommendations listed in the 1976-78 Biennial Budget Request are approved by the Legislature.

The specific increases requested are:

- a. Three additional staff by 1978 to handle technical affairs, Administrative (01) budget, p. 5.
- b. A completely justifiable increase in the Publications (02) budget, p. 18, to cover printing costs.
- c. A supplemental request for additional funds in the Capital Outlay (70) budget amounting to \$55,650, p. 27.

#### Recommendations

1. Recommended changes in the law to clarify ambiguity in the second line, paragraph (b), Section 9-252, Art. 11, Wyoming Statutes, 1975, Cum. Supplement.

Recommendation No. 1 -- We recommend that the words "other than coal and oil and gas deposits" that are in parentheses be deleted. The meaning and intent of the first and second sentences of paragraph (b) are quite clear. The parenthetic insert makes the first sentence ambiguous.

2. Recommended changes in the law regarding obligations by the minerals industry to submit copies of subsurface drill hole records on lands under State lease.

The Geological Survey is responsible (Wyoming Statutes 1975 Cum. Supplement 9-252) to the State Board of Land Commissioners and to the State of Wyoming for mineral resource evaluations of State lands. At present there is no obligation on behalf of the minerals industry to supply subsurface data, electrical logs or other records when they are engaged in mineral exploration

on State lands, and therefore no data is available to the Geological Survey upon which to make decisions or reach conclusions.

Recommendation No. 2 -- That the leasing of State lands for coal, uranium, or other mineral exploration be contingent upon the stipulation that the companies will submit copies of all electrical, gamma-ray neutron, resistivity or other types of subsurface logs to the Office of the State Geologist within six months after the completion of drilling, where the records will be held confidential for an automatic period of one year after being received or until the expiration of the lease, whichever is the lesser time period. Such logs to become the property of the State and retained within the permanent files of the Wyoming Geological Survey for the exclusive use by the staff as required by law for evaluation purposes.

3. Recommended changes in the law regarding declassification of mine maps after closure or abandonment of the mine, and inclusion of "coal" mines under this obligation.

Part C of Paragraph 30-59 "Regulations for abandonment of mine" provides for declassification of all mine maps other than coal mine maps, which are filed with the State Inspector of Mines. It declassifies such maps after 10 years following closure of a mine without resumption of mining activity unless earlier release thereof shall have been authorized in writing by the owner, or unless there is a need for safety reasons as shown by an adjoining operator. This statute does not apply to coal mine maps and the safety clause only applies to another operator, not a landowner or other private individual or the State of Wyoming.

In Paragraph 30-131 "Maps of mines to be made; etc." which deals exclusively with coal mines, there is no provision to declassify such maps even after a reasonable length of time after closure. In essence, the maps remain confidential indefinitely.

The extensive underground mine workings depicted by these mine maps should be available to agencies of State government and to the public in the interest of safety related to subsidence or collapse, and in the interest of any land use planning through a mined area.

Since many of the older mining companies are no longer incorporated entities, the singular option of getting written permission from the mine owner cannot be done in many cases - making it virtually impossible to ever release copies of those maps.

Recommendation No. 3 -- Since there is no justifiable reason to exempt coal mines from regulations applied to all other mines, we recommend that the Legislature change the law and adopt new wording similar to that found in Part C, Paragraph 30-59, in Paragraph 30-131 dealing exclusively with coal mines. We further urge that consideration be given to reducing the classified time period for all mine maps to one or two years after closure.

4. There are a number of agency offices in the State outside of Cheyenne that do a relatively large amount of copy and printing work. Changes by DAFC in the past several years have attempted to provide centralized services, consolidate equipment, and bulk purchasing of supplies, to save money. To a large extent this has created much greater expense in the loss of productive man hours, and has disrupted distribution schedules.

Recommendation No. 4 -- We strongly recommend to the Legislature a more common sense approach that allows each agency Director to decide (within their budget capabilities) what kinds of reproduction equipment are needed for their in-house operation, and permit more flexibility as to the purchase of supplies, and greater control over printing schedules. A basic economic concept of all business is to bring the machines to the work, not the work to the machine. Under the present superficial controls we are saving the State money in certain categories of expenditure, but costing the State many times that amount with inefficient operations and frustration of the staff.

5. Modification is needed in the rules regarding per diem allocation that establishes some compensation to staff members engaged in extensive outdoor field investigations in remote areas of the State. A separate category needs to be established for field inspectors with the Oil and Gas Commission, field geologists, Fish and Game personnel, and numerous others who do not work conventional 8-hour days, and are not compensated in any way for their willingness to accept hardship -- sleeping on the ground, in vehicles, in oil well dog houses, etc. As a result, these men now prefer to drive great distances to and from their work area morning and evening, thereby decreasing their time on the job just to stay in motels overnight in order to have a receipt to submit for per diem compensation. The lost time and extra transportation expense is significant and many times more costly than the payment of per diem.

Recommendation No. 5 -- We urge the Legislators to consider modifying the present per diem rules and establish a special category to accommodate field personnel. It would not only save the State considerable money, but it would greatly improve morale and allow more work to be accomplished each day.

Other Suggestions -- The following is merely a suggestion, but it would (we are advised) require changes in the law that would result in a considerable savings to the State.

- a. At present all vouchers of \$50 or more require a Purchase Order Number which necessitates a time loss due to mailing to and from Cheyenne and a considerable volume of paper work by a number of people both in the agency and in the DAFC Purchasing Office. We strongly recommend that the \$50 limit be changed to \$100. Our information is that this requires a change in the law, but it would certainly be worth it.