

min. Reports

MINERAL EXPLORATION IN WASHINGTON-1960

Exploration activities by private companies was carried on at about the same rate in 1960 as in the past few preceding years. Exploration by State agencies was considerable expanded over that of recent years.

In the metals field the activities of the Goldfield Consolidated Mines Co. at its Anderson mine in northeastern Washington (northern Stevens County) were of possibly greatest interest. This mine, formerly an open-pit operation, was shut down in 1952 as a result of low zinc prices. In 1960 it was being reopened by a 15 ft. by 15 ft. inclined shaft directed toward new ore bodies discovered by geochemical prospecting and diamond drilling. A 1,500-ton a day operation is planned.

Bear Creek Mining Co., exploration subsidiary of Kennecott Copper Corp., continued its aggressive program of development at its Glacier Peak Copper property in eastern Snohomish County and geological and geochemical exploration at a number of other properties in the northern and central Cascade Mountains.

Perhaps the most significant development during the year in the field of industrial minerals was the construction by Lane Mountain Silica Co. of a plant to process silica sand from a quarry near the town of Valley in southern Stevens County. The plant, when completed early in 1961, will have a capacity of 400 tons of high-grade silica sand per day. The sand will be produced from a very high silica friable member of the Early Cambrian Addy Formation.

Increased funds appropriated by the State Legislature made possible a considerably expanded program of mineral-resource and basic geologic studies during the year by the Washington Division of Mines and Geology. Much of the credit for this work should be given to the helpful recommendations of the Industrial Raw Materials Advisory Committee (a group of private-industry representatives) to the Department of Commerce and Economic Development.

The Division of Mines and Geology of the Department of Conservation on July 1, 1960, released a report of an aeromagnetic and airborne scintillometer survey that was conducted for the State by Hunting Geophysical Services, Inc., late in 1959. The survey covered an area of nearly 1,000 square miles in northeastern Okanogan and northwestern Ferry Counties. Accompanying the report are five sets of maps for each of the five 15-minute quadrangles covered by the survey. These maps show (1) aeromagnetic and radiometric data on a planimetric base (printed in three colors), (2) the same data printed on translucent paper without a base map, for use as an overlay, and other overlay maps as follows: (3) mineral commodity map showing mines and prospects and locations of National Forest and State-owned lands, (4) height of the survey aircraft above ground, and (5) geologic interpretations of the geophysical data.

Late in 1960 the Division completed the compilation of a revised State Geologic Map, the 1936 edition of the State Geologic Map having been out of print for several years. The map, to be published at a scale of 1:500,000, was submitted to a printer and should be printed and ready for distribution by mid-year in 1961.

In 1960 field investigations were completed to determine the amount and quality of the limestone available in the largest and most accessible deposits in both eastern and western Washington. Topographic and geologic maps were made, and about 750 samples were taken for complete chemical and spectrographic analysis.

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A 2-year investigation of the coal reserves of Washington was completed during the year. The work was done by the U. S. Geological Survey cooperatively with the Washington Division of Mines and Geology on a 50-50 cost sharing basis. A similarly financed 2-year cooperative State and Federal project to map in detail the geology of three 7½-minute quadrangles in King County (central-western Washington) was continued in 1960. Some of the most productive coal mines and refractory clay pits in the State are in this area, and it is expected that detailed geologic mapping will furnish a guide for exploration and development of new reserves of both of these commodities.

A geochemical survey was conducted during the year in several areas in Pend Oreille County (northeastern Washington) by personnel of the Division of Industrial Research, Washington State University. This project was co-sponsored and financed by the Pend Oreille County Public Utility District, Diamond National Co., the Washington State Department of Commerce and Economic Development, and the Washington State Department of Conservation, Division of Mines and Geology.

The Industrial Raw Materials Advisory Committee, mentioned earlier in this letter, has recommended a greatly expanded program of geologic and topographic mapping in Washington. The 10-year program recommended would provide complete topographic map coverage of the State at a scale of 1:24,000 (7½-minute quadrangles), including new mapping and revision of all older maps, and would produce about 65 geologic maps of selected 15-minute quadrangles in areas where geologic mapping is most needed. It is proposed that this program of topographic and geologic mapping would be undertaken by the U. S. Geological Survey with cooperative financing by the State of Washington.

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