

MINERAL RESOURCES OF THAT PART OF WYOMING  
LYING IN THE COLUMBIA BASIN

by

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The small part of northwestern Wyoming which lies within the drainage basin of the Columbia River has not been a region of notable mineral production. This is in large part attributable to the fact that the area is far removed from rail transportation. In addition, no mineral deposits of sufficient size to warrant development under the existing conditions have been known to exist.

At the present time one coal mine and one limestone quarry are the only operating properties and their output comprises the total mineral production of the region. Some gold has been produced from placers at intervals but no large scale operations are carried on.

The northern part of the region lies within Yellowstone National Park and a large part of Teton County is now embraced in the Grand Teton National Park and the Jackson Hole National Monument. For this reason a large part of the area is not subject to mineral development and production.

MINERAL FUELS

A great reserve of bituminous and subbituminous coal lies in the Wyoming part of the Columbia Basin. The coal in the Little Grey's River field is of bituminous rank and a truck mine operates in that region. The Gros Ventre (pronounced, Grow Vaunt) field contains bituminous coal in thick seams but the only production has been for local consumption. At the present time the market for coal which might be produced in the Little Grey's River and Gros Ventre region is largely supplied by coal from the Kemmerer field, to the south along the Union Pacific Railroad where large underground and strip mines operate.

At present no petroleum or natural gas is produced in the region. A number of wells have been drilled but no production has been developed. It appears, however, that certain parts of the region may yet be found to be productive and three wells are now drilling.

### METALLIC MINERALS

The only production of metallic minerals from the area has been gold from placer deposits along the Snake River, but the amount produced has been negligible.

Vanadium-bearing siltstone is known to be widely distributed in the Salt River Range east of Star Valley. The deposits have been extensively investigated by the U. S. Geological Survey and the Bureau of Mines. The vanadiferous siltstone lies within the Phosphoria formation, of Permian age, and although the unit is thin and the  $V_2O_5$  content is rarely more than one percent, the rock constitutes a tremendous reserve of low grade vanadium ore. It must be pointed out, however, that similar large amounts of vanadiferous siltstone occur to the south where they are much closer to rail transportation.

### NON-METALLIC MINERALS

Phosphate rock is found in the Phosphoria formation in the Salt River Range and northward into the Jackson Hole Region. Although a large reserve is present and the rock is found in fairly thick beds of high grade, the distance from rail transportation is an unfavorable factor in view of the occurrence of similar rock adjacent to the railroad farther south.

A deposit of chrysotile asbestos is known in the northern part of the Teton Range. Some development work was undertaken prior to 1920 but the property has never produced.

Limestone occurs abundantly in many parts of the region and some is of sufficient purity to warrant its use in sugar beet refining. At the present time, a quarry operates on the west flank of the Teton Range.

Sulphur deposits are known in Star Valley, along the Idaho border, but because of lack of subsurface information the potentialities of the deposits remain uncertain. Rock salt is also known to occur in Star Valley but the deposits have not been worked since very early days.

Beds of bentonite are known to occur in the Cretaceous rocks of the region but no study has yet been made of their physical characteristics, their thickness,

and their mining possibilities.

#### CONSTRUCTION MATERIALS

Large amounts of sand and gravel and rock suitable for crushing are present in the region. It appears that Paleozoic and Mesozoic rocks carry limestones and clays which would be suitable for the manufacture of Portland cement and rock wool.

#### SUMMARY

The known mineral resources of that part of Wyoming lying within the Columbia Basin are limited in variety. Those which appear to have the greatest promise are coal, vanadiferous siltstone and phosphate rock. Some oil may be found in the region but no deposits of metallic minerals are known which appear to hold interest for future development.