

SNAKE RIVER PLAINS.

Geological Survey Report on That Interesting Region.

In Bulletin No. 199, now in press, United States Geological Survey, Professor Israel C. Russell discusses the geology and the water resources of the Snake river plains of southern Idaho. The main objects in view when the work was undertaken were to ascertain how far the geological conditions, particularly beneath the broad lava-floored plains bordering Snake river, favor the hope of obtaining flowing water by drilling wells, and where test wells should be put down in order to determine the correctness of the inferences based on geological and other conditions. Of the 25,000 square miles of the region, about 1200 square miles were examined, the main route lying eastward from near Boise across Elmore, Lincoln and Blaine counties and into Bingham county as far as Blackfoot.

The Snake river plains present a typical illustration of an insular or continental climate, such as is characteristic of regions of mild relief, remote from the tempering influences of the ocean, and deprived of their requisite share of moisture by the presence of lofty mountains in the path of the prevailing winds. The rocky and the lava-covered portions of the plains excepted, the soil is a fine, yellowish-white, silt-like material, largely a dust deposit, similar to the celebrated loess of China and to the deposit bearing the same name in the Mississippi valley, and of exceptional fertility if properly irrigated.

For many miles the Snake river receives no perennial tributaries from the mountains to the north, but many springs, aggregating many thousand cubic feet per second, pour out throughout the year their waters from the northern wall of the Snake river canyon. The temperature of this spring water seems to show that it is supplied by the subterranean flow of "lost rivers," which come down from the mountains.

The amount of water power available along Snake river is practically unlimited, but is as yet unutilized. Agriculture is dependent on irrigation, and the most important communities have grown up along irrigation canals. The most valuable crop is hay, principally alfalfa.

After a prolonged discussion of the geological features of the region, Professor Russell takes up the subject of its water supply and reaches the conclusion that the present surface water supply is largely wasted, and that it is practicable to use for irrigation the entire summer flow of all streams reaching the Snake river plains. He thinks that storage reservoirs should be established, and drill holes should be put down for testing artesian conditions, every fissure spring in southern Idaho being a warrant that water under pressure exists beneath the surface. He also thinks that it is painfully apparent that the control of the water supply, both for irrigation and for other uses, and the sanitary inspection of towns and of isolated houses should be placed in the hands of competent engineers.

Harney County Diamond Fields.

R. S. Rutherford and sons, Ben and Adrian, who, with Bert Mumford, of the C. B. & Q. R. R. company, have been prospecting for fire clay in the vicinity of Crane creek, Harney county, returned Sunday and report the discovery of a diamond mine. The formation is mostly decomposed porphyry. The rock has been thoroughly tested and found to contain diamonds, sapphire, topaz and

moonstones. They have one sapphire in their possession valued at \$100. These gentlemen have located two sections of land and will commence development work as soon as the proper machinery can be procured. Mr. Mumford left Wednesday for Beatrice, Nebraska, where he will organize a company with a capital stock of \$5,000,000 for the purpose of developing the mine. Mr. Rutherford expects the machinery to arrive here within the next thirty days. Ontario will be made the permanent headquarters of the company.—Ontario Democrat.

MORROW COUNTY COAL FIELDS.

Their Development Means Much for the Inland Empire.

As there has been very little yet said or published in regard to the Morrow county coal deposits, it is probable that only a very few citizens of the county realize the extent of this coal field, or that the discovery means more for Heppner, Morrow county and the Inland Empire than the discovery of gold. Developments have brought out great surprises for the promoters. The quality of the coal is improving with depth, the veins are broadening and the coal is a better grade than was ever anticipated. One vein produces a very good quality of coking coal. Tests have shown that it is a superior quality of steam coal, and some of the coal is thought to be anthracite.

Men of means have investigated this coal field and, it is said, have offered the promoters unlimited backing if they desire it. The quantity and quality of coal is here, and it is now thought by those who have investigated and are in a position to know, that the Morrow county deposits will equal many of the great coal fields of the east.

Development work is slow at first, as only a few men can work to advantage in a tunnel until sufficient depth is attained that levels are run. D. A. Herren, one of the promoters who has charge of the work, is pushing the development of tunnels as rapidly as the conditions will warrant.

It is presumed that the work of constructing the railroad up Willow creek to the mines, the permanent survey of which has already been completed, will be begun in the near future, and by the first of the coming year the busiest scenes will be presented that have ever been witnessed in Morrow county.

The conclusions herein stated are based on the judgment of coal mine experts of long experience, one of whom estimated a coal deposit of 22,000,000 tons to the acre.—Heppner Times.

FRED G. LAWSON



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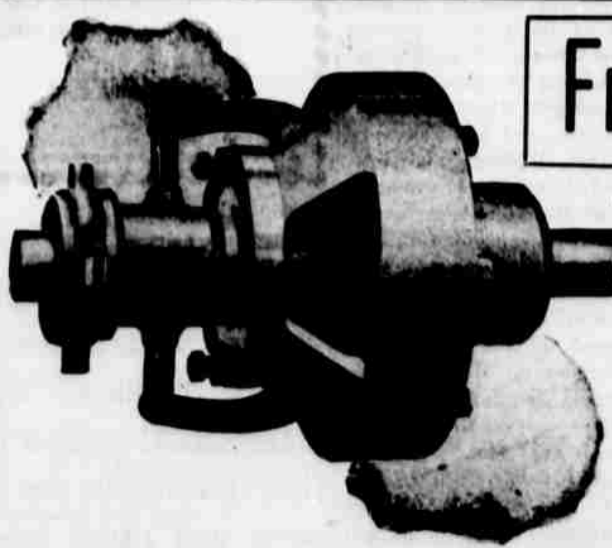
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