

MR 903-37

RECORDS OF THE State of Wyoming
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Cheyenne

May 28th, 1903.

Mr Charles E. Winter.
Secy. Gibraltar Copper Mining Co.
Grand Encampment. Wyo.

GEOLOGICAL SURVEY OF WYOMING

Dear Sir:-

Pursuant to request, I hand you the following brief report on the property of the above company;

ORGANIZATION.

THE GIBRALTAR COPPER MINING COMPANY is organized under the laws of the State of Wyoming and has the following officers;

- W. L. Sill, Encampment, Wyo. President.
- H. C. Cobb, Wilmington, Del. Vice-President.
- Samuel Blair, Encampment, Wyo. Treasurer.
- Chas. E. Winter, Encampment. Wyo. Secretary.

EXTENT AND LOCATION.

This property consists of six claims, viz, the Express Nos. 1-2-3-4-5 and 6, held by location and discovery under the laws of the United States and the State of Wyoming, and comprising about 120 acres of land near Big Creek, 18 miles south-east of the town of Grand Encampment, in the southern part of Carbon County, Wyoming.

Herethe valley of the North Platte river extends north and south and is about twenty miles wide at this point, having the Medicine Bow Range of mountains on the east and the Sierra Madre Ranges on the west.

Big Creek flows into the west side of the Platte from the southern end of the Sierra Madre range and is one of the principal local tributaries of the Platte.

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GENERAL FORMATION.

At various points in the Upper Platte Valley are noted several uplifts or outcrops of igneous rock, forming low hills of limited extent and separate from the main uplifts forming the Sierra Madre and the Medicine Bow Mts.

The formation of these uplifts usually consists of a reddish granite, with dykes of diorite and allied rocks, and bands of schists and gneiss at intervals, all of which have a varied extent, association and trend in the several uplifts.

GIBRALTAR GROUP.

This group lies on the north and west side of Big Creek on one of these uplifts, in which the granite predominates but where the mica-schist also shows in a broad band, enclosing stringers and ledges of quartz at irregular intervals, the whole formation showing considerable evidence of alteration and mineralization.

The general trend or direction of the formation is easterly and westerly, with a slight dip to the north but this latter is noted to vary locally at various points on the group and with depth may be found to give place to a different angle or direction when the present broken and crushed material is passed through and the permanent formation is reached.

DEVELOPMENT.

The present development work consists of a ten ft. hole on each of the Express Nos. 2-3-4-5 and 6, and a shaft 53 feet deep on the Express No. 1 from which the material hereinafter described was taken.

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VEIN MATTER.

In general, the claims are covered with a heavy wash of loose material that extends over the Platte Valley to a depth of several feet but with occasional outcrops of quartz, mineralized schist, etc.

The above shaft is sunk on one of these outcrops, in a ledge of mineralized schist and quartzose vein matter, lying with the general trend of the formation.

This ledge material showed a heavy capping of iron oxides, both limonite and hematite showing in the common forms and staining the schist and other vein stuff to a considerable extent. With these iron oxides are found the carbonates of copper, the green carbonate carbonate or malachite predominating, with some blue carbonate or azurite at intervals, both occurring as a stain in the schist and as filling in small streaks. In these oxidized ores some native copper was found in flakes in the schists.

This oxidized material gradually gave place to the sulphide forms of these minerals, the most common being a heavy, white iron sulphide, together with some bournite or copper-iron sulphide and copper-glance or chalcocite. Some covellin^e was also noted.

These minerals were not continuous or uniform in width but occurred at intervals and from one to two feet in width, but serve to indicate the presence of mineral in this ledge.

BOTTOM OF SHAFT.

At the time of this examination the bottom of the shaft showed only a small stringer of mineralized vein matter on the north wall, the most of the shaft, at this depth, being in a barren stained quartzose material

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that has come into the shaft, crowding out the ledge matter; this condition often occurs in these ledge formations and may be considered temporary in this case.

The general conditions noted in this property are usual in the Grand Encampment District and the iron capping is similar to those encountered in some of the most successful mines of this region but the ores noted at the surface are richer than the usual run of ores here.

It is considered that the showings in this property, together with the minerals already found, fully warrant the continuance of development work and that the present shaft should be sunk to a depth of at least one hundred feet before anything else is done. It may be profitable at this depth to run a cross cut to the walls of the ledge to determine the width and wall conditions and to cut any other stringers of ore that may exist in this ledge.

WATER.

Some water has been encountered in this shaft but this is believed to be largely surface water, due to a late wet spring, and is limited in quantity. As depth proceeds, however, a pump will be necessary and provision should be made for handling a considerable quantity of water.

Big Creek furnishes an ample supply of water for all purposes and under proper conditions may be made to furnish power for a considerable works.

TIMBER, SUPPLIES, ETC.

The claims are barren of timber but this and all other mining supplies may be had at Grand Encampment at the usual rates for mining goods.

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SMELTER AND MARKET.

The Smelter at Encampment will afford a ready market for all ores produced here and renders it possible to ship a much lower grade of ore at a profit, than has hitherto been possible in this district. This plant has been enlarged to a 500 ton per day capacity and will buy commercial ores in the open market at current rates.

The roads to the smelter are open all the year round and no heavy grades need interfere with the work of hauling ore on this route.

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The Gibraltar group is as yet a prospect and must be considered as such but it is believed to be a good one and that the showings fully justify the further development as above indicated.

Very Truly Yours,



State Geologist.

Date of Examination.

May 23rd, 1903.