

The State of Wyoming.
Office of State Geologist,
Cheyenne.

Aug 23 - 1906

1906
MR ~~1113~~ - 77

GEOLOGICAL SURVEY OF WYOMING

A REPORT

ON

THE COPPER GLANCE GROUP,

AT

DEPASS, FREMONT COUNTY, WYOMING.

--~~111~~--

LOCATION.

The Copper Glance Group is situated at Depass, near the eastern end of Copper Mountain in Northern Fremont County, Wyoming, in Township 40 N., Range 92 West, (this township not being as yet subdivided into sections, ~~where~~ exact section ^{is} not given;) eighteen miles in an air line, north westerly from Moneta Station on the Wyoming and Northwestern R.R., and the same north-easterly from Shoshoni, the present terminus of that road.

EXTENT AND TITLE.

This group consists of three claims, namely:

The Copper Glance Claim.

The Malinda Claim.

The Eagles Nest Claim.

These are full claims, each 600 feet by 1500 feet, comprising about 65 acres of land, held by location and discovery under the laws of the United States and the State of Wyoming.

OWNERSHIP.

These Claims are owned by the Williams-Luman Mining Company, incorporated under the laws of the State of Wyoming for \$500,000.00,

REPRODUCED COPY
NOT TO BE REMOVED
FROM OFFICE.

divided into 500,000 shares of the par value of \$1.00 each.

The interests of John Luman, ~~one~~ of the original locators, have been purchased by Hon. Thos. G. Smith of Buffalo, Wyoming, and associates, and other rights and properties are being acquired by these gentlemen with a view of the active development of the whole property as rapidly as possible.

COPPER MOUNTAIN.

Copper Mountain is the eastern extension of the Owl Creek Mountains, now being opened up for exploration by the opening of the Shoshone Indian Reservation, and shows similar formations.

The Canon of the Big Horn River divides these mountains and a number of promising mineral finds are reported recently from this canon and vicinity.

The portion east of the Canon is about thirty miles long and from six to ten miles wide; the altitudes vary from 5000 feet above sea level at Deranch at the east end of the mountains to a maximum of 11000 feet at the mountain peaks, but the general altitude is about 8000 feet.

GENERAL GEOLOGY.

The general formation of Copper Mountain is granite, several varieties of which are noted, but the predominating granite is a red felsitic variety and this forms the main backbone or core of this uplift, with later and succeeding sedimentary formations lying on the granites.

These sedimentary formations formerly overlaid the entire range but were broken and fractured by the uplifts and eroded away by water and other causes as time went on and now only small patches remain on the mountain proper, especially on the hill above the present Copper Glance shaft, but the whole series may be noted north and east of the mountain,

from the quartzites and shales lying immediately on the granite to the limestones and red beds of the later formations that all form a prominent portion of this locality.

The granites are cut by numerous dykes of ~~the~~ diorite and allied rocks, together with bands of schist and gneiss, all having a varying trend or direction and sizes in different portions of the mountain, but it is noted that these dykes and bands are usually associated with the mineral finds being made, as is the case at the Copper Glance Group.

THE COPPER GLANCE GROUP.

At this point the formation is granite and in the immediate vicinity are noted several dykes of diorite cutting the granite and in a number of places are heavily mineralized.

The Copper Glance Claim shows a heavily mineralized ledge running northeasterly and southwesterly, which may be traced by outcrops and open cuts through this and the Malinda Claim.

The entire exact width of this ledge has not yet been determined, as the disintegrated granite surface wash covers these hills and requires a series of open cuts etc. to uncover the solid formations, but one of these cuts has shown a mineralized ledge matter for a width of about thirty feet and on the ore in this ledge a shaft has been sunk.

SHAFT AND ORES.

This shaft has reached a depth of 52 feet and followed the dip of the lead, which is slight, being only a few degrees from the vertical and to the south.

In this shaft and in the shallow holes and cuts nearby, the main contents of the lead has been shown to be quartz carrying copper and iron minerals, all more or less oxidized, in these surface workings.

The ledge lies in granite, with above trend and dip, and, as far as has yet been shown by the workings, the south wall or hanging ^{wall} is of granite and the north or foot wall is of diorite showing a more or less schistose structure with some mica schist lying as a casing next to the ore.

The principal mineral yet shown is copper glance ~~or~~ ^{or} chalcocite, showing as bodies and stringers throughout the quartz vein matter and occurring with it are noted the various forms of copper ores common in this locality.

Malachite, the green carbonate and Azurite, the blue carbonate of copper are noted, as well as cuprite, the red oxide, and silicate of copper or chrysocolla--and a little chalcopyrite or sulphide of copper and iron.

All the quartz and vein matter is stained more or less with iron oxides, making the ore the usual "rusty iron" appearance when seen in quantity.

Examinations of the quartz in the various workings showed free gold in varying quantity, and the other ledge matter also showed some free gold as well as a small amount of native or metallic copper at intervals in the ores examined.

The mineralization also extends into the rocks shown as walls to the ledge and some of the free gold and copper was noted in this wall rock, making an ore condition that will require some time and considerable more work to fully prove and develop.

ORE VALUES.

In an ore shoot of this sort, ordinary assay samples are useless and for this reason no samples were taken for assay at this time.

Mr. P. Williams of the Company has made trial shipments of the ore from the cuts and shaft and shows the return sheets of this shipment as follows:-

Date August 4th 1906.

Lot No. 1--A selected lot of ore-

Weight 31209 pounds of ore

Net gold return \$65.54

" silver " 61.21

" copper " 874.67

Total value in Lot#1-- \$1001.42

Freight to smelter 104.50

Net returns in Lot No. 1, \$ 896.92

Lot No. 2, Random lot of ore, not selected.

Weight 8094 lbs.

Net gold returns \$ 3.64

" silver " -----

" copper " 127.89

Total values in Lot No. 2 \$ 131.53

Freight to smelter 10.12

Net returns on Lot No. 2 \$ 121.41

No charge was made for treatment in either case by the smelters--and this is evidently an ore easily smelted.

DEVELOPMENT.

It is recommended that all development for the present be confined to the present shaft and it be sunk following the dip of the ore and with all possible speed.

Before this is taken up, it would be well to run a short cross-cut in either wall from the bottom of the shaft and determine the best

ore and place for the shaft in the ledge.

The surface showings indicate that the present shaft is located at about the center of a large show~~ing~~ of ore and this is considered the best and most feasible and economical method of exploring these showings at sufficient depth to prove their permanent value and extent.

The present shaft should be substantially timbered and a proper hoisting plant, with air compressor for power drills, pumps etc. installed at once to push the work with all possible speed and economy; all this to be properly housed in a suitable shaft house conveniently arranged.

The situation of the shaft is about one half mile from the gulch where the townsite of Depass is located and good road etc. may be made up the gulch for ~~all~~ hauling purposes and the facilities for dumping and drainage away from the shaft are ample for all purposes.

By aneroid barometer the altitude at the shaft was taken at 7250 feet above sea level and at the townsite 6900 feet.

Later, when the ores etc. are fully proven, a tunnel site for drainage and other purposes may be profitably considered but at the present time all work should be confined to this main shaft and the drifts run on the ore at convenient intervals to show up the ore and prove it.

It is also recommended that the property be at once surveyed and platted, and that steps be taken to patent these holdings as soon as possible.

TIMBER AND WATER.

There is no timber on the group and it may be had by the car load at Moneta Station, as above described, at the usual prices for car-load lots in this locality. Wagon roads to the station are good.

Water is obtained from the numerous springs in the gulch west of the claims and known locally as the East Fork of Dry Creek. This water is taken up in the usual manner under laws of the State of Wyoming by permit from the State Engineer at Cheyenne, Wyo.

There is sufficient water in these springs for all purposes and may be considerably increased by developing the flow and providing proper cisterns etc. at convenient points.

TOWNSITE.

A proper and convenient place to live is one of the problems of mining and here the site is furnished in the gulch above noted on the East Fork of Dry Creek where there is ample room for all necessary buildings etc. with proper drainage facilities for all the necessary population of a mining town.

The climate of this range is not at all severe on account of the low altitude (for mining region) and the convenience of railroad, mail routes etc. makes it an unusually desirable point for a mountain mining town.

--//--

It is considered that the Copper Glance Group is a first class development proposition, that the conditions of formation, vein and ores are all favorable for opening up a large amount of ore of commercial grade and that the showings fully justify the expenditure of the amount necessary to patent, equip and develop this property in a business like manner with every prospect of a commercial success.

Respectfully Submitted,

Henry C. Decker
Stat. Geologist.

Date of Examination,
August 19, 1906.

THIS IS A COPY
NOT TO BE KEPT
FROM OFFICE.



— DePass townsite —