

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

1906
MR ~~1111~~-72
GEOLOGICAL SURVEY OF WYOMING

A B R I E F R E P O R T

O N

T H E C O P P E R F L O A T G R O U P,
H E R M O S A, A L B A N Y C O U N T Y, W Y O M I N G .

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SITUATION.

This group is situated about one and one half miles south of Hermosa Station, on the Union Pacific Railroad, in southeastern Albany County, Wyoming, on Section 28, Township 13 North, Range 72 West.

EXTENT AND TITLE.

The property consists of three claims, namely the Copper Float Nos. 1 and 2 and the Warrior Claim, each 600' X 1500', comprising 61 acres of land, ~~XXX~~ claimed by location and discovery under the laws of the United States and the State of Wyoming, by Walter E. Clark et al of Denver, Colorado.

GEOLOGY.

The range of low mountains that extend northward from the Wyoming-Colorado line along the county line of Albany and Laramie Counties, is known as the "Laramie Hills" and near the southern end of the range the Copper Float group is situated.

These mountains are composed principally of a reddish feldspathic granite and this granite is especially prominent in the Hermosa or "Tie Siding" vicinity, as it was formerly known.

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This granite is frequently broken and cut by dykes and bands of diorite and other rocks and this dyke condition is usually found to be the cause of the fissuring and fracturing of the formation, making possible the ores found there.

A great deal of this action has been noted in the Tie Siding vicinity and the ores found are immediately in this fractured locality, but the conditions of their occurrence are different from the other camps of the range.

THE COPPER FLOAT GROUP.

Here the granite is found forming a low ridge running easterly and westerly and showing few outcrops of any sort, the topography of the vicinity being smooth hills and wide valleys and covered with decomposed granite and soil to a depth of several feet.

On the northerly side of this low ridge ^{are} situated the workings and ore showings of this group.

The outcrops are covered by the wash and soil above noted and the ores were first noted by finding masses of pure native copper in the surface soil, which led to cuts and other prospecting work in this vicinity.

Hon. Leroy Grant, present State Auditor of Wyoming, was the original discoverer of this copper and made several shipments of the copper boulders and fragments gathered up from the surface of this group in the vicinity of the present shaft, at that time known as the "Copper King" claim; since this work other small shipments have been made and numerous samples obtained from this and other workings.

These workings extend along the northerly side of the above ridge for a distance of several miles but are principally on the south

half of Section 29, as above, and consist of shallow shafts, open cuts, short tunnels and other shallow openings.

All this work has shown up a contact between the main red granite of the ridge and a deposit of limestone lying thereon, with a body of conglomerate of fine quartz and other pebbles lying at or near the contact of the two above formations, and the whole contact material more or less impregnated with copper in various forms, but mostly as the native or metallic copper above noted and copper carbonates as stains.

The granite, at this point dips northerly about 45° and the conglomerate, limestone and subsequent formations lie conformably with it, having the same dip and strike or direction. It is evident that this dip will change and the formation straighten up with depth, but no present predictions may now be made as to this dip or point of change.

No commercial workings have yet been attempted on these showings and the property is a prospect with good showings of copper and indications for extensive bodies of ore, but these yet remain to be proven and developed.

It is recommended that this development be done at a point near the old Grant shaft below the present 35' shaft and that the shaft be sunk as a straight two compartment prospect shaft to the vein or contact and then the shaft direction be changed to follow the dip of the ore, either on the granite or in the ore as may be proven to be most feasible at the time of development.

It is estimated this ore contact would lie at a depth of at least 150 feet at the point indicated and any machinery installed should be capable of sinking to a depth of at least 500 feet, following the ore as above.

The present ores show the oxidized ores at the surface, but it is evident from conditions noted that this ore will pass out with depth, and the copper sulphides, viz., Chalcopyrite and Bornite, will be found to be permanent ores of the property and of a concentrating grade.

There is no timber on the property, but its nearness to the railroad and excellent roads and other transportation facilities render this item unimportant, as all supplies may be laid down at a low cost and work carried on at all times.

Water is obtainable from the creek of the valley below and is sufficient for all machinery and other purposes.

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This property is considered to fully warrant the expenditure necessary to open it up and gives every indication of becoming a producing commercial mine with proper development.

Respectfully Submitted,

Henry C. Beecher

State Geologist.

Date of Examination,
June 1, 1906.

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