

Cheyenne, Wyo. May 9, 1905.

The Spring Hill Mining Co.,
Douglas, Wyo.

GEOLOGICAL SURVEY OF WYOMING

Gentlemen:-

The following is a brief report upon the group of claims known as the Tenderfoot Group and owned by your Company, but owing to the amount of water in the shaft at the time of the examination, this report deals only with the surface conditions. Later when the water is out and the shaft accessible, I hope to visit the property and investigate the conditions in the shaft bottom.

EXTENT AND LOCATION.

This group consists of six claims, namely-

The Smuggler,

Republic,

Oregon,

Black Hill,

La Plata and

Idaho.

These are held by location and discovery under the laws of the United States and the State of Wyoming and lie in the north eastern corner of Sections 3 and 10 of T. 28 N., R. 71 W. as shown on the map furnished you by Mr. Frank Knittle, County Surveyor of Converse County, and comprises about one hundred twenty acres of land.

The claims are situated in Albany County, about thirty miles south from Douglas on the F. E. & M. V. R. R. and about twenty miles from Glendo on the C. & S. R. R., both roads being reached by wagon roads that are usually in good condition.

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2.

FORMATION.

The general formation of the Laramie Hills may be briefly described as a huge core of granite, with bands of schist at intervals and with the succeeding sedimentary formations lying on either side and extending out to the plains beyond the hills.

In the vicinity of the Tenderfoot Group the formation is a granite on the east, with an occurrence of schists on the west, and with one or more ledges of diorites in these formations.

These formations are fairly regular and have a general northerly and southerly trend with a dip that varies at different places at the property, but usually to the east at a slight angle.

LEDGES.

Lying in and usually running with the formation in general direction, is a huge ledge of mineralized schist, that extends through the country north of Laramie Peak for several miles, and which shows at several points on its length, a heavy body of iron minerals.

At the surface, this iron is usually the soft yellow oxides or limonite with some of the hard red hematite forms showing considerable silica and very hard where exposed to the weather.

This ledge has been opened up at several places and the mineralization found to continue throughout its length.

Several smaller ledges are noted in this vicinity, also, which are thought to be spurs from the main lead and to come into it at depth, and parallel with it has been noted a smaller but similar lead east of this main lead.

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WORKINGS.

The principal work done on the claims has been done on the Smuggler Claim at a point near the south end of the claim, where a shaft has been sunk to a depth of sixty-five feet, following the dip of the ledge.

At this point the formation shows a strong ledge of the character already described, with a wall of diorite on the east side and with schist on the west. Here the mineralization shows at all accessible points on the surface and at the outcrop on which the above shaft has been sunk, is especially strong.

ORE.

The oxides of iron above noted show on the surface for several feet in width, with some copper stains here and in the material taken from the shaft and associated with quartz all through the ledge.

The shaft has been sunk in this material on a vein in the ledge that varied from a foot to three feet in width, as was noted at a previous visit to the shaft.

This shaft encountered the usual conditions of passing through the hard material at the surface into the softer oxidized material below and then the sulphide forms of iron or pyrites were noted as replacing the oxide forms of iron as noted above, at the depth now reached.

This sulphide ore consisted of the coarser and more granular forms of the pyrites, together with some crystalline pyrites, both occurring in bunches and streaks, mixed with the oxidized ores already noted.

With these iron sulphide ores, occasional bunches of yellow pyrites of copper or chalcopyrite or copper sulphides have been found but are not continuous at this depth.

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This condition may be expected to continue until the level of permanent water is reached when the sulphide forms of the minerals entirely replace the oxidized forms and the true character of the ore of the property is determined.

VALUES.

No attempt was made at this time, under the conditions above noted, to sample or otherwise determine the values of the ore, but during the progress of the present work, values of gold and silver have been obtained and may be expected to continue and improve with depth.

It is here noted that the conditions found to obtain in this property are similar to those encountered in the successful properties of this class in the other parts of Wyoming and the Rocky Mountain region and form a strong argument for the further development of this property.

DEVELOPMENT.

To develop this prospect, it is recommended that the present shaft be continued to a considerable depth by sinking on the ore and that cross-cuts be run to either wall at water level or when it may seem advisable to do so, to determine the width of the ledge and the conditions on the walls.

This may be done by contract or by the Company, putting in a horse-whim which would be sufficient for a depth of 150 feet or more, if conditions continued favorable. This depth may readily be reached before cold weather sets in, and, unless considerable water is encountered which will require a boiler and pump, the question of a steam plant and hoist may safely be deferred until the ore conditions and values are more fully known and understood.

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The water now in the shaft is the usual surface spring water that is noted at all properties in this region at this season.

GENERAL.

The general conditions for working this property are favorable, as the claims are well timbered and a saw-mill is located two miles from the shaft where all lumber may be obtained at reasonable rates.

Water for all purposes may be had in the vicinity and supplies obtained at Douglas at the the usual prices.

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I consider this prospect one of the best in this region and that the showings here made fully justify the further development proposed, with every prospect of a profitable outcome.

Very Truly Yours,



State Geologist.

Date of Examination.

May 5th, 1903.