

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

November 14th, 1908.

Mr William G. Casey.
President.
The Batavia Arapahoe M. & M. Co.
103 Main Street.
Batavia, New York.

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FROM OFFICE.

Dear Sir:-

Complying with your request, I hand you herewith a brief report on the property of the above Company.

SITUATION.

The group of claims held by the Batavia Arapahoe Mining and Milling Company, a corporation, is situated in Sections 20, 30, 31 and 32, in Township 20 North, Range 23 West, on the south slope of Copper Mountain, in Fremont County, Wyoming, at a point about twenty-one miles by wagon road north-east from Shoshoni, on the Wyoming and North-Western Railroad.

EXTENT.

The property consists of Twenty-five full lode claims, each 1500 feet by 600 feet, comprising about 600 acres of land, held by location and discovery under the laws of the United States and the State of Wyoming.

COPPER MOUNTAIN.

Copper Mountain is the name under which the portion of the Owl Creek Range of the Rocky Mountains in Wyoming lying east of the Big Horn River, is locally known and during the past three years has shown some very promising mining properties.

The general geology of this mountain may be said to consist of a

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core of granite, surrounded by the limestone and succeeding sedimentary formations of this region, and the granite cut by dykes of diorite and bands of schist and gneiss. The ores noted here have been found in connection with these dykes and bands, as shown by the Williams-Luman, Hale, and the Boysen properties, at various points along the mountain, each having a distinctive characteristic in the ores.

The limestone on the north and east sides of the mountain is the unaltered Carboniferous limestone formation which dips under the later formations at a varying angle; the lime formations on the south side of the mountain is an altered limestone, much broken and fissured and presenting a different appearance from the unaltered limes and quartzites on the north and east slopes.

The Batavia Arapahoe Group is located on this altered limestone.

The general trend or direction of the longer axis of the granite on Copper Mountain is easterly and westerly, the trend of the known ledges being about the same, with local variations noted at various points along their outcrops.

The ~~unaltered~~ limestones, with included sandstones, quartzites, etc. extend along the south side of the mountain and have the same general trend or direction but also vary locally along the range, caused by a number of small local uplifts.

THE BATAVIA ARAPAHOE GROUP.

This group is located on the altered limestone at a point where it shows in a prominent outcrop or bluff and cut by a small creek

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which forms a small gulch or canon and exposes the succeeding formation layers for a considerable distance.

This outcrop or "chalk bluff" lies at the southeast end of the group and the lime here has a trend about northwest and southeast, the major portion of the outcrop being on the Batavia Arapahoe Nos. 1 & 2 and Arapahoe Nos. 1 & 2 and extending a short distance on the adjoining claims Batavia Arapahoe Nos. 3, 4 and 5 before being covered by wash.

This wash or glacial drift, consisting of boulders and pebbles of granite, diorite, quartz, limestone and various rocks from the main portion of Copper Mountain above, ~~xxx~~ is evidently many feet in depth, according to the showings made in holes sunk on these claims, and the rest of this group is covered with this wash.

WORKINGS.

At a point on the west side of the gulch which cuts through the main lime out-crop, the workings are situated on Batavia Arapahoe No. 4 Claim and consist of a cut and tunnel 76 feet long, with an inclined shaft at the west end of the tunnel 72 feet deep, making a total of 148 feet of work done at this point.

The formations exposed by this work are a series of lime and sandstone layers, somewhat stained with iron in spots, and the whole much crushed and fissured throughout the works.

One of these layers has been followed in the tunnel and the

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inclined shaft but no ore bearing vein has been exposed.

At the tunnel mouth an iron stained outcrop is noted and this may be the "ledge" of the property but the writer considers this to be a part of the including lime formation and this same condition may be noted at various points along the range west of this property and is not considered as indicating copper ores.

No sign of copper ores was noted in this workings or on this group and there is no reason to expect to open up such ores by the workings now in progress.

During this examination, I personally visited the Williams-Luman and Hale Mines on Copper Mountain and noted again their outcrops, ore-conditions and situation, and find their conditions to be entirely different from those of the Batavia Arapahoe Group and there is no warrant for comparing these properties.

In this connection it may be mentioned that the Williams-Luman is between nine and ten miles from the Batavia-Arapahoe, instead of five miles as claimed, and the Hale between four and five miles, instead of two miles, as stated in your prospectus.

Further. The Batavia-Arapahoe is not situated in "the heart of the district" as claimed but at a point near the foot of the mountain and away from the ore bearing formations, as indicated by the mines referred to, and which form the basis of ore theories of this section at this time

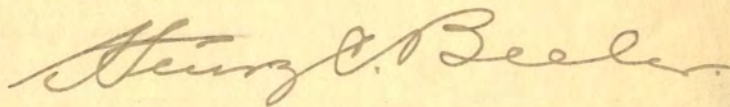
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Regarding the claim that the Williams-Luman ledge and the Slim Fault ledges crosses the Batavia Arapahoe Ground, will say this is purely theoretical and not based on actual facts shown. It is within the bounds of a remote possibility that these ledges encounter the formation shown on this group at some point but it is certain that this point is not the point where the work has been done on this group, and the statement is misleading.

As to gold values in the layers shown in the tunnel and shaft, would suggest that a series of careful samples be taken ~~from~~^{at} intervals from the sides and face of these works, each sample not less than 100 lbs and carefully quartered and samples assayed, so that the actual commercial values of these showings may be determined.

In my opinion, the showings on this ground do not warrant its being held as mineral claims or mining property and aside from the sampling above noted, do not recommend further work on this property.

Respectfully Submitted,



State Geologist.

Date of Examination.
November 1-3, 1908.

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