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Office of State Geologist,  
Cheyenne.

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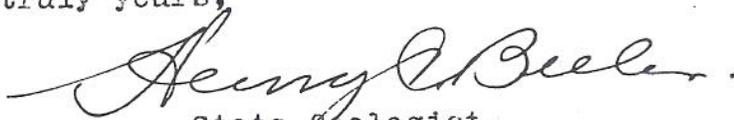
Mr. O. E. Tisch,

Wheatland, Wyo.

Dear Sir:-

Complying with your request of the 5th inst., I hand you herewith report on the Independence Group of Claims on Slate Creek, Laramie County, this state, and trust it will aid you in developing the group, which I believe fully warrants the work necessary to open it up.

Very truly yours,

  
State Geologist.

A REPORT  
ON  
THE INDEPENDENCE GROUP,  
AT  
SLATE CREEK, NEAR WHEATLAND,  
LARAMIE COUNTY, WYOMING.

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LOCATION AND EXTENT.

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This Group is located on Slate Creek, a small tributary of the Laramie River, twenty-two miles west of Wheatland on the Colorado & Southern Railroad, in Laramie County, Wyoming, on the east slopes of the Laramie Hills.

The group consists of two full claims, each 600 X 1500 feet, comprising about 40 acres of land, and lying side by side with the strike of the formation, and owned by O. E. Tisch et al of Wheatland, Wyoming.

FORMATION.

The formation at Slate Creek consists of a broad band of schists about a mile wide, being flanked on the northern and southern sides by the characteristic reddish granites of the Laramie Hills.

The trend or direction of the schist land is northeast and southwest; the dip is to the northwest and varies from 30° to 40°.

These schists vary in composition, but are usually a black fine grained biotite, or black mica-schist. Other varieties noted are Garnet-mic schist, muscovite or white mica-schist and hornblende schist. All the above varieties occur in bands, having the same direction and dip; All show considerable surface hardening and alteration by silica, the majority being quite silicious and have small bunches and veins of quartz throughout the mass, together with considerable iron oxides as a surface stain.

Lying in these schists and conformable with them in trend and strike are a number of ledges of heavily mineralized mineral, all showing more or less quartz throughout the ledge. The mineralization is usually iron pyrites in its various forms, showing the usual oxidized surface forms, but in no case does the oxidation extend beyond a few feet in depth and in many places the sulphide forms of iron are noted at the surface, the oxidation being only a thin layer or covering to the outcrops.

Numerous copper stains are noted in the outcrop as green and blue carbonates and some copper sulphides or "peacock copper" is found in several instances.

The general mineralization is usually iron pyrites, as stated, but in the main ledges a bronze pyrrhotite is the usual mineral, with small specks and streaks of the white iron ~~and~~<sup>and</sup> bunches of quartz and the including ledge matter tightly imbedded in the pyrrhotite.

The surface of these ledges are extremely hard and difficult to work as the mineral seems to thoroughly impregnate the ledge mass and the drilling is accomplished through the iron sulphide material itself, making the surface ground very hard to work.

### INDEPENDENCE CLAIM.

Practically all the development has been done in the short tunnel on this claim, on what appears to be the main ledge of the group.

This tunnel has been run in on the ledge for a distance of about forty feet, all in the material above described, the pyrrhotite showing almost a solid surface in the face with the usual quartz inclusions.

The pyrrhotite presents a characteristic bronze color, tarnishes quickly on exposure to the air and is sometimes stained with copper.

Analyses of this material has shown some copper and nickel, as shown in certificates of analysis held by the owners, besides values in gold and silver.

No samples were taken in the face at this time, as only chip samples could be so obtained and these are considered irrevelent and the only practicable method to be by shooting down from 500 to 1000 lbs. of fresh ore and shipping this to a thoroughly competent chemist for sampling and analysis.

In several parts of the Laramie Range similar ores are noted and nickel is authentically reported from these localities and there is every reason to believe that nickel exists in quantities in these pyrrhotit ores.

### WORKINGS AND DEVELOPMENT.

The present tunnel is in a small hill between two gulches and to run it further would not develop any great amount of ore, as the hill is narrow and the tunnel would soon penetrate it. It is recommended

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that a shaft be sunk on the ore and follow the dip of the ledge, at a point convenient for working. It is considered that the present hard material is a capping on the ore bodies and with depth will give place to a softer condition and the ores develop into a quartz carrying chalcopyrite and pyrrhotite.

This has been the result of work at the National Copper Company's work north of Laramie Peak, on a body of mineral very similar to the above and it is reasonable to conclude a similar result will be here obtained with depth.

This shaft would not be much more expensive than the tunnel, as the nature of the material in the face of the tunnel, shows little or no change, and the only ore developed would be that shown above the tunnel, a length of about 800 feet and 160 feet above at the highest point, whereas a shaft would be opening up new ore all the time and developing the property.

No deep workings have been put down in the Slate Creek country and no figures as to values with depth or amount of water in these formations can now be given, but from a close investigation of the properties, showings and conditions of this locality it is considered that the showings fully warrant the proper opening up and development of this property, with every prospect that the venture will be a profitable one.

Gold values in other works in this vicinity have increased with depth, and the work now going on, indicates a still greater value as further depth is reached.

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General conditions at Wheatland and vicinity are favorable for economical mining, and lumber etc. may be had at reasonable prices, though the claims are not timbered and are unimproved, the only buildings being a small blacksmith shop at the main tunnel.

Several other ledges, mostly quartz carrying iron and copper stains in the schist are noted on both sides of the pyrrhotite ledge above noted, but these have not been developed on this property and at the present time are held to be unimportant, but later it would be advisable to cross cut to them at a convenient depth from the proposed shaft.

Slate Creek furnishes the water supply for this camp, together with springs at many points in the hills and water for steam and domestic purposes may be had from this source, but for works or other extensive uses, the Laramie River is the nearest available supply.

Respectfully Submitted,

*Henry C. Beeler*  
State Geologist.

Date of Examination,  
January 7, 1904.