## REPORT ON

Owned by THE BADGER STATE MINING AND MILLING COMPANY.

Principal office, Saratoga, Carbon County, Wyoming.

Officers:

President, Gus Jensen, Saratoga, Wyoming,

Vice President, John H. Davis,

Secretary, A.H. McDougal, "

Treasurer, C.E.Jonson,

Location, in the S.W. 1/4 of Section 11, T.15 N, R.87 W.

in the Sandstone Mining District, Carbon County, Wyoming.

Name and address of Superintendent, John H. Davis, Saratoga, Wyo.

Number of lode Claims, -8- containing 144 acres.

Names of lode Claims, Gold Coin, Gold Coin Nos, 2, 3, 445, Blue Jay, Donation and

Annex.

Mill Sites.

Total number of acres in group,

144 acres.

Title, By location and Discovery under the Mining laws of the United States and the State of Wyoming.

Lien or encumbrance,

Title guaranteed by

Nearest railroad station, Walcott on the U.P.R.R. . Distance, 49 miles,

in a north - easterly direction.

Reached by wagon road from property to Saratoga via Jack Creek and thence by stage and freight road to station.

Altitude at railroad station, 7000 feet above sea level.

Altitude at main workings, 3700

Character of country rock is a fine grained green mica-schist, often much altered and out by dikes of diorite and quartzite.

Character of walls, Metamorphosed schist and diorite.

The claims are situated on the western slope of the Continental divide near the head of Savery Creek and are well located for economical work.

The principal showing as on the Gold Coin claim in the two shafts thereon. At this point the formation consists of bands of the green schists comprising the country rock and the metamorphic schist, diorite of trap rock also noted, all of which has a general easterly and westerly trend or strike with a slight dip to the south; this is noted as being located disturbed at various points but so far the ore values have not been affected.

The workings consist of the two shafts above noted, the first of which is 47 feet deep and at a depth of 35 feet has drifts run on either side along the vein; the westerly drift is 18 feet long and the easterly drift 38 feet long or within a few feet of the new shaft. In these workings the principal ore showingshave been found.

and having the same general strike and dip as the adjacent formation.

The white quartz varies from three inches to about two feet at the widest point, all more or less impregnated with mineral, the principal of which is galena or lead sulphide; the galena shows in bunches and streaks of a size varying from a tiny speck to a lump of several points in weight, and in the upper portions of the vein often shows altered to a lead carbonate.

Associated with the lead minerals are also noted iron oxides at or near the surface and iron pyrites in the lower protions, under conditions similar to the galena. Copper in the form of carbonates is noted as stains and streaks in the quartz and as depth is attained the copper appears to increase in amount and small amounts of copper sulphides are encountered at intervals.

In these old workings the vein is continuous throughout and on the north side of the quarts is noted a fine-grained white silicious lime material that also shows small amounts of iron pyrites in fine gamins and is said to carry gold values at intervals.

The adjacent wall rock shows stringers of quartz and other materials and the whole vein shows strong water action at this point.

The new shaft has been sunk a shorth distance east of the old workings; it has been sunk perpendicularly to a depth of 92 feet and the vein found to have a slight dip to the south, with the formation.

This vein shows at the bottom of the shaft on the south side and presents practically the same conditions as in the old workings, except more copper is noted in the sulphide form.

The formation is also practically the same, except that the silicious lime material above noted, shows on both sides of the quartz and the adjacent material is becoming more soft and broken in appearance as depth is reached. On the north side of the shaft, a small fissure filled with a loose gouge matter is noted and in this has been found bunches of quartz with capper sulphides included.

It is considered that the mineral conditions noted in these workings fully warrants further work at this point and it is recomended that sinking be continued in the present main shaft and at convenient intervals that drifts be run across the formation to determine the extent and value of the mineralization and ore materials.

manned and is in excellent working condition. It is suggested that the east drift in the old shaft (which is also in good condition and well imbered) be extended to cut into the new shaft and a center partition put in the latter to assist in better ventilation as the work goes deeper and to provide an additional exit in case of accident.

Hoisting is done with a Davis Horse Whim and by a few repairs, this can be used to a depth of at least 150 feet or until the water now easily handled by a bucket requires a pump; in this case it would be well to consider putting in a hoist and boiler at the same time but at present the whim handles the material.

At the present time water for all purposes is obtained from a well near the cabins but in case of a steam plant being put in, other arrangments would be necessary, either to use the shaft water (if suitable) or run water in from the creeks above.

The claims are well timbered with pine timber of good size and suitable for all purposes of the work. The surface improvements consist of shaft-house, 25' X 50' with two wings each 12' square; bunk 18' X20'; boarding house, 16' X 40', with stable and other necessary buildings.

It is considered that this property presents a good opportunity for development and the conditions noted warrant a further continuance of the work as suggested.

Respectfully Submitted,

State Geologist of Wyoming.

Henry & Beeler.

Date of Examination. September 13th, 1902.