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PRELIMINARY REPORT

on the

COPPER MOUNTAIN PROPERTY

by

J. K. Turner, E. M.

Rawhide
Road??

The Copper Mountain Property has an area of about 100 acres. The title is perfect being held by the U. S. Government Patent. There are no disputes or conflicts with the adjoining properties on the County records. It is located in the Regent Mining district, Mineral County, Nevada - 14 miles from Nolan, a station on the Southern Pacific R. R. A good down grade road connects the mine with the railroad. The property is particularly well situated as to natural and economical conditions. Good mine labor is available and the general facilities for cheap mining and milling are good. The elevation is about 5000 feet.

The names of the 5 claims are Copper Mountain, Copper Mountain No. 1, Copper Mountain No. 4, Copper Mountain No. 5, and Snow Storm.

Almost all of the various copper ores are found on the property. The richer deposits occur in irregular masses, along the contact between the granite - porphyry and limestone. The larger bodies of lower grade, partly oxidized and pyrite ore, are found in the limestone adjacent to the contact. The extensive

contact metamorphism, the association of ore and other contact minerals, and the close resemblance of the structural conditions to those prevailing at the Copper Queen Mine and the mines at Morenci, Arizona, seem to prove that the ore deposits have a similar genesis. The contacts between the granite - porphyry and limestone are irregular and jagged, vertically and horizontally. Frequently it is hard to recognize the contact under ground, both rocks being highly silicified. Ore stringers varying from mere thin coatings to several inches very often lead to valuable ore bodies.

The development work on the property totals an approximate amount of 5000 feet. A portion of this work was done by leasers, but the greater amount was performed on our company account. Four shafts have been sunk, three of which have connecting crosscuts and drifts. These shafts were located at certain points with a view of proving the extent of the ore zone. All our company work was planned for deep development and not for immediate production of ore.

The shaft on lease No. 1 is 100 feet or more deep. A winze sunk from the bottom of shaft for 48 feet. Drifts from the bottom of this winze aggregate a total of 77 feet. Drifts on the 100 foot level of the shaft total 69 feet, and raises from the same level aggregate 65 feet. The winze and connecting drifts expose mill ore having a copper content of $2\frac{1}{2}$ to 5%. The drifts and raises on the 100 foot level expose low-grade material.

No. 1 Company shaft is 80 feet or more deep and the

crosscut from the bottom to cut the contact shows 3 feet of ore averaging 7% copper and five feet of 4% material.

No. 2 shaft is 200 feet deep. A crosscut at the 50 foot point to the contact exposes three feet of ore averaging 8% copper and four feet of 4% copper ore. The Copper Mountain Company mined some of this higher grade, sorting it, and shipping it to Smelter. Two crosscuts were driven from the bottom of this shaft easterly and westerly to intersect the contacts.

Shaft No. 3 is at least 315 feet deep. At the 260 foot point the north end of the shaft entered the vein, and continued in same until it dipped out of the south end of the shaft at the 295 foot point. The vein, as cut in shaft, has a dip of 65 degrees, which would show the vein to be 12 to 14 feet wide. Assays taken daily showed an average of 4.2% copper over entire width of vein. The contact between the lime, which constitutes the hanging wall, and the porphyry foot wall was found at the 300 foot point, and the contact of the latter with granite was cut on the 305 foot point. The ore as exposed in this shaft is in the form of chalcopyrite (copper Pyrites) being similar to the copper ore of Montana. The development in this No. 3 shaft shows the existence of profitable values in paying quantities on the same contact, a distance of 725 feet west from shaft No. 2. The development work connecting with Lease No. 1 shaft and the company No. 1 shaft proves the existence of ore, a portion of the distance between shafts No. 2 and No. 3.

The ores found in this mine at the limestone-monzonite or granite contact at surface are carbonates of copper or azurite, and chalcopyrite (Copper Pyrite) and chalcocite (Vitreous Copper) in depth. Very little gold or silver are present in the ores.

The shafts and other workings are in good condition.

Water can be had at Dead Horse Wells about 6 miles from property sufficient to supply a mill of 200 tons capacity. I believe water can be found about $3\frac{1}{2}$ miles west of property. No trouble to get plenty water need be anticipated.

The Copper Mountain Mine is credited with a production of more than \$125,000. Of this amount \$93,500 was produced by the Jumbo Extension Mining Company and its leasers.

The metallurgy of the ores has not been satisfactorily solved. The sulphide ores can be floated, but the carbonates and silicates of copper give some trouble. I have the Sill & Sill report on 127 metallurgical tests on this ore which is at your disposal at any time. I am convinced a satisfactory method can be found to treat the carbonate and silicate ores found on this property.

I advise all the shafts be connected at about the 350 foot level in shaft No. 3. This does not mean all the shafts have to be 350 feet deep as the mouths of the shafts are on different levels. This work will allow the development of at least 5 known veins, at a depth on their dip of from 400 to 500 feet.