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Item 4

JESSUP DISTRICT

LOCATION

The Jessup district is located in the southern Trinity Range in northwestern Churchill County. Access to the townsite of Jessup and the area of greatest mining activity is via U.S. Interstate Highway #80, 13 miles north of Bradys Hot Spring, then west 4 miles via the Jessup Wash. The main Jessup district is centered on several precious metal mines and prospects in Secs. 17,18 and 20, T24N,R28E. Also included in the Jessup district however are the Copper Queen and Hard-to-Find mines both in Sec. 34, T25N,R28E, the Gold Ore claims in Sec. 22, T24N,R27E, about 2 miles to the southwest of the main Jessup district, and a series of mines and prospects in the metavolcanics further to the west in Secs. 17 and 19, T24N,R27E. Both the Copper Queen and Hard-to-Find mines are sometimes included in the Copper Valley or Ragged Top districts which border Jessup to the north.

HISTORY

According to Paher (1970) the initial mining activity in the district began in 1908 and the first ore was shipped later that same year. The ore came from the Gold Claim group which was reported to be the districts biggest producer. The camp expanded quickly from 1908-1909 reaching a total of 300 people and numerous small companies. The mines proved to be spotty and shallow and the early burst of activity ended with discouraging results. By late 1909 much of the effort ceased except for occasional activity by lessors and prospectors. In recent years the central part of the district has been the site of several drilling operations but there has not been any noticeable follow-up.

According to Willden and Speed (1974) there is evidence to suggest that mining in the vicinity of the Copper Queen Mine may have started as early as the 1900's. Later development and exploration work was for tungsten mineralization in tactite zones associated with metasediments and granites. The same is true of the Hard-to-Find Mine where workings explore tactite zones in the metasediments. Production from these mines is unknown.

started by at least 1911

Workings at the Gold Ore claims to the southwest consist of several shafts and one adit in metavolcanic rocks. The workings on the west side of the camp include a two compartment shaft several hundred feet deep. The camp appears to date from the 1930's.

The mines and prospects along the western margin of the district are mostly quartz veins hosted in metavolcanics and metasediments and one open pit that may have been mined for turquoise.

GEOLOGIC SETTING

According to Willden and Speed (1974) the rocks in the Jessup district consist primarily of Tertiary volcanics and sedimentary rocks resting on older metavolcanics and metasediments which have been intruded by granodiorite and monzonite plutons. The central portion of the mining district at Jessup proper consists of metavolcanic rocks overlain by

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andesitic volcanic rocks that have been intruded by rhyolite plugs and dikes. Most of the activity in this part of the district has been directed at or along the margins of these rhyolite intrusives. At the Gold Ore claims the rocks are dominantly silicified and partly brecciated metavolcanics.

ORE DEPOSITS

In the central district, mine workings are along intrusive volcanics that follow a north-trending structure in meta-andesites (?). The highly altered and partly brecciated intrusive may be a rhyolite plug. The central portion of the plug is bleached white and in places is strongly silicified. In the area of the Mable "B" claims there are northwest-trending structures that expose a volcanic intrusive. The volcanic rock is partly brecciated, strongly silicified and iron stained. Open spaces in the breccia are filled by quartz which shows cockade structures. There is very little visable mineralization although this portion of the district was reported to have pockets of high-grade gold-silver ore.

The mine workings at the Gold Ore claims follow a NE-trending zone in metavolcanics that has been flooded by silica and partly brecciated. Mineralization includes pyrite, copper minerals and possible gold, silver mineralization.

Most of the mineralization in Sec. 17 is associated with minor shows of sulfides in quartz veins. The workings appear to date from the 1930's although there has been recent work done by dozers.

In Sec. 19 an area of old mine workings has been open pitted, probably for turquoise. Turquoise nodules occur in young sediments near their contact with older metasedimentary rocks and granite.

The original mine workings followed quartz veins in structures cutting the metasedimentary rocks. The veins contain minor amounts of oxide copper minerals and some sulfides.

GEOCHEMICAL RELATIONSHIPS

Samples from the mines, prospects, trenches, and exposed veins in Jessup proper were anomalous in arsenic, gold, and silver with only minor base-metal values. Gold values ranged in value from .15 to 68 ppm and silver ranged from 3 to 500 ppm.

Samples from the Copper Queen and Hard-to-Find mines had anomalous copper, minor tungsten and low silver. A sample from a highly silicified shear zone at the Gold Ore claims ran 4.5 ppm gold, 100 ppm silver and was anomalous in arsenic. Samples from the unnamed mines and prospects in Secs. 17 and 19, T24N,R27E had minor gold values, several silver values at 100 ppm and some anomalous but scattered base-metal values.

SELECTED REFERENCES

Paher, S. W. (1970) Nevada Ghost Towns and Mining Camps: Howell-North, San Diego.

Willden, R., and Speed, R. C. (1974) Geology and Mineral Deposits of Churchill County, Nevada: NBMG Bull. 83.