REBEL CREEK DISTRICT

LOCATION

The Rebel Creek or New Goldfields mining district is located on the west slope of the northern Santa Rosa Range in northern Humboldt County. Mines and prospects are concentrated in the area between Rebel Creek on the south and Willow Creek on the north. The major property, the Ohio, is located in Section 32, T44N, R36E, on the ridge separating Willow and Eagle Creeks. Other small prospects to the south in Horse Canyon and on the east side of the range on Solid Silver Creek are also included within the Rebel Creek district.

HISTORY

Lindgren (1915) reports that the Ohio claim was being worked in 1884. Couch and Carpenter (1943) show production from the Rebel Creek district for 1875, 1880, 1883-1886, and 1893, but there is no mention of where in the district this production originated. Total amount for the years listed is $69,333 in gold and silver. Exploration work was being done in the district in 1907 and a small mill was built in 1908 (Lincoln, 1923). The last mention of activity describes prospecting on Rebel Creek in 1911 (Lindgren, 1915). The Ohio mine shows evidence of work in the 1930's and more recently the area around the mine has been drilled. There is, however, no record of this activity. At the time of our examination (September 1984) no work was underway in the district.

GEOLOGIC SETTING

Most of the Santa Rosa Range in the vicinity of Rebel Creek district is underlain by a very thick sequence of Upper Triassic (and in part Jurassic?) shales and sandstones that were tightly folded and metamorphosed to phyllites and quartzites prior to Late Cretaceous, or possibly early Tertiary time. These rocks were then intruded by a number of granitic stocks which produced broad thermal aureoles and, locally, small ore deposits (Compton, 1960). The sedimentary section has been repeated many times by isoclinal folding. The oldest rocks in the section are dark-gray to black phyllites and light-gray quartzites that crop out in the cores of anticlines. The granitic rocks which intruded the sequence in Late Cretaceous or early Tertiary time are dominantly granodiorite which locally grades into tonalite. Contact metamorphic aureoles that surround the stocks average between one half mile to one mile in width.

ORE DEPOSITS

All of the mines and prospects examined in the Rebel Creek district have been developed on sulfide-bearing, massive white quartz veins which follow cleavage planes and foliation in metamorphic rocks. The vein

quartz is commonly crushed and occurs as pods and lenticular masses along shear zones which follow wall rock foliation. In some prospects, brecciated vein material shows cementing by later clear quartz and pyrite. Veins commonly strike northeast but the vein at the Ohio has a northwest strike. Pyrite is the most common sulfide present and most veins have iron-stained outcrops due to oxidized pyrite. At the Ohio mine, native silver, malachite, chalcocite, and iron oxides were seen in oxidized vein material and tetrahedrite, galena, sphalerite, and pyrite were found in fresh vein fragments.

GEOCHEMICAL RELATIONSHIPS

All of the samples taken in this district contained detectable gold, and silver values ranged from about 1 ppm up to 700 ppm (about 20 oz). The Solid Silver property, on the east side of the range, reported low arsenic and antimony, moderate to high lead, copper, and zinc, and anomalous cadmium and tin. The mines on the west, however, in the center of the district, generally reported high arsenic, antimony, and lead, moderate copper, low zinc, and not cadmium or tin. The Solid Silver mine is located within the contact aureole of the main Santa Rosa stock while the mines in the Willow Creek area are beyond the mapped boundaries of metamorphic effects (see Compton, 1960, Pl. 1). The differences in ore geochemistry may reflect the location of the mines in relation to the granodiorite stock.

SELECTED REFERENCES

Carpenter, J.A. (1934) Report on the Ohio Mine in the Rebel Creek Mining district, Humboldt County, Nevada: unpub. report, NBMG files.

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