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## GOLDBANKS DISTRICT

## LOCATION

The Goldbanks mining district includes mines and prospects located in the Goldbanks Hills and vicinity, in Grass and Pleasant Valleys about 60 km south of Winnemucca. The district extends from Table Mountain on the west to the Grass Valley road on the east, and from the northern Goldbanks Hills south to Garden Canyon in the East Range.

## HISTORY

Gold was discovered in the eastern part of the district (Goldbanks Merger Mine) in 1907. Production from this mine and the Amonette and Frank claims at the northeast corner of the Goldbanks Hills has been small (Johnson, 1977, p. 56). Mercury deposits in the eastern Goldbanks Hills were discovered about 1912 (Bailey and Phoenix, 1944, p. 169). The major Goldbanks mercury deposit, the Goldbanks Mine, was most productive in the World War I period, but was also mined in World War II and again in the late 1960's, providing a recovery of more than 3,700 flasks (Bailey and others, 1984). One ton of antimony ore was shipped from the Antimony Ike Mine in the district in 1941.

Recent exploration activity, probably for precious metals, consists of rotary drilling in the last few years in an area of opalite 2.5 km north of the Goldbanks Mine and 1984 rotary drilling by Kennecott? near the Pronto Plata Mine.

## GEOLOGIC SETTING

The rocks exposed in the Goldbanks district consist of late Paleozoic Pumpnickel and Havallah Formation, Triassic Koipato Group and leucogranite, and Triassic Natchez Pass Formation. In the Goldbanks Hills and east flank of the East Range, these older units are overlain by Tertiary sedimentary rocks, and Tertiary rhyolite and Tertiary and Quaternary basalt. The late Paleozoic rocks consist of greenstone, chert, and argillite. The Natchez Pass Formation is mainly carbonate rocks (Johnson, 1977). The Koipato Formation consists of rhyolitic flows and pyroclastic rocks. The larger mercury deposits are in Tertiary sedimentary rocks, while the less productive ones occur in Paleozoic and Triassic sedimentary rocks. The gold mineralization occurs in rhyolite, which is interpreted as Koipato Formation by Johnson and as Tertiary rhyolite by Dryer (1940) and Muller and others (1951). Antimony mineralization at the Antimony Ike Mine occurs in Paleozoic sedimentary rocks.

## ORE DEPOSITS

The Goldbanks district is predominantly a mercury district. It has produced only very minor amounts of gold and antimony. The productive

mercury mines are of the opalite type, consisting of blanket-like silicified zones in Tertiary rhyolitic ash flows and breccia in the Tertiary sedimentary rocks. Cinnabar in the ore zones in opalite is very fine grained and disseminated. The cinnabar imparts a pink color to the rock, which changes to gray on exposure to sunlight. The Goldbanks Mine (S14,T30N,R38E) and the Pronto Plata Mine (S6,T30N,R38E) are of the opalite type. A number of mercury properties are located on the east flank of the East Range 9-15 km south of the Goldbanks Mine (between Peavine and Garden Canyon). According to Bailey and others (1984) these properties include the Jack Pot, Joe, and Wootan prospects. At these properties, cinnabar occurs in faults, fractures, and breccia zones, mainly in Triassic Natchez Pass Formation limestone, quartzite, and phyllite. These properties have not been very productive.

The gold properties in the Goldbanks district consist of the Goldbanks Merger Mine and the Amonette and Frank claims. These properties are located at the east and northeast margins of the Goldbanks Hills. At the Goldbanks Merger Mine, gold is reported to occur in quartz veins which trend nearly north-south and dip  $45^{\circ}$ - $50^{\circ}$  to the west (Vanderburg, 1936, p. 15). The vein matter observed on one dump is fine-grained, white to pinkish, chalcedonic silica. The wallrocks are rhyolite, commonly strongly silicified and pyritized. Small feldspar phenocrysts in the rhyolite are converted to kaolinite, and rocks are reportedly kaolinized along some shear zones (Dryer, 1940, p. 28). Vanderburg (1936, p. 15) reports that the quartz veins are up to 2 m wide; the gold and silver values are distributed very irregularly through the quartz (Dryer, 1940 p. 30). Mercury is reported in amounts up to 0.005% in the vein matter, suggesting a genetic connection with the blanket opalite mercury deposits in the district. Drilling to the north of the Goldbanks mercury mine was probably in search of gold, which might be found at depth below the blanket opalite mercury deposits.

The Antimony Ike Mine, described by Lawrence (1963, p. 184-186) consists of a narrow quartz, stibnite, tetrahedrite, pyrite vein which cuts gray argillite and chert of the Pumpernickel Formation near its contact with leucogranite. A sample of ore taken from the vein assayed 16.78% antimony, 0.22 oz per ton gold and 0.25 oz per ton silver.

#### SELECTED REFERENCES

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