

DESERT DISTRICT

LOCATION

The Desert district is in the northeastern Hot Springs Mountains in northwestern Churchill County about 30 miles north-northwest of the town of Fallon. The district can be reached by desert roads that lead to the west from U.S. Highway 95 at a point north of Parran, south from Interstate 80 at the Jessup exit, or east from Interstate 80 at the Brady Hot Springs exit. The mines of the district are located east of Desert Peak and south of Cinnabar Hill on the western edge of the Carson Sink.

HISTORY

The principal mine of the district, the Desert Queen, is said to have been discovered in 1849 by emigrants traveling the trail along the east side of the Hot Springs mountains (Vanderburg, 1940). The mine was reported to have been worked in the early 1860's, and a two-stamp mill was built on the flat to the east in 1863 (Vanderburg, 1940).

Production is recorded for the Desert district in 1883, 1884, and again in 1938 and 1939. The total recorded production, through 1940, is only \$25,123, all in gold. There has been claim staking in the district recently, but there is no evidence of current mining activity.

GEOLOGIC SETTING

The mines in the Desert district are developed in a body of diorite that is overlain by silicified rhyolite tuff. Both of these units are unconformably overlain by a sequence of basalt flows, tuffs, and interlayered sedimentary deposits. The structure of the range is dominated by a multitude of high-angle faults and much of the bedrock of the range is mantled by wind-blown sand (Willden and Speed, 1974).

ORE DEPOSITS

The mines in the Desert district are developed on narrow quartz veins that occupy shear zones in diorite. The veins are composed of white quartz, usually brecciated, that is stained on outcrop with iron oxides and green copper minerals. Clots of chalcopyrite and a dark sulfide (possibly tetrahedrite) can be found in unoxidized vein material. The veins occupy northwest-trending shear zones, dips vary from 45 degrees to the northeast to 55 degrees to the southwest. Individual veins range from a few inches up to four feet in thickness, the shear zones are up to 25 feet in thickness. Diorite in shear zones near the veins is commonly chloritized and kaolinized.

GEOCHEMICAL RELATIONSHIPS

Gold was detected in every ore sample collected from the Desert district and occurs in association with anomalous arsenic, antimony, and mercury. Four of the ores contained high amounts of boron indicating, perhaps, that tourmaline is present as an alteration mineral. Trace amounts of tungsten were also detected in four samples.

SELECTED REFERENCES

Vanderburg, W.O. (1940) Reconnaissance of Mining Districts in Churchill County, Nevada: USBM IC7093.

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