CLOVERDALE DISTRICT

LOCATION

The Cloverdale mining district includes the southern portions of the Toiyabe and Shoshone ranges and extends from Peavine Creek on the east to north of Cloverdale Ranch on the west. Mines and prospects in Secret Basin, the old camps of East Golden and West Golden, and the few scattered mines south of Mount Ardivey are included within the Cloverdale district. The district is largely within the Toiyabe National Forest, in portions of Townships 8 and 9 North, Ranges 39, 40, 41, and 42 East, northern Nye County. An area in the northern Royston Hills, southwest of Cloverdale Ranch, included by others in the Cloverdale district (Kral, 1951) is within the Republic mining district and is described in that section of this report.

HISTORY

Cloverdale Ranch and an associated stage station were established about 1872 and a post office was located there for a short period of time in the 1880's (Paher, 1970). Mining activity in the area dates from about 1902 when gold was discovered in East Golden (Kral, 1951). In 1906 placer gold was discovered in Cloverdale Creek below East Golden (Vanderburg, 1936). Most of the lode mining in the district has been centered around East and West Golden, and intermittent activity was reported from small mines there in 1907-1910, in the 1920's and in the 1940's. Fluorite was discovered in Secret Basin in 1940 but apparently nothing has been produced from the deposits (Papke, 1979). Prospecting for precious metals was renewed in the district in the 1960's, and an active exploration project was underway in East and West Golden when the district was examined in October, 1985.

GEOLOGIC SETTING

Outcrops of Permian Pablo Formation and Jurassic Dunlap Formation occur south of the mouth of Cottonwood Canyon on the flanks of Rainier Mountain. The remainder of the area is underlain by Tertiary volcanic rocks, mainly ash-flow tuffs. A west-northwest trending fault separating the pre-Tertiary rocks from the Tertiary rocks on Rainier Mountain is interpreted by Stewart and Carlson (1976), to be related to margin structures of the Peavine caldera. This postulated caldera is centered somewhat to the north of Peavine Creek and lies mostly outside of the district. Most of the ash-flow tuffs exposed in the Cloverdale district would be within the southwestern portion of the caldera; and the mineralized areas on the Rainier Mountain, Secret Basin, and East Golden, fall on or near the ring fracture zone of the caldera.

ORE DEPOSITS

Mines and prospects in the Cloverdale district are clustered in two general areas, Rainier Mountain south of Cottonwood Canyon, and East and West Golden. The fluorite prospects in Secret Basin lie about half way between the two main areas, and a few deposits are located west of Mount Ardivey in the north part of the district. All of the mineralized areas within the Cloverdale district are located along a general northwest trend which parallels the southwestern margin of the Peavine caldera (Snyder and Healey, 1983). The mining ares lie

outside of the defined caldera margin, but mineralization is postulated to occur along structures related to the ring fracture zone of the caldera.

There is no production recorded from the Cloverdale district. It is obvious, however, from the extent of dumps at the mines in East and West Golden that there has been some gold and silver produced from the district.

At the deposits on Rainier Mountain, copper mineralization occurs in epidotized argillite and siltstone of the Pablo Formation. The deposits occur in a major northwest-trending shear zone which separates volcanic rocks on the north from the pre-Tertiary rocks on the south. Malachite and azurite, along with abundant iron oxides, coat fractures and are disseminated in the shear zone.

The fluorite prospects in Secret Basin are within a northwest-trending shear zone in quartz latite. The fluorite occurs as veins and as matrix material in breccias along the shear zone. Prospects in the northwest portion of the basin occur near the margin of a small, obsidian-rich plug which cuts the volcanic section.

The precious metal mines and prospects at East and West Golden occur in quartz-cemented breccias which follow northwest-trending shear zones in welded ash-flow tuffs. The welded tuff wall rocks are kaolinized and silicified although alteration is generally confined to vein margins. Adularia is present coating some fracture surfaces. At the East Golden Mine, the vein system can be traced for about 2000 feet along strike.

GEOCHEMICAL RELATIONSHIPS

Samples taken from East Golden contained high silver values along with gold values that ranges 0.50 to 12 ppm. Other trace element contents, however, were very low. Moderate values for barium were found, arsenic and antimony were detected in two samples, but values were low. Individual samples from West Golden contained higher antimony and arsenic values in individual samples, but values were not consistent. Samples from the fluorite prospects were found to contain no metallic trace elements.

SELECTED REFERENCES

Kleinhampl, F. J. and Ziony, J. I. (1984) Minerals resources of northern Nye County, Nevada: NBMG Bull. 99B.

Kleinhampl, F. J., and Ziony, J. I. (1985) Geology of northern Nye County, Nevada: NBMG Bull. 99A.

Kral, V. E. (1951) Minerals resources of Nye County, Nevada: NBMG Bull. 50.

Lincoln, F. C. (1923) Mining districts and mineral resources of Nevada: Nevada Newsletter Publishing Co., Reno, NV.

Paher, S. W. (1970) Nevada Ghost Towns and Mining Camps: Berkeley, CA, Howell-North Books.

Papke, K. G. (1979) Fluorspar in Nevada: NBMG Bull. 93.

Snyder, D. B., and Healey, D. L. (1983) Interpretation of the Bouguer gravity map of Nevada, Tonopah sheet: NBMG Report 38.

Stewart, J. H., and Carlson J. E. (1976) Cenozoic rocks of Nevada: NBMG Map 52.

Vanderburg, W. O. (1936) Placer mining in Nevada: NBMG Bull. 27.