EAGLE VALLEY

LOCATION

Several small mining areas scattered along the Nevada-Utah border in the Mahagony Mountains, east of Ursine, Nevada are gathered under the general name Eagle Valley district. In Nevada, the areas include the Fay mining area south of Deerlodge Canyon, the Deerlodge area, north of Deerlodge Canyon, and the Stateline Canyon area several miles north of Deerlodge Canyon. Also included in the Eagle Valley district is the Horsethief Spring area in the southern Wilson Creek Range, east of Eagle Valley reservoir. This area has had no recorded production and has not been historically included in the Eagle Valley district. No other mining areas are close, however, and the prospects here most logically fit into the Eagle Valley district. Across the Utah state line to the east, the extensions of the Fay-Deerlodge area are included in the Gold Springs district and the Stateline Canyon area extends over into the Stateline district. A large portion of the Deerlodge-Fay-Gold Springs district is within Nevada while most of the Stateline district mineralization is in Utah. Access to the Nevada side of this district is not good, The Deerlodge-Fay area is best reached from the south via a road across Big Summit. The northern area is accessible from the Reed's Cabin Summit road.

HISTORY

According to Perry (1976), prospecting was done near Gold Springs, Utah as early as the 1870's, but discoveries in the Stateline and Deerlodge areas were not made until about 1896 (Tschanz and Pamyeyan, 1970). The largest mine on the Nevada side, the Horseshoe mine near Fay, reported its greatest production between the years 1900-1903. Some production is reported for years up to 1911, then nothing is reported until 1932 when a revival period began which lasted until WW II. Production during this second period was not great, however, and an attempt at post-war revival in 1949-51 produced only a few thousand dollars. Total Eagle Valley district production is recorded at $423,000 for the period between 1900 and 1951. Production statistics shown in Tschanz and Pampeyan (1970) show a silver-gold ration of about 3.5 to 1 for the period 1903-1932. For the years after 1932, however, the silver-gold ratio was over 35 to 1, a very substantial difference. Other than the mention that some veins in the district are gold-silver and others are silver-gold, the literature has no explanation for the dramatic difference in silver-gold content of recovered bullion during the two production periods. It is possible that some of the problem may be the differences in recovery techniques for the two periods.

Exploration activity was noted in most areas within the Eagle Valley district. Large blocks of new claims were in evidence, and most properties showed signs of recent sampling. Some trenching and drilling had been done, and a drill rig was operating near the Thor mine when we were in that area in September, 1983. No activity was seen in the Nevada portion of the district in June, 1984, but a small mining operation was underway east of the Confidence mine, in Utah. In the Horsethief Spring area, recent exploration for disseminated gold there has consisted of sampling and considerable rotary drilling.

GEOLOGIC SETTING

With the exception of the Horsethief Springs area, all of the Eagle Valley district is underlain by Tertiary volcanics. The Horsethief Spring prospects are withing an outcrop area of undifferentiated Upper Cambrian carbonate rocks. The Mount Wilson and Parsnip Peak volcanic centers lie to the northwest of Eagle Valley and the large Caliente caldron complex lies several miles to the south. Volcanic rocks in the Eagle Valley area may be related to either of these centers, or may be related to volcanic complexes centered to the east in Utah.

Detailed geologic investigations carried out in the Gold Springs part of the area, in Utah, divided the igneous rocks into a series of rhyolite flows, several andesite flows, intrussive rhyolite porphyries, as well as breccias and several types of dike rocks. These rocks, as well as some rhyolite tuffs, are also represented in the Nevada portion of the district.

ORE DEPOSITS

Deposits within the Deerlodge-Fay-Stateline portion of the Eagle Valley district consist of crustified fissure fillings that contain chalcedonic and comb quartz, adularia, lammelar carbonate and some fluorite along with pyrite, copper carbonates and free-milling gold. Cerargyrite is reported from the Tempa mine (White Horse, Silver Star) north of Deerlodge Canyon. Perry (1976) and Tschanz and Pampeyan (1970) both report the presence of gold telluride minerals in the district. Andesitic and rhyolitic wall rocks are highly silicified and laced with quartz veinlets along the margins of the mineralized fissures. The wall rocks are commonly brecciated some distance away from the veins and the veins themselves sometimes contain silicified wall rock fragments. Bands of dark, fine-grained sulfides (and possibly tellurides) were noted in specimens from several mines. Strike directions of the various mineralized fissures range from N80W, N50W, N-S, to N20-35E. The largest mine in the Nevada portion of the district, the Horseshoe, has a N-S strike. Another, the Snowflake, described by Perry (1976) as the largest vein system in the district, extends on a N15-20W trend from Gold Springs Wash in Utah to the northeast side of Buck Mountain in Nevada. Here, the Snowflake system is a silicified area of quartz stockworks veining about 100 feet wide with a main quartz vein about 10-15 wide in the center. North of Deerlodge Canyon, the Tempa or White Horse, Silver Star mine is located midway along an impressive N35E silicified zone that has a strike length of at least 7000 feet. The structural trend can be seen near the mine in the southeast corner of Section 13, T1N, R70E and it extends through the Tempa mine area and on to the prospects on the southwestern flank of Gold Bug mountain. To the north of the central part of the district, the Confidence mine is located on a strong N80W structure that is traceable for at least 3500 feet along the strike. The old Bergin mine, in Utah, in on the southeastern projection of this structure.

Mineralization in the Horsethief Springs area is very different from that to the east at Deerlodge-Fay. The host rocks are carbonates assigned by Tschanz and Pampeyan (1970) to the Uper Cambrian. Old prospects within this area explored areas of silicification and jasperiod which formed along shear structures in the carbonate rocks. Pods of heavy manganese oxide and iron oxide have been explored by shallow shafts, and lenses of white, crystalline

barite are exposed in two old prospect pits in the area. Recent prospecting activity in this area is no doubt for fine-grained gold.

GEOCHEMICAL RELATIONSHIPS

Sample results from select ore samples taken in the Eagle Valley district showed almost no variability. Silver was reported present in amounts ranging from 2 to 200 ppm, several samples showed detectable gold (one reported 20 ppm). Copper, lead and zinc values were all very low, and no samples reported detectable arsenic or antimony. Several samples, on the other hand, showed anomalous molybdenum and several reported anomalous beryllium.

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