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TAYLOR DISTRICT

The Taylor district is located on the western slope of the Schell Creek Range, north of Conners Canyon, about fifteen miles southeast of Ely. The district was discovered in 1873, and some 60,000 tons of ore averaging 20 ounces silver to the ton is said to have been produced during the following 20 years. Production was mainly from two mines, the Argus and the Monitor. The first ore produced was shipped to Sacramento, California, for treatment. Later ore was shipped to Eureka, Nevada. Beginning in 1881, ore was treated locally at stamp mills in the nearby Nevada district, mainly at the Argus Mill at Comins Lake. The district became idle in 1892, but some work was done during the 1930's.

Silver King Mines, the present operator, began work in the district in 1962 with the object of developing deep ore beneath the old mine workings. Drilling failed to locate deep, high-grade ore, but a significant amount of low-grade near-surface material was outlined which became economically interesting when silver prices began to rise in 1973. Further geologic investigation and drilling succeeded in developing a large tonnage of mineable silver ore which could be treated by conventional cyanide methods, and Silver King began mining and milling operations in 1981. The new operations are centered at or near the original discovery site, and production is mainly from the site of the old Argus group of mines.

Rocks in the Taylor district consist of easterly-dipping Paleozoic limestone, dolomite, and shale which have been intruded by dikes and sills of mid-

mid-Tertiary rhyolite.

The paleozoic sediments have been folded into a northwest-trending asymmetrical anticline which has a vertical west limb and a gently dipping east limb. Two prominent fracture systems are associated with this anticline, one striking north-northwesterly, and the other northeasterly. Some of the north-northwesterly fractures have fault offset, down to the west. Original movement on these structures was pre-ore, but re-activation occurred during Basin and Range tectonic movement (Havenstrite, 1980).

Silver ores in the district occur in the Devonian Guilmette limestone and its transition with the overlying Pilot shale and also in the Mississippian Joana limestone.

The silver-lead orebodies mined during the pre-1900 period of activity are described as being localized in silicified limestone, along bedding in a breccia zone in the Guilmette limestone. The orebodies were stopped for distances of up to 200 feet along both strike and dip, and were from five to thirty feet thick. Ore consisted of silver chloride, cerussite, and a little malachite, chrysocolla, antimony oxides, galena, sphalerite, tetrahedrite, and gold in a quartz-calcite gangue.

The ore presently being mined by Silver King is essentially the same as the earlier mined material, representing a lower-grade envelope around the older high-grade occurrences. This orebody is described (Havenstrite, 1980) as consisting of argentite and perhaps cerargyrite, in jasperized Guilmette limestone. The silica and silver appear to be contemporaneous, and are slightly older than

the mid-Tertiary intrusive rhyolite. The mineralizing solutions entered along fracture systems and deposited minerals in crackle breccia in and near the axis of the anticline, at or near the Guilmette-Pilot contact. Calcite deposition followed ore deposition. Some supergene redistribution has occurred, giving the deposit a uniform, blanket-like form. Silver King's ore zone occupies about 70 acres and averages 50 feet in thickness. The deposit crops out in many places and coverage overburden thickness is only 30 feet. Havenstrite (1980) gave the deposit size as 7 million tons, averaging 3 ounces silver per ton, with an equal tonnage of lower grade material surrounding the mineable resources.

At the time of our visit (1981), Silver King was mining from two pits, the Argus and the Bishop (northwest of the Argus). The Argus is in the transition zone near the east limb of the major anticline and is overlain to the east by Pilot shale. The Bishop pit explores a jasperoid zone north of the Argus pit, and is near the nose of the north-plunging anticline. The jasperoid occurs along a north-south striking shear zone.

Rhyolite dikes are exposed in both the Argus and the Bishop pits. One, north of the Bishop pit, contains quartz, biotite, and feldspar phenocrysts in a glassy groundmass. The feldspars are completely kaolinized.

In the Argus pit, a pyrite-bearing rhyolite dike was sampled (Sample 907). The dike contained chlorite, and was kaolinized and sericitized. Small pods of fluorite had recently been discovered in the deeper levels of the Argus pit.

No other activity was noted in the district at the time of our visit. The property immediately south of the Argus pit (Taylor mine, underground) is leased

by Einar Erickson's group, but no mining was in progress. The small antimony properties to the south of Taylor were inactive.

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