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BATTLE MOUNTAIN DISTRICT

LOCATION

The Battle Mountain mining district, which includes a number of subdistricts, is located on Battle Mountain, a few tems of kilometers southwest of the town of Battle Mountain. Most of the district is located in Lander County, and a summary of the district is presented in Stager (1977, p. 66-67) as well as in Tingley and Smith (1983). Only a small part of northern Battle Mountain is located within the Winnemucca Resource Area, in Humboldt County. This part of the Battle Mountain district is further described below.

HISTORY

The Battle Mountain district was organizaed in 1866, but prospectors had been in the area for some years previous (Hill, 1915, p. 71). There is little information on the discovery dates of the relatively minor mines and prospects in the Humboldt County portion of the district. Hill (1915, p. 77-78) describes four properties (The Nevadian, Golden Era, Rose Spring and Copper Glance Groups) from this area, and Willden (1964) reports production from some properties in this area as early as 1908. The Marigold Mine was reportedly discovered in 1937 (Willden, 1964, Table 6). The district has been active several times since the late 1800's.

Recent mining activity in the Humboldt County portion of the district includes placer mining in the vicinity of the B & M Placers in S17 and 20,T32N,R44E. Recent rotary drilling was noted about 1.5 km south of the Morning Star Mine. This exploration was probably for precious metals. Disseminated gold ore at the Marigold Mine was mined and heap leached dudring 1983 and 1984.

GEOLOGIC SETTING

The Antler Peak Quadrangle, which includes Battle Mountain, was mapped by Roberts (1951). Willden (1964) has summarized the geology of the Humboldt County portion of Battle Mountain; portions of that summary are reported below:

Most of the part of Battle Mountain in Humboldt County is underlain by the Harmony Formation of Cambrian age and the Valmy Formation of Ordovician age. The low northwestern foothills are underlain by the Pennsylvanian and Permian Pumpermickel and Havallah Formations, except for a narrow belt underlain by the Battle and Antler Peak Formations (Pennyslvanian and Permian). Some small intrusive bodies of quartz monzonite and granodiorite crop out in the northeastern part of the range. Two important thrust faults exposed in the north end of the range within Humboldt County are: the Dewitt thrust, assigned by Roberts (1951) to the Antler orogeny of the Late Mississippian or Early Pennsylvanian age, which brought the Harmony Formation over the Valmy Formation; and the younger Golconda thrust which brought the Pumpernickel and Havallah Formations over the Antler Peak, Battle, and Valmy Formations.

ORE DEPOSITS

The lode deposits at the northeastern end of Battle Mountain are mainly in Cambrian Harmony Formation. Production from these properties is predominantly copper, lead, silver and gold (Willden, 1964, Table 6) The workings are along northwest- and northeast-trending mineralized fault zones, and oxide copper minerals are common. Quartz vein matter is often spotty; the unoxidized ore at one property contains galena, chalcopyrite, sphalerite, and free gold. Wallrocks are silicified at some properties. Placer gold deposits in Snow Gulch and unnamed canyons to the southeast contain coarse, locally derived gold.

The Marigold Mine is locted at the northwestern tip of Battle Mountain. Mineralization consists of fine-grained, disseminated gold is the lower part of the Pennsylvanian Battle Formation where it unconformably overlies Ordovician Valmy Formation. Nevada North Resources, Inc. (formerly True North Inc.) has reported low-grade (0.028 to 0.094 oz/ton) gold intercepts from shallow (less than 80 feet) drill holes on the property. A test heap leach of 3206 tons of ore (with a grade of 0.107 oz/ton) recovered 82% of the gold present (13 Nov 84 and 24 Sep 84 news releases of Nevada North Resources, Inc.).

SELECTED REFERENCES

Hill, J. M. (1915) Some mining districts in northeastern California and Northwestern Nevada: U.S. Geological Survey Bulletin 594.

Roberts, R. J. (1951) Geology of the Antler Peak quadrangle, Nevada: U.S. Geological Survey Map GQ-10.

Stager, H. K. (1977) Mineral deposits in Geology and mineral deposits of Lander County, Nevada: Nevada Bureau of Mines and Geology Bulletin 88.

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