NBMG OFR 83-11
See also 83-12 for geochemical results.

(103)
Item 8

TOKOP DISTRICT

4820 0006

The Tokop (Bonnie Claire, Gold Mountain, Oriental Wash) mining district is located around the abandoned townsite of Tokop and along the southwest-northeast trending ridge that includes Gold Mountain, in Esmeralda County, Nevada. The district is bounded by Oriental Wash on the west, Slate Ridge and the Gold Point (Hornsilver) mining district on the north, the eastern edge of R42E on the east, and the south flank of Gold Mountain on the south. There is access to all areas of the district, the easiest being from the east from U.S. Highway 95; however, the excessively wet winter of 1982-83 left many of the roads badly damaged.

The district was originally discovered in 1866 by Thomas Shaw but was largely ignored until the Oriental Mine, one of the richest properties in the district, was discovered by Shaw in 1871 (Lincoln, 1923). Originally, the Tokop and Gold Point mining districts were one district, but were separated before 1900 into two distinct districts. Prior to 1900, several mills operated in the district with early prduction estimated at $500,000 (Hewett, et al, 1936). Ore and concentrates produced during this early period were hauled to Belmont and Austin for processing. A second period of production occurred from 1902 to 1929, and sporadic activity has continued up to the present. Minor placermining developed in Oriental Wash in the 1930's, but no placer activity of any consequence has since been recorded (Vandenburg, 1936). The district has produced primarily gold, silver, copper and lead.

The district has recently experienced a surge in surface and subsurface exploration activity which is still ongoing. During the recent field examination, drilling was observed in progress below the old townsite of Tokop at the head of Oriental Wash. Many of the older workings in and around the townsite have been obliterated by the recent activity.

Most of the workings in the district are located in the Precambrian Wyman Formation, within the metamorphic halo found along the contact between the Jurassic Sylvania Pluton and the Wyman Formation, or following the quartz veins along the general east-west trending fault zones which cut both the Wyman and pluton. The Wyman consists of silt/sandstones, silty claystones with limestone interbeds, sandy and silty limestones, and very fine grained sandstones. The sediments are metamorphosed in varying degrees to slate, shale, phyllite, schists, marble, calc-silicates, tactite, and hornsfels. The metasediments exhibit remnant bedding and fine laminations. The formation has been intruded by the fine to coarse grained quartz monzonite Sylvania Pluton, which has been dated at 149 ± 6, 153 ± 5, and 155 ± 6 million years (Albers, Stewart, 1972). The quartz monzonite grades irregularly into quartz diorite and is extensively chloritized. Some of the Wyman outcrops are roof pendents included within the outcropping Sylvania pluton. In other areas, the formation has been faulted against Tertiary igneous rocks. At most exposures along the contact, the limy members of the Wyman have been metamorphosed to a garnet-epidote rich tactite. At the Pinon Claims the tactite was slightly magnetic. The Wyman and the pluton have both been intruded by massive quartz veins which grade into pegmatite dikes, and aplitic and mafic dikes which appear to follow the structure related to the east-west fault zones. Sericite was observed along fault surfaces and in the rocks adjacent to the dikes and veins. Overlying the pluton and Wyman are remnant patches of Tertiary-Quarternary basalt flows (many of which bear petroglyphs left by early inhabitants of the region) and air fall, non-welded and welded ash flow tuffs of the Ammonia Tanks member of the Tertiary Timber Mountain Tuff.

Faulting throughout the district follows a distinct east-west trend, which appears to be associated along the south end of what has been described by Albers (1967) as the Silver Peak-Palmetto-Montezuma Oroflex. The fault zone breccia is

cemented primarily with hydrothermal quartz and calcite, and the breccia and quartz veins are coated with two or more infusions of late stage silica flooding. Prominent faulting also occurs along the bedding planes in the Wyman Formation. Psilomelane and jarosite were observed along fractures in the country rock and coating vein material. The Sylvania Pluton is highly fractured with prominent east-west jointing which appears to act as structural controls on the ore-bearing quartz and calcite veins. The fine-stringer quartz veins cutting the metasediments suggests stockwork veining.

Mineralization within the district occurs mainly as argentiferous and auriferous sulfides (pyrite, chalcopyrite, galena, tetrahedrite) carried by quartz veins which cut both the metasediments and the pluton. Much of the observed sulfides were oxidized and altered to secondary supergene minerals. The quartz veins are massive, locally crushed and brecciated, and cemented with silica. At several properties the quartz veins carried crystalline calcite, and at the Side Hill Claims barite was noted. At the Big Blossom Mine, ferberite-heubnerite (?) was observed in clots in the quartz veins associated with oxidized sulfides. Minor mineralization also occurs within the metamorphic halo along the contact between the intrusive and metasediments. Scheelite has been reported as finely disseminated grains within the tactite zones.

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