

from NBMG OFR 83-9

See also 83-10 for  
geochemical results.

RUBY VALLEY DISTRICT

(76)

Item 3

4050 0003

The Ruby Valley or Battle Creek Mining district is located opposite the north end of Franklin Lake on the east side of the Ruby Mountains. The largest mines in the district lie on the ridge between Battle and Myers Creeks at elevations above 7,400'. A few smaller mines and prospects are located just north of Battle Creek and south of Myers Creek.

Between 1908 and 1967, small amounts of lead, zinc, silver, copper and gold were produced from the district (Stager, in preparation). Although the first claims in the district were staked in 1903, tungsten was not discovered until 1943. Intermittent mining from 1944 through 1977 resulted in the production of 5,000 units of  $WO_3$  (Stager, in preparation). The ore produced from the district between 1944-45 averaged about 1.5%  $WO_3$  (Stager, in preparation). Sulfide ore shipped from the Battle Creek group since 1949 contained maximum yearly average grades of 55% lead and 14.2% zinc (Smith, 1976).

From north to south, the district is underlain by Cambrian marbles, dolomites and quartzites. At Myers Creek, the sediments are intruded by Jurassic and Cretaceous granites. The Battle Creek Tungsten mine, the largest working in the district, is located along the undulatory, east-west, limestone-igneous contact.

At the Battle Creek Tungsten mine (sam 1609), a benched slope explores an alternating sequence of marble, quartz monzonite and tactite. The most abundant rock type in the mine area is coarsely crystalline white marble. The intrusive rocks appear to be dikes or fingers off of the main intrusive body which have general north trends. Some pegmatite dikes and quartz veins are also exposed. Lenses of dark green tactite have formed directly adjacent to the intrusives. The tactite is composed of calcite, quartz, pale green tremolite and finely crystalline diopside. It typically contains irregular clots and lenses of sphalerite, pyrite,

galena, chalcopryrite and scheelite. The lead-zinc sulfide minerals also occur in clear to vitreous grey quartz gangue. Vertical fissures within the sulfide-bearing tactite zones are filled with gossan and quartz vein material, both of which contain abundant fine crystals of scheelite. Bleaching and marbelization of the country rocks extends beyond the mineralized areas. According to Stager (in preparation), the main scheelite deposits at the Battle Creek mine occur in several east-west trending lenses of chlorite schist surrounded by granite and pegmatite. The largest lense is 100' long and attains a maximum thickness of 10'.

During our examination of the district in August 1982, the Battle Creek Tungsten mine was actively being worked by Knight Roundy Mining Inc. The recent work consisted of road improvement and extensive trenching of some of the minesites. At that time, it appeared as though preparations for small-scale tungsten production were underway.

#### Selected References:

- Granger, A.E., et al (1957) Geology and Mineral resources of Elko County, Nevada: NBM Bull 54, p. 134.
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- Howard, K. A., et al (1979) Geologic map of the Ruby Mountains, Nevada: USGS Map I-1136.
- Lincoln, F.C. (1923) Mining districts and mineral resources of Nevada: Nevada Newsletter Pub. Co., Reno, p. 54.
- Smith, R. M. (1976) Mineral resources of Elko County, Nevada: USGS OFER 1976 56, p. 148.
- Stager, H., in preparation, Tungsten deposits of Nevada: NBMC Bull.