

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

(84)  
Item 3

BLACK HORSE DISTRICT

0600 0003

The Black Horse mining district is located on the southeast flank of Miller Mountain in the extreme western part of Esmeralda County, Nevada, in T2S, R34E. It is bounded on the south by U.S. Highway 6, on the north and west by the Mineral-Esmeralda County Line, and on the east by the Columbus salt marshes. It is accessible from the south by way of dirt roads north from U.S. Highway 6, and from the northeast and northwest by way of poorly maintained dirt roads. Due to the 1982-83 wet winter, many of the roads have been washed out and are impassible or very dangerous.

Little is known about the early history of the Black Horse mining district, although it possibly could have ties to the Candelaria (Columbus) and Coaldale mining districts, which were active as early as the 1860's. Earliest production figures known were from minor shipments of low grade tungsten in the 1940's from the Black Horse Mine. Production from the 1940's to the 1970's has been minor and infrequent. Recently the older workings have been drilled and trenched in the skarn zone. The Black Horse district was the county's leading producer of tungsten in 1955. (Albers, Stewart, 1972).

The Black Horse district is underlain by the Precambrian Campito Formation and the lower Cambrian Poleta and Harkless Formations. The rocks consist of quartzitic silstone, limestone, and sandy limestone which have been metamorphosed to hornfels, marble, and garnet-epidote rich tactite (Albers, Stewart, 1972). The metasediments are intruded by a Tertiary granodiorite pluton which is in turn intruded by massive quartz veins, massive feldspar-mica rich pegmatite dikes, and very fine grained aplite dikes. Barite veins were noted in the skarn zones near the Maxwell Mine. It has not been determined whether the metamorphism of the sediments results from the Tertiary intrusions, a yet unexposed intrusion,



at depth, or from previous tectonic activity. Overlying the metasediments in the north-northeast part of the district are Tertiary rhyolite welded ash flows and Quaternary basalt flows. Late Tertiary cinder cones are found in the area of the basalt flows. At one site, a solution cavity was noted to have formed in the rhyolite ash flows and was weathering in situ. The cavity (or cavities) is filled with masses of red, yellow, and brown banded, and milky green (prase) varieties of jasper.

The principal mineralization of the district occurs in the metamorphosed Cambrian Harkless Formation where scheelite, powellite, and crystalline molybdenite are disseminated throughout the banded tactites. (Note: The district is an excellent collection site for jasper (gem quality?), idocrase (vesuvianite), and epidote crystals. Crushed quartz veins carrying fresh and oxidized sulfides (pyrite, chalcopyrite, bornite) were observed in the Cambrian Campito Formation. Sericite and jarosite were noted coating fracture and fault surfaces in skarn zone. Abundant secondary copper minerals coated the veins and country rock. At the Molly claim (the old Black Horse Mine) the limestones are locally silicified and marbleized.

Lying astride the Esmeralda-Mineral country line, immediately southwest of the district, are Miocene-Pliocene diatomaceous earth deposits. These deposits have been mined by GREFCO (Great Lakes Carbon Corporation) and have been in production since 1944. According to the chief engineer of the corporation, the deposits are an isolated embayment of a Tertiary fresh water lake bed. The sediments which formed the shallow basin include argillic and calcareous diatomite, clays and volcanic ash. These deposits are underlain and overlain by basaltic flows.



Selected References:

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