NBMG OFR 83-11

See also 83-12 for geochemical results.

Q18

Item 19

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BULLFROG DISTRICT

The Bullfrog district and the included Pioneer district to the north are located in the Bullfrog Hills just west of Beatty in southern Nye county. The Bullfrog Hills extend in an east-west direction between the Amargosa range on the west and Bare Mountain-Pahute Mesa on the east forming a divide between Sarcobatus Flat to the north and the Amargosa Desert to the south. The western portion of the district is included within the boundary of Death Valley National Monument.

Gold was discovered at the original Bullfrog mine at the south end of Bullfrog Mountain, 7 miles west of Beatty, in the summer of 1904. The initial finds were high-grade surface ore, assaying at $700 per ton, and a rush to the area developed. By November of that year five separate towns, Amargosa, Beatty, Bullfrog, Bonanza, and Rhyolite, were laid out and were competing to become the trade center of the district (Latschar, 1981). The Montgomery-Shoshone mine, the most important in the southern part of the district, began production in 1907. To the north, in the Pioneer area, the Mayflower mine began operations in 1911, and the Pioneer mine opened in 1913. The Montgomery-Shoshone closed in 1910, the Pioneer closed in 1917 (Lincoln, 1923). Minor activity continued in the district up to about 1921, and small leasing operations continue in the area to the present. Lincoln, 1923, gives a total production figure of $2,792,930 for the period 1905-1921 and credits most of the production to the Montgomery-Shoshone mine.

The gold deposits in the Bullfrog district are in fissures and veins in rhyolitic welded tuffs and are for the most part related to steep normal faults. Ramsome and others (1907) in U.S.G.S. Bulletin 407, described the old mines and deposits in detail, and that work should be consulted for individual mine descriptions. The mineralogy of the gold-silver veins is simple and consists of quartz, calcite, and finely disseminated gold-silver in scattered pyrite grains.

Small amounts of chalcocite and green chrysocolla and malachite were present in the original discovery ore from the district, giving the ore a green color which led to the name Bullfrog for the mine and, eventually, for the district. Lincoln (1923) mentions that alunite is present, probably as an alteration mineral associated with the epithermal gold deposits.

At the time of our examination in 1982, claims in the area of the Connection shaft at Pioneer were held by Cordex Exploration. In this area, gold mineralization is present in large blocks of Cambrian limestone which are included within a Tertiary ash-flow tuff unit. Mineralization is related to a steep fault which cuts both rock types. The limestones are silicified and the tuffs are opalized and display weak argillization, but gold values were reported to be mainly confined to the limestone block. This area is on the western margin of the large Oasis caldera, and the Cambrian limestone blocks may be slide blocks originating from the nearby west caldera wall.

Other properties within the district may have potential for the development of bulk-minable deposits of gold. One of the most interesting, just from its 1907 description in Ransome, is the Gold Bar area, now within Death Valley National Monument. At the Gold Bar, Ransome describes a zone of irregularly fissured and brecciated rhyolite fully 100 feet wide with no definite boundary between vein material and rhyolite.

At the time of our examination, small leach operations were reported to be active at the Montogomery-Shoshone and Mayflower mines. Small amounts of gold ore were being mined from the east side of Bonanza Ridge, west of Rhyolite. This ore was being hauled to a mill north of Beatty for processing.

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