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

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(237)
Item 2

LEE DISTRICT

The Lee (Lee's Camp, Big Dune) mining district is located 10 miles southwest from U.S. 95 in the low hills outcropping in the Amargosa Desert, adjacent to the Nevada-California state line in southern Nye County, in T15S, R47E. Access to the district is by way of fair to washed out dirt roads. The district is bound on the west by the Nevada-California state line, and on the north, east, and south by the Amargosa Desert.

There is little recorded history of the district, although it was known prior to 1907 (Ball, 1907). Hewett (1936) suggests that the district was active during the Bullfrog boom in the early 1900's. There has been no production recorded for the district. It has recently been extensively investigated with many of the older workings obliterated from the surface and subsurface exploration. No activity resulted from these ventures.

The Lee district is in an isolated group of low hills composed of Precambrian Sterling Quartzite and Johnnie Formation which are in fault contact. The younger Sterling Quartzite encircles a north-northeast trending wedge of the Johnnie Formation. Structurally, the area appears to be a northeast plunging, anticline which is faulted relatively parallel to the hinge of the fold. The fault contacts exhibit multiple stages of movement, are highly brecciated, rebrecciated, and are cemented with quartz. Opaline silica coats the breccia zones, representing at least two periods of late stage silica flooding.

The Johnnie Formation is composed of fine-grained quartzite, sandstone, siltstone, and shale with thin interbeds of dolomite (Cornwall, 1972). Within the district, the dark green shale beds outcropping have a strong vertical, northeast striking foliation. Locally, interbedded siltstone and quartzite of the Sterling Quartzite was observed to have been metamorphosed to a garnetiferous muscovite schist north of the main part of the district. The stratigraphic

relationship of the two formations suggests that the upper or middle unit of the Johnnie Formation outcrops in the wedge between the Sterling.

Parallelling the fault zones are massive and crystalline quartz veins which carry oxidized pyrite and according to Ball (1907) free gold. All workings follow the quartz veins associated with the fault zones or are in the Sterling Quartzite. The country rock and quartz veins are heavily iron oxide stained and are coated with minor malachite. Barite was also noted associated with the quart veins on the east side of the range.

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