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(114)

Item 1

LONE MOUNTAIN DISTRICT

The Lone Mountain mining district is located on Lone Mountain in T20N, R51E Eureka County, approximately 18 miles west of Eureka. Accessibility to the district is from the east side of the mountain, north from U.S. Highway 50, along good dirt roads. The only workings of the district are on the north side of the mountain.

The first claims were located in 1920. High grade zinc carbonate ore was discovered by the U.S. Smelting Company in 1942 on the Mountain View claims (Roberts, et al., 1967), and there was small and sporadic production in the district until 1964. There have been a few new roads added that are not shown on the current topographic maps, but with the exception of recent minor drilling and trenching there has been no significant activity since the 1960's. Production for the district shows a dollar value of at least \$750,000 from over 2 million tons of zinc, 1/3 million tons of lead, 4000 ounces of silver, and minor copper (Roberts, et al., 1967).

The Lone Mountain is a relatively undeformed homoclinal block of northwest striking autochthonous Paleozoic carbonates that is thought to be an erosional window in the Roberts Mountain Thrust sheet (Roberts, et al., 1967). On the north, east, and southeast of Lone Mountain are outcroppings of shales and cherts of the allochthonous Ordovician Vinini Formation. Deformation of the carbonate block is limited to minor faulting and tilting of the block northeast approximately 25-55° (Gronberg, 1967). There is minor vertical faulting. The ore bodies are localized in breccia zones at the intersection of 2 sets of faults: the prominent zone strikes northeast and dips southeast and the lesser zone strikes northwest and dips southwest (Roberts, et al., 1967). The ore is principally sphalerite, galena, smithsonite, zincite(?) and hydrozincite(?) with occurrences of cerussite, rhodochrosite, anglesite, and trace copper. Gangue minerals are barite, calcite, and iron and manganese oxides. The ore occurs in pods and masses and as cementing material in the fault breccia.

J. Tingley + P. Smith (1982) Mineral Inventory of Eureka-Shoshone
Resource Area: NBMG OFR ~~82-10~~ 83-3 and 83-4

The Lone Mountain Mine and the adjacent Lone Mountain extension has at least 3 vertical and inclined shafts for over 1000 feet of underground workings with surrounding surface workings in the dolomite of the Devonian Devils Gate Limestone. Jasperoid masses outcrop near the mine workings.

Selected References:

- Gronberg, E. C. (1967) Stratigraphy of the Nevada Group at Lone Mountain and Table Mountain, central Nevada, unpublished M.S. Thesis, University of California-Riverside.
- Merriam, C. W. and Anderson, C. A. (1942) Reconnaissance survey of the Roberts Mountain, Nevada, Bull. of G.S.A., v. 53, no. 12, part 1, December 1942.
- Roberts, et al. (1967) Geology and mineral resources of Eureka County, Nevada. NBMG Bull. 64.
- U.S.B.M. (Millett) MILS No. 104, Ref. No. 3201100153.
- U.S.G.S. (1956) Bartine Range 15' quadrangle topographic map.