

MEMORANDUM ON THE OCCURRENCE OF BERYL IN THE OREANA

TUNGSTEN DEPOSIT, PERSHING COUNTY, NEVADA

The Oreana Mine of Rare Metals Corp. was operated continuously between March 1935 and June 1942. During this time 17,029 tons of sorted ore were milled at the Toulon Mill of Rare Metals Corp. and 620,239 pounds of concentrate, an average of 36.4 pounds per ton, were recovered. Neither mill heads nor tailings were systematically sampled and assayed during the period of production.


Most of the production came from two veins; other stringers contributed. During the last year of development work very little ore was found in either vein, and after the ore that remained in the developed portions of the vein was stoped the mine was closed in June 1942.

Beryl is present in both veins. Its distribution is very erratic. Often clusters of beryl crystals occur with scheelite, but according to the mine foreman the majority of vein material removed contained little or no beryl. The 50,000 ton (estimated) waste dump at the mine contains almost no beryl. Therefore, most of the beryl that was mined must now be in the Toulon tailings.

Small lots of ore from other properties were also milled from time to time during the period that Oreana ore was being handled.. Therefore, the Oreana tailings are diluted with a few thousand tons of tailings containing no beryl. In order to obtain an approximate figure for the BeO content of the Oreana ore a sample was taken from the least contaminated portion of the Oreana tailings. This sample, no. T-1 (shipped to Mr. H. M. Bannerman by "Express Collect"), consists of thirty scoops taken at regular intervals one foot beneath the top and sides of the pile. The block sampled may contain 5000 tons. Examination of these tailings under a lens suggests that the amount of beryl is quite small, probably only 0.1%-0.2%. Mr. John Heizer estimates that the average WO₃ content of the Oreana tailings is between 0.2% and 0.3%.

It is not likely that there is any recoverable tonnage of BeO in the tailings, nor is there any geologic reason to anticipate that the unexplored portions of the veins contain more beryl than the portions already mined. Ward Smith's observations may have given him some clue as to the possible character of the veins in unexplored portions along the strike and at greater depth.

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File


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October 30, 1942