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(317) Item 15

U. S. Geological Survey
Randsburg, California
September 6, 1943

Derby

MEMORANDUM

On the

WADSWORTH TUNGSTEN MINE, WASHOE COUNTY, NEVADA

by

C. W. Chesterman

ABSTRACT

The Wadsworth tungsten mine is in the southern Virginia Mountains, Washoe County, Nevada on U. S. Highway No. 40. This property, ~~is~~ owned by the Rare Metals Corporation, ~~and~~ has been partly developed by an adit and several pits and trenches which exposed several scheelite-bearing zones. The mine has been idle for several years. However, during the period of operation approximately 400 tons of 0.5% ore were milled at Toulon. There is a chance for fair tonnage of 0.5-0.75% ore between the winze and the surface. A second shoot may be found just to the south of the raise also extending to the surface.

Location:

The Wadsworth tungsten mine is in the southern Virginia Mountains, Washoe County, Nevada 4 miles west of Wadsworth on the Truckee River. The property is easily accessible and can be reached by driving west from Wadsworth on U. S. highway No. 40. The Southern Pacific Railroad is only a few hundred feet from the mine.

Ownership:

The Rare metals Corporation purchased

The Wadsworth tungsten mine property, comprising approximately 400 acres, ~~was purchased~~ from the Southern Pacific Company and private land owners in 1939 and 1940.

Acknowledgments:

was assisted in the field by

The writer ~~wishes to thank~~ P. Joralemon ~~for his able~~

How about statement re Rare operat. & deeds?

assistance in the field and Mr. John Heizer, manager for the Rare Metals Corporation, provided for all information concerning the history, development, and production.

History:

Operations on the Wadsworth property started in January 1940. There was a delay in driving the main adit due to the necessity of spiling under the sandy highway fill and loose alluvium. During November 1941, mining operations ceased. Prior to the shut-down during September, October, and the first part of November, the Rare Metals Corporation diamond drilled 6 holes, a total of 990.5 feet. All of the drilling was underground.

Mr. Heizer recently informed me that operations are expected to continue just as soon as a mining crew becomes available.

Production:

There are no accurate production figures available at this time. Mr. Heizer informed me that during the period of operation approximately 400 tons of ore that averaged 0.5% in WO_3 were shipped to the corporation's mill at Toulon 50 miles northeasterly from the mine. Because of the nearness of a good highway and a railroad, shipping of ore to Toulon should afford no problem. The Toulon Mill and Wadsworth mine are owned by the same Corporation and as a consequence there should be no added cost to milling the mined ore.

Mine Workings:

The mine workings consist of an adit 600' long, a shallow winze, a raise to the surface, and several cuts, pits, and trenches.

Mining Equipment:

The mining equipment includes two ore cars, an air compressor, several drilling machines, and sufficient tools to operate a small mine. Water for mining purposes may be obtained from ~~the~~ a small irrigation ditch that passes through the property.

Geology:

The property is underlain by granitic intrusives and metamorphics and is bordered on the north and west by Tertiary volcanics and pyroclastics, on the south and east by alluvium. The granitic intrusives include granodiorite, aplite and monzonite and intruded metamorphics made up of calc-silicate hornfels, hornfels, schist, and tactite.

The general strike of the metamorphics is from N 35° to 40° E and the dip is N. W. 67° to 80°. In the southeastern part of the area, the metamorphics strike N 62° W and the dip is from 58° to 60° S. W. This difference in strike and dip of the metamorphics may be due to the rotating effects of the force of the granitic intrusive.

Several small fault have offset the aplite dike and tactite zones. The offset in all places is small and not enough to ~~great enough to~~ cause difficulties in mining.

Scheelite: Deposits:

Although there is a considerable amount of tactitic-looking rock present, not all of it carries scheelite. I consider much of this tactitic-looking rock a calc-silicate hornfels which contains lenses and beds of typical tactite.

It is in this tactite that all of the scheelite was deposited.

The tactite is medium to coarse-grained and is composed of garnet, epidote, and quartz with minor amounts of calcite, pyroxene, and pyrite. The scheelite occurs as well-defined crystals disseminated through the rock or as coatings on fractures or joint surfaces.

There is a possibility of two ore zones. Zone A outcrops at Sample No. 17 (sites of samples cut by the Rare Metals Corporation about which no information could be obtained) and is encountered underground at the winze. Zone B also outcrops. This latter zone consists of two separated tactite bands each about 3 feet wide and tracable for 30 feet. Zone B is encountered underground just south of the raise. Zone A is about 3 feet wide and about 50 feet long.

Reserves:

Most of the commercial ore will come from these two zones.

Measured Ore: 15 tons at 0.75% of WO_3 in ore bins.

	Indicated		Inferred	
Zone	Tonnage	Grade	Tonnage	Grade
Zone A	500	0.5-0.75%	300	0.5-0.75%
Zone B	2400	0.3-0.5%	1000	0.3-0.5%

A small production might come from the other zones that show on the surface.