

Memorandum Report

Cinch Tungsten Claims, Patterson Mining District

Lincoln County, Nevada

Location, ownership and development

The Cinch tungsten property is located in the ^{SCHALL CREEK} Ely Range, 2 miles west of U. S. Highway 93 at a point about 50 miles north of Pioche, Nevada. The deposit is reached from the main highway by means of the road to Cave Valley, and is located only a few hundred yards north of this road.

The property, formerly the Owen Walker lease, is now leased by the Crawford and Pollard interests of California, and is being operated by them. Mr. English of Pioche, Nevada is the superintendent in charge of the work.

Development work consist of two small adits and a number of pits and open cuts along the strike of the vein.

Geology

The deposit is situated a short distance ^{EAST} ~~west~~ of the main mountain range on a small knoll of bedrock which is almost completely surrounded by alluvium. The general structure of the mountains west of the deposit appears to be that of a large anticline plunging to the south or southeast, and the Cinch property occurs near the nose of this structure. The country rock adjacent to the deposit is a mass of brecciated limestone, which, because of the alluvial cover, cannot be related to the regional structure. Individual fragments of limestone in the breccia vary in size from very small grains

to blocks 10 or more feet long. Even though the blocks are oriented in all positions, a rude north-south structure is locally evident in the brecciated mass.

Ore deposit

The tungsten ore occurs in one or more elongate zones of brecciated quartz within the main mass of limestone breccia. These zones are several feet wide, and at least one of them can be traced for a distance of 400 feet along its strike in a series of pits and open cuts. This zone may be extended several hundred feet further on the basis of scattered scheelite-bearing float material. The general strike of the zones of brecciated quartz is N. 5 degrees W. to N. 8 degrees W., and the dip is to the east at angles which vary between 10 and 60 degrees. In the lower of the two short adits the ore zone appears to dip steeply to the east, and in the upper adit it dips very gently to the east as shown on cross-section A--A' on the map.

The ore is a well consolidated breccia consisting of angular fragments of quartz vein, limestone and silicified limestone in a finer grained matrix of the same material. Practically all the scheelite is in the quartz vein fragments in the breccia. The inclusion of fragments within fragments suggests that several periods of brecciation are involved in the formation of the deposit. Most of the scheelite is very fine-grained and it is very finely disseminated in the quartz. Some of the smaller fragments included in the larger pieces of quartz vein are coated with scheelite. The general

character of the quartz vein fragments in the breccia is the same as that of portions of the Minerva district veins in which brecciation is also prevalent.

The deposit is apparently a brecciated scheelite-bearing quartz vein. The character, thickness, and position of the original vein cannot be determined. The region is obviously one of considerable disturbance, and the distribution of the vein material may be due more to post-mineral faulting and brecciation than to the original position of formation.

Grade and reserves

A chip sample across the face of the lower adit on the Cinch claim, assayed in the Geological Survey laboratory, gave 1.14% WO_3 . Assays on 6 carloads of the ore which were shipped to Salt Lake City from the property have been furnished by Mr. Baker of the Metals Reserve Tungsten Retreatment Plant. The results on these shipments are listed below.

Car No.	Tons per Car	% WO_3
1	49	0.66
2	42	0.53
3	45	0.45
4	44.6	0.87
5	63	0.50
6	59	0.80
Total tons		302.6
Average grade		0.64 % WO_3

The reserves for this deposit are difficult to determine because of the limited exposures and the broken character of the ore. It is unsafe to extend the ore for any distance below the surface because of the very likely interruption of

by faults. -4-

the vein extension. There probably are, however, several thousand tons of material in the deposit comparable to that already shipped.

Recommendations

The deposit yields very little information on which to judge its potentialities. Diamond drill holes, placed to test the extension of the vein at depth, would probably give some information, but no large project is warranted on the basis of present showings. Should the active development work now in progress show the vein to have possible extension at depth, an exploratory program may be desirable.

U.S. Geological Survey
March 15, 1943

S. Warren Hobbs

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