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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Ruby Valley, Nevada
August 26, 1942

Memorandum on D. A. Dees Scheelite Property (A. H. Garrett Lease),
Bald Mountain District, White Pine County, Nevada (1)

Introduction.-- The scheelite property of D. A. Dees, Eureka, Nevada, visited by the writer on August 22, 1942, lies at an elevation of about 7700' on the west slope of Bald Mountain, northwestern White Pine County, Nevada. Elko, the most convenient railroad and supply point, is 92 miles north by graded dirt road via Huntington and Mound Valleys.

The property consists of 11 unpatented claims located in 1910 and recently leased by A. H. Garrett, Ely, Nevada, who is now erecting a 25 ton gravity mill. A spring 150' southwest of the mill is now flowing about 4 gallons/minute. Abundant water is available about three quarters of a mile east near the head of Water Canyon. A lift of approximately 200' is necessary to clear the intervening divide. The deposits occur on a low hill covered by a few feet of overburden. There are almost no outcrops but the deposits have been fairly well outlined by surface cuts and adits.

Geology.-- A series of calcareous sedimentary rocks (Pogonip(2)), striking northerly and dipping 10-30 degrees east has been intruded by granite, partly porphyritic, aplite, and more basic porphyry. A few small wedge-shaped pen-

(1). The Bald Mountain District has been described by Hill, J. M., U. S. G. S. Bull. 648, 152-161, 1916. The occurrence of scheelite is briefly described by Hess, F. L. and Larsen, E. S., U. S. G. S. Bull. 725-D, 306, 1921. p 306

(2). Hill, J. M., op. cit., map, 153.

dants of a dense, very fine grained, green contact rock consisting mostly of diopside (and epidote?) and quartz with some garnet, sericite and scheelite have been found along the contact zone. Most of this rock exposed at the surface or underground is ore. Unless these pendants have been downfaulted the green contact rock is overlain by nearly barren white hornfels, the most common rock along the contact south and southeast of the deposits. In the few places where the base of the green rock is exposed it is underlain, possibly concordantly, by granite. The two main ore bodies lie adjacent to a porphyry dike but age relationship of the ore and the dike could not be ascertained.

Ore Deposits and Reserves.--- Most of the green contact rock now exposed is scheelite ore varying in grade between 0.5% and 1.5% WO₃ and averaging between 1.0% and 1.25% WO₃. The scheelite, mostly 60 mesh or finer, is concentrated in closely spaced bands parallel to the bedding, but the overall distribution is quite uniform. Spotty, low grade mineralization of coarser grained scheelite occurs in the granite within 25' of the contacts. In a few places at the contact small higher grade streaks occur. The ore contains a little powellite. Two wedge-shaped ore bodies have been fairly well outlined. A third pendant contains ore but has been explored by only a few small pits.

Block 1 (see map) is explored by a 30' adit in ore, a 35' shaft in the underlying granite and a number of surface cuts. The ore beds dip gently east and are bounded on all sides by granite or porphyry. The underlying granite may be concordant. Dimensions of known ore are about 65'x35'x20' deep or 2000 tons. Grade probably averages 1.25% WO₃. If the adjacent unexposed area overlain by ore float is underlain by part of the same body 1500 tons more may be expected.

Block 2 is explored by two adits and a number of cuts. Grade of ore decreases upward (as beds are lighter and more hornfelsic) but will probably average 1.0% WO₃. Known dimensions are 75'x40'x20' deep or 2750 tons. An additional 2000 tons may underlie the adjacent area covered by ore float. Assays from

this block are said to show \$8.00 Au/ton.

Block 3 has been exposed in only three cuts. It may contain 1000-2000 tons of 0.75% WO₃ ore

Summary.— About 5000 tons of ore averaging 1.0%-1.25% WO₃ is in sight and not more than 5000 tons inferred. The minimum figure is justified by present workings. The maximum assumes that within the probable limits of the pendants shown on the accompanying map all the rock is ore. If 75% recovery is attained a production of about 4000 units should be assured and an additional 4000 units is possible. Since the pendants are fairly well outlined no mapping by the Geological Survey or exploration by the Bureau of Mines seems warranted.

Mining and Milling.— Mr. Garrett expects to complete the mill in September and immediately thereafter begin to gloryhole Block 1 through the lower adit. Block 2 will be mined later by open cut and Block 3 will be more thoroughly explored. If arrangements can be made to pump water from Water Canyon the mill can be operated continuously and a production of 75-100 units/week may be reached this fall. With the water now available the mill can be operated only one shift a day and production would not exceed 25 units/week. It is thought that all year operation will be possible unless the winter is unusually severe.

Placer Possibility.— Scheelite-bearing gravel occurs in the canyon heading near the mill for a length of at least 1000' and an average width of 50'. In excavating the site for the mill 10' of gravel with an estimated grade of 0.1-0.2% WO₃ was exposed. 1000' west in old gold placer workings gravels of about the same thickness contain about the same value. Gold values are said to be \$0.50- \$1.00 / yard. If 30,000 or more tons of gravel have a value of \$3.00 / ton, and if water from Water Canyon is made available profitable

placer operation may be possible and considerable scheelite produced. The gravel belt merits systematic sampling to determine grade and size.

Munter Property.--- Claims on the South side of Water Canyon, 1 mile distant from the Dees Property, owned by August Munter are reported to contain scheelite. Very little work has been done on these claims


M. R. Klepper

Metals ✓
T.B.Nolan
S.G.Lasky
S.R.Zimmerly
File

GEOLOGIC SKETCH MAP

A. H. GARRETT LEASE

Bald Mountain District
White Pine County Nevada

1" equals 100'

Mill

Bearing of
possible placer
belt.

Camp

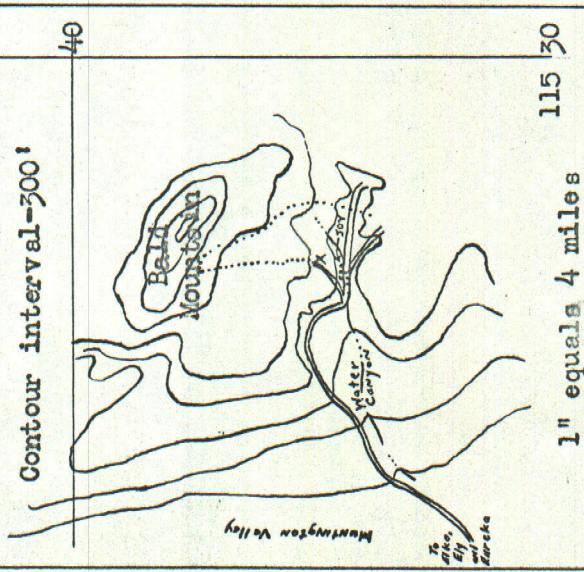
Spring

To
Elko,
Ely,
Eureka

- Pogonip Ls.
- Granite Porphyry
- x Garrett Lease

Contour interval-300'

40



1" equals 4 miles

Sketch Map of Bald Mountain District
(after Hill, U.S.G.S. Bull. 648, pl53)

Granite

and

Porphyry

Hornfels

Block 1

Block 2

Block 3

- Granite
- Porphyry
- 0.75-1.5% WO₃
- 0.25-0.75 WO₃
- Hornfels

7700

7700'

A''

Vertical Section along A-A''

M.R. Klepper U.S. Geological Survey August 24, 1942