So. 157 Howard Street
Spokane 4, Washington

Memorandum

To: A. E. Weissenborn, Exec. Officer, DMA Field Team, Region II

From: C. H. Broedel, Geologist, U.S. Geological Survey

Subject: Blue Grouse Mountain tungsten deposit
Secs. 15, 16 and 17, T. 30 N., R. 42 E.
Stevens County, Washington
DMA Docket 668
Pacific Mining Company, Seattle, Washington

RECOMMENDATIONS

The DMA examiner recommends that an application for an exploration loan be denied because of the lenticular and limited occurrence of the ore bodies in the Blue Grouse shaft and vicinity, and the lack of a feasible objective of a commercial ore shoot in the No. 2 adit.

Since recent operations commenced in the Blue Grouse shaft, no appreciable ore reserves have been established and fissures or shears along which the ore bodies occur are limited in strike and dip length below the argillite contact. The examiner believes that the ore shoots within the quartz vein of the No. 2 adit are not large enough to justify an exploration program in depth.

SUMMARY OF RECENT WORK

The Pacific Mining Company has been engaged in exploration for tungsten ore in the Blue Grouse inclined shaft and construction of a mill near the Kemp adit since July 21, 1951. During 1950 the company exposed the contact between greisenized granite and overlying argillite by bulldozing for a distance of 1500 feet west and east of the Blue Grouse shaft portal. A crosscut called the Tamarack or contact adit about 400 feet west of this shaft was driven during the same period. No ore bodies were exposed along the contact by bulldozing, and sampling of the greisenized granite was not encouraging.

About 485 feet of exploration has been done from the Blue Grouse shaft since the Geological Survey's report on the property in 1943. Most of this footage was mined prior to acquisition of the property by the Pacific Mining Company, which was in March, 1949.

The operators report that the company's mill has been completed and is at present making test runs of ore from the shaft. The operators also report that seven tons of tungsten concentrates have been shipped to General Services Administration and 1½ tons to Kennametal Inc., Latrobe, Pennsylvania.

Mr. Frank Eichelberger of Spokane has recently made a complete examination of the property for the Pacific Mining Company. In his report he recommends that further exploration be abandoned and that the available ore from the Blue Grouse shaft workings be mined and milled followed by cessation of operations. The report states that total shipments from the shaft workings are valued at $11,000 and that probably 1300 units of WO_3 has been produced from 4000 tons. The average grade of the ore is 0.5 percent WO_3, high-grade ore assays about 10 percent WO_3.

SUMMARY OF FIELD INVESTIGATION

The DMA examiner visited the property on September 10, 1951 to obtain information on mining operations since Mr. S. W. Hobbs' visit for DMA in January, 1951.

In the Blue Grouse shaft workings exploration has been carried out on three levels, the difference between levels ranging from 12 to 24 feet. A relatively small tonnage of hubnerite ore has been discovered in the exploration of this shaft. The ore shoots which strike northwest, are lenticular and occur along numerous fractures or shear planes in the greisenized granite and underlying aplite granite. The examiner observed only one steeply-dipping structure of commercial ore in greisenized granite and this structure apparently contains very little ore below the second level. This structure shows a maximum three-foot width of ore on the first level and two feet on the second level. The fissures on the third level in aplite granite are apparently too far below the argillite granite contact to be mineralized.

The Tamarack adit was driven 88 feet toward the southeast in greisenized granite, and was stopped at the argillite granite contact. The only ore seen is a small pod along a fissure near the portal. The tungsten-bearing quartz vein of the No. 2 adit was visited and about 130 feet of drift mined since 1943 was inspected. Toward the southwest end of the adit the quartz vein decreases in width, and may lens out beyond the present face.

APPLICANT'S PROPOSAL

The Pacific Mining Company proposes to explore the quartz vein of the No. 2 adit by sinking a winze and drifting on the vein at a lower level. They also propose to explore the granite argillite contact south of the Blue Grouse shaft.

cc: U.S.B.M., Spokane
U.S.B.M., Albany

CHB/bh