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So. 157 Howard Street
Spokane 4, Washington

July 16, 1952

Memorandum

To: A. E. Weissenborn, Executive Officer, DMEA Field Team, Region II

From: Verne C. Fryklund, Jr., U. S. Geological Survey

Subject: Field examination, Docket No. DMEA-2571, Mica, Marble Mountain Mica Company, St. Maries, Idaho.

Introduction

I visited this property July 11, 1952, with the three partners. The property is in parts of sections 19, 24, 25, and 30 in Township 44 N., and Ranges 3 and 4 E. There are 22 unpatented "Homestead" claims and 2 unpatented "Muscovite" claims. The property can be reached from St. Maries, Idaho by following the road to Avery to the Marble Creek road. The property is at the very end of the Marble Creek road at an elevation of about 5,500 feet.

Recommendations

I recommend that this application be denied. The muscovite is small and not of strategic grade.

Previous Geologic Work in the Area

The area has been mapped in a reconnaissance fashion by two parties; a map of the area is in U.S.G.S. Bull. 530, which is reproduced in U.S.G.S. Bull. 732, another map of the area is in Idaho Bureau of Mines and Geology pamphlet 30.

Geology of Pegmatite Area

In the vicinity of the pegmatite are muscovite, biotite, and chlorite gneisses. In much of the area there has been enough introduction of granitic material parallel to the foliation to call the material migmatite. The rocks have been mapped as Prichard formation (pre-Cambrian), which they may be.

A cross-section of the largest pegmatite is exposed in a cut of a logging road. At this point the pegmatite is 26 feet wide, with a maximum exposed thickness of about 5 feet. At the east end of the cut the pegmatite is about 2 feet thick. The length of the pegmatite is not known.

The wall zone is about 6 inches thick and is composed of about 80 percent plagioclase feldspar, 10 percent quartz, and 10 percent muscovite. The muscovite is one-fourth inch to one-half inch in diameter. An intermediate zone has the same mineralogy with the exception of FeO_x specks, some one-sixteenth inch in diameter. The minerals have the same abundance.

The muscovite is concentrated in a streak about 1 foot from the wall zone. It is not of strategic grade. The maximum diameter of the books is about 6 inches, the thickness not over one-half inch. Most of the books are not over 4 inches in diameter. The mica is green, and fairly clear with no FeO_x stain. The books are all bent, ruled, and cracked so that it is impossible to produce even punch from the sheets. There is also a tendency toward "A" structure in some of the mica.

This is the pegmatite which is supposed to have produced 200 pounds of block mica during the last war. As with every other mica pegmatite I have mapped, even ones producing large books--"you should have seen some of the mica we first took out".

The other pegmatites I looked at in the area were either float boulders or about 1 foot in width.

I would expect larger pegmatites to be present in this general district, but I imagine later disturbances will have damaged any large muscovite books also.

Verne C. Fryklund, Jr.
Geologist

cc: DMEA (4)
USBM
USGS (SRO)
Fryklund

VCF/bek