UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION V

DMA-165XX

Hook Pegmatite, Custer District

Custer County, South Dakota

Glen Walker, Mining Engineer
U. S. Bureau of Mines

J. A. Redden, Geologist
U. S. Geological Survey

July 13, 1951

DEFENSE MINERALS ADMINISTRATION
Report of Field Examination

by

Glen Walker, Mining Engineer
U. S. Bureau of Mines

J. A. Redden, Geologist
U. S. Geological Survey

Docket No.: DMA-155EX
Property: Hawk
Applicant: Ed. Bowers
Commodity: Beryl, mica

Conclusions and Recommendations

The geological evidence is sufficient to deny the applicant an exploration loan on the Hawk pegmatite. The deposit strikes N. 70° - 75° E. for a distance of about 500 feet and dips 40° - 50° NW. It is 15 to 30 feet thick, but segregated longitudinally into four parts by schist. The plunge is on a small angle and corresponds in direction to the strike of the pegmatite. The deposit is composed mainly of graphic intergrowths of perthite and quartz with minor amounts of muscovite, biotite and tourmaline. The grain size averages less than one foot. Along a fracture filling of quartz five small beryl crystals were found. An open pit 30 feet long, 8 to 12 feet wide, and 15 feet in maximum depth near the western extremity of the deposit discloses the internal composition and structure. The feldspar, mica, and beryl in the dike could no doubt be recovered to a large extent by a milling process, but under present hand methods the deposit has little promise as a profitable producer.

The size, structure and composition of this pegmatite obviate further exploration.