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RECORDS:

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Geological notes on the Looking Glass mica deposits, Morehead River district, Northern Queensland

by

H. B. Owen

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DEPARTMENT OF SUPPLY AND SHIPPING
MINERAL RESOURCES SURVEY BRANCH.

Geological Notes on the Looking Glass Mica Deposits, Morehead River District, North Queensland.

This lease is situated on the Dividing Range south-west from Musgrave Telegraph Station. From Laura, 67 miles by rail from Cooktown, the mine is reached by following the telegraph line north-west for 70 miles on a very bad road and then turning south-west on a winding bush track. This track is followed for 30 miles before the mine is reached.

The general geology of the region and of the deposit has been dealt with by Mr. C.W. Ball, Assistant Geologist, in a report dated the 23rd April, 1942, but it is worth noting that the mine appears to lie several miles, probably eight or ten, west of the margin of the granite mass forming the eastern slopes of the Great Dividing Range.

The mine is on the crest of the divide and drainage from the immediate vicinity flowswest to Ethel Creek and thence to the Gulf of Carpentaria, and north-east to the Morehead River which drains into Princess Charlotte Bay.

Mr. Ball's geological plan of the Looking Glass lease dated 21st April, 1942, is very complete in detail and little can be added. I have, however, drawn in some workings which were not in existence in April and I have sketched a boundary to the main pegmatite mass with its central quartz cores and appended sketch sections of some of the workings as at 11.10.42. Mr. Ball appears to hold the view that the separate quartz outcrops represent individual dykes each with considerable development of mica-bearing pegmatite on the hanging wall. I am inclined to think that the outcrops are bodies of quartz arranged en echelon within one large pegmatite mass and that, while the thickness of potential mica-bearing rock on the hanging wall side is very great, not inconsiderable quantities of mica may exist on the footwalls of the quartz bodies.

Pegmatite carrying mica shoots occurs over a length of 360 feet, but it is very difficult to state an average width owing to the probable irregular outline of the body on the north side. The maximum width which may be expected is about 60 feet. On the south (footwall) side of the quartz bodies the width of pegmatite appears to be more regular and might average about 20 feet. It is usual to find the rich mica shoots adjacent to the walls so the great width of the body may not be of much significance.

Where it has been opened up the body is particularly rich in mica, but as is the case at Mt. Kitchin much mica will have to be discarded in trimming.

The size of the body, the high proportion of mica revealed in the workings to date, and the books of mica outcropping in situ over a large area suggest that the Looking Glass lease is a potential producer of large quantities of useful sheet mica. Production will be hampered by shortage of labour and wet weather conditions so that it is unlikely that much mica from this mine will reach the market until the middle of 1943.

The mica is a soft flexible muscovite which when cleaned and trimmed should be equivalent to Indian good-stained. Much warped and fluted mica will need to be discarded, but the high wastage will be offset by the unusually high proportion of mica contained in the pegmatite.

(sgd.) H.B. OWEN (Geologist)
24.11.42.

— GEOLOGICAL PLAN —

LOOKING GLASS MICA DEPOSITS
MOREHEAD RIVER, NORTH QUEENSLAND

20 10 0 20 40 60 FT.

REFERENCE

- CHIEFLY SCHIST, OUTCROPS SHOWN THUS:-
- PEGMATITE (Q=QUARTZ, M=MICA, F=FELSPAR)
- G GNEISS
- 590' TOPOGRAPHIC CONTOURS

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