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Notes on mica occurrence at Mt. Kitchin,
Chillagoe district, Northern Queensland,

by

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1942/30B

CHIEF GEOLOGIST

NOTES ON MICA OCCURRENCES AT MOUNT
KITCHIN, Chillagoe District, Northern
Queensland.

Mount Kitchin lies about thirty miles west from Chillagoe in Northern Queensland and is 13 miles by bush-track south-west from the now deserted town site of Arbouin on Cardross copper field.

Six claims embrace the mica deposits at Mount Kitchin, but only three of these could be examined, on the 8th October, 1942, in the short time at disposal.

The brief examination of these three claims, namely, "Wonder", "Anniversary" and "Southern Cross" confirms the remarks of Mr. C. C. Morton in his report dated 1/5/42 to the Chief Geologist, Brisbane, and it appears that the "Southern Cross" and "Anniversary" claims contain the only deposits which may become producers in the future. When compared with the mica deposits of Central Australia the pegmatite bodies at Mount Kitchin are very small.

So far work has been concentrated upon the "Wonder" claim. An inclined shaft has been sunk in the footwall of a pipelike pegmatite body which has yielded negative and discouraging results.

The attached sketch plan and section show the very limited dimensions of the body.

The shaft and inclined drive had been carried out with the object of intersecting the quartz core and the face of the drive at a vertical depth of about 18 feet below the quartz outcrop was wholly in country rock.

It is unfortunate that the pit at the south-west end of the outcrop had been filled in. Logically this excavation should have been extended to explore the margins of the quartz core.

At the Anniversary claim (No. 2480) a body with a large quartz core is being explored in the same manner as on the Wonder claim. Work had not proceeded sufficiently far to determine whether structural features are the same. A rather promising exposure of mica in a small pit to the west of the shaft was being ignored while the exploratory work was in progress.

A dyke, revealed by outcrops of white quartz, appears to extend for a total length of some 300 feet, but the outcrops probably represent two or three unconnected bodies.

The Southern Cross Claim (No. 2479). The attached sketch plan of the outcrops of this claim represents a modification of Mr. C.C. Morton's plan and shows three lenticular pegmatite outcrops. The country rock consists of a highly felspathic rock with some muscovite and displays practically no schistose or gneissic texture except in the immediate vicinity of pegmatite bodies. The easternmost outcrop of the three possesses a characteristic core of white quartz. Here the pegmatite is very coarse in texture and shallow excavations have revealed books of mica of good size. This eastern body measures about 120 feet along with a maximum width probably not exceeding 30 feet. This claim is the most promising of those seen.

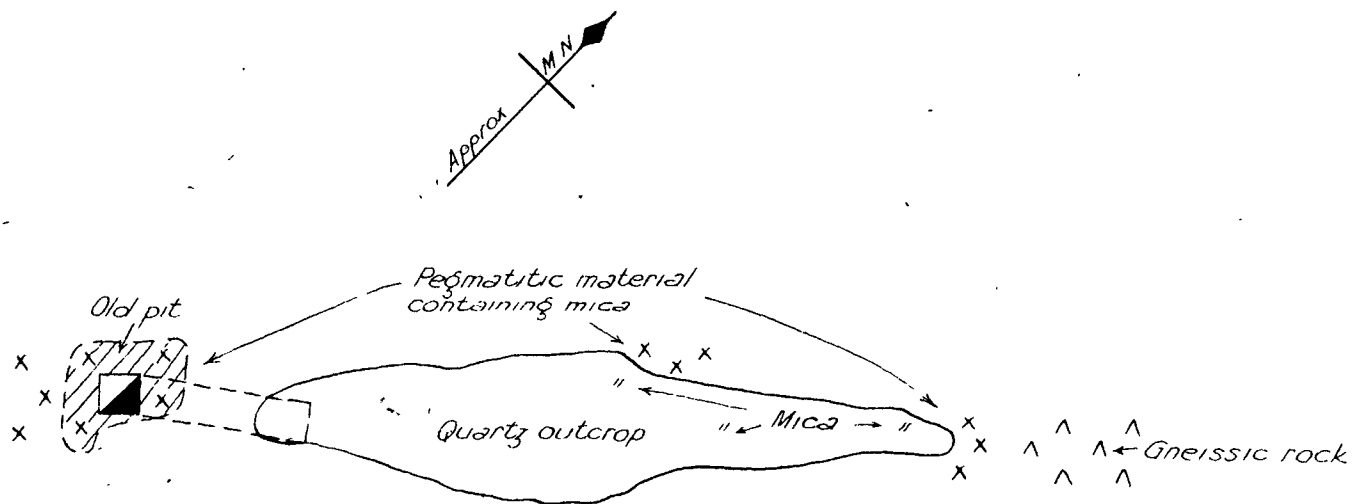
The mica at Mount Kitchin is a soft variety of muscovite which yields clear flexible films on splitting carefully selected books. Unfortunately much of the mica is warped, fluted and broken by strains developed by later earth movements. Such imperfections will necessitate great wastage in trimming this mica for market with consequent lowering of output.

Not only on this score, however, is it unlikely that the field will ever produce noteworthy quantities of sheet mica. When compared with the pegmatite dykes in the Harts' Range the Mount Kitchin occurrences are seen to be very small, and if the flat structure revealed on the Wonder claim is repeated with the other outcrops the field may be regarded as a potential producer of only very small quantities of mica.

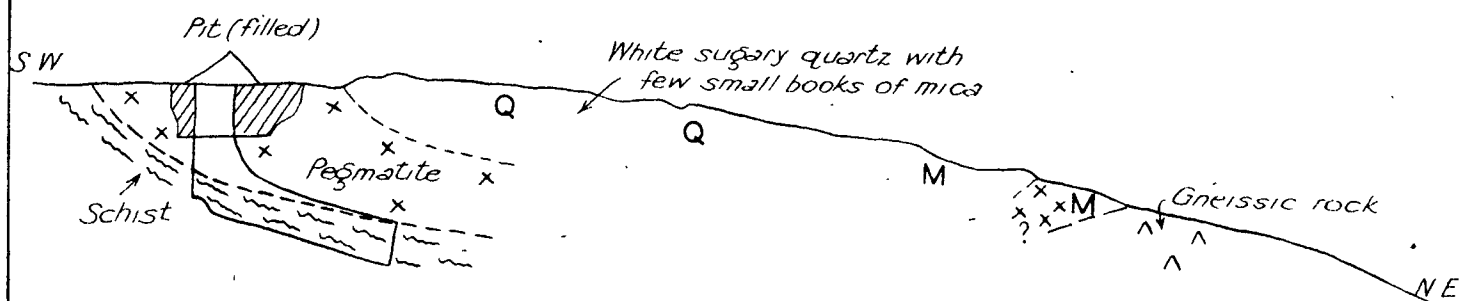
(sgd.) H.B. Owen
Geologist
18.11.42.

WONDER CLAIM
MT. KITCHIN MICA FIELD

SCALE 1 INCH 20 FT.



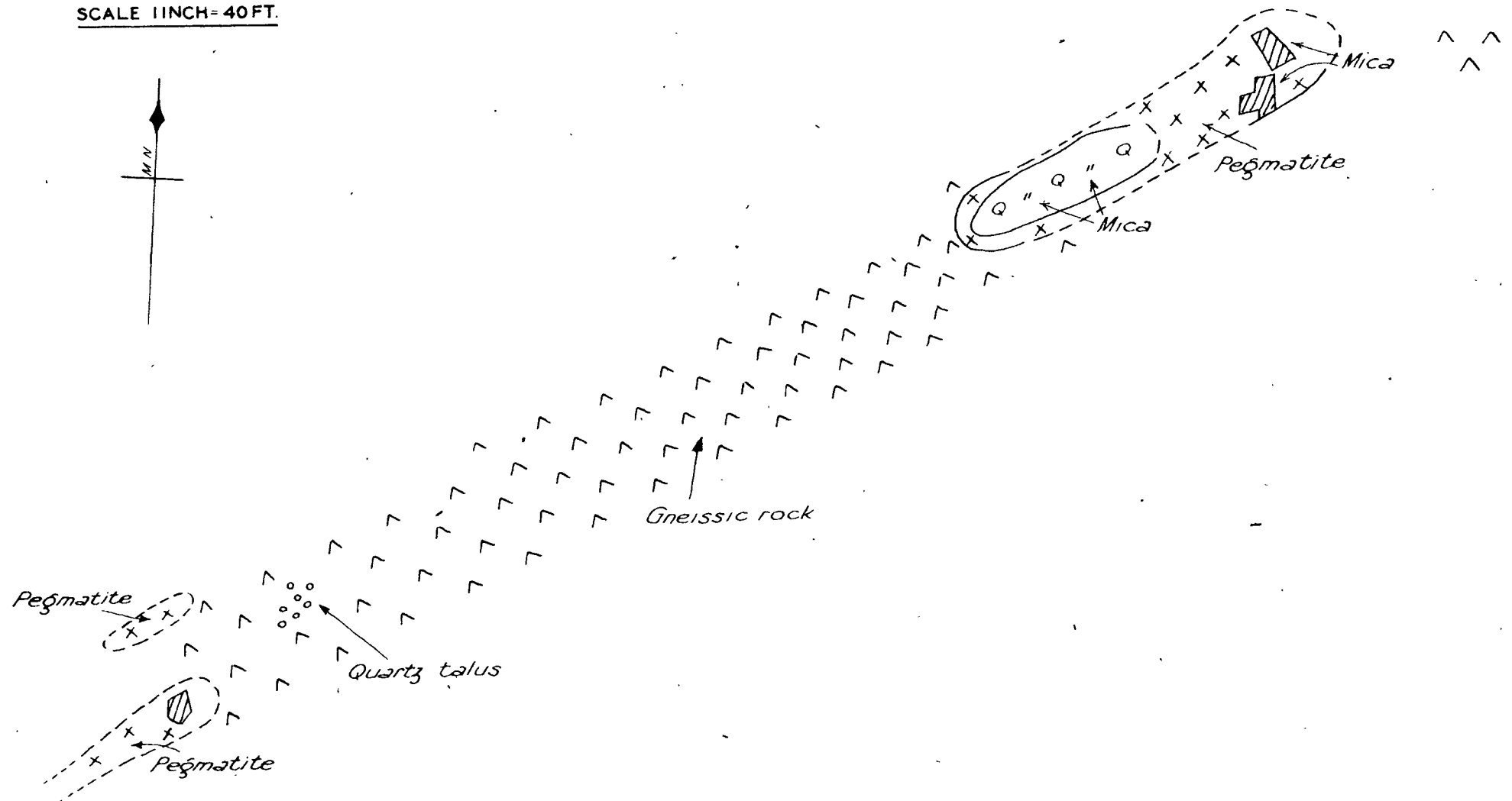
— PLAN —



— SECTION —

THE SOUTHERN CROSS CLAIM
MT. KITCHIN MICA FIELD.

SCALE 1 INCH = 40 FT.



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(Based on plan by C C Morton, District Geologist, Dept. of Mines, Queensland)