Moores Lookout - Fredrick Hill Area (2 copies)

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REPORT ON EXPLORATION IN
THE MOORE'S LOOKOUT-
FREDRICK HILL AREA

Copy 1 of 2

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REPORT ON EXPLORATION
IN THE
MOORE'S LOOKOUT
FREDERICK HILL AREA

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COPY FOR DR. SCOTT

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To: Mr. G.F. Hudspeth. 28th April, 8

REPORT ON EXPLORATION IN THE MOORE'S LOOKOUT -

FREDERICK HILL AREA

Date of Examination: 27th February to 14th March, 1958.

Party Leader: I.M. Paltridge.

Personnel Employed: D.H. Watson.

Man days in the Field: 32

Base Camps: Two near Moore's Lookout.

Transport & Supply: Helicopter.

General Topography

The area is one of marked relief. Upstanding ridges, cut by steep walled gorges, are separated by relatively broad flat valleys in which the river courses meander in mature streams. The landscape developed on the ridges is youthful and the slopes have some control due to dips of schistosity. The area lies at a height between 1000 and 2000 feet. The drainage pattern is superposed.

General Geology

The rocks exposed in the area are of PreCambrian age and are generally low grade metamorphics, quartz-mica-chlorite schists and apparently pure metaquartzites. Some of these rocks show quite prominent iron staining (LE 1230), but there seems to be no pyritic mineralisation such as is found in the Dundas Group low grade metamorphics.

The ridges separating the stream valleys consist either of firm of friable metaquartzites (1231 and 1233) which have a pronounced

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schistosity and occasionally have bedding or of hard quartz-mica schists with or without iron staining. These latter rocks also have occasional relict bedding. Normally the bedding coincides with schistosity.

Geological Structure

In the stream valleys, the structure of the areas of soft, easily weathered quartz-mica-chlorite schists is not easily deciphered because of lack of good exposures. However, they are apparently synclinal areas with a rather complex structure probably with frequent strike faulting. This is impossible to determine.

The ridges of hard, not easily weathered metaquartzite are apparently all anticlines most likely all overturned towards the east. This is definitely the case in two instances, the ridge on which Moore's Lookout is situated and the one immediately to the east. This was determined from the dragfolding found in a few exposures.

Within the area are two intermont basins due to the exposure in ridges of soft quartz-mica schist. In one case this has been caused by movement on Frederick Fault and in the other case apparently by plunging of the anticline.

Faulting

One major fault, Frederick Fault was found trending NW-SE in its southern part, but adopting a more northerly trend to the north. This fault has resulted in the juxtaposition of quartz mica schists and meta-quartzites.

Just south of the Wanderer River is another small fault with which is associated a marked change in the strike of the schistosity and prominent limonite staining.

Strike faulting is almost certainly present in this area, but could not be distinguished.

Economic Geology

No signs of metallic mineralisation were found in the area although cross cutting faults are almost certainly present.

J Michael Baldridge