# HESS REGION REPORT

No. 69-7

Detailed Work the Vicinity

of

Geochemical Anomaly #102

N.T.S. 105-N-10 $ 11

Work done in the period

July 2 - 5, 1969

by

G.R. Sanford

# REPORT ON ANOMALY #102

## N.T.S. 105-N-10 and 11

## July 2-5, 1969

Anomaly #102 is a zinc, lead and minor copper anomaly approximately 6 miles NNW of Pleasant Lake, and is accessible easily only by helicopter. The anomaly lies near the headwaters of a northerly flowing creek and has values ranging from 30-100 ppm copper, 10-85 ppm lead and 200-800 ppm zinc. This creek is one of two northward flowing creeks which trisect a 4 mile long northwest-southeast trending range of rolling hills which are just above tree line.

Three complete days were spent in the area; two days were used in mapping and areal geology and one day used in prospecting the anomalous creek. A one mile line of soil samples was taken near the headwaters of the anomalous creek and one previously unsampled creek was silt sampled. Little geology had been done in the area but geochemical coverage from the previous year was almost complete.

There is little outcrop in this area except on cliff faces or steep hillsides. There are however numerous piles of cobble sized talus fragments scattered along the ridges. The rock is of three dominant types: black slates, black cherts and argillites, both of Devonian-Mississippian age and "aplite" dyke rocks of Cretaceous (?) age. The cherts and argillites intergrade and are bedded in an east-west direction and dip moderately to the north (tops unknown). They conformably overlie the black slates found in the eastern portions of the area. Both carbonaceous rock types have been cut by a 200-500 ft. wide, generally east-west trending sill(?) of "aplite" - a light coloured, aphanitic rock with scattered 1 mm. diameter quartz phenocrysts and the very occasional feldspar phenocryst of the same dimensions. Subsequent to intrusion, northeast-southwest faulting has offset the sill one-half mile to the north in the west. This fault can be seen as the topographic low followed by the northerly trending non-anomalous creek. The dyke cuts the black cherts and argillites near the head of the anomalous creek.

Samples collected while visiting the area indicate that high zinc values (up to 1900 ppm but averaging 300 ppm) are accompanied by non-anomalous leads (maximum value of 35 ppm). A crushed and analyzed sample of the dyke rock contained 55 ppm copper, 75 ppm lead and 35 ppm zinc, indicating that the lead anomalies from the previous year could have been associated with the dyke material. Chert and argillite samples from close to the dyke contained 80 ppm copper, 15 ppm lead and 41 ppm zinc. Two other samples of the same rock, only taken at a greater distance from the tyke, averaged 45 ppm copper, 15 ppm lead and 25 ppm zinc, suggesting that high copper values are associated with thermal

alterations close to the dyke. No mineralization was encountered except for minor pyrite in the "aplite" dyke.

The black cherts and argillites underlying the area are known to have high background zinc in several other areas of the Hess region and it is suggested that this anomaly has no economic significance and warrants no further attention at the present time.

Illustrations: Geochemistry
Geology

Respectfully submitted,

G. R. Sanford

# ATLAS EXPLORATIONS LIMITED

ROSS RIVER Y.T.

## HESS REGION

GEOLOGY

ANOMALY # 102

N.T.S. 105-N-10&11

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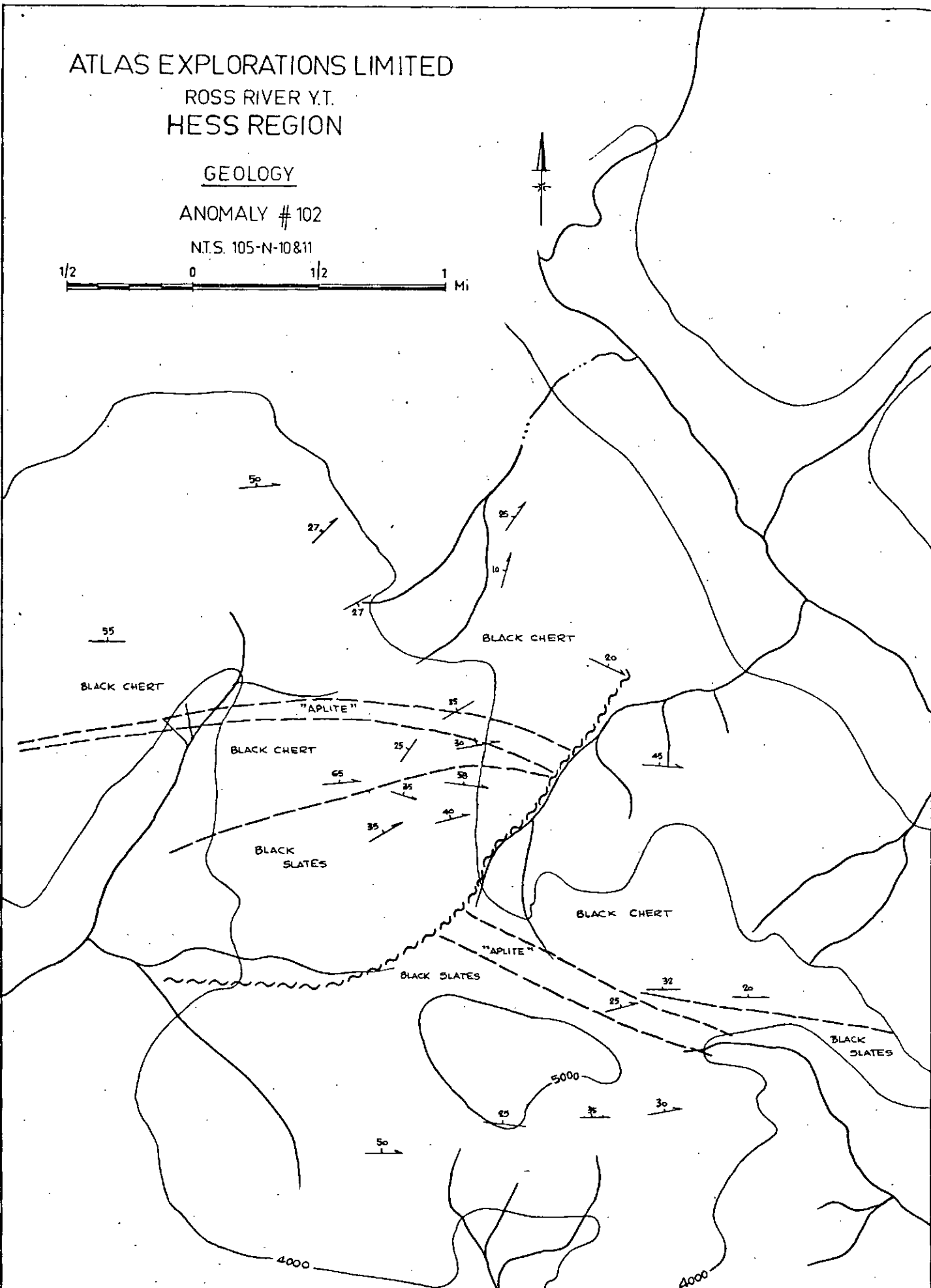

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## HESS REGION

GEOCHEMICAL RESULTS BY ATOMIC ABSORPTION, SPECTROPHOTOMETER ANALYSIS

ANOMALY # 102

N.T.S 105-N-10&11

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