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1966
93M6

REPORT

ON

THE "HI" GROUP

MOUNT THOEN
B.C.

OMINECA

MINING DIVISION

S. N. CHARTERIS

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MOUNT THOEN

Omineca Mining Division, B.C.

Vancouver, B.C.
August 17, 1966

S.N. Charteris
Geologist

REPORT ON

THE HI GROUP

Mount Thoen
Omineca Mining Division, B.C.

INTRODUCTION

R. Macphee and S.N. Charteris spent July 21st to 24th in this copper prospect located on the east saddle of Mount Thoen. Copper mineralization had been discovered by A.Smith Jr. and T.Cross in 1963 during reconnaissance prospecting of the Mount Thoen intrusive. E.D. Dodson staked 6 claims in June, 1965, but he had no opportunity to examine the ground that year.

LOCATION AND ACCESS

The six claims are located on the west end of the saddle that extends from Mount Thoen to French Peak. Present access is by helicopter from Smithers, 42 miles to the southwest.

GEOLOGY

The rocks on the east side of Mount Thoen are a series of Hazelton sediments intruded by Cretaceous, sill-like masses of feldspar porphyry. The average strike of the sediments is 020° with dips of 60 to 15 degrees to the west. About 500 feet east of the east boundary of the claims, the strike is 045. The dip to the east. This abrupt change (see 1" = 200' plan) suggests a faulted anticlinal axis, for there is no flattening of the dip on approaching the axis.

The sediments include argillites, aranaceous argillites, greywacke, sandstone and conglomerate. No unit is more than 30 feet thick. Sedimentary features show there has been no overturning.

The intrusives, as stated earlier, are roughly sill-like with local transgressive features. At the west end where freshest, they are medium grained, 65% anhedral white feldspar, 30% interstitial quartz and 5% biotite. Narrow (20 feet and less) porphyritic phases have a white-grey ground mass, 50% euhedral to subhedral white feldspars av. 3mm X 1.5 mm, 20% quartz eyes up to 3 mm in diameter. These porphyritic phases are extremely irregular and confined to the upper half of the "sills".

The two "sills" near the initial post of claims HI 3 and 4 are limonite stained and hydrothermally altered. They are predominantly porphyritic with a dense grey silica-sericite matrix, and phenocrysts of white feldspars crystals av. 4 mm X 2 mm, often containing pyrite grains. The hornblende is chloritized and sericitized. The non-porphyritic phases consist of limonite-stained kaolinized feldspars in a grey-brown sericitic matrix. All fractures are coated with orange to yellow limonite.

The sediments are hornfelsed and pyritized for only a foot or less above and below the sill.

COPPER MINERALIZATION

Cross and Smith probably discovered both occurrences noted on the 1" = 200' plan. Occurrence "A" consists of 2 inches of pyritic hornfelsed sediments above the contact of the sill containing up to 10% fine grained chalcopyrite. Other malachite stained bands up to one inch wide are found at intervals 1.5 feet above the contact. At occurrence "B" the sediments and hornfels are pyritized for 1.5 feet below the lower contact of the sill. Minor (less than 1%) copper can be found in scattered locations. Because the hillside is a dipslope, the occurrence appears to be quite extensive. The hillside for several hundred square yards is limonite stained.

CONCLUSIONS AND RECOMMENDATIONS

1. The two copper occurrences do not warrant further work.
2. The intensely altered limonite stained intrusive near the initial claim post of Claims 3 and 4 is intriguing - its intense colour is quite prominent. But detailed prospecting failed to find any copper. Because of the sill-like nature of the mass, any deposit would have to be relatively high grade (+2%) to be interesting.
3. The area still warrants further prospecting.

S.N. Charteris,
Geologist.

Vancouver, B.C.
August 17, 1966

NATIONAL TOPOGRAPHIC SERIES

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BRITISH COLUMBIA
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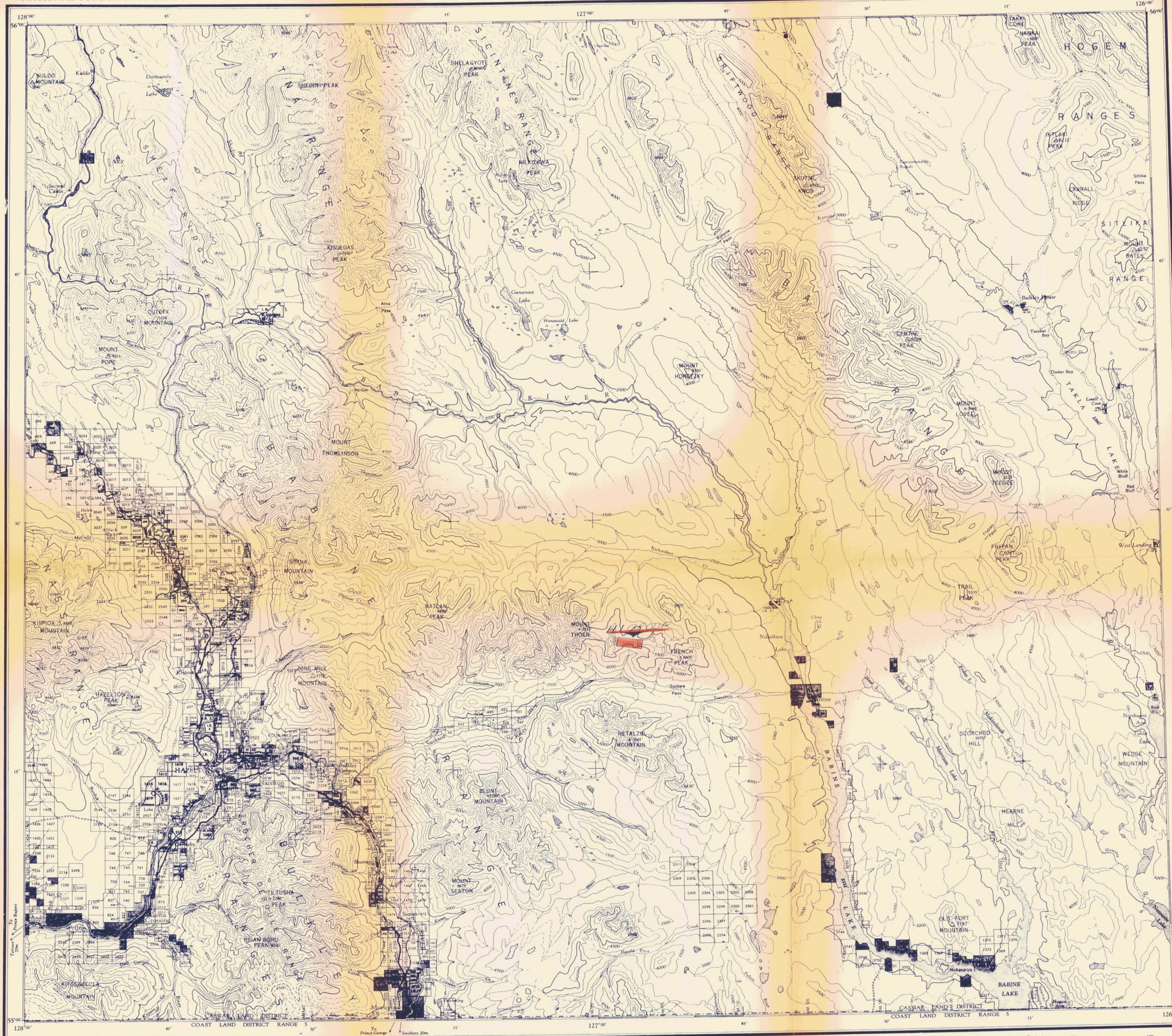
SECOND EDITION

CANADA, SHEET 93 M



Surveyed and compiled by the Topographical Survey,
Dept. of Mines and Technical Surveys 1935
Revised with the aid of Air Photographs,
and drawn by the Army Survey Establishment R.C.E. 1953-54
Printed with Lot Survey by the Surveys and Mapping Branch
Department of Lands and Forests, British Columbia.
Land Status—September 21st, 1956

Nearest GOVERNMENT AGENT to map area
Smithers

Magnetic declination 28°57′ E. at centre of map 1957.
Decreasing 4 minutes annually.

REFERENCE

Lands alienated or covered by applications under the Land Act	▬
Indian Reserve	▬
Government Reserve	▬
Land District Boundary	· — · — ·
Park Boundary	— · — · —
Municipality—City	▨
District	▨
Village	▭
Post Office	○
Settlement	#
Hospital	✚
Mine	⚒

HAZELTON

BRITISH COLUMBIA
CASSIAR LAND DISTRICT

Scale 1:250,000 — 1 Inch to 4 Miles Approximately

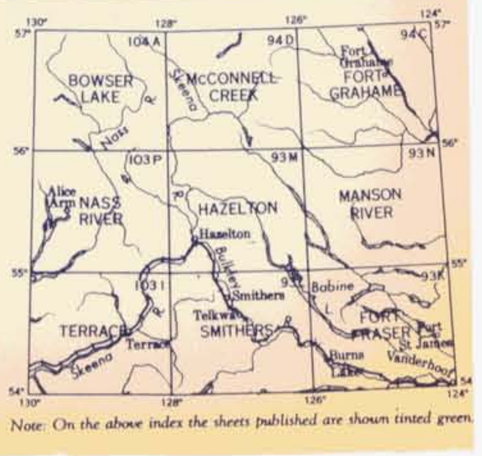
Miles 5 0 5 10 15 20 Miles
Kilometres 5 0 5 10 15 20 25 30 Kilometres

W. R. YOUNG, CHIEF GEOGRAPHER

Universal Transverse Mercator Projection

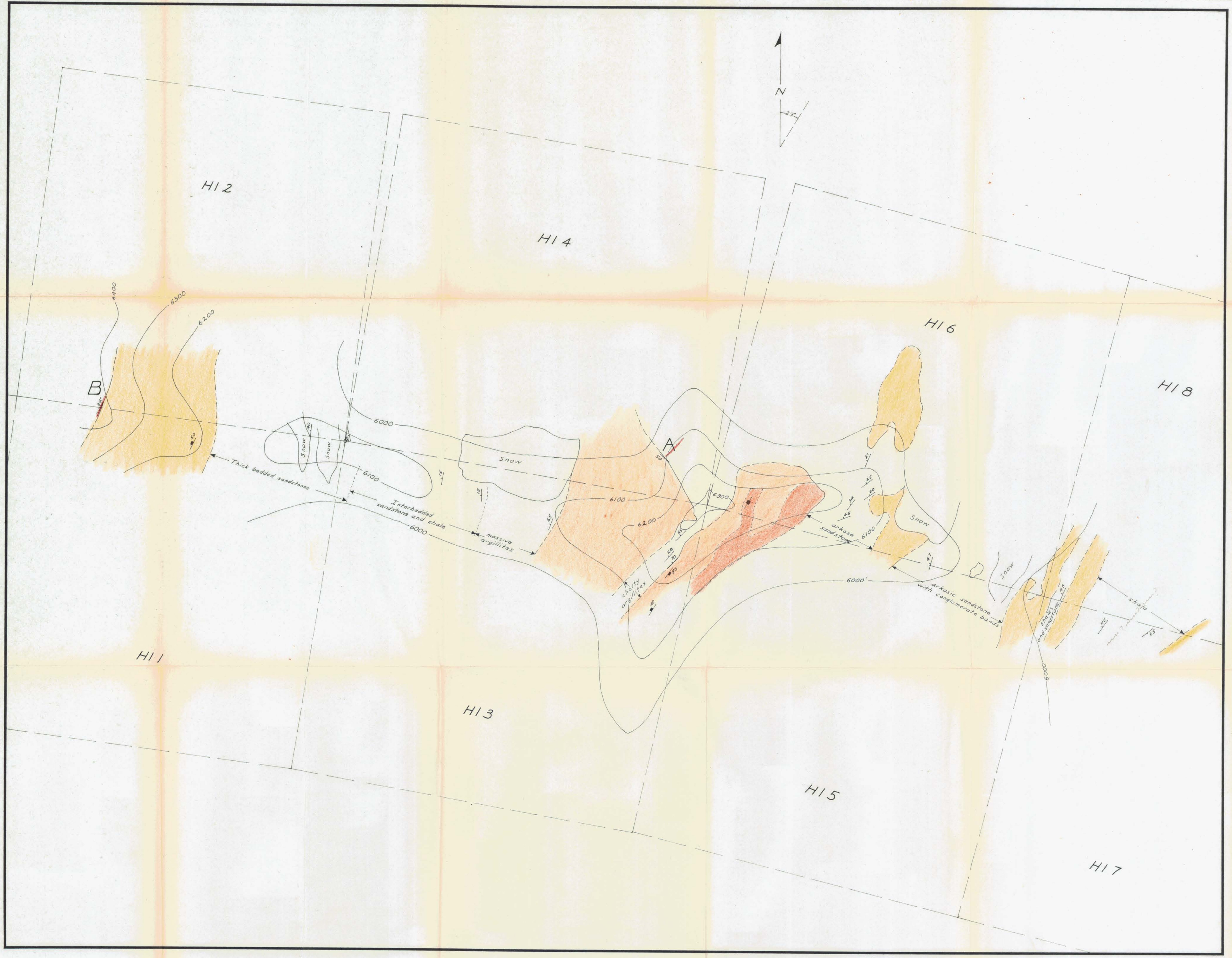
REFERENCE

Road, Hard Surface, All Weather	Route No 2, 2 Lanes
Road, Loose Surface, All Weather	2 Lanes
Road, Loose Surface, Less than 2 Lanes	All Weather, Dry Weather
Trail	- - - -
Railway	Station
Telephone Line	along road
Main Electric Power Line	
Horizontal Control Station	△
Contours (interval 500′)	3500
Elevation in feet above mean sea-level	6257′
Swamp or Marsh	
Intermittent Stream	
Dam	
Glacier	



Note: On the above index the sheets published are shown tinted green.

MAP REF. NO.: 93-M-7



LEGEND

🟨	Quartz monzonite with feldspar porphyry phases.
🟧	"Altered" quartz monzonite kaolinized feldspars in a quartz-sericite matrix.
🟥	Limonitic "altered" quartz monzonite - all fractures coated with brown-orange iron oxides. Minor pyrite in the kaolinized feldspars.
A	Chalcopyrite and pyrite in a 6" to 1' bed of chloritized argillite on a dip slope underlying the intrusive.
B	Chalcopyrite and pyrite over 2" to 6" in cherty argillites overlying the intrusive.

200 0 200 400 600 800 1000 1200 1400 1600 1800

SCALE: 1 INCH TO

COMPANY . . FALCONBRIDGE NICKEL MINES LTD.
PROPERTY . . H1 GROUP
LOCATION . . MT. THOEN, B.C.

WORKING PLACE . .
TYPE OF MAP . . TOPO-GEOLOGY
BASED ON . . CHAIN, COMPASS, ALTIMETER

DATE . . 24 NOV 66
DRAWN BY . . SNC - DHH
DATE OF WORK . . 21-24 JULY 66