

2594

REPORT ON GEOPHYSICAL SURVEY

ON

THEODOSIA 2 AND 4 AND OKEOVER 3

MINERAL GROUPS

Vancouver, B. C.

R. Wares

August 20, 1970

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Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. <u>2594</u>	MAP

LOCATION MAP
THEODOSIA GROUPS



REPORT ON GEOPHYSICAL SURVEY

ON

THEODOSIA 2 AND 4 AND OKEOVER 3

MINERAL GROUPS

INTRODUCTION

The Theodosia claim groups were covered by a combined geological and geochemical survey to further elucidate previous surveys. The magnetic survey was conducted between Aug. 19 and Oct. 14, 1969 under the guidance of R. Wares. The operators were A. Smith, R. Wares, L. Basher, S. Presunka and assisted at intervals by D. Partridge, H. Preece and L. Basher.

LOCATION AND ACCESS

The Theodosia claim groups are situated in the Bunster Hills, about 18 miles north of Powell River. They are located at an elevation of about 3000' to 3400' on an old erosional bench which has steep to precipitous slopes to the north.

The property is accessible by four wheel drive vehicle from the Lund - Powell River road though permission has to be obtained from timber concerns for use of the road.

SCOPE OF SURVEY

The magnetic survey was carried out on cut lines which were cut from a base line that trends N 25° W. The lines were cut at 200' intervals and chained and flagged. Magnetic readings were taken on 400' separation lines with stations at 50' intervals on these lines..

METHOD OF SURVEY

Magnetic readings were taken with an Askania tripod mounted tension wire magnetometer with a sensitivity of 5 gammas per scale division. A system of base stations were established and a close check was kept on the diurnal variations.

Damage to the Askania during the course of the survey necessitated the use of a Sharpe Fluxgate MF-1-100 magnetometer. A thorough check of the Askania data with the Fluxgate was performed and a satisfactory correlation was established though sensitivity was somewhat less, it being about 10 gammas. Constant re-occupation of Askania stations throughout the survey did not reveal any discrepancies or marked errors.

GEOLOGY

The Theodosia claim groups straddle a complex zone of intrusions. It consists essentially of a porphyritic granitic plug emplaced among a composite biotite granodiorite - monzonite intrusion. The porphyritic plug is the locus of intense hydrothermal alteration and mineralisation. This is characterized by intense silicification and sericitisation with the formation of a quartz stockmark adjacent to the intrusive granite plug. Copper and molybdenum mineralisation exhibits a sympathetic relationship to the intense hydrothermal alteration. Sparse magnetite is present within the altered granite plug.

Cross cutting the altered rocks are a dense swarm of dacitic dykes which are themselves cut by small diorite plugs that were intruded along the dyke walls.

INTERPRETATION

The magnetometer survey (maps 154-G-1 to 4) reveals a number of elongate anomalies of subdued character that reflects quite closely the attitude of the ubiquitous dyke swarms and dioritic plugs that are present in the area. They do not reveal or emphasize the known alteration halo around the silicic plug and since the dykes are essentially barren, the magnetics reveal little information of economic interest and is not a tool for any further investigation of the claim groups.

R. Wares

R. Wares

Vancouver, B. C.

August 20, 1970

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of a Geophysical Survey on Okeover Group 3.

I, D. H. Brown

of Vancouver, B. C.

in the Province of British Columbia, do solemnly declare that a magnetometer survey covering the above claims which form part at the Okeover Group 3 (as at Sept. 31, 1970). Expenses incurred representing part of field work backing the covering report total at least Four Hundred Dollars to be applied to the following claims:

OK 9, 10, 11, 12.

Work done between Aug. 19 and Oct. 9, 1969

A. Smith	4 days @ \$50.00	\$200.00
	Aug. 19-22/69	
D. Partridge	4 days @ \$35.00	\$140.00
	Aug. 19-22/69	
D. Basher	2 days @ \$40.00	<u>\$ 80.00</u>
	Sept. 27-28/69	
		\$420.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 21st day of September, 1970, A.D.

D. H. Brown

[Signature]

A Commissioner for taking Affidavits within British Columbia or A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.

In the Matter of

a Geophysical Survey on
Theodosia #2 Group

To WIT:

I, D. H. Brown

of Vancouver, B. C.

in the Province of British Columbia, do solemnly declare that a magnetometer survey covering the claims which form a part of Theodosia #2 Group.

Expenses incurred representing part of the field work backing the covering report total at least Four Hundred Dollars to be applied to the following claims:

IN 149, 150 claims

O.K. 71, 72 claims

Work done between Sept. 6 and Oct. 10, 1969

Sept. 19-22	R. Wares (Operator)	4 days @\$60.00	\$240.00
Sept. 19-22	L. Basher (Helper)	4 days @\$40.00	<u>\$160.00</u>
			<u>\$400.00</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 21st
day of September, 1970, A.D.

D.H. Brown

G.P. Phillips

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To WIT:

In the Matter of a Geophysical Survey on
Theodosia #4 Group

I, D. H. Brown
of Vancouver, B. C.

in the Province of British Columbia, do solemnly declare that a magnetometer survey covering the claims which form a part of Theodosia #4 Group.

Expenses incurred representing part of the field work backing the covering report total at least Fifteen Hundred Dollars to be applied to the following claims

IN 20, 22, 24, 26, 28

O.K. 30, 32, 40, 42, 44, 46-50

Work done between Sept. 16, 1969 and Oct. 10, 1969.

Sept. 23-26 and Oct. 5-9	R. Wares (operator)	9 days @ \$60.00	\$540.00
Oct. 10-14	S. Presunka (operator)	5 days @ \$60.00	\$300.00
Sept. 19-22	A. Smith (operator)	4 days @ \$50.00	\$200.00
Sept. 23-26 & Sept. 19-20	L. Basher (helper)	10 days @ \$40.00	\$400.00
Sept. 19-20	D. Partridge (helper)	2 days @ \$35.00	\$ 70.00
			\$1,510.00 *****

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 21st
day of September, 1970, A.D.

D. H. Brown

J. P. ...

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder

FALCONBRIDGE NICKEL MINES LIMITED

1112 WEST PENDER STREET

VANCOUVER 1, B. C., CANADA

TELEPHONE: 682-6242

TELEX: 04-5938

August 20, 1970

The Mining Recorder,
Vancouver Mining Division,
Vancouver, B. C.

Dear Sir:

This is to certify that the geophysical work on the Theodosia Groups of claims was carried out under my direction by the following Company personnel with the stated qualifications.

R. Wares is a graduate of Aberdeen University, Scotland, with a B.Sc. in geology, an M.Sc. (pend.) Queens University and has supervised and participated in geophysical programs for over eight years.

S. Presunka is a qualified geophysical operator with over ten years experience with the methods employed.

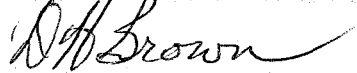
A. Smith and L. Basher are geophysical operators trained by Falconbridge and have worked as geophysical operators for over four years.

L. Basher, D. Partridge and H. Preece are surveyors and geophysical assistants trained by Falconbridge Nickel Mines. Ltd.

I am a graduate of University of British Columbia (B.A.Sc.) in geological engineering and am a member in good stand of the Association of Professional Engineers of British Columbia.

Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED

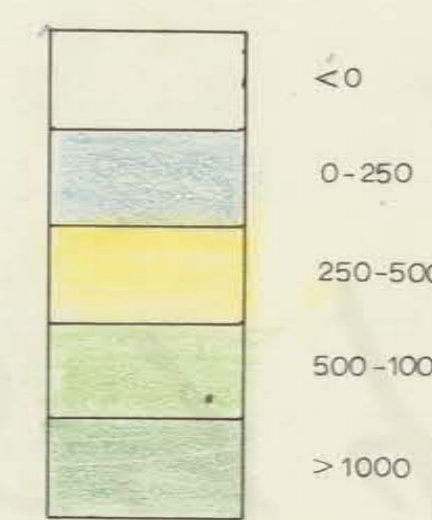
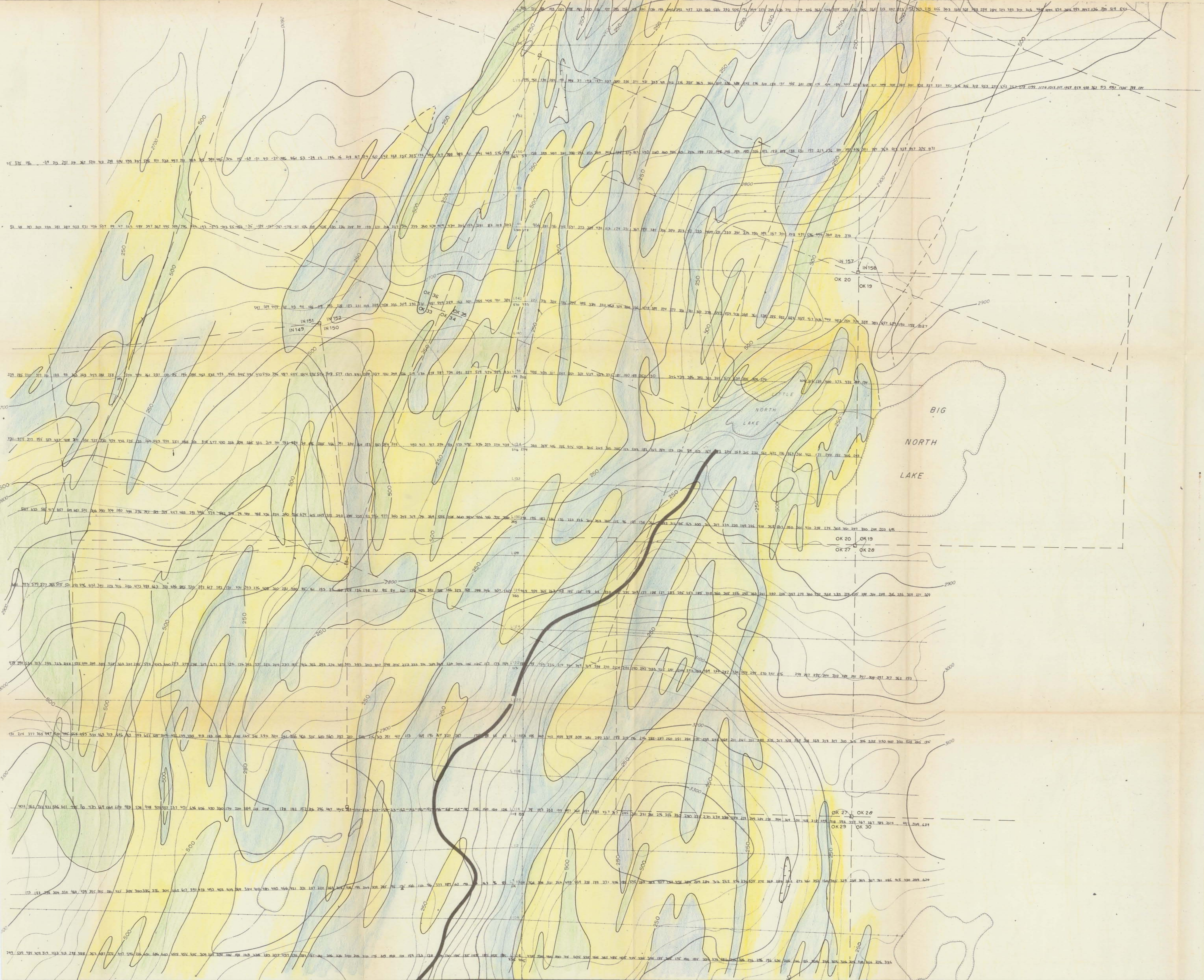


D. H. Brown, P. Eng. (B.C.)

DHB:lst

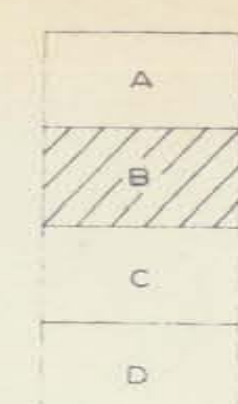


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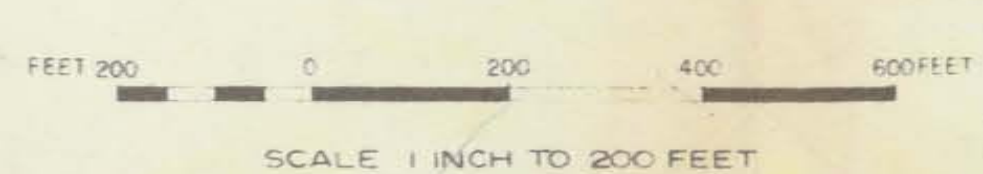


21,100 ft Base

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LOCATION MAP



SCALE 1 INCH TO 200 FEET

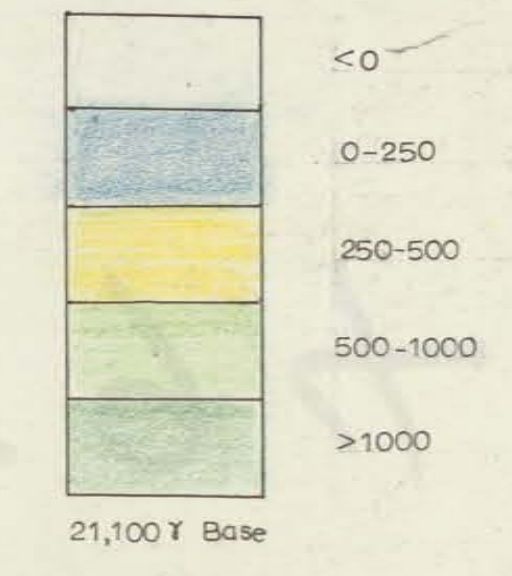
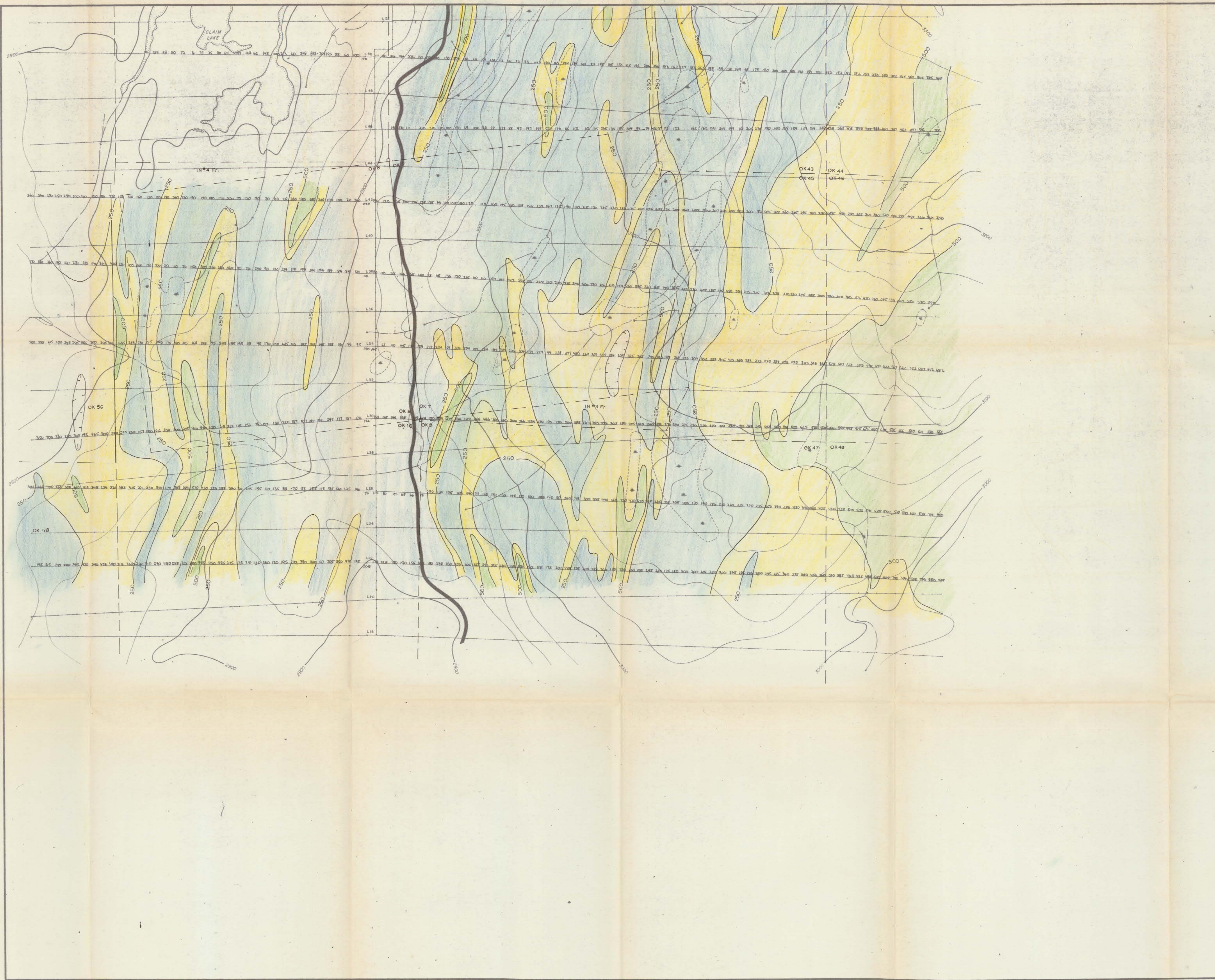
COMPANY ... FALCONBRIDGE NICKEL MINES LTD
PROPERTY ... O.K. GROUP
LOCATION ... POWELL RIVER, B.C.

WORKING PLACE ... NORTH CENTRAL PART OF GRID
TYPE OF MAP ... GEOPHYSICAL
BASED ON ... FIELD WORK BY R.W. S.R.A.S.

DATE ... AUG 1970
DRAWN BY ... R.W.
DATE OF WORK ... AUG-SEPT-OCT 1969

D.H. Brown
To accompany geophysical report
by R. Warras, c/o Okanagan (Thames)
Groups, near Theocopia, Tantal
Vancouver, B.C., dated May 20, 1970

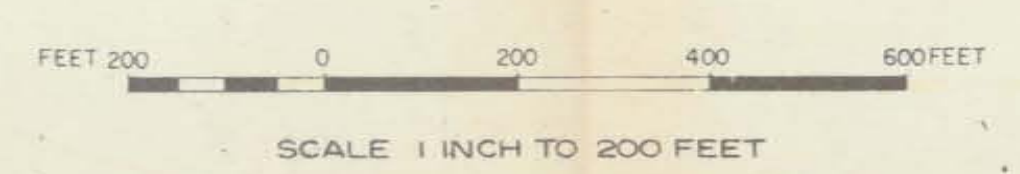
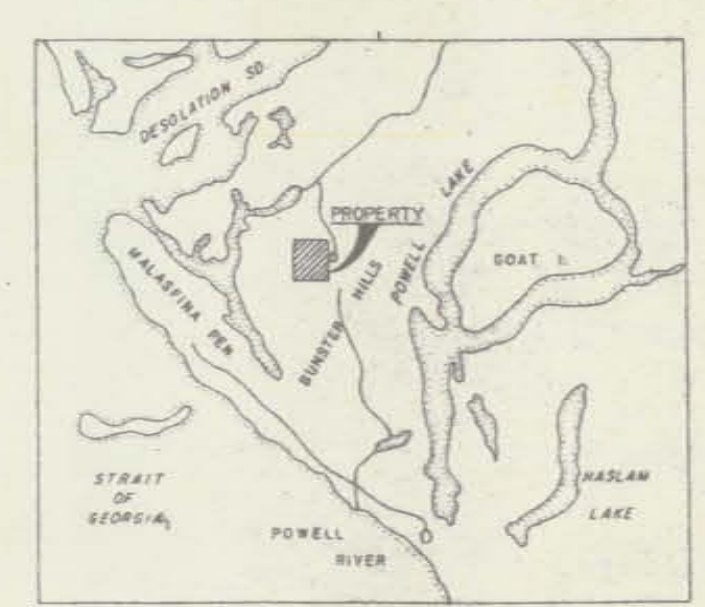
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 LOCATION MAP



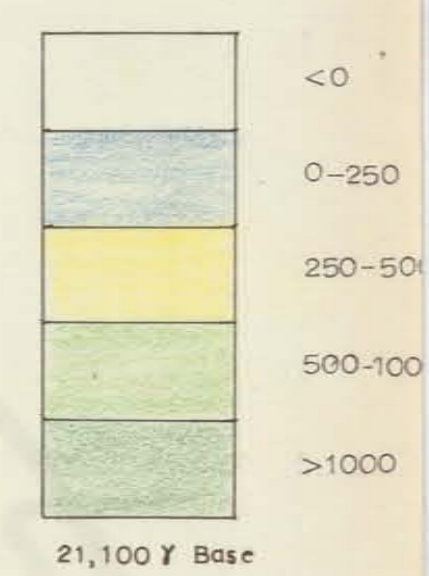
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 PROPERTY ... O.K. GROUP
 LOCATION ... POWELL RIVER, B.C.

WORKING PLACE ... NORTH CENTRAL PART OF GRID
 TYPE OF MAP ... GEOPHYSICAL
 BASED ON ... FIELD WORK BY R.W., S.P., A.S.

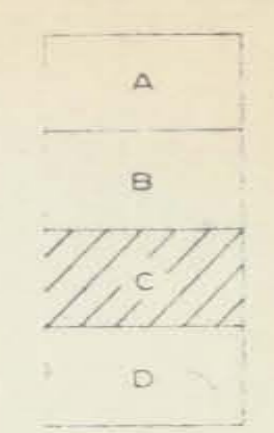
DATE ... AUG. 1970
 DRAWN BY ... R.W.
 DATE OF WORK AUG-SEPT-OCT. 1969

R.W. Brown
 To accompany geophysical report
 by R. Wares, on Okavango and
 Coraups - near Thudosa Inlet
 Vancouver M.D., dated Aug 29, 1970

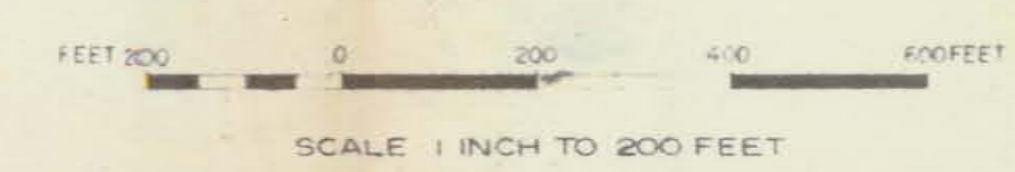
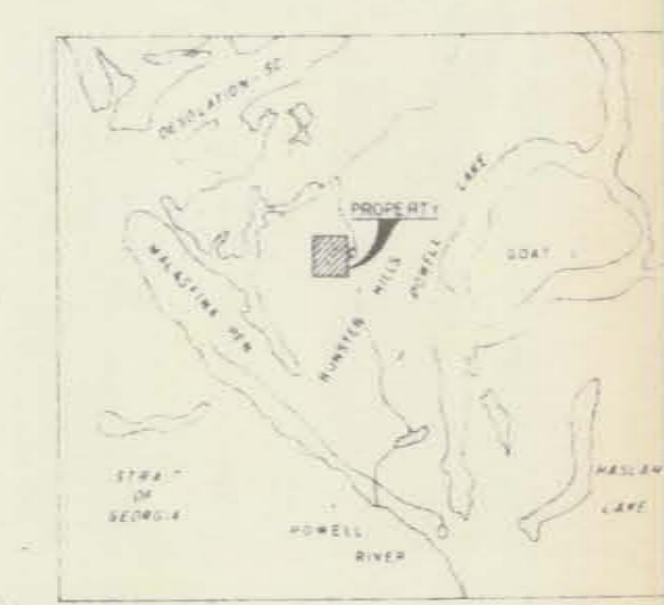
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 LOCATION MAP



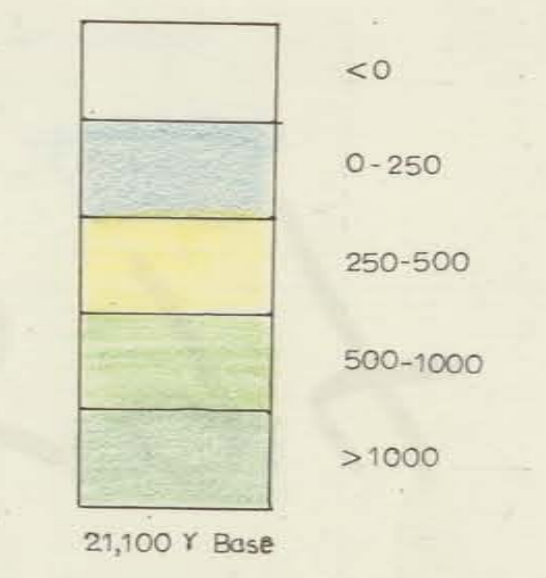
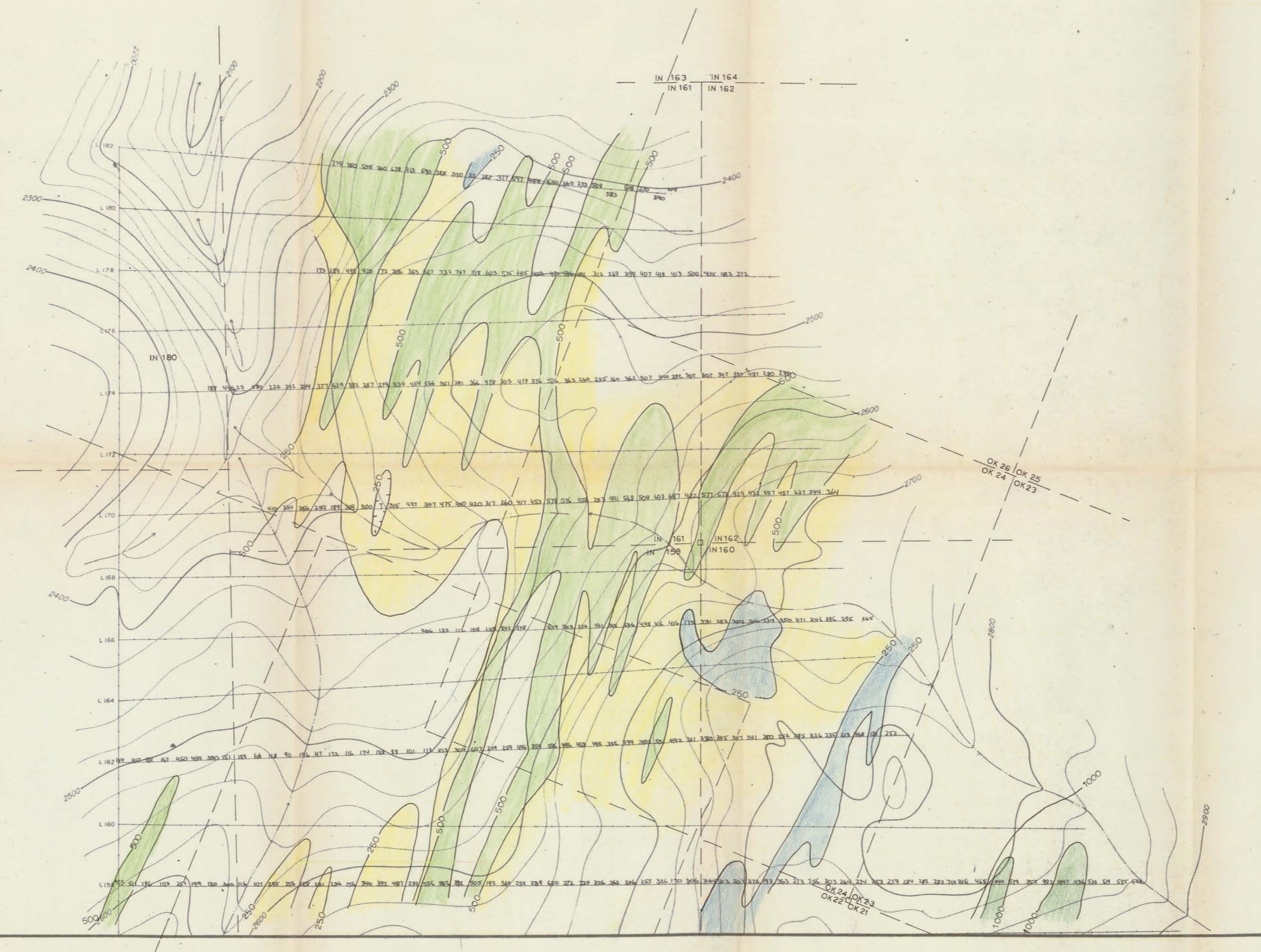
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 PROPERTY ... O.K. GROUP
 LOCATION ... POWELL RIVER, B.C.

WORKING PLACE ... NORTH CENTRAL PART OF GRID
 TYPE OF MAP ... GEOPHYSICAL
 BASED ON ... FIELD WORK BY R.W.S.P., AS

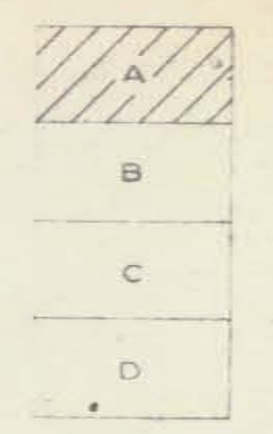
DATE ... AUG 1970
 DRAWN BY ... R.W.
 DATE OF WORK AUG-SEPT-OCT. 1969

R.W. Brown To accompany geophysical report
 by R. Worres, on the Powell River
 Group, near Powell River, B.C.,
 Vancouver, B.C., dated August 1970.

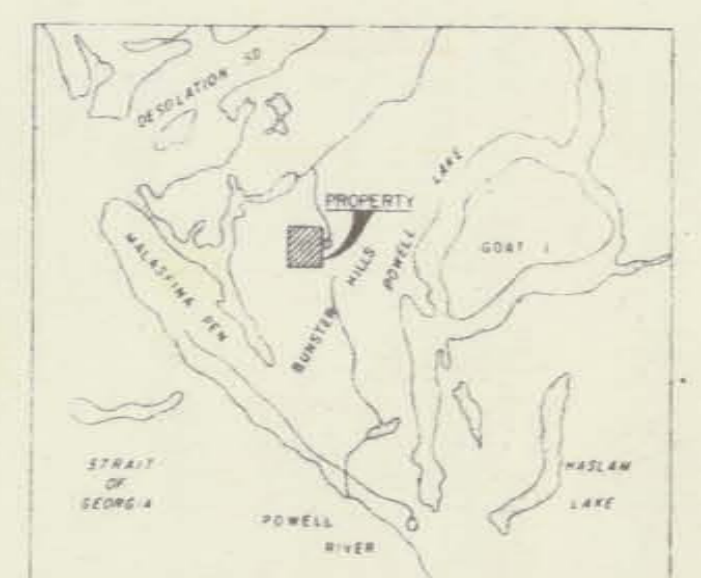
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 LOCATION MAP



SCALE 1 INCH TO 200 FEET

COMPANY ... FALCONBRIDGE NICKEL MINES LTD.
 PROPERTY ... O.K. GROUP
 LOCATION ... POWELL RIVER, B.C.

WORKING PLACE ... NORTH CENTRAL PART OF GRID.
 TYPE OF MAP ... GEOPHYSICAL
 BASED ON ... FIELD WORK BY R.W.S.P.A.S.

DATE ... AUG. 1970
 DRAWN BY ... R.W.
 DATE OF WORK ... SEPT.-OCT. 1969

R.W. Brown
 To accompany geophysical report
 by R. Wares on Okanagan Thebas
 Groups, near Thebas Lake,
 Vancouver B.C., dated Aug. 20, 1970