WINSTON LAKE PROJECT

GEOLOGICAL REPORT

FOR THE

ANDERSON CLAIMS

(TB 519245 - 519248 incl.)

NTS 42-D-14/W

IAN D. PIRIE
CORPORATION FALCONBRIDGE COPPER
THUNDER BAY, ONTARIO

APRIL 10, 1981

SUMMARY:

Geological mapping (1:5000) of the four claims: TB 519245, TB 519246, TB 519247, TB 519248 was done from September 15th to September 18th, 1979 inclusive by a two-man crew. Except for the previously known Anderson Showing (chalcopyrite, pyrite, pyrrhotite, sphalerite), no new areas of mineralization were recognized. However, detailed mapping suggested that the felsic gneisses exposed east of Winston Lake were metavolcanic rather than metasedimentary.

INTRODUCTION:

Detailed geological mapping at a scale of 1:5000 was carried out over the claim group by a two-man crew. Pre-existing picket lines and claim lines were used to control the location of the outcrops. The objective of the program was to see if the known zone of mineralization (Anderson Showing) could be traced along strike and to explore for other mineralized horizons on the property.

LOCATION AND ACCESS:

The claim group is located on the southeastern shore of Winston Lake. It is accessible using the Winston Lake trail that joins a 23 km. gravel road south to a point on the Trans-Canada Highway #17 located 8 km west of Schreiber, Ontario. (Figure 1). Alternatively, the area can be reached by float plane from Pays Plat located on the north shore of Lake Superior.

PROPERTY STATUS:

The four claims TB 519245, 519246, 519247 and 519248 were staked by Corporation Falconbridge Copper personnel on August 21, 1979 and recorded September 13th, 1979. Corporation Falconbridge Copper, P. O. Box 40, Commerce Court West, Toronto, Ontario M5L 1B4 is the current holder of these claims.

PREVIOUS WORK:

Disseminated pyrrhotite and pyrite with minor chalcopyrite and sphalerite was discovered in quartz-biotite-feldspar gneisses by L. C. Anderson in 1952. In 1953 Andowan Mines drilled 5 shallow holes, totalling 424 feet, to test the mineralized zone. Up to 5% pyrrhotite and minor amounts of disseminated chalcopyrite were encountered in the drill core but no assays were reported. In 1965, Zenmac Metal Mines drilled 2 holes for a total of 723 feet. Disseminated pyrite, chalcopyrite and massive pyrite and pyrrhotite over 0.5 feet were reported but no assays are available.

The claim group has been previously mapped at a reconnaissance scale (1 inch = ¼ mile) by the Ontario Government (Pye, 1964). The schists and gneisses exposed in the area were interpreted as metasediments.

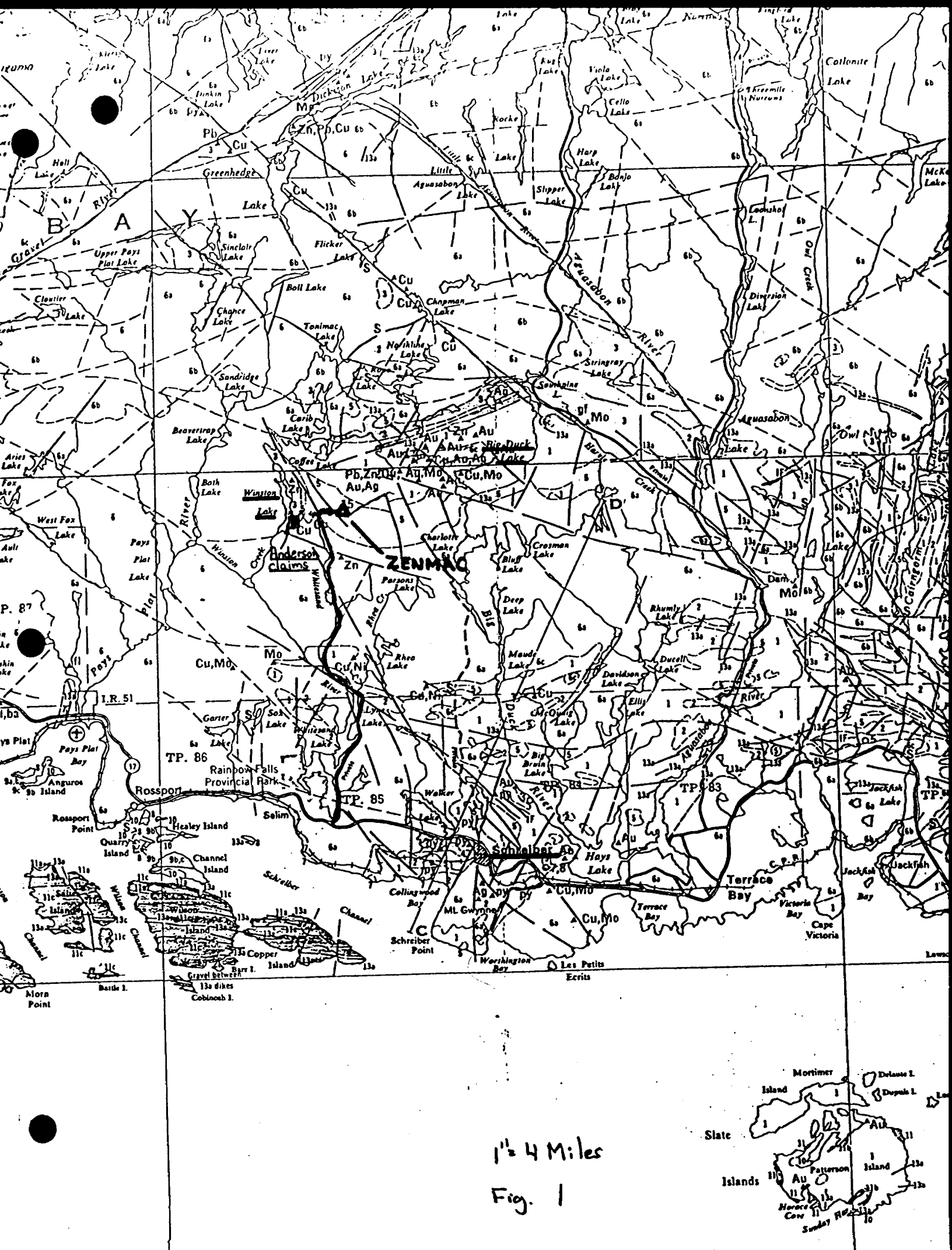

ZENMAC
Anderson claims
Winston Lake
Rossport
Rossport Point
Hesley Island
Quarry Island
Channel Island
Wilson Island
Copper Island
Gravel between 13a dikes
Cobinosh I.
Battle I.
Mora Point
Anguros Island
Pays Plat Bay
Rainbow Falls Provincial Park
TP. 86
TP. 85
TP. 83
I.R. 51
Selim
Schreiber
Schreiber Point
Collingwood Bay
Mt. Gwynne
Worthington Bay
Les Petits Ecrits
Terrace Bay
Cape Victoria
Victoria Bay
Jackfish Bay
Jackfish Lake
Mortimer Island
Slate Islands
Patterson Island
Horace Cove
Sunday Rock
Au
Cu,Mo
Pb,Zn,Cu
Au,Mo
Au,Ag
Zn
Mo
Cu,Ni
1" = 4 Miles

Fig. 1

RESULTS OF THE PRESENT GEOLOGICAL SURVEY:

The claim group is underlain by granite, diorite and felsic metavolcanic gneisses (Figure 2). The felsic metavolcanics consist of fine- to medium - grained quartz-feldspar-biotite gneiss (Unit 2a), quartz - muscovite schist (Unit 2b) and quartz-biotite-garnet gneiss (Unit 2c). In unit 2c, remnant lapilli fragments were observed which suggest that these gneisses are felsic metavolcanics rather than metasediments (Pye, 1964). The diorite intrusive (Unit 4a, b) is fine grained, massive and magnetic. The granite is fine grained and locally migmatitic. A table of formations is presented below. All rocks are Archean in age.

TABLE OF FORMATIONS

Granite

Intrusive Contact

Diorite - Gabbro - Amphibolite

Intrusive Contact

Felsic Metavolcanics

In the western part of the claim group and west of the diorite, the schistosity and gneissosity of the felsic metavolcanics trend approximately north-south and dip 60^{0} to the east. However in the southeastern part of the claim group, the gneisses strike east-west and dip 60^{0} to the south. This disruption is probably a result of the granitic intrusion that outcrops on the southern part of the property. The diorite is separated from the felsic metavolcanic gneisses on both the east and west sides by north-northeast trending faults.

The only mineralization found on the claim group was the Anderson Showing. Three to five percent disseminated sulphides (pyrrhotite, chalcopyrite, sphalerite and pyrite) were found in a quartz-biotite $\pm$ garnet schist interlayered with quartz-feldspar-biotite gneiss. The zone of mineralization was approximately 10 meters thick and could be traced along strike for about 75 meters. Two old trenches were found but not mapped in detail. Epidote, chlorite and sericite occur in the gneisses below the showing.

CONCLUSIONS:

Detailed geological mapping has indicated that the felsic schists and gneisses are metavolcanic rather than metasedimentary. No new areas of mineralization other than the Anderson Showing were found.

APRIL 10, 1981.

IAN D. PIRIE

REFERENCES

Pye, E. G. 1964: Mineral Deposits of the Big Duck Lake Area. O D M Geological Report No. 27.

Ontario

Ministry of Ne

GEOPHYSICAL – GEOLC
TECHNICAL DA

42D14NW0036 2.3902 PAYS PLAT LAKE

900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOLOGICAL

Township or Area PAYS PLAT, CLAIM MAP M-2522, NTS 42-D-14

Claim Holder(s) CORPORATION FALCONBRIDGE COPPER

P.O. BOX 40, COMMERCE COURT WEST, TORONTO, ONTARIO

Survey Company CORPORATION FALCONBRIDGE COPPER

Author of Report IAN D. PIRIE - c/o CORPORATION FALCONBRIDGE COPPER

Address of Author 2606 VICTORIA AVE. EAST, THUNDER BAY, ONT.

Covering Dates of Survey SEPT. 15, 1979 - MARCH 31, 1981
(linecutting to office)

Total Miles of Line Cut NA

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	–Electromagnetic	
	–Magnetometer	
	–Radiometric	
ENTER 20 days for each additional survey using same grid.	–Other	
	Geological	
	Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 4/5/81 SIGNATURE: I.D Pirie
Author of Report or Agent

Res. Geol. _____ Qualifications Thesis etc.

Previous Surveys

File No.	Type	Date	Claim Holder
			I.D

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
TB	519245
TB	519246
TB	519247
TB	519248

If space insufficient, attach list

TOTAL CLAIMS 4

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

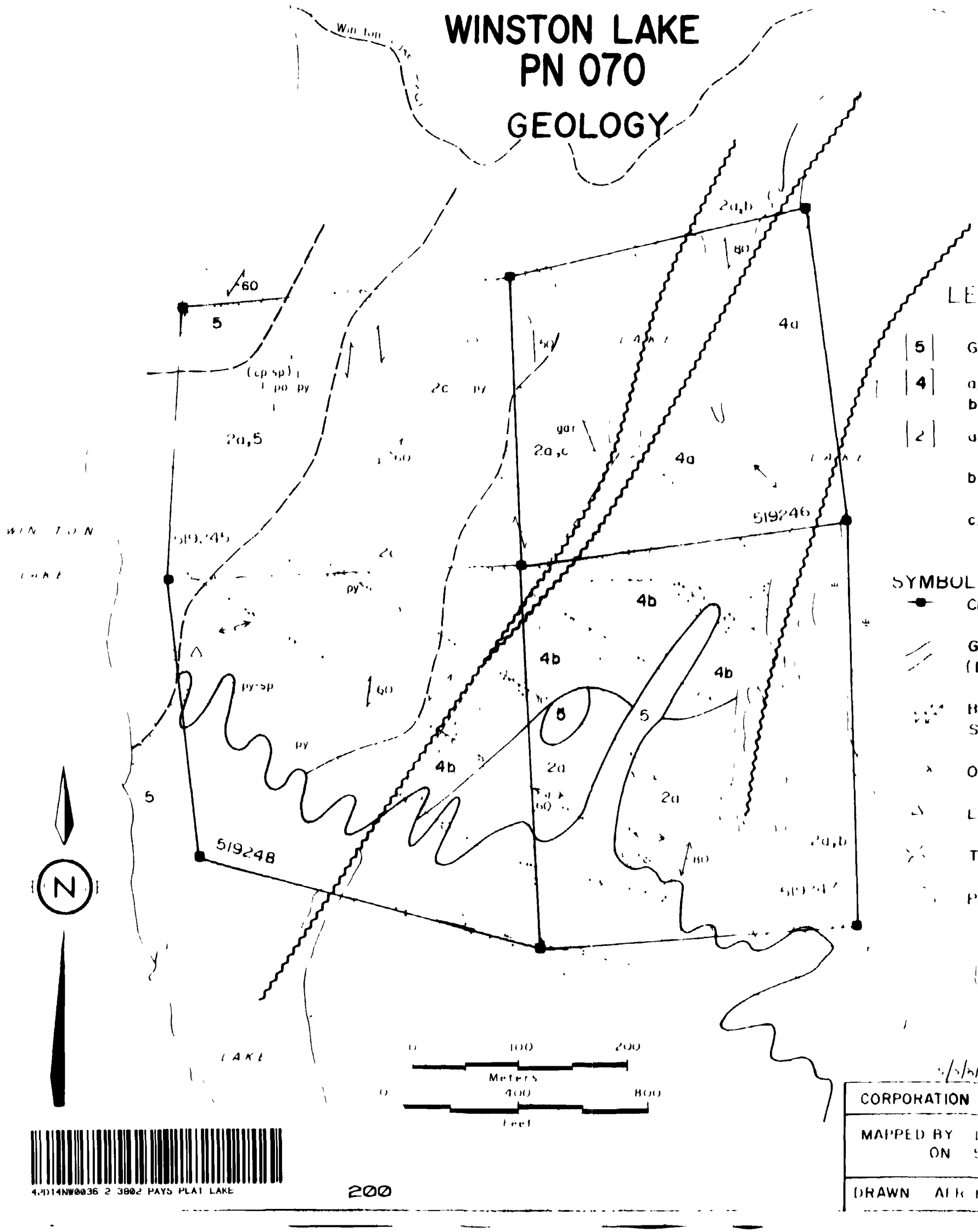
Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

WINSTON LAKE
PN 070
GEOLOGY



LEGEND

5	GRANITE
4	a) GABBRO/AMPHIBOLITE b) DIORITE
2	a) QUARTZ FELDSPAR-BIOTITE GNEISS b) QUARTZ MUSCOVITE SCHIST c) QUARTZ-BIOTITE-GARNET GNEISS/SCHIST

SYMBOLS

- CLAIM LINE AND POSTS
- GEOLOGICAL CONTACT (DEFINED, ASSUMED)
- BEDDING, GNEISSOCITY, SCHISTOSITY
- OUTCROP(LARGE, SMALL)
- LAPILLI
- TRENCH
- PICKET LINE

5/5/81

CORPORATION FALCONBRIDGE COPPER

MAPPED BY IDP, PL
ON SEPT 15-16, 1979

DRAWN AUG 1981 | NTS 42D/14 W

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