

ASSESSMENT REPORT

GEOPHYSICAL SURVEY

on the

MB1 and MB3 CLAIMS

QUEEN CHARLOTTE ISLANDS, B.C.

SKEENA M.D.

N. LAT. 53° 37.6'

W. LONG. 132° 15'

NTS 103F/9E, 9W

FOR

A. CLEMISS

VANCOUVER, BRITISH COLUMBIA

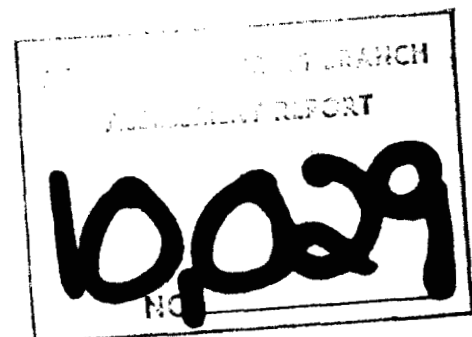
BY

R.J. ENGLUND, B.Sc.

STRATO GEOLOGICAL ENGINEERING LTD.

VANCOUVER, BRITISH COLUMBIA

FEBRUARY 6, 1982





STRATO GEOLOGICAL ENGINEERING LTD.  
103-709 DUNSMUIR STREET  
VANCOUVER, BRITISH COLUMBIA  
V6C 1M9

TELEPHONE (604) 687-4610

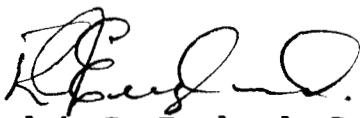
Geophysical Survey  
MB1 and MB3 Claims

SUMMARY

A magnetometer survey on the MBI claim has indicated considerable local variation of magnetic response which is attributed to near surface features. Although some north-south lineation is apparent, the results do not indicate the presence of a major fault structure or a geological contact within the survey area. The results of an I.P./Resistivity traverse across both claims indicate some variation of apparent resistivity but are considered inconclusive as to defining a change in geological formations.

A geochemical sampling program is recommended to establish specific areas of interest for more detailed follow-up work on the properties.

Respectfully submitted,  
STRATO GEOLOGICAL ENGINEERING LTD.

  
Ralph J. Englund, B.Sc.

Geophysicist

February 6, 1982

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INTRODUCTION

Persuant to a request by Mr. A. Clemis a reconnaissance magnetometer survey was carried out over the MB1 claim and a reconnaissance Induced Polarization line was conducted across the northern portions of the MB1 and MB3 claims during July 1981.

The intent of the geophysical work was to delineate any geological structure, contacts and/or faults within the survey area. The results of 24 km of magnetic survey data and 3.8 km of IP Survey data are presented in this report.

LOCATION, ACCESS, TOPOGRAPHY

The claims are located in central Graham Island some 11 kilometers south-southwest of Port Clements. The main MacMillan-Bloedel logging road passes near east-west through the northern portion of the claims and the LCP lies some 500 meters north of the road. Branch logging roads provide good access to most of the claim area.

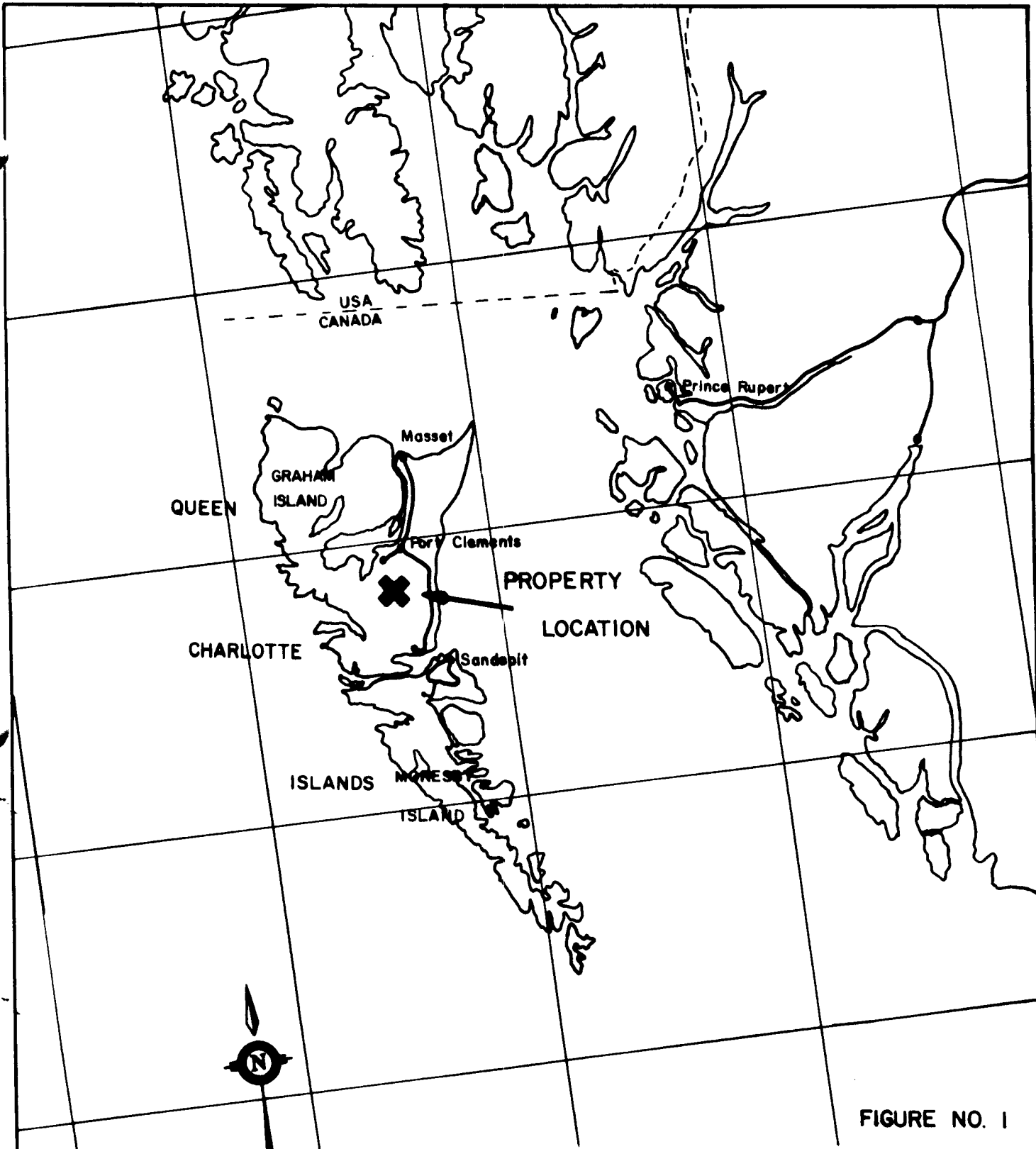


FIGURE NO. 1

<b>ART CLEMISS</b> VANCOUVER B.C.
<b>MB-1 &amp; MB-3 CLAIMS</b> SKEENA M.D. 103-F-9E
<b>LOCATION MAP</b>
TO ACCOMPANY A REPORT BY R. J. ENGLUND
STRATO GEOLOGICAL ENGINEERING

SCALE 1 cm = 24 km

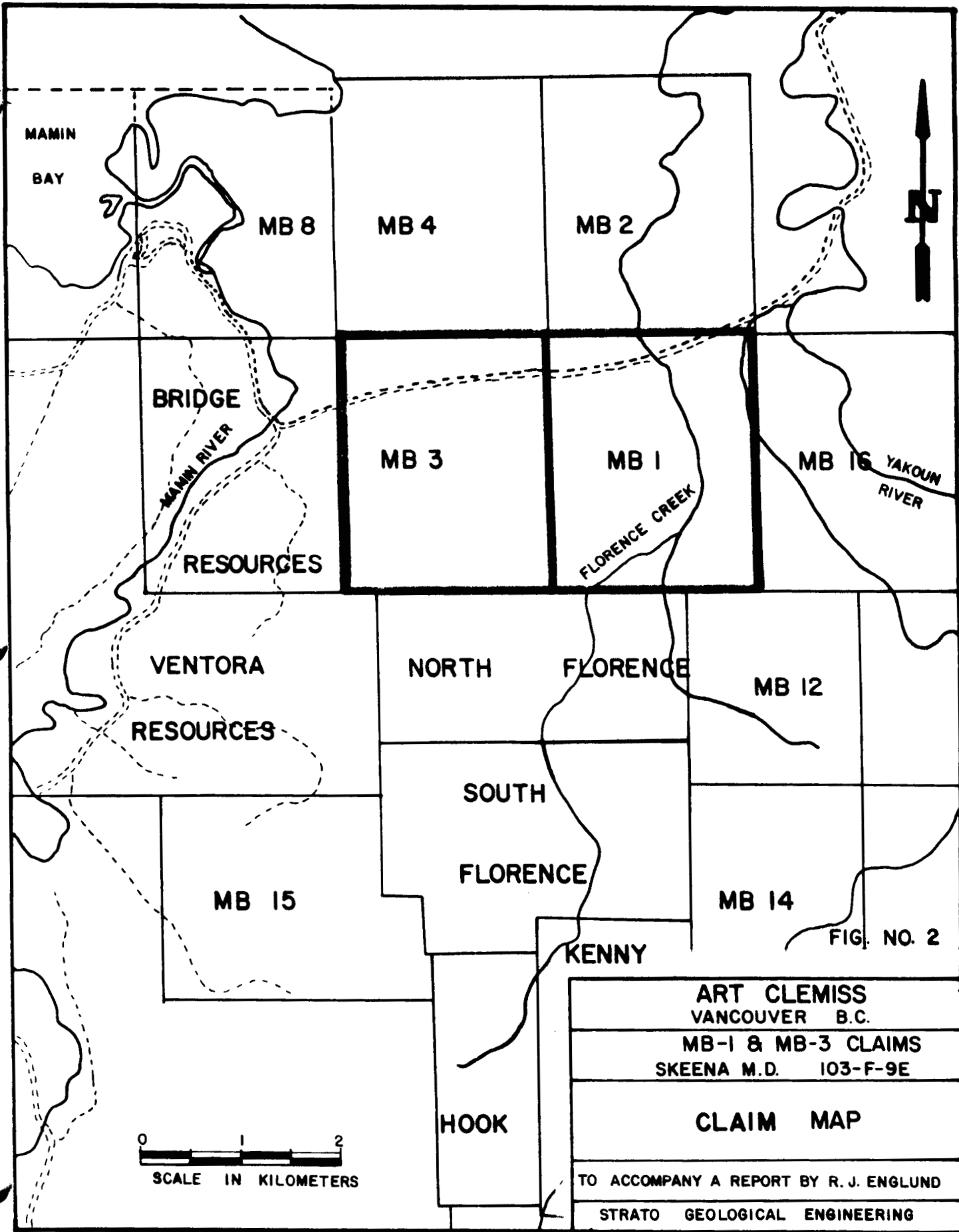
The claims are primarily in a logged area and is covered with slash and second growth. Florence Creek flows northerly, bisecting the MBI claim. Topographical relief is generally low with elevations ranging from about 30 meters to 60 meters and rising to some 120 meters in the southwest corner of the MB3 claim.

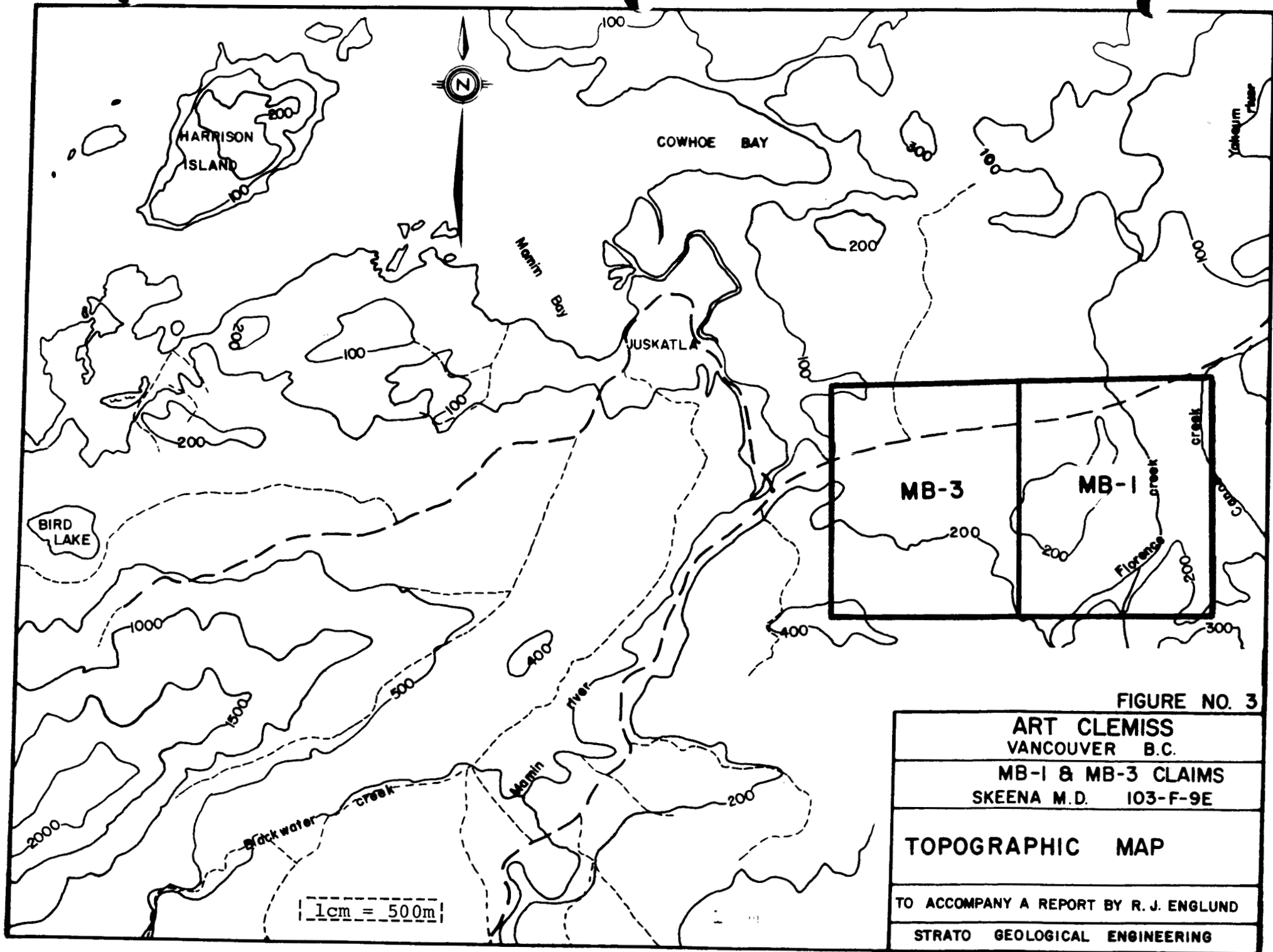
#### CLAIMS

The property comprises 40 contiguous mineral claim units the Skeena Mining Division and is recorded as follows:

<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
MB1	20	853	December 20, 1981
MB3	20	855	December 20, 1981

Assessment work has been filed, this report being part of the work, to maintain the claims in good standing until December 1982. The claims are shown on B.C. Department of Mines and Petroleum Resources Mineral Titles Reference Map 103F/9E and 9W. The L.C.P. is located in accordance with the specifications of the Mining Act.







GENERAL GEOLOGY

The southwestern third of the MB3 claim, as mapped by A. Sutherland Brown, Bulletin No. 54, is underlain by Paleocene Masset Formation consisting of subaerial basalt flows and breccias, rhyolite ash flows, and lesser dacite.

The MB1 claim and the northeastern two thirds of the MB3 claim is mapped as Quaternary sediments overlying the Skonun Formation of sands, mudstone, sandstone and conglomerates. No structure is mapped in the claim area.

HISTORY

A reconnaissance VLF Electromagnetic survey was completed over the MB3 claim in August 1980 with results indicating some very weak, near northerly trending conductive zones. The reader is referred a report on the MB3 claim by A.F. Roberts, P.Eng., dated January 29, 1981.

INSTRUMENTATION AND SURVEY PROCEDURE

The survey grid for the magnetometer survey was established from the MB1 LCP with a north-south baseline along the common claim boundary. East-west survey lines were compassed and chained at 200 meter line interval and 25 meter station spacing over the MB1 claim.

The magnetic survey was conducted with a Sabre Electronics, Model M100, Fluxgate Magnetometer measuring the vertical component of the earth's magnetic field. All survey data was tied to an established base station and all lines were "looped" at frequent intervals to allow for correction of diurnal variations in accordance with standard practice. The methods are well known and fully described in the literature.

A Huntec Mark IV portable Induced Polarization system was used to measure apparent ground resistivity and chargeability alongside a logging road traversing near east-west through the northern part of the MB1 and MB3 claims (Figure 5). This reconnaissance I.P. traverse was started at the MB1 corner post ON, 4E and employed a dipole-dipole array, spacing  $a = 50$  meters,  $n = 2$ , with 50 meter station intervals. The method is well known and is fully described in the literature.

### THE MAGNETIC MAP

The magnetic results are presented in plan form as Figure 4. Magnetic relief is quite variable over the grid area and indicates some near north-south lineation. The variations observed are indicative of variable magnetite content within near surface rock units. No clear pattern or distinct features are evident which would indicate a variation of rock units or major faults within the survey area.

### INDUCED POLARIZATION PROFILE

The I.P. traverse, giving both chargeability and resistivity profiles, is presented as Figure 5. The chargeability values can be considered as background values, generally less than 3.0 milliseconds. Chargeability values of better than twice background are noted at 0+00 and 2+00W in the northeast corner of the MBl claim. These highs are associated with a resistivity low on low, swampy ground near Canoe Creek.

Resistivity values generally vary between 100 and 300 ohm meters. Two higher resistivity sections, 12+00W to 16+50W and 23+00W to 32+00W, are indicative of a more competent rock unit or less overburden in these areas. The single high resistivity high at 35+50W may be attributed to fill at a road junction.

No faults and/or geological contacts are clearly defined by the resistivity results and the generally low I.P. effects do not indicate the presence of significant mineralization along the traversed line.

#### CONCLUSIONS & RECOMMENDATIONS

The magnetic survey, covering the MBI claim, has failed to indicate a variation of rock units or major fault structures within the survey area. Some north-south lineation apparent throughout the grid area however may be the result of variations of magnetite mineralization within the near surface rocks.

The I.P. traverse across the northern claims area indicates a small variation of resistivity which may be attributed to variations in overburden thickness or variations of bedrock density. Higher than background chargeabilities in the northeast corner of the MBI claim suggest the area warrants further investigation as to whether the I.P. effects can be explained by low, swampy ground in the Canoe Creek area.

A reconnaissance geochemical sampling program is recommended for the claims. Correlation between geochemical and magnetic results should then lead to consideration of further work in selected areas of interest.

Respectfully submitted,

Strato Geological Engineering Ltd.



Ralph J. Englund, B.Sc.

Geophysicist

February 6, 1982

REFERENCES

- (1) B.C. Department of Mines & Petroleum Resources,  
Bulletin No. 54, Geology of the Queen Charlotte  
Islands, A. Sutherland Brown, 1968.
  
- (2) Geophysical Report on the MB-3 Claim (20 Units)  
by A.F. Roberts, P.Eng., dated January 29, 1981.

TIME-COST DISTRIBUTION

The claim group toward which work is being applied with this report consists of the following mineral claims:

<u>Claim</u>	<u>No. Units</u>	<u>Record No.</u>
MB1	20	853
MB3	20	855
MB11	20	863
MB16	20	868

The magnetometer survey and the I.P. traverse on the claims were conducted by Strato Geological Engineering Ltd. during the period July 2 to July 31, 1981 inclusive.

A listing of personnel and distribution of costs is as follows:

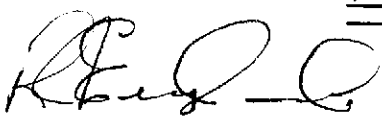
Personnel

G. Hackett,	Field Supervisor and Geophysical Operator.
K. Anderson,	Geophysical Operator
N. Stevenson,	Geophysical Operator
H. Brownlow,	Geophysical Operator
W. Davidson,	Field Assistant
M. Coughlin,	Field Assistant
R. Bruskiwich,	Field Assistant

Cost Distribution

Labour	\$ 6,410.25
Room & Board	384.46
Transportation	1,209.75
Instrument Rental	1,827.00
Camp and Field Supplies	839.26
Drafting & Misc.	430.00
Report	<u>900.00</u>
TOTAL	<u><u>\$12,000.72</u></u>

SIGNED:

  
Strato Geological Engineering Ltd.



CERTIFICATE OF QUALIFICATIONS

I, Ralph J. Englund, do hereby certify that:

- 1) I am practising geophysicist with offices at #103-709  
Dunsmuir Street, Vancouver, B.C., Canada, V6C 1M9.
- 2) I am a graduate of U.B.C. where I obtained by B.Sc.  
(Physics) in 1971.
- 3) I am a member in good standing of the following  
professional organization:
  - a) B.C. Geophysical Society
- 4) I have been engaged in the study, teaching, and practice  
of exploration geophysics continuously for 9 years. I  
have worked as a geophysical consultant on numerous  
projects in Western North American since 1972.
- 5) The Geophysical field work and the interpretation of the  
results in this report were done under my direct  
supervision.
- 6) I have no direct, indirect or contingent interest in  
the MB1 and MB3 claims, nor do I expect to receive any  
such interest.

Dated in Vancouver, B.C., this 6th day of February, 1982.



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Ralph J. Englund, B.Sc.  
Geophysicist

0100S  
2100S  
4100S  
6100S  
8100S  
10100S  
12100S  
14100S  
16100S  
18100S  
20100S  
22100S  
24100S



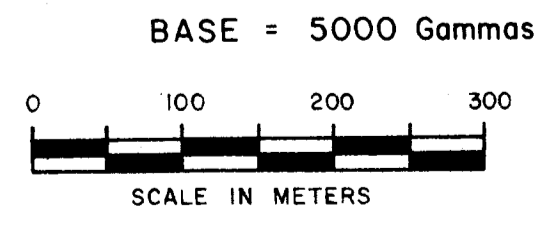
0100E 2100E 4100E 6100E 8100E 10100E 12100E 14100E 16100E 18100E 20100E

CONTOUR INTERVAL = 25 Gammas

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**19029**  
No.

*R.P. Clemiss*  
c. Feb 1982

ART CLEMISS  
MB I CLAIM  
SKEENA M.D.  
**MAGNETIC CONTOUR MAP**



TO ACCOMPANY A REPORT BY R.J. ENGLUND GEOPHYS.  
SURVEY BY:  
STRATO GEOLOGICAL ENGINEERING  
103-709 DUNSMUIR ST.  
VANCOUVER B.C.



FIGURE NO. 4

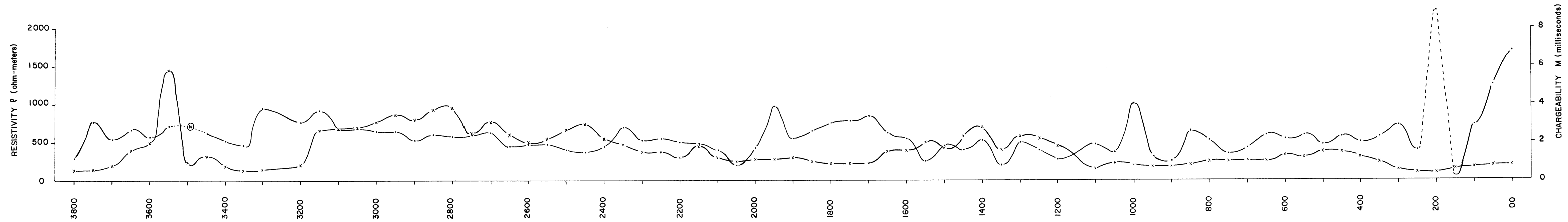
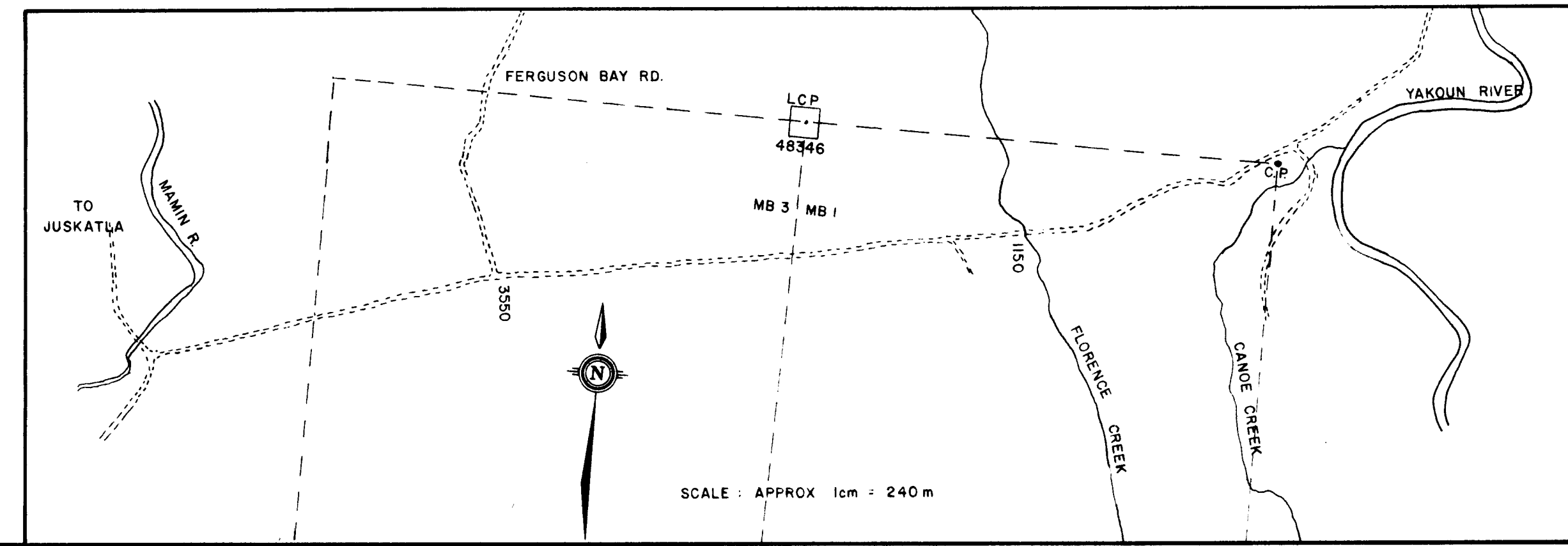


FIGURE NO. 5



MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**10,029**

*R. J. Englund*  
 6 Feb. 1982

LEGEND  
 RESISTIVITY: — x — x —  
 CHARGEABILITY: - - -

ART CLEMISS  
 MB 1 & MB 3 CLAIM  
 SKEENA M.D.

INDUCED POLARIZATION PROFILE

50 0 100 200  
 SCALE IN METERS

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