

Property of  
GEOLOGY DEPT.

A GEOPHYSICAL REPORT ON <sup>Box 6</sup>  
AN INDUCED POLARIZATION SURVEY  
MICKLE-SAMUELSON OPTION (49°, 124° N.E.)

- for -

FALCONBRIDGE NICKEL MINES LIMITED

March 2nd to April 5th, 1970

- by -

A. R. Dodds, B.Sc., P. Geoph.  
J. B. Prendergast, M.A., P. Eng.

A GEOPHYSICAL REPORT ON  
AN INDUCED POLARIZATION SURVEY

MICKLE-SAMUELSON OPTION  
TEXADA ISLAND, B.C.

FOR

FALCONBRIDGE NICKEL MINES LIMITED

BY

KENTING EARTH SCIENCES  
CALGARY, ALBERTA

JUNE 1970

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## INTRODUCTION

The Induced Polarization (I.P.) survey described in this report was carried out by Kenting Earth Sciences, a Division of Kenting Exploration Services Limited, for Falconbridge Nickel Mines Limited between March 2nd and April 5th, 1970. The survey area is described as the Mickle-Samuelsen Option, located on the east side of Texada Island, B.C., as shown on the accompanying location map.

The Party Chief of this survey was M. Mearns, with supervision by A. R. Dodds of Kenting. Three field helpers and all logistics were provided by Falconbridge. Data reduction, interpretation, and report writing were done in the Calgary Office of Kenting Earth Sciences.

The survey covered 9.85 miles of line for a total of 431 measurements of each parameter.

The data is presented in the form of profiles of apparent chargeability and resistivity at scales of 1 inch to 4 or 20 milliseconds and 2 inches per logarithmic cycle respectively, with a horizontal scale of 1 inch to 200 feet. A chargeability contour map is also provided, to assist a general study of the whole area.

SURVEY SPECIFICATIONS

Equipment

The survey equipment comprised a Hunttec Transmitter System with Hunttec Mark I and Scintrex Newmont-type receivers, all using the time-domain method of measuring the I.P. parameters. It was necessary to change receivers during the survey because of a malfunction in the Scintrex receiver, and the unavailability of a replacement unit.

The following specifications apply:

	<u>Newmont-type Receiver</u>	<u>Hunttec Mk I Receiver</u>
Current on time	2 seconds	1.5 seconds
Current off time	2 "	0.5 "
Delay time	0.45 "	0.015 "
Integrating time	0.65 "	0.4 "

The measurements taken in the field were:

1. The current flowing through current electrodes  $C_1$  and  $C_2$ .
2. The primary voltage,  $V_p$ , between the measuring electrodes during the "current-on" time.
3. The apparent chargeability,  $M_a$ , (Newmont-type receiver) or the secondary voltage,  $V_s$ , (Hunttec receiver) between measuring electrodes during the "current off" time.

The apparent chargeability,  $M_a$ , which is measured directly on the Newmont-type receiver, has to be calculated when using the Huntec unit as follows:

$$M_a = \frac{V_s}{V_p} \times 400 \text{ milliseconds}$$

where 400 is the sampling time, in milliseconds, of the receiver unit.

The apparent resistivity is calculated by dividing  $V_p$  by the current and multiplying by the geometrical factor appropriate to the electrode array being used.

The chargeability measurements with the two receivers are not precisely comparable, since the cycling times are different and since the two units measure different portions of the decay curve. Moreover it is not possible to determine a constant conversion factor because the shape of the decay curve varies considerably depending on the electrical characteristics of the underlying ground.

#### Electrode Configuration

The pole-dipole electrode array was used for this survey. In this array, one current electrode,  $C_1$ , and the two potential electrodes,  $P_1$  and  $P_2$ , are moved in unison along the survey line. The second current electrode,  $C_2$ , is placed sufficiently far from the moving electrodes that it does not affect the direction of current flow within the moving array. The electrode separation, "a", is defined as the distance between electrodes  $C_1$  and  $P_1$ , and controls the depth penetration of the array. The length of the potential dipole must be less than or equal to "a", and is generally kept in a constant ratio, e.g.  $a/2$  or  $a/4$ , for a survey area.

For this survey, the reconnaissance work was done using "a" values of 400 feet and 200 feet, keeping the potential dipole at  $a/2$ . Because of the slower reading speed of this unit, and because the data seemed sufficiently definitive, only the 200 foot "a" value was used with the Huntec receiver.

## GEOLOGY

The main geological features have been taken from the notes and preliminary geological map prepared by R. Wares of Falconbridge.

The southern part of the grid is underlain by basic volcanics, and the northern part by intrusive granodiorite of varying composition. The intrusive contact is irregular within the survey area, but has a general strike of N 45° W. This contact is offset by faults in the region of the baseline at Line 0+00 and towards the western ends of the three northernmost lines. The fault at the latter location, which strikes roughly N 55° E, is understood to be one of a series of major faults giving rise to a set of fractures having the same strike. Hairline fractures of this set carry sulphides, primarily pyrite but with some copper minerals.

So far as is known, magnetite has not been observed in this area in other than minor quantities. Magnetic maps of the area, if prepared, have not been seen by the writer.

The I.P. survey was done with the purpose of outlining areas where more extensive filling of fractures by sulphides has occurred.



## INTERPRETATION

The general picture of the chargeability results is shown satisfactorily on the contoured plan map of results using the 200 foot electrode separation. The approximate location of high and low areas, and the direction of trends, can be taken from this map, but more exact analysis of the survey data should be done from the detail profiles since high chargeability values do not necessarily indicate a source at the plotting point for the reading. Metal factor values (the ratio of apparent chargeability over apparent resistivity) have not been computed because resistivity values are considerably less accurate than the chargeability values for this survey.

The chargeability results show fairly high levels over most of this area, indicative of widespread weak mineralization (0.5 to 1.0 percent sulphides). The east and west edges of the area give rather lower values, and it appears that chargeabilities are decreasing to the north, although the northernmost line, 24+00 N, still shows fairly high values. The high chargeability levels continue to the south-east through Line 20+00 S.

Within this area of uniformly high chargeabilities there are numerous local peaks of strong response, indicative of more concentrated mineralization. These peaks generally show little continuity between survey lines, so that the specific locations and trends of these zones are uncertain. However, bearing in mind the nature of the mineralization and the fact that extensive areas of relatively low grade mineralization are the primary objective, this lack of definition is not crucial.

The main areas of interest in that part of the grid covered with the Newmont I.P. receiver are fairly well outlined by the 40 millisecond contours. The most prominent feature here is the zone extending from a centre at 5+00E on Line 20+00S to 7+00W on Line 4+00N. There is some doubt as to the continuity of the zone across Lines 4+00S and 0+00, where the source is, in any case, much weaker. Average sulphides through the zone would be expected to run 2 - 4%, with some considerably higher percentages of more limited extent. Profiles on all lines except 16+00S and 4+00N indicate wide sources of disseminated sulphides within 200 feet of surface and lacking depth extent. More concentrated and narrower sources are expected on Line 16+00S between 3+00E and 5+00E and on Line 4+00N at 5+00W.

The two zones showing chargeabilities over 40 milliseconds to the west of this feature also appear to come from fairly wide sources of disseminated sulphides. In this case the decreased lateral extent across the survey lines limits the degree of interpretability regarding depth extent, but a source between surface and 200 feet depth is anticipated.

The northern part of the area was covered using the Huntec Mk I I.P. receiver with an electrode separation of 200 feet only. The zones of interest here, three in number, are best outlined by the 15 millisecond contour. The main feature, though not the strongest anomaly, extends between Line 8+00N and 16+00N and flanks the baseline on the east side. This zone appears to link up with the main feature to the south. An extensive zone of disseminated mineralization is anticipated as the source of this anomaly. To the west of this is a small weak anomaly between 12+00N, 9+00W and 16+00N, 7+00W. This could warrant further investigation, but cannot be fully analyzed on existing data.

The strongest feature in this part of the area is the very limited extent anomaly centred on 15+00W, 16+00N. This anomaly appears to coincide with the major fault, and is probably caused by a strongly mineralized zone of dimensions not exceeding 400 feet diameter. The exact location is not known, as the source could be up to 100 feet to one side of the survey line.

The two RIP lines, whose exact locations are not known to the writer, show fairly high chargeabilities, but lack sufficient detail for a full interpretation. They were covered using the Hunttec receiver with an electrode separation of 200 feet only. The maximum interest zones must be judged on the basis of highest readings only, but the source of these readings could be up to 200 feet laterally from the plotting location. Additional detailing is required for full analysis of these areas, including coverage of lines to either side of RIP 1 and 2, and use of other electrode separations.

SUMMARY AND CONCLUSIONS

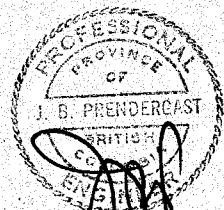
The I.P. survey over this property shows generally high chargeabilities throughout the area, dropping to "barren rock" values only at the edges of the survey grid. Certain areas, outlined by the 40 millisecond contours south of Line 8+00N and by the 15 millisecond contours north of this line, indicate rather more concentrated mineralization averaging 2% sulphides or better. All sources appear to extend close to surface.

The main anomalous zone is located close to the baseline and extends from Line 12+00N to the southern edge of the area surveyed. It therefore cuts across the contact between the volcanics and the granodiorite intrusive but appears somewhat discontinuous at the crossing point.

It is considered that the I.P. survey has achieved the required result of outlining zones where higher concentrations of sulphides might be expected.

Respectfully submitted,

KENTING EARTH SCIENCES  
Western Division



Expiry Date: May 28, 1974

*A. R. Dodds*

A. R. Dodds, B.Sc.  
Chief Geophysicist.

*J. B. Prendergast*  
J. B. Prendergast, M.A., P. Eng.  
Division Manager.

APPENDIX

ASSESSMENT CREDIT DATA

Miles Surveyed 9.85

No. of Readings 431

PERSONNEL

<u>Name</u>	<u>Position</u>	<u>Dates</u>	<u>Rate/Day</u>	<u>Total Charges</u>
M. Mearns	Party Chief	Mar. 2-21/70	\$90.00	\$ 900.00
E. Rowan	Operator	ditto	\$75.00	750.00
G. Childs	Helper	"		
M. Mickle	Helper	"		
R. Samuelson	Helper	"		
A.R. Dodds	Sr. Geophysicist	Mar. 2-4, 16 } /70 June 17, 23, 24 }	\$150.00	450.00
G. McVeigh	Typist	June 23-25/70	\$25.00	20.00
M. Cole	Draftsman	May 25-29 ) /70 June 16-19 )	\$75.00	175.00
I.P. Unit		Mar. 2-21/70	\$70.00	<u>700.00</u>
			TOTAL	<u><u>\$2,995.00</u></u>





9

30'

0

15'

124°00'

50°00'

55°00'00" N

2

45' Kilometre 10m

0 Kilometre 2m

Halfmoon Bay 5m

30'

0

TEXADA

ISLAND

LASQUEIT ISLAND

APPROXIMATE LOCATION OF SURVEY AREA

G E O R G I A

HORNBY

Sabine

CHARTER

POWELL RIVER DIST MUN

POWELL PROVINCIAL FOREST

SECHELTS PROV FOREST

SURPRISE MTN

COMET MTN

MT POCAHONTAS

MT GRANT

MT DAVIES

TREMONT MTR

Wildwood Heights

Powell Lake Cranberry Lake

Haslam Lake

SMITH FRANGE

Nanton L

Lois Lake

Saltery Bay

Thunder Pt

Sykes I

Vananda

Butterfly Pt

Albion Pt

Kelly Pt

Evenden Pt

Hardy

NELSON ISLAND

Earls Cove

Sechelt Peninsula

HARWOOD POINT PROVINCIAL PARK

Dick I

Mouat Bay

Mouat Is

MT GRANT

MT DAVIES

Nelson Rk

Hodgson Is

Irvin's Landing

Tralce Pt

Cape Gurney

Flora Is

St John Pt

Downlop Pt

Norman Pt

Toby I

Norris Rocks

Boyle Pt

Chromie I

Sisters Is

Finnerty Is

Lasqueti

Olsen I

False Bay

Prowse Pt

Howell I

Upwood Pt

Seal Reef

Jenkins I

Sea Egg Rocks

Young Pt

Sangster I

Seal Reef

Sangster I

Seal Reef

Sangster I





INDUCED POLARIZATION SURVEY

DETAIL PROFILE: LINE -24+00N

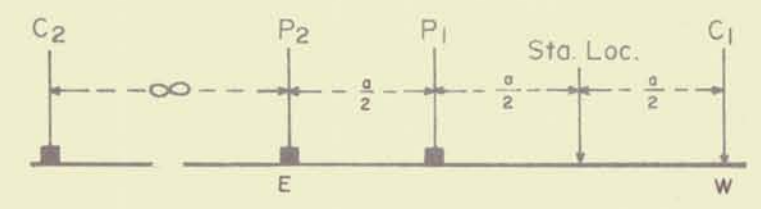
FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.  
 HUNTEC MK. I RECEIVER

LEGEND

- INTERPRETED CAUSATIVE BODY
- RECOMMENDED D.D. HOLE
- a = 50'
- a = 100'
- X  a = 200'
- △  a = 400'

*COPY RUN IN  
 BUT NOT  
 TRUE PROFILES  
 J.*

POLE-DIPOLE ARRAY



Horizontal Scale: 1 inch = 200 feet.

Vertical Scales:  
 Chargeability — 1 inch = 4 milliseconds  
 Resistivity — 2 inches = 1 logarithmic cycle (ohm-meters)

INSTRUMENT PARAMETERS

ON	1.5	secs.
OFF	0.5	secs.
DELAY	0.015	secs.
INTEGRATE	0.4	secs.

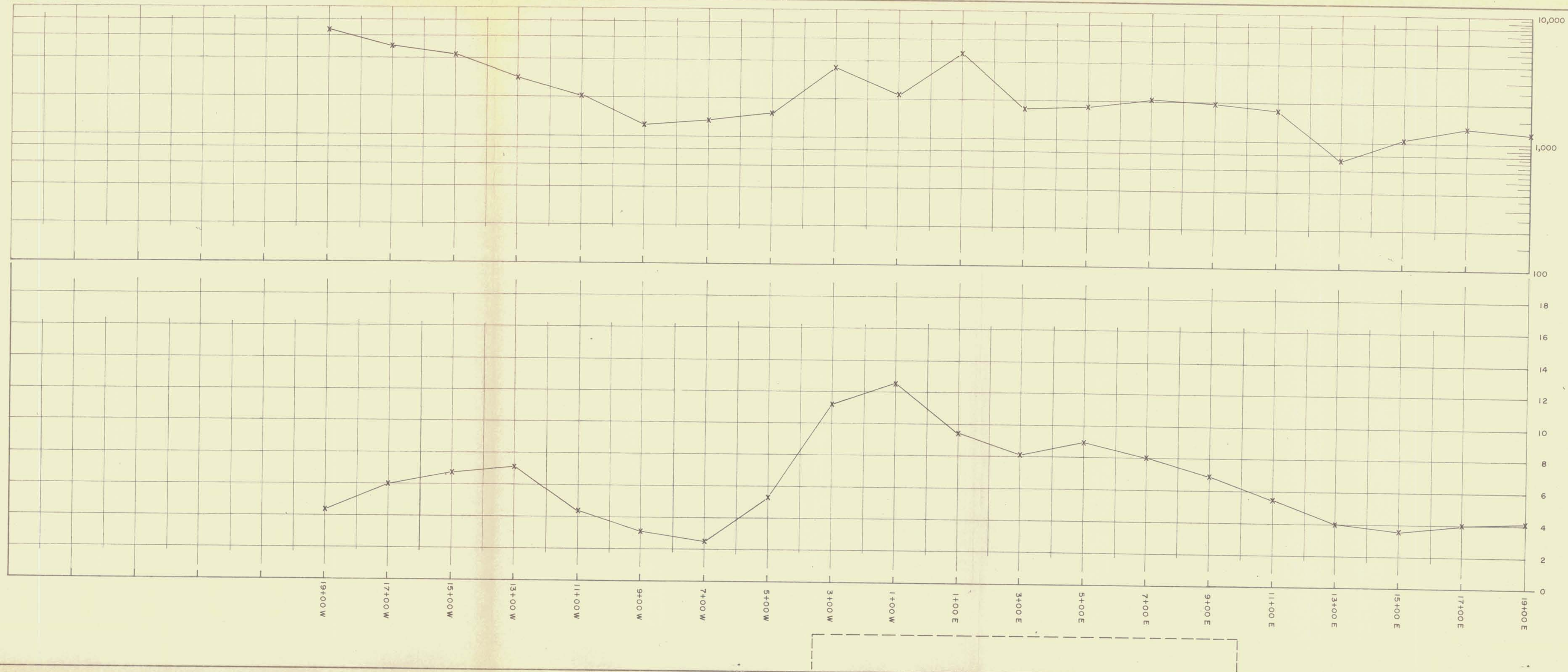
To accompany report by:

*Andrew R. Dodds*  
 Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



**KENTING**  
 EXPLORATION SERVICES LIMITED  
 Earth Sciences Division





INDUCED POLARIZATION SURVEY

DETAIL PROFILE: LINE -20+00N

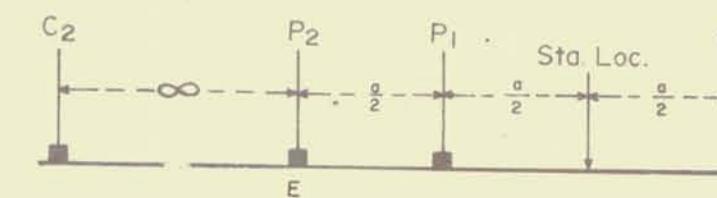
FALCONBRIDGE NICKEL MINES LIMITED  
TEXADA ISLAND, B.C.

HUNTEC MK. I RECEIVER

LEGEND

- INTERPRETED CAUSATIVE BODY
- RECOMMENDED D.D. HOLE.
- a = 50'
- a = 100'
- a = 200'
- a = 400'

POLE-DIPOLE ARRAY



Horizontal Scale: 1 inch : 200 feet.

Vertical Scales:

Chargeability - 1 inch : 4 milliseconds

Resistivity - 2 inches : 1 logarithmic cycle (ohm-meters)

INSTRUMENT PARAMETERS

ON	1.5 secs.
OFF	0.5 secs.
DELAY	0.015 secs.
INTEGRATE	0.4 secs.

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Earth Sciences Division



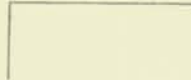
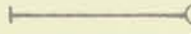


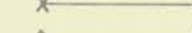

INDUCED POLARIZATION SURVEY

DETAIL PROFILE: LINE -16+00N

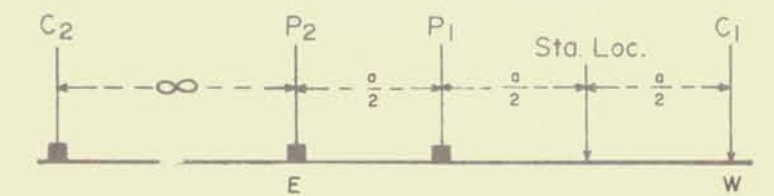
FALCONBRIDGE NICKEL MINES LIMITED  
TEXADA ISLAND, B.C.

HUNTEC MK I RECEIVER

LEGEND

-  INTERPRETED CAUSATIVE BODY
-  RECOMMENDED D/D HOLE
-  a = 50'
-  a = 100'
-  a = 200'
-  a = 400'

POLE - DIPOLE ARRAY



Horizontal Scale: 1 inch: 200 feet.

Vertical Scales:  
Chargeability - 1 inch: 4 milliseconds  
Resistivity - 2 inches: 1 logarithmic cycle (ohm-meters)

INSTRUMENT PARAMETERS

ON	1.5 secs.
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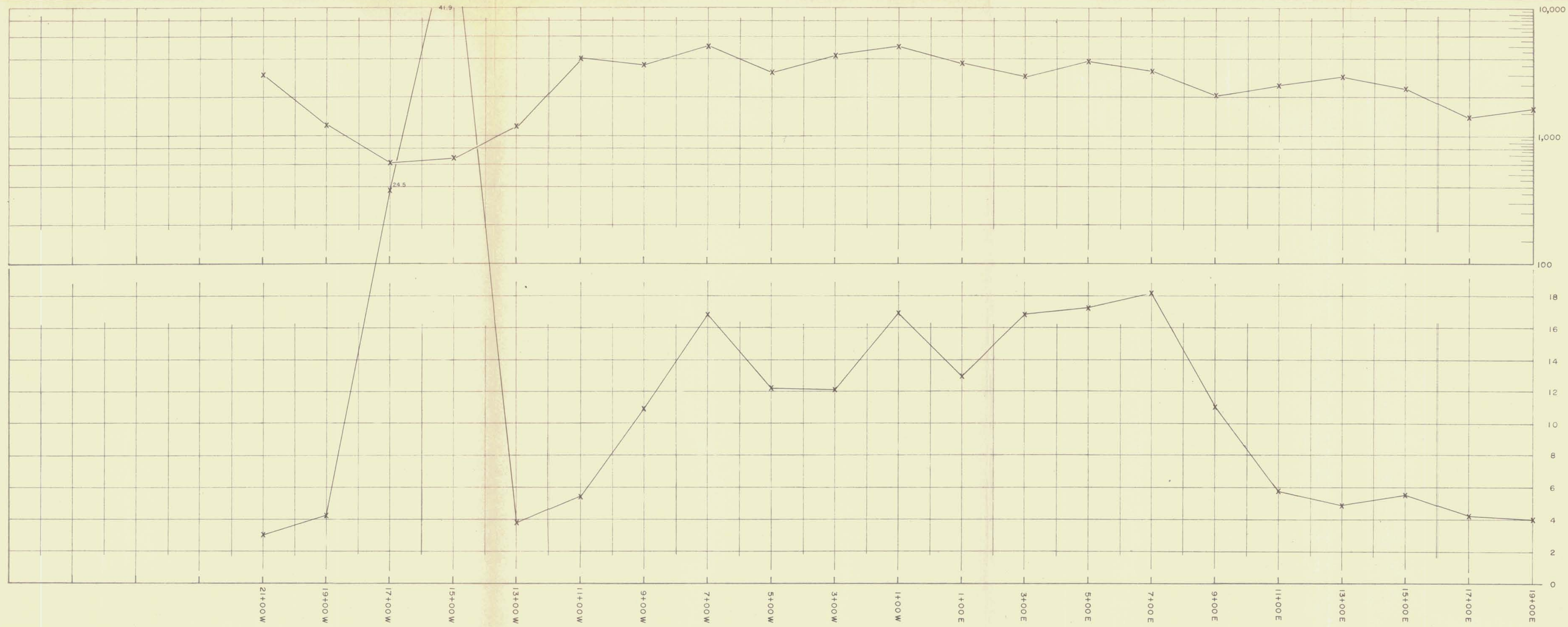
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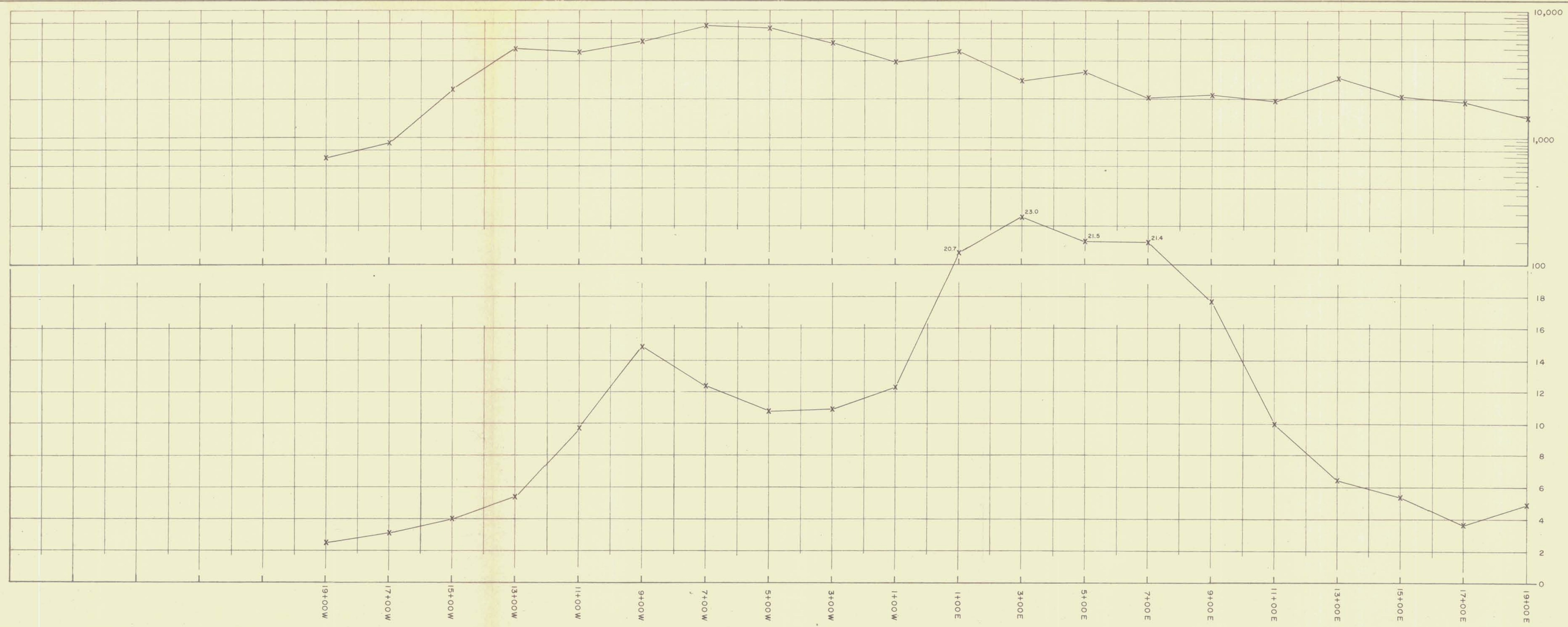


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Earth Sciences Division  
CALGARY CANADA







INDUCED POLARIZATION SURVEY

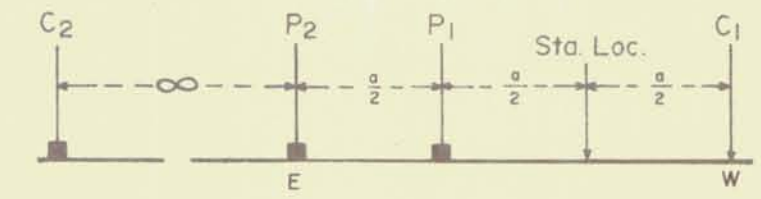
DETAIL PROFILE: LINE - 12+00N

FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.  
 HUNTEC MK I RECEIVER

LEGEND

- INTERPRETED CAUSATIVE BODY
- RECOMMENDED D.D.HOLE.
- $a = 50'$
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POLE - DIPOLE ARRAY



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 Chargeability - 1 inch : 4 milliseconds  
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INSTRUMENT PARAMETERS

ON	1.5	secs.
OFF	0.5	secs.
DELAY	0.015	secs.
INTEGRATE	0.4	secs.

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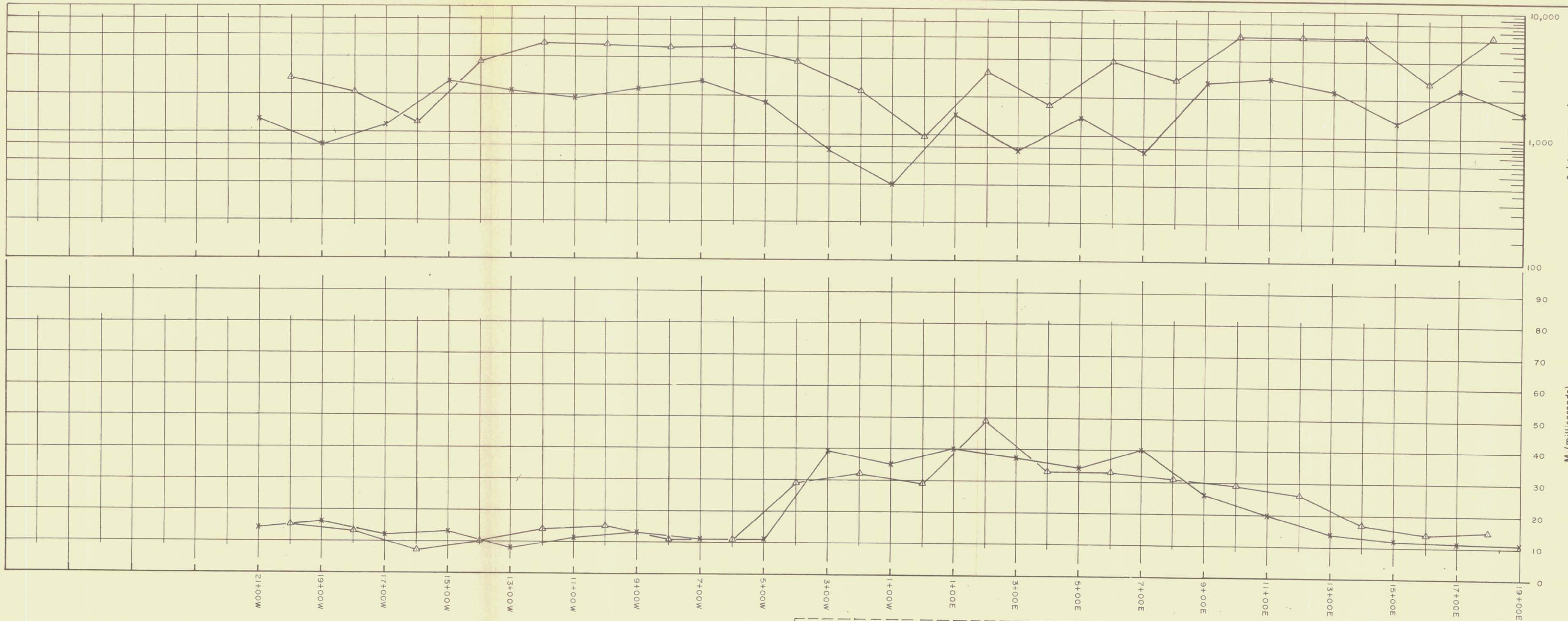
*Andrew R. Dodds*

Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



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 EXPLORATION SERVICES LIMITED  
 Earth Sciences Division  
 CALGARY CANADA





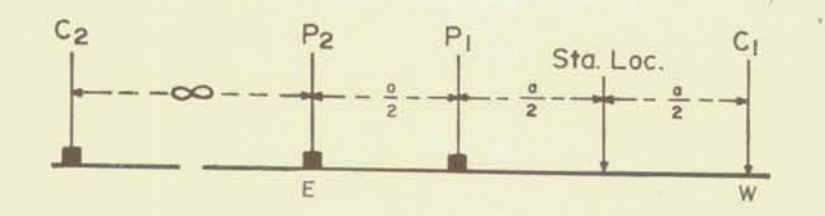
**INDUCED POLARIZATION SURVEY**

**DETAIL PROFILE: LINE -8+00N**  
**FALCONBRIDGE NICKEL MINES LIMITED**  
**TEXADA ISLAND, B.C.**  
 NEWMONT RECEIVER

**LEGEND**

- INTERPRETED CAUSATIVE BODY
- RECOMMENDED D.D. HOLE
- a = 50'
- a = 100'
- a = 200'
- a = 400'

**POLE-DIPOLE ARRAY**



Horizontal Scale: 1 inch = 200 feet.  
 Vertical Scales:  
 Chargeability - 1 inch = 20 milliseconds  
 Resistivity - 2 inches = 1 logarithmic cycle (ohm-meters)

**INSTRUMENT PARAMETERS**

- ON 2.0 secs.
- OFF 2.0 secs.
- DELAY 0.45 secs.
- INTEGRATE 0.65 secs.

To accompany report by:  
  
 Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



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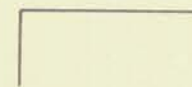
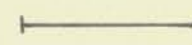


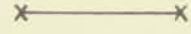
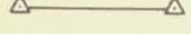


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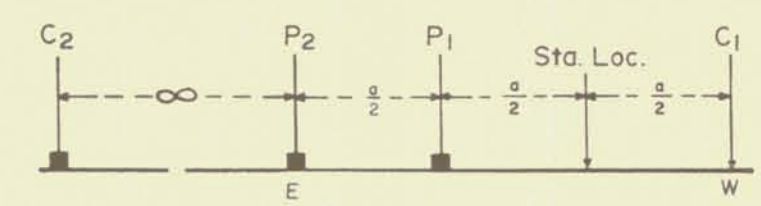
DETAIL PROFILE: LINE - 4+00N  
 FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.

NEWMONT RECEIVER

LEGEND

-  INTERPRETED CAUSATIVE BODY
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-  a = 50'
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POLE - DIPOLE ARRAY




Horizontal Scale: 1 inch: 200 feet.

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 Resistivity - 2 inches: 1 logarithmic cycle (ohm-meters)

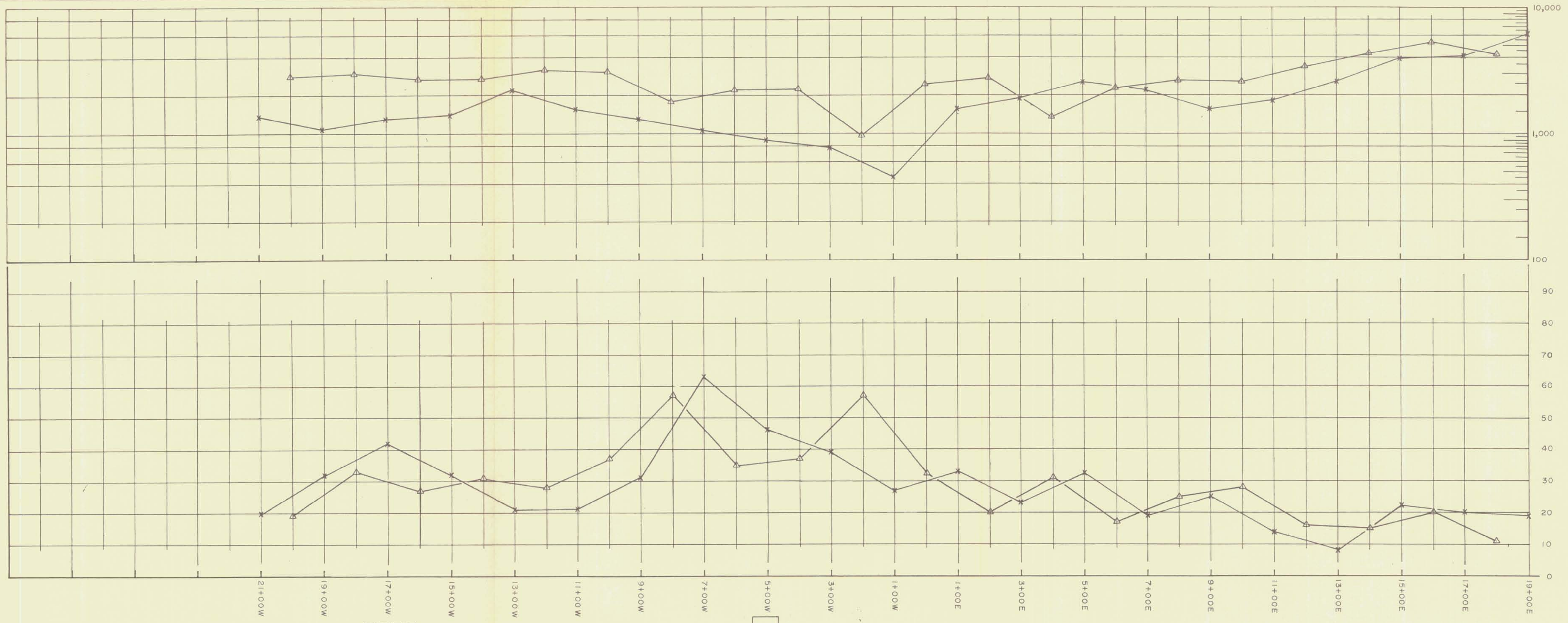
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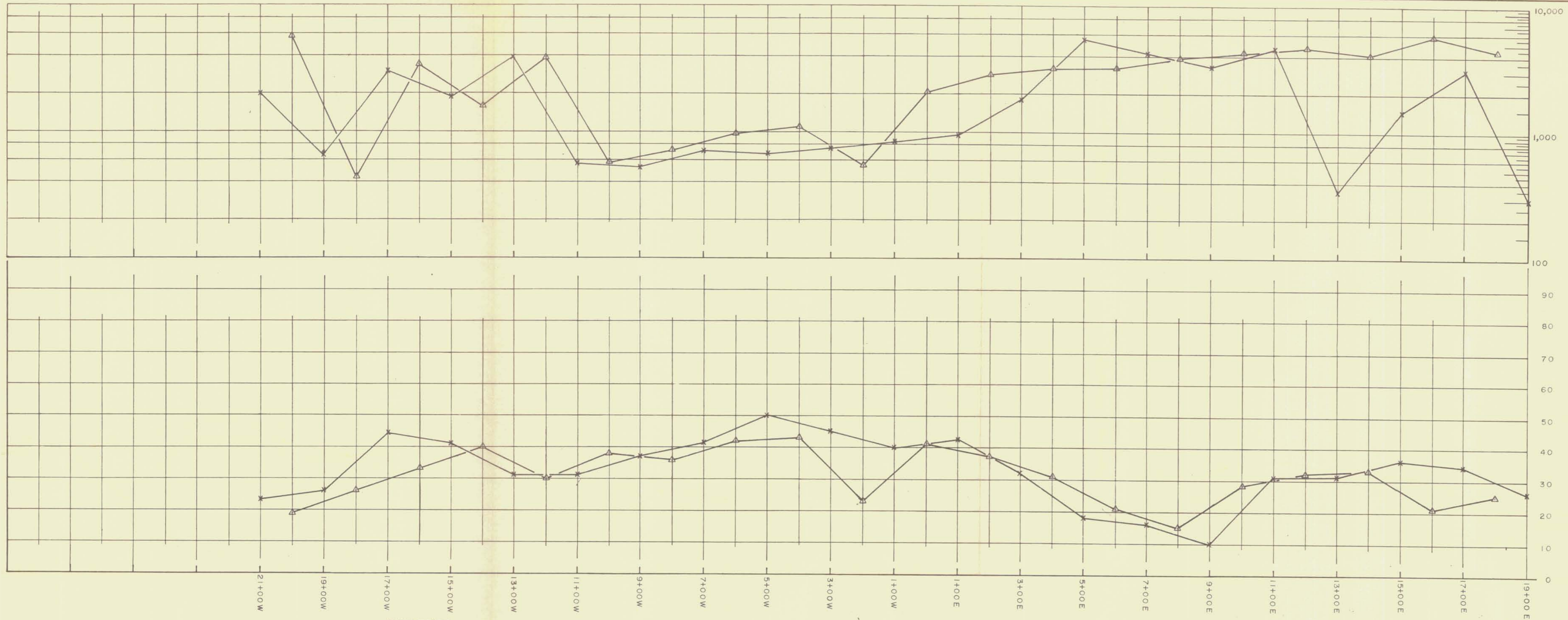
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INDUCED POLARIZATION SURVEY

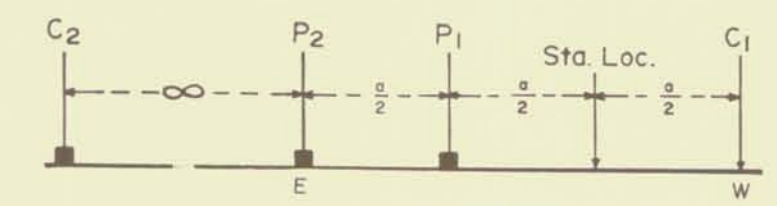
DETAIL PROFILE: LINE - 0+00  
 FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.

NEWMONT RECEIVER

LEGEND

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To accompany report by:

*Steven K. Dodds*

Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



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 Earth Sciences Division  
 CALGARY CANADA





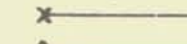
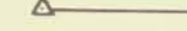


INDUCED POLARIZATION SURVEY

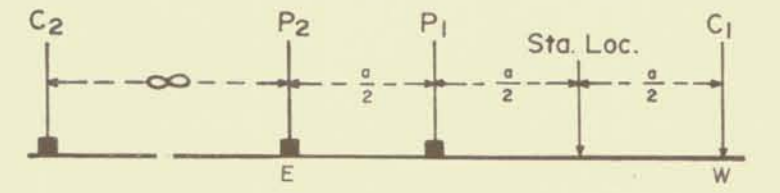
DETAIL PROFILE: LINE - 4+00S  
 FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.

NEWMONT RECEIVER

LEGEND

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INTEGRATE	0.65 secs.

To accompany report by:

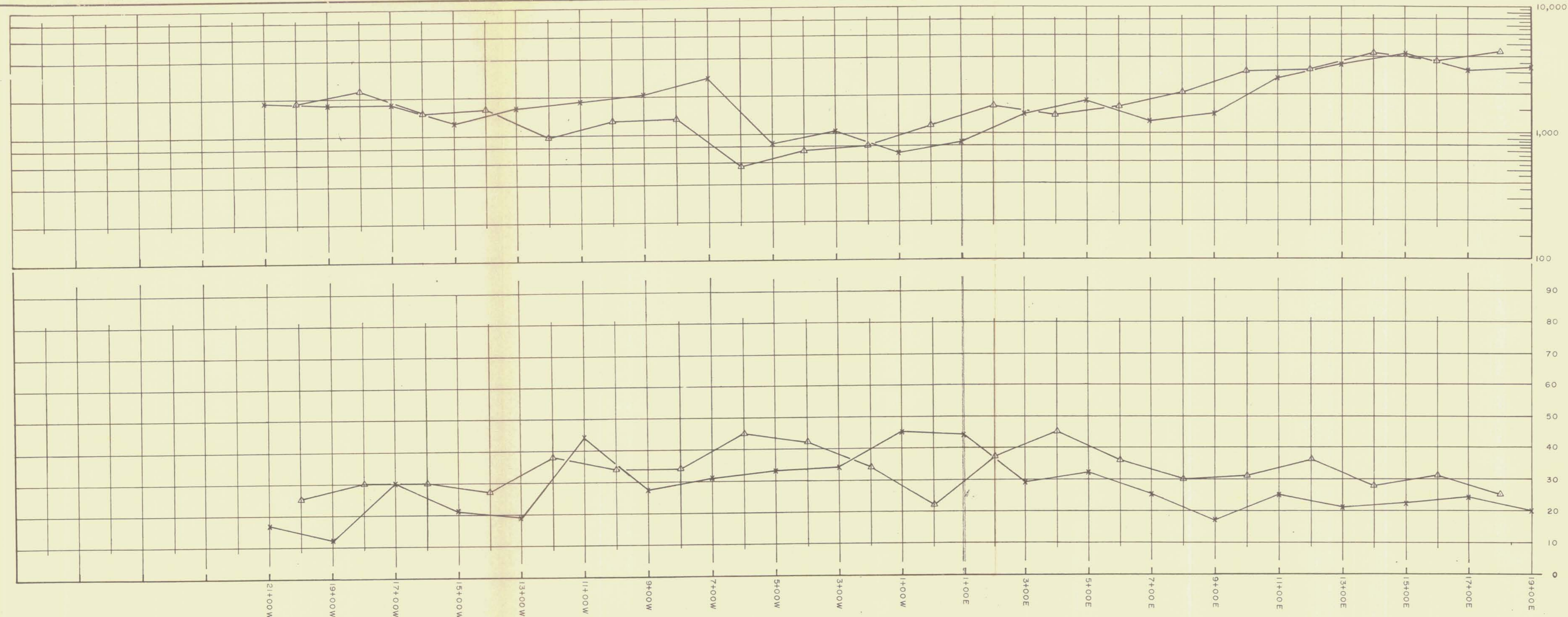
*Andrew R. Dodds*

Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



Copy Date: May 26, 1974  
 3/7/70

**KENTING**  
 EXPLORATION SERVICES LIMITED  
 Earth Sciences Division  
 CALGARY CANADA



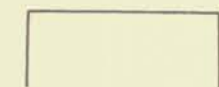


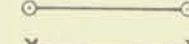




INDUCED POLARIZATION SURVEY

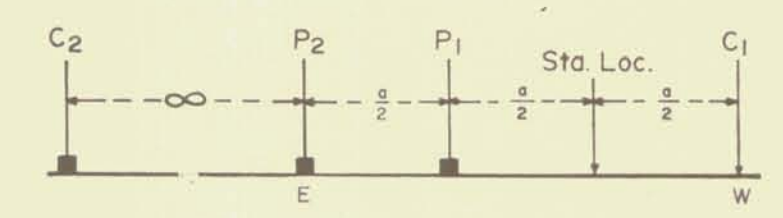
DETAIL PROFILE: LINE - 8+00S  
 FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.

NEWMONT RECEIVER

LEGEND

-  INTERPRETED CAUSATIVE BODY
-  RECOMMENDED D.D. HOLE
-  a = 50'
-  a = 100'
-  a = 200'
-  a = 400'

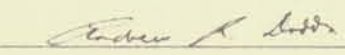
POLE - DIPOLE ARRAY



Horizontal Scale: 1 inch = 200 feet.  
 Vertical Scales:  
 Chargeability - 1 inch = 20 milliseconds  
 Resistivity - 2 inches = 1 logarithmic cycle (ohm-meters)

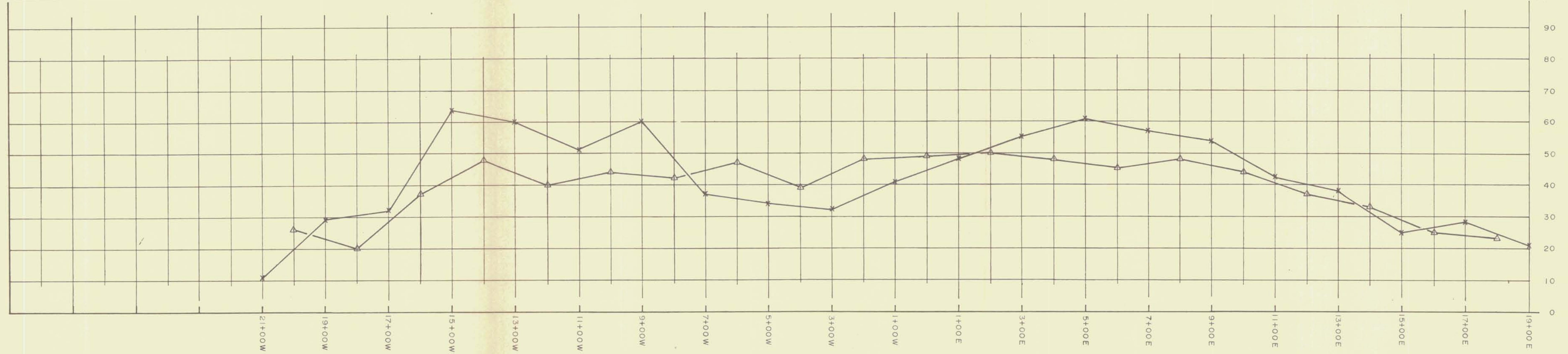
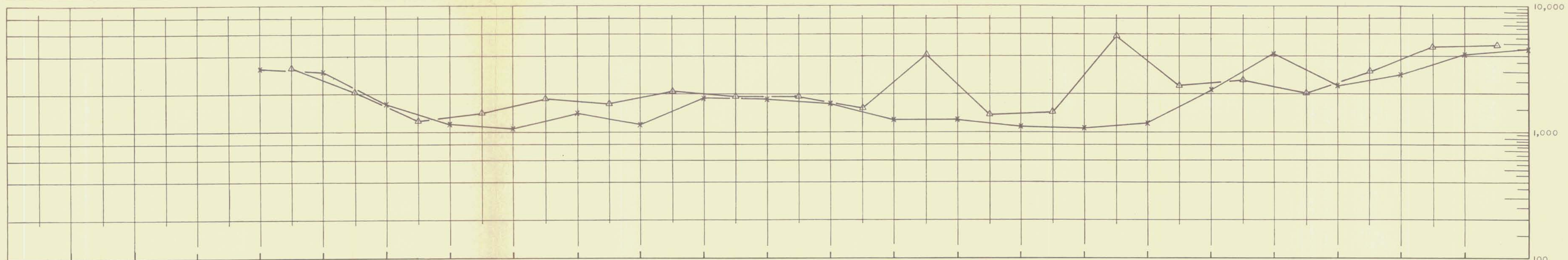
INSTRUMENT PARAMETERS

ON	2.0 secs.
OFF	2.0 secs.
DELAY	0.45 secs.
INTEGRATE	0.65 secs.

To accompany report by:  
  
 Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



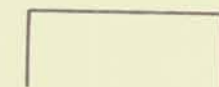

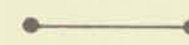

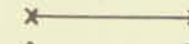
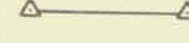
**KENTING**  
 EXPLORATION SERVICES LIMITED  
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 CALGARY, CANADA



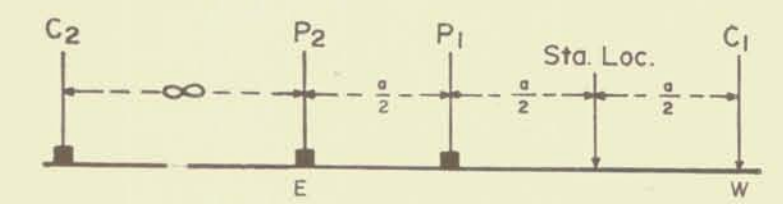


**INDUCED POLARIZATION SURVEY**  
**DETAIL PROFILE: LINE -12+00S**  
**FALCONBRIDGE NICKEL MINES LIMITED**  
**TEXADA ISLAND, B.C.**  
 NEWMONT RECEIVER

**LEGEND**

-  INTERPRETED CAUSATIVE BODY
-  RECOMMENDED D.D. HOLE
-  a = 50'
-  a = 100'
-  a = 200'
-  a = 400'


**POLE-DIPOLE ARRAY**



**Horizontal Scale:** 1 inch : 200 feet.  
**Vertical Scales:**  
 Chargeability - 1 inch : 20 milliseconds  
 Resistivity - 2 inches : 1 logarithmic cycle (ohm-meters)

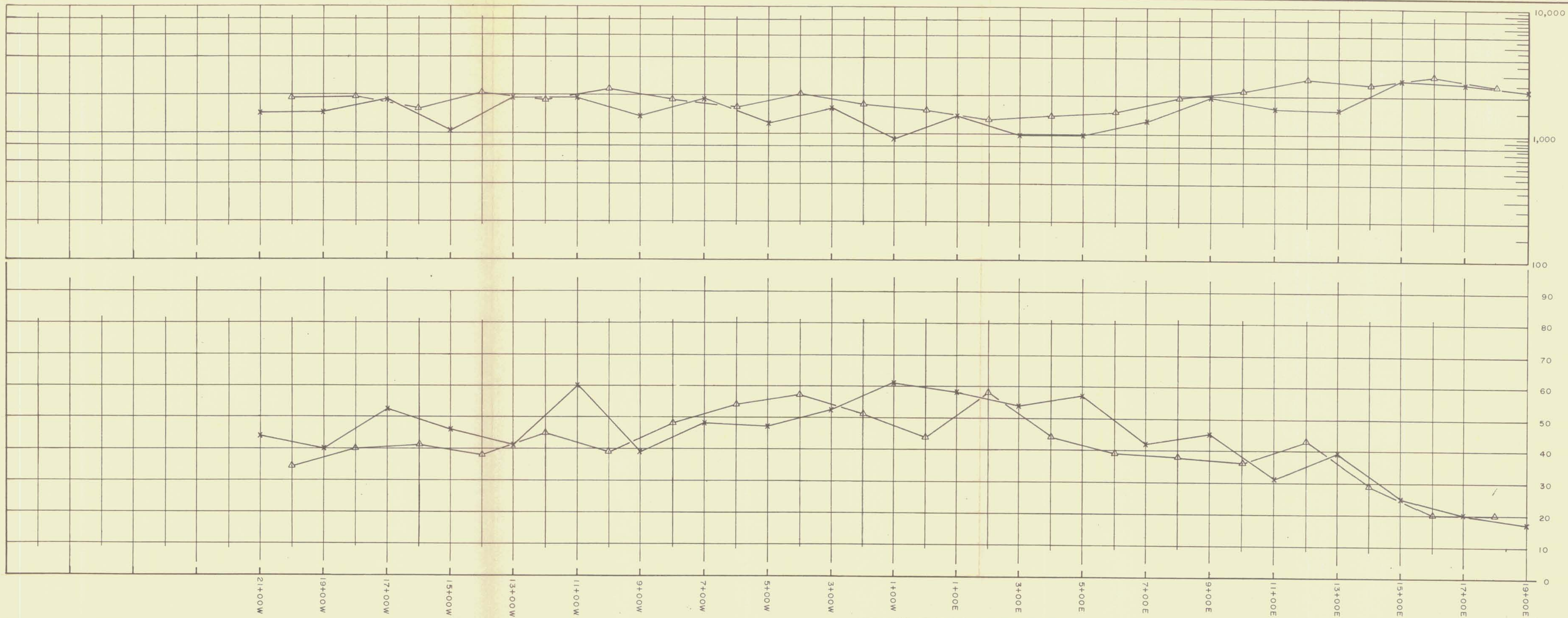
**INSTRUMENT PARAMETERS**

ON	2.0 secs.
OFF	2.0 secs.
DELAY	0.45 secs.
INTEGRATE	0.65 secs.

To accompany report by:  
  
 Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



**KEATING**  
 EXPLORATION SERVICES LIMITED  
 Earth Sciences Division  
 CALGARY CANADA





INDUCED POLARIZATION SURVEY

DETAIL PROFILE: LINE - 16+00S  
 FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.

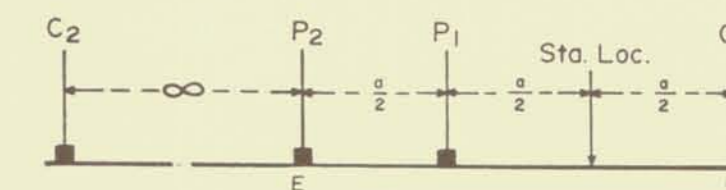
NEWMONT RECEIVER

LEGEND



- a = 50'
- a = 100'
- × a = 200'
- △ a = 400'

POLE-DIPOLE ARRAY



Horizontal Scale: 1 inch : 200 feet.

Vertical Scales:  
 Chargeability - 1 inch : 20 milliseconds  
 Resistivity - 2 inches : 1 logarithmic cycle (ohm-meters)

INSTRUMENT PARAMETERS

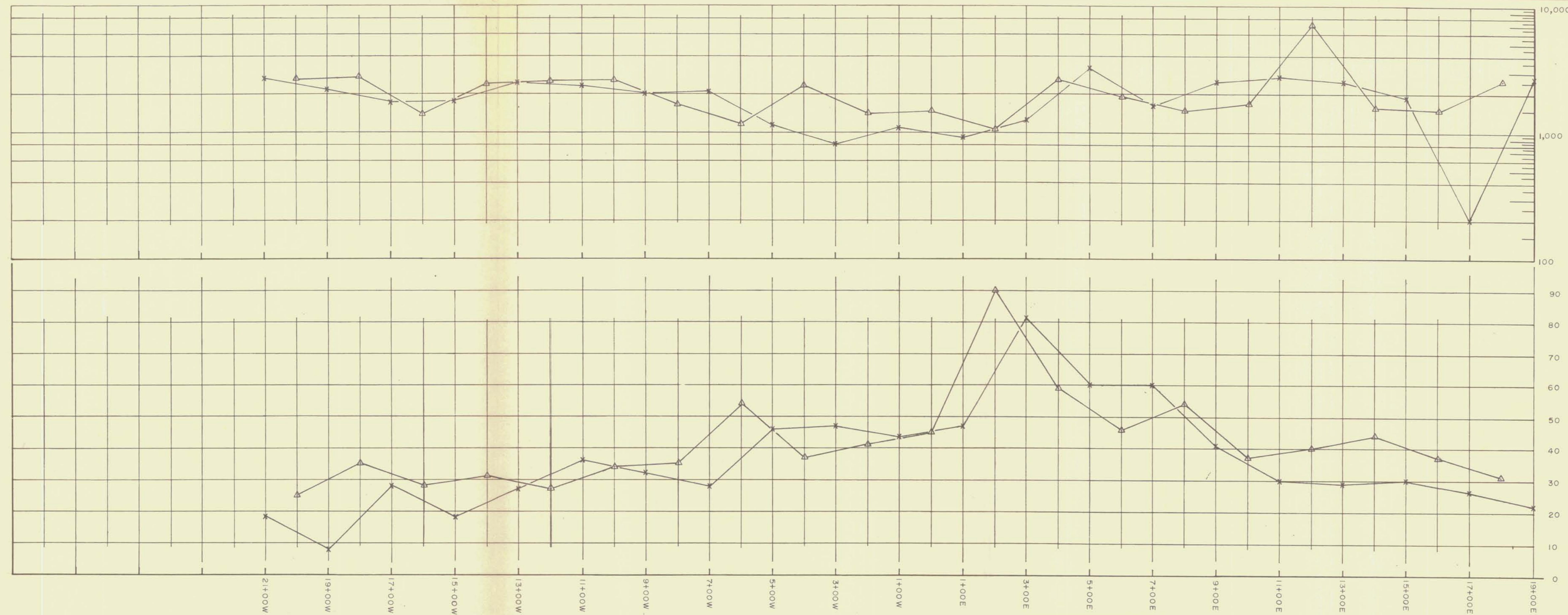
- ON 2.0 secs.
- OFF 2.0 secs.
- DELAY 0.45 secs.
- INTEGRATE 0.65 secs.

To accompany report by:

*Andrew R. Dodds*  
 Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



**KENTING**  
 EXPLORATION SERVICES LIMITED  
 Earth Sciences Division  
 CALGARY CANADA



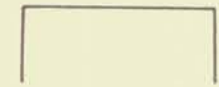


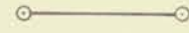
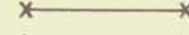



INDUCED POLARIZATION SURVEY

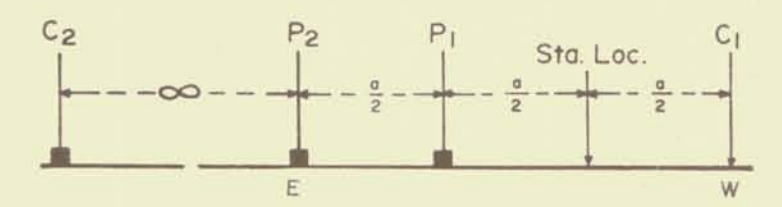
DETAIL PROFILE: LINE - 20+00S  
 FALCONBRIDGE NICKEL MINES LIMITED  
 TEXADA ISLAND, B.C.

NEWMONT RECEIVER

LEGEND

-  INTERPRETED CAUSATIVE BODY
-  RECOMMENDED D.D. HOLE
-  a = 50'
-  a = 100'
-  a = 200'
-  a = 400'


POLE-DIPOLE ARRAY



Horizontal Scale: 1 inch : 200 feet.  
 Vertical Scales:  
 Chargeability - 1 inch : 20 milliseconds  
 Resistivity - 2 inches : 1 logarithmic cycle (ohm-meters)

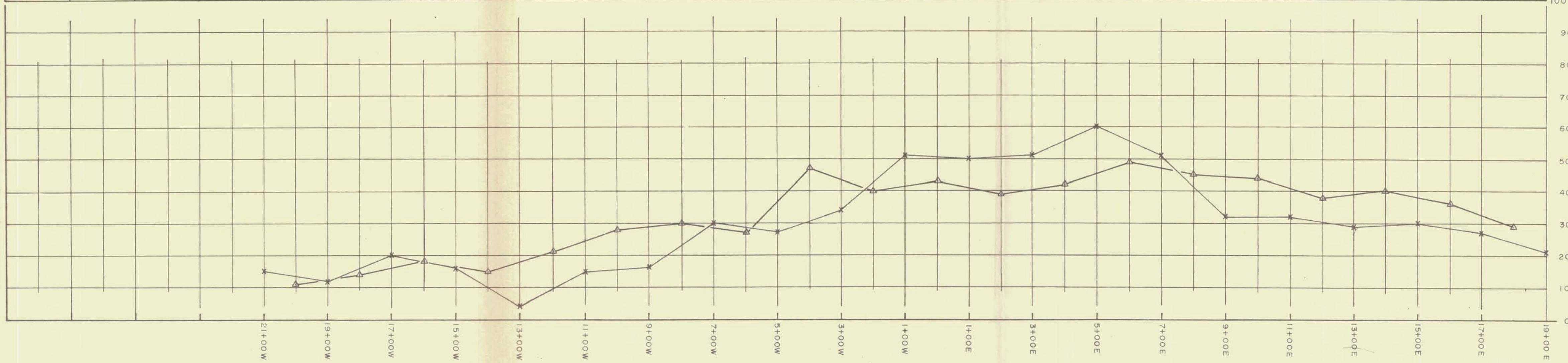
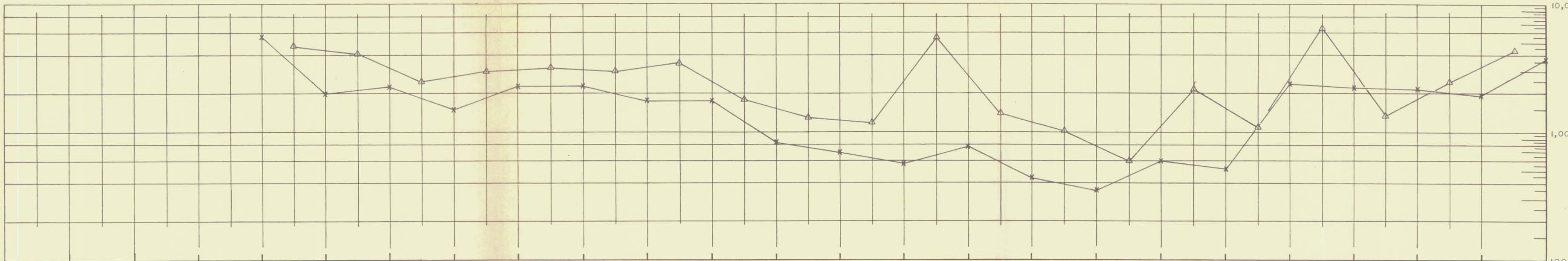
INSTRUMENT PARAMETERS

- ON 2.0 secs.
- OFF 2.0 secs.
- DELAY 0.45 secs.
- INTEGRATE 0.65 secs.

To accompany report by:  
  
 Andrew R. Dodds, B.Sc. P. Geoph.  
 Geophysicist



**KENTING**  
 EXPLORATION SERVICES LIMITED  
 Earth Sciences Division  
 CALGARY CANADA



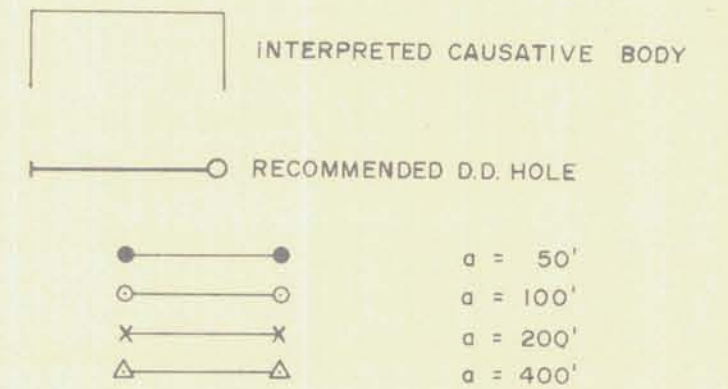


INDUCED POLARIZATION SURVEY

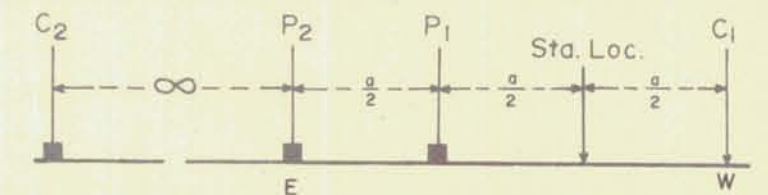
DETAIL PROFILE: LINE - R.I.P. 1 (AIRPORT)

FALCONBRIDGE NICKEL MINES LIMITED  
TEXADA ISLAND, B.C.

LEGEND



POLE-DIPOLE ARRAY



Horizontal Scale: 1 inch : 200 feet.

Vertical Scales:

Chargeability — 1 inch : 4 milliseconds

Resistivity — 2 inches : 1 logarithmic cycle (ohm-meters)

INSTRUMENT PARAMETERS

ON	1.5 secs.
OFF	0.5 secs.
DELAY	0.015 secs.
INTEGRATE	0.4 secs.

To accompany report by:

*Andrew R. Dodds*

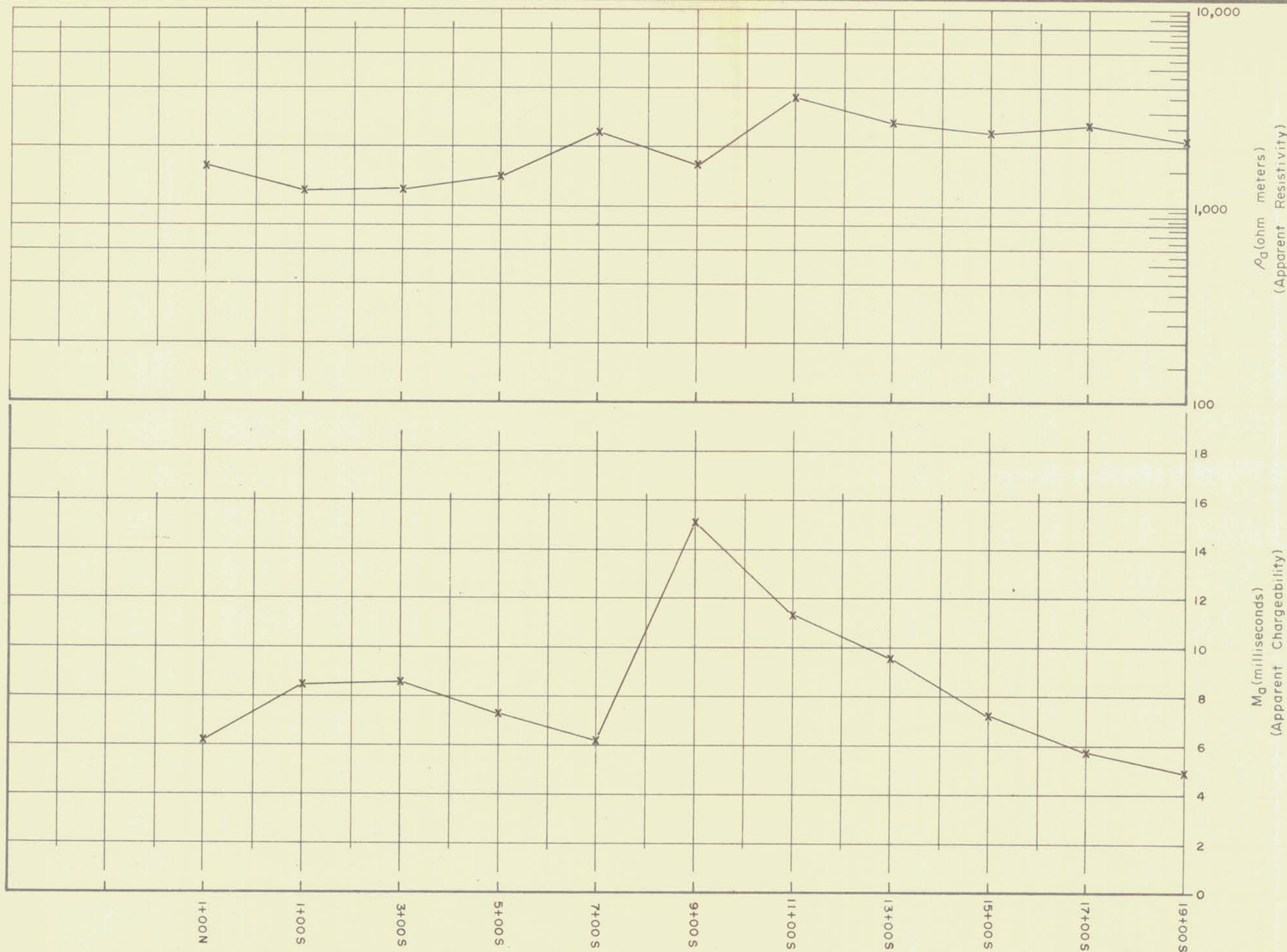
Andrew R. Dodds, B.Sc. P. Geoph.  
Geophysicist



3/7/79



EXPLORATION SERVICES LIMITED  
Earth Sciences Division





INDUCED POLARIZATION SURVEY

DETAIL PROFILE: LINE - R.I.P. 2

FALCONBRIDGE NICKEL MINES LIMITED

TEXADA ISLAND, B.C.

HUNTEC MK.1 RECEIVER

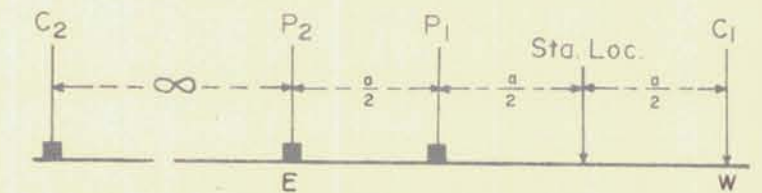
LEGEND

INTERPRETED CAUSATIVE BODY

RECOMMENDED D.D. HOLE

- — ● a = 50'
- — ○ a = 100'
- x — x a = 200'
- △ — △ a = 400'

POLE-DIPOLE ARRAY



Horizontal Scale: 1 inch = 200 feet.

Vertical Scales:

Chargeability — 1 inch = 4 milliseconds

Resistivity — 2 inches = 1 logarithmic cycle (ohm-meters)

INSTRUMENT PARAMETERS

ON	1.5 secs.
OFF	0.5 secs.
DELAY	0.015 secs.
INTEGRATE	0.4 secs.

To accompany report by:

*Andrew R. Dodds*

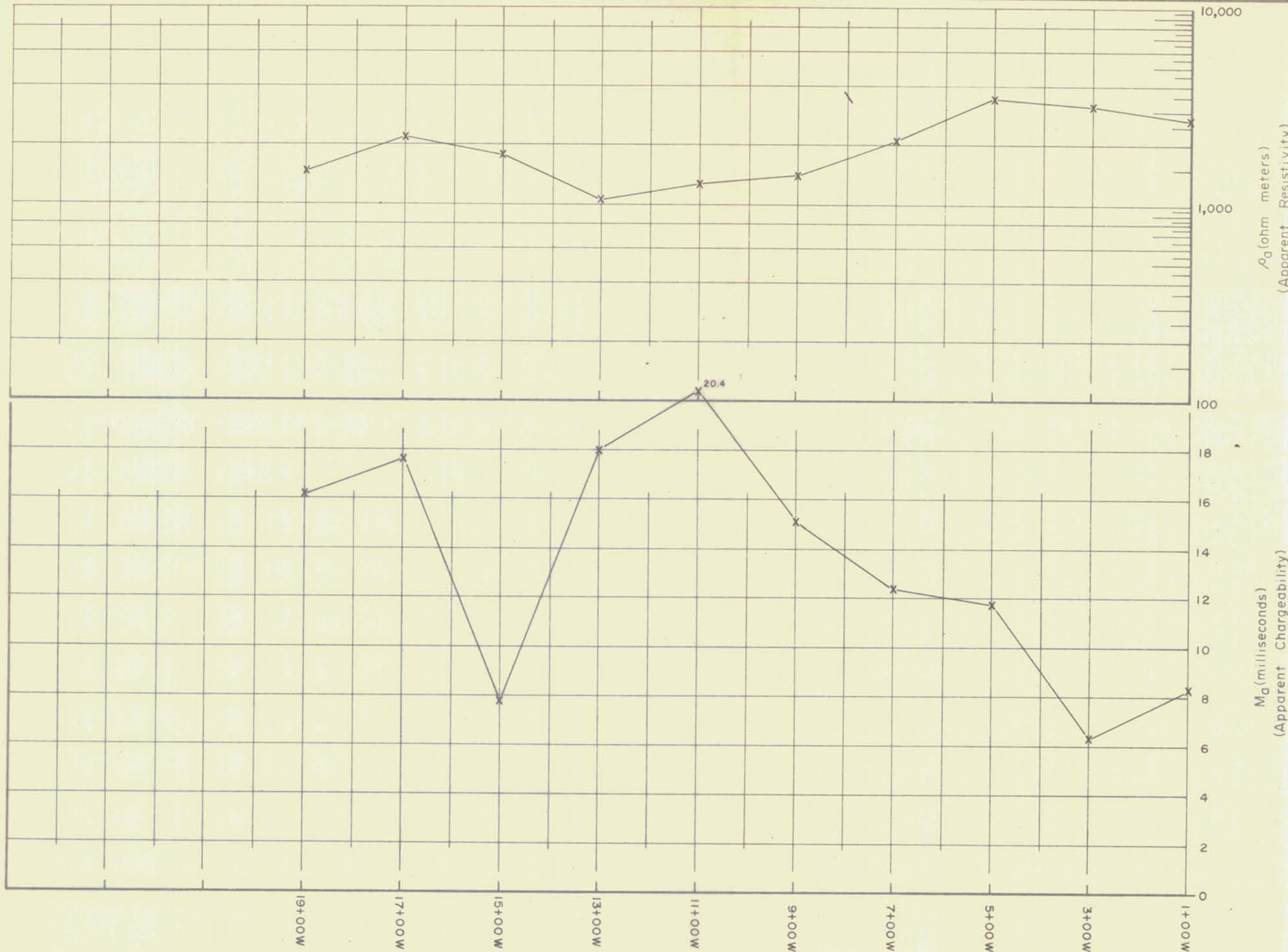
Andrew R. Dodds, B.Sc. P. Geoph.  
Geophysicist

PROFESSIONAL  
GEOPHYSICIST  
ANDREW R. DODDS  
3/7/70



EXPLORATION SERVICES LIMITED  
Earth Sciences Division

CALGARY CANADA







**LEGEND**

NEWMONT RECEIVER	HUNTEK MK.I RECEIVER
PARAMETERS	PARAMETERS
ON . . . 2.0secs . . . . .	1.5 secs.
OFF . . . 2.0secs . . . . .	0.5 secs.
DELAY . . . 0.45 secs . . . . .	0.015 secs.
INTEGRATE . . . 0.65 secs . . . . .	0.4 secs.

CONTOUR INTERVAL . . . 5.0 milliseconds . . . . . 1.0 milliseconds

**POLE-DIPOLE ARRAY**  
a = 200 feet.



**FALCONBRIDGE NICKEL MINES LIMITED.**  
MICKLE-SAMUELSON OPTION, TEXADA ISLAND, B.C.

**INDUCED POLARIZATION SURVEY**  
APPARENT CHARGEABILITY CONTOURS  
WITH INTERPRETATION.

To accompany report by: *A.R. Dodds*  
**A.R. Dodds, B.Sc., Geophysicist.**

**KENTING**  
EXPLORATION SERVICES LIMITED  
Earth Sciences Division  
CALGARY, CANADA

SCALE: 1" = 200'      DRAWN: M.C.      DATE: MAY 1970  
JOB No.: P.C. 1225      DWG. No.: 1225-1