

5040

A REPORT

104J/4W

ON

AN INDUCED POLARIZATION SURVEY

Sheslay River Area, B.C.

FOR

DUCANEX RESOURCES LIMITED

Vancouver, British Columbia

BY

<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 5040 MAP _____</p>
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PETER E. WALCOTT & ASSOCIATES LIMITED

Vancouver, British Columbia

JULY 1974

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ACCOMPANYING MAPS - Scale 1" = 200'

MAP POCKET

#1 CONTOURS OF APPARENT RESISTIVITY a = 200 n = 1	W-180-1
#2 " " " " a = 200 n = 2	W-180-2
#3 CONTOURS OF APPARENT CHARGEABILITY a = 200 n = 1	W-180-3
#4 " " " " a = 200 n = 2	W-180-4

INTRODUCTION

Between June 8th and 15th, 1974 Peter E. Walcott & Associates Limited carried out a limited induced polarization (I.P.) survey over part of a property located near the Sheslay River, British Columbia, optioned by Ducanex Resources Ltd.

The survey was carried out over old lines on which previous work had been done.

First and second separation measurements of apparent chargeability (the I.P. response parameter) and resistivity were made every 200 feet along the picket lines using the pole-dipole array with a 200 foot dipole as recommended by the company's consultant geophysicist, Mr. J. B. Boniwell.

The data are presented in profile form on Maps W-180-1 to 4 that accompany this report.

PROPERTY, LOCATION AND ACCESS

The property is located in the Atlin Mining Division of British Columbia and consists of the following claims:

<u>Claim Name</u>	<u>Record No.</u>
Grizzly 1 - 20	13951 - 13970N
Kid 1	4146K
Red 41 - 62	17810 - 17831B
Red 101 - 110	18242 - 18251G

The claims are situated on the north side of the Sheslay River some 65 miles southwest of the settlement of Dease Lake, British Columbia.

Access was obtained by means of helicopter from Dease Lake.

PURPOSE

The purpose of the survey was to try and detect by the I.P. technique the presence of economic sulphide mineralization on the property as suggested by the favourable geology.

PREVIOUS WORK

Previous work on the property consisted of geological mapping and prospecting, geochemical surveying, and magnetic and induced polarization surveying.

The results of these are documented in reports held by Ducanex Resources Ltd.

GEOLOGY

The reader is referred to the forementioned reports held by Ducanex Resources Ltd.

SURVEY SPECIFICATIONS

The induced polarization (I.P.) survey was carried out using a pulse-type system manufactured by Huntco Limited of Toronto, Ontario. Measurements with this system are made in the time domain.

The system consists basically of three units: a receiver, a transmitter and a motor-generator. The transmitter, which provides a maximum of 7.5 kw d.c. to the ground, obtains its power from the 7.5 kw 400 cycle, three phase generator driven by a gasoline engine. The cycling rate of the transmitter is 1.5 seconds "current-on" and 0.5 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through electrodes C₁ and C₂, the primary voltage (V) appearing between the two potential electrodes, P₁ and P₂, during the "current-on" part of the cycle, and a secondary or overvoltage (V_s) appearing between P₁ and P₂ during the "current-off" part of the cycle.

The apparent chargeability (M_a) is calculated by dividing the secondary voltage by the primary voltage and multiplying by 400, which is the sampling time in milliseconds of the receiver unit. The apparent resistivity (P_a) in ohm-meters is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity obtained are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode C₁ and the two potential electrodes, P₁ and P₂, are moved in unison along the survey lines. The spacing "na" (n an integer) between C₁ and P₁ is kept constant for each traverse at a distance roughly equal to the depth to be explored by that traverse, while that of P₁ - P₂ (the dipole) is kept constant at "a". The second current electrode C₂ is kept fixed at "infinity".

Thus, on a "pole-dipole array" traverse with an electrode spacing of 200 feet, a body lying at a depth of 100 feet will produce a strong response, whereas the same body lying at a depth of 200 feet will only just be detected. By running subsequent traverses at different electrode separations, more precise estimates can be made of depth, width, thickness and percentage of sulphides of causative bodies located by the I.P. method.

SURVEY SPECIFICATIONS cont'd

A 200 foot dipole was used on the survey. First and second separation measurements were made.

DISCUSSION OF RESULTS

The results of the survey as performed with a 200 foot dipole show good agreement with those of the previous I.P. survey.

The I.P. results show the property to exhibit a low chargeability background above which two zones of higher chargeability are clearly discernible (Maps W-180-3 and 4).

The most easterly of these zones is a narrow shallow zone (greater response on first separation) that trends across the lines surveyed, and is roughly coincident with a copper soil anomaly. It is also associated with higher resistivity values (Maps W-180-1 and 2) but the writer believes part of the latter are due to a topographic feature.

The other chargeability zone occurs on Lines 28 N and 24 N and is open to the south. This zone exhibits a better response on the second separation and is associated with lower resistivity values. Again the writer believes that the lower resistivity values are not totally related to the chargeability values but are mostly due to the lower topography.

The resistivity survey (Maps W-180-1 and 2) as suggested above is believed by the writer to mostly reflect changes in overburden thickness and/or underlying bedrock. It would appear however that a possible fault contact occurs striking across the lines roughly west of and paralleling the easterly I.P. zone as evidenced by the resistivity contours.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Between June 8th and 15th, 1974 Peter E. Walcott & Associates Ltd. carried out a limited I.P. survey over part of a property for Ducanex Resources Ltd.

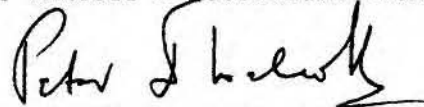
The property, i.e. the Grizzly claims, is located near the Sheslay River, British Columbia, some 65 miles southwest of Dease Lake.

The I.P. results showed two zones of higher chargeability to exist on the property, one of which is a narrow shallow zone extending across the lines surveyed, and the other a deeper zone undefined to the south.

As a result the writer concludes that these anomalies could be caused by sulphide mineralization and suggests that as drilling is already planned for the property these anomalies be tested by borehole investigation.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED


Peter E. Walcott, P.Eng.
Geophysicist

Vancouver,
British Columbia

July 1974

APPENDIX

COST OF SURVEY

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization costs were extra so that the total cost of services provided was \$6,770.00.

Itemized cost statement to follow.

Declared before me at the *Cetef*
of *Vancouver*, in the
Province of British Columbia, this *16th* day of *July* 1974, A.D. *Marie A Morris*

[Signature]
A Commissioner for Taking Affidavits within British Columbia or
A Notary Public for the Province of British Columbia

SUB-MINING RECORDER

PERSONNEL EMPLOYED ON SURVEY

Name	Occupation	Address	Dates
Peter E. Walcott	Geophysicist	Peter E. Walcott & Associates Limited 605 Rutland Court, Coquitlam, B.C.	11th - 15th June 1974
G. MacMillan	Geophysical Operator	" "	11th- 15th June, 1974
R. Heckmann	" "	" "	8th - 15th June 1974
C. Henry	Helper	" "	"
P. Charlie	"	" "	11th - 15th June, 1974
S. Scurvey	"	" "	"
J. Makichuk	Cook	" "	"
J. Walcott	Typing	" "	July 12th, 1974
J. Winfield	Draughting	Altair Drafting Ltd. Vancouver, B.C.	July 11th & 12th, 1974

Decided before me at the *City*
of *Vancouver*, in the
Province of British Columbia, this *16th*
day of *July* 19*74*, A.D. } *Marie A. Morris*


Y.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

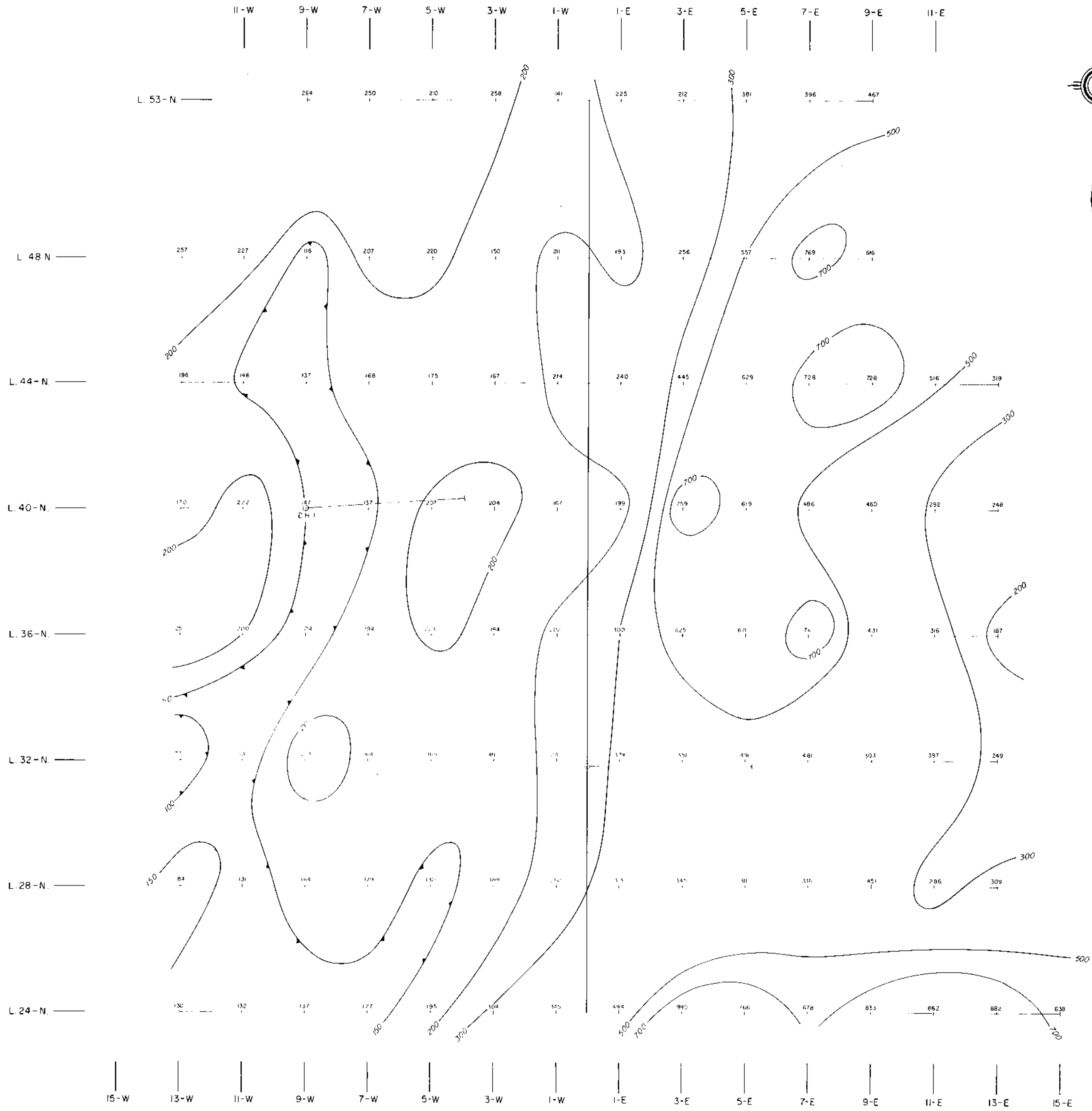
CERTIFICATION

I, Peter E. Walcott of the Municipality of Coquitlam, British Columbia, hereby certify that:

1. I am a Graduate of the University of Toronto in 1962 with a B.A.Sc. in Engineering Physics, Geophysics Option.
2. I have been practising my profession for the last twelve years.
3. I am a member of the Association of Professional Engineers of British Columbia, Ontario and the Yukon Territory.
4. I hold no interest, direct or indirect, in the securities or properties of Ducanex Resources Ltd. nor do I expect to receive any.


Peter E. Walcott, P.Eng.

July 1974



5040
M2

DUCANEX RESOURCES LTD.
 GRIZZLY CLAIMS ; SHESLAY RIVER AREA, B.C.
 ATLIN MINING DIVISION

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY
 (MILLI-SEC.)

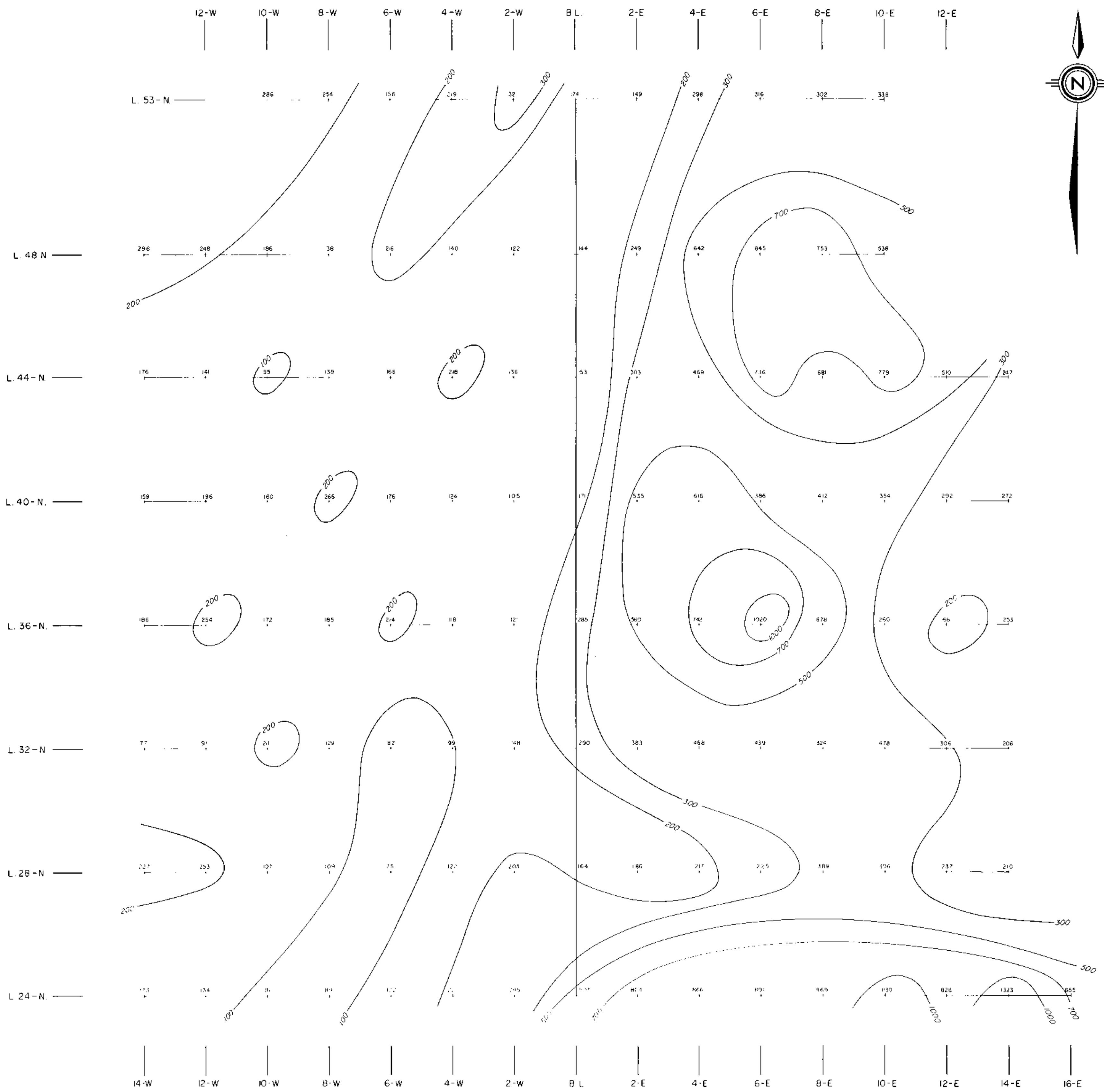
Department of
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 ASSESSMENT REPORT
 NO. 5040 MAP #2

$\alpha = 200' N = 2$
 SCALE : 1 INCH = 200 FEET

200 100 0 200 400 600

MAP NO. W-180-2
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P.Eng, DATED JULY-1974

PETER E. WALCOTT & ASSOC. LTD.
Peter E. Walcott
 ALTAIR drafting



5040
M1

DUCANEX RESOURCES LTD.
 GRIZZLY CLAIMS, SHESLAY RIVER AREA, B.C.
 ATLIN MINING DIVISION

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY
 (OHM-METRES)

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO 5040 MAP #1

a=200' N=1
 SCALE: 1 INCH = 200 FEET

200 100 0 200 400 600

MAP NO. W-180-1
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P.Eng, DATED JULY-1974

PETER E. WALCOTT & ASSOC. LTD.
Peter E. Walcott

ALTAIR drawing



5040
M3

DUCANEX RESOURCES LTD.
 GRIZZLY CLAIMS ; SHESLAY RIVER AREA, B.C.
 ATLIN MINING DIVISION

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT CHARGEABILITY
 (OHM-METRES)

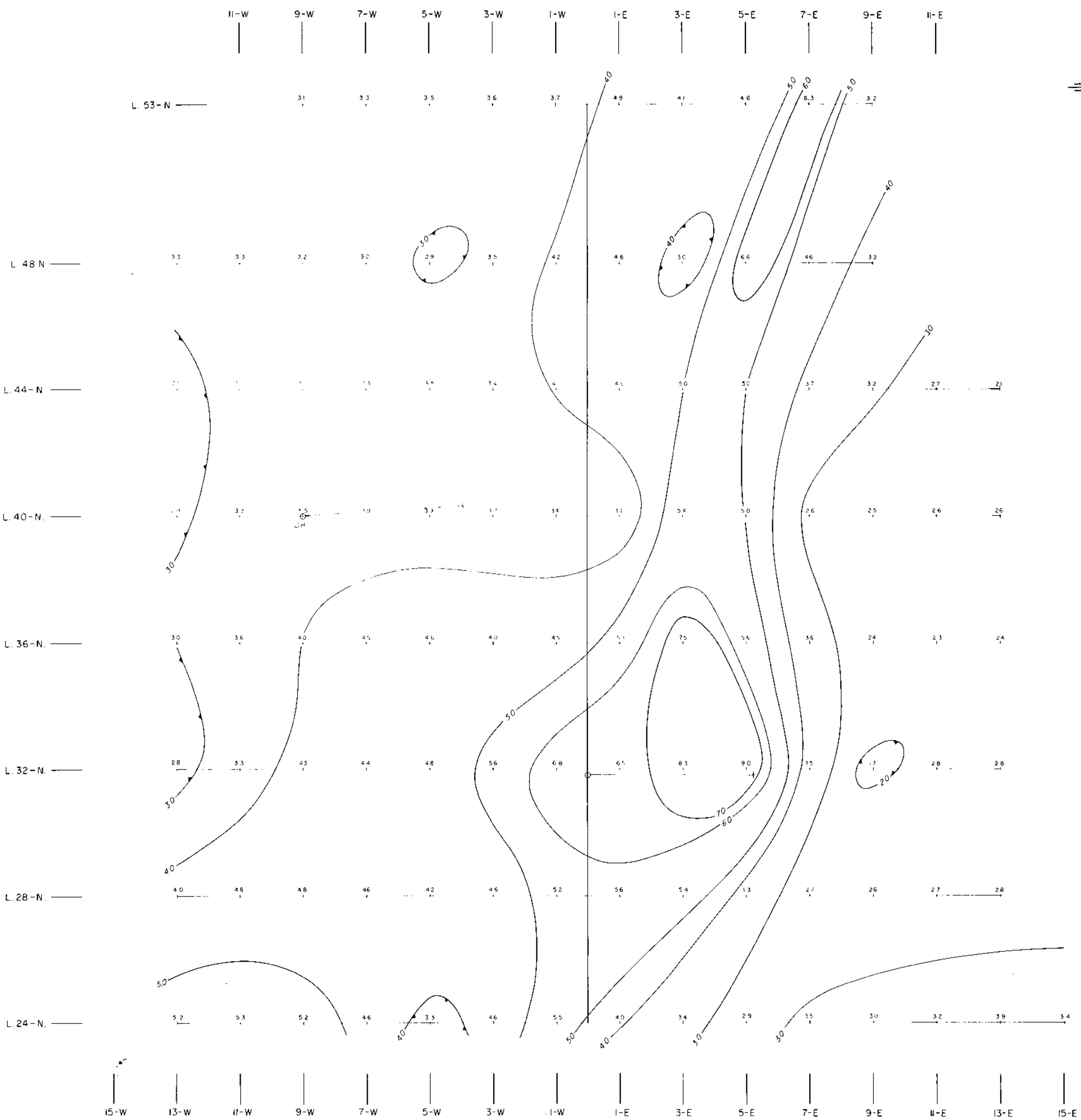
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 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 5040 MAP #3

SCALE: 1 INCH = 200 FEET

MAP NO. W-180-3
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P'Eng, DATED JULY-1974

PETER E. WALCOTT & ASSOC. LTD.
Peter E. Walcott

ALTAIR drafting



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M4

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 GRIZZLY CLAIMS, SHESLAY RIVER AREA, B.C.
 ATLIN MINING DIVISION

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT CHARGEABILITY
 (MILLI-SEC.)

NO. 5040 #4

SCALE: 1 INCH = 200 FEET

MAP NO. W-180-4
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P.Eng, DATED JULY-1974

PETER E. WALCOTT & ASSOC. LTD.
Peter E. Walcott

ALTAIR drafting