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A REPORT

ON

AN INDUCED POLARIZATION SURVEY

ON

THE ILE CLAIM GROUP

Smith Creek, Similkameen Mining Division

British Columbia

BY

PETER E. WALCOTT & ASSOCIATES LIMITED

Vancouver, British Columbia

SEPTEMBER 1971

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ACCOMPANYING MAPS - Scale 1" = 200 ft. MAP POCKET

INTRODUCTION

Between September 8th and 10th, 1971, Peter E. Walcott & Associates Limited carried out a limited induced polarization (I.P.) survey over part of a property, located in the Hedley area of British Columbia, held by Mr. D. Scott and Associates.

The survey was carried out over north-south handcut lines which were turned off at right angles every 400 feet from an east-west baseline, and which were chained and picketed at 100 foot intervals.

Measurements (first and second separation) of apparent chargeability (the I.P. response parameter) were made over the grid using the "pole-dipole" method of surveying with a 200 foot dipole. Simultaneous measurements of apparent resistivity were also made.

The data are presented in profile form on Maps W-141-1 & 2 that accompany this report.

PROPERTY, LOCATION AND ACCESS

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

Claim Name	Record No.
ILE 1 - 10 inclusive	27326 - 335 inclusive

The claims are situated around the 4000 foot elevation mark on the north slopes of Smith Creek, some 18 miles east of the town of Princeton, British Columbia.

Access is readily obtained from Princeton via Highway #3 and 3 miles of forestry access road by four wheel drive vehicle.

PREVIOUS WORK

Previous work done on the claim group includes:

1. Geological prospecting.

2. Geochemical surveying.

3. Magnetic and electromagnetic (E.M. 16) surveying.

The results of the above are documented in a report by D.M. Scott, P.Eng., dated January 1971.

PURPOSE

The purpose of the survey was to investigate by using the induced polarization technique the suggested presence of sulphide occurrences on the property.

GEOLOGY

The reader is referred to a report by D.M. Scott, P.Eng., dated January 1971.

SURVEY SPECIFICATIONS

The induced polarization (I.P.) survey was carried out using a pulse-type system manufactured by Huntec 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 C_1 and C_2, the primary voltage (V) appearing between the two potential electrodes, P_1 and P_2, during the "current-on" part of the cycle, and a secondary or overvoltage (V_s) appearing between P_1 and P_2 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 C_1 and the two potential electrodes, P_1 and P_2, are moved in unison along the survey lines. The spacing "na" (n an integer) between C_1 and P_1 is kept constant for each traverse at a distance roughly equal to the depth to be explored by that traverse, while that of P_1 - P_2 (the dipole) is kept constant at "a". The second current electrode C_2 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

The survey was conducted using a 200 foot dipole and obtaining first and second separation measurements over the area surveyed.

DISCUSSION OF RESULTS

The I.P. survey, as performed with a 200 foot dipole with n = 1 and 2, showed the property to exhibit a seemingly low chargeability background above which three anomalous zones, Zones 1, 2, and 3 are clearly discernible (Map W-141-1).

These zones are open and could be larger and conceivably one, with Zones 1 and 2 offset by a north-south fault (Line 24 E not read on client's instructions).

The resistivity survey mostly indicated overburden thickness, and overburden and bedrock conductivity. It did however indicate a rock type change on the northwestern corner of the grid, as evidenced by the resistivity low on Map W-141-2, corresponding to a Tertiary lava plug.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Between September 8th and 10th, 1971, Peter E. Walcott & Associates Limited carried out a limited induced polarization (I.P.) survey over a property held by Mr. D. M. Scott et al.

The property, the ILE claims, is located on the slopes of Smith Creek, some 18 miles east of the town of Princeton, British Columbia.

The I.P. survey showed the property to exhibit a low chargeability background, above which three anomalous zones are clearly discernible.

The zones are not defined, were not fully investigated (due to limited budget), and could conceivably be one.

As a result the writer concludes that these zones are most probably caused by pyritic mineralization with some possible economic mineralization in the underlying volcanics and recommends that:

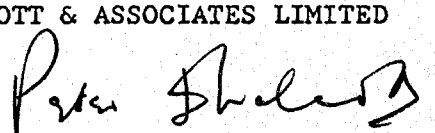
(1) the I.P. coverage be extended to the south and east to properly delineate the zones (this ground believed to have been acquired).

(2) the property be geologically mapped.

(3) the decision to drill be based on the results of the above recommended work and the results of previous work.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED



Peter E. Walcott, P.Eng.
Geophysicist

Vancouver,
British Columbia

September 1971

APPENDIX

COST OF SURVEY

Peter E. Walcott & Associates Limited provided a geophysicist, operator, three linemen, truck and equipment on a daily basis. Accomodation and draughting services were provided by the client. The total cost of the services provided by Peter E. Walcott & Associates Limited were $1,379.64.

PERSONNEL EMPLOYED ON SURVEY

Name	Occupation	Address	Date
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C.	Sept. 8th - 10th, 1971 Sept. 24th, 1971
V. Pashniak	Geophysical Operator	" "	Sept. 8th - 10th 1971
L. Perreault	"	" "	" "
P. Charlie	Helper	" "	" "
S. Scurvey	"	" "	" "
J. Walcott	Typing	" "	Sept. 27th, 1971

Declared before me at the City of Vancouver, in the Province of British Columbia, this 16 day of March, 1972, A.D.

David M. Scott

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 nine years.

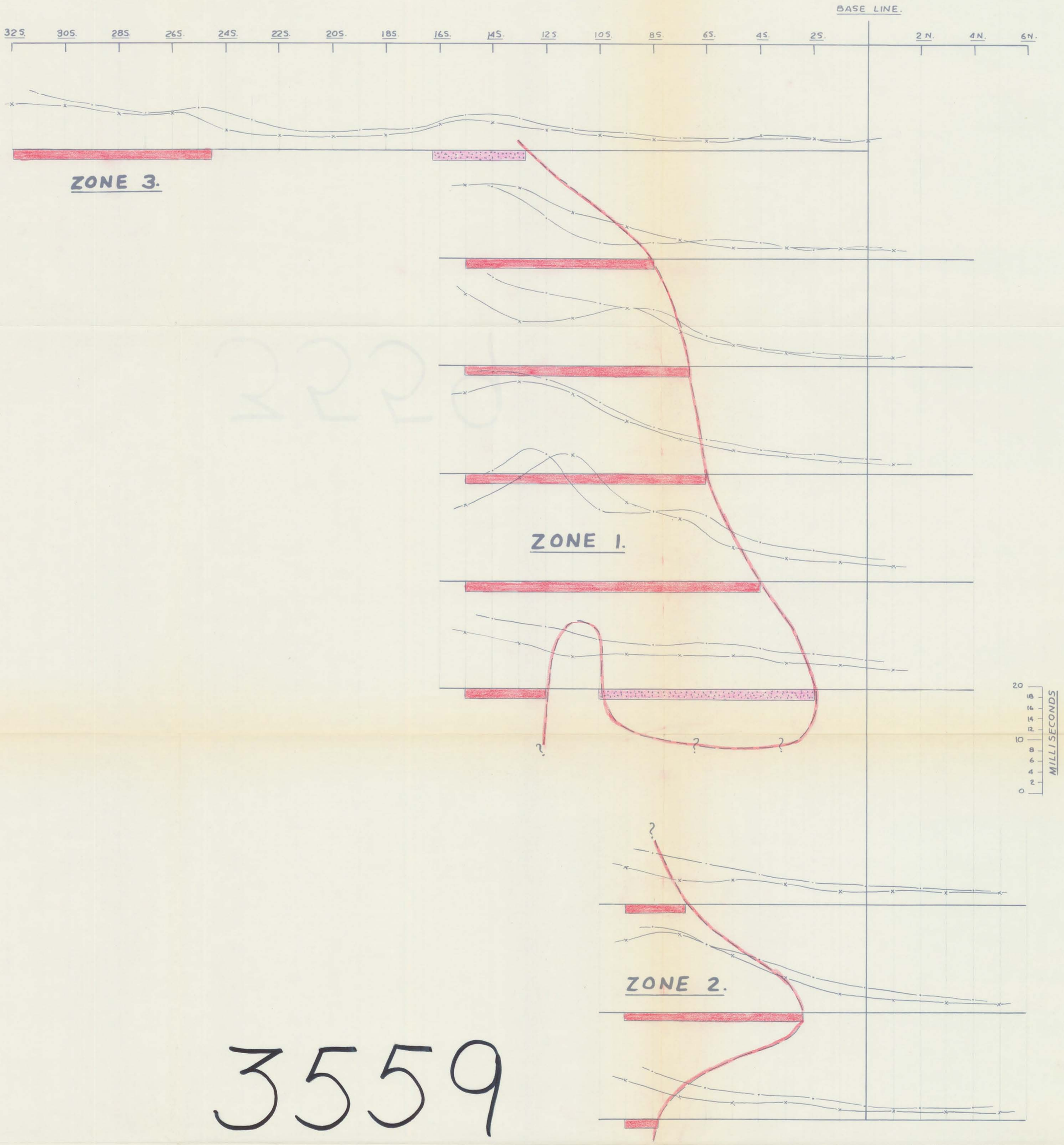
3. I am a member of the Association of Professional Engineers of British Columbia, Ontario and the Yukon Territory.

4. I hold no interest, direct or indirect, in the ILE claim group, nor do I expect to receive any.

Peter E. Walcott, P.Eng.

Vancouver,
British Columbia

September 1971



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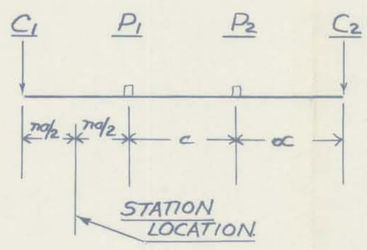
M-1

POLE - DIPOLE ARRAY (a = 200')



x ——— x n = 1. (200')

• ——— • n = 2. (400')

TRUE ± 3°

ANOMALOUS ZONE. - - - - - -

POSSIBLE ANOMALOUS ZONE - - -

APPARENT CHARGEABILITY : 1" = 20 MILLISECONDS

"ILE" CLAIM GROUP.

SMITH CRK., SIMILKAMEEN M.D. — N.T.S. 92/H/8

INDUCED POLARIZATION SURVEY

PROFILES OF APPARENT CHARGEABILITY.

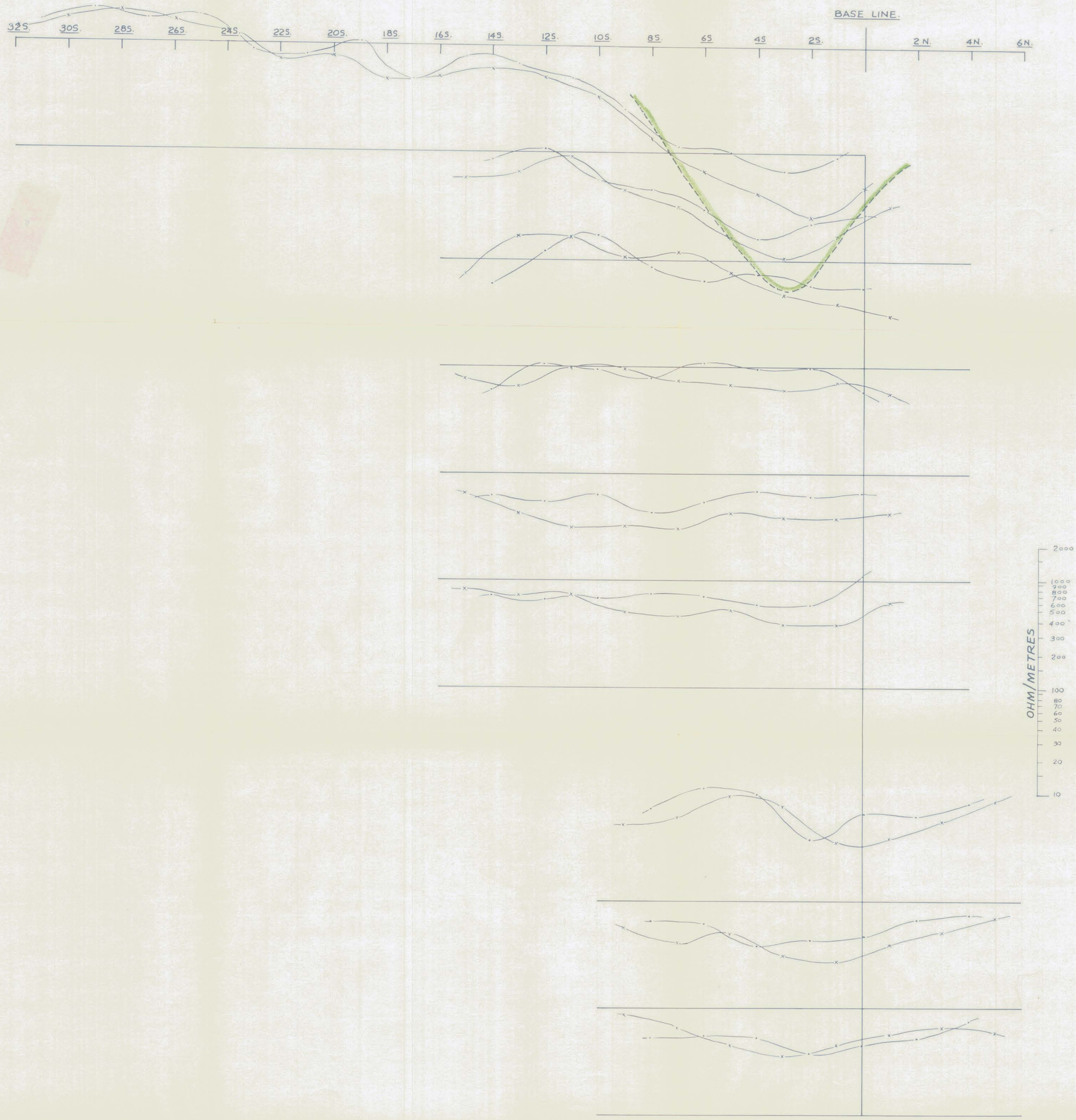
SCALE : 1 INCH = 200 FEET

MAP NO. W-141-1

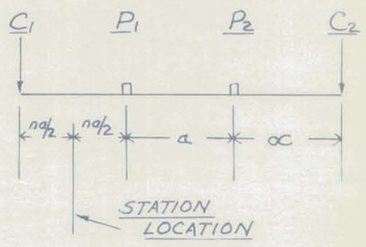
To accompany a report by
PETER E. WALCOTT. P.Eng
Dated September 1971

PETER E. WALCOTT & ASSOC. LTD.

September 9th-11th 1971.



POLE-DIPOLE ARRAY (a = 200')



x——x n = 1. (200')

•——• n = 2. (400')

INTERPRETED CONTACT

RESISTIVITY SCALE: 2" = 1 LOGARITHMIC CYCLE. (with line trace taken as 100 ohm/metres)

(APPARENT CHARGEABILITY: 1" = 20 MILLISECONDS)

TRUE ±3°

"ILE" CLAIM GROUP.

SMITH CRK., SIMILKAMEEN M.D. — N.T.S. 92/H/8

INDUCED POLARIZATION SURVEY

PROFILES OF APPARENT RESISTIVITY

SCALE: 1 INCH = 200 FEET

MAP NO. W-141-2

To accompany a report by
PETER E. WALCOTT, P.Eng
Dated September 1971.

PETER E. WALCOTT & ASSOC. LTD.

September 9th-11th 1971.