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A Geophysical Report on

An Induced Polarization Survey

on

Big Tom & West Branch Properties

Clinton MD, B.C.
(51° 20'N, 123° 10'W)

by

PETER E. WALCOTT, P.Eng.

PETER E. WALCOTT & ASSOC. LTD.

A REPORT

ON

AN INDUCED POLARIZATION SURVEY

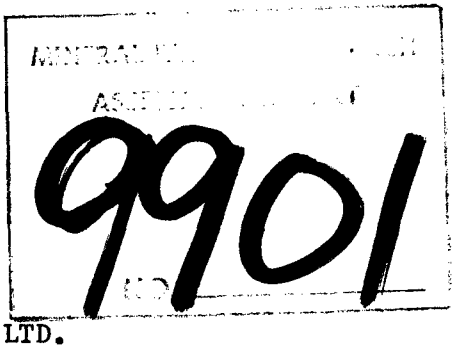
Big Creek Area, Clinton M.D., B.C.

WEST BRANCH
PROPERTY

FOR

J.M.T. SERVICES CORPORATION

Vancouver, B.C.



BY

PETER E. WALCOTT & ASSOC. LTD.

Vancouver, B.C.

NOVEMBER 1980

GEOPHYSICAL SERVICES

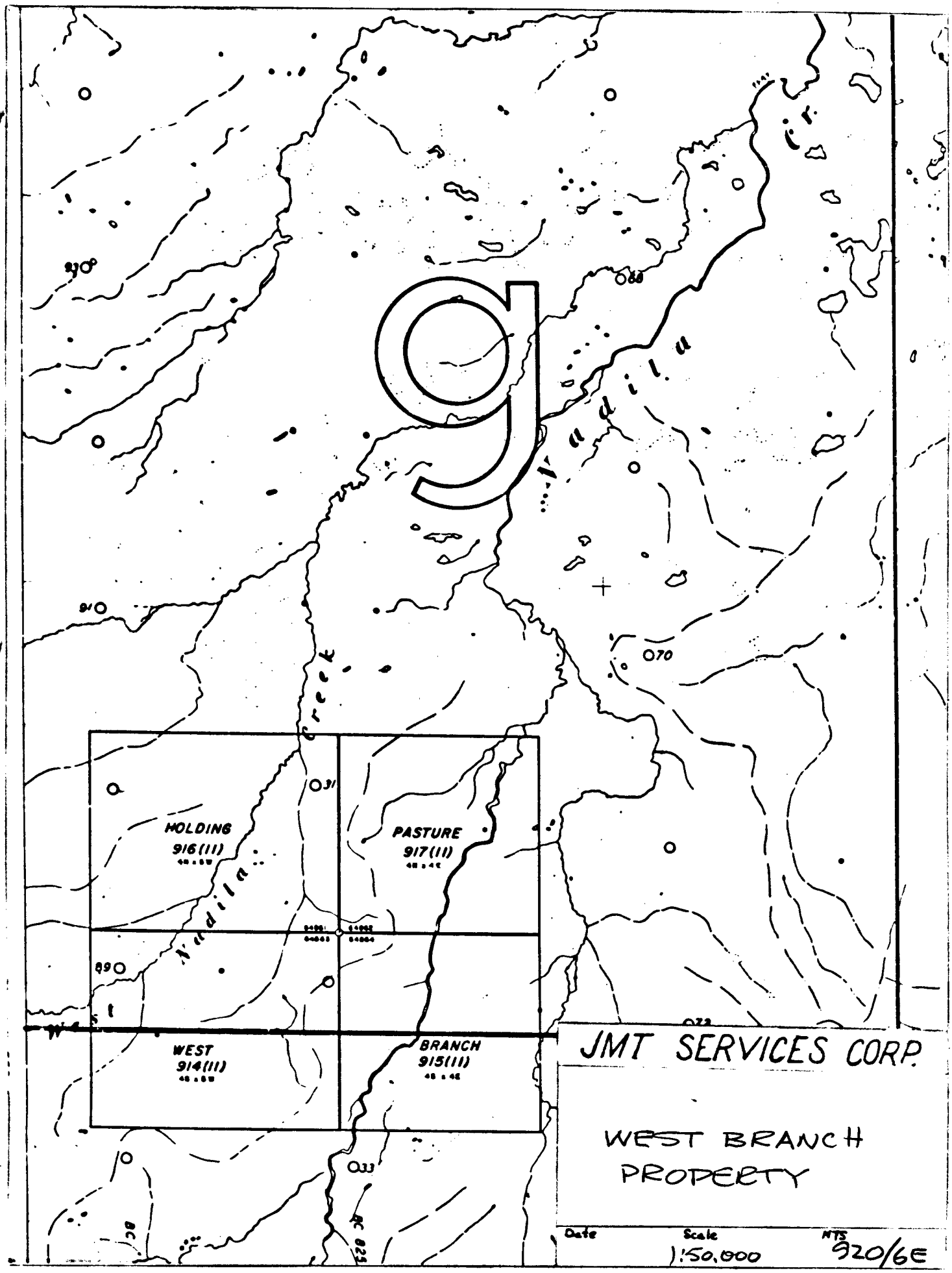
JMT SERVICES CORP.

PROPERTY LOCATION MAP

SCALE

Mile 1136 0 136 Mile

Prepared by: Drawn by:	Date : Revised:	NTS MAP AREA 93 - E	DRAWING No.


HOLDING
916(11)
PASTURE
917(11)
WEST
914(11)
BRANCH
915(11)
JMT SERVICES CORP.
WEST BRANCH
PROPERTY
Date
Scale
1:50,000
NTS
920/6E

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ACCOMPANYING MAPS - Scale 1:5000 MAP POCKET

INTRODUCTION.

Between October 16th and 29th, 1980, Peter E. Walcott & Associates Limited carried out a reconnaissance induced polarization (I.P.) survey programme for J.M.T. Services Corporation over parts of their Big Tom and West Branch (Nadilla) properties, Big Creek Area, British Columbia.

Measurements (first and second separation) of apparent chargeability (the I.P. response parameter) were made along three compass traverses 1/2 kilometre apart on the Big Tom property and along five compass traverses the same distance apart on the West Branch property employing a 100 metre dipole. Simultaneous measurements of apparent resistivity were also made.

The data are presented in profile form on Maps W-290-1 & 2 that accompany this report.

PROPERTY, LOCATION & ACCESS.

The properties are located in the Clinton Mining Division of British Columbia and are situated about 5 kilometres apart some 45 kilometres south of the settlement of Big Creek, British Columbia.

Access was obtained by means of helicopter from a ranch south of Big Creek by means of rotary aircraft, based either in Williams Lake or Pemberton.

PURPOSE.

The purpose of the survey was to try and substantiate by the I.P. method the presence of intrusive porphyry sulphide systems on the property as suggested by the favourable geological environment and the presence of weakly mineralized outcrop and float in the general area.

PREVIOUS WORK.

Previous work to the writer's knowledge has consisted only of geological prospecting by Mr. W. Livingstone and his associates.

GEOLOGY.

The writer is referred to reports by Mr. W. Livingstone.

SURVEY SPECIFICATIONS.

The induced polarization (I.P.) survey was carried out using a pulse type system, the principal components of which are manufactured by Phoenix Geophysics Ltd. and CroneGeophysics Ltd. of Metropolitan Toronto, Ontario.

The system consists basically of three units: a receiver (Crone), a transmitter and a motor generator (Phoenix). The transmitter, which provides a maximum of 2 kw d.c. to the ground, obtains its power from a 400 Hz. three phase alternator driven by a gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) flowing through electrodes C_1 and C_2, the primary voltage (V_p) appearing between the two potential electrodes, P_1 and P_2, during the "current-on" part of the cycle, and the apparent chargeability (M_a) presented as a direct readout (two samples M_a 0.45 - .90 seconds) and N_a (0.90 - 1.35) are taken for 3 current cycles, automatically averaged, adjusted to the 33M_1 standard and stored, and later compared).

The apparent resistivity (P_a) in ohm metres 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 survey was carried out using the "pole-dipole" method of surveying. With this system the current electrode, C1, 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 receiving dipole) is kept constant at "a". The second electrode C_2 is kept constant at "infinity".

The traverses were carried out using a 100 metre dipole and making first and second separation measurements.

DISCUSSION OF RESULTS.

Big Tom Map W-290-1

The chargeability result indicated the presence of a subtle anomaly in the middle of the traverses on all three lines with similar magnitudes on both the first and second separation.

This anomaly appears to get stronger and wider as the traverse line moves westwards. It would be indicative of a major sulphide system as it has the physical dimensions to represent such. Further delineation to the west is necessary to further define and clarify the issue.

The resistivity survey did little except indicate bedrock and overburden conductivity with somewhat higher readings to the north maybe suggesting thinner overburden cover.

West Branch Map W-290-2

Here the five traverses are dominated by a large chargeability high centred around 14 to 16N. Similar responses are obtained on both the n=1 and 2 measurements indicating some uniformity of anomalous source with depth.

However two weaker and smaller zones are indicated to the north of the above by other chargeability peaks on both the first and second separation measurements. These zones appear to be increasing in response to the east.

Again further delineation is required particularly to the east to properly define the nature of the anomalous response but it would seem very plausible that these responses are indicative of a major sulphide system.

The resistivity survey again did little but indicate bedrock and overburden conductivity.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Between October 16th and 29th, 1980, Peter E. Walcott & Associates Limited carried out a small reconnaissance I.P. project over parts of two properties located south of Big Creek, British Columbia for J.M.T. Services Corporation.

Anomalous situations were observed on both properties - on the one a barely twice background situation while on the other a clearly discernible response of several times background - each of which having the physical dimensions to be indicative of a major sulphide system as discussed in the previous section.

As a result the writer recommends that these anomalous situations be further delineated and outlined, and dispite the fact that most of the area is drift covered he suggests that an attempt be made to garner additional geological, etc. evidence to substantiate the premise that the above anomalous zones are attributable to sulphide systems.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

Peter E. Walcott, P.Eng
Geophysicist

Vancouver,
British Columbia

November 1980

APPENDIX

STATEMENT OF COSTS
RE: IP SURVEY WEST BRANCH

TIME			
T. Kirby, geophysical operator G. Mandryk, geophysical operator			
2 operators and equipment rental Oct 17-28,	12 days @ $430/day		$ 5,160.00
2 days travel, Oct 16 and 29	@ $320/day		640.00
D. Greaves, helper Oct 16-29	14 days @ $85.00		1,190.00
D. Mason, helper Oct. 16-29	14 days @ $85.00		1,190.00
R. Summerfield, helper Oct 17-29	13 days @ $85.00		1,105.00
K.W.Livingstone, Geologist, supervisor Oct 15-23,25-28,30, Dec 4	15 days @ $175.00		2,625.00
Jan23, July 2/81	2 days @ $200		400.00
W. A. Howell, geologist, layout grid, expediting, camp construction Oct 15,20, 22-24	5 days @ $175.00		875.00
G. Lauzon, assistant, grid layout, expediting, camp construction Oct 22-24, 27, 28, 30	6 days @ $90.00		540.00
Mobilization and demobilization of crews, equipment, Vancouver-Big Creek return			1,943.12
Room and board Oct 17-27	81 mandays		1,848.00
DISBURSEMENTS			
Anvil Mountain Ranch - equipment storage			110.00
K. W. Livingstone, expenses			303.25
ROR Enterprises Ltd., truck rental			150.43
JMT Services Corp - truck rental Oct 20-30			388.80
Gas			172.68
W. A. Howell, expenses			172.43
Hudson Building Supplies #2375			210.39
#2292			40.91
#3583 (camp supplies)			384.11
Field supplies consumed			129.47
Chain saw rental			70.00
B.D.C.			5.60
Pacific Helicopters Inv. #634			4,702.20
Pemberton Helicopters #1701			632.50
#1703			926.20
Okanagon Helicopters #H18013			2,431.66
Report preparation			660.00
	TOTAL		$28,996.75

Total length of surveys	- 19.7 km	
WEST BRANCH PROPERTY survey	10.9 km - 55.4%	
Total Costs attributable to WEST BRANCH PROPERTY		$16,064.20

Additional Costs:

P. McAndless, geologist, review and evaluate I.P. Aug 11, 12	2 days @ $200	400.00
K. W. Livingstone, geologist, review and evaluate I.P. Aug 11, 12	2 days @ $200	400.00
Vehicle rental - Budget Inv. #DT34880		101.66
Helicopter - pro-rata charge	2 hrs @ $380.00	760.00
	TOTAL APPLIED	$17,725.66

PERSONNEL EMPLOYED ON SURVEY

Name	Occupation	Address	Dates
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C.	Nov. 27 - 28, 80
T. Kirby	Geophysical Operator	" "	Oct. 16 - 29th, 80
G. Mandryk	"	" "	"
R. Summerfield	"	" "	"
D. Greaves	"	" "	"
D. Mason	"	" "	Oct. 17 - 29th, 8
G. MacMillan	Drafting	" "	Nov. 10 - 13, 80
J. Walcott	Typing	" "	Nov. 30, 80

CERTIFICATION.

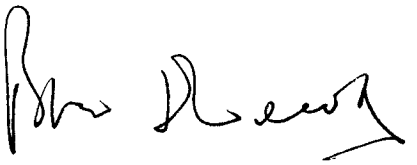
I, Peter E. Walcott, of the Municipality of Coquitlam, British Columbia, hereby certify that:

1. I am a Graduate of the University of Toronto with a B.A.Sc. in Engineering Physics, Geophysics Option, in 1962.

2. I have been practising my profession for the last 18 years.

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

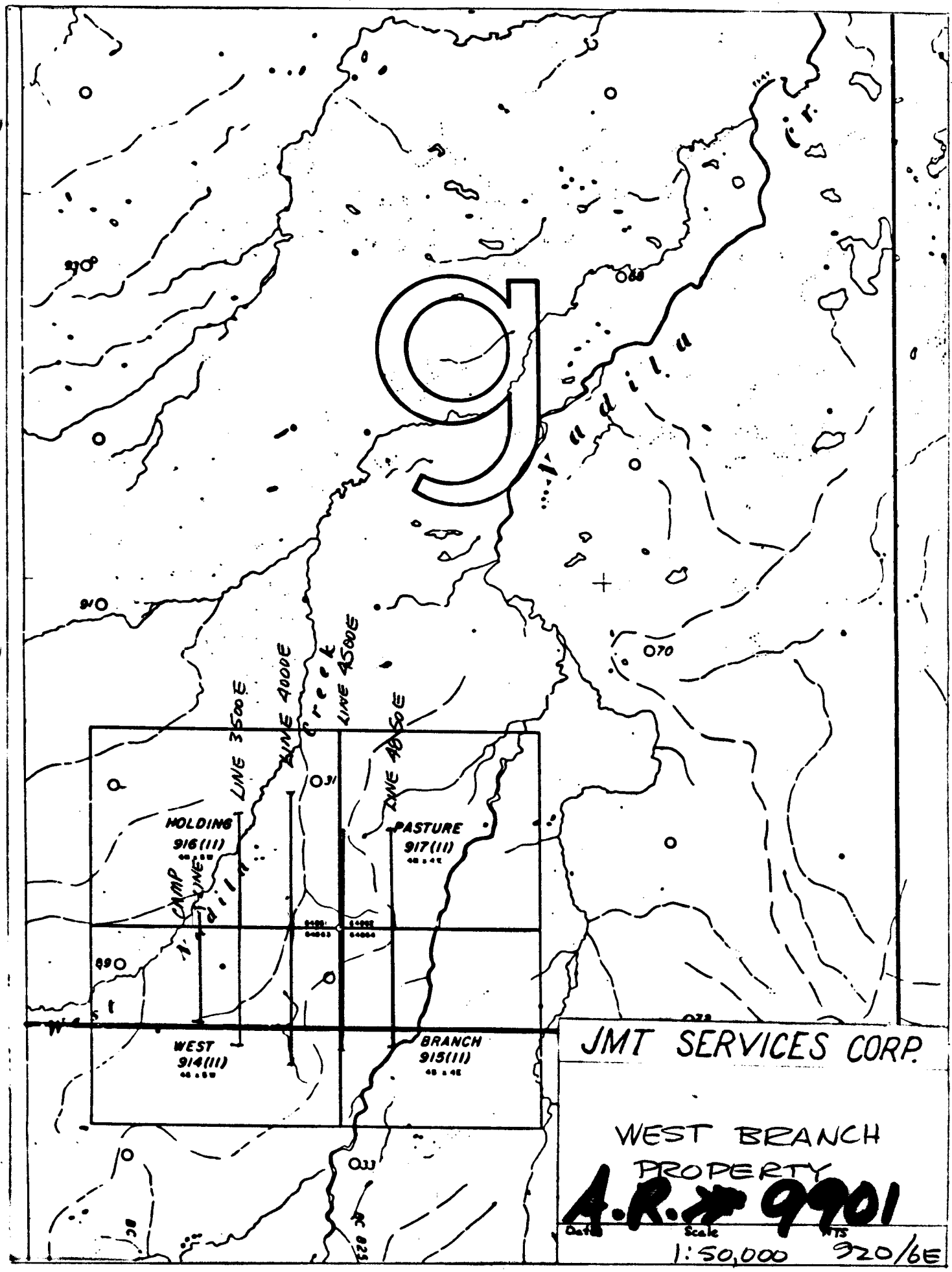
4. I hold no interest, direct or indirect in the securities or properties of J.M.T. Services Corporation, nor do I expect to receive any.

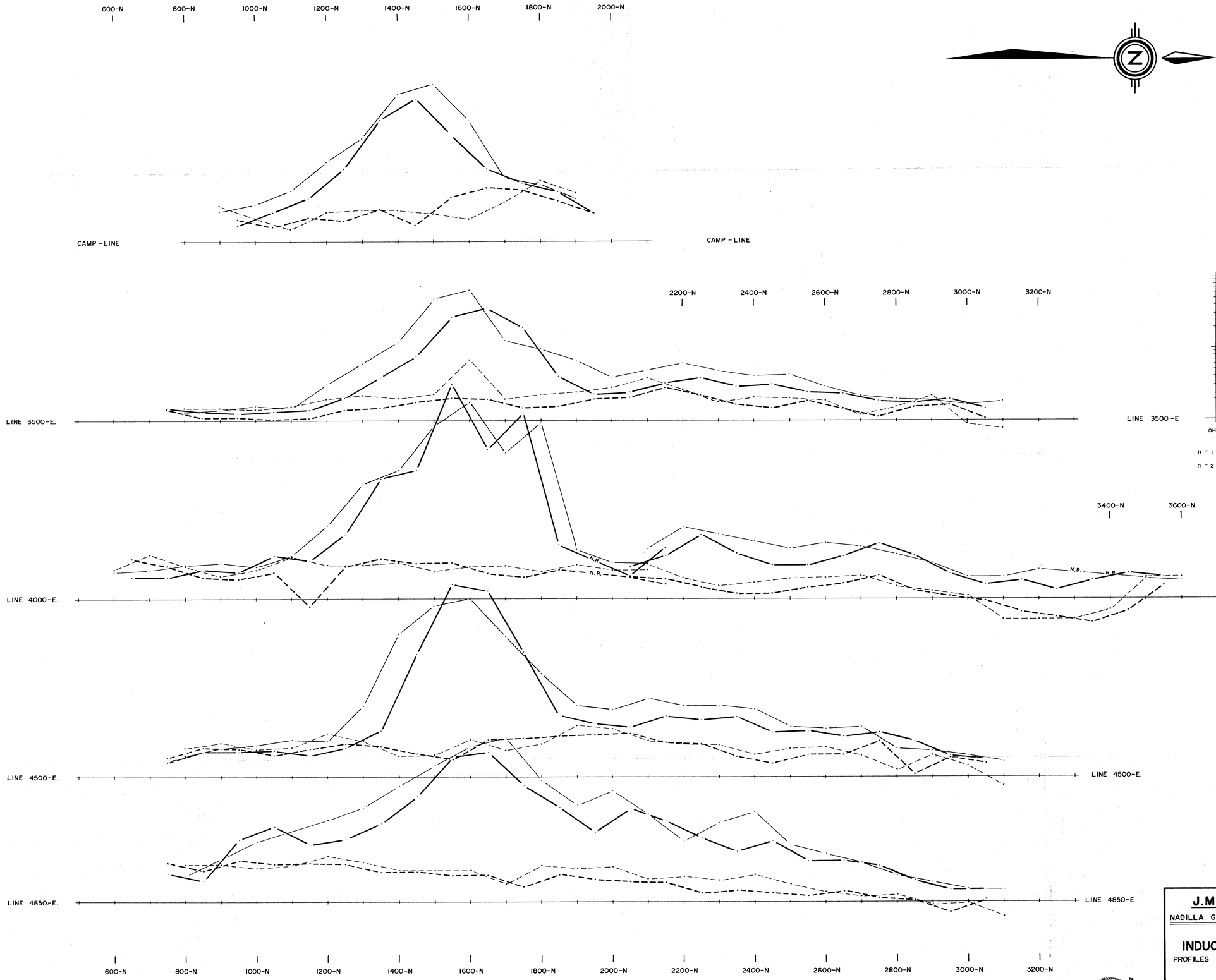


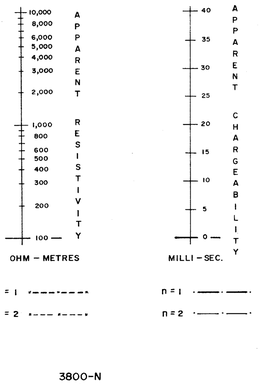
Peter E. Walcott, P.Eng.

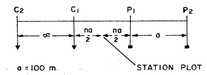
Vancouver,
British Columbia

November 1980


LINE 3500E
LINE 4000E
LINE 4500E
LINE 5000E
Creek
CAMP LINE
HOLDING
916(11)
PASTURE
917(11)
WEST
914(11)
BRANCH
915(11)
JMT SERVICES CORP.
WEST BRANCH
PROPERTY
A.R.# 9901
Scale
1:50,000
NTS
92O/6E







NOTE - C_1 IS TO THE SOUTH, EXCEPT FOR CAMP - LINE AND SOUTH HALF OF LINE 4000 - E

J.M.T. ENTERPRISES CORP.

NADILLA GRID, WILLIAMS LAKE AREA, CLINTON M.D., B.C.

INDUCED POLARIZATION SURVEY

PROFILES OF APPARENT RESISTIVITY & CHARGEABILITY

SCALE 1 : 5,000

MAP No. W-290-2
TO ACCOMPANY A REPORT BY
PETER E. WALCOTT, P. Eng.

PETER E. WALCOTT & ASSOC. LTD.
OCTOBER 1980