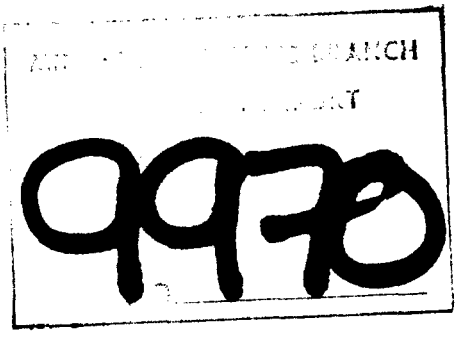
81-1191-9970

Title:	Induced Polarization Survey of the CAB Claim Group		
Claims:	CAB 1	Record No. 848	(5 units)
	CAB 2	Record No. 849	(5 units)
	CAB 3	Record No. 850	(5 units)
	CAB 4	Record No. 851	(5 units)
	CAB 5	Record No. 852	(5 units)
	Goforit	Record No. 3054	(15 units)
	Ithinklmakit	Record No. 3055	(20 units)
Mining Division:	Cariboo		
NTS Location:	52° 35'N 121° 41'W		
Owner:	J.M.T. Services Corp.		
Authors:	Michael G. Schlax, Greg A. Shore, Premier Geophysics Inc.		
Dates Work Done:	November 5 - November 8, 1981.		
Submitted:	January 15, 1982		



SUMMARY

An IP and resistivity survey done on the CAB claim group has not located any zones of significant chargeability. Deep, conductive overburden has been identified over much of the property, preventing useful measurement of underlying rocks. The exposed rock measured by the survey shows no significant chargeability.

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APPENDIX A - Statement of Qualifications

(con't.) . . . . .

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1.0 Introduction

1.1 Terms of Reference

Premier Geophysics, Inc. of Richmond, B. C. has been retained by J.M.T. Services Ltd. to conduct geophysical investigations on the CAB claim group. Premier conducted an induced polarization (IP) and resistivity survey on the property during November of 1981.

1.2 Location and Access

The property is located at latitude 52°31'N and longitude 121°41'W, shown on N.T.S. sheet 73A/12E. Access is by road from Williams Lake via the Likely Road to Morehead Lake, and then the Cariboo-Bell Road, which runs southwest of the claim.

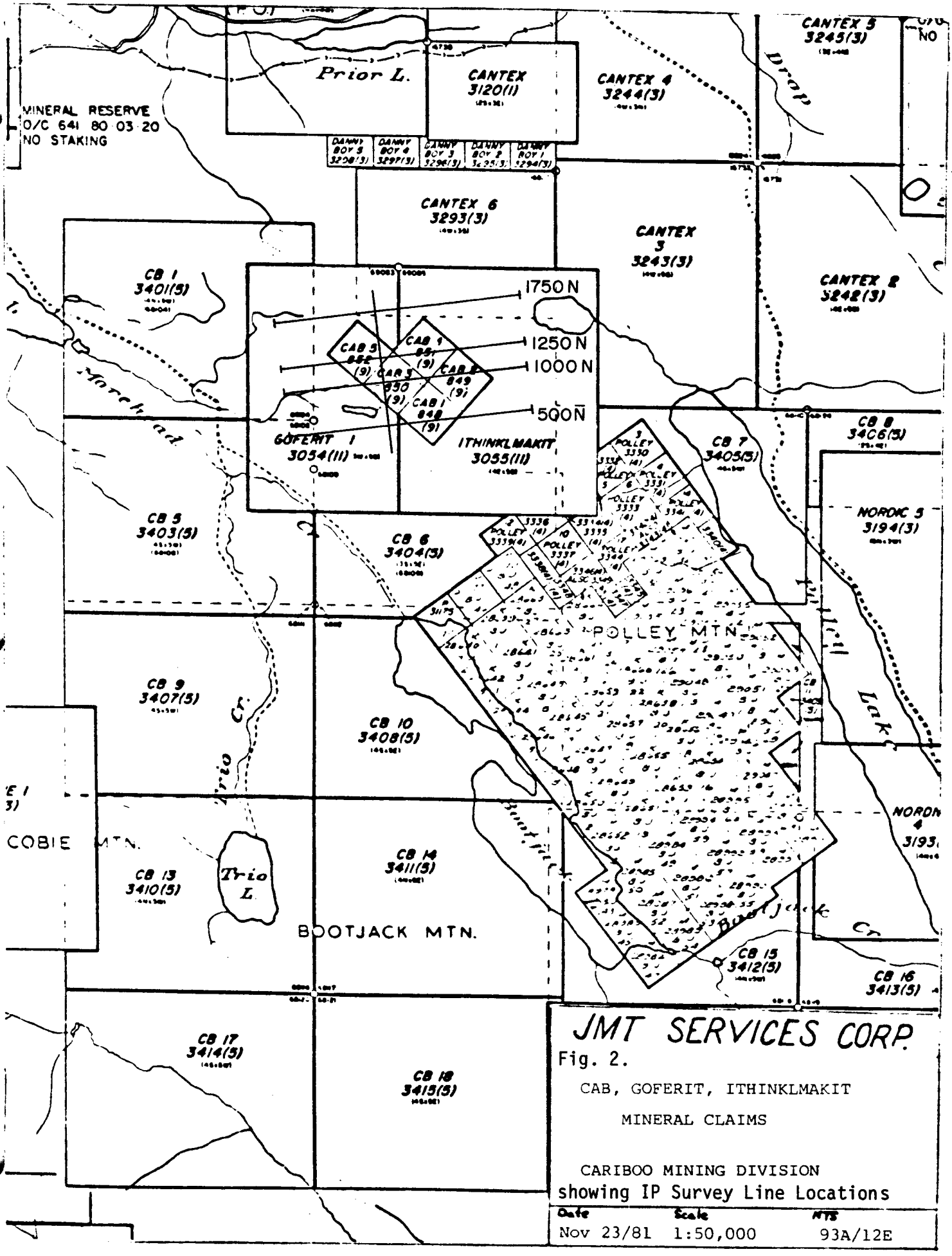
1.3 Terrain

The property is in an area of little topographic relief. A large swamp and beaver pond system cover much of its central portion. Vegetation is dense pine-fir forest with open swampland.

1.4 Property

The CAB claim group consists of the CAB 1-5, Goforit and Ithinklmakit mineral claims.

J M T SERVICES CORP.			
Fig. 1. **CAB PROPERTY LOCATION MAP**			
SCALE Mile 1:136 — 0 — 136 Miles			
Prepared by: Drawn by:	Date : Revised:	NTS MAP AREA 93 - E	DRAWING No.



JMT SERVICES CORP.

Fig. 2.

CAB, GOFERIT, ITHINKLMAKIT

MINERAL CLAIMS

CARIBOO MINING DIVISION

showing IP Survey Line Locations

Date	Scale	NTS
Nov 23/81	1:50,000	93A/12E

CLAIM	RECORD NO.	UNITS
CAB 1	848	1
CAB 2	849	1
CAB 3	850	1
CAB 4	851	1
CAB 5	852	1
Goforit	3054	11
Ithinklmakit	3055	11

1.5 Previous Work

Geological mapping and a geochemical survey were performed by JMT Services Corp. in 1979, and are reported in "Geological-Geochemical Report on the CAB 1-5 Mineral Claims", September,1979.

2.0 Geology

From a report by J. S. Christie, September, 1979:

"The CAB claims lie in the Quesnel Trough, a 35 km wide, northwesterly trending fault bounded belt of Upper Triassic to Lower Jurassic volcanics and co-eval and comagmatic alkalic intrusives, together with volcanic epliclastics and marine sediments. A feature of the Polley Mountain - Morehead Lake area is the presence of red volcanic clastics and flows, suggesting the presence of a volcanic island. Copper, either native or as sulphide occurs locally as amygdale fillings, and disseminate. A large area of glacial-fluvial cover extends northwest from the foot of Polley Mountain, covering an area 2400 m to 3000 m wide and 10,000 m long."

3.0 Geophysics

3.1 Survey Method

The transmitter used in this survey was a Huntec M-4

7.5 kW. Induced Polarization Transmitter, providing a polarity reversing, 50% duty cycle waveform at .125 Hertz frequency. The receiver used was a Huntec M-3.

A pole-dipole array was used with dipole length (a) of 150 metres and dipole separation (na) of n=1 through 4.

The chargeability plotted is the M-3 value derived from an instrument program parameter setting of 120 mS delay and 60 mS M-1 integration time. Multiplying the plotted M-3 value by 4 will provide a rough conversion to "Newmont milliseconds", the familiar form of chargeability representation used in older Newmont-style receivers such as the Crone and Scintrex IPR-7. A reading of 12 mS (Newmont) may represent up to 3% metallic sulphides or other values of non-metallic materials such as graphite, clays, fault gouge, etc.

3.2 Survey Results

Four IP and resistivity survey lines were run across the property in an attempt to locate chargeable material beneath the overburden cover. The data indicates that most of the property (Zone A, Fig. 3) is covered by a layer of deep and somewhat conductive overburden. The rocks underlying this area are not considered to have been effectively explored by this survey. The low resistivities on line 500 W, 1000 W, and 1250 W, are clearly associated with the central swamp-covered area and by themselves provide little information about the depth of overburden (Fig. 5). However, the data from Line 1750 W indicates a very thick overburden cover of up to 200 m depth. In the remaining portion of the property (Zone B, Fig. 3), relatively high values of apparent resistivity indicate effective sampling of the

target volcanics. These rocks are not significantly chargeable.

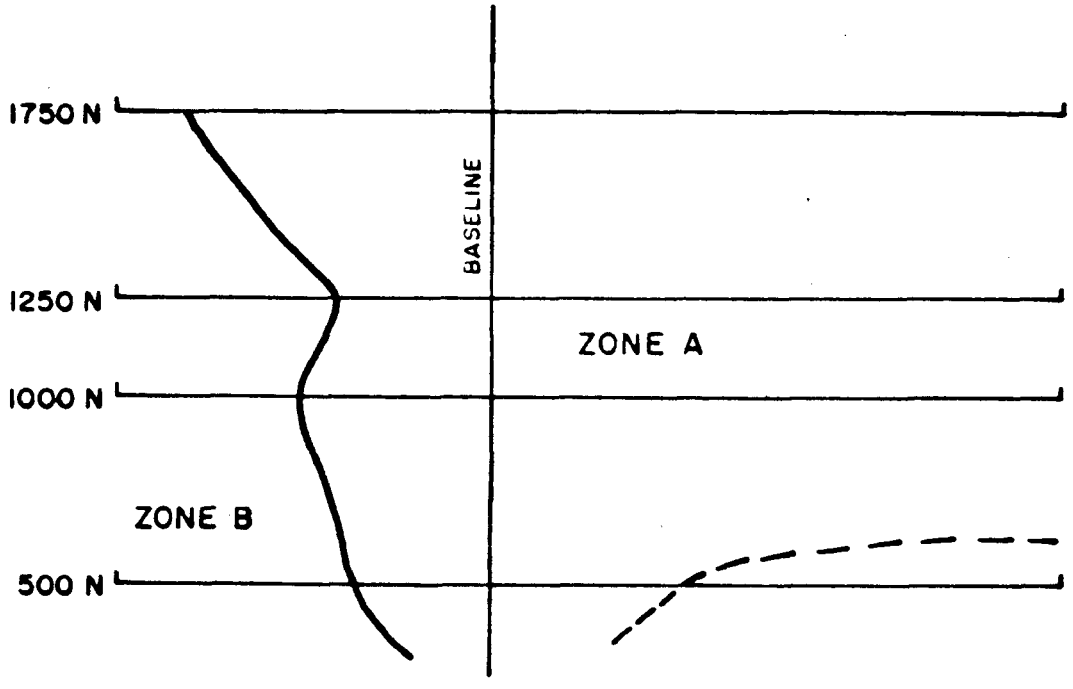


Figure 3

Extent of Overburden Cover, CAB Claims.

4.0 Recommendations

Further IP survey is unlikely to provide additional useful information in the unexplored area underlying the deep overburden. No further IP survey work is recommended.

Respectfully submitted,

Michael G. Schlax

Greg A. Shore
PREMIER GEOPHYSICS INC.

December 10, 1981

Appendix A - Statement of Qualifications

I, Michael G. Schlax of 3415 West 15th Avenue,

Vancouver, British Columbia do hereby state that:

1. I am a graduate of the University of California at Berkeley with a Bachelor of Science of Engineering Geoscience degree,

2. I am employed by Premier Geophysics, Inc., of Richmond, British Columbia, as a consulting geophysicist,

3. I have personally supervised the work and the reporting of it contained herein.

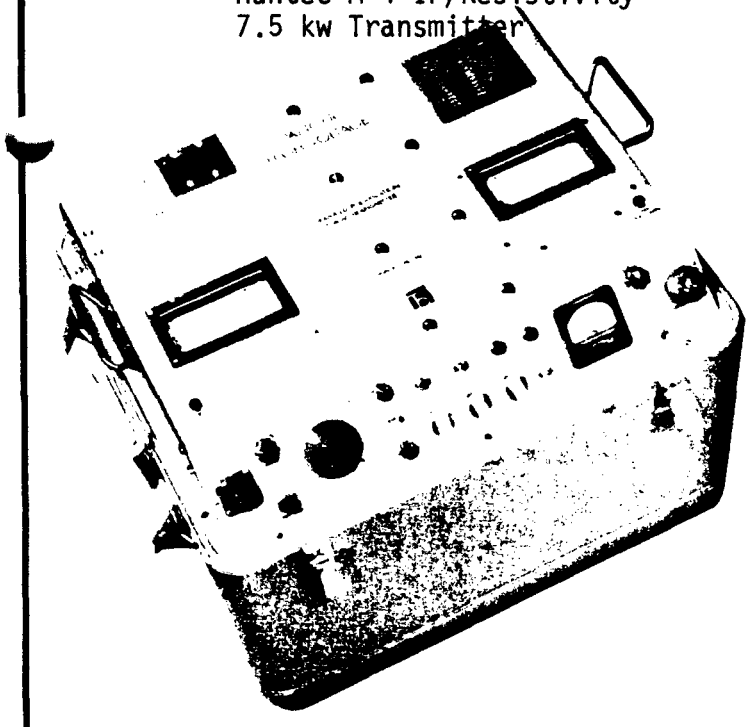
DATED at the City of Richmond, in the Province of British Columbia this 1st day of December, 1981.

Michael G. Schlax

Appendix B: Specifications: Huntec M-3 IP Receiver

Sensitivity	V_p-10^{-7} to 10^{-6} for low noise and 1% resolution.
	V_p-10^{-6} to 10 volts for 0.1% resolution. Total range 30 x 10^{-6} to 10 volts in 11 ranges.
Self-Potential	Maximum 1 volt manual. Maximum range of automatic Sp loop is ± 250% of V_p signal level.
M Factors	Resolution 0.1% of V_p plus sign with Speed/Gain setting of 1.0. Resolution 0.01% plus sign with Speed/Gain setting of 10
Batteries	Detachable battery pack containing 10 nickel-cadmium size D cells. Nominal 12.5 volt four ampere hour. Weight 4½ lbs. Optional separate belt pack.
Power Consumption	0.7 amperes at 12 volts.
Dimensions	16" x 9" x 6 1/2"
Weight	16 lbs. including battery pack. 11½ lbs. when used with belt pack.
Ambient Temperature Range	-30F to + 130F.
Relative Humidity	Moisture resistant.
Absolute Accuracy	± 1% over full temperature range.

Appendix C: Specifications:
Huntec M-4 IP/Resistivity
7.5 kw Transmitter



M-4 SERIES

Induced Polarization/ Resistivity 7.5 kW Transmitter

DESCRIPTION

The HUNTEC M-4 7.5 kW Induced Polarization transmitter is designed for time domain, frequency domain (PFE) and complex resistivity applications. The unit converts primary 400 Hz ac power from an engine-alternator set to a regulated dc output current, set by the operator. Current regulation eliminates output waveform distortion due to electrode polarization effects. It is achieved in the transmitter by varying the alternator field currents. The transmitter is equipped with dummy loads to smooth out generator load variations.

FEATURES

- Solid-state switching for long life and precise timing.
- Open circuit during the "off" time ensures no counter current flow.
- Resistance measurement for load matching.
- Precision crystal controlled timing.
- Failsafe operation protects against short-circuit and overvoltage.
- Automatic regulation of output current eliminates errors due to changing polarization potential and load resistance.

SPECIFICATIONS

M-4 7.5 kW Transmitter

A) Power input:	96 — 144 V line to neutral 3 phase, 400 Hz (from Huntec generator set)
B) Output:	Voltage: 100 — 3200 V dc in 10 steps Current: 0.4 — 16 A regulated**
C) Current regulation:	Less than ±0.1% change for ±10% load change
D) Output frequency:	0.0625 Hz to 1 Hz (time domain, complex resistivity) 0.0625 Hz to 4 Hz (frequency domain) selectable on front panel
E) Frequency accuracy:	±50 ppm − 30°C to + 60°C
F) Output duty cycle: $T_{on}/(T_{on} + T_{off})$	0.5 to 0.9375 in increments of 0.0625 (time domain) 0.9375 (complex resistivity) 0.75 (frequency domain)
G) Output current meter:	Two ranges: 0-10 A and 0-20 A
H) Ground resistance meter:	Two ranges: 0-10 kΩ, 0-100 kΩ
I) Input voltage meter:	0-150 V
J) Dummy load:	Two levels: 2 kW and 6 kW
K) Temperature range:	−34°C to + 50°C
L) Size:	53 cm x 43 cm x 43 cm
M) Weight:	50 kg

**smaller currents are obtainable, but outside the current regulation range the transmitter voltage is regulated, not the current.

huntec
(70) LIMITED
25 HOWDEN ROAD,
SCARBOROUGH,
ONTARIO, CANADA
M1R 3A6
PHONE (416) 751-8055
TELEX (06) 96344
CABLE HUNTOP
TORONTO

APPENDIX D

List of Field Crew		Field Days Worked
Geophysicist:	Michael G. Schlax 3415 W. 15th Avenue Vancouver, B. C. V6R 2Z2	4½
Instrument Operators:		
	Tom Gee 492 E. 48th Avenue Vancouver, B. C. V5W 2E5	6
	Bryan Pielak # 106 917 W. 7th Avenue Vancouver, B. C. V5Z 1C4	4½
	Victoria Seraphim 4636 W. 3rd Avenue Vancouver, B. C. V6R 1N4	6
Labour:	Harry Kujala 3475 Victoria Port Coquitlam, B. C.	4½

JMT Services Corp.

8827 HUDSON STREET · VANCOUVER, B.C. V6P 4N1 · TELEPHONE 266-1811

JAMES S. CHRISTIE, PhD 228-8054
K. WAYNE LIVINGSTONE, MSc 266-4208
GORDON G. RICHARDS, M.A.Sc., P.Eng. 274-2839
GERALD LAUZON, Mgr. 277-4778
W.A. HOWELL, GeoL 277-7082

APPENDIX "E"

STATEMENT OF COSTS

I. P. SURVEY - NOVEMBER 1981

CAB PROPERTY

PERSONNELL

J. S. Christie, geologist	- Nov 1(½),4-7,8(½),13(½)	5½ days @ $200	$ 1,100.00
S. Courte, technician	- Nov 3-7,8(½),13(½),14(½)	6½ days @ $125	$ 812.50
JMT Jimmy	- Nov 3-8	6 days @ $35.00	210.00
		425 km @ $0.18	76.50

DISBURSEMENTS

Northern Lights Lodge		344.84
Hudson Building Supplies		157.37
B. C. Tel		72.46
P. W. A.	73.45	
	146.90	
	30.53	
		250.88
Premier Geophysics		[illegible]
G. G. Richards - expenses		[illegible]
J. S. Christie - expenses		[illegible]

APPENDIX F

STATEMENT OF QUALIFICATIONS

I, James S. Christie of Vancouver, British Columbia do hereby certify that,

1. I am a Professional Geologist residing at 3921 W. 31st Ave., Vancouver, B.C. V6S 1Y4.

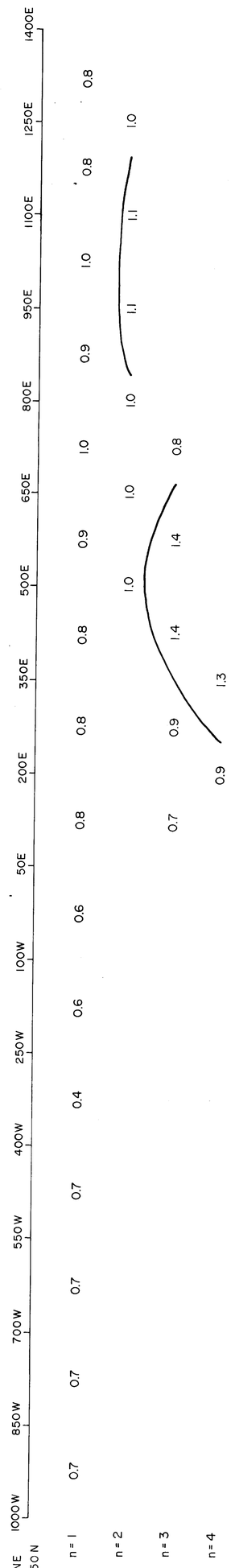
2. I am a graduate of the University of British Columbia B.Sc. Honours Geology - 1965, Ph.D. Geology - 1973.

3. I have practised my profession as a mining exploration geologist, continuously since 1965.

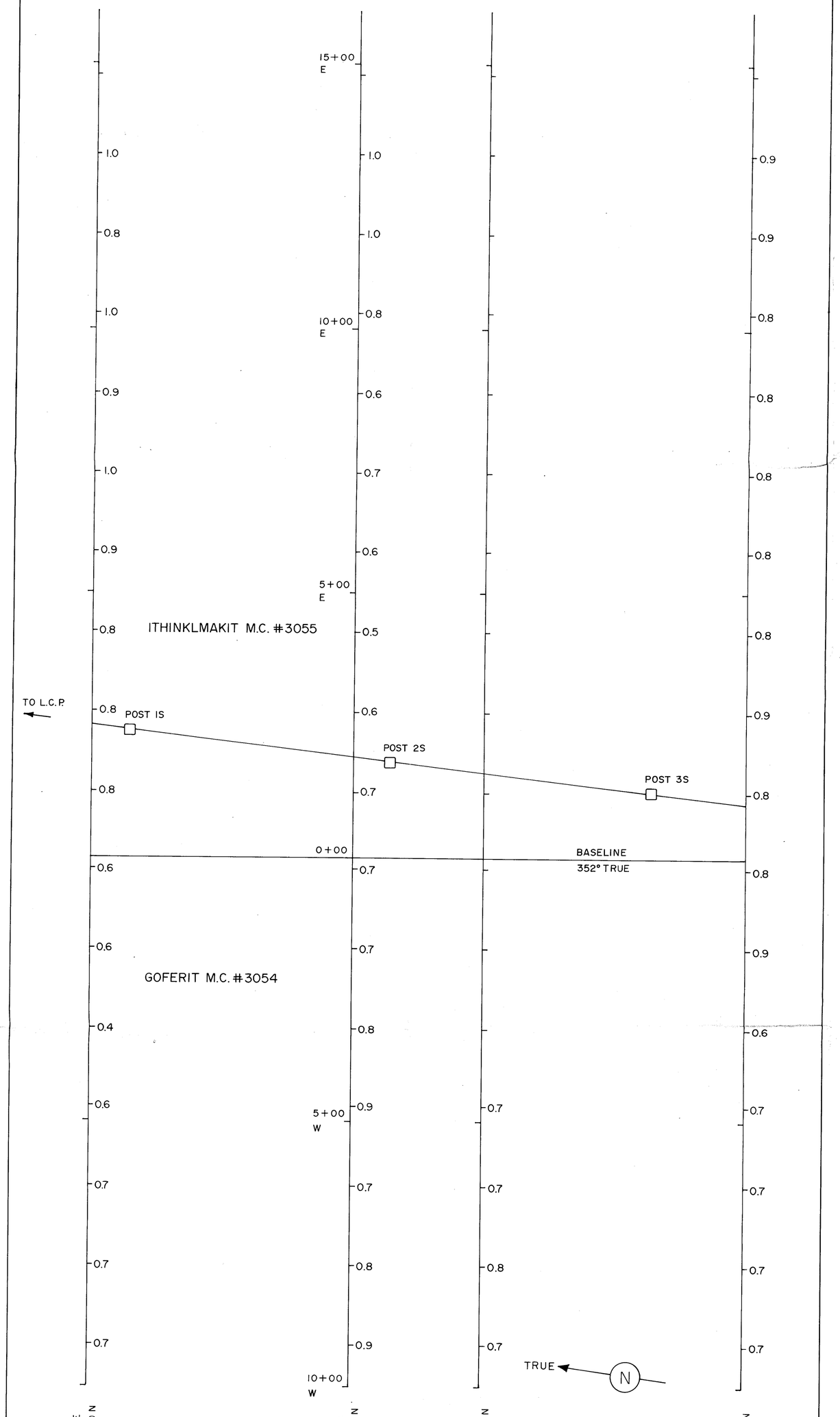
4. I am a Fellow of the Geological Association of Canada.

5. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

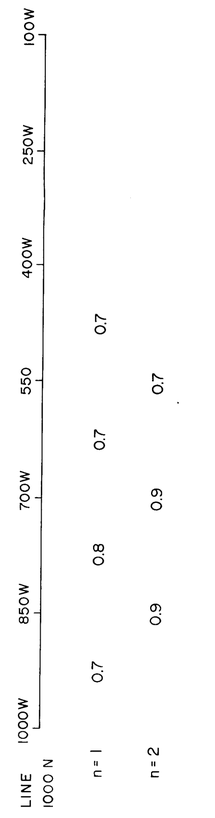
James S. Christie, Ph.D.



PSEUDOSECTION DETAIL OF LINE 1750 N



PLAN DRAWING OF n=1 APPARENT CHARGEABILITY



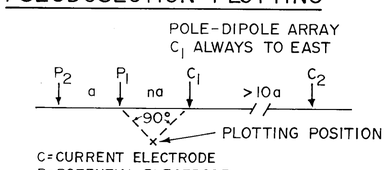
PSEUDOSECTION DETAIL OF LINE 1000 N

Legend

APPARENT CHARGEABILITY CONTOURS
.5, 1.0, 1.5, 2.0, 2.5, 3 % V_s / V_p

PSEUDOSECTION PLOTTING

POLE-DIPOLE ARRAY
C_1 ALWAYS TO EAST



C = CURRENT ELECTRODE
P = POTENTIAL ELECTRODE
a = 150 m

IP RECEIVER: HUNTEC M-3
td = 120 mS
tp = 60 mS
M-3 register in % is plotted

0 50 100 METRES
HORIZONTAL SCALE ONLY

M.G. SCHLAX

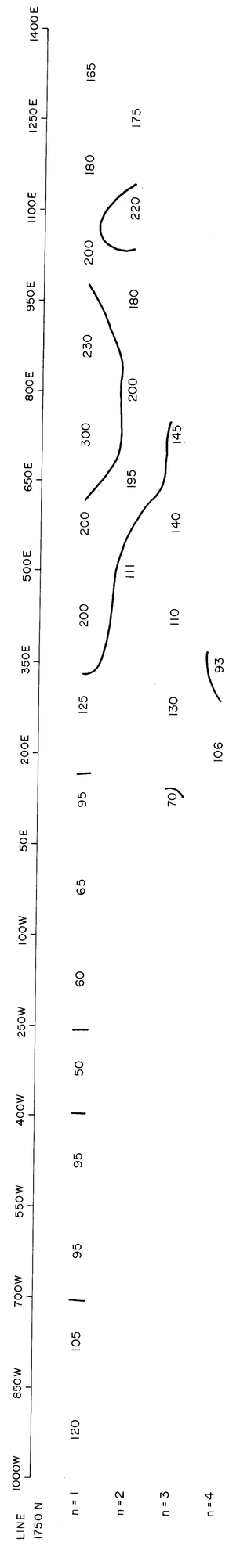
G.A. SHORE

Figure 4

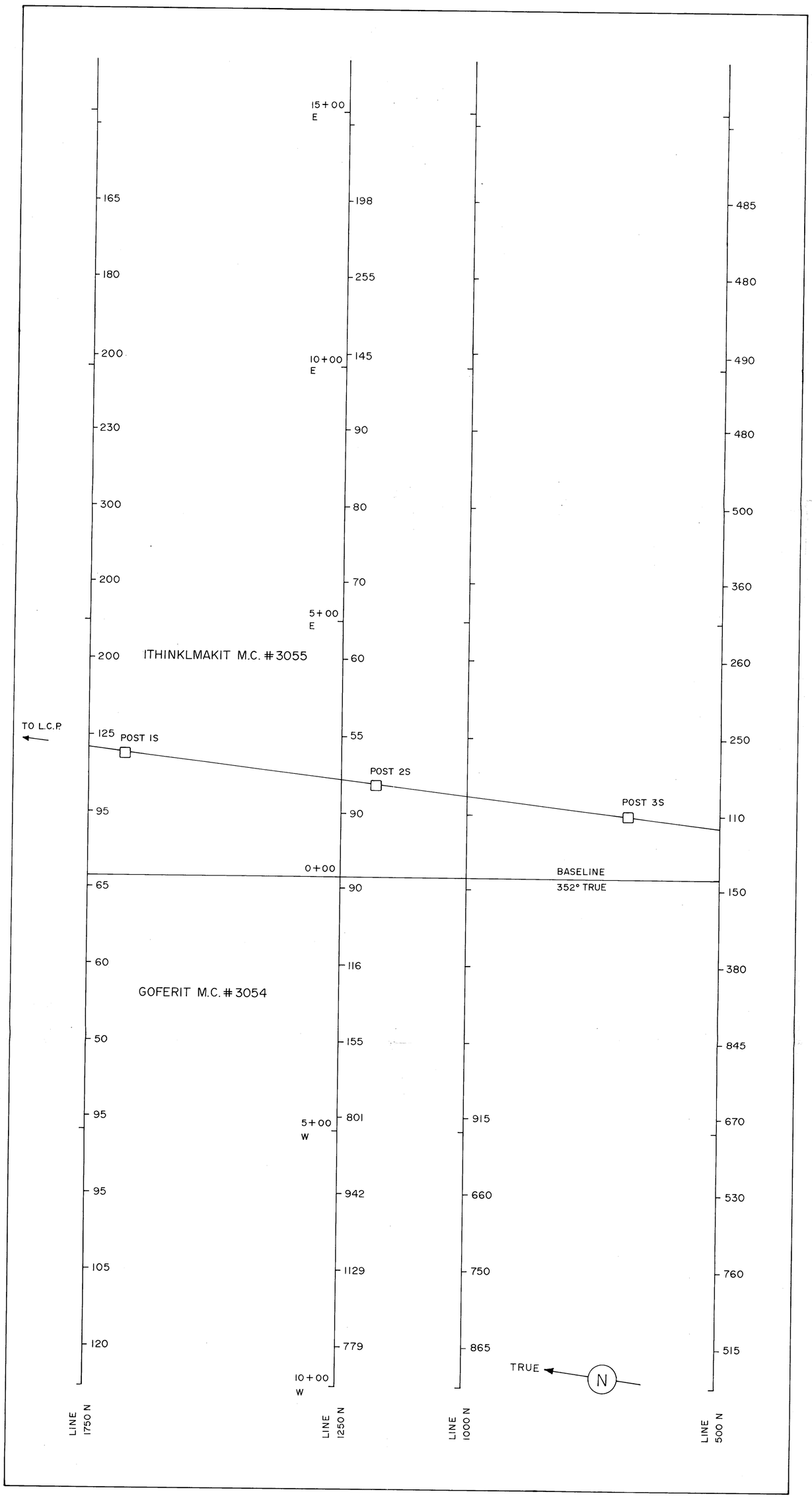
JMT Services Corp.
IP AND RESISTIVITY SURVEY
IP RESULTS
CAB MINERAL CLAIMS
Cariboo Mining Division, B.C.

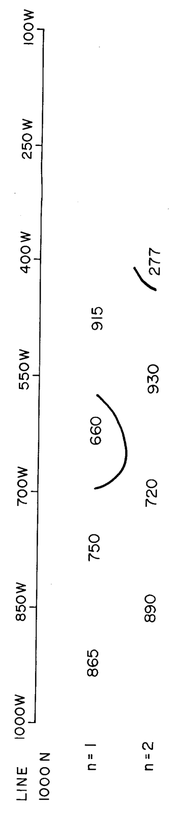
Survey by Premier Geophysics Inc., Richmond, B.C.
Accompanies a report on an IP and Resistivity survey on the CAB Mineral Claims by M.G. Schlax and G.A. Shore, Premier Geophysics Inc.

November 1981



PSEUDOSECTION DETAIL OF LINE 1750N





PSEUDOSECTION DETAIL OF LINE 1000N

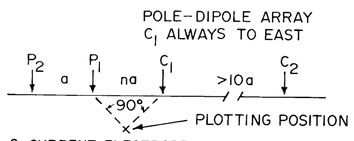
PLAN DRAWING OF n=1 APPARENT RESISTIVITY

Legend

APPARENT RESISTIVITY CONTOURS ARE MODIFIED LOG CYCLE
1, 1.5, 2, 3, 5, 7, 10 OHM METRES (Ω-m)

PSEUDOSECTION PLOTTING

POLE-DIPOLE ARRAY
C_1 ALWAYS TO EAST



C=CURRENT ELECTRODE
P=POTENTIAL ELECTRODE
a=150m

0 50 100 METRES
HORIZONTAL SCALE ONLY

M.G. SCHLAX

G.A. SHORE

Figure 5

JMT Services Corp.
IP AND RESISTIVITY SURVEY
RESISTIVITY RESULTS
CAB MINERAL CLAIMS
Cariboo Mining Division, B.C.

Survey by Premier Geophysics Inc., Richmond, B.C.
Accompanies a report on an IP and Resistivity survey on the CAB Mineral Claims by M.G. Schlax and G.A. Shore, Premier Geophysics Inc.

November 1981