REPORT ON THE EXTENDED INDUCED POLARIZATION

and RESISTIVITY SURVEY

on the

LOG 1 to 4 MINERAL CLAIMS

MISSEZULA LAKE AREA; NICOLA MINING DIVISION

NTS - 92H/15E	UTM GRID - ZONE 10
Latitude - 49° 47'	North - 5 516 950
Longitude - 120° 34'	East - 675 300

Prepared for BETHLEHEM COPPER CORPORATION

by

PHOENIX GEOPHYSICS LIMITED

- Ashton W. Mullan, B.Sc. P.Eng.
  Geologist

- Philip G. Hallof, Ph.D. P.Eng.
  Geophysicist

February 22, 1980

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NOTES ON THE THEORY, METHOD OF FIELD OPERATION, AND PRESENTATION OF DATA FOR THE INDUCED POLARIZATION METHOD

Induced Polarization as a geophysical measurement refers to the blocking action or polarization of metallic or electronic conductors in a medium of ionic solution conduction.

This electro-chemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally, when current is passed through the ground, as in resistivity measurements, all of the conduction takes place through ions present in the water content of the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than ground water, The group of minerals commonly described as "metallic", however, have specific resistivities much lower than ground waters. The induced polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present in the rock.

The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d.c. current is allowed to flow through the rock; i.e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock.

When the d.c. voltage used to create this d.c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position. This movement of charge creates a small current flow which can be measured on the surface of the ground as a decaying potential difference.

From an alternate viewpoint it can be seen that if the direction of the current through the system is reversed repeatedly before the polarization occurs, the effective resistivity of the system as a whole will change as the frequency of the switching is changed. This is a consequence of the fact that the amount of current flowing through each metallic interface depends upon the length of time that current has been passing through it in one direction.

The values of the per cent frequency effect or F.E. are a measurement of the polarization in the rock mass. However, since the measurement of the degree of polarization is related to the apparent resistivity of the rock mass it is found that the metal factor values or M.F. are the most useful values in determining the amount of polarization present in the rock mass. The MF values are obtained by normalizing the F.E. values for varying resistivities.

The induced polarization measurement is perhaps the most powerful geophysical method for the direct detection of metallic sulphide mineralization, even when this mineralization is of very low concentration. The lower limit of volume per cent sulphide necessary to produce a recognizable IP anomaly will vary with the geometry and geologic environment of the source, and the method of executing the survey. However, sulphide mineralization of less than one per cent by volume has been detected by the IP method under proper geological conditions.

The greatest application of the IP method has been in the search for disseminated metallic sulphides of less than 20% by volume. However, it has also been used successfully in the search for massive sulphides in situations where, due to source geometry, depth of source, or low resistivity of surface layer, the EM method cannot be successfully applied. The ability to differentiate ionic conductors, such as water filled shear zones, makes the IP method a useful tool in checking EM anomalies which are suspected of being due to these causes.

In normal field applications the IP method does not differentiate between the economically important metallic minerals such as chalcopyrite, chalcocite, molybdenite, galena, etc., and the other metallic minerals such as pyrite. The induced polarization effect is due to the total of all electronic conducting minerals in the rock mass. Other electronic conducting materials which can produce an IP response are magnetite, pyrolusite, graphite, and some forms of hematite.

In the field procedure, measurements on the surface are made in a way that allows the effects of lateral changes in the properties of the ground to be separated from the effects of vertical changes in the properties. Current is applied to the ground at two points in distance (X) apart. The potentials are measured at two points (X) feet apart, in line with the current electrodes is an integer number (n) times the basic distance (X).

The measurements are made along a surveyed line, with a constant distance (nX) betwen the nearest current and potential electrodes. In most surveys, several traverses are made with various values of (n); i.e. (n) = 1,2,3,4, etc. The kind of survey required (detailed or reconnaissance) decides the number of values of (n) used.

In plotting the results, the values of apparent resistivity, apparent per cent frequency effect, and the apparent metal factor measured for each set of electrode positions are plotted at the intersection of grid lines, one from the center point of the current electrodes and the other from the center point of the potential electrodes. (See Figure A.) The resistivity values are plotted at the top of the data profile, above the metal factor values. On a third line, below the metal factor values, are plotted the values of the percent frequency effect. The lateral displacement of a given value is determined by the location along the survey line of the center point between the current and potential electrodes. The distance of the value from the line is determined by the distance (nX) between the current and potential electrodes when the measurement was made.

The separation between sender and receiver electrodes is only one factor which determines the depth to which the ground is being sampled in any particular measurement. The plots then, when contoured, are not section maps of the electrical properties of the ground under the survey line. The interpretation of the results from any given survey must be carried out using the combined experience gained from field results, model study results and the theoretical investigations. The position of the electrodes when anomalous values are measured is important in the interpretation.

In the field procedure, the interval over which the potential differences are measured is the same as the interval over which the electrodes are moved after a series of potential readings has been made.

One of the advantages of the induced polarization method is that the same equipment can be used for both detailed and reconnaissance surveys merely by changing the distance (X) over which the electrodes are moved each time. In the past, intervals have been used ranging from 25 feet to 2000 feet for (X). In each case, the decision as to the distance (X) and the values of (n) to be used is largely determined by the expected size of the mineral deposit being sought, the size of the expected anomaly and the speed with which it is desired to progress.

The diagram in Figure A demonstrates the method used in plotting the results. Each value of the apparent resistivity, apparent metal factor, and apparent per cent frequency effect is plotted and identified by the position of the four electrodes when the measurement was made. It can be seen that the values measured for the larger values of (n) are plotted farther from the line indicating that the thickness of the layer of the earth that is being tested is greater than for the smaller values of (n); i.e. the depth of the measurement is increased.

The IP measurement is basically obtained by measuring the difference in potential or voltage (ΔV)obtained at two operating frequencies. The voltage is the product of the current through the ground and the apparent resistivity of the ground. Therefore in field situations where the current is very low due to poor electrode contact, or the apparent resistivity is very low, or a combination of the two effects; the value of (ΔV) the change in potential will be too small to be measurable. The symbol "TL" on the data plots indicates this situation.

In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisy to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy, the reading is bracketed in the data plot ( ).

In certain situations negative values of Apparent Frequency Effect are recorded. This may be due to the geologic environment or spurious electrical effects. The actual negative frequency effect value recorded is indicated on the data plot, however, the symbol "NEG" is indicated for the corresponding value of Apparent Metal Factor. In contouring negative values the contour lines are indicated to the nearest positive value in the immediate vicinity of the negative value.

The symbol "NR" indicates that for some reason the operator did not attempt to record a reading although normal survey procedures would suggest that one was required. This may be due to inaccessible topography or other similar reasons. Any symbol other than those discussed above is unique to a particular situation and is described within the body of the report.

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METHOD USED IN PLOTTING DIPOLE-DIPOLE INDUCED POLARIZATION AND RESISTIVITY RESULTS

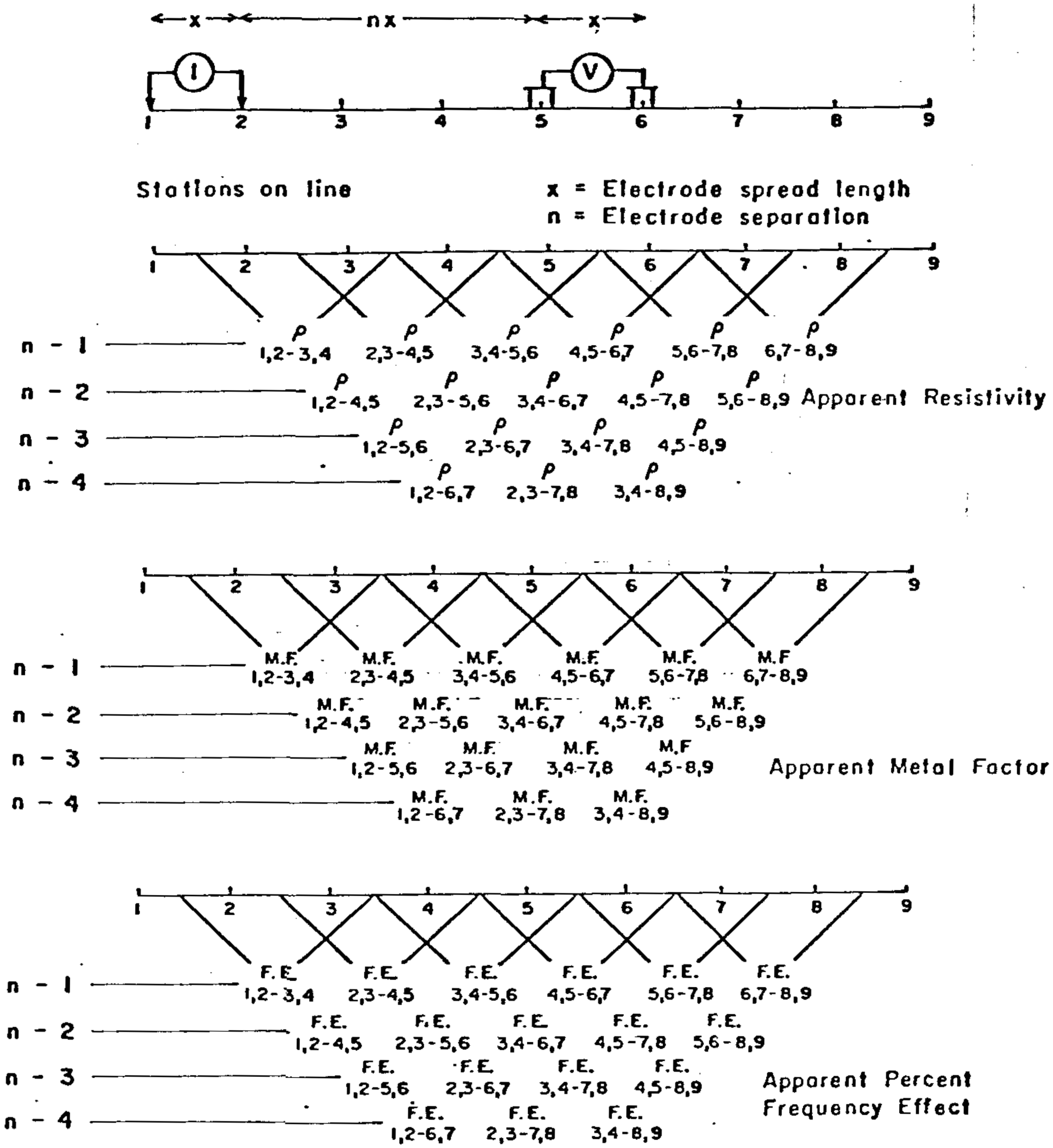

Fig. A

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REPORT ON THE EXTENDED INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE LOG CLAIMS, MISSEZULA LAKE AREA NICOLA MINING DIVISION, B.C. 92H/NE FOR BETHLEHEM COPPER CORPORATION LTD.

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1. INTRODUCTION

An Induced Polarization and Resistivity survey was carried out for Bethlehem Copper Corporation on the Log Claims. The initial survey results are discussed in the Phoenix report dated July 19, 1979. The survey has been extended to cover the east and west claim areas as well as two central fill-in lines that were not accessible earlier in the year due to flooding.

The property is located about 36 km north of Princeton just to the west of Missezula Lake in the Nicola Mining Division, B.C. The centre of the Log Claims is positioned at about 49°47' north latitude and 120°33.5' west longitude. A 9.5 km gravel road leads southeasterly from the Merritt-Princeton highway No. 5, providing good access to the property.

The object of this survey extension was to investigate a major east-west trending anomalous IP zone for continuity; both on strike and near the centre where local flooding prevented line completion.

The survey extension was carried out in late November and early December, 1979 under the direction of Party Chief John Marsh. His certificate of qualification is appended to this report.

A Phoenix IPT-1, IPV-1 frequency domain IP system was used for the survey, operating at 0.3 and 5.0 Hz.

2. DESCRIPTION OF CLAIMS

The Log Claim Group consists of four claims; Log 1 - 4 inclusive. Bethlehem Copper Corporation Ltd., is the registered owner.

3. PRESENTATION OF RESULTS

The Induced Polarization and Resistivity results are shown on the following data plots in the manner described in the notes preceding this report.

Line	Electrode Interval	Dwg. No.
99,150E	100 meters	IP 5188-1
100,150E	100 meters	IP 5188-2
100,400E	100 meters	IP 5188-3
101,400E	100 meters	IP 5188-4
101,650E	100 meters	IP 5188-5

Also enclosed with this report is Dwg. I.P.P. 4053-R, a plan map of the Log Claims Grid at a scale of 1:10,000. The definite, probable and possible Induced Polarization anomalies are indicated by bars, in the manner shown on the legend, on this plan map as well as on the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Since the Induced Polarization measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the electrode interval length; i.e. when using 100 meter electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 100 meters apart. In order to definitely locate, and fully evaluate, a narrow, shallow source it is necessary to use shorter electrode intervals. In order to locate sources at some depth. larger electrode intervals must be used, with a corresponding increase in the uncertainties of location. Therefore, while the centre of the indicated anomaly probably corresponds fairly well with source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

The Grid and Claims information shown on Dwg. I.P.P. 4053-R has been taken from maps made available by the staff of Bethlehem Copper Corporation Ltd.

4. DESCRIPTION OF GEOLOGY

Triassic Nicola volcanics and Jurassic intermediate intrusives are the dominant rock types of the region.

The LOG claims are underlain by Nicola metavolcanics that have been intruded by a small plug of medium grained syenodiorite and monzonite. This intrusive is weakly mineralized with copper and is extremely drift-covered. The lower areas of the property are covered by Tertiary flows.

5. DISCUSSION OF RESULTS

The additional IP surveying completed in December 1979 confirms that Zone A and Zone B are probably the same feature and that the zone continues beyond the survey grid both to the east and west.

A line by line discussion of the IP extension survey results follows:

Line 99,150 - Dwg. IP 5188-1

A weak, well defined IP anomaly, with the indicated top of the source shallow relative to the 100 meter electrode interval, occurs between 99,900N and 100,600N. The anomalous IP effects are similar to those encountered on the adjacent Line 99,400E. This suggests that Zone A - B continues west beyond the present survey grid.

Line 100,150E - Dwg. IP 5188-2

Line 100,150E and Line 100,400E cover the interval where local flooding prevented line completion during late spring.

This line was surveyed over the frozen surface of the small lake and does not join exactly with the previously surveyed portion of the line south of the lake.

A weak IP anomaly showing some depth to the source has been outlined between Line 99,600N and Line 100,100N. It may continue further to the north at greater depth. The anomaly is positioned over the eastern edge of the small lake. It is assumed that the indicated cover over the anomaly consists of water and lake bottom sediments. A computer inversion analysis of similar data on adjacent Line 99,900E suggests a depth of about 95 meters.

Line 100,400E - Dwg. IP 5188-3

The anomaly on this line is weak and broad with anomaly definition poorer than on adjacent lines. The anomaly is strongest between 99,600N and 99,700N where a depth of 50 - 100 meters is indicated. There appears to be some depth to the source under the entire anomalous feature and it could be quite deep under 100,000N.

Line 101,400E - Dwg. IP 5188-4

Weak to moderate magnitude IP effects occur between 99,100N and 99,700N. The strongest IP effects occur at some depth near 99,400N. A reported bedrock outcropping near this station suggests that unmineralized rock may overlie the anomalous source. The IP effects are shallow relative to the electrode interval between 99,100N to 99,300N and north of 99,500N.

Line 101,650E - Dwg. IP 5188-5

The frequency effect data suggest a south dipping source originating near a topographic high at 99,450N. A well defined resistivity low centred at 99,200N suggests a more mineralized source at a depth of approximately 100 meters. Zone A - B probably extends east of the present IP grid. This possibility could be investigated by extending the grid to the east

6. SUMMARY AND CONCLUSIONS

An Induced Polarization and Resistivity survey was carried out during May, 1979 on the Log Claims property. This initial work located three zones, Zone A, Zone B and Zone C. Zone A and Zone B were open on strike to the east and west respectively, and there was a good possibility that Zone A and Zone B were continuous. Flooding around a small lake prevented completion of two intervening survey lines.

During late November and early December, 1979, additional IP surveying was carried out to investigate both the strike continuity and extension on strike of Zone A and Zone B. The two lines in between Zone A and Zone B were run after freeze-up over the frozen lake. This work confirms that the two zones are one and the same feature. The lines surveyed both to the east and west confirm extensions on strike in both directions.

It is understood that some drilling has now been carried out to investigate the IP anomaly source. It is recommended that the drill results be correlated with the geophysical results before deciding on additional anomaly investigation.

PHOENIX GEOPHYSICS LIMITED

Ashton W. Mullan, B.Sc. P.Eng.
Geologist

Philip G. Hallof, Ph.D. P.Eng.
Geophysicist

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. W. MULLAN

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA P. G. HALLOF

Expiry Date: February 25, 1981

Dated: February 22, 1980

ASSESSMENT DETAILS

PROPERTY:	Log Claims	MINING DIVISION:	Nicola
SPONSOR:	Bethlehem Copper Corp.Ltd.	PROVINCE:	British Columbia
LOCATION:	Missezula Lake Area		
TYPE OF SURVEY:	Induced Polarization And Resistivity		
OPERATING MAN DAYS:	14.0	DATE STARTED:	November 24, 1979
EQUIVALENT 8 HR. MAN DAYS:	21.0	DATE FINISHED:	December 9, 1979
CONSULTING MAN DAYS:	4.0	NUMBER OF STATIONS:	108
DRAFTING MAN DAYS:	7.5	NUMBER OF READINGS:	933
TOTAL MAN DAYS:	32.5	KM. OF LINE SURVEYED:	10.3 KM

CONSULTANTS:

A.W. Mullan, 310 - 885 Dunsmuir Street, Vancouver, B.C.
P.G. Hallof, 15 Barnwood Court, Don Mills, Ontario.

FIELD TECHNICIANS:

J. Marsh, 310 - 885 Dunsmuir Street, Vancouver, B.C.
G. Olsen, Box 374, Princeton, B.C.

DRAUGHTSMEN:

R.C. Norris, 106 - 10 Kenneth Ave., Willowdale, Ontario.
R.J. Pryde, R.R.#1, Sharon, Ontario.
P.J. Anderson, 40 Landfair Crescent, Scarborough, Ontario.

PHOENIX GEOPHYSICS LIMITED

Philip G. Hallof, P.Eng.
Geophysicist

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. G. HALLOF

Dated: February 22, 1980

Expiry Date: February 25, 1981

STATEMENT OF COST

Bethlehem Copper Corp. - IP Survey
Missezula Lake Area, B.C.

CREW: J. Marsh - G. Olsen

PERIOD: November 24 - December 9, 1979

7 Operating days	@ $750.00/day	$5,250.00
1 Bad Weather	@ $375.00/day	375.00
Mobilization		500.00
		$6,125.00

PHOENIX GEOPHYSICS LIMITED

Philip G. Hallof, P.Eng
Geophysicist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. G. HALLOF

Expiry Date: February 25, 1981

Dated: February 22, 1980

ADDENDUM TO STATEMENT OF COST

Preparation of 8.1 km of geophysical line during the period October 22 - 26, 1979

Amex Exploration Services Ltd. invoice dated October 30, 1979	$1,887.30
TOTAL GEOPHYSICAL COST	$8,012.30

AMEX EXPLORATION SERVICES LTD.

A.A. (AB) ABLETT

Confidential Work

BUS. 376-0433
RES. 376-7490

1714 CLIFFORD AVE.
V2B 4G6

BOX 286
KAMLOOPS, B.C.

October 30th 1979.

Bethlehem Copper Corporation
Suite 2100- Guiness Tower,
1055 West Hastings Street,
Vancouver, B.C.

Attention: Mr. Erik Andersen

STATEMENT OF ACCOUNT:

RE: Geophysical Grid preparation on LOG group mineral claims, Missezula Lake Project.

Amex Fees:

8.1 kilometers @$233.00/km	$1887.30
Total Requested	$1887.30

Respectfully Submitted,

A.A. Ablett, President
Amex Exploration Services Ltd

Amex Job Number 79-82

AAA/jm

848-014
110-002

1,887.30
1887.30

14-848

CERTIFICATE

I, Ashton W. Mullan, of the City of Vancouver, in the Province of British Columbia, hereby certify:

1. That I am a geologist/geophysicist and a fellow of the Geological Association of Canada, Geophysics Division, with a business address at 310 - 885 Dunsmuir Street, Vancouver, B.C.

2. That I am registered as a member of the Association of Professional Engineers of the Provinces of Ontario and British Columbia.

3. That I hold a B.Sc. degree from McGill University.

4. That I have been practising my profession as a geologist/geophysicist for over twenty-five years.

5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Bethlehem Copper Corporation Ltd., or any affiliate.

6. The statements made in this report are based on a study of published geological literature and unpublished private reports.

7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

Dated at Vancouver

This 22nd day of February, 1980

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. W. MULLAN

A.W. Mullan, B.Sc., P.Eng.

CERTIFICATE

I, Philip George Hallof, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geophysicist residing at 15 Barnwood Court, Don Mills, Ontario.

2. I am a graduate of the Massachusetts Institute of Technology with a B.Sc. Degree (1952) in Geology and Geophysics, and a Ph.D. Degree (1957) in Geophysics.

3. I am a member of the Society of Exploration Geophysicists and the European Association of the Exploration Geophysicists.

4. I am a Professional Geophysicist, registered in the Province of Ontario, the Province of British Columbia and the State of Arizona.

5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Bethlehem Copper Corporation Ltd., or any affiliate.

6. The statements made in this report are based on a study of published geological literature and unpublished private reports.

7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

Dated at Toronto

This 22nd day of February, 1980

Philip G. Hallof, Ph.D., P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. G. HALLOF

Expiry Date: February 25, 1981

CERTIFICATE

I, JOHN MARSH, of the Municipality of North York, Ontario, DO HEREBY CERTIFY THAT:

1. I am a geophysical crew leader residing at 200 Yorkland Blvd., Willowdale, Ontario.

2. I am a graduate of the City of Norwich Technical College, U.K., ordinary National Certificate (Electrical Engineering)

3. I worked with McPhar Geophysics Company from 1968 to 1975 as a geophysical crew leader.

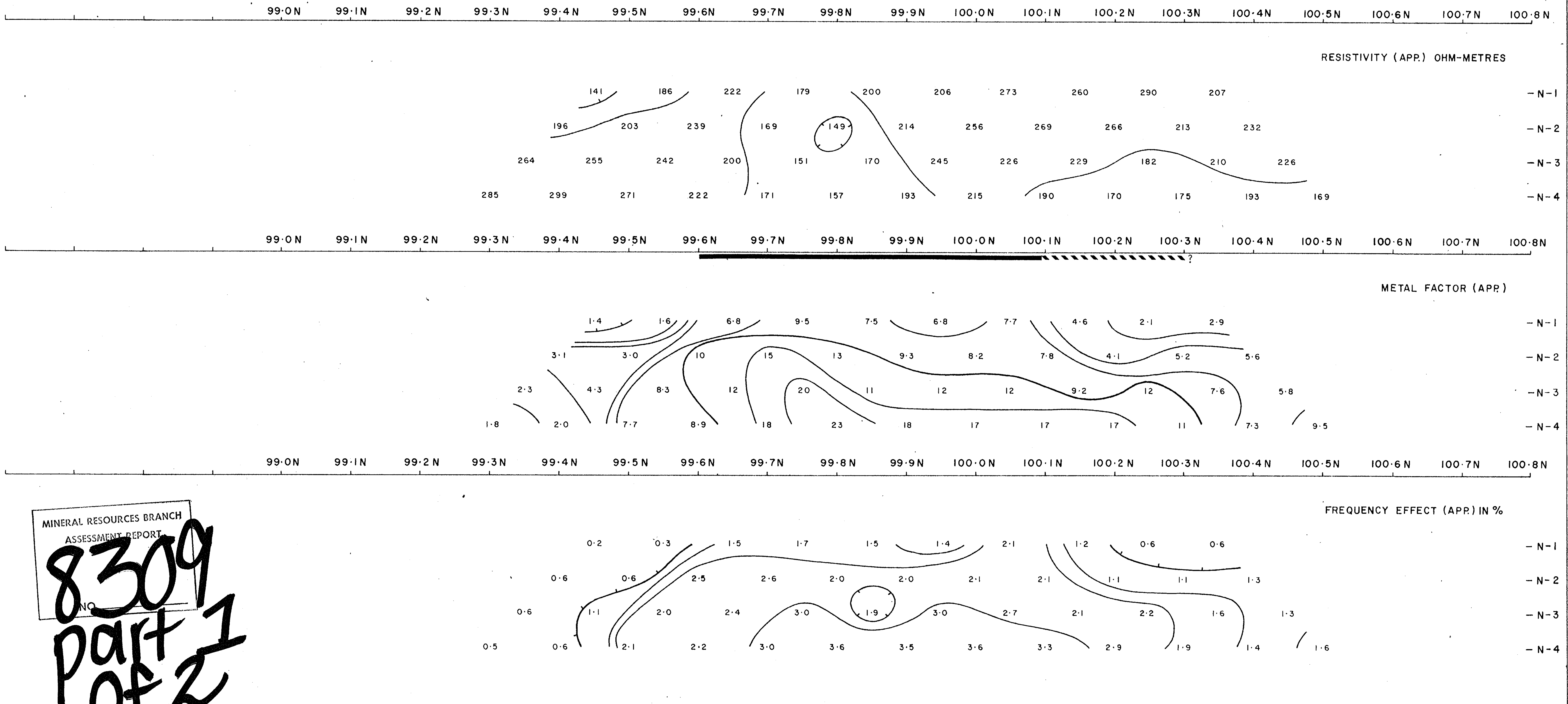
4. I am presently employed as a geophysical crew leader by Phoenix Geophysics Ltd. of 310 - 885 Dunsmuir Street, Vancouver, B.C.

Dated at Vancouver, B.C.

This 29th Day of July, 1977

John Marsh

John Marsh



DWG. NO.- I.P.- 5188-2

BETHLEHEM COPPER CORP. LTD.

LOG CLAIMS, MISSEZULA LAKE AREA

NICOLA M.D., BRITISH COLUMBIA

LINE NO.- 100,150E

ELECTRODE CONFIGURATION

PLOTTING POINT X=100m.

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES 0·3-5·0HZ.

DATE SURVEYED NOV. 1979

APPROVED

DATE

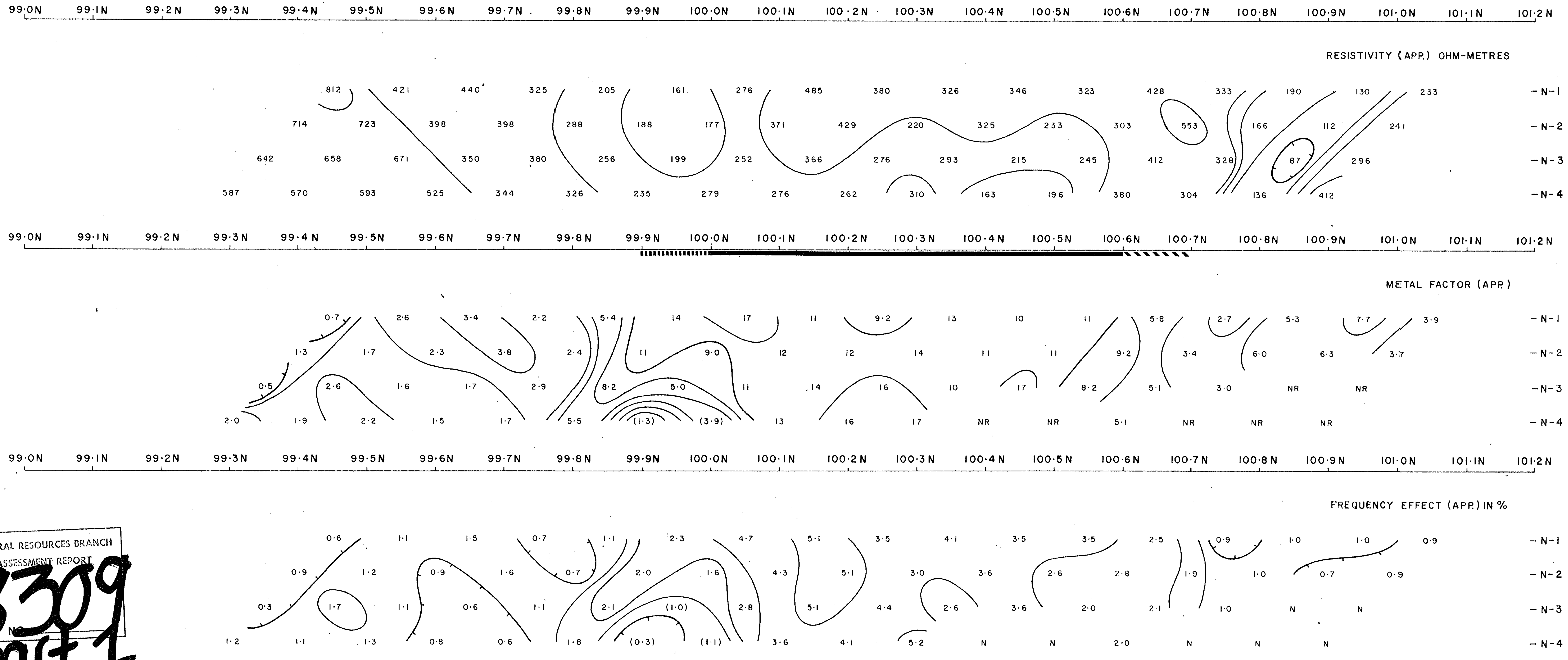
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. G. HALLOF

Expiry Date: February 25, 1981

NOTE - CONTOURS AT LOGARITHMIC INTERVALS 1,-1·5,-2,-3,-5,-7·5,-10

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



DWG. NO.- I.P.- 5188-1

BETHLEHEM COPPER CORP. LTD.

LOG CLAIMS, MISSEZULA LAKE AREA

NICOLA M.D., BRITISH COLUMBIA

LINE NO.- 99,150E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT — X = 100m.

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 0.3-5.0 HZ.

DATE SURVEYED NOV.1979

NOTE - CONTOURS AT LOGARITHMIC INTERVALS 1,-1.5,-2,-3,-5,-7.5,-10

APPROVED

DATE

PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, P. G. HALLOF

Expiry Date: February 25, 1981

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO.- I.P.- 5188-3

BETHLEHEM COPPER CORP. LTD.

LOG CLAIMS, MISSEZULA LAKE AREA

NICOLA M.D., BRITISH COLUMBIA

LINE NO.- 100,400E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → × X = 100 m.

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES 0·3-5·0 HZ.

DATE SURVEYED NOV. 1979.

NOTE – CONTOURS AT LOGARITHMIC INTERVALS 1,-1·5,-2,-3,-5,-7·5,-10

APPROVED Philip G. Hallof

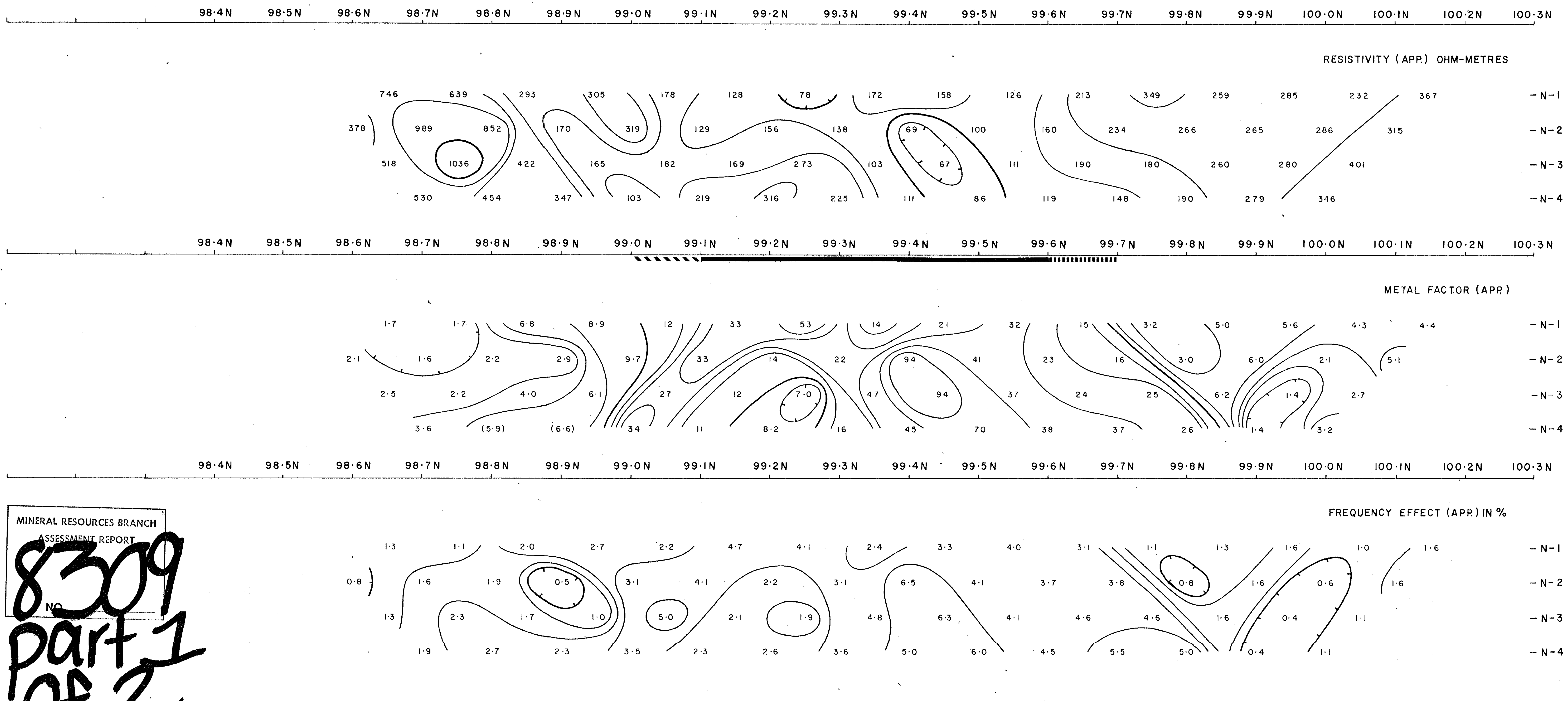
DATE 7/22/80

PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA — P. G. HALLOF

Expiry Date: February 25, 1981

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



DWG. NO.- I.P.-5188-4

BETHLEHEM COPPER CORP. LTD.

LOG CLAIMS, MISSEZULA LAKE AREA

NICOLA M.D., BRITISH COLUMBIA

LINE NO.- 101,400E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT

X = 100m.

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 0·3-5·0HZ.

DATE SURVEYED NOV. 1979

NOTE – CONTOURS AT LOGARITHMIC INTERVALS 1,-1·5,-2,-3,-5,-7·5,-10

APPROVED

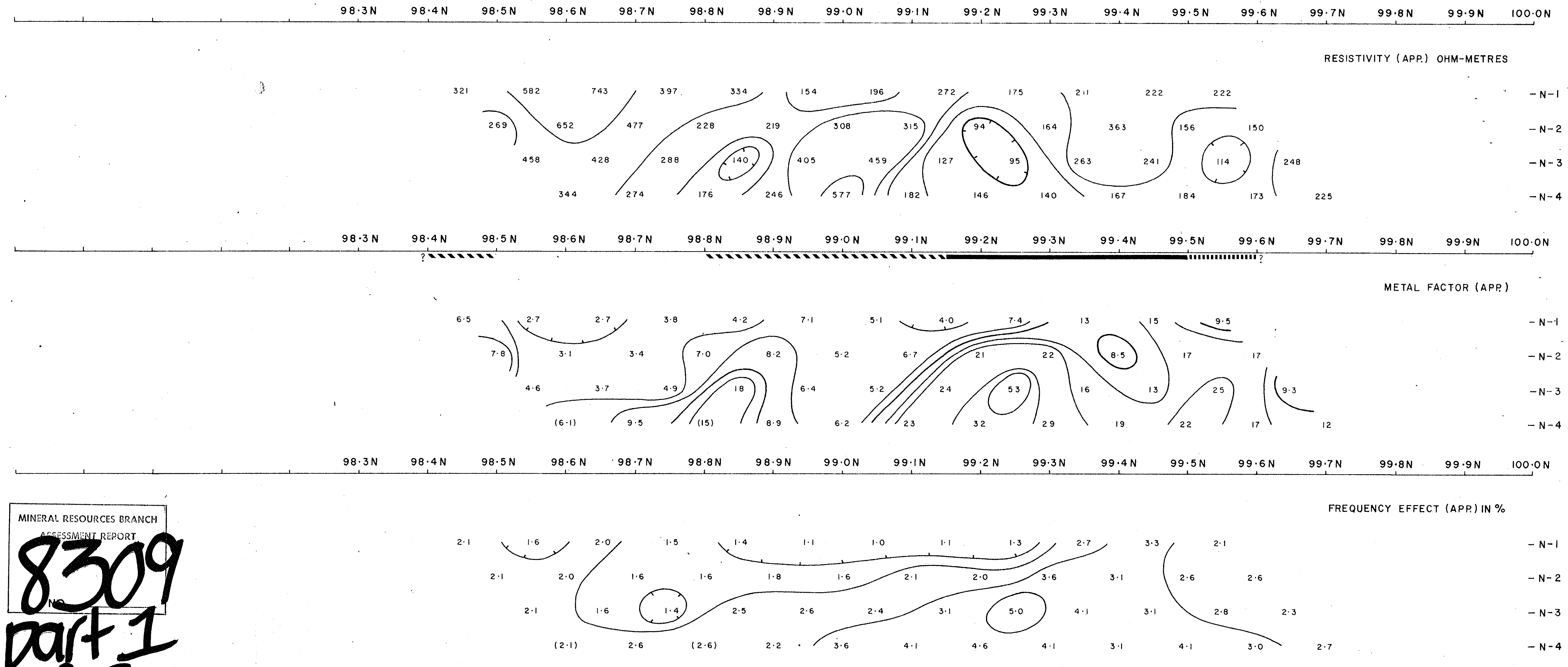
DATE 2/22/80

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA P. G. HALLOF

Expiry Date: February 25, 1981

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



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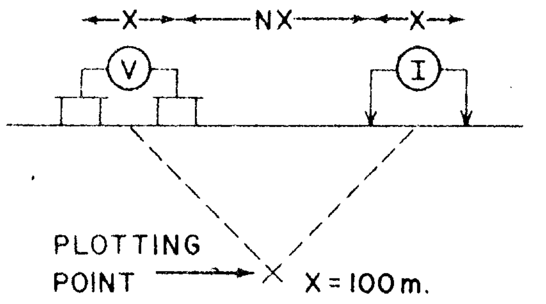
BETHLEHEM COPPER CORP. LTD.

LOG CLAIMS, MISSEZULA LAKE AREA

NICOLA M.D., BRITISH COLUMBIA

LINE NO.- 101,650E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES 0·3-5·0 HZ.

DATE SURVEYED NOV. 1979

NOTE - CONTOURS AT LOGARITHMIC INTERVALS
1,-1·5,-2,-3,-5,-7·5,-10

APPROVED

DATE

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. G. HALLOF

Expiry Date: February 25, 1981

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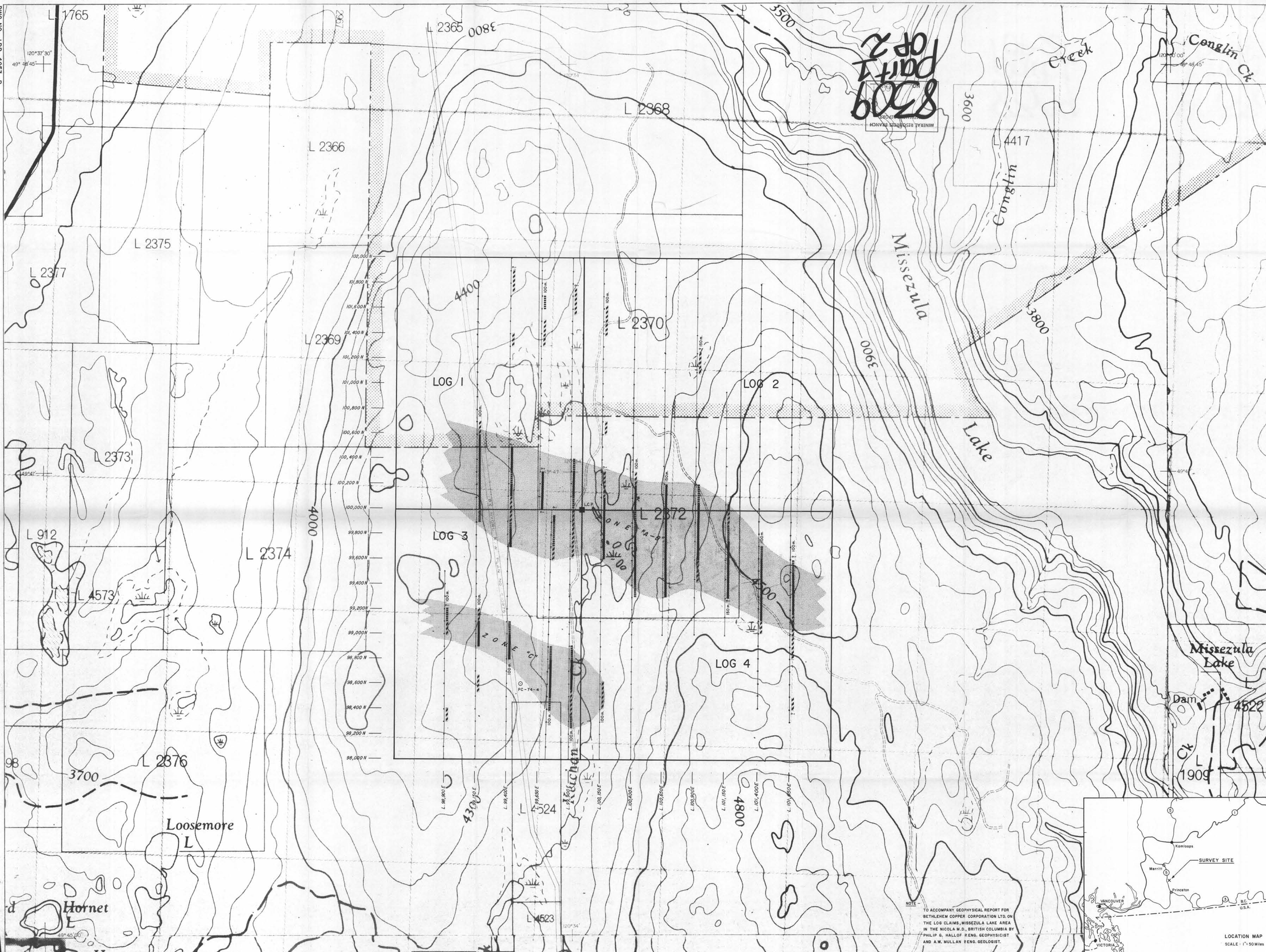
INDUCED POLARIZATION AND RESISTIVITY SURVEY



SURFACE PROJECTION OF ANOMALOUS ZONE
DEFINITE
PROBABLE
POSSIBLE
NUMBER AT END OF ANOMALIES INDICATE SPREAD USED.

PHOENIX GEOPHYSICS LIMITED
INDUCED POLARIZATION AND RESISTIVITY SURVEY
PLAN MAP

ANOMALOUS I.P. ZONE –

SCALE IN METERS
200 0 200 400 600 800 1000
1:10,000

REVISED: R.C.N.
DATE: JUNE 1979
APPROVED: P. G. Hallof
DATE: 7/19/79

REVISED:
DATE: FEB. 1980
APPROVED:
DATE: 2/22/80

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

Bethlehem Copper
VANCOUVER BRITISH COLUMBIA

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