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REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE BYR AND ACE NO. 1 CLAIMS GROUPS KNUTSFORD, KAMLOOPS MINING DIVISION, BRITISH COLUMBIA FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

BY

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AND

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NAME AND LOCATION OF PROPERTY:

BYR AND ACE NO. 1 CLAIM GROUPS, KNUTSFORD

KAMLOOPS MINING DIVISION, B.C. 50°N, 120°W, NE.

DATE STARTED: OCTOBER 6, 1969

DATE FINISHED: NOVEMBER 1, 1969

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McPHAR GEOPHYSICS

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 can not 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 other 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) between 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 the 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 above the line as a mirror image of the metal factor values below. On a second line, below the metal factor values, are plotted the values of the per cent frequency effect. In some cases the values of per cent frequency effect are plotted as superscripts of the metal factor value. In this second case the frequency effect values are not contoured. 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 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. When the F. E. values are plotted as superscripts to the MF values the third section of data values is not presented and the F. E. values are not contoured.

The actual data plots included with the report are prepared utilizing an IBM 360/75 Computer and a Calcomp 770/763 Incremental Plotting System. The data values are calculated, plotted, and contoured according to a programme developed by McPhar Geophysics. Certain symbols have been incorporated into the programme to explain various situations in recording the data in the field.

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 noisey 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.

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

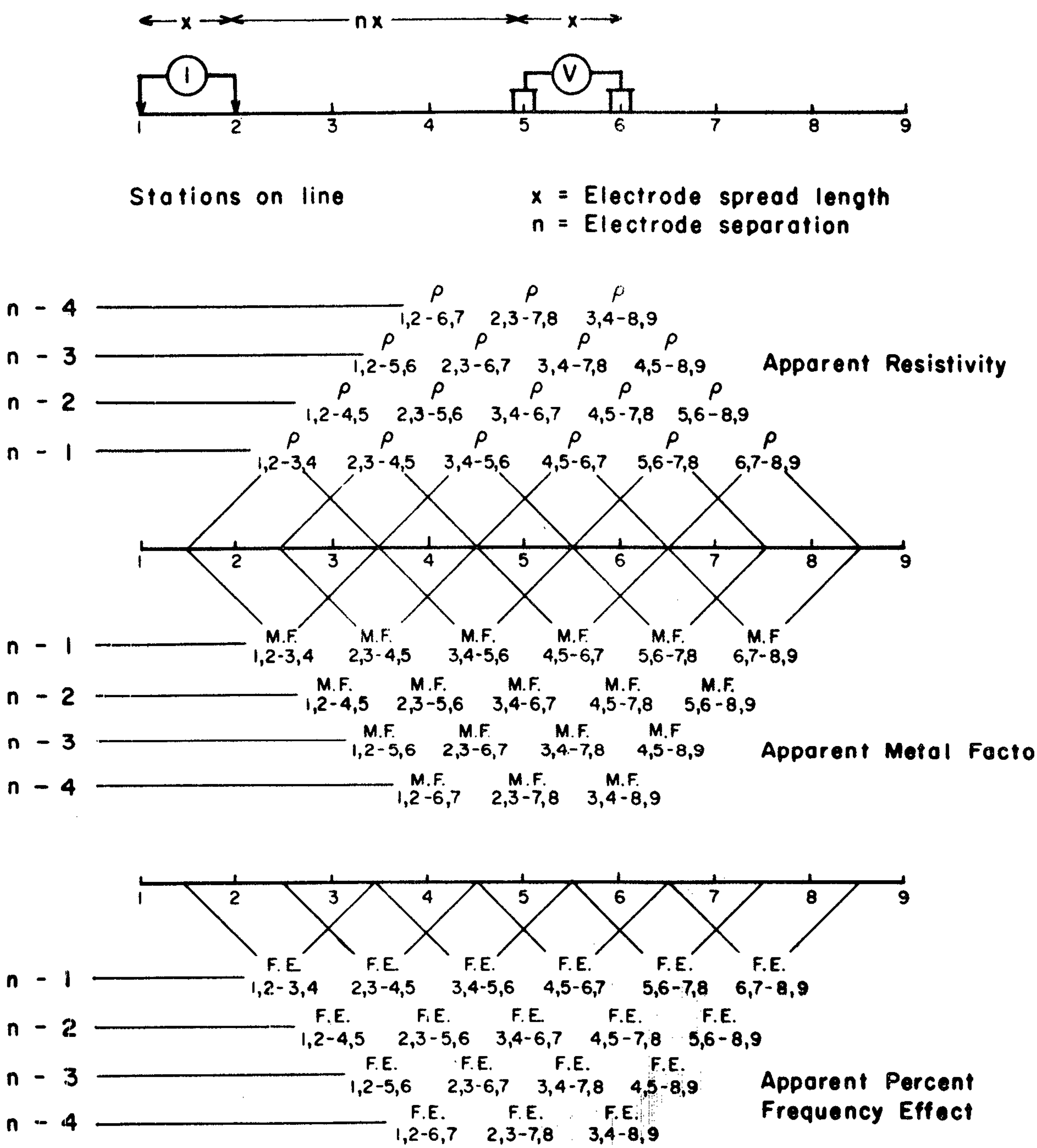

Fig. A

McPHAR GEOPHYSICS LIMITED

REPORT ON

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

ON THE

BYR AND ACE NO. 1 CLAIM GROUPS, KNUTSFORD

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

FOR

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

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1. INTRODUCTION

At the request of Great Plains Development Company of Canada Ltd., an induced polarization and resistivity survey was carried out on the Company's BYR and ACE No.1 Claim Groups near Kamloops, British Columbia.

The property is located in the Kamloops Mining Division, in the northeast quadrant of the one degree quadrilateral whose southeast corner is 50° north, 120° west.

The centre portion of the property is underlain by monzonite, diorite and their fine-grained equivalents. Disseminated pyrite and chalcopyrite are widely distributed throughout most of this rock unit. Locally massive pods of pyrite-chalcopyrite occur. Elsewhere, on the property, more basic intrusives underlie the west, northwest and southwest section. A more recent flat-dipping basalt underlies the area between the basic intrusives and the monzonite-diorite. The eastern part of the property is covered by apparently heavy and consistent overburden with no known bedrock exposure.

The purpose of the IP survey was to investigate the area covered by the Iron Mask Claims Project for evidence of metallic mineralization. Experience has shown that the IP method can be used to locate, and outline, zones of disseminated metallic mineralization (see Appendix).

In addition to the IP survey, Bacon and Crowhurst Ltd., have carried out geological, magnetic and geochemical surveys.

The geophysical survey work discussed in the report was carried out on the following claims or portion of claims of the Iron Mask Project in the Kamloops Mining Division.

Assessment report to apply to assessment for following claims.

(1) Byr Group - Byr #1-11 (11 claims)

(2) ACE No.1 - 1 claim only

But whole report and work covers following claims.

Claim Name	Record No.'s	Date of Location	Date of Record	Located by
BYR GROUP				
BYR #1-11	74373-74383	Nov 6/68	Nov 12/68	J. T. Cook
REG GROUP				
REG #2	83116	Aug 9/69	Aug 20/69	G. D. Delane
REG #3 FR	83117	Aug 13/69	Aug 20/69	G. D. Delane
REG #4-7	83118-83121	Aug 15/69	Aug 20/69	" "
REG #8-10	83122-83124	Aug 16/69	Aug 20/69	" "
REG #11-12	83125-83126	Aug 18/69	Aug 20/69	" "
REG #14 FR	83128	Aug 19/69	Aug 20/69	" "
ACE No. 1	15319	July 19/55	July 19/55	O.M. Emerson
		(Present owner - Frank Avery, Yellowknife, NWT)		

DEWEY CROWN GRANTS

Lot No.	Name	Owner & Address
L-1560	Black Beauty M.C.	Wm. McArthur, Greenwood,
L-1561	Admiral Dewey M.C.	" " B.C.
L-1562	Cyclone M.C.	" "

Claim Name	Record Nos.	Date of Location	Date of Record	Located By
IM GROUP (Royal Canadian Ventures Ltd.)				
IM 24	67940	Jan 19/68	Jan 30/68	A.A. Ablett
IM 25	67941	Jan 19/68	Jan 30/68	A.A. Ablett
IM 26	67942	Jan 19/68	Jan 30/68	A.A. Ablett
IM 27	67943	Jan 19/68	Jan 30/68	A.A. Ablett
IM 62	75529	Dec 17/68	Dec 31/68	M. Hjelt
IM 63	75530	Dec 17/68	Dec 31/68	M. Hjelt
IM 64	75531	Dec 17/68	Dec 31/68	M. Hjelt
IM 65	75532	Dec 17/68	Dec 31/68	M. Hjelt
IM 66	75533	Dec 17/68	Dec 31/68	M. Hjelt
IM 67	75534	Dec 17/68	Dec 31/68	M. Hjelt
IM 46	67962	Jan 20/68	Jan 30/68	A.A. Ablett
IM 47	67963	Jan 20/68	Jan 30/68	A.A. Ablett
IM 57 FR	75032	Nov 20/68	Dec 3/68	N. Vollo
IM 59	75528	Dec 18/68	Dec 31/68	M. Hjelt

2. 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	Spreads	Dwg. No.
44E	300'	IP 5383-1
40E	300'	IP 5383-2
40E	100'	IP 5383-3
36E	300'	IP 5383-4
32E	300'	IP 5383-5
28E	300'	IP 5383-6
24E	300'	IP 5383-7
20E	300'	IP 5383-8
16E	300'	IP 5383-9
12E	300'	IP 5383-10
8E	300'	IP 5383-11
4E	300'	IP 5383-12
0+00	300'	IP 5383-13
4W	300'	IP 5383-14
8W	300'	IP 5383-15
12W	300'	IP 5383-16
12W	100'	IP 5383-17
16W	300'	IP 5383-18
20W	300'	IP 5383-19
24W	300'	IP 5383-20
28W	300'	IP 5383-21

Line	Spreads	Dwg. No.
32W	300'	IP 5383-22
32W	200'	IP 5383-23
36W	300'	IP 5383-24
40W	300'	IP 5383-25
44W	300'	IP 5383-26
48W	300'	IP 5383-27

Enclosed with this report is Dwg. I.P.P. 4561, a plan map of the survey area at a scale of 1" = 400'. The definite and possible induced polarization anomalies are indicated by solid and broken bars respectively on this plan map as well as 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 spread length; i.e. when using 200' spreads the position of a narrow sulphide body can only be determined to lie between two stations 200' apart. In order to locate sources at some depth, larger spreads 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.

3. DISCUSSION OF RESULTS

Most of the property is characterized by a weak, but consistent, background IP effect. Since this weakly anomalous effect is probably close to the true IP effect, it probably indicates widespread sparsely disseminated metallic mineralization. Within the slightly anomalous background occur somewhat stronger IP responses that are believed to represent more concentrated metallic sources. These anomalies have been tentatively correlated into 5 main zones, i.e. Zones A, B, C, D and E.

Numerous wooden-post wire fences cross the property and in most cases there is no coincident increase in IP effect. There were, however, several instances where weak anomalies occur in close proximity to a fence, i.e. 32W - 18S, 36W - 17+50S, 4E - 8N. Any such condition should be checked for possible grounded wires before proceeding with diamond drilling.

The magnetometer survey shows a variable picture across the property. The section east of Line 20+00E shows little relief. The central portion underlain by the monzonite-diorite complex shows a moderate magnetic relief of about 1000 - 1500 gammas. There is a suggestion of a northwest trend which could be investigated further by contouring the magnetic values. The southwest, west and northwest is quite variable with a magnetic relief exceeding 6000 gammas, which corresponds quite well with the basic intrusives. Immediately east of this anomalous belt, is a zone of weaker anomalies that correlates reasonably well with the flat-dipping basalt. The anomalies show a relief of several thousand gammas, but display in general a smooth profile. This is probably due to the magnetic source being located within the basic intrusives beneath the basalt or to a more basic bottom of the basaltic flow.

A short generalized discussion of the zones will be followed by a line by line discussion of the survey. The zoning is one of several possible interpretations.

ZONE A is underlain by the monzonite-diorite rock unit. The IP anomalies are not strong but do show increases above the relatively high background. Apparent resistivities are in the 100 - 200 /2 ohm feet range.

The anomalies show an increase in both metal factor and frequency effect. The FE anomaly is usually broader, resulting in part from increased resistivities to the south.

This zone corresponds roughly with the highest and most consistent copper anomaly located by the geochemical survey and will warrant further investigation by diamond drilling.

ZONE B is a complex northwest trending zone that extends beyond the IP grid. It may consist of several zones but has been considered as one because of the similar nature of the anomalies.

Zone B is characterized by lower resistivities and larger magnitude IP anomalies than those encountered in Zone A. In most cases there is an indication of some depth to the anomaly source. Most, if not all, of Zone B is immediately underlain by the flat-dipping basalt flow. This would suggest that the source of the IP anomaly is either located beneath the basalt or is a reflection of a more basic bottom of the basaltic flow.

The magnetic relief is larger than that displayed by Zone A but significantly less than encountered to the SW where the IP effect is somewhat less. This would suggest that the anomalies are being caused by something other than the disseminated magnetite observed in the basic intrusives.

Further investigation of this Zone by diamond drilling is recommended.

<u>ZONE C</u> is located north of Zone A along the north edge of the survey grid. The anomaly trends east-west and is open on strike in both directions.

The anomaly is located within dioritic rocks similar to Zone A. Widespread disseminated pyrite is reported with some associated malachite staining. The geochemical survey shows a few spot copper highs but does not show the same relatively consistent geochemical anomaly as displayed by Zone A.

The resistivity environment is lower than Zone A and the anomalies less definite and weaker in magnitude. Further investigation of this zone should await the results of the proposed drilling on other zones.

<u>ZONE D</u> is located in the northeast corner of the project area and includes by far the strongest IP anomaly located. The zone is wide, variable in magnitude and extends beyond the survey grid to the northeast. There is no significant correlating magnetic anomaly and the geochemical survey was quite blank in this vicinity.

The 100 foot detail IP survey on Line 40E shows a strong wide zone with some depth to the top. The depth, which may reflect heavy overburden could account for the lack of corresponding geochemical anomalies.

This zone definitely warrants further testing by diamond drilling to investigate the source of the IP responses.

<u>ZONE E</u> This zone is similar to Zone A and may be an extension

of that zone. When work now recommended is completed, the zoning may be more clearly defined.

The line by line discussion of results now follows:

Line 44E

A definite anomaly of varying magnitude extends from 12N to 28N and is incomplete past 28N due to lack of data. The source of the anomaly extends to depth relative to the electrode interval. The anomaly is part of Zone D.

Line 40E

The 300 foot electrode interval survey showed a definite anomaly with widely variable magnitude extending from 13N to 28N, but incomplete past 28N to the north due to lack of data. This is the Zone D anomaly. It was detailed with 100 foot electrode intervals. This survey showed that everywhere the top of the source is more than 1 unit (100 feet) deep and also that the source is not uniform, as there are lenses or pods of higher magnitude within the anomaly.

The anomaly and zone should be checked by drilling on this line.

Line 36E

The Zone D anomaly on this line is definite from 14N to 18N, with probable extensions to 11N and 19+50N. The major part of the source appears to be deeper than 1 unit (300 feet).

A second broad, weak anomaly extends from 0+50S to 6+50S.

Line 32E

The Zone D anomaly is probable from 19N past 26N, and possible from 19N to 13N; the results indicate a more diffuse, weaker mineralized source than on the lines to the east.

There is a second broad, weak anomaly from 3S to 12S.

Line 28E

The Zone D anomaly from 20N to 27N, where it is incomplete, is even weaker than on Line 32E.

A second very weak, broad anomaly extends from 5N to 12N.

Line 24E

A broad, weak anomaly extends from 5N to 12N. It may correlate with the similar anomaly on Line 28E, but at this time it does not warrant any further investigation.

Line 20E

There are three weak anomalies on this line. The anomaly from 6S to 9S is narrow and extends to some depth. The anomaly from 1S to 3N is relatively shallow. The anomaly from 24N to 29N is incomplete due to lack of data.

Line 16E

There is a very weak, incomplete anomaly at the southern end of the line, extending south from 13S. The second anomaly, from 5S to 1N, has been included in Zone A, although it also is quite weak with only a slight increase in M.F. values. This is typical of all the anomalies in the zone.

Line 12E

The Zone A anomaly on this line is very broad, generally weak and shallow to intermediate, but with the strongest portion at some depth. This line should be checked with 500 foot electrode intervals, as there are indications on other anomalies in the zone of increasing values at depth.

Line 8E

There are four anomalies on this line. From 12S to 16S, the pattern of the anomaly suggests that the source is deep or that the survey line is off the end of the source. This is, however, an isolated anomaly.

The Zone A anomaly, from 2S to 4N, is broad and weak.

Another isolated anomaly from 8N to 12N is weak and at some depth.

The fourth anomaly on the line has been included in Zone C. It extends from 15N to the north and is incomplete. However, it appears to be gaining in magnitude to the north.

Line 4E

A shallow, weak anomaly from 5S to 8S is part of Zone A. A second Zone A anomaly extends from 1S to 7N. It varies in magnitude and depth, with the highest values at some depth.

An isolated weak, narrow anomaly extends from 10N to 13N.

The Zone C anomaly on this line is probable from 23N to 30N, with a possible extension to 19N. The source is relatively shallow.

Line 0

The Zone A anomaly, from 14S to 2N, is variable in magnitude and depth.

The Zone C anomaly extends from 17N to 33N. It also varies in magnitude and depth, with the highest values in the anomaly under station 20N on n = 3.

Line 4W

The anomalies of both Zone A and Zone C are similar to those on Line 0. The Zone A anomaly extends from 12S to 6N; the Zone C anomaly extends from 18N to 34N.

Line 8W

Three zones are represented on this line. The Zone E anomaly is incomplete at the southern end of the line, extending south from 14S. It appears to be gaining in magnitude to the south.

The Zone A anomaly, from 4S to 8N, is broad and generally weak, with no major concentration of values.

There is a one-station anomaly on n = 1 from 16N to 19N.

The Zone C anomaly from 23N to 30N is variable in magnitude and depth.

Line 12W

The Zone E anomaly, from 11S, extending to the south and incomplete, is broader and weaker than on Line 8W. The line was detailed with 100 foot electrode intervals, and this anomaly then appeared as two, one extending from 15S to 17+50S. The second portion occurs from 11S to 13S.

The Zone A anomaly, from 1N to 8S, appears weak and variable on the 300 foot survey, also appears as two anomalies with 100 foot electrode intervals. There is a definite portion to the anomaly from 6S to 7S, with a probable extension to 4+50S. The second part of the anomaly now extends from 0+50S to 3+50S and is weak and relatively deep. On the second survey a narrow possible anomaly is seen from 2N to 3N. The zone should be tested by drilling on this line.

Two anomalies, one from 7N to 17N, and the other from 24N to 30N, are part of Zone C and are similar to other anomalies of the zone.

Line 16W

There is an isolated, incomplete, deep anomaly from 29S to the south.

The Zone E anomaly extends from 2S to 19S, with the stronger portion from 13S to 19S, and is variable in magnitude and depth. Again, the stronger portion of the anomaly is at some depth.

The Zone C anomalies; from 12N to 15N and from 20N to 28N are weak and variable in depth.

An isolated incomplete anomaly extends from 14N to the north.

Line 20W

The most easterly anomaly of Zone B appears on this line. It is probable from 28S to 33S and possible but incomplete south of this. The source is 1 unit (300 feet) or less in depth.

A broad, weak anomaly from 2S to 21S is not included in any zone, since both Zone A and Zone E had their western completion on Line 16W.

The two Zone C anomalies extend from 9N to 19N and from 23N to 27N.

An isolated incomplete, weak anomaly extends from 43N to the north.

Line 24W

It should be noted here that mainly the probable and definite portions of the anomalies are considered as constituting Zone B. In fact, some places anomalies are continuous, with weak portions between stronger parts of the anomalies.

The Zone B anomalies extend from 2S to 8S and from 26S to 34S, connected by a broad weak possible anomaly. The top of the source is less than 1 unit (300 feet) deep.

The Zone C anomaly extends from 23N to 27N. This is the last anomaly of Zone C to the west.

Line 28W

The zoned portion of the anomaly extends from 14S to 24S and from 2S to 8S, both of which are probable. The values increase with depth from 14S to 24S but are variable from 2S to 8S.

Line 32W

This line was repeated with 200 foot electrode intervals.

The 300 foot interval survey showed the anomaly as follows:

1) probable from 3N to 0.

2) definite from 0 to 6+50S

3) probable from 6+50S to 11S

4) probable from 14S to 16S

5) definite from 16S to 21S

6) probable from 23S to 28S

The repeat survey results were:

1) probable from 1N to 2S

2) definite from 2S to 6S

3) probable from 6S to 10S

4) probable from 15S to 18S

5) definite from 18S to 22S

6) probable from 22S to 26S

7) definite from 26S to 28S and incomplete.

The repeat survey averaged less volume of rock and as a result the M.F. values are higher.

Line 36W

A weak, isolated incomplete anomaly extends from 32S to the south.

The Zone B anomaly has the best values of the zone on this line. The two strongest portions of the anomaly lie at some depth. The zone source should be checked by drilling on this line.

Line 40W

The anomalies are similar to that on Line 36W.

Line 44W

The magnitude of the anomaly in Zone B is decreasing somewhat, particularly in the southern portion.

Line 48W

The northern portion of the anomaly has decreased in magnitude until it is now only possible, rather than being definite as it was on Line 44W. The southerly portion of the anomaly is decreasing in magnitude also, but not as rapidly.

4. SUMMARY AND RECOMMENDATIONS

Zone B, Zone A, and Zone D should be checked, while Zone C and Zone E should wait for further work until the other zones are checked.

Zone A

Line 12E should be re-surveyed with 500 foot electrode intervals to check the depth of the source of the anomaly.

Line 12W - (1) Drill south from 5+00S at a 45 degree angle to a depth of 350 feet.

(2) Drill a vertical hole from 6+20W to a minimum depth of 450 feet.

Zone B

Line 36W - Drill a vertical hole at 2+00S to a depth of 450 feet.

Zone D

Line 40E - (1) Drill south from 23+50N at a 45 degree angle to a depth of 500 feet.

(2) Drill a vertical hole at 18+50N to a depth of 450 feet.

On completion of the above program, the geophysical results should be re-interpreted and further investigations planned.

McPHAR GEOPHYSICS LIMITED

A. W. Mullan
Geologist.

A. W. MULLAN
PROVINCE OF BRITISH COLUMBIA
PROFESSIONAL ENGINEER

Philip G. Hallof
Geophysicist.

Expiry Date: May 28th, 197[illegible]

Dated: December 5, 1969

ASSESSMENT DETAILS

PROPERTY: Iron Mask Claims Project

MINING DIVISION: Kamloops

SPONSOR: Great Plains Development Company of Canada Ltd.

PROVINCE: British Columbia

LOCATION: Kamloops Area

TYPE OF SURVEY: Induced Polarization

OPERATING MAN DAYS:	96	DATE STARTED:	October 6, 1969
EQUIVALENT 8 HR. MAN DAYS:	144	DATE FINISHED:	November 1, 1969
CONSULTING MAN DAYS:	4½	NUMBER OF STATIONS:	554
DRAUGHTING MAN DAYS:	7	NUMBER OF READINGS:	4,161
TOTAL MAN DAYS:	155½	MILES OF LINE SURVEYED:	27.6

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McPHAR GEOPHYSICS LIMITED

A. W. Mullan
Geologist

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — A. W. MULLAN

Expiry Date: May 28th, 1970

Dated: December 5, 1969

STATEMENT OF COST

Great Plains Development Co.
of Canada Ltd.

Crew (1 man)

24 days Operating		@ $220.00/day	$5,280.00
2 days Travel)	3 days	@ $ 85.00/day	255.00
1 day Bad Weather)			
Extra Labour		$432.00 + 20%	518.40
			6,053.40

Expenses

Fares	$240.00	
Taxi	8.50	
Freight and Brokerage	153.29	
Meals	42.00	
Telephone and Telegraph	5.65	
Supplies	2.00	
Miscellaneous	42.00	
	$493.44 + 10%	542.78
		$6,596.18

McPHAR GEOPHYSICS LIMITED

A. W. Mullan
Geologist.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. W. MULLAN

Expiry Date: May 28th, 1970

Dated: December 5, 1969

CERTIFICATE

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

1. That I am a geologist and a fellow of the Geological Association of Canada with a business address at Suite 811, 837 West Hastings Street, Vancouver, British Columbia.

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 for about twenty 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 Great Plains Development Company of Canada 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 5th day of December 1969

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — A. W. MULLAN

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

Expiry Date: May 28th, 1970

CERTIFICATE

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

1. I am a geophysicist residing at 5 Minorca Place, Don Mills, (Toronto) 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 have been practising my profession for ten 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 Great Plains Development Company of Canada 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 5th day of December 1969

Philip G. Hallof, Ph.D.

APPENDIX

EXPECTED IP ANOMALIES FROM "PORPHYRY COPPER" TYPE ZONES OF DISSEMINATED SULPHIDE MINERALIZATION

Our experience in other areas has shown that the induced polarization method can be successfully used to locate, and outline, zones of disseminated sulphide mineralization of the "porphyry copper" type. In most cases the interpretation of the IP results is simple and straightforward. The results shown in Figure 1 and Figure 2 are typical.

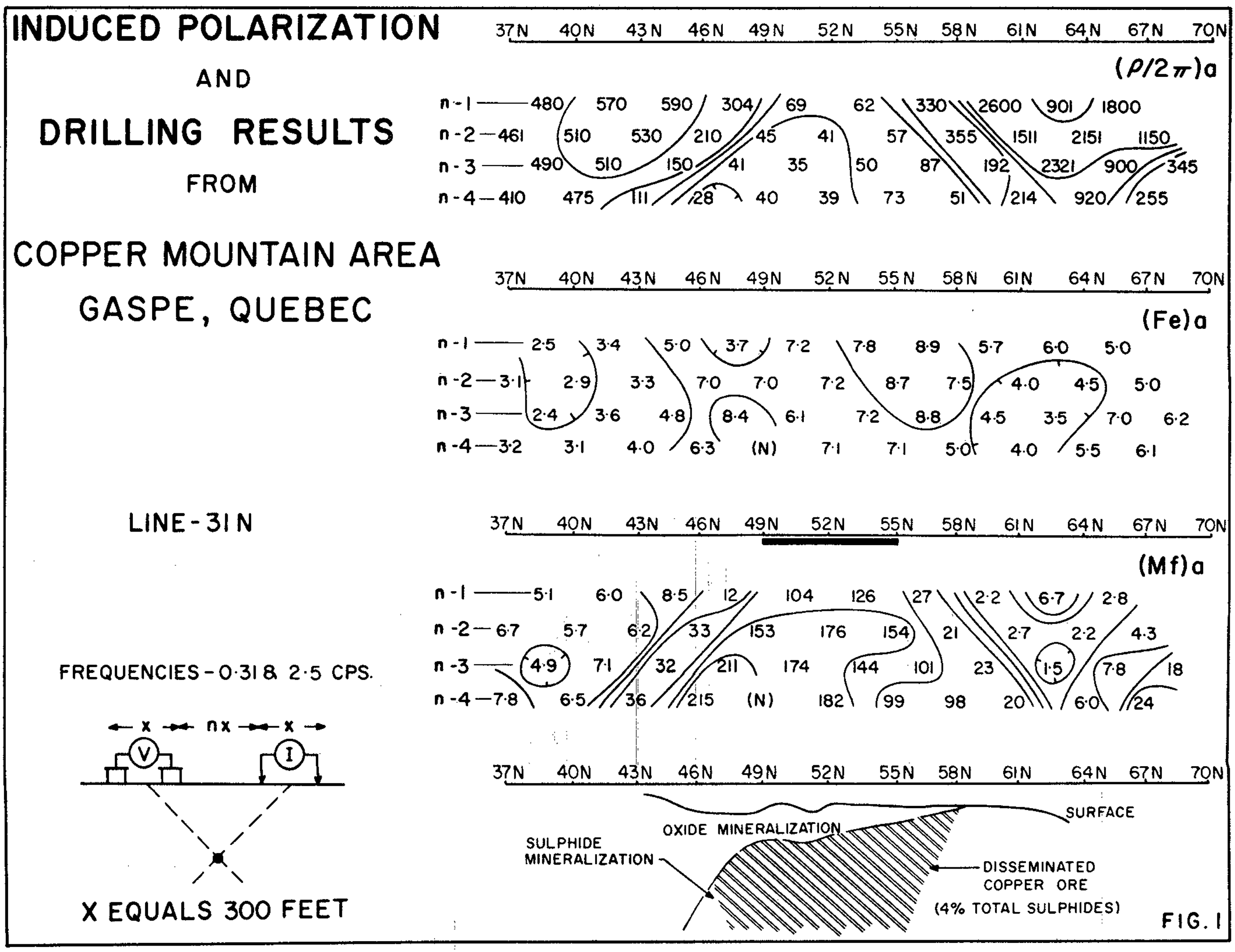


FIG. I

The source of the moderate magnitude IP anomaly shown in Figure 1 contains approximately 4% metallic mineralization. The zone is of limited lateral extent and enough copper is present to make the mineralization "ore grade". The presence of the surface oxidation can be seen in the fact that the apparent IP effects increase for n = 2.

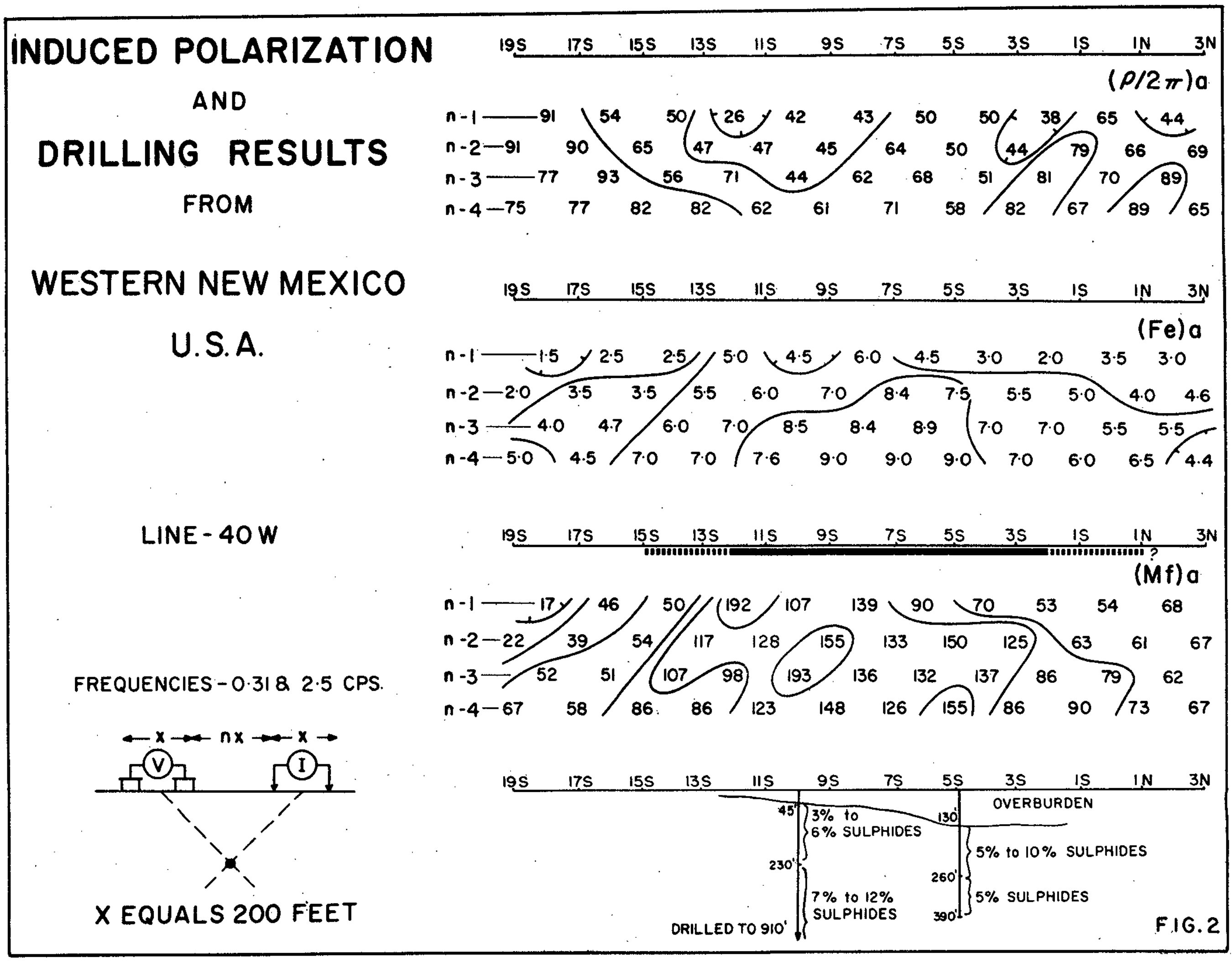


FIG. 2

The IP anomaly shown in Figure 2 has about the same magnitude as that described above. It should be noted that appreciably greater concentrations of metallic mineralization are present; further, there is little or no copper present. These results illustrate the fact that IP results can not be used to determine the exact amount of metallic mineralization present or to determine the economic importance of a mineralized zone. In some geologic situations zoning is present; the zones of mineralization of greatest economic value may contain less total metallic mineralization than other zones in the same general area.

In the proper geologic environment, the method will detect even very low concentrations of metallic mineralization. The IP results shown in Figure 3 located the ore zone at the Brenda Property near Peachland, B. C. The zone contains 1.0 to 1.5 per cent metallic mineralization; however, the mineralization is "ore grade" because only molybdenite and chalcopyrite are present.

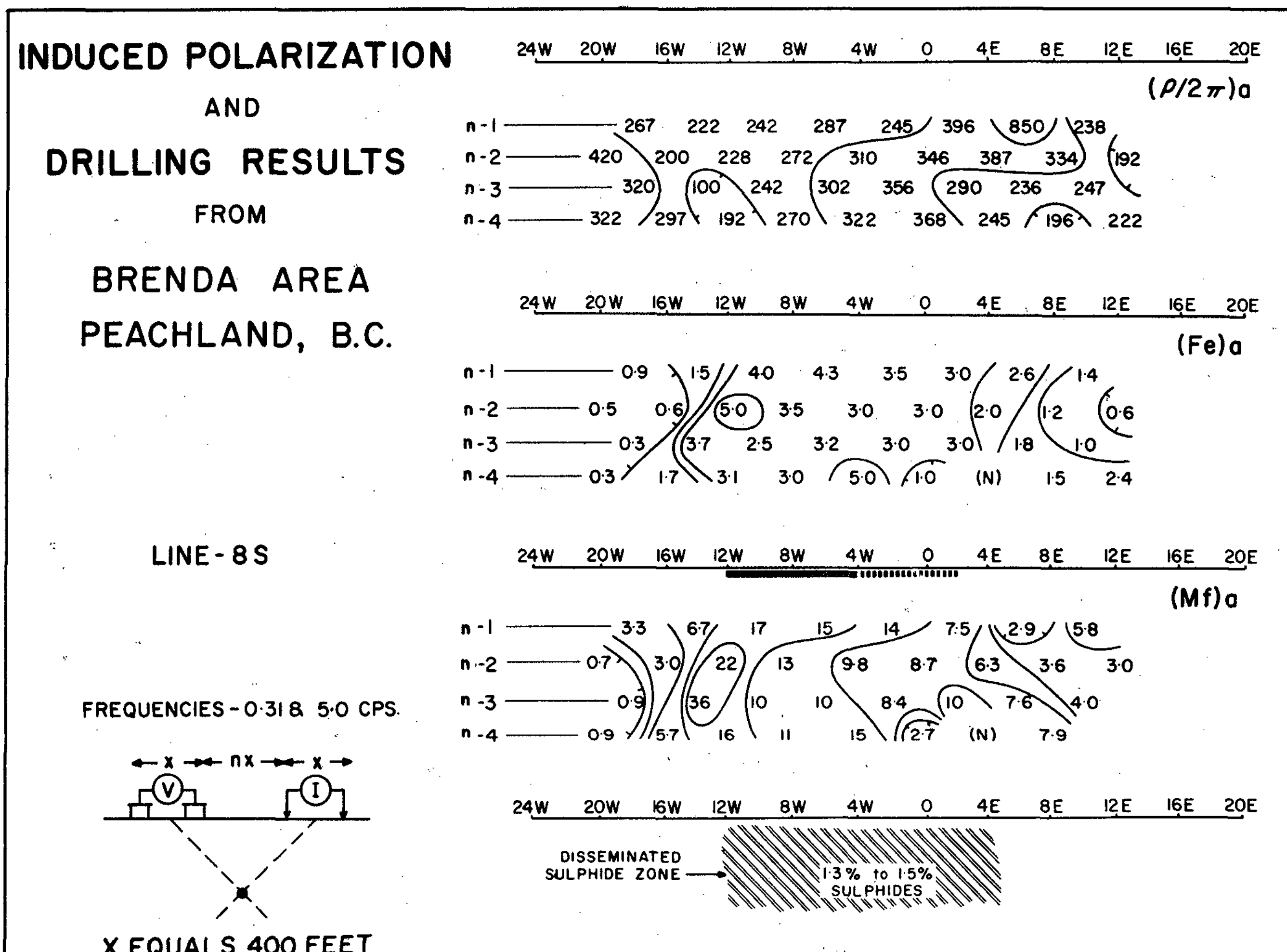
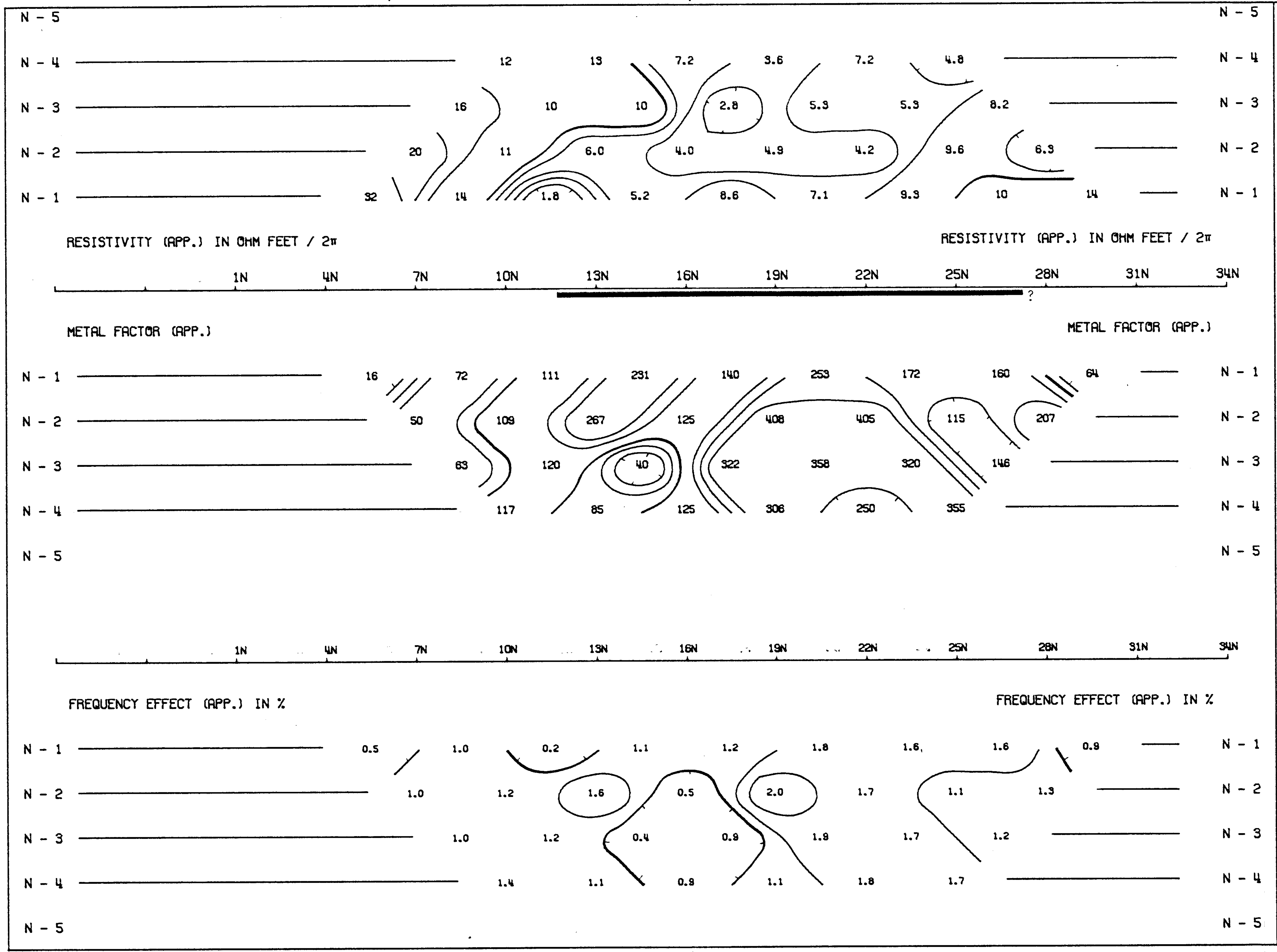


FIG.3



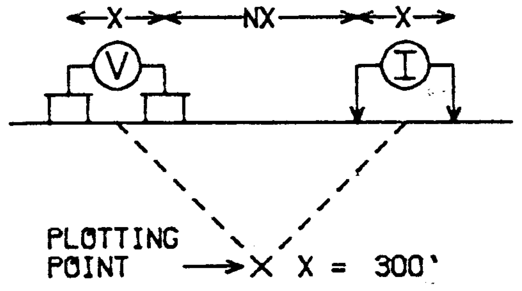
DWG. NO.- I.P.- 5383-1

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 44E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE: Dec 5 1969

PROFESSIONAL ENGINEER – PROVINCE OF BRITISH COLUMBIA – A. W. MULLAN

Expiry Date: May 28th, 1970

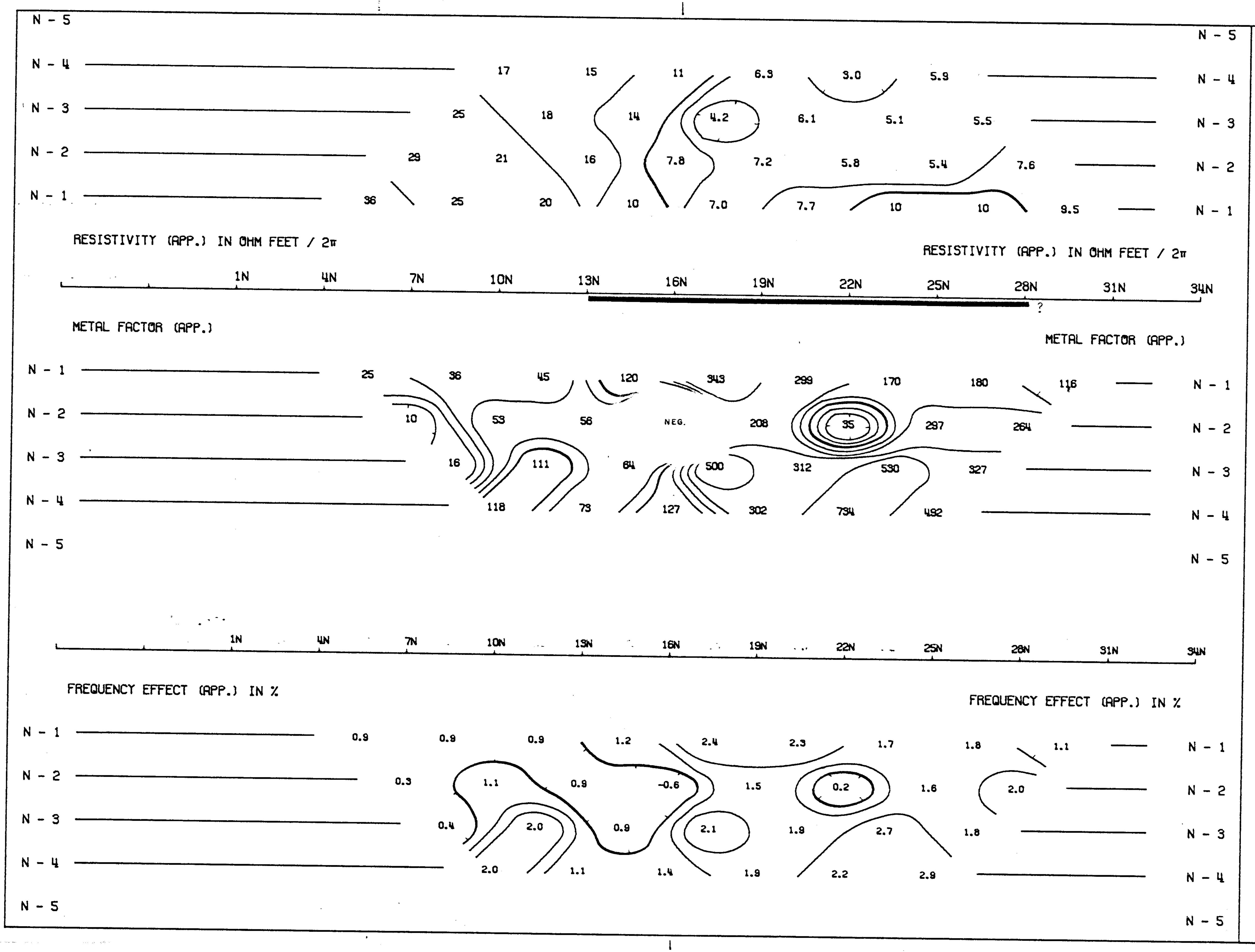
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5383-2

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 40E

ELECTRODE CONFIGURATION

←X→←NX→←X→

PLOTTING POINT →X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

DATE

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

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — A. W. MULLAN

Expiry Date: May 28.h, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-3

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 40E

ELECTRODE CONFIGURATION

PLOTTING POINT → X X = 100'

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
W. MULLAN
Expiry Date: May 28th, 1970

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

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

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GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 36E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — A. W. MULLAN

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

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GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 32E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-6

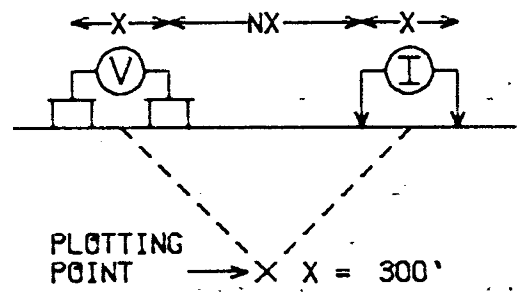
GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 28E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE: Dec 5, 1969

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

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GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 24E

ELECTRODE CONFIGURATION

X — NX — X

V I

PLOTTING POINT → X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — W. McLEOD

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

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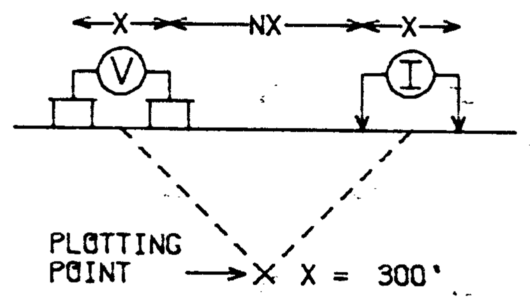
GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 20E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. W. MULLAN
Expiry Date: May 28th, 1970

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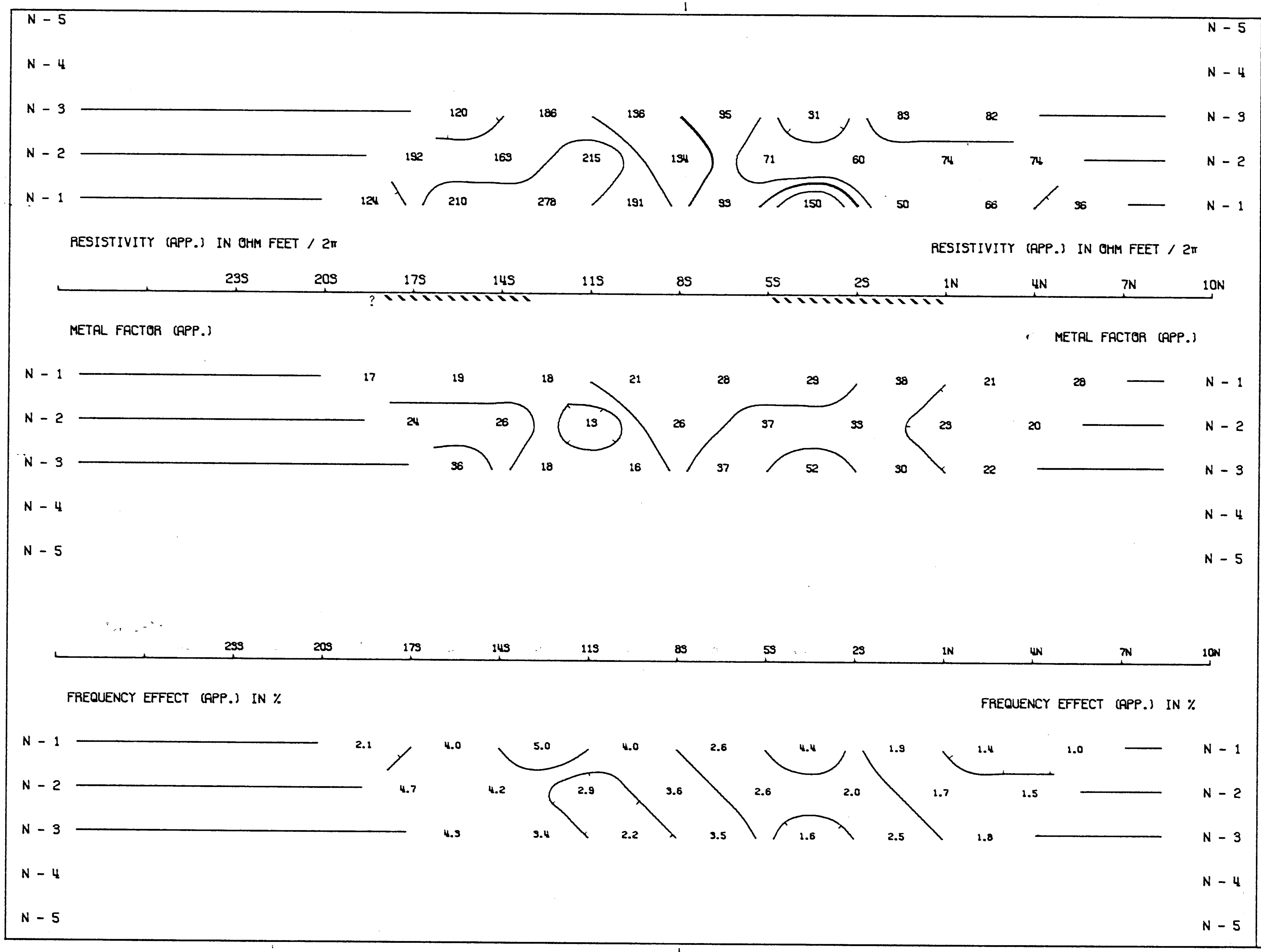
McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5383-9

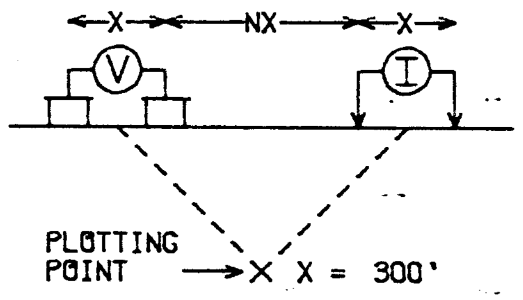
GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 16E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE:

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Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

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IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 12E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

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INDUCED POLARIZATION AND RESISTIVITY SURVEY

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GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 8E

ELECTRODE CONFIGURATION

X NX X

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

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McPHAR GEOPHYSICS

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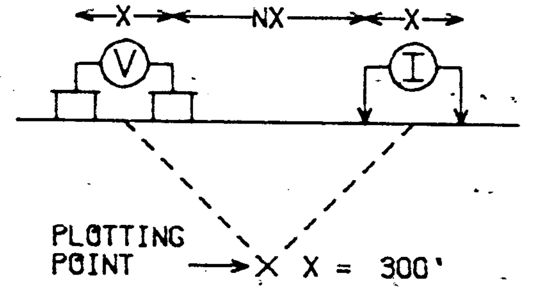
GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 4E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

DATE

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. W. MULLAN

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

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GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 0

ELECTRODE CONFIGURATION

X NX X

PLOTTING POINT X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

DATE

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. W. MULLAN

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

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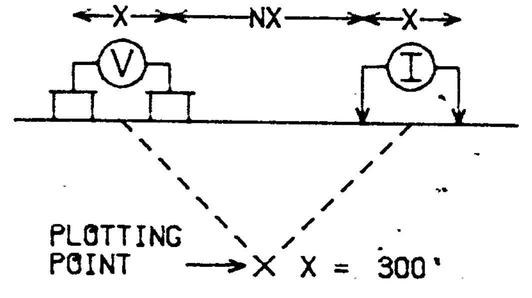
DWG. NO.- I.P.- 5383-14

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 4W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-15

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 8W

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

DATE:

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

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

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McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5383-16

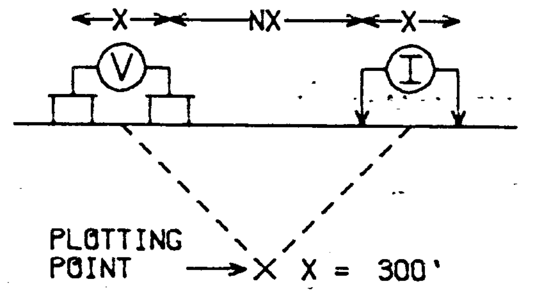
GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 12W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5383-17

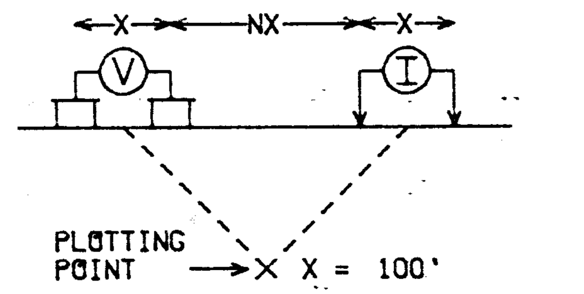
GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 12W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ||||||||||

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — A. W. MOGAN

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5383-18

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 16W

ELECTRODE CONFIGURATION

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER A. W. MULLAN PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5383-19

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 20W

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT — X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1965

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA
Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-20

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 24W

ELECTRODE CONFIGURATION

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. W. MULLAN
Expiry Date: May 29th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-21

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 28W

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT — X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF A. W. MULLAN BRITISH COLUMBIA

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5383-22

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 32W

ELECTRODE CONFIGURATION

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-23

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 32W

ELECTRODE CONFIGURATION

X NX X

V I

PLOTTING POINT X = 200'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE: Dec 5 '69

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. W. MULLAN
Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-24

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 36W

ELECTRODE CONFIGURATION

X NX X

PLOTTING POINT X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

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

DATE: Dec. 9 /71

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. W. MULLAN

Expiry Date: May 28.h, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-25

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT

KAMLOOPS M.D., B.C.

LINE NO.- 40W

ELECTRODE CONFIGURATION

PLOTTING POINT X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. W. MULLAN

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5383-26

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 44W

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

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

DATE

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

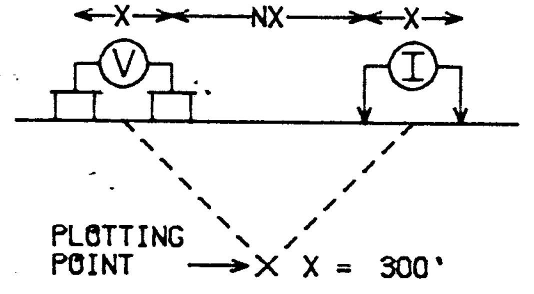
DWG. NO.- I.P.-5383-27

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROJECT
KAMLOOPS M.D., B.C.

LINE NO.- 48W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1969

APPROVED

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. W. MULLAN

Expiry Date: May 28th, 1970

2144

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG. I.P.P. 4561

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

Number at the end of anomaly indicates spread used.

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

IRON MASK CLAIMS PROSPECT, KAMLOOPS M.D., B.C.

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

ANOMALOUS IP ZONE

2144

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. W. MULLAN 1969

DWG. I.P.P. 4561