PHOENIX GEOPHYSICS LIMITED

REPORT ON THE

INDUCED POLARIZATION AND RESISTIVITY SURVEY

ON THE

LARA PROPERTY

VICTORIA MINING DIVISION, BRITISH COLUMBIA

FOR

ABERFORD RESOURCES LIMITED

Latitude: 48°53'N Longitude: 123°52'W

N.T.S.: 92B/13

CLAIMS: Fang, Silver 1, Silver 2, Solly, T.L.

OWNER: Laramide Resources Limited

OPERATOR: Aberford Resources Limited

BY

PAUL A. CARTWRIGHT, B.Sc.

FEBRUARY 14, 1983

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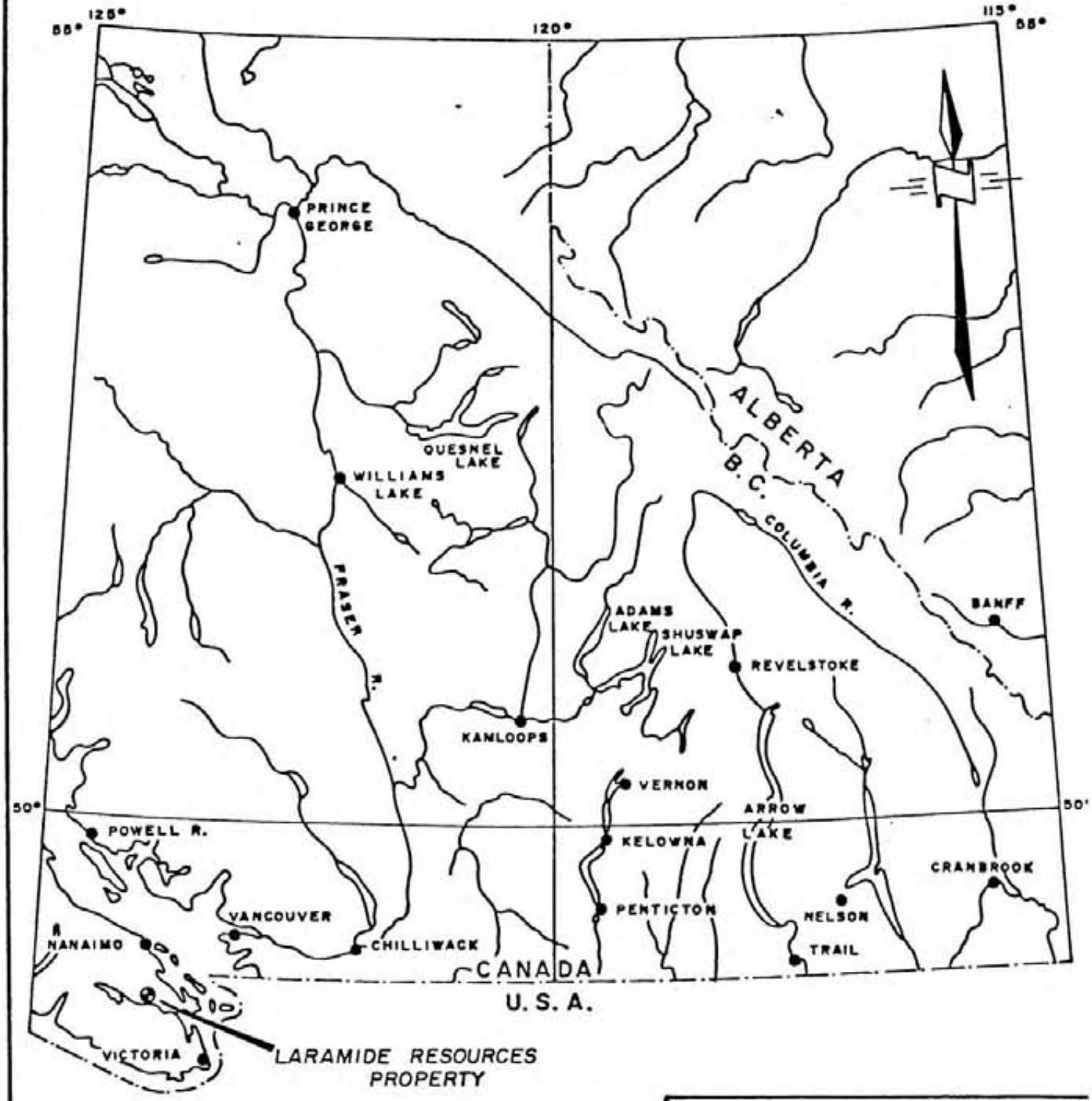
1. INTRODUCTION

An Induced Polarization and Resistivity survey has been carried out on behalf of Aberford Resources Limited on the Lara property, Victoria Mining Division, British Columbia. The property is located at about 48°53' North Latitude and 123°52' West Longitude, approximately 16 kilometers northwest of Duncan, British Columbia (Figures 1 and 2).

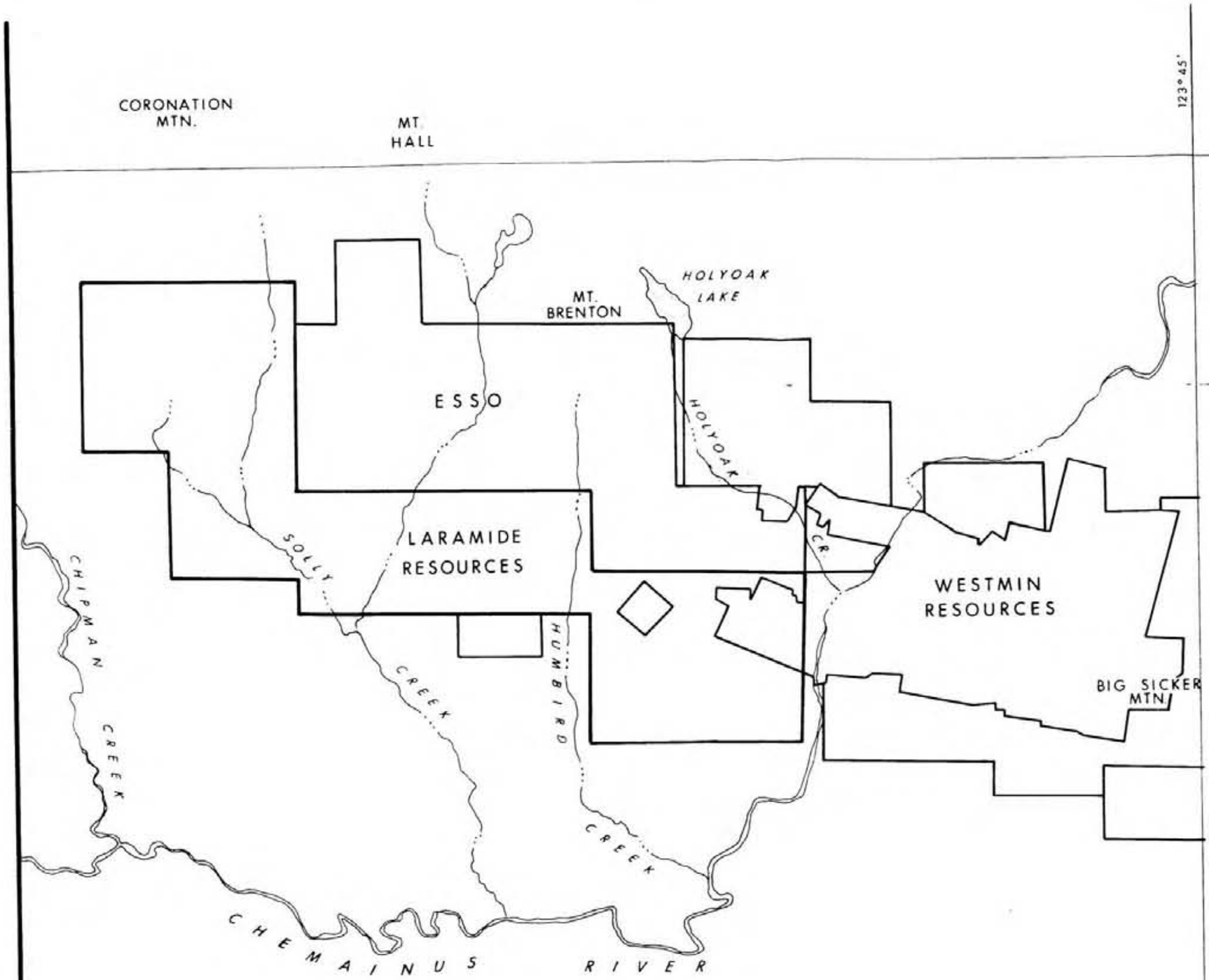
A paved road from Duncan passes near the base of Mt. Sicker. Access to the grid is via old logging roads which traverse Mt. Sicker.

Since the 1800's economic mineralization has been noted in the Mt. Sicker area. Near the center of the Silver 2 claim a small massive sulphide-type showing is partly exposed along an old road cut. The present IP survey is a continuation of work started in late 1981 around the known showing. Results of the earlier IP work are outlined in a report by DiSpirito and Cartwright, dated January 10, 1982.

Field work was carried out in October and November of 1982, using a Phoenix Model IPV-1 IP and Resistivity receiver unit in conjunction with a Phoenix Model IPT-1 IP and Resistivity transmitter unit, recording the polarizability as percent frequency effect (P.F.E.) between frequencies of 4.0 Hertz and 0.25 Hertz. Apparent resistivity measurements are normalized in units of ohm-meters, while metal factor values are calculated according to the formula: M.F. = (PFE x 1000/Apparent Resistivity. Dipole-Dipole array was used exclusively, with a basic inter-electrode distance of 50 meters. Some detailed measurements were also completed using 25 meter dipoles. Four dipole separations were recorded in every case.



LARAMIDE RESOURCES LTD	
LOCATION MAP LARAMIDE RESOURCES PROPERTY VICTORIA MINING DIVISION, BRITISH COLUMBIA	
Date: Dec. 1981.	Scale: 1" = 64 Miles
Drn by: W.G.	Figure 1



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,123

Part 3
of 4

TO ACCOMPANY REPORT NO. 10-83 BY B.W.S.

ABERFORD RESOURCES LTD.

LAND STATUS

MOUNT SICKER AREA
VANCOUVER ISLAND

DATE	SCALE	NTS	DRAWING NO.
JAN., 1982	1 : 50,000	92 B/13	B-1525

JCC

The field work was conducted under the supervision of Mr. John Marsh, geophysical crew leader, whose certificate is attached to this report.

2. DESCRIPTION OF CLAIMS

The Lara property consists of 5 claims as outlined below.

CLAIM NAME	UNITS	RECORD NUMBER	DATE RECORDED
Fang	20	534	8 May 1981
Silver 1	9	535	8 May 1981
Silver 2	12	536	8 May 1981
Solly	9	537	8 May 1981
T.L.	20	538	8 May 1981

The claims are owned by Laramide Resources Limited, and operated by Aberford Resources Limited.

3. PRESENTATION OF DATA

The Induced Polarization and Resistivity data are shown on the following data plots in the manner described in the notes attached to this report (Part B).

LINE	ELECTRODE INTERVAL	DWG.NO.
70+00W	50 meters	IP 5829-1
66+00W	50 meters	IP 5829-2
66+00W	50 meters	IP 5829-3
62+00W	50 meters	IP 5829-4
62+00W	50 meters	IP 5829-5
58+00W	50 meters	IP 5829-6

LINE	ELECTRODE INTERVAL	DWG.NO.
58+00W	25 meters	IP 5829-7
58+00W	25 meters	IP 5829-8
58+00W	25 meters	IP 5829-9
54+00W	50 meters	IP 5829-10
50+00W	50 meters	IP 5829-11
46+00W	50 meters	IP 5829-12
40+00W	50 meters	IP 5829-13
38+00W	50 meters	IP 5829-14
36+00W	50 meters	IP 5829-15
34+00W	50 meters	IP 5829-16
32+00W	25 meters	IP 5829-17
28+00W	25 meters	IP 5829-18
26+00W	50 meters	IP 5829-19
24+00W	50 meters	IP 5829-20
22+00W	50 meters	IP 5829-21
18+00W	50 meters	IP 5829-22
14+00W	50 meters	IP 5829-23

Also enclosed with this report is Dwg. I.P.P.-B-4026, a plan map of the surveyed 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 50 meter electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 50 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 ar some depth, larger electrode intervals must be used,with a corresponding increase in the uncertainties of location. Therefore, while the center of the indicated anomaly probably corresponds fairly well with the 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 information shown on Dwg. I.P.P.-B-4026 has been taken from maps made available by the staff of Aberford Resources Limited.

4. DESCRIPTION OF GEOLOGY

The Lara property is mainly underlain by deformed felsic rocks of the Paleozoic Sicker Series. Along the south edge of the claim block the volcanic rocks are in fault contact with sedimentary rocks of the Cretaceous, Nanaimo Formation.

The Sicker Series is host to several massive sulphide deposits. These deposits are associated with felsic volcanic rocks.

5. DISCUSSION OF RESULTS

Eight separate anomalous IP zones are interpreted in the data recorded over the Lara grid.

In addition, a well defined resistivity contact is mapped striking roughly east-southeast across the southern ends of virtually all the grid lines. The low apparent resistivity values evident on the south side of the contact probably outline sedimentary rocks of the Nanaimo formation, while the Sicker series volcanic rocks to the north display apparent resistivity values an order of magnitude greater in intensity.

Each of the IP zones is discussed separately below, and is shown on plan map Dwg. No. I.P.P.-B-4026.

Zone A

The anomalous IP trend is indicated to arc across the northwestern corner of the survey grid. It is outlined by weakly to moderately anomalous IP effects as well as somewhat lower than usual resistivity values. Width of the source is quite large, in the order of 200 meters or more, while the depth of burial is shallow, i.e., much less than one dipole length (50 meters).

Results from Line 66W show the most anomalous readings in the interval 30+50N to 31+00N.

The homogeneous nature of the IP effects, suggests that a large volume of uniformly, but weakly mineralized rock is present.

IP Zone B

IP Zone B is probably caused by weak to moderate concentrations of generally disseminated mineralization. The zone is presently undefined west of Line 70W, and east of Line 58W, at which point the source

appears to be depth limited. Detail work using 25 meter dipoles has been completed in the vicinity of the zone on Line 58W. This data has been computer inverted to find the best fitting model, and the results are shown on Figure 3. A depth to the top of approximately 6 meters, and a depth extent of 17 meters are indicated, centered at approximately Station 21+52N.

IP Zone C

Very weakly anomalous results constitute this trend, which is seen only on Line 70W and Line 66W. The source is open to the west. Width of the zone is less than 50 meters, while the depth is much less than 50 meters. The response is so weak that shorter dipole measurements are required to confirm the presence of an anomalous source.

IP Zone D

The most interesting results recorded over Zone D are noted on Line 58+00W. Detail surveying on this line suggests the presence of moderate concentrations of mostly disseminated or stringered mineralization, as indicated by the small resistivity contrast between the source and host rocks. The true width of the zone is in the order of two dipole lengths (50 meters), centered at approximately station 1600N.

Another, possibly separate zone of weaker IP effects may be present immediately to the north of the main zone discussed above. An additional detail survey would be required to confirm the presence of a separate source.

IP Zone E, IP Zone F

IP Zone E is interpreted as a separate feature lying just north of IP Zone F, between the vicinity of Line 66+00W to possibly as far east

SPONSOR : ABERFORD RESOURCES LTD.

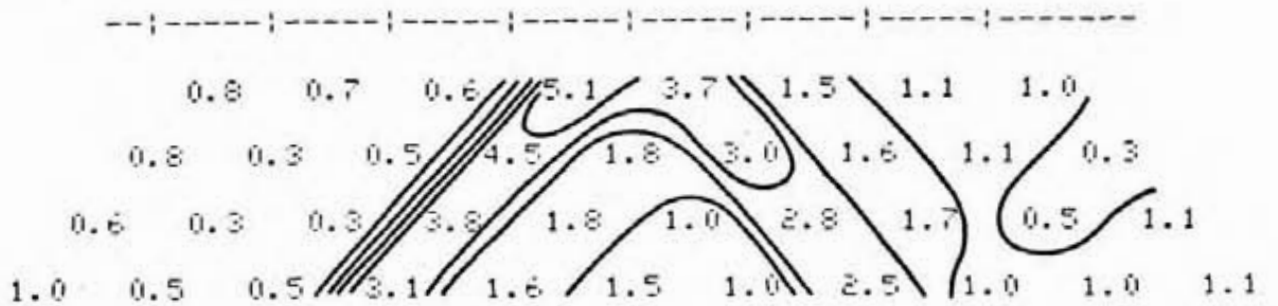
DATA : IP

AREA : LARA PROPERTY

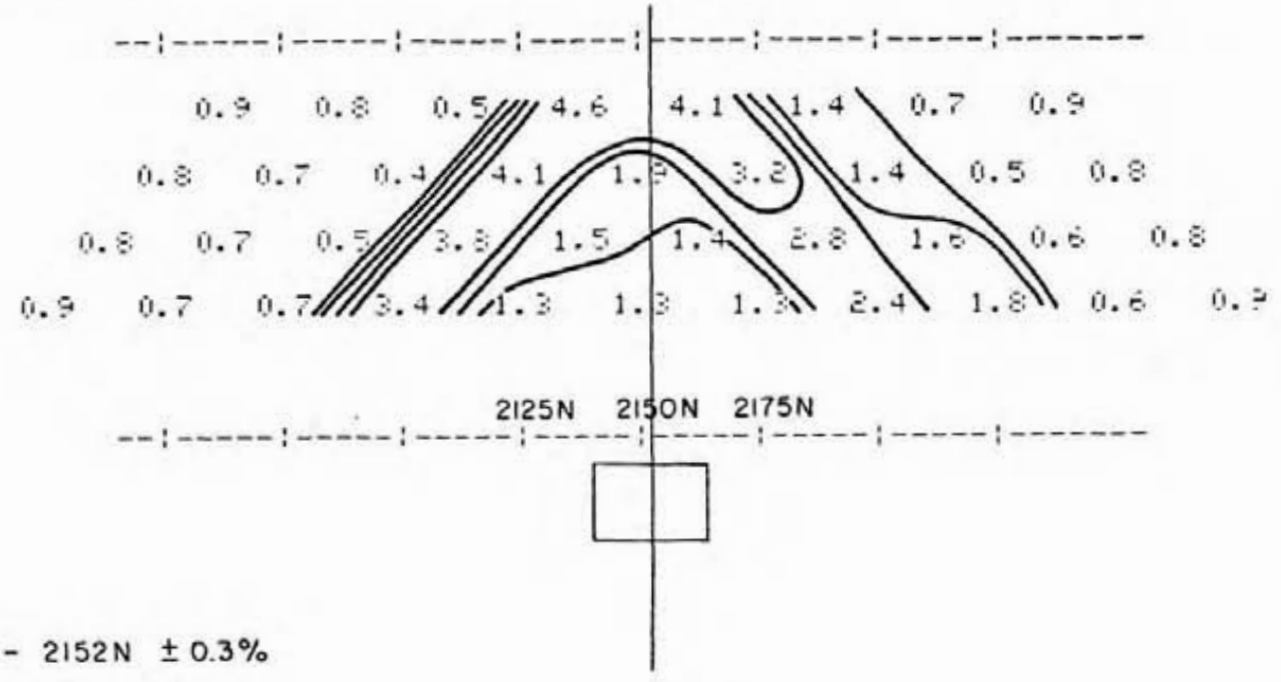
LINE : 58W

FINAL MODEL FOR DATA SET 1

OBSERVED DATA



CALCULATED DATA



CENTER - 2152N ± 0.3%

DEPTH - 6.2 m. ± 34%

WIDTH - 23 m. ± 9%

THICKNESS - .17 m. ± 33%

R BODY - 500 Ω-m. fixed

ROVBN - 1000 Ω-m. fixed

R HOST - 1000 Ω-m. fixed

IP BODY - 7.9% ± 23%

IP HOST - 0.9% ± 15%

FIG. 3

as the vicinity of Line 46+00W, while Zone F can be seen extending across the entire grid, as a well defined region of moderate to highly anomalous IP effects. Apparent resistivity values within this latter zone are, at times, two to three times lower than the surrounding areas; however, in the majority of cases, much less contrast is encountered. It would appear that the source of IP Zone F is composed of a band of disseminated or stringered mineralization in excess of 100 meters in width, with sporadic, much narrower bands of more massive mineralization, set within this mineralized matrix.

It is difficult to recommend one part of such a long zone as being a more interesting location for further investigation than another; however, particularly anomalous results are evident on Line 38+00W, in the interval between Station 500N and Station 550N. Depth to the source is everywhere indicated to be considerably less than one dipole length (50 meters).

IP Zone G

This zone is detected to lie just south of, and parallel to, IP Zone F, and is marked to extend from the area of Line 58+00W to beyond Line 66+00W, at which point the zone is undefined. Weakly anomalous results form the zone except in the vicinity of Line 58+00W, where the IP readings are much higher in magnitude.

Detail surveying using 25 meter dipoles has been completed over the zone on Line 58+00W, and the pattern formed by the data suggests the source is quite uniformly mineralized, and buried at a very shallow depth, i.e., much less than 25 meters subsurface. Center of the anomaly is at approximately Station 900N.

IP Zone H

The source of IP Zone H is interpreted to lie along the southern margin of Zone F, between Line 36+00W and Line 28+00W. A mineralized showing apparently outcrops very close to the axis of the IP zone on Line 3+00W.

The reader is referred to a previous report by F. DiSpirito, and P. Cartwright dated January 10, 1982, which illustrates and describes the 50 meter dipole data recorded previously on Line 32+00W, Line 30+00W, and Line 28+00W.

The most anomalous results recorded within the zone are outlined by 25 meter dipole data measured over Line 32+00W.

A computer inversion of the data has been carried out and the results are shown as Figure 4. Center of the source is approximately 72N, while the depth extent is computed to be less than 25 meters (approximately 22m), using a width of 25 meters. IP effects are moderately high in magnitude, with a wide range of apparent resistivity values being evident. Even smaller dipole lengths would have to be used to fully assess the significance of the resistivity pattern. The inversion suggests a depth to the top of the source of less than 5 meters.

There may also be a separate, but weaker zone lying between IP Zone H and IP Zone F.

6. SUMMARY AND RECOMMENDATIONS

The Induced Polarization and Resistivity survey of the Lara property appears to have outlined the contact between the Sicker Series volcanic rocks and the Nanaimo Formation sedimentary rocks to the south.

COMPUTED MODEL

SPONSOR : ABERFORD RESOURCES LTD.

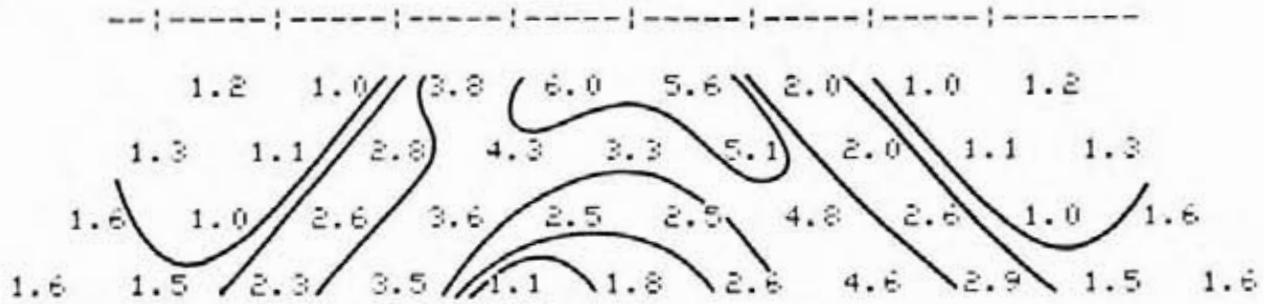
DATA : IP

AREA : LARA PROPERTY

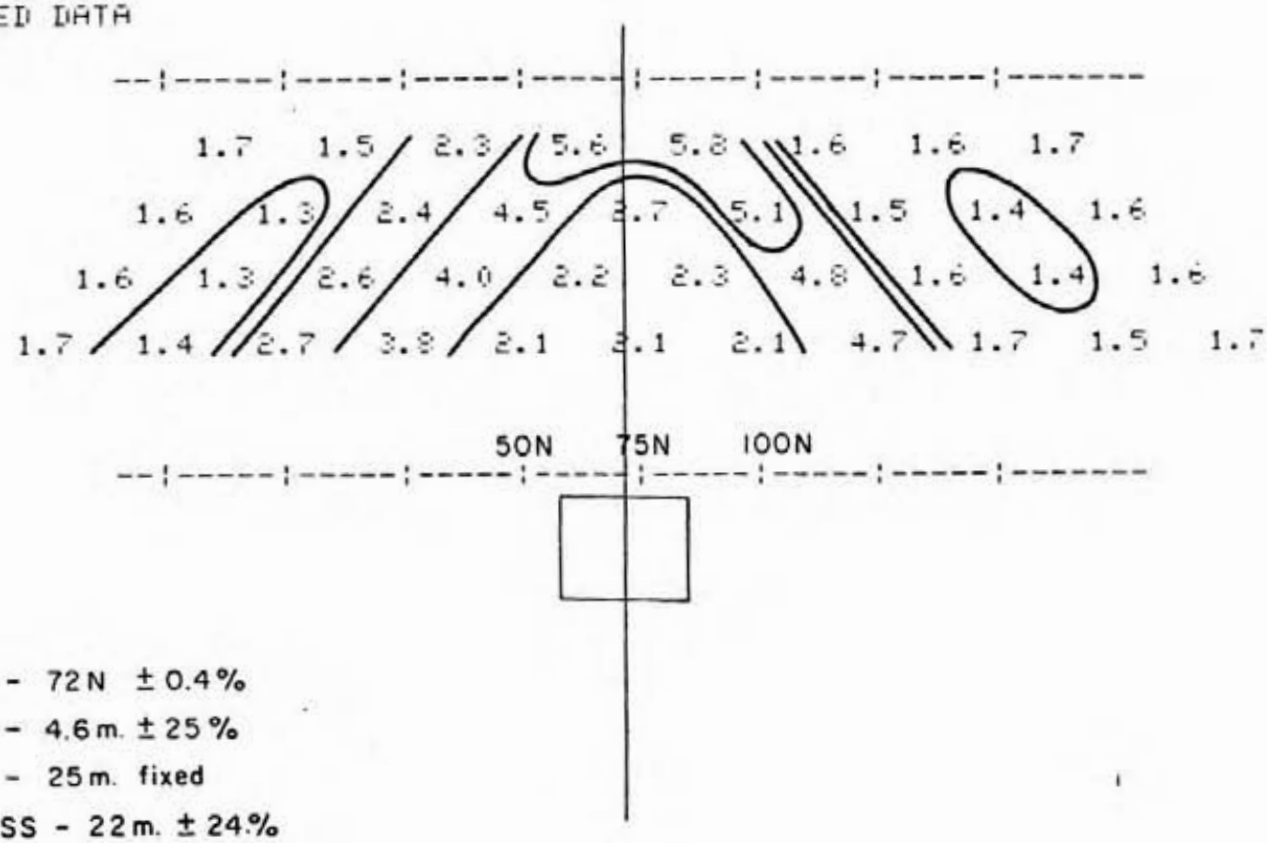
LINE : 32W

FINAL MODEL FOR DATA SET 1

OBSERVED DATA



CALCULATED DATA



CENTER - 72N ± 0.4%

DEPTH - 4.6m. ± 25%

WIDTH. - 25m. fixed

THICKNESS - 22m. ± 24%

RBODY - 600 Ω-m. fixed

ROVBN - 1200 Ω-m. fixed

RHOST - 1200 Ω-m. fixed

IP BODY - 6.9% ± 14%

IP HOST - 1.7% ± 6%

FIG. 4

Eight zones of anomalous IP effects are also interpreted in the data, as well as a number of isolated responses. Recommendations regarding further work on each of the anomalous IP zones are discussed below.

IP Zone A - The source of this anomalous feature has apparently not been tested as yet by drilling or trenching. Detail surveying over the zone on Line 66+00W is recommended before further work is considered.

IP Zone B - It appears that trenching has been carried out to test the source of this zone. If bedrock was reached in the trenches, and moderate concentrations of disseminated or stringered mineralization was encountered, no further work would be warranted.

IP Zone C - This very weakly anomalous trend should be confirmed by detailed measurements before any other work is considered.

IP Zone D - The cause of this zone may already have been tested by trenching. If this is not the case, trenching is recommended on Line 58+00W, between Station 15+60N and Station 16+25N. Alternatively, a drill hole positioned so as to pass 25 meters beneath Line 58+00W, Station 1600N is suggested.

IP Zone E - Detailed IP measurements are required to confirm the presence of IP Zone E. This work should initially be carried out on Line 62+00W and Line 46+00W, unless it is felt that the source has already been encountered by trenching.

IP Zone F - The western end of Zone F appears to have been tested by trenching. However, the strong response seen on Line 38+00W has apparently not been tested. Therefore detailed surveying is suggested if it became desirable to trench or drill the eastern part of Zone F.

Zone G - It seems as though the source of this feature has already been trenched on Line 58+00W. If this is the case, no further work is recommended.

IP Zone H - Trenching has apparently been carried out to ascertain the cause of IP Zone H. There is a possibility that another separate zone is present to the north of IP Zone H; however, the detail IP coverage should be extended northward to confirm this.

There are a number of isolated IP responses detected by the survey. Priority for follow-up work on these anomalies should be decided after correlation with other available information.

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright, B.Sc.
Geophysicist

Dated: February 14, 1983

ASSESSMENT DETAILS

PROPERTY: Lara

MINING DIVISION: Victoria

SPONSOR: Aberford Resources Limited

PROVINCE: British Columbia

LOCATION: Approximately 16 kilometers NW of Duncan, B.C.

TYPE OF SURVEY: Induced Polarization and Resistivity

OPERATING MAN DAYS:	41	DATE STARTED: 29 October, 1982
EQUIVALENT 8 HR.MAN DAYS:	61.5	DATE FINISHED: 24 November, 1982
CONSULTING MAN DAYS:	4	NUMBER OF STATIONS: 533
DRAFTING MAN DAYS:	12	NUMRER OF READINGS: 4703
TOTAL MAN DAYS:	77.5	KM. OF LINE SURVEYED: 23.0

CONSULTANTS:

P.A. Cartwright, 4238 W. 11th Avenue, Vancouver, B.C.

FIELD TECHNICIANS:

J. Marsh, 200 Yorkland Blvd., Willowdale, Ontario.
D. Daggett, 35 Falcon Crescent, Chelmsford, Ontario.
G. Montpetit, 200 Yorkland Blvd., Willowdale, Ontario.

DRAUGHTSMEN:

Ron Wakaluk, 7886 Vivian Drive, Vancouver, B.C.

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright

Paul A. Cartwright, B.Sc.
Geophysicist

Dated: February 14, 1983

STATEMENT OF COST

Aberford Resources Limited

Induced Polarization and Resistivity Survey,
Lara Property, Victoria Mining Division,
British Columbia

PERIOD: October 29, 1982 to November 7, 1982

CREW: J. Marsh, G. Montpetit

PERIOD: November 8, 1982 to November 24, 1982

CREW: J. Marsh, D. Daggett

20.5	Operating days	@ $650.00/day	$13,325.00
4.5	Bad Weather Days	@ $325.00/day	1,462.50
2	Days Off	@ N.C.	N.C.
Meals		$ 61.30	61.30
Mobilization - demobilization			465.00
			$15,313.80

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright, B.Sc.
Geophysicist

Dated: February 14, 1983

CERTIFICATE

I, Paul A. Cartwright, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geophysicist residing at 4238 West 11th Avenue, Vancouver, B.C.

2. I am a graduate of the University of British Columbia, Vancouver, B.C. with a B.Sc. Degree.

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

4. I have been practising my profession for 12 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 Aberford Resources Limited 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, B.C.
This 14th day of February, 1983

Paul A. Cartwright

Paul A. Cartwright, B.Sc.

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 Limited of 214 - 744 West Hastings Street, Vancouver, B.C.

DATED AT VANCOUVER, B.C.
This 14th day of February, 1983

John Marsh

PHOENIX GEOPHYSICS LIMITED

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) 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 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 percent frequency effect. On a third line, below the percent frequency effect, are plotted the values of the metal factor values. 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 percent frequency effect, and apparent metal factor 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.

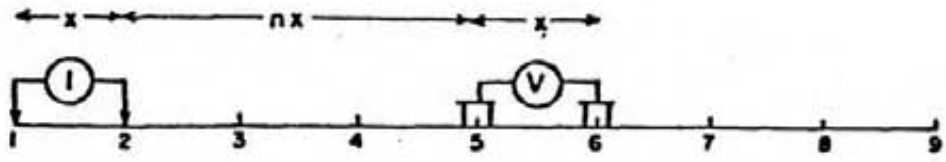
In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisy to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy,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

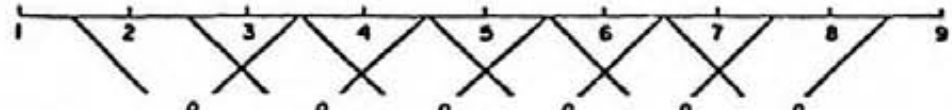
PHOENIX GEOPHYSICS LIMITED.

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



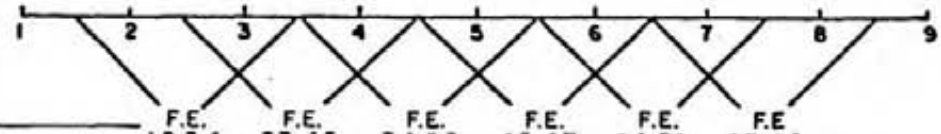
Stations on line

x = Electrode spread length
n = Electrode separation



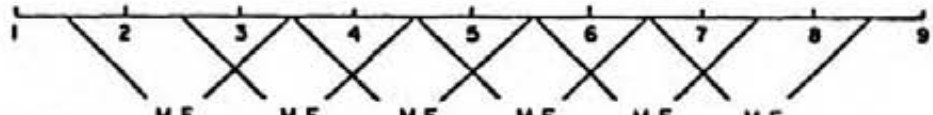
n - 1	ρ 1,2-3,4	ρ 2,3-4,5	ρ 3,4-5,6	ρ 4,5-6,7	ρ 5,6-7,8	ρ 6,7-8,9
n - 2	ρ 1,2-4,5	ρ 2,3-5,6	ρ 3,4-6,7	ρ 4,5-7,8	ρ 5,6-8,9	
n - 3	ρ 1,2-5,6	ρ 2,3-6,7	ρ 3,4-7,8	ρ 4,5-8,9		
n - 4	ρ 1,2-6,7	ρ 2,3-7,8	ρ 3,4-8,9			

Apparent Resistivity



n - 1	F.E. 1,2-3,4	F.E. 2,3-4,5	F.E. 3,4-5,6	F.E. 4,5-6,7	F.E. 5,6-7,8	F.E 6,7-8,9
n - 2	F.E. 1,2-4,5	F.E. 2,3-5,6	F.E. 3,4-6,7	F.E. 4,5-7,8	F.E 5,6-8,9	
n - 3	F.E. 1,2-5,6	F.E. 2,3-6,7	F.E. 3,4-7,8	F.E. 4,5-8,9		
n - 4	F.E. 1,2-6,7	F.E. 2,3-7,8	F.E. 3,4-8,9			

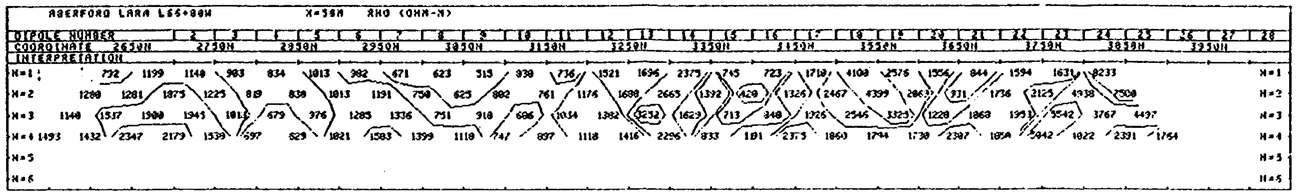
Apparent Percent Frequency Effect

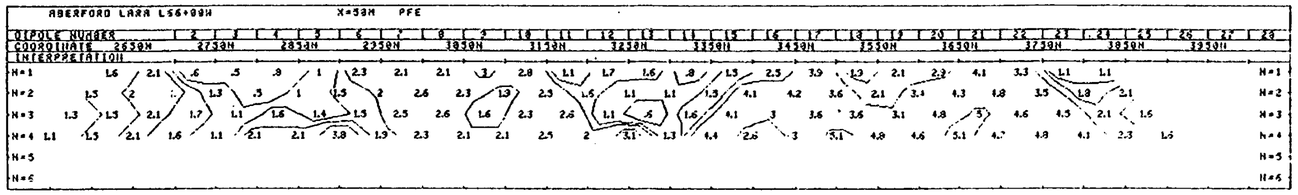


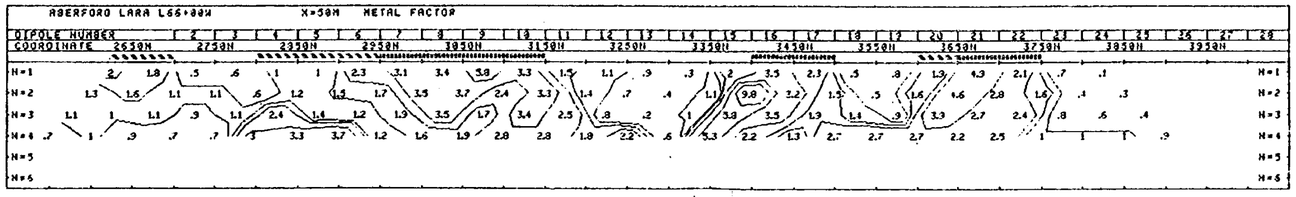
n - 1	M.F. 1,2-3,4	M.F. 2,3-4,5	M.F. 3,4-5,6	M.F. 4,5-6,7	M.F. 5,6-7,8	M.F. 6,7-8,9
n - 2	M.F. 1,2-4,5	M.F. 2,3-5,6	M.F. 3,4-6,7	M.F. 4,5-7,8	M.F. 5,6-8,9	
n - 3	M.F. 1,2-5,6	M.F. 2,3-6,7	M.F. 3,4-7,8	M.F. 4,5-8,9		
n - 4	M.F. 1,2-6,7	M.F. 2,3-7,8	M.F. 3,4-8,9			

Apparent Metal Factor

Fig. A







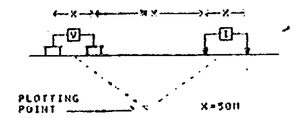
DWG NO.-E P-5829-3

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D. / B.C.

LINE NO -56+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ) 4.0HZ/0.25HZ

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

DATE SURVEYED OCT-NOV 1982

APPROVED

PAC

DATE FEB.14/83

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

1
1
1
2
3

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ASSESSMENT REPORT

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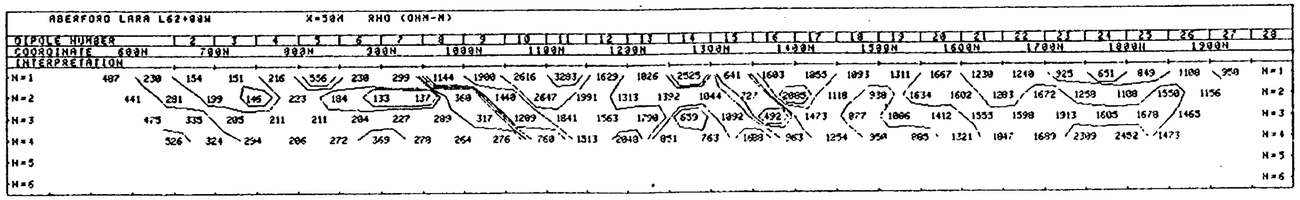
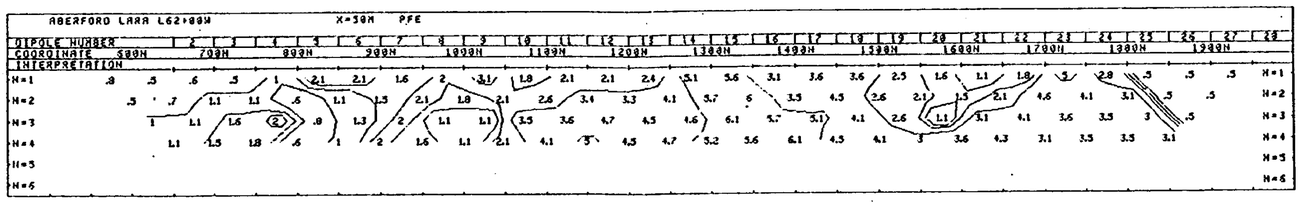
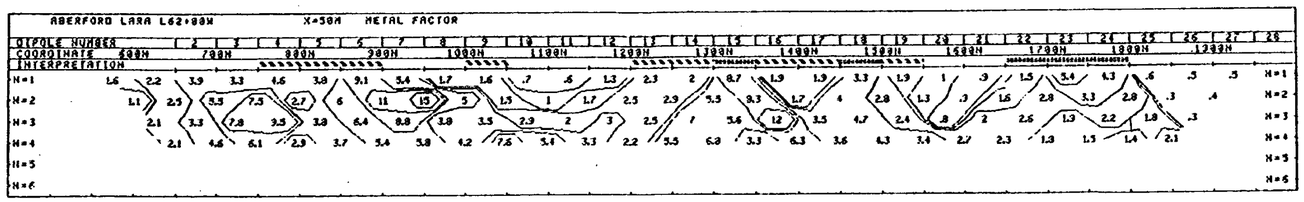






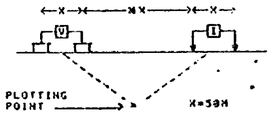
DWG NO.-E P-5829-4

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D. / B.C.

LINE NO -62+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ) 4.0HZ/0.25HZ

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

DATE SURVEYED OCT-NOV 1982

APPROVED

PAC

DATE FEB. 14/83

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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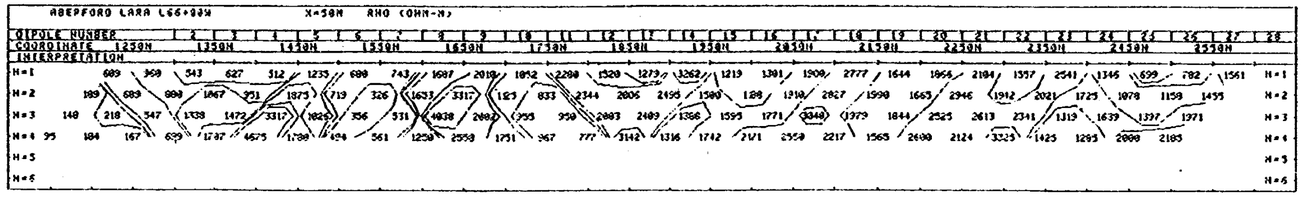
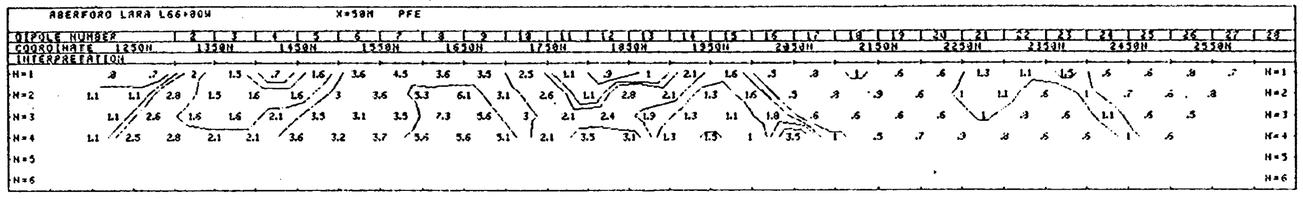
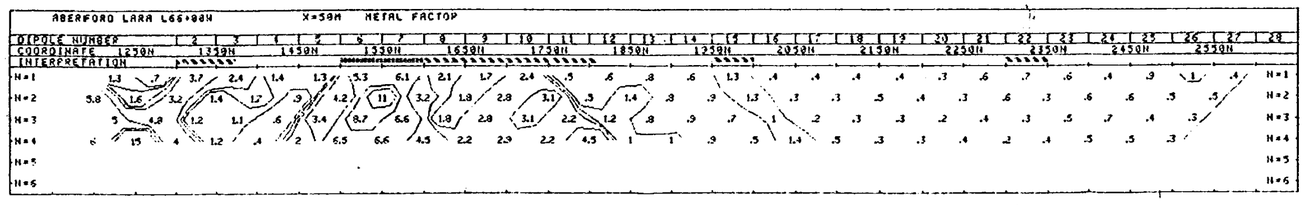
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,123
Part 3
of 4







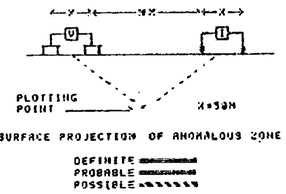
DWG. NO -1 P-3823-2

ABERFORD RESOURCES LTD.

LAPA PROPERTY

VICTORIA M.D. B.C.

LINE NO -66+00N



FREQUENCY (HERTZ) 4.0HZ/0.25HZ

DATE SURVEYED OCT-NOV 1982

APPROVED PAK

DATE Feb. 14/83

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

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

1 1 1 2 3

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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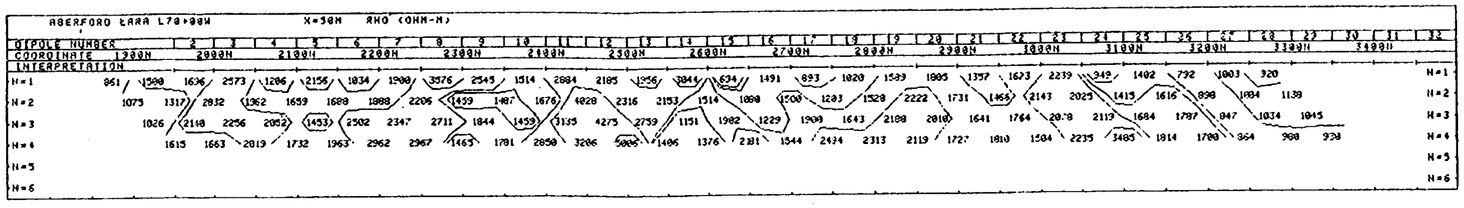
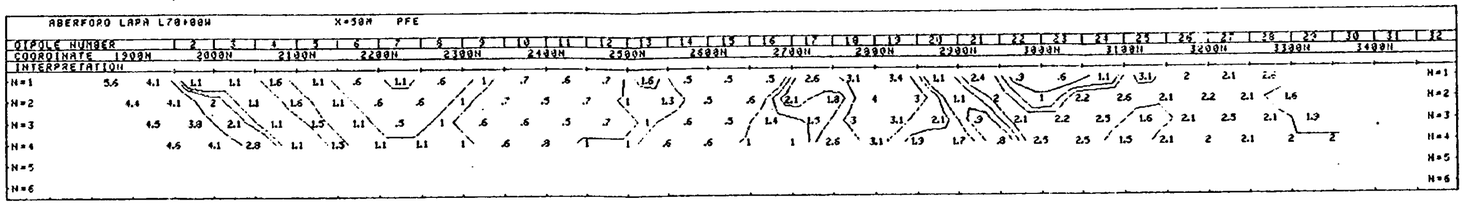
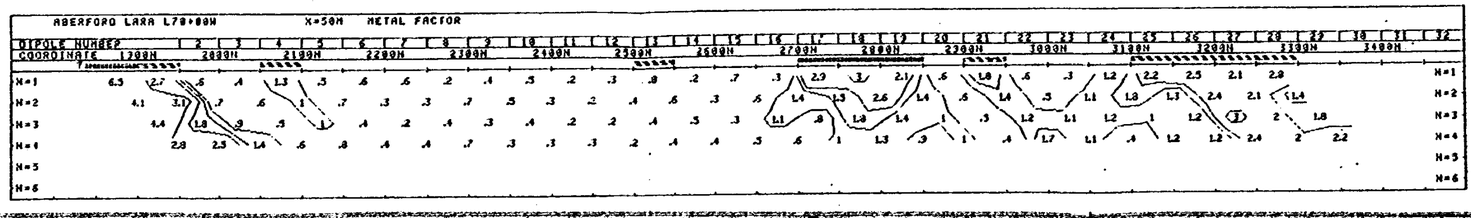
of 4







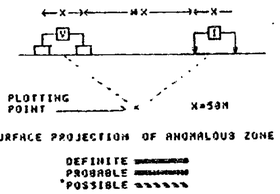
DWG NO -1 P-3823-1

ABERFORD RESOURCES LTD.

LAPA PROPERTY

VICTORIA M.D. B.C.

LINE NO -70+00N



FREQUENCY (HERTZ) 4.0HZ/0.25HZ

DATE SURVEYED OCT-NOV 1982

APPROVED PAK

DATE Feb. 14/83

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

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,123

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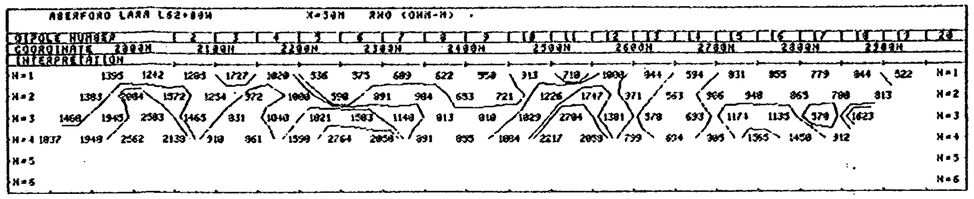

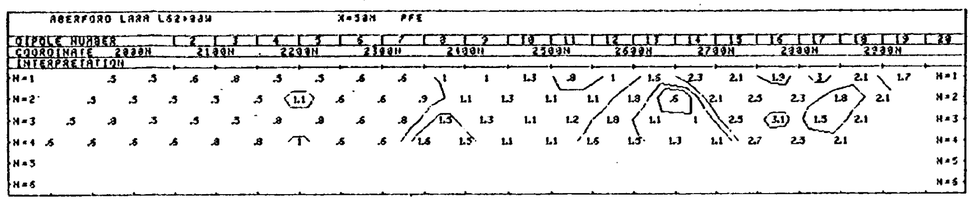

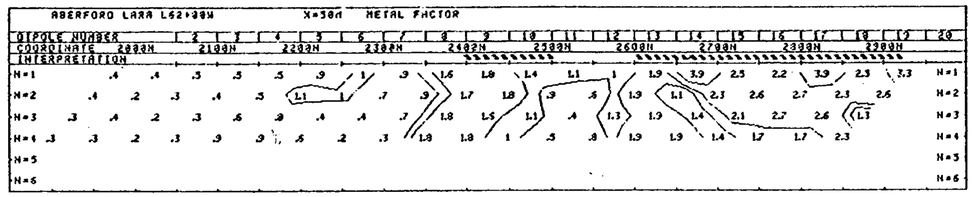

DWG NO.-I.P.-5929-5

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

LINE NO -62+88W

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1
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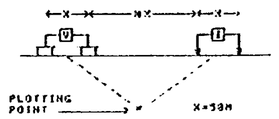
3



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ

DATE SURVEYED OCT-NOV 1982

APPROVED

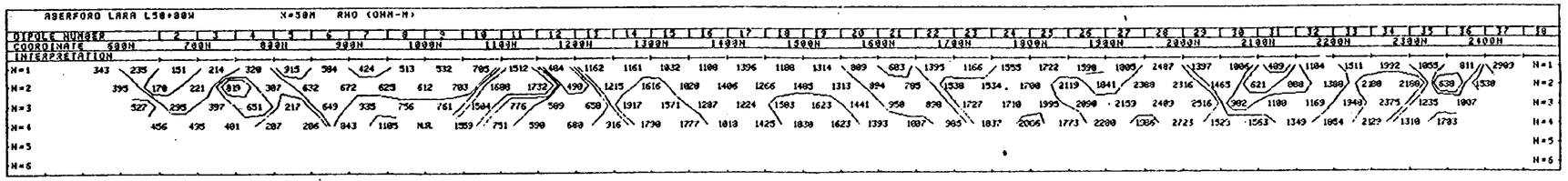
NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5 -2.-3.-5.-7.5.-10

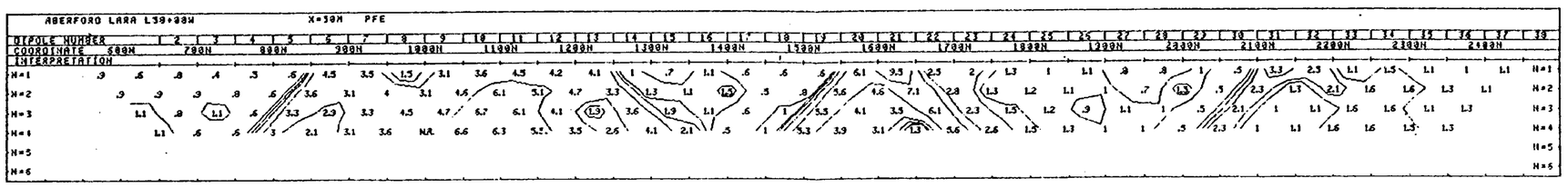
DATE FEB. 14/83

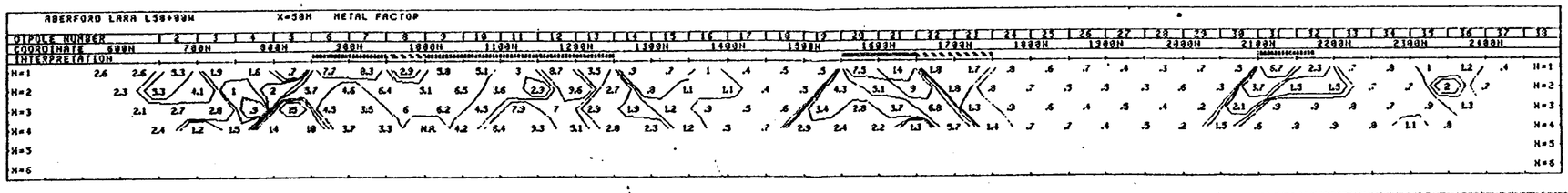
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







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part 3 of 4

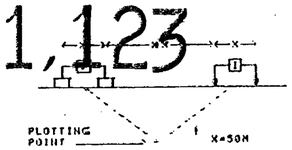
ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,123



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ

DATE SURVEYED OCT-NOV 1982

APPROVED

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

DATE FEB. 14/83

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

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1
1
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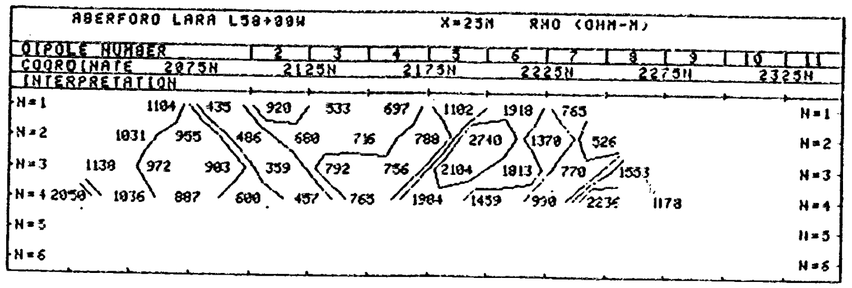
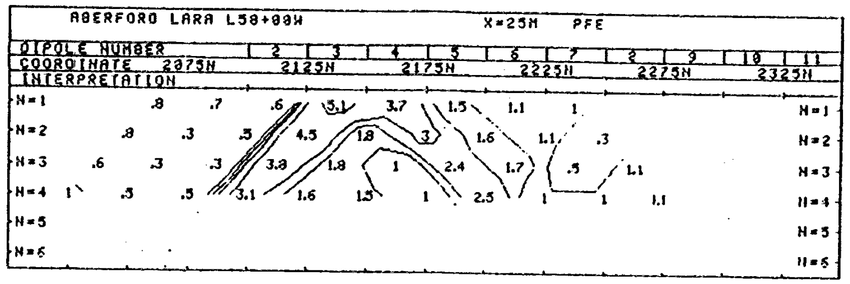
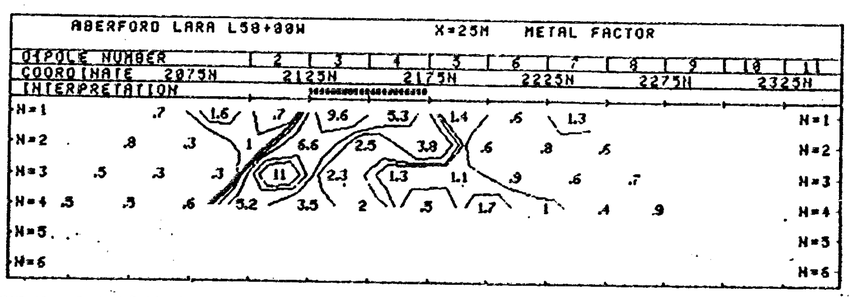






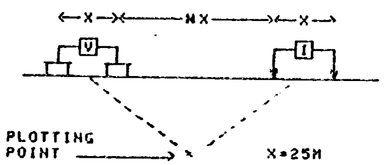
DWG. NO.-I.P.-5829-9

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D. B.C.

LINE NO -58+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
1.0HZ; 0.25HZ

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

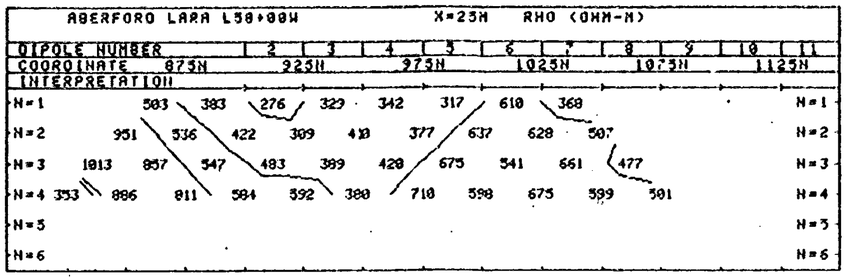
PAC

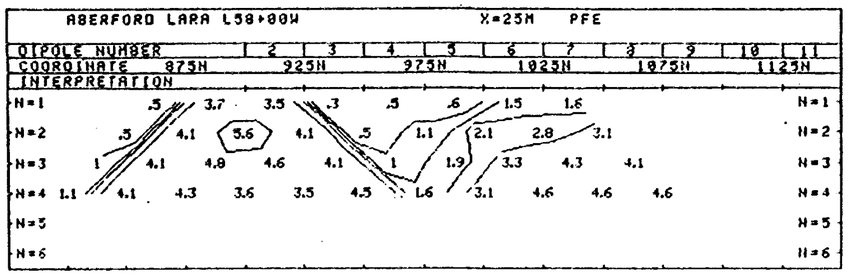
DATE FEB.14/83

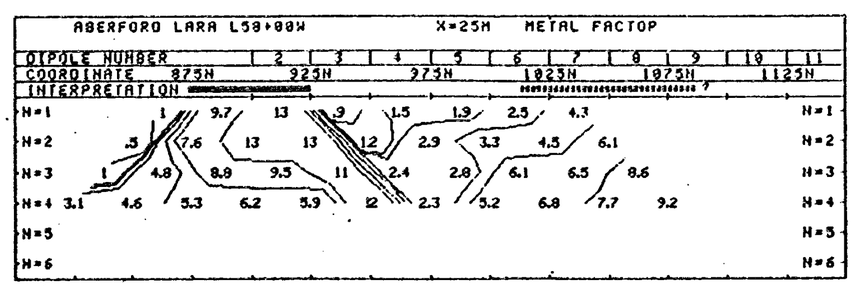
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







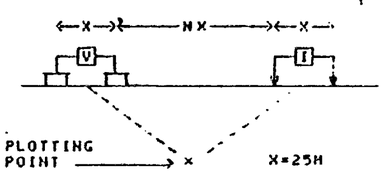
DWG. NO.-I.P-5829-T

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

LINE NO -58+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ, 0 25HZ

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

DATE SURVEYED OCT-NOV 1982

APPROVED

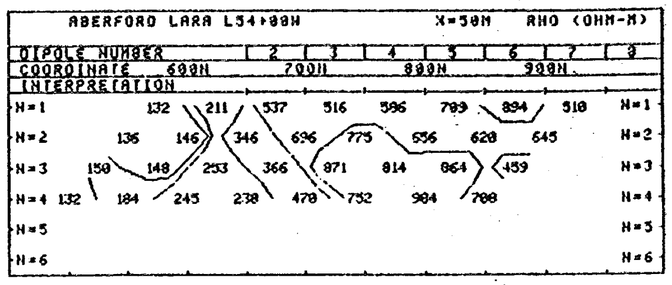
PAC

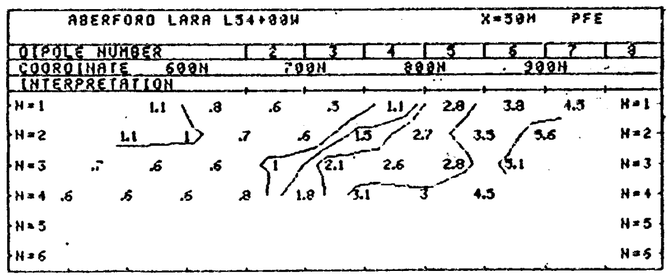
DATE FEB. 14/83

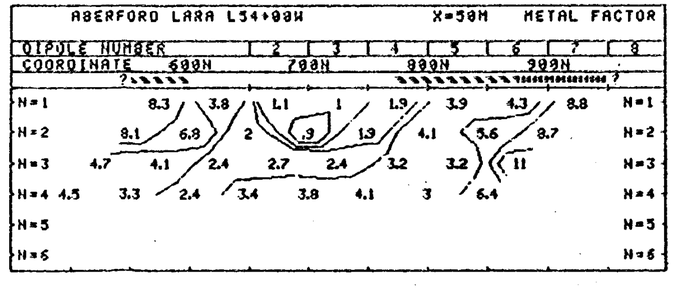
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







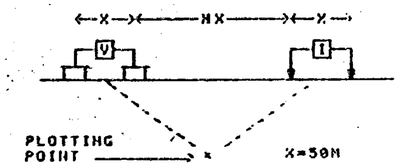
DWG. NO.-I.P-5829-10

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D./B.C

LINE NO -54+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ.

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

DATE SURVEYED OCT-NOV 1982

APPROVED

PAC

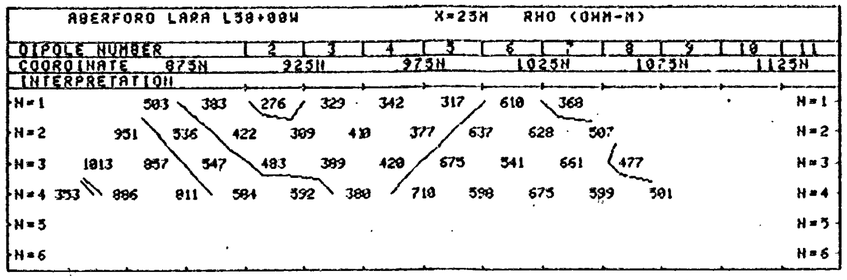
DATE FEB. 14/83

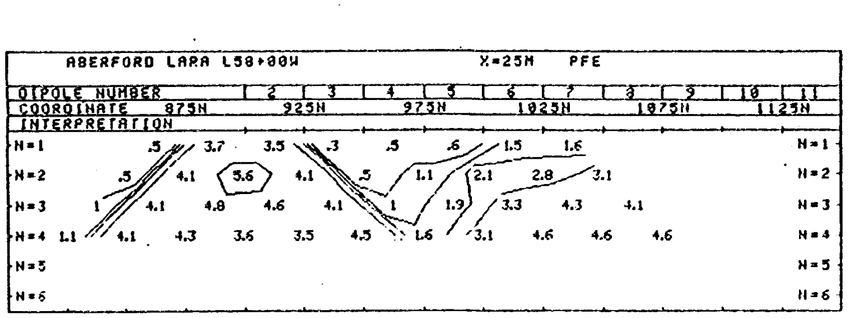
PHOENIX GEOPHYSICS LTD.

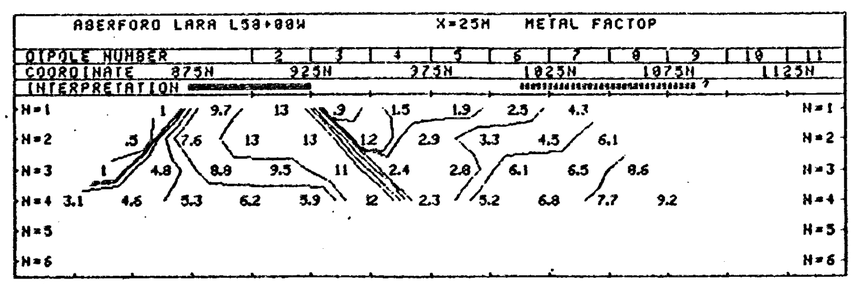
INDUCED POLARIZATION

AND RESISTIVITY SURVEY

Part 3 of 4







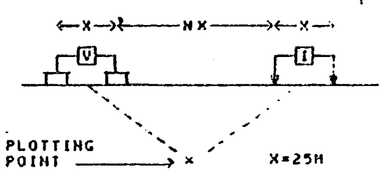
DWG. NO.-I.P-5829-7

ABERFORD RESOURCES LTD.

LARA PROPEPTY

VICTORIA M.D., B.C.

LINE NO -58+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ, 0 25HZ

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

DATE SURVEYED OCT-NOV 1982

APPROVED

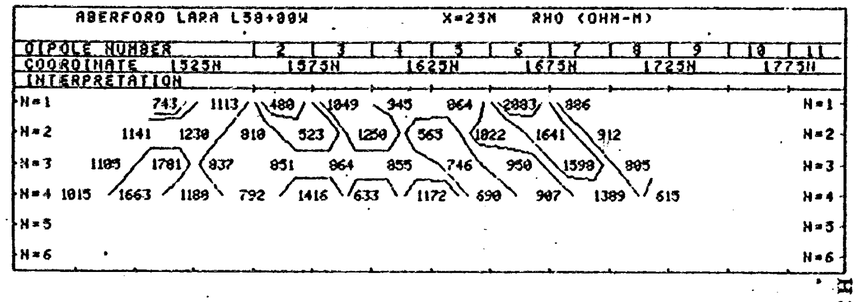
PAC

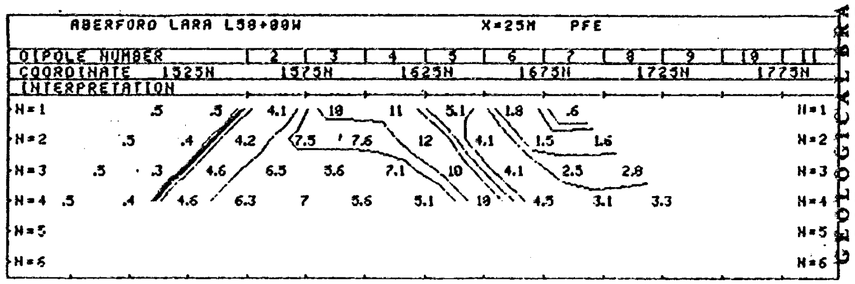
DATE FEB. 14/83

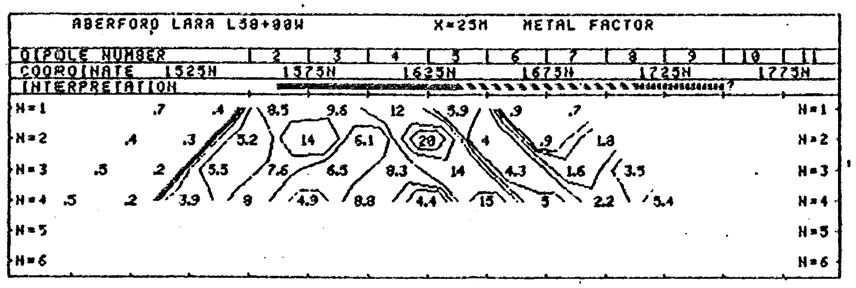
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







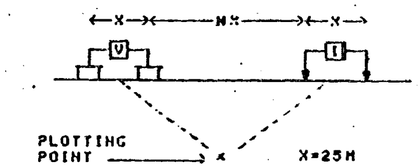
DWG. NO.-I.P.-5829-8

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D.,B.C.

LINE NO -58+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ;0.25HZ

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

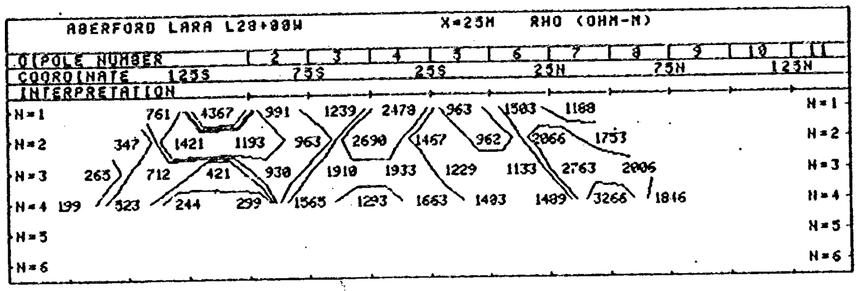
DAC

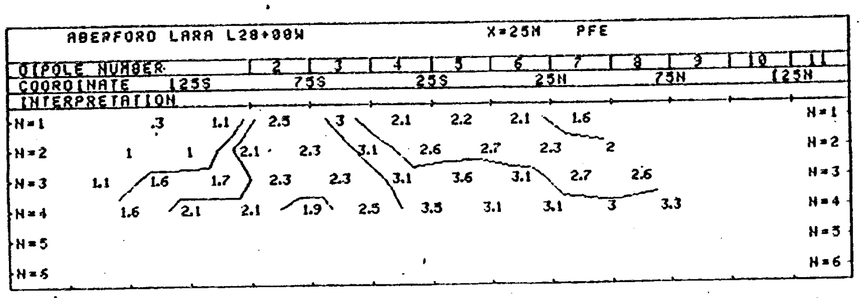
DATE FEB. 14/83

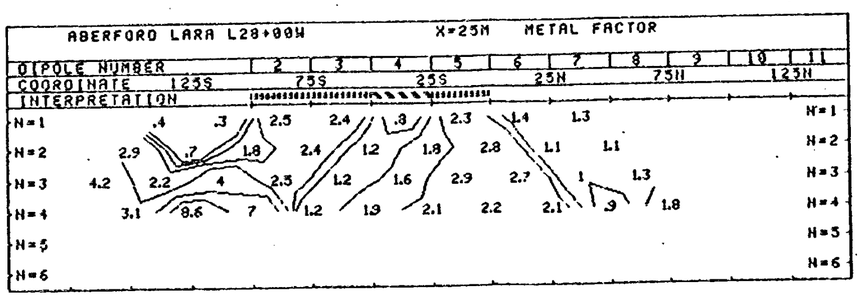
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







Part 3 of 4

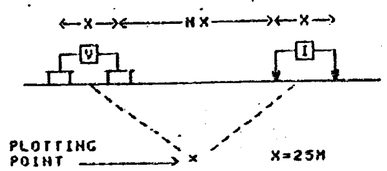
DWG. NO.-I.P.-5829-18

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D.,B.C.

LINE NO -28+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ;0.25HZ

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

DATE SURVEYED OCT-NOV 1982

APPROVED

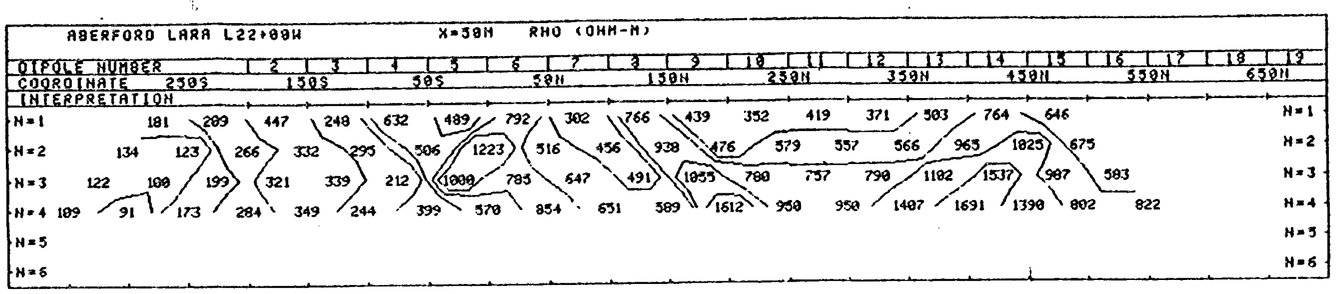
Pac

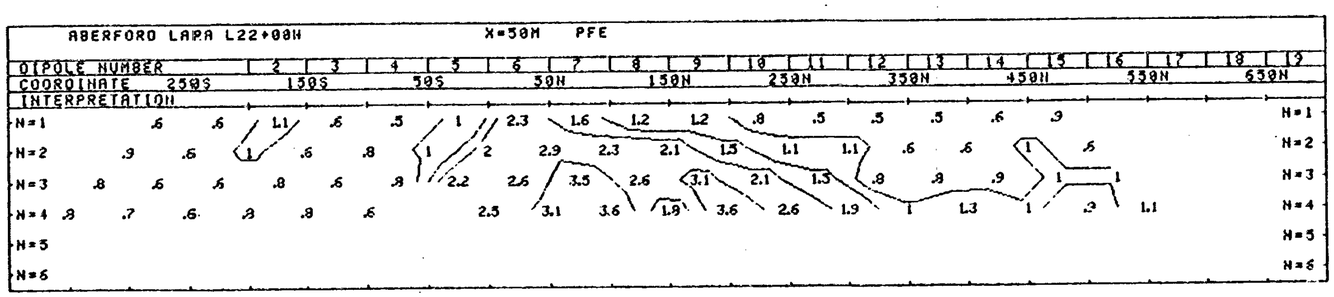
DATE FEB.14/83

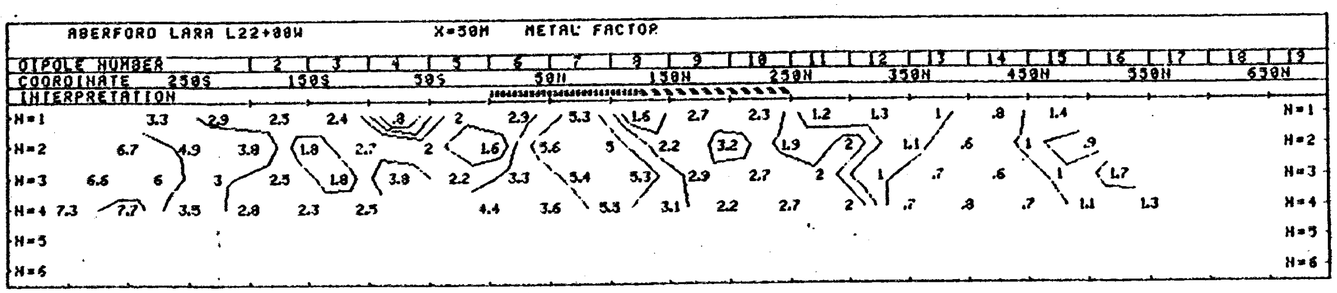
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY





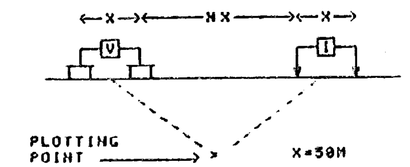


ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D./B.C

LINE NO -22+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ;0.25HZ.

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

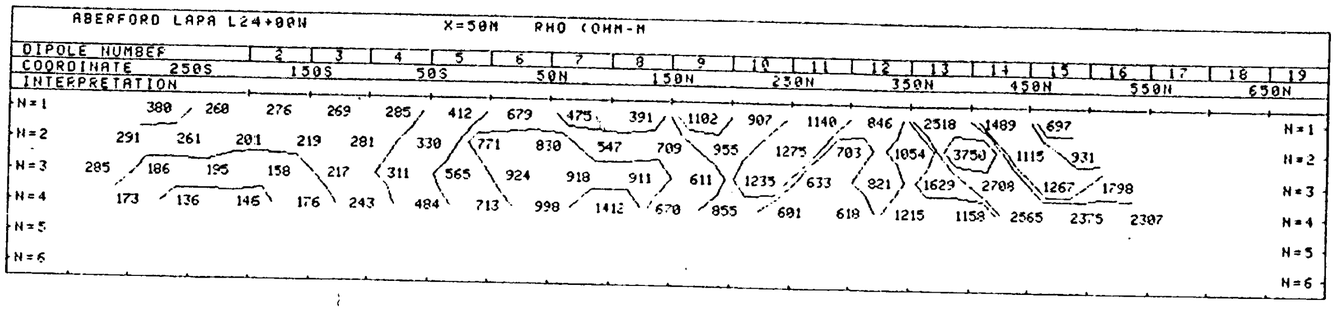
Pac

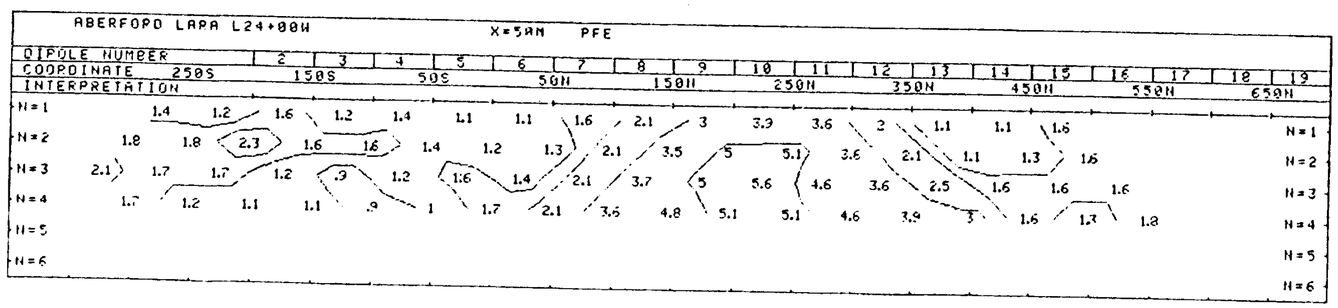
DATE FEB. 14/83

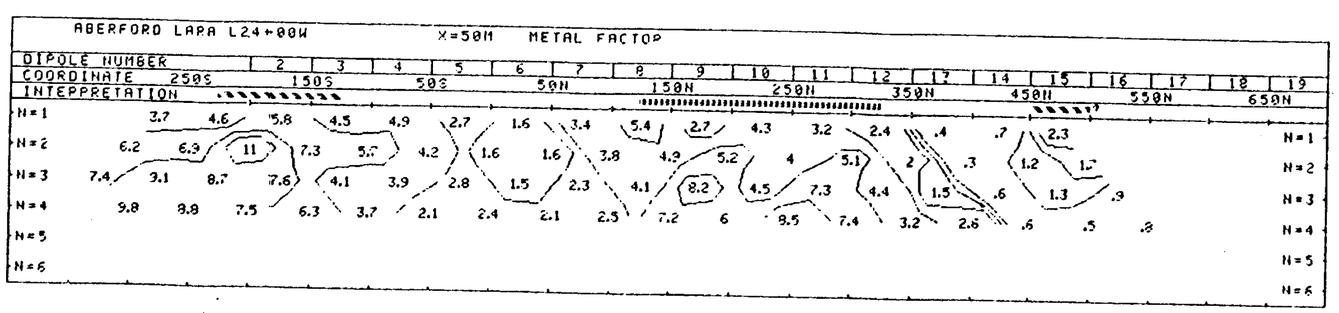
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SUPVEY







DWG NO -I.P.-5829-2

ABERFORD RESOURCES LTD.

LAPA PROPERTY

VICTORIA M.D ,B.C

LINE NO -24+00W

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4 0HZ:0.25HZ

NOTE- CONTOURS AT LOGARITHMIC INTERVALS. 1,-1.5 -2,-3,-5,-7 5,-10

DATE SURVEYED OCT-NOV 198

APPROVED

PAC

DATE FEB 14/83

Part 3 of 4

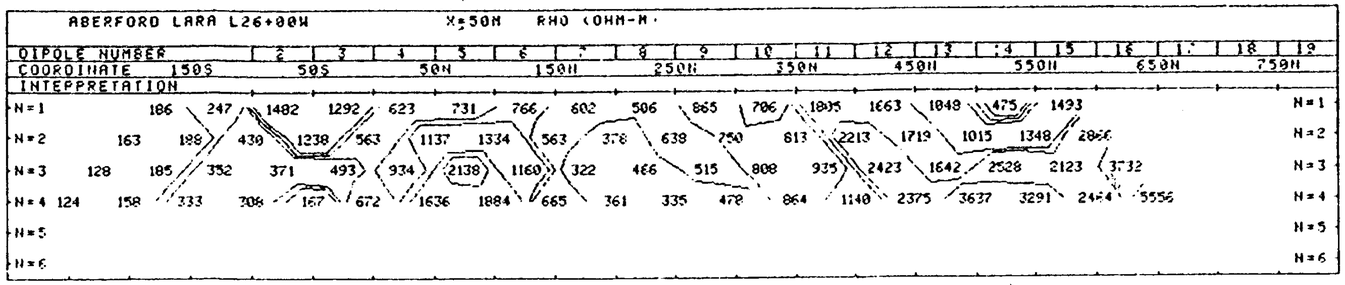
PHOENIX GEOPHYSICS LTD.

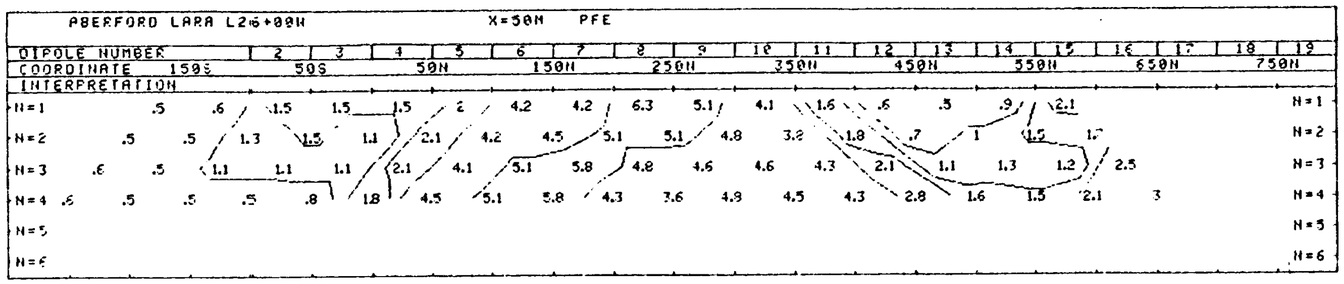
INDUCED POLARIZATION

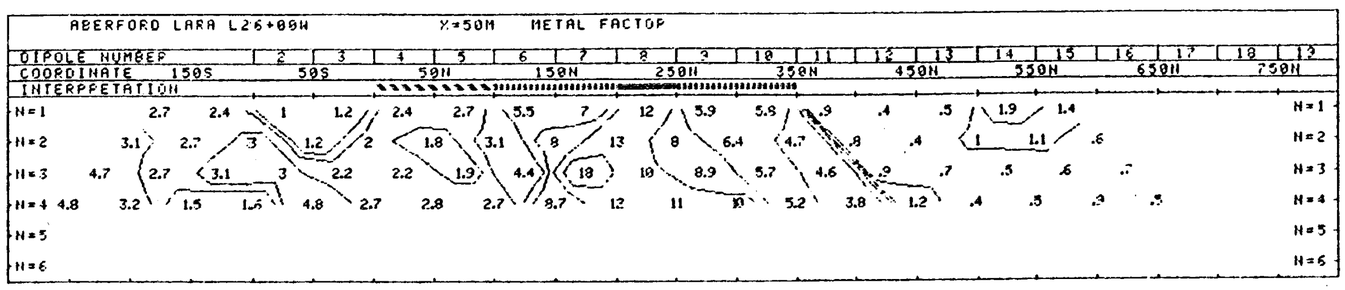
AND RESISTIVITY SURVEY

1123

DWG NO -I P-5829-19







ABERFORD RESOURCES LTD

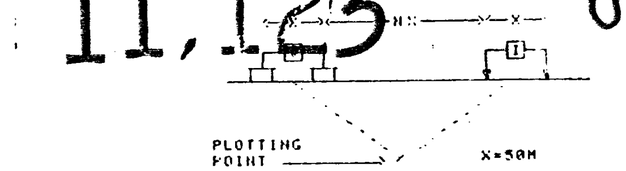
LARA PROPERTY

VICTORIA M.D., B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT NO. 26+00N

11,123

part 3 of 4



• SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.8HZ/0.25HZ.

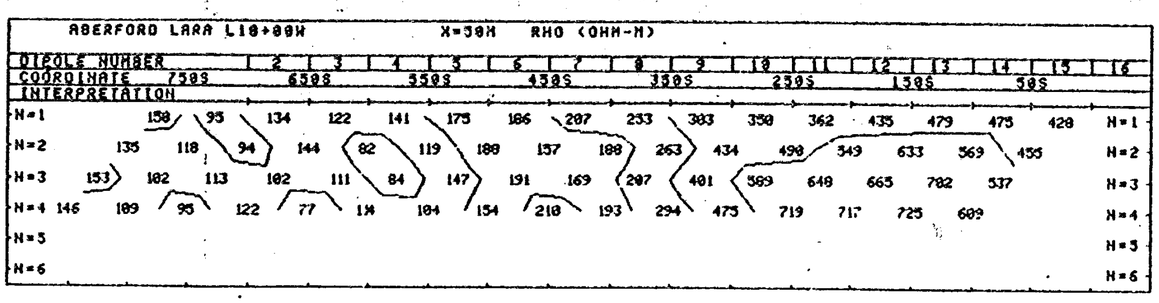
NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5 -2,-3,-5,-7.5,-10

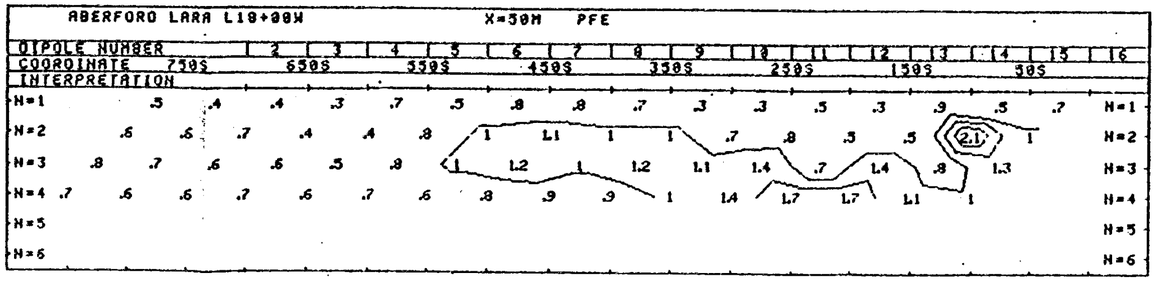
DATE SURVEYED OCT-NOV
APPROVED
PAC
DATE Feb. 14/83

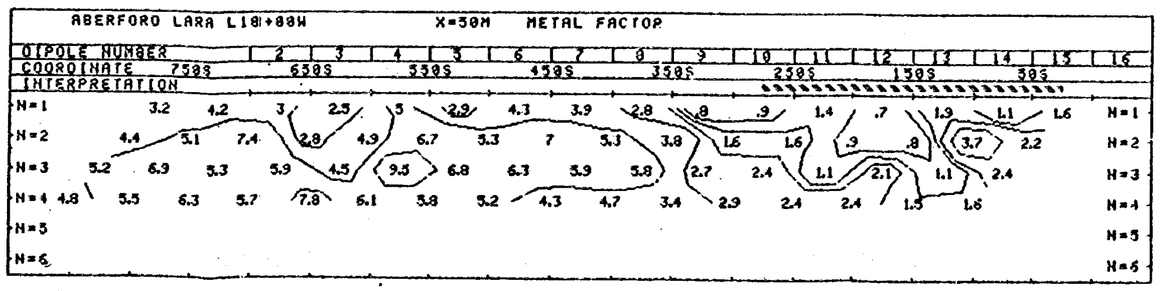
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







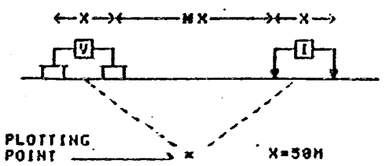
DWG. NO.-I.P.-5023-22

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

LINE NO.-18+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ.

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

PAC

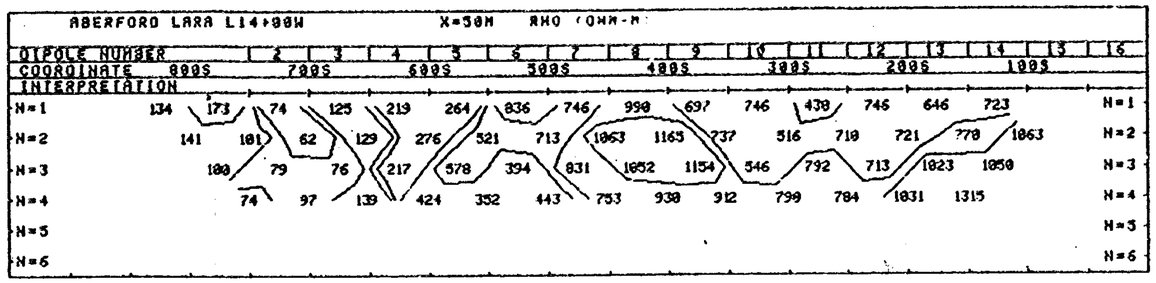
DATE FEB. 14/83

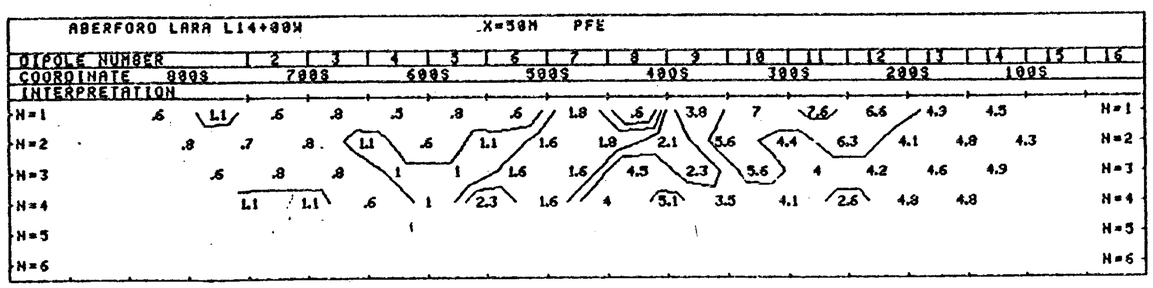
PHOENIX GEOPHYSICS LTD.

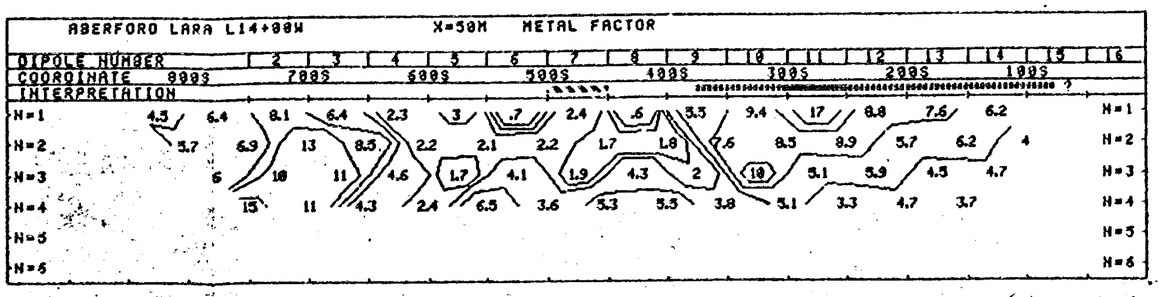
INDUCED POLARIZATION

AND RESISTIVITY SURVEY

DWG. NO.-I.P.-5829-23





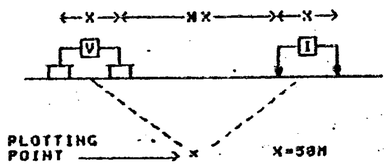


ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

LINE NO.-14+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ:0.25HZ.

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

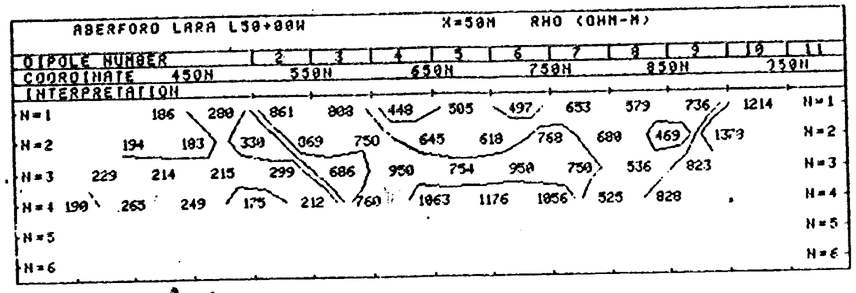
Pac

DATE FEB. 14/83

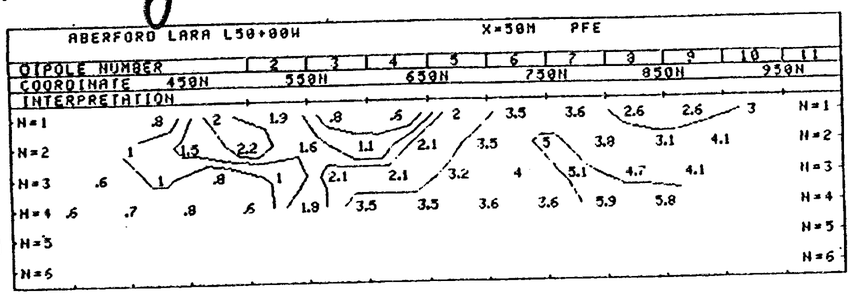
PHOENIX GEOPHYSICS LTD.

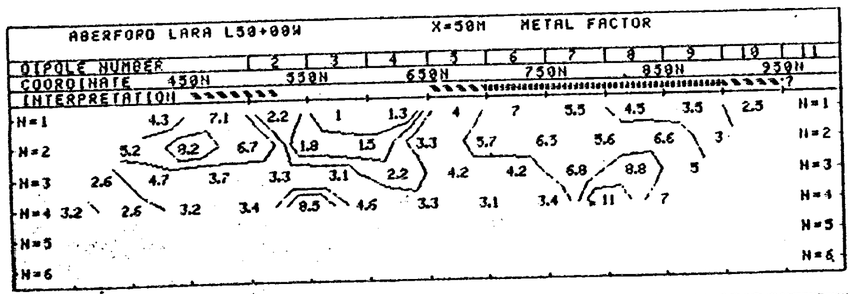
INDUCED POLARIZATION

AND RESISTIVITY SURVEY



part 3 of 4





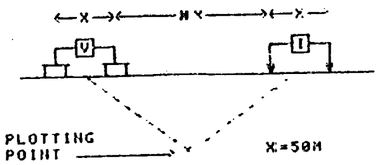
DWG. NO.-I.P.-5829-11

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

LINE NO -50+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ;0.25HZ.

DATE SURVEYED OCT-NOV 1982

APPROVED

PAC

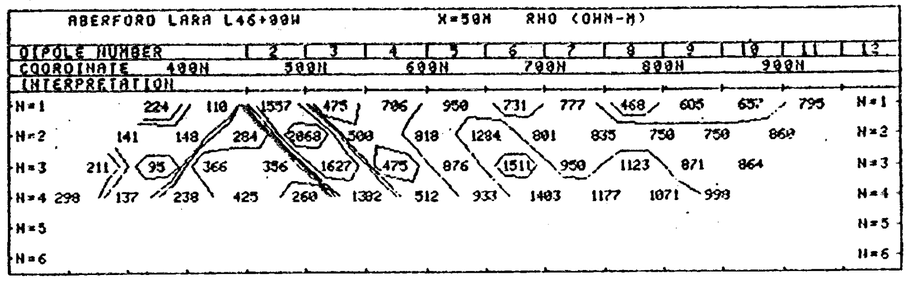
NOTE- CONTOURS AT LOGAPITHMIC INTEPVALS. 1,-1.5 -2,-3,-5,-7.5,-10

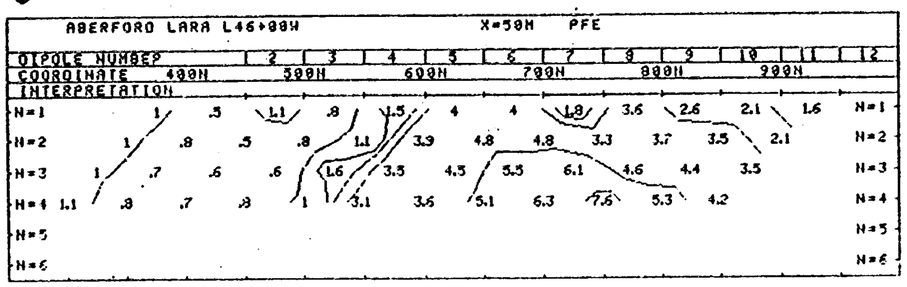
DATE FEB. 14/83

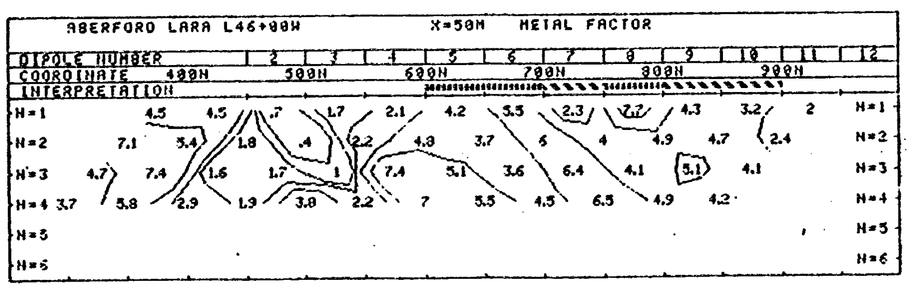
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







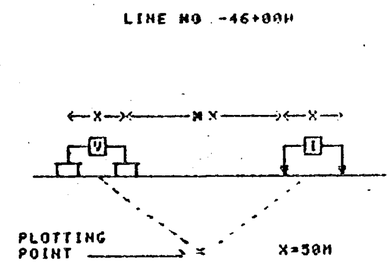
DWG. NO -I.P.-5829-12

ABERFORD RESOURCES LTD.

LAPA PROPERTY

VICTORIA M.D., B.C.

LINE NO. -46+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ.

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

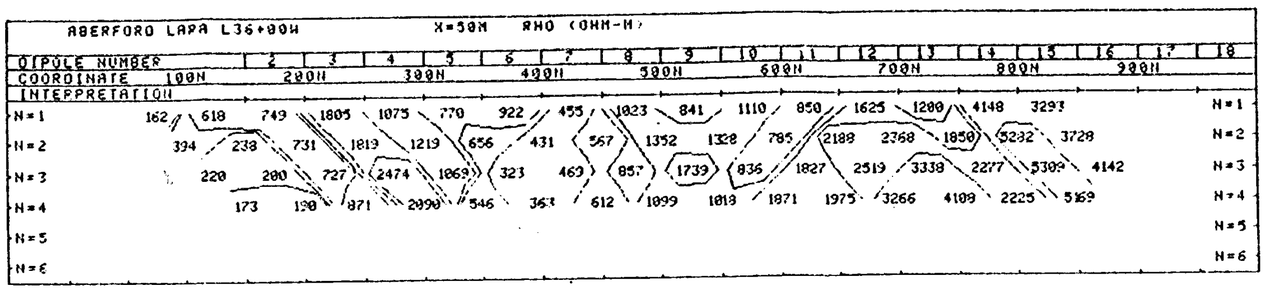
DAC

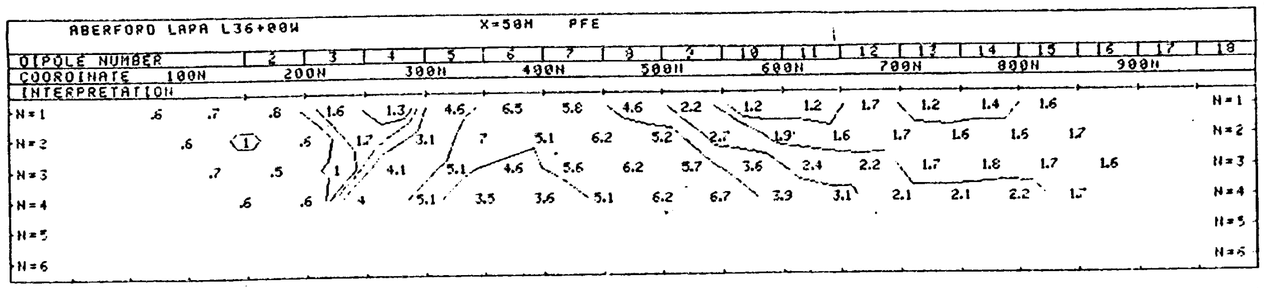
DATE FEB. 14/83

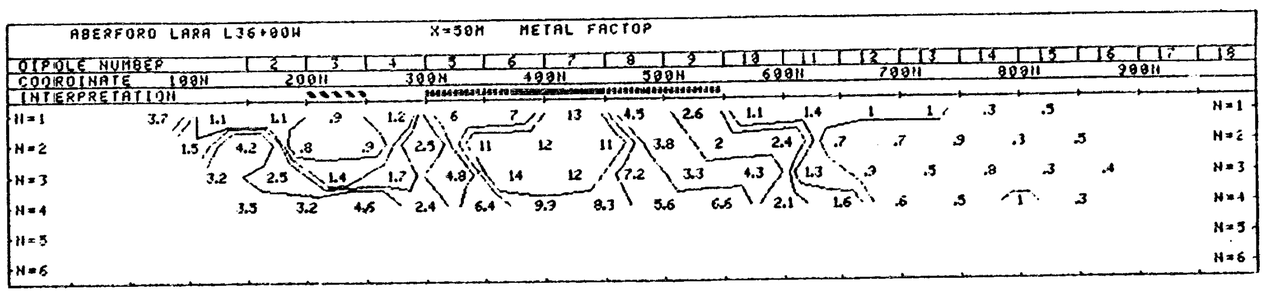
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







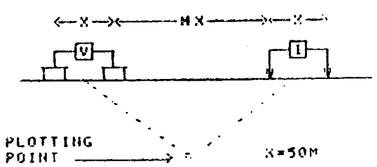
DWG. NO -I.P.-5829-15

ABERFORD RESOURCES LTD.

LAPA PROPERTY

VICTORIA M.D., B.C.

LINE NO -36+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ.

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

PAC

DATE FEB. 14/83

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

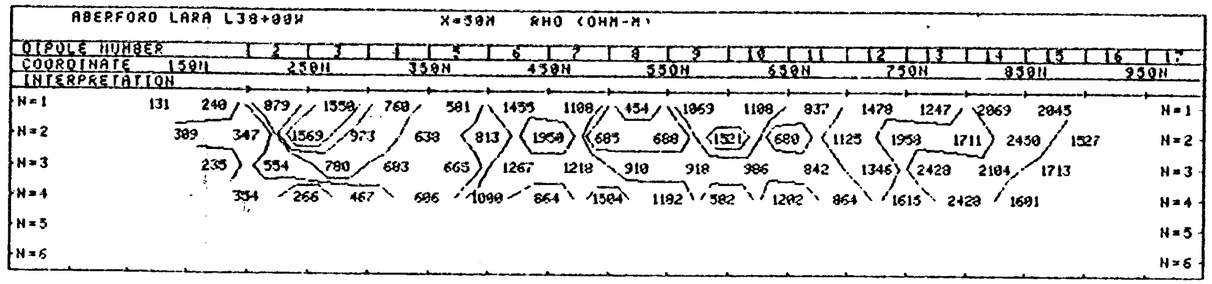
AND RESISTIVITY SURVEY

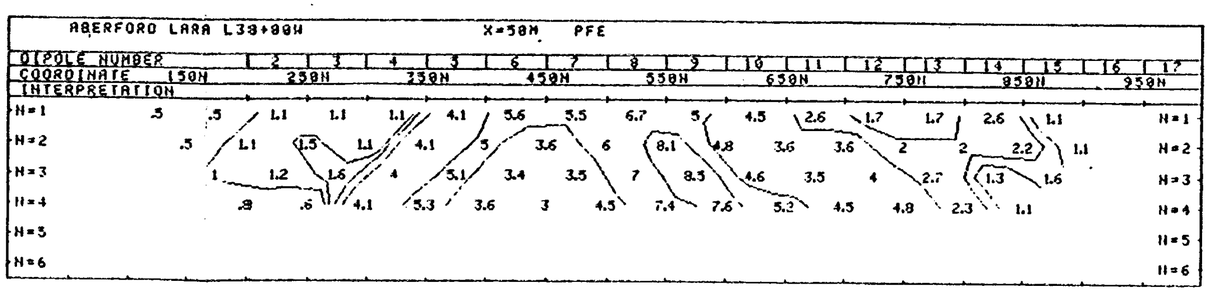
Part 3 of 4

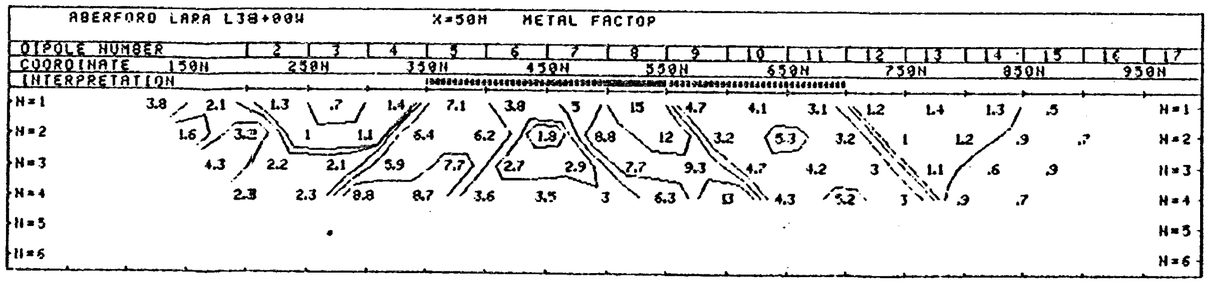
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,123

1
1
1
2
3







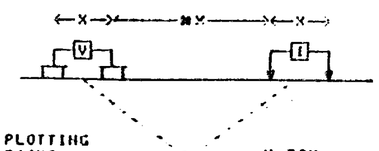
DWG. NO.-I P.-5829-14

ABERFORD RESOURCES LTD.

LAPA PROPERTY

VICTORIA M.D., B.C.

LINE NO -38+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4 0HZ/0 25HZ

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

DATE SURVEYED OCT-NOV 1982

APPROVED

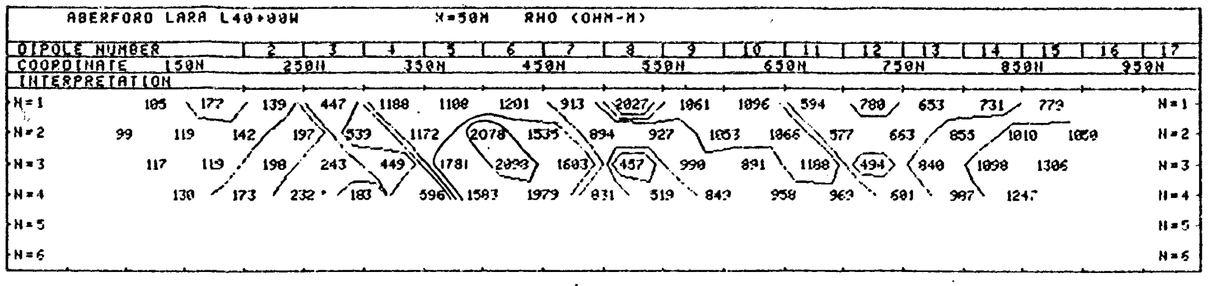
PAC

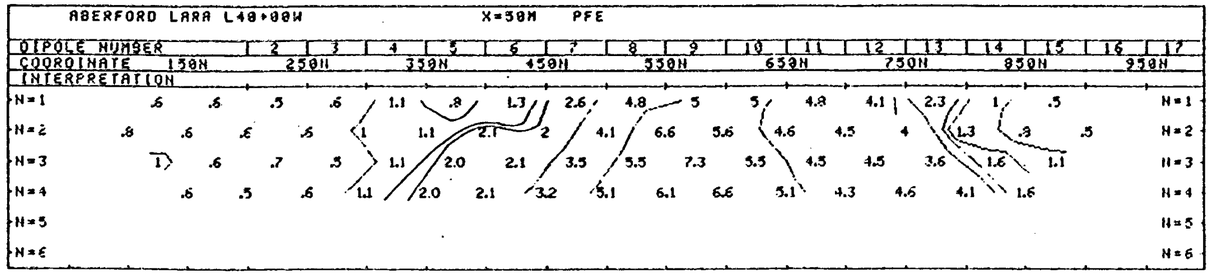
DATE FEB. 14/83

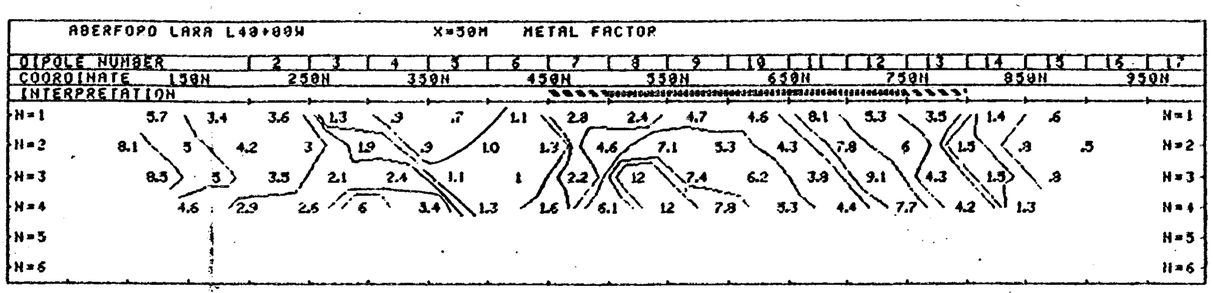
PHOENIX GEOPHYSICS LTD.

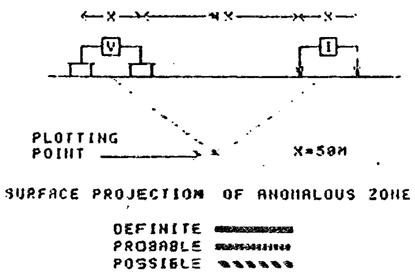
INDUCED POLARIZATION

AND RESISTIVITY SURVEY









SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

PAC

DATE FEB. 14/83

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M D ,B.C.

LINE NO -40+00N

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

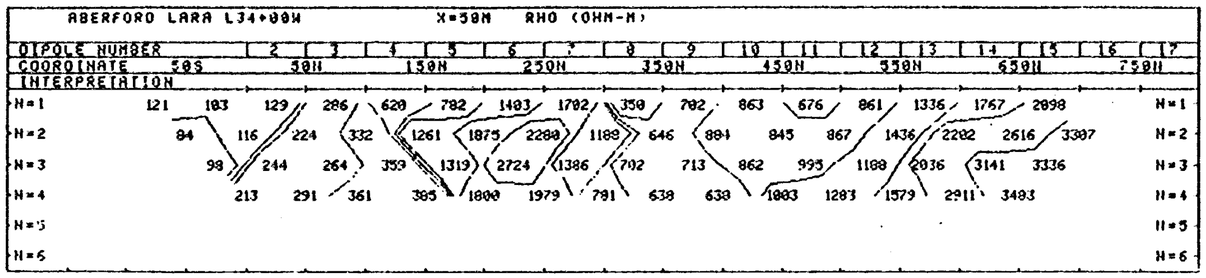
OWG. NO.-I.P.-3829-13

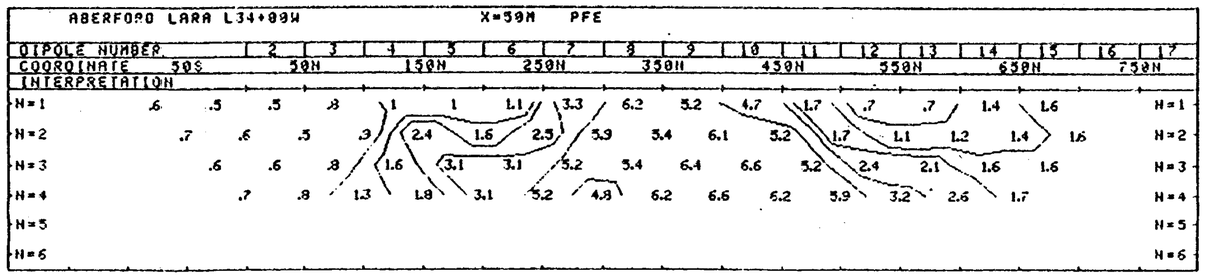
1123

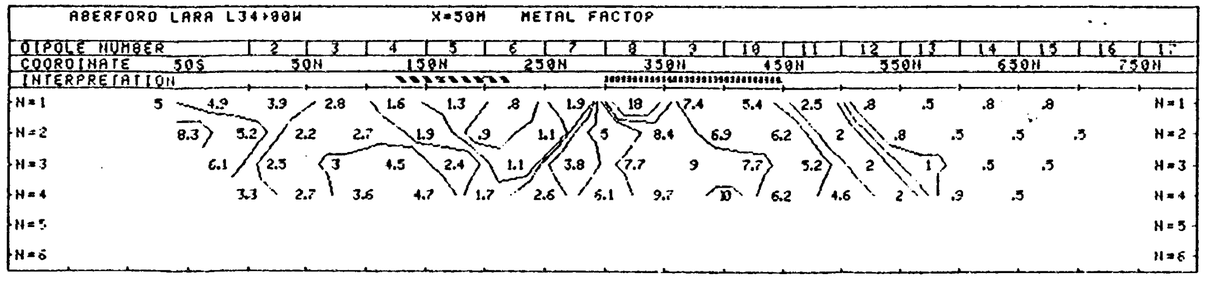
GEOLOGICAL BRANCH
ASSESMENT REPORT

11,123

Part 3
of 4







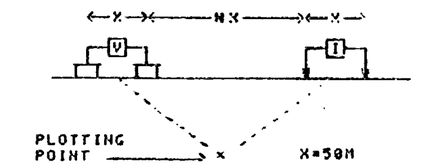
DWG. NO.-I.P.-5829-16

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C

LINE NO -34+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ/0.25HZ.

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

DATE SURVEYED OCT-NOV 1982
APPROVED

PAC

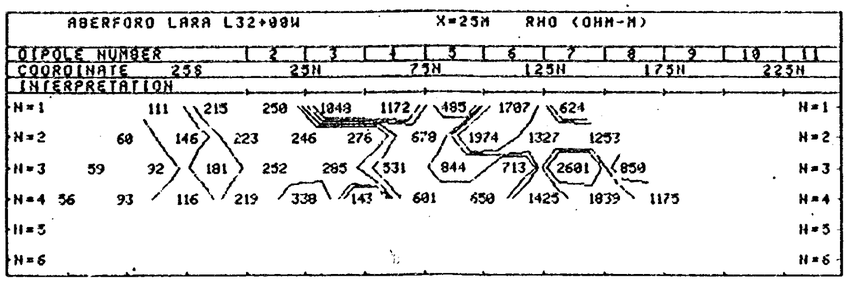
DATE Feb. 14/83

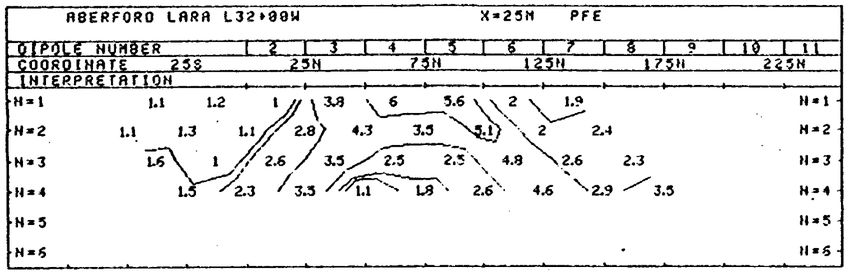
PHOENIX GEOPHYSICS LTD.

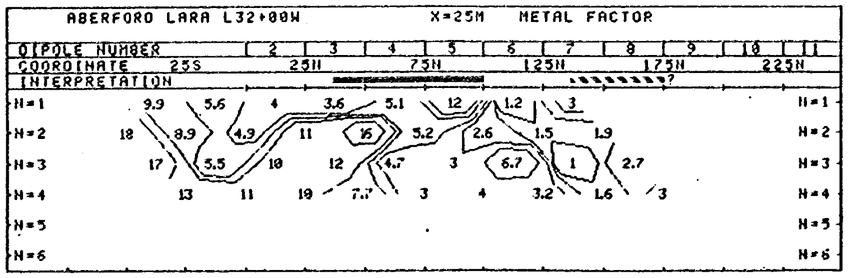
INDUCED POLARIZATION

AND RESISTIVITY SURVEY

1
1
1
2
3







Part 3
of 4

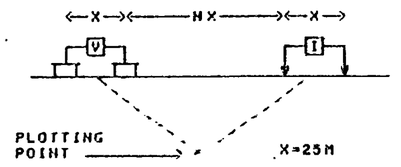
DWG. NO.-E.P.-5829-17

ABERFORD RESOURCES LTD.

LARA PROPERTY

VICTORIA M.D., B.C.

LINE NO.-32+00W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4.0HZ;0.25HZ.

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

DATE SURVEYED: OCT-NOV 1982

APPROVED

PAC

DATE FEB. 14/83

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,123