83-#206-#11163

PHOENIX GEOPHYSICS LIMITED

REPORT ON THE

INDUCED POLARIZATION AND RESISTIVITY SURVEY AND TOTAL FIELD MAGNETIC SURVEY

ON THE JACKPOT PROJECT

NELSON MINING DIVISION

PROVINCE OF BRITISH COLUMBIA

FOR

NEW JERSEY ZINC EXPLORATION COMPANY (CANADA) LIMITED

N.T.S. 82F/3

LATITUDE: 49°15' LONGITUDE: 117°09'

BY

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OCTOBER 13, 1981

TABLE OF CONTENTS

1) INTRODUCTION

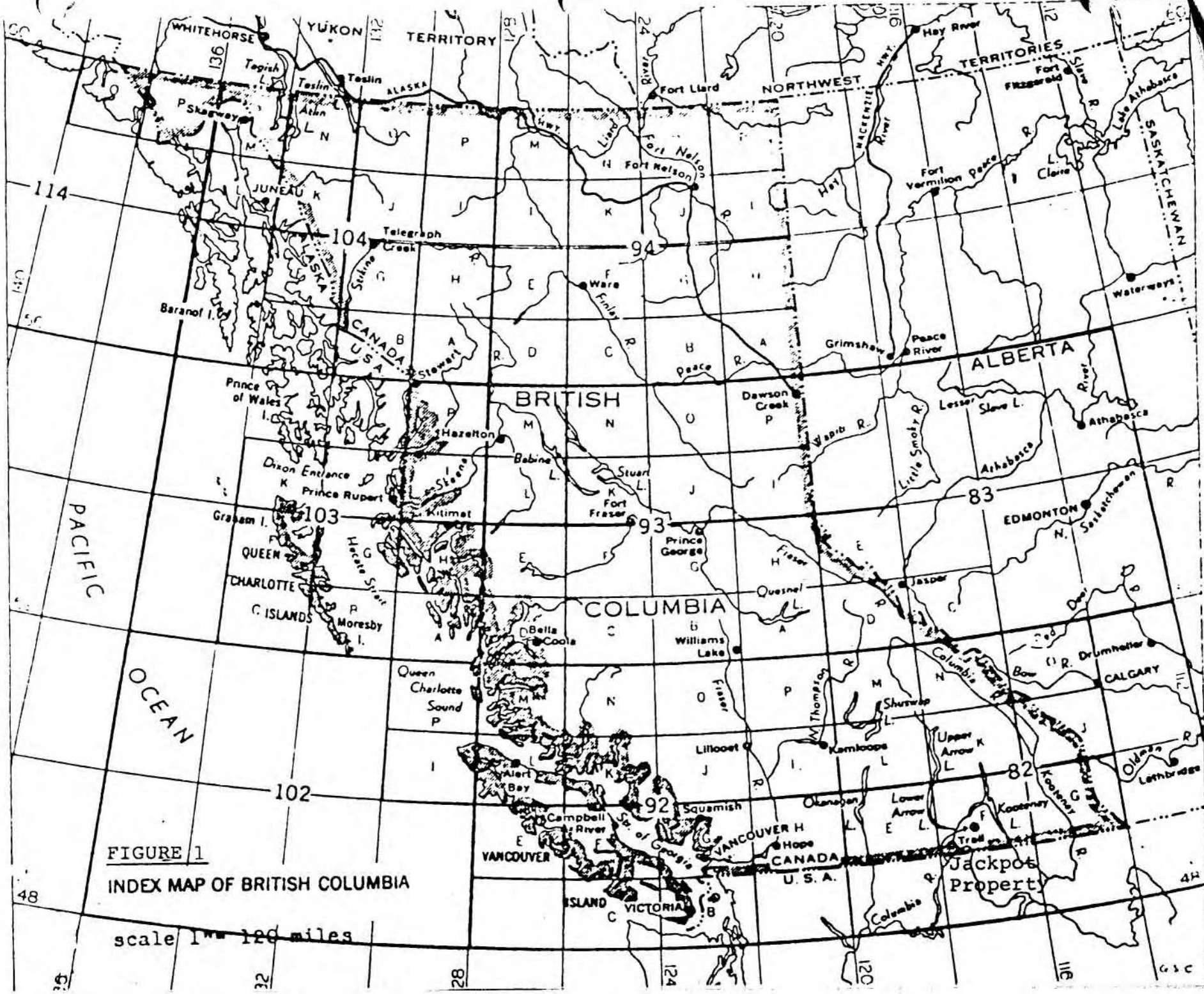
An Induced Polarization and Resistivity Survey has been carried out on the Jackpot Project Grid, in conjunction with a Total Field Magnetic Survey, on behalf of New Jersey Zinc Exploration Company (Canada) Limited.

The Jackpot property is situated approximately 10 kilometers northeast of the community of Salmo, B.C. Access is by all-weather paved highway to a point roughly 3 kilometers south of Ymir, B.C. A bush road then leads 7 to 8 kilometers east to the area of interest.

The claims are underlain by isoclinally folded Lower Cambrian carbonate rocks of the Mural Formation in the South Kootenay Arc.

Two main types of mineralization are present on the claim group; silver-gold together with lead-zinc mineralization is associated with limestone on the west part of the property, while lead-zinc mineralization associated with dolomite occurs on the central and eastern parts of the property. The objective of the present geophysical surveys was to outline any possible extensions of known precious metal occurrences, as well as to detect any previously undiscovered silver-gold deposits. Dolomite hosted lead-zinc mineralization was of secondary importance.

Field work was completed during June and July, 1981 under the supervision of Mr. David Daggett, geophysical crew leader. In addition, P.A. Cartwright visited the project for six days during the course of the surveys.


WHITEHORSE
YUKON TERRITORY
Teslin
ALASKA
Fort Liard
NORTHWEST TERRITORIES
Hay River
Fort Fitzgerald
Skagway
Atlin
Fort Nelson
Fort Vermilion
Peace River
Grimshaw
Waterways
SASKATCHEWAN
JUNEAU
Telegraph Creek
Ware
Stewart
Baranof I.
Prince of Wales I.
Hazelton
Dawson Creek
Peace River
ALBERTA
BRITISH
Dixon Entrance
Prince Rupert
Kitimat
Babine L.
Stuart L.
Fort Fraser
Prince George
Lesser Slave L.
Athabasca
Graham I.
QUEEN CHARLOTTE ISLANDS
Moresby I.
Queen Charlotte Sound
Bella Coola
Williams Lake
Quesnel
Jasper
EDMONTON
COLUMBIA
PACIFIC OCEAN
Alert Bay
Lillooet
Kamloops
Shuswap L.
Upper Arrow L.
Lower Arrow L.
Okanagan L.
Drumheller
CALGARY
Lethbridge
Squamish
Campbell River
VANCOUVER
Hope
CANADA
U.S.A.
Trail
Kootenay L.
Jackpot Property
ISLAND
VICTORIA
Columbia R.
Fraser R.
Thompson R.
Peace R.
Athabasca R.
Slave R.
Liard R.
Mackenzie R.
Stikine R.
Finlay R.
Smoky R.
Little Smoky R.
Wapiti R.
Bow R.
Oldman R.
Red Deer R.
114
104
94
103
93
83
102
92
82
48
FIGURE 1
INDEX MAP OF BRITISH COLUMBIA
scale 1" = 120 miles

Phoenix Model IPV-1 IP and Resistivity Receiver Unit was utilized to make the IP and Resistivity measurements in conjunction with a Phoenix Model IPT-1 IP and Resistivity Transmitter unit operating at 4.0 hertz and 0.25 hertz. Dipole-dipole array was employed throughout with a basic inter-electrode distance of 200 feet being used for the reconnaissance work, while a 100 foot dipole length was utilized for detail coverage. IP effects are plotted in units of Percent Frequency Effect (P.F.E.). Apparent resistivity values are normalized in units of ohm-feet/2 PI, and metal factor values are calculated according to the formula: MF= (P.F.E. x 1000)/App. Res.

Magnetic data was collected using a Geometrics Model 816/826 total field magnetometer, reading to $\pm$ one gamma. Diurnal corrections were made using a Geometrics Model 826A Recording Base Station.

2) DESCRIPTION OF CLAIMS

In 1981 at the time of this survey the Jackpot property was comprised of 27 claims totalling 111 contiguous units including 6 crown granted and 21 recorded claims (Table 1, Figure 1A). These claims are wholly owned by New Jersey Zinc Exploration Co. (Canada) Ltd.

The Sepo 1 to 6 claims (record No's 2102-2107 inclusive) were staked in January 1981; subsequently abandoned on July 9, 1981 and restaked as Sharon 1 to 6 (record No's 2373 to 2378 respectively).

The IP survey was carried out on Sepo 2 (now Sharon 2) and all or parts of the Double Standard, Hunter V, Mercia Fraction, Jamesonite Fraction, Ace, Jamesonite and Chief claims.

The location of topographic nomenclature appearing in this text is indicated in Figure 1B.

TABLE I: JACKPOT PROPERTY LAND HOLDINGS

JACKPOT GROUP[1]

PREVIOUS STAKING

CROWN GRANTED CLAIMS

NAME (No. of Units)[2]	REC/LOT NUMBER	EXPIRY DATES
Hunter V	Lot 2212	Paid 1982*
Double Standard	Lot 2213	Paid 1982*
Mercia Fraction	Lot 2224	Paid 1982*
Eldorado	Lot 5198	Paid 1982*
Chihuahua	Lot 5199	Paid 1982*
Charmencita	Lot 5201	Paid 1982*

RECORDED CLAIMS

Ink Spot	Record 1356	June 9,1989
Jackpot	Record 1357	June 9,1990
Ace	Record 1361	June 21,1989
Jamesonite	Record 1362	June 21,1989
Elm #5 Fraction	Record 3042	June 6,1989
Canadian Boy	Record 1370	July 2,1989
Canadian Girl	Record 1371	July 2,1990
Two Spot	Record 1375	July 8,1990
Spot Fraction	Record 1384	Aug. 2,1989
Rush #1 Fraction	Record 15357	Nov. 20,1989
Chief	Record 1394	Aug. 10,1989
Jay	Record 1395	Aug. 10,1989
Chief Fraction	Record 1396	Aug. 10,1989
Jay Fraction	Record 1397	Aug. 10,1989
Jamesonite Fraction	Record 1484	Oct. 18,1989

1981 STAKING

Sepo 1 (20)	Record 2102	Abandoned on July 9,1981 and restaked as Sharon 1 to 6 (Record No's. 2373 to 2378 respectively)
Sepo 2 (20)	Record 2103	
Sepo 3 (20)	Record 2104	
Sepo 4 (6)	Record 2105	
Sepo 5 (18)	Record 2106	
Sepo 6 (6)	Record 2107	

* Taxes due July 2nd, annually

1. Notice to group # 2590 and supplemental notice filed; all claims except Sharon 1 are in the "Jackpot Group" proper.
2. Pertaining to modified grid claims

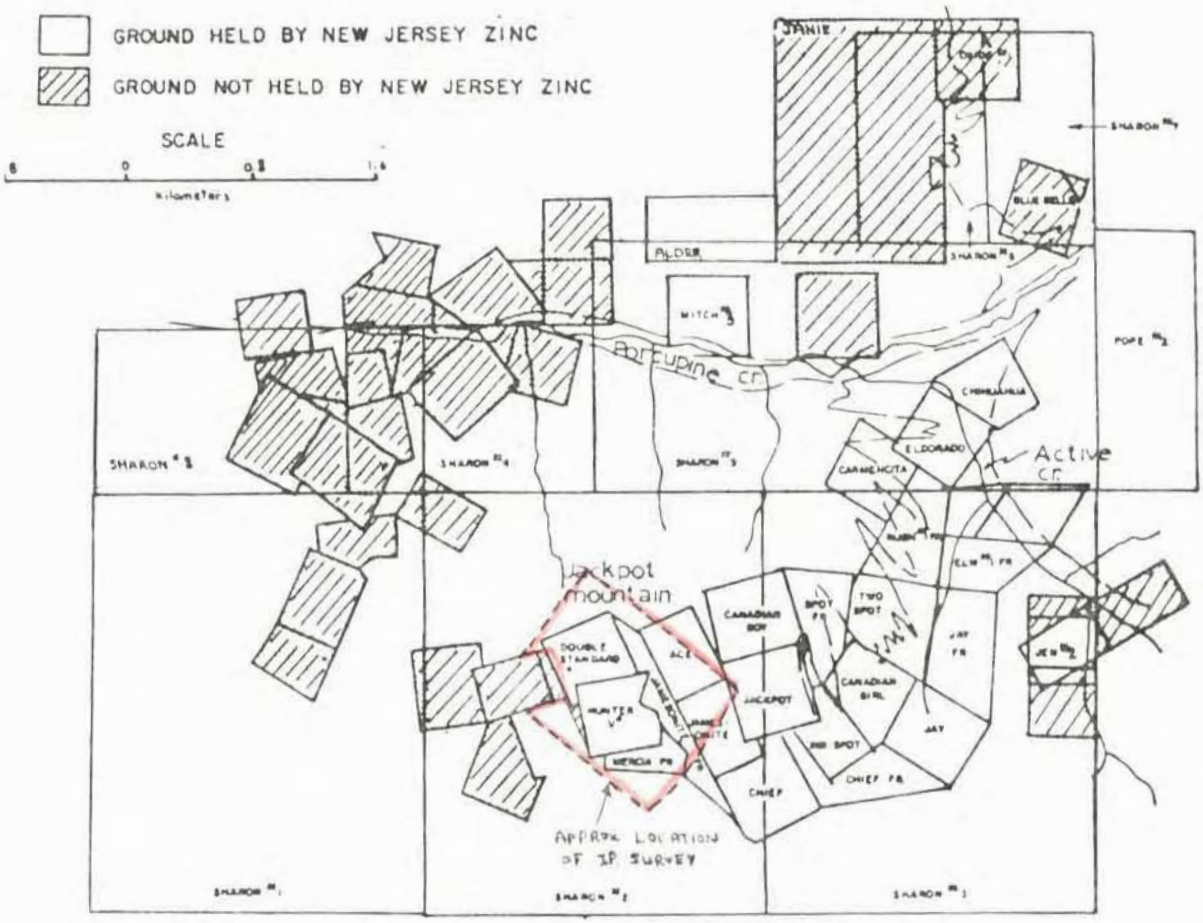


FIGURE 1A – JACKPOT PROPERTY CLAIM GROUP

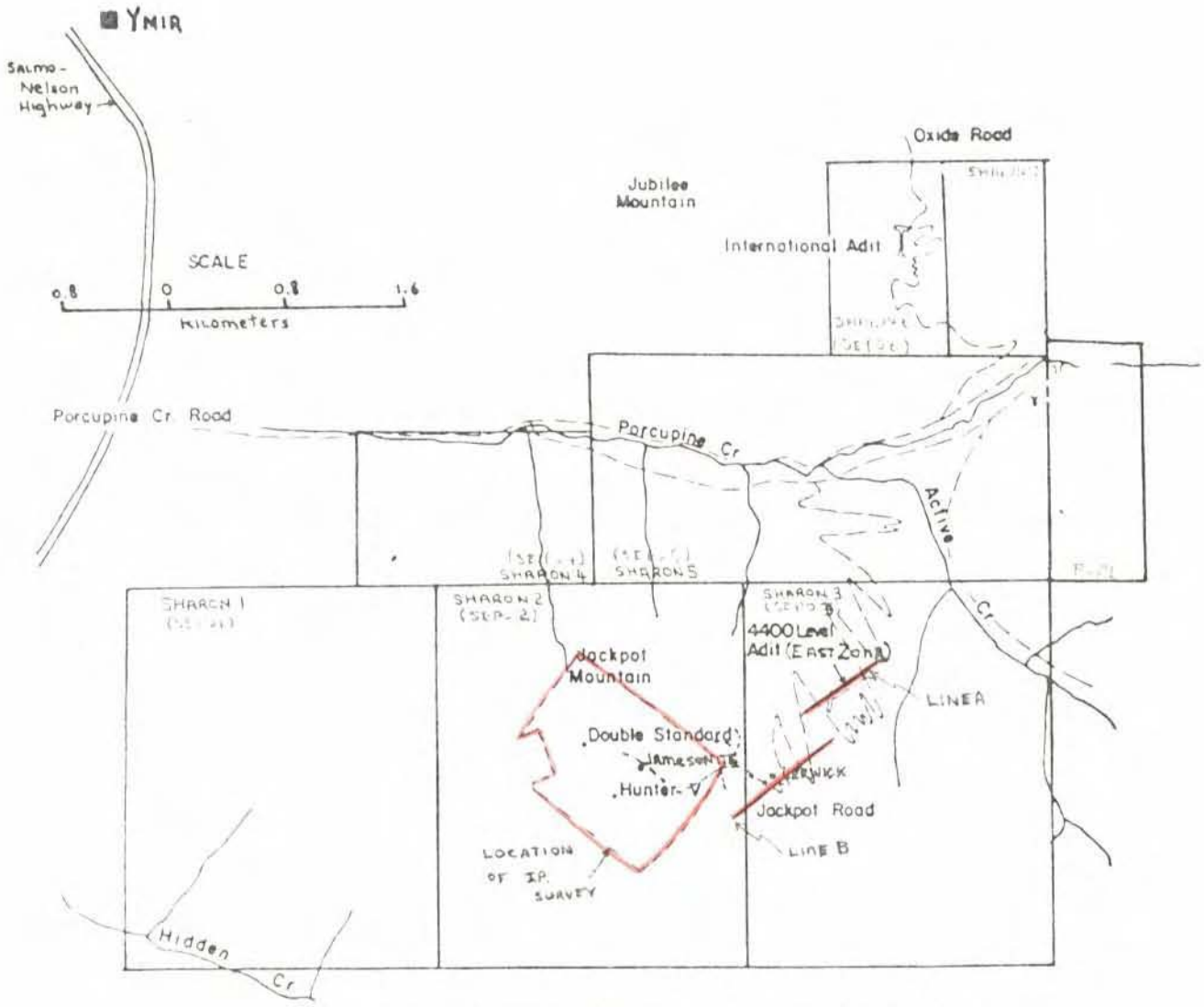


FIGURE 1B : TOPOGRAPHIC NOMENCLATURE (JACKPOT PROPERTY)

3) PRESENTATION OF RESULTS

i) IP and Resistivity

The Induced Polarization and Resistivity results 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.
24W	200 feet	I.P.-5808-1
22W	100 feet	I.P.-5808-2
20W	200 feet	I.P.-5808-3
16W	200 feet	I.P.-5808-4
16W	100 feet	I.P.-5808-5
14W	100 feet	I.P.-5808-6
12W	200 feet	I.P.-5808-7
10W	100 feet	I.P.-5808-8
8W	200 feet	I.P.-5808-9
4W	200 feet	I.P.-5808-10
4W	100 feet	I.P.-5808-11
2W	100 feet	I.P.-5808-12
0	200 feet	I.P.-5808-13
0	100 feet	I.P.-5808-14
2E	100 feet	I.P.-5808-15
4E	200 feet	I.P.-5808-16
8E	200 feet	I.P.-5808-17
12E	200 feet	I.P.-5808-18
16E	200 feet	I.P.-5808-19
Line A } See Figure 1B	200 feet	I.P.-5808-20
Line B }	200 feet	I.P.-5808-21

Also enclosed with this report is Dwg. I.P.P.-B-4008, a plan map of the Jackpot Grid at a scale of 1"=200'. The definite, probable and possible Induced Polarization anomalies are indicated by bars, in the manner shown on the legend, on this plan map as well as on the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

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

The geological and grid information shown on Dwg. I.P.P.-B-4008 has been taken from maps made available by the staff of New Jersey Zinc Exploration Co. (Canada) Ltd.

ii) Total Field Magnetics

Magnetic data is shown contoured in plan form on Dwg.-M-B-3008, at a scale of 1"=200 feet.

4) DISCUSSION OF RESULTS

i) IP and Resistivity

The Induced Polarization and Resistivity Survey over the Jackpot Grid has recorded a large number of

anomalous responses. It appears that many of these anomalies are caused by metallic sulphides within sedimentary rocks, such as siltstone, which are mapped underlying parts of the area of interest, especially along the northern margin of the favorable limestone-dolomite units. These sediments give rise to moderate to high polarizability values, together with lower than background apparent resistivity measurements. In many cases the most anomalous IP and Resistivity responses seem to correlate with siltstone material. Therefore, this report is mainly concerned with those anomalous IP zones which are recorded within areas mapped as limestone or dolomite. Each trend is shown on Dwg. I.P.P.-B-4008 and is discussed separately below.

I.P. Zone A

This zone appears to outline an extension of the mineralization observed in the Hunter V glory hole. The trend is best seen on three lines; Line 0, Line 2W and Line 4W, and may strike southeast at a greater depth to the vicinity of Line 4E.

Polarizability values within the zone are only moderately anomalous at best, while apparent resistivity readings show only a slight decrease below a highly resistive background level. This probably indicates the mineralization is quite sparse and disseminated in nature.

Computer modelling programs developed by Dr. W. Pelton of Phoenix Geophysics Ltd. were used to calculate the two dimensional slab which best 'fit' the observed data, in order to better determine parameters of the source such as true polarizability, depth, width and horizontal location. Unfortunately, the accuracy of all inversions attempted on the Jackpot data may be reduced because of interference from other polarizable sources lying close to the area of interest. This in turn required the interpreter to assign arbitrary numbers to the margins of the anomalous pattern being investigated in order to achieve a reasonable 'fit'.

However, in spite of these potential problems, model results from Line 0 (Fig. 2), and from Line 4W (Fig. 3) indicate a source displaying a width in the range of 25 feet to 30 feet in both cases, although the depth to the top of the source under Line 4W is considerably less (56 feet vs 101 feet) and the true polarizability is indicated to be at least twice as high as is the case of the source evaluated by the data from Line 0.

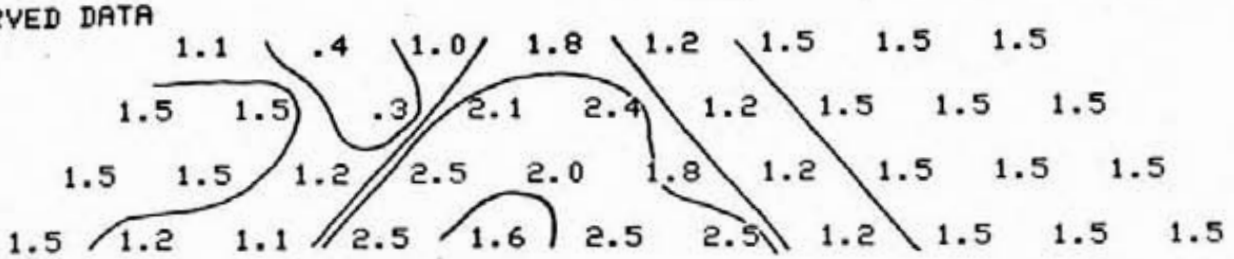
I.P. Zone B

This anomalous I.P. trend apparently marks the presence of a mineralized zone, which strikes in a northwesterly direction from the vicinity of Station

COMPUTED INTERPRETATION

PROPERTY: Jackpot
LINE: 0
SPONSOR: New Jersey Zinc
DATA: P.F.E.
A = 100 feet

OBSERVED DATA



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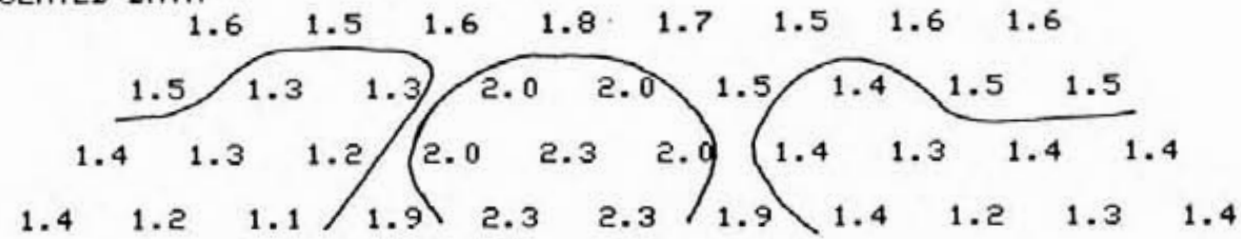
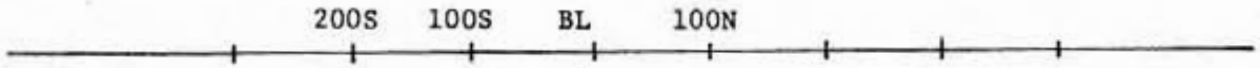




CALCULATED SOURCE

PARAMETERS OF CALCULATED SOURCE

CENTER: 37S ± 2%
DEPTH: 102 ft ± 28%
WIDTH: 27 ft. ± 22%
DEPTH EXTENT: GRTN ± Fixed
200 ft.

RES BODY: 1500 ohm ft. ± Fixed
RES OVBN: 4500 ohm /2PI ± Fixed
RES HOST: 4500 ohm /2PI ft ± Fixed
IP BODY: 11.0 PFE /2 PI ft ± 28%
IP HOST: 1.5 PFE ± Fixed

Figure 2

COMPUTED INTERPRETATION

PROPERTY: JACKPOT

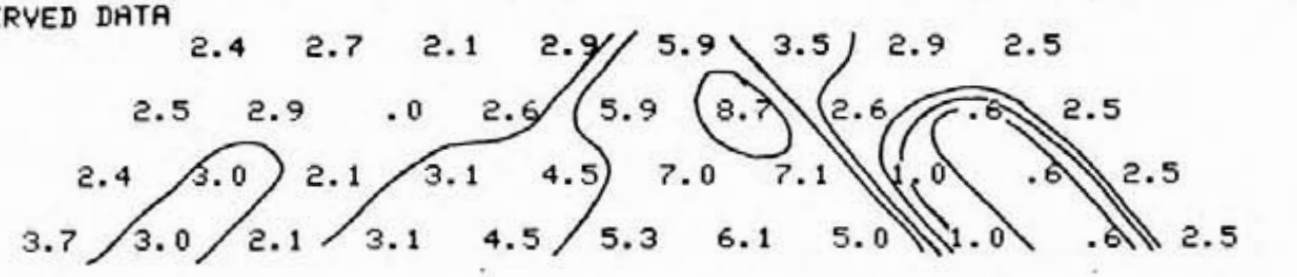
LINE: 4W

SPONSOR: New Jersey Zinc

DATA: PFE

A = 100 feet

OBSERVED DATA



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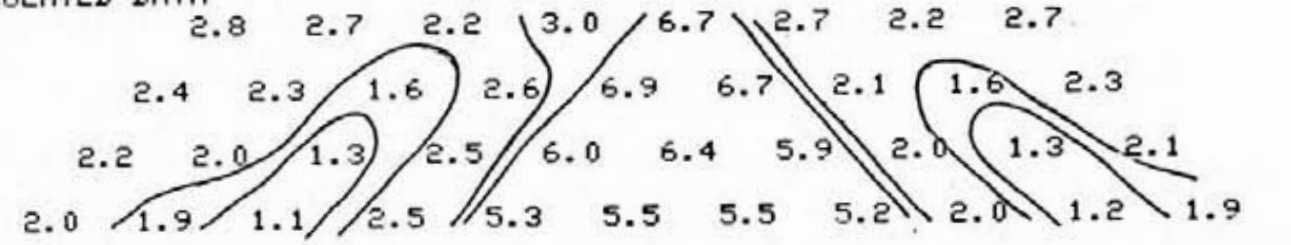
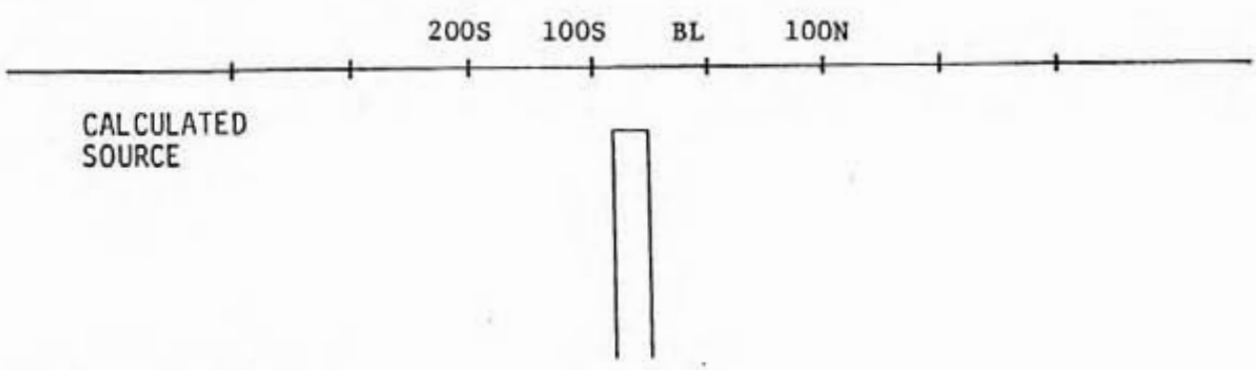




PARAMETERS OF CALCULATED SOURCE

CENTER: 63S ± 0.5%

DEPTH: 56 ft. ± 17%

WIDTH: 28 ft. ± 9%

DEPTH EXTENT: GRTN ± Fixed
200 ft.

RES BODY: 1500 ohm ft /2PI ± Fixed

RES OVBN: 5000 ohm ft /2 PI ± Fixed

RES HOST: 5000 ohm ft /2 PI ± Fixed

IP BODY: 28 PFE ± 22%

IP HOST: 2.5 PFE ± Fixed

Figure 3

3 + 50S, Line 10W, through the Double Standard glory hole to beyond the area of Line 16W. The interpretation of the anomalous patterns which form this zone is made more difficult by the presence of polarizable and relatively conductive siltstone units lying immediately to the northeast and southwest. When the effects of these sediments are taken into account, the most concentrated mineralization is indicated to be in the vicinity of Line 14W, between Station 300S and Station 200S, where a distinct resistivity low is evident. Computer modelling of the apparent resistivity data recorded on Line 14W was carried out, and the calculated parameters shown on Figure 4 suggest the anomaly source to be approximately 40 feet deep, 35 feet wide and to have a moderately low true resistivity of approximately 120 ohm feet/2 PI; however, any of these values could be substantially in error, due to the large number of arbitrary data points inserted by the interpreter. I.P. data from Line 16W, collected using 100 foot dipole lengths, was computer inverted in an attempt to better locate the source. Again, the absence of a clear pattern necessitated the interpreter assigning a largely arbitrary background, which may reduce the accuracy of the results. These are shown on Figure 5.

COMPUTED INTERPRETATION

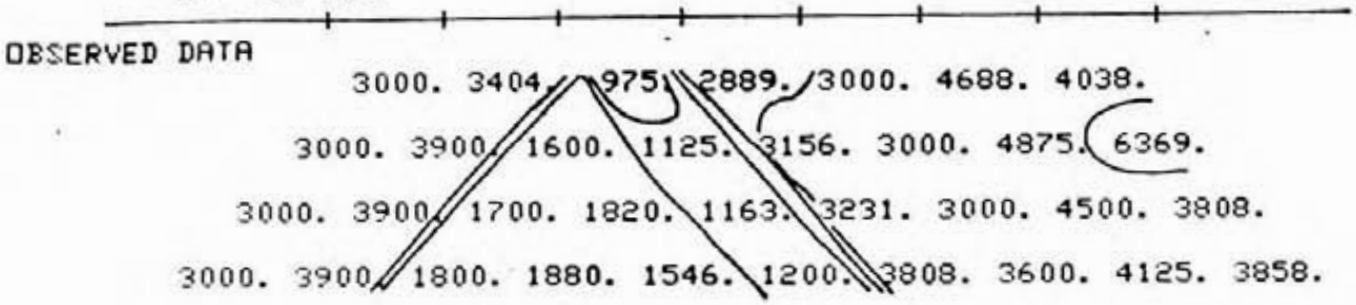
PROPERTY: JACKPOT

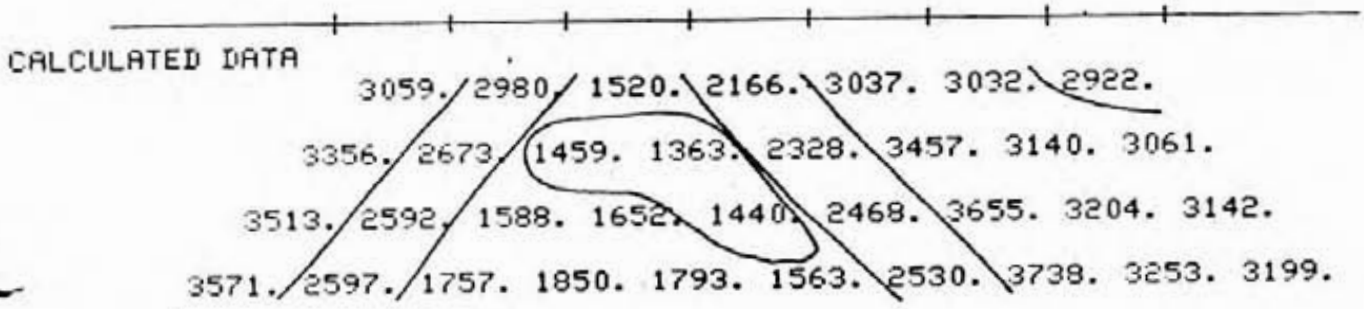
LINE: 14W

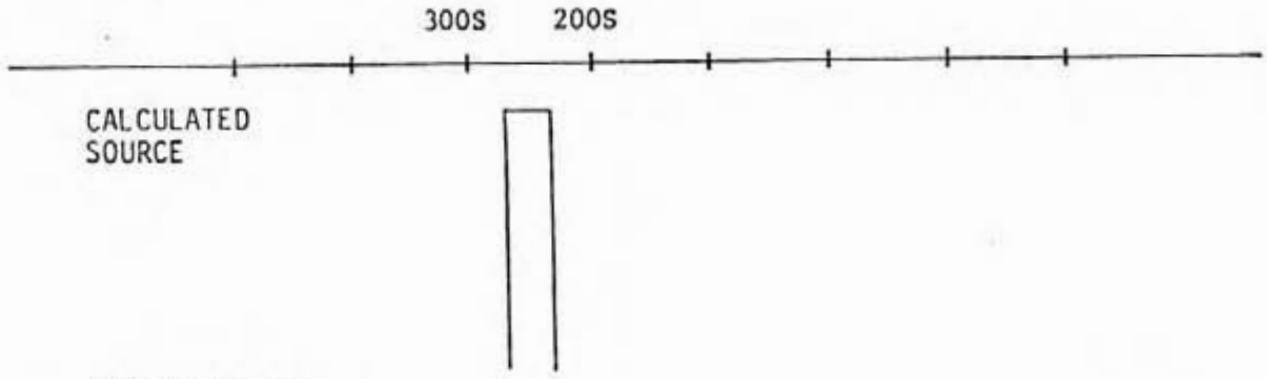
SPONSOR: New Jersey Zinc

DATA: Resistivity ohm - ft./2 PI

A = 100 feet







PARAMETERS OF CALCULATED SOURCE

CENTER: 250S ± 1%

DEPTH: 40 ft. ± 47%

WIDTH: 35 ft. ± 24%

DEPTH EXTENT: GRTN 200 ± ft Fixed

RES BODY: 118 ohm-ft /2 PI ± 60%

RES OVBN: 3000 ohm-ft /2 PI ± Fixed

RES HOST: 3000 ohm-ft /2 PI ± Fixed

IP BODY: ±

IP HOST: ±

Figure 4

COMPUTED INTERPRETATION

PROPERTY: JACKPOT

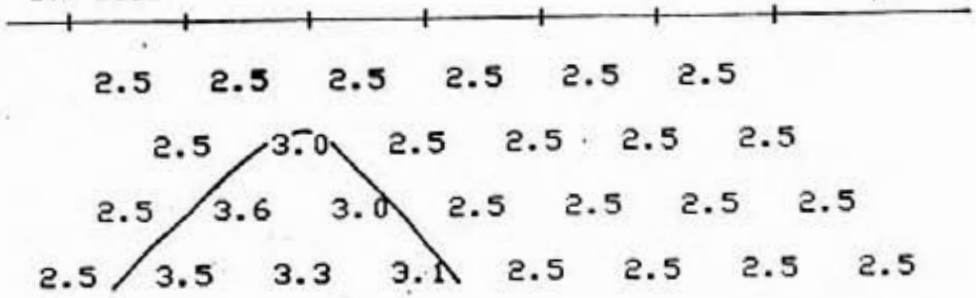
LINE: 16W

SPONSOR: New Jersey Zinc

DATA: PFE

A = 100 feet

OBSERVED DATA



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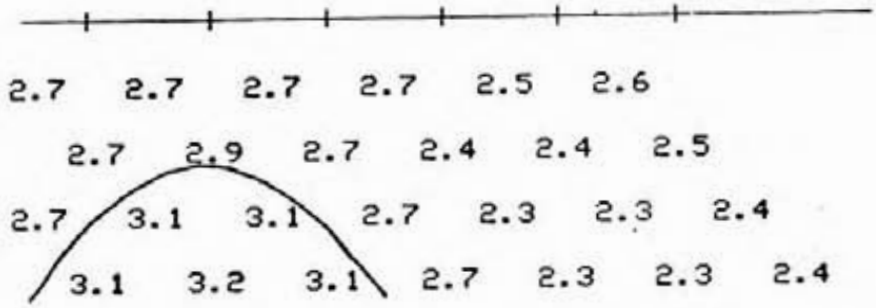
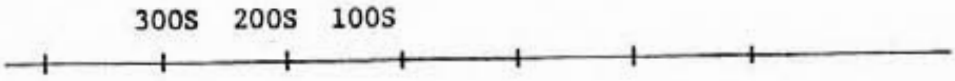




CALCULATED SOURCE

PARAMETERS OF CALCULATED SOURCE

CENTER: 200S ± 1%

DEPTH: 132 ft ± 12%

WIDTH: 38 ft ± 16%

DEPTH EXTENT: GRTN ± Fixed
200 ft.

RES BODY: 1000 ohm-ft /2 PI ± Fixed

RES OVBN: 2000 ohm-ft /2 PI ± Fixed

RES HOST: 2000 ohm-ft ± Fixed

IP BODY: /2 PI 11.0 PFE ± 19%

IP HOST: 2.5 PFE ± Fixed

Figure 5

I.P. Zone C

Leucogranite is mapped underlying this possible I.P. Zone which is interpreted to trend from the area of Line 12E to beyond Line 16E, in the vicinity of the baseline. I.P. and resistivity patterns recorded on both lines are, however, affected by the presence of conductive and polarizable siltstones situated just to the north of the I.P. feature, and by a conductive but non-polarizable fault structure striking obliquely across the grid lines in a roughly north-south direction. Additional infill lines and detail coverage using 100 foot or even 50 foot dipole lengths is required to better define I.P. Zone C.

Figure 6 shows a computer model generated using 200 foot dipole polarizability data from Line 12E. A relatively good 'fit' has been achieved between the two data sets, and the source appears to be extremely wide and shallow. One reason which can be advanced for the indicated width being in excess of 700 feet is that the survey line may not be crossing the source mineralization at close to a right angle. Further survey coverage is needed to confirm if the source of I.P. Zone C actually does strike eastward to the area of Line 16E, Station 1 + 00N.

COMPUTED INTERPRETATION

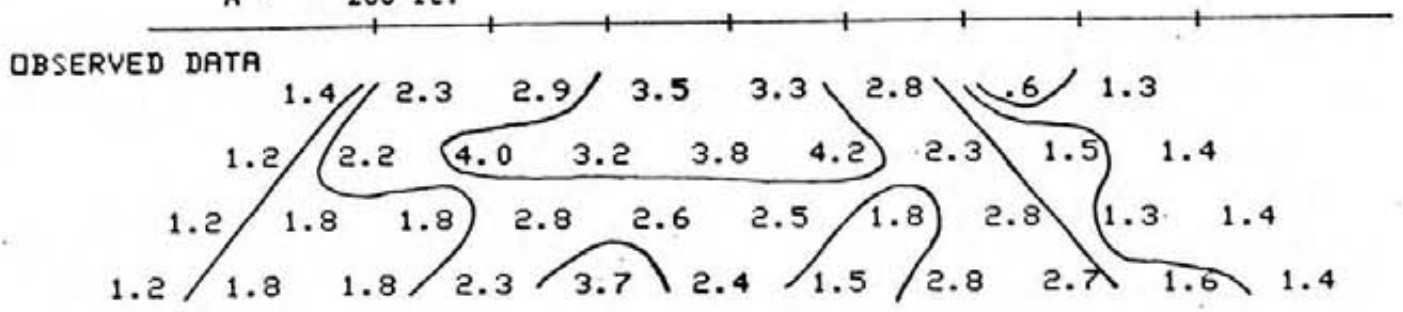
PROPERTY: JACKPOT

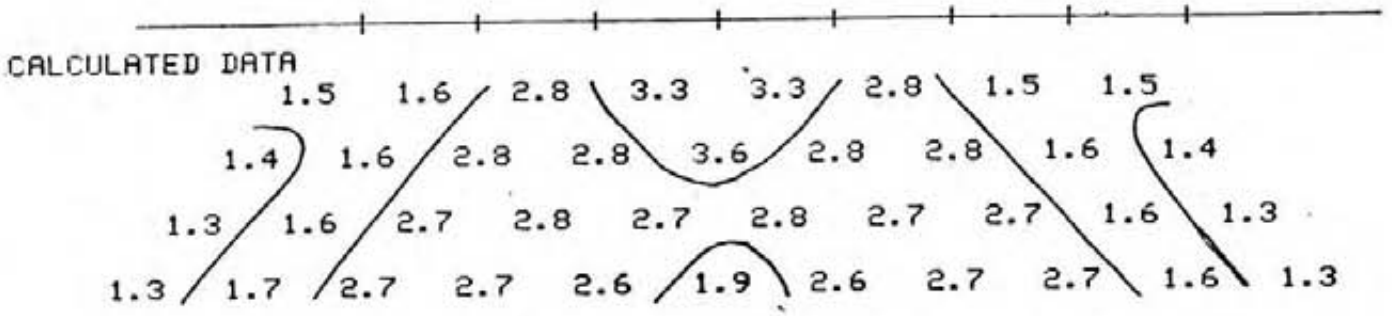
LINE: 12E

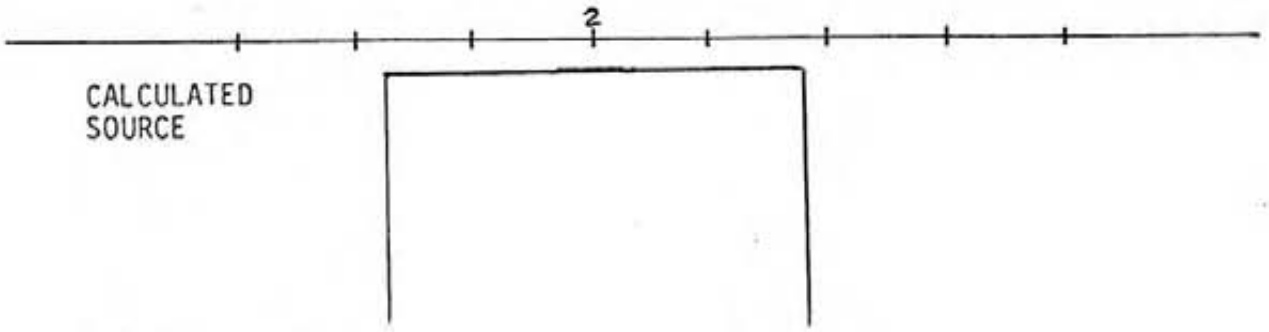
SPONSOR: New Jersey Zinc

DATA: P.F.E.

A = 200 ft.







PARAMETERS OF CALCULATED SOURCE

CENTER:	200S	±	1%
DEPTH:	47 ft	±	38%
WIDTH:	745 ft	±	26%
DEPTH EXTENT:	GRTN 400 ft	±	Fixed

RES BODY:	3000 ohm-ft /2 PL	±	Fixed
RES OVBN:	6000 ohm-ft /2 PI	±	Fixed
RES HOST:	6000 ohm-ft	±	Fixed
IP BODY:	/2 PI 3.3 PFE	±	18%
IP HOST:	1.5 PFE	±	Fixed

Figure 6

I.P. Zone D

This feature is the most anomalous I.P. zone outlined within the favorable limestone-dolomite rocks. Highly anomalous P.F.E. values are recorded, coincident with somewhat lower than background apparent resistivity values, throughout the zone, which appears to lie parallel to and approximately 400 t0 500 feet northeast of the baseline, between approximately Line 8W and Line 4E. At this point the source of the zone is indicated to swing towards the northeast to lie almost directly under Line 8E.

It is the author's understanding that lead-zinc mineralization is known to be the principal source of this response. Data recorded in the region of Zone D on Line 0 has been inverted to ascertain the best fitting tabular source, and the results are shown on Figure 7.

Northern Corner of Jackpot Grid

Geological mapping has indicated this area to be of interest. Quartzite units are mapped striking in a northerly direction through an area of siltstone rocks. These sediments give rise to very anomalous polarizability measurements and lower than background apparent resistivity values. Unfortunately, the 200 foot dipole lengths used to survey most of this

COMPUTED INTERPRETATION

PROPERTY: JACKPOT

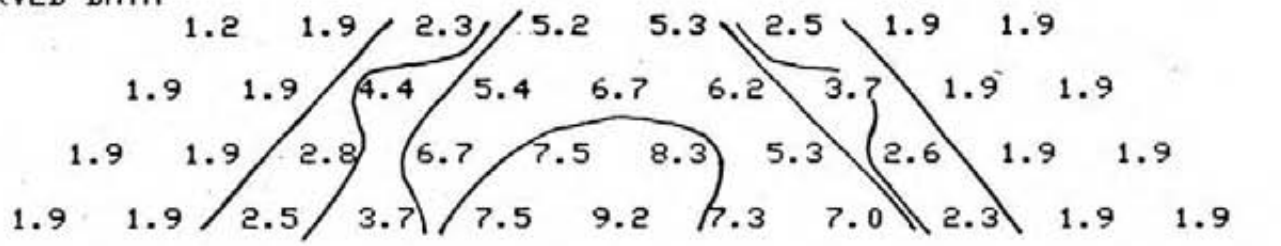
LINE: 00

SPONSOR: New Jersey Zinc

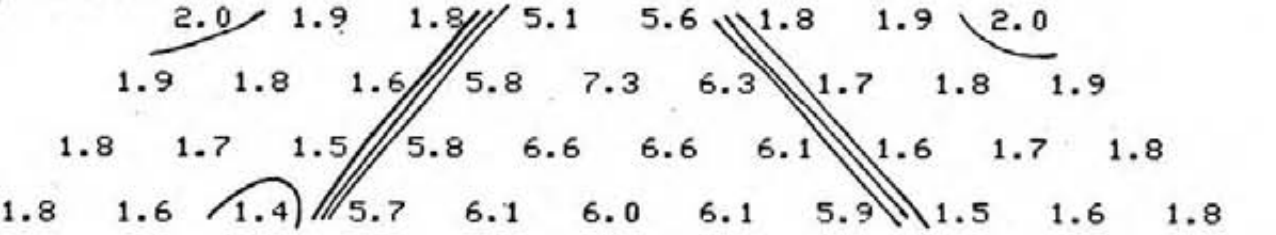
DATA: PFE

A = 100 feet

OBSERVED DATA



CALCULATED DATA



CALCULATED SOURCE

PARAMETERS OF CALCULATED SOURCE

CENTER: 4 +05N ± 1%

DEPTH: 27 ft ± 36%

WIDTH: 62 ft ± 58%

DEPTH EXTENT: GRTN 200 ft. ± Fixed

RES BODY: 75 ohm-ft /2 PI ± 102%

RES OVBN: 2000 ohm-ft /2 PI ± Fixed

RES HOST: 2000 ohm-ft /2 PI ± Fixed

IP BODY: 12.0 PFE ± 21%

IP HOST: 2.0 PFE ± Fixed

Figure 7

region do not allow a precise interpretation, although the data does suggest that the quartzites are considerably more resistive than the sediments. However, the former rock units are too narrow to be reliably outlined by the 200 foot dipole lengths.

Line A and Line B

Lines A & B were surveyed across the East Zone and Lerwick ore zones respectively (Figure 1B) to test their IP responses. Strong anomalous IP effects are evident in both data sets, correlating with areas of substantially lower apparent resistivities. The magnitude of these signatures indicate the IP survey is successful in picking up the presence of the known ore zones.

ii) Total Field Magnetic Data

It appears that none of the mapped rock types on the Jackpot grid give rise to a distinctive magnetic signature. Instead, the data is characterized by a number of small, high intensity magnetic anomalies, which obviously are caused by very shallow sources. The causes of these anomalies are not certain as a variety of rock types are noted coincident with the magnetic features. Changes in overburden thickness could be a factor affecting the total observed magnetic intensity.

5) CONCLUSIONS AND RECOMMENDATIONS

An Induced Polarization and Resistivity survey and a Total Field Magnetic Survey have been completed on the Jackpot property.

A number of interesting IP zones are indicated by the data to lie within areas underlain by favorable limestone-dolomite rocks.

I.P. Zone A apparently outlines an extension of mineralization seen in the Hunter V glory hole. Diamond drilling is recommended to test the extension of the zone, with the first hole being located so as to pass through a point approximately 75 feet beneath Station 65S on Line 4W.

Additional IP surveying using 200 foot dipoles is required on Line 2E to confirm a deeper extension of the source of IP Zone A.

I.P. Zone B appears to indicate an extension of the mineralization seen in the Double Standard glory hole. Diamond drilling is recommended with the initial hole spotted to pass through a point approximately 75 feet beneath Station 250S on Line 14W.

Additional IP and Resistivity coverage using 100 foot dipoles should be completed on Line 18W, to confirm the northwestern limit of IP Zone B.

I.P. Zone C

Initially, detailed IP and Resistivity surveying using 100 foot dipole lengths is required on Line 10E and Line 14E, to determine the true strike direction of this zone. A drilling target could then be suggested.

I.P. Zone D

Previously investigated lead-zinc mineralization may be the source of this response. If drilling is contemplated to test the source of this zone, a diamond drill hole located to pass through the region approximately 50 feet beneath Station 4+05S is suggested.

Other areas of interest such as the northern corner of the grid area require more detailed IP and Resistivity coverage before one can outline continuous zones of anomalous IP effects. It may be necessary to use even 50 foot dipoles in the region to separate between anomalies due to sediments, as opposed to other sources. For the same reason, accurate geological mapping is required to assist any geophysical interpretation.

The magnetic data collected on the Jackpot grid does not appear to outline any specific rock types. A number of higher magnitude, near surface anomalies, are recorded, which could be checked in the field to establish

the possible importance of these features.

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright, B.Sc.,
Geophysicist.

Frank DiSpirito, B.A.Sc.,
Geophysicist.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

DATED: 13 October 1981

ASSESSMENT DETAILS

PROPERTY: Jackpot Project

MINING DIVISION: Nelson

SPONSOR: New Jersey Zinc Exploration Company (Canada) Limited

PROVINCE: British Columbia

LOCATION: Northeast of Salmo

TYPE OF SURVEY: Induced Polarization and Resistivity, Total Field Magnetics

OPERATING MAN DAYS: 70.0

DATE STARTED: 17 June 1981

EQUIVALENT 8 HR. MAN DAYS: 105.0

DATE FINISHED: 13 July 1981

CONSULTING MAN DAYS: 14

NUMBER OF STATIONS: IP-387
MAG-1232

DRAFTING MAN DAYS: 8.0

NUMBER OF READINGS: IP-3231
MAG-1232

TOTAL MAN DAYS: 127.00

KILOMETERS OF LINE SURVEYED:
IP-17.3
MAG-19.5

CONSULTANTS:

Paul A. Cartwright, 4238 W. 11th Avenue, Vancouver, B.C.
Frank DiSpirito, 2748 Oxford Street, Vancouver, B.C.

FIELD TECHNICIANS:

David Daggett, 35 Falcon Crescent, Chelmsford, Ontario.
Ken Irving, 197 Mount Pleasant Road, St. John, New Brunswick.
Craig Pawluk, 200 Yorkland Blvd., Willowdale, Ontario.
Robert Bulger, RR #2, Gibsons, B.C.

DRAUGHTSMEN:

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

PHOENIX GEOPHYSICS LIMITED

Frank DiSpirito

Frank DiSpirito, B.A.Sc., P.Eng.,
Geophysicist.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

DATED: 13 October 1981

STATEMENT OF COST

NEW JERSEY ZINC EXPLORATION COMPANY (CANADA) LIMITED IP AND RESISTIVITY SURVEY, TOTAL FIELD MAGNETOMETER SURVEY JACKPOT PROJECT NORTHEAST OF SALMO, BRITISH COLUMBIA

Period: June 17, 1981 to July 13, 1981.

Crew: D. Daggett, C. Pawluk, K. Irving, R. Bulger

i) IP and Resistivity

20.5	Operating Days	@ $935.00/day	$ 19,167.50
3.5	Bad Weather Days	@ $635.00/day	2,222.50
1.0	Organization Days	@ $635.00/day	635.00
1.5	Breakdown Days	@ N.C.	NC

ii) Magnetics

19.5	line kilometers	@ $120.00/1.k.	2,340.00
	Magnetometer Base Station Rental		1,374.25
	Mobilization - Demobilization		1,985.00
	Expenses - P.A. Cartwright		95.60
	Preparation of Report on Results		2,500.00
			$ 30,319.85

PHOENIX GEOPHYSICS LIMITED

Frank DiSpirito

Frank DiSpirito, B.A.Sc., P.Eng.
Geophysicist.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

DATED: 13 October 1981

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, 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 11 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 New Jersey Zinc Exploration Company (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 VANCOUVER, B.C.

this 13th day of October 1981.

Paul A. Cartwright

Paul A. Cartwright, B.Sc.

CERTIFICATE

I, Frank DiSpirito, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geophysicist residing at 2748 Oxford Street, Vancouver, B.C.

2. I am a graduate of the University of British Columbia with a B.A.Sc. Degree in Geological Engineering.

3. I am a Professional Engineer registered in the Province of British Columbia.

4. I have been practising my profession for 7 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 New Jersey Zinc Exploration Company (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 VANCOUVER, B.C.

this 13th day of October 1981.

Frank DiSpirito

Frank DiSpirito, B.A.Sc., P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

CERTIFICATE

I, David Daggett, of the City of Chelmsford, Province of Ontario, do hereby certify that:

1. I am a geophysical crew leader residing at 35 Falcon Crescent, Chelmsford, Ontario.

2. I am a graduate of Cambrian College in Geological Technology.

3. I have been practising my vocation about three years.

4. I am presently employed as a geophysical crew leader by Phoenix Geophysics Ltd. of 200 Yorkland Blvd., Willowdale, Ontario.

DATED AT VANCOUVER, B.C.

this 13th day of October 1981.

David Daggett

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

In plotting the results, the values of apparent resistivity, apparent per cent frequency effect, and the apparent metal factor

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

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

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

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

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

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

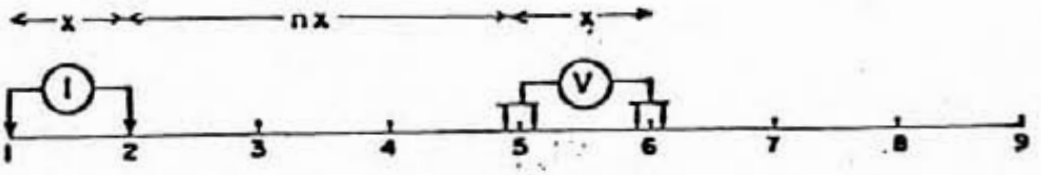
In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisy to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy,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

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

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

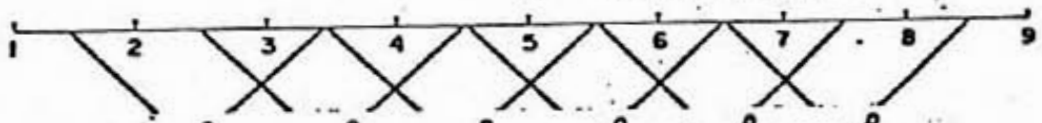
PHOENIX GEOPHYSICS LIMITED.

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

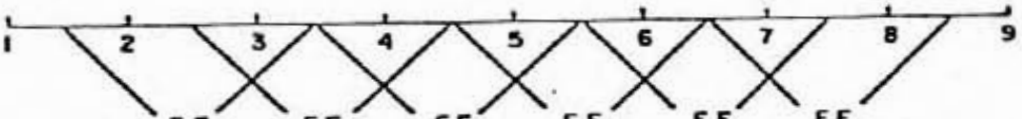
n - 1 — M.F. 1,2-3,4 M.F. 2,3-4,5 M.F. 3,4-5,6 M.F. 4,5-6,7 M.F. 5,6-7,8 M.F 6,7-8,9

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



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

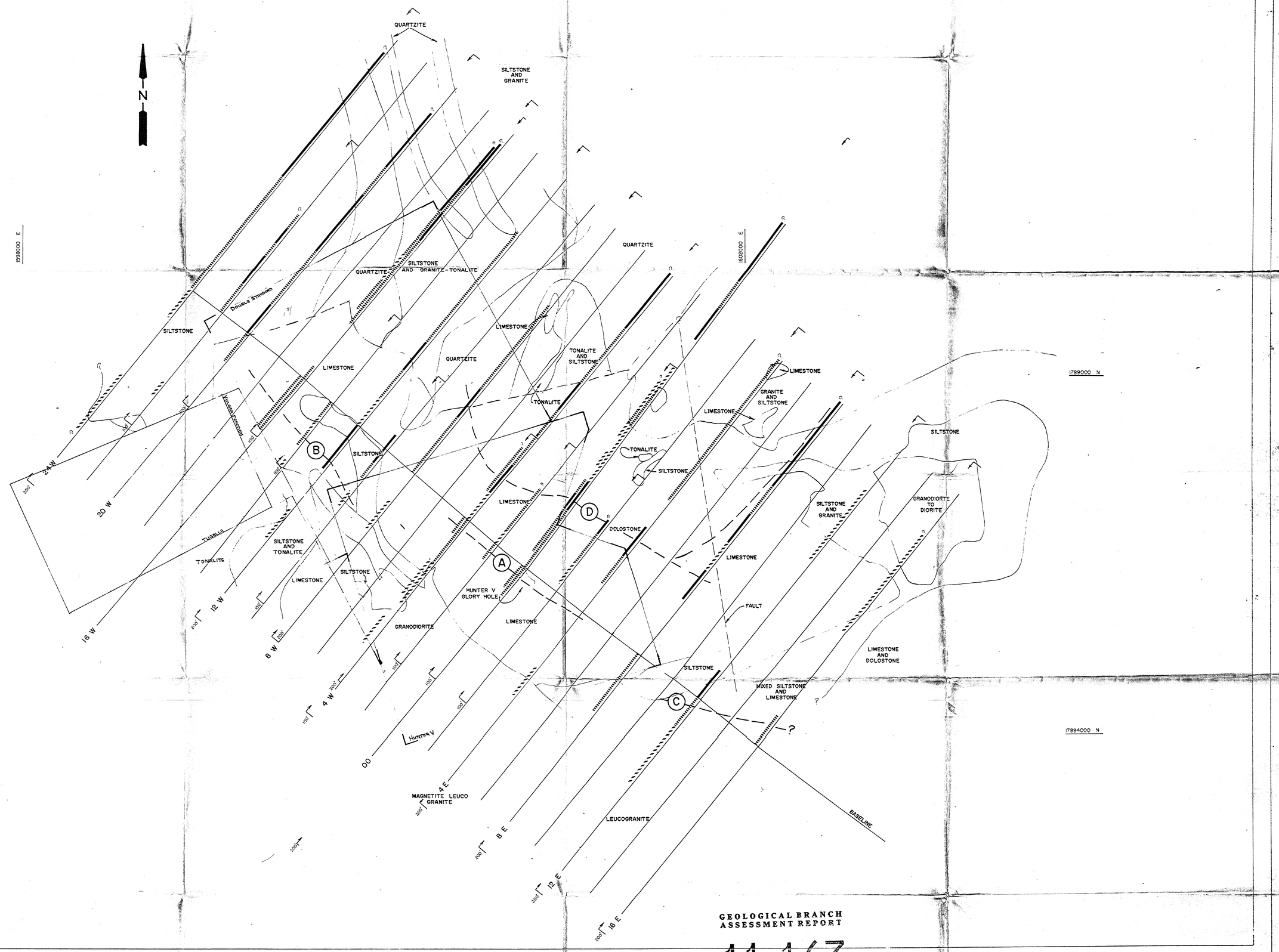
Apparent Percent Frequency Effect

Fig. A

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,163

PART 3 OF 5

NEW JERSEY ZINC EXPL. CO. (CANADA) LTD.

JACKPOT PROPERTY : NELSON M.D.

SALMO : BRITISH COLUMBIA

SCALE
1" = 200'
0 50 100 200 400

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

NOTE TO ACCOMPANY GEOPHYSICAL REPORT FOR NEW JERSEY ZINC EXPL. CO. LTD. ON JACKPOT PROPERTY, NELSON M.D. BY PAUL CARTWRIGHT, B.Sc., GEOPHYSICIST, DATED OCT. 13, 1981.

CENTER OF ANOMALOUS IP ZONE

LIMIT OF IP COVERAGE (OUTER ELECTRODES)

DRAWN: R.G.W.
DATE: OCT. 7, 1981.
APPROVED:
DATE: Oct 8/81

DWG. NO - LPP-B-4008

PHOENIX GEOPHYSICS LIMITED

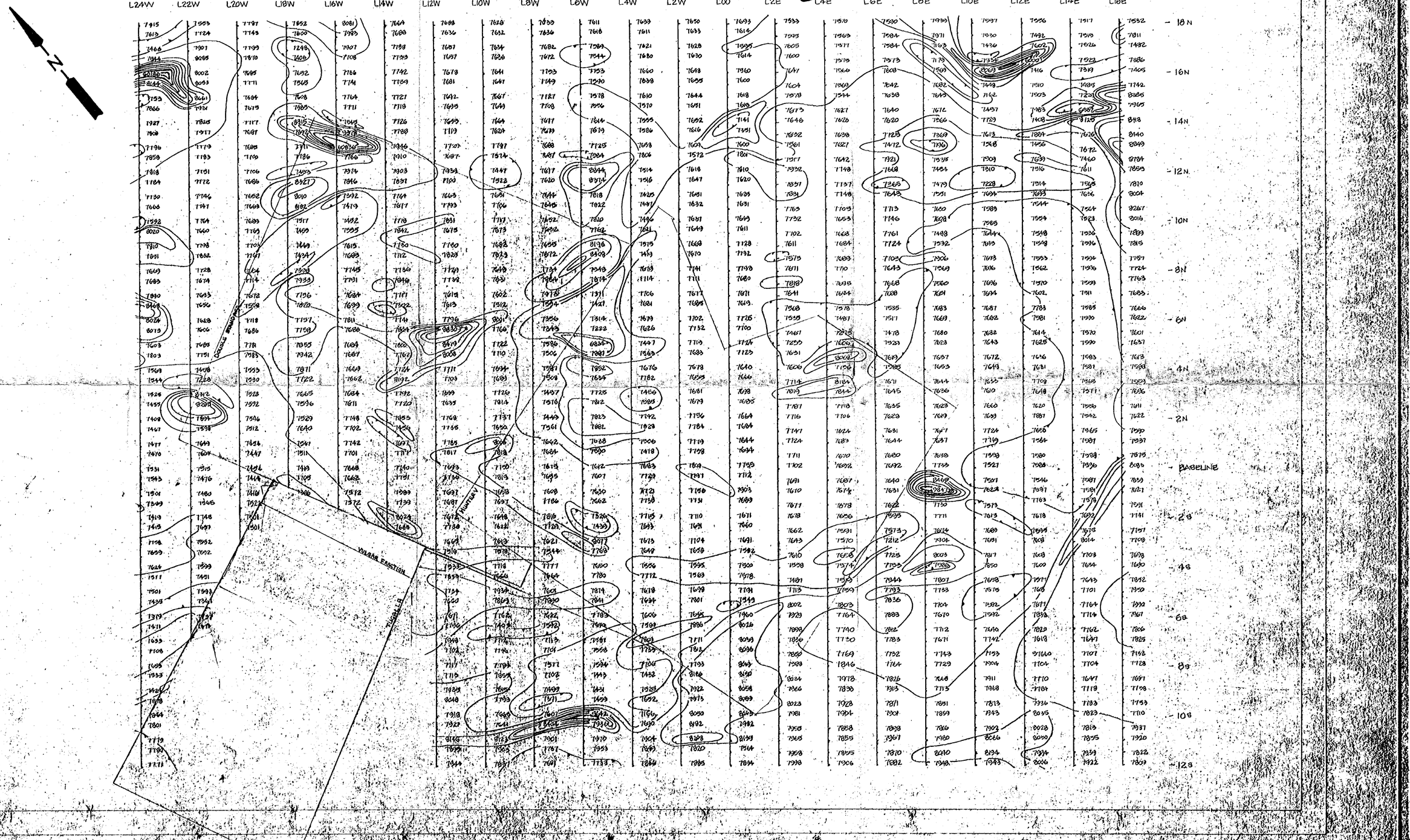
TOTAL FIELD MAGNETOMETER SURVEY

PLAN MAP

ASSESSMENT REPORT

11,163

PART 3 OF 5



NOTE: TO ACCOMPANY GEOPHYSICAL REPORT FOR NEW JERSEY ZINC EXPL. CO. LTD. JACKPOT PROPERTY, NELSON M.D. BY PAUL CARTWRIGHT, B.Sc., GEOPHYSICIST. DATED OCT. 13, 1981.

SCALE 1" = 200'

0 50 200 300 400

NEW JERSEY ZINC EXPL. CO. (CANADA) LTD.

JACKPOT PROPERTY, NELSON M.D.

SALMO, BRITISH COLUMBIA

FIELD READING = PLOTTED VALUE + 50000 GAMMAS (EXCEPT WHERE NOTED)

CONTOUR INTERVAL = 200 GAMMAS

DRAWN: R.G.W.

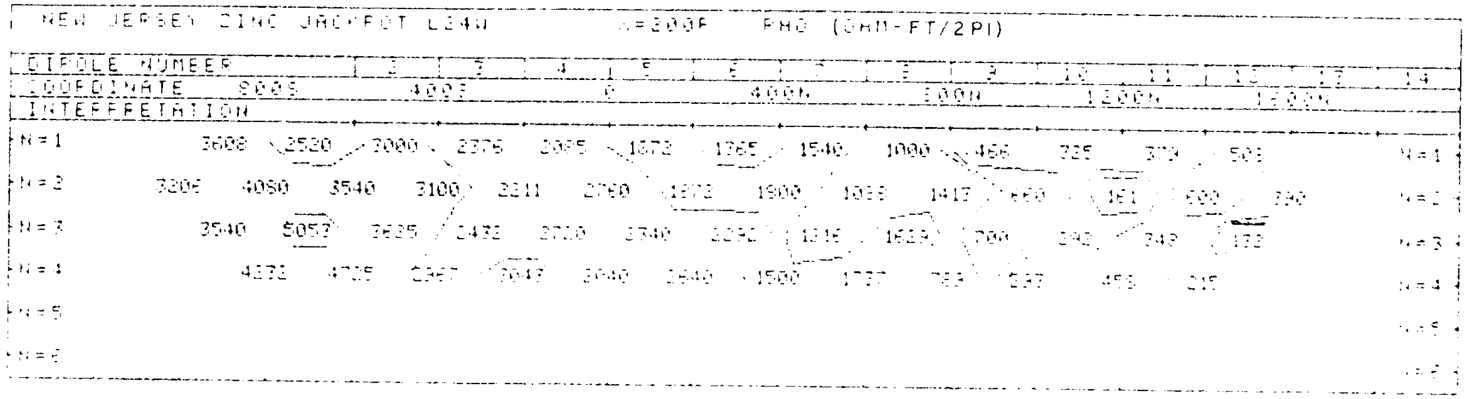
DATE: JULY 30, 1981

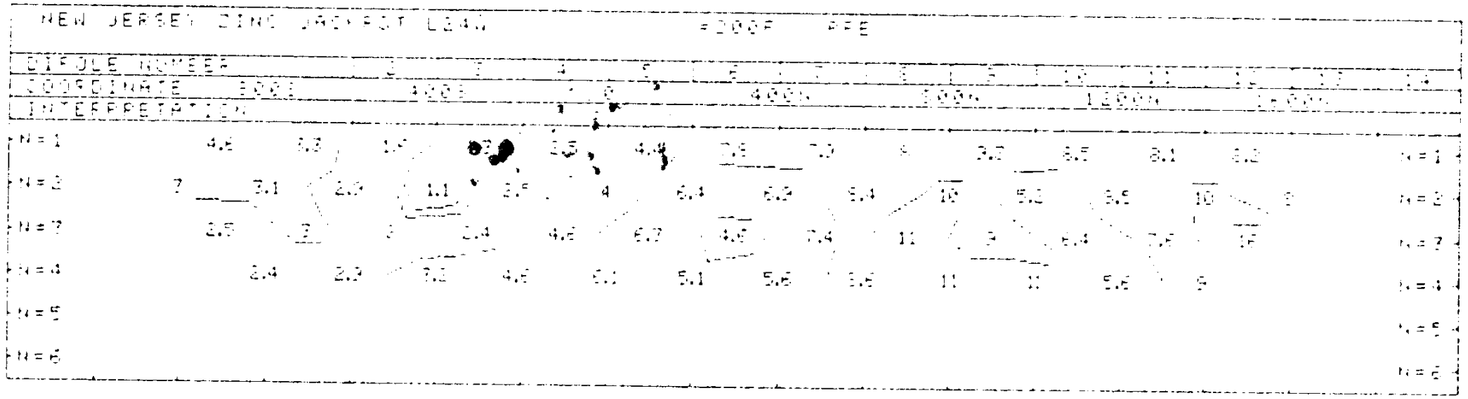
APPROVED:

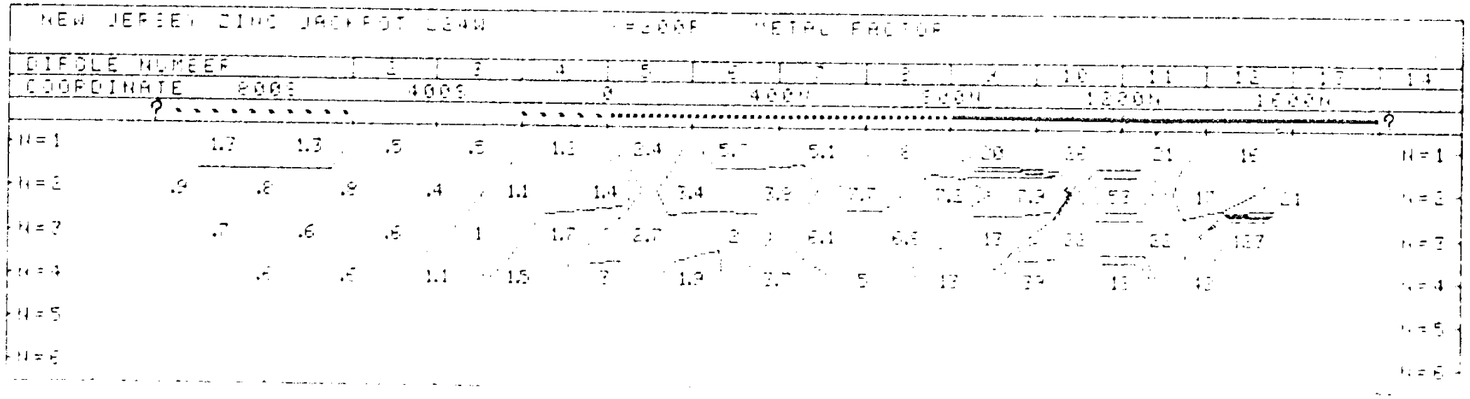
DATE:

BY:

DWG.



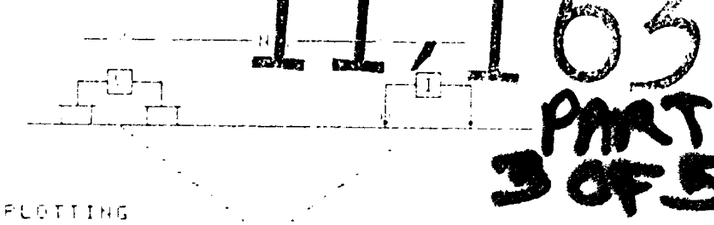




NEW JERSEY ZINC EX COCCANI LTD

JACKPOT PROPERTY, NELSON M.D.

SALMO-BRITISH COLUMBIA



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ————
PROBABLE .....
POSSIBLE - - - - - -

FREQUENCY (HERTZ)
4 0.0 25

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

DATE SURVEYED JUNE 1981
APPROVED

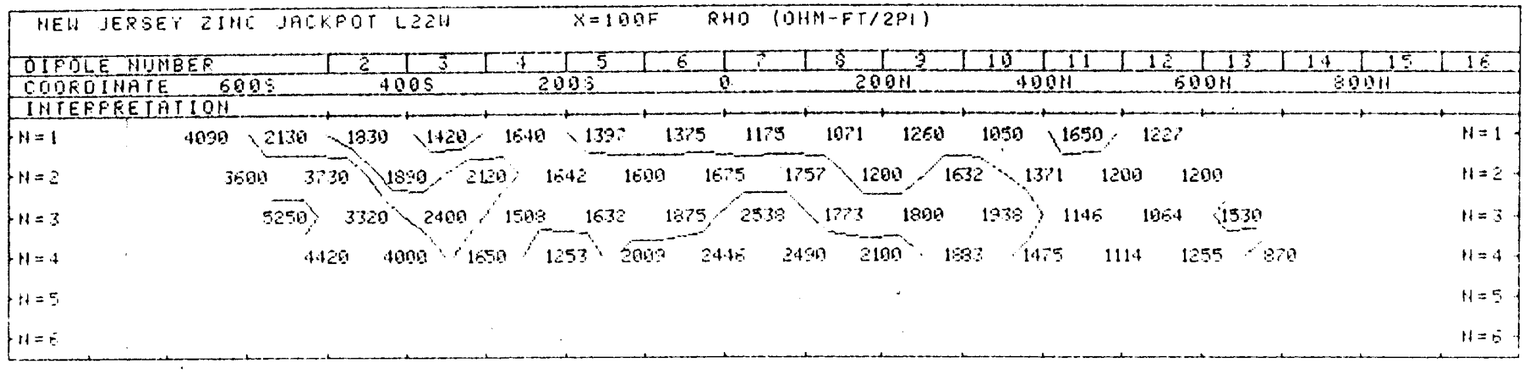
Pac

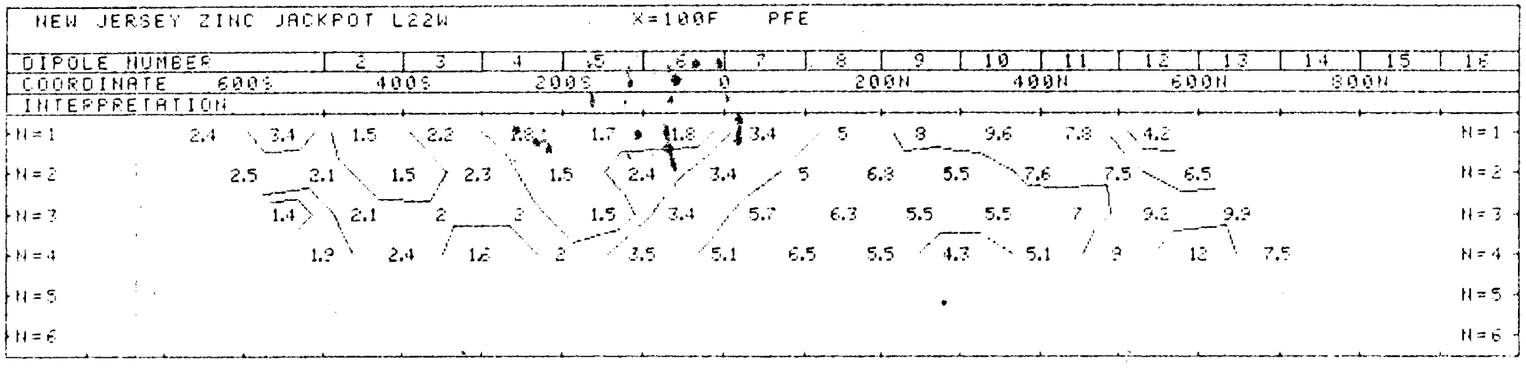
DATE Aug 26/81

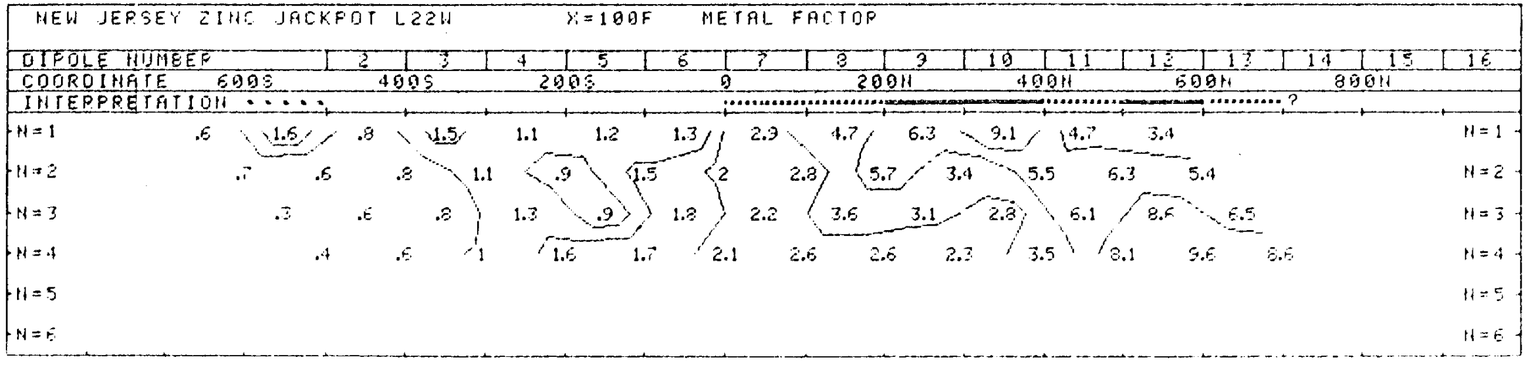
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







DWG NO -I P-5808 (1)

NEW JERSEY ZINC EX CO(CAN) LTD

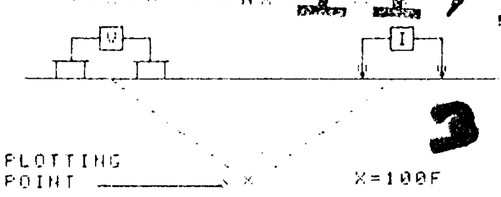
JACKPOT PROPERTY: NELSON M D

SALMO, BRITISH COLUMBIA

GEOLOGICAL BRANCH
ASSESSMENT REPORT

LINE NO -22W

11,163
PART 3 OF 5



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE ....
POSSIBLE - - - - - - -

FREQUENCY (HERTZ)
4.0/0.25

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

DATE SURVEYED: JULY 1981

APPROVED

PAC

DATE Aug 26/81

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

NEW JERSEY ZINC JACKPOT L20W   X=200F   RHO (OHM-FT/2PI)

DIPOLE NUMBER 2 3 4 5 6 7 8 9 10 11 12 13

COORDINATE 600S 200S 200N 600N 1000N 1400N 1800N

INTERPRETATION

N=1 1535 2322 2025 2125 478 1777 1933 254 375 1265 1040 835 N=1

N=2 1670 4150 3131 1800 2077 2400 527 581 430 217 336 680 N=2

N=3 2500 3331 1747 1736 2308 720 1724 637 135 535 520 N=3

N=4 2035 2541 1000 1461 [illegible] 1750 1704 345 165 310 N=4

N=5 N=5

N=6 N=6

NEW JERSEY ZINC JACKPOT L20W   X=200F   PFE

DIPOLE NUMBER 2 3 4 5 6 7 8 9 10 11 12 13

COORDINATE 600S 200S 200N 600N 1000N 1400N 1800N

INTERPRETATION

N=1 [illegible] [illegible] [illegible] [illegible] 4.2 5.1 5.1 6.4 7.6 [illegible] 14 12 N=1

N=2 2.5 2.7 3.2 4.5 6.5 7.1 7 [illegible] 6.3 14 14 9.7 N=2

N=3 2.6 3.7 4.5 5 5.7 [illegible] 7.1 [illegible] 9.4 14 10 N=3

N=4 4.1 4.5 6.4 5 6.1 [illegible] 6.1 [illegible] 4.4 N.R. N=4

N=5 N=5

N=6 N=6

NEW JERSEY ZINC JACKPOT L20W   X=200F   METAL FACTOR

DIPOLE NUMBER 2 3 4 5 6 7 8 9 10 11 12 13

COORDINATE 600S 200S 200N 600N 1000N 1400N 1800N

? ?

N=1 1.4 1.9 1 1.4 2.8 2.9 2.7 25 20 5.2 17 14 N=1

N=2 1.5 .6 1.5 1.5 3.1 1.3 13 12 [illegible] 64 50 14 N=2

N=3 1.4 1.1 2.6 4.7 3.3 11 5.4 17 51 [illegible] 20 N=3

N=4 3.1 1.5 5.7 3.4 3.1 [illegible] 4.7 [illegible] 27 N.R. N=4

N=5 N=5

N=6 N=6

GEOLOGICAL BRANCH
ASSESSMENT REPORT

DWG NO -I P -5806

11,163 ③

NEW JERSEY ZINC EX CO(CAN)

PART 3 OF 5

JACKPOT PROPERTY-NELSON M D

[illegible] BRITISH COLUMBIA

LINE NO 20W

PLOTTING POINT   X=200FT

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ————
PROBABLE ··········
POSSIBLE · · · · · ·

FREQUENCY (HERTZ)
4.0 0.25

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

DATE SURVEYED [illegible]

APPROVED [illegible]

DATE [illegible]

PHOENIX GEOPHYSICS LTD

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,163

PART 3 OF 5

NEW JERSEY ZINC JACKPOT L16W X=200F RHO (OHM-FT/2PI)

DIPOLE NUMBER	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
COORDINATE	600S, 200S, 200N, 600N, 1000N, 1400N, 1800N
INTERPRETATION	
N=1	1175, 2017, 6000, 3833, 2153, 1304, 1157, 489, 2213, 762
N=2	1553, 1050, 4090, 1727, 1594, 1239, 163, 102, 1765, 94
N=3	1644, 1173, 1409, 1750, 1674, 1573, 156, 503, 317, 748
N=4	1257, 1430, 704, 1625, 1306, 210, 318, 657, 440
N=5	
N=6	

NEW JERSEY ZINC JACKPOT L16W X=200F PFE

DIPOLE NUMBER	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
COORDINATE	600S, 200S, 200N, 600N, 1000N, 1400N, 1800N
INTERPRETATION	
N=1	3.1, 2.1, 2.5, 3.3, 6, 7, 6.8, 9.1, 8.5, 17
N=2	4.1, 2.5, 4.3, 7.3, 7, 7.6, 14, 9.6, 8.1, 15
N=3	4.7, 3.9, 2.8, 3, 7.2, 7.4, 17, 13, 8.7, 9.7
N=4	4, 4, 6.8, 7.6, 8.3, NR, 11, 7.3, 11
N=5	
N=6	

NEW JERSEY ZINC JACKPOT L16W X=200F METAL FACTOR

DIPOLE NUMBER	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
COORDINATE	600S, 200S, 200N, 600N, 1000N, 1400N, 1800N
N=1	2.6, 1, .4, 1, 2.6, 5.3, 7.5, 19, 3.8, 23
N=2	2.6, 2.4, 1.1, 4.6, 3.7, 6.1, 85, 3.5, 4.6, 151
N=3	2.6, 3.4, 2.1, 4.6, 4.7, 4.7, 66, 25, 11, 17
N=4	3.2, 2.7, 9.3, 4.7, 6.4, NR, 14, 11, 17
N=5	
N=6	

NEW JERSEY ZINC EX CO (CAN)

JACKPOT PROPERTY, NELSON M.D.

B.C., BRITISH COLUMBIA

LINE NO. 16W

PLOTTING POINT =200FT

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ) 4.0 & .25

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

DATE SURVEYED: JUNE 1983

APPROVED

DATE

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

DWG NO -I F-5606 (5)

11,163

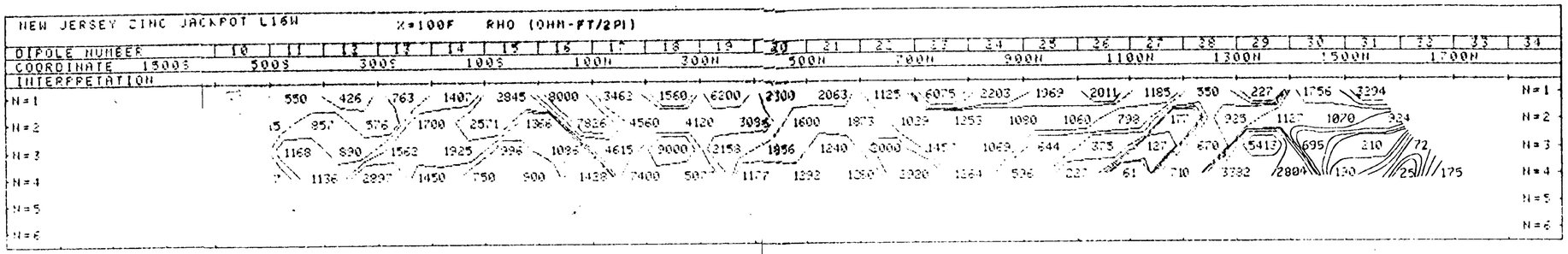
PART
3 OF 5

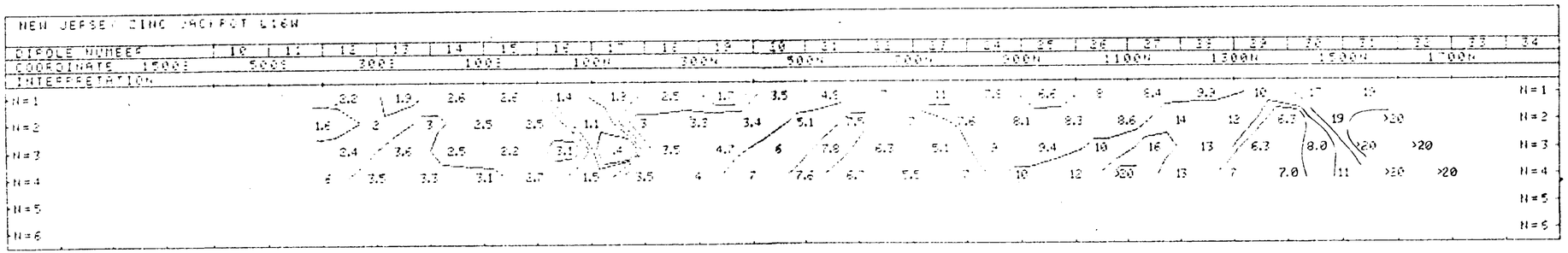
NEW JERSEY ZINC EX CO(CAN) LT

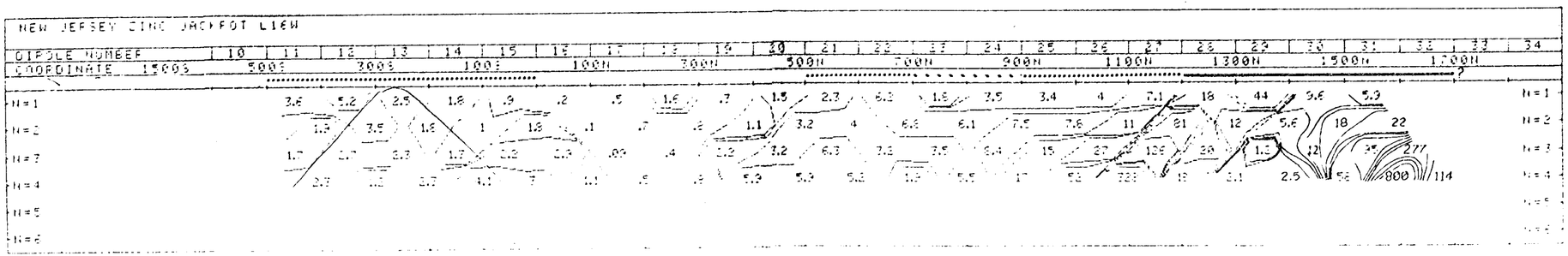
JACKPOT PROPERTY, NELSON M D

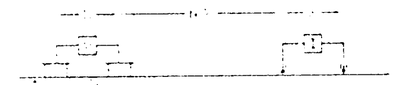
SALMO, BRITISH COLUMBIA

LINE NO -L6W









SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE ....
POSSIBLE - - - - - - -

FREQUENCY (HERTZ)
4 0 0 0 25

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

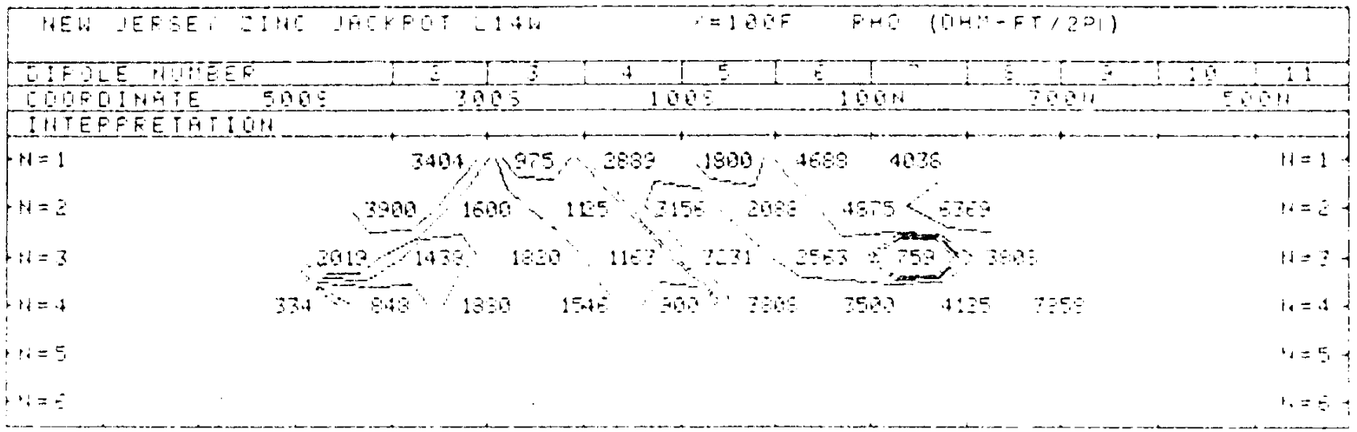
DATE SURVEYED JUNE 1981
APPROVED

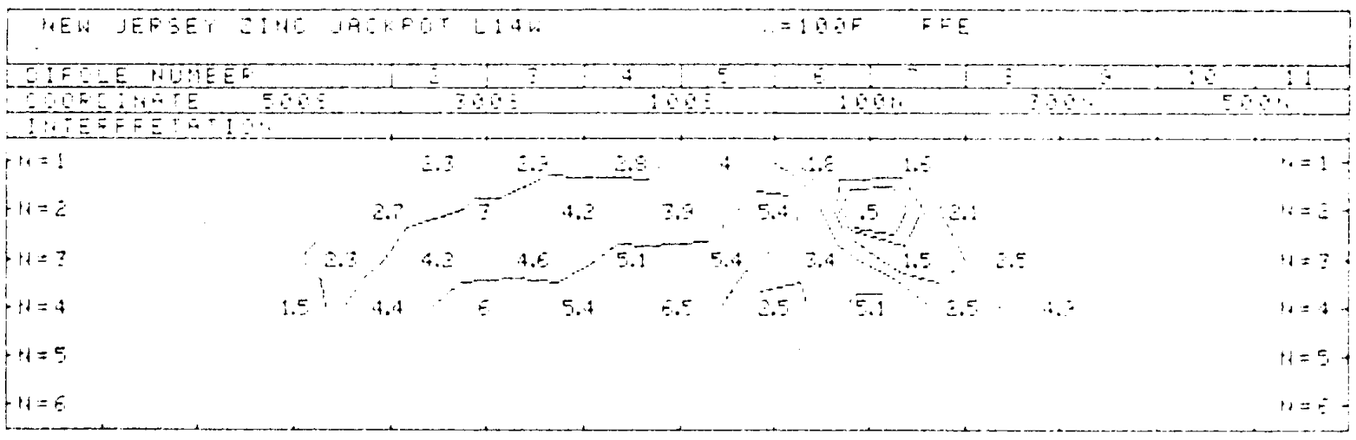
DATE Aug 26/82

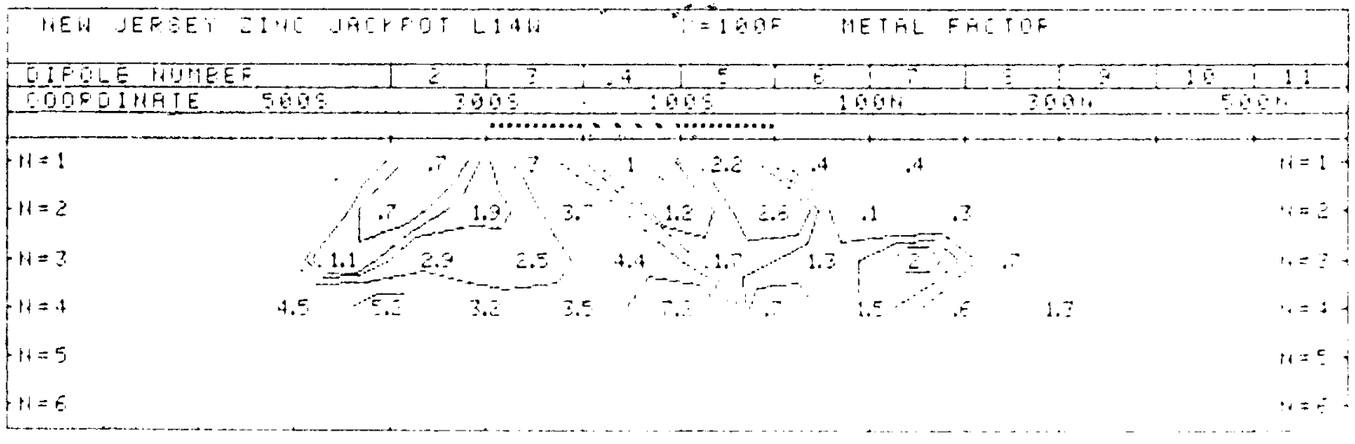
PHOENIX GEOPHYSICS LTD.

TORONTO, ONTARIO

MAG RESULTS BY [illegible]





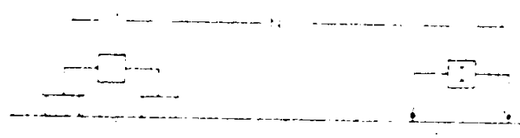


NEW JERSEY ZINC EX COCORD LTD

JACKPOT PROPERTY NELSON M D

SALMO BRITISH COLUMBIA

LINE NO L14W



PLOTTING POINT _____ N=100FT

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE _____
PROBABLE .....
POSSIBLE - - - - - -

FREQUENCY (HERTZ)
4 8 0 25

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

DATE SURVEYED JUNE 1981
APPROVED

DATE Dec 26/81

PHOENIX GEOPHYSICS LTD.

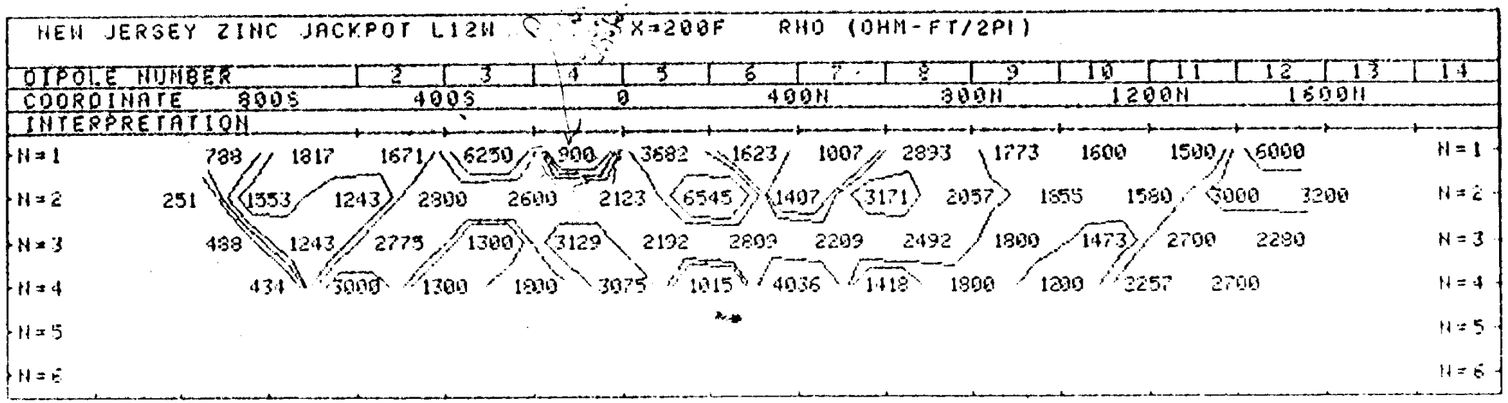
INDUCED POLARIZATION AND RESISTIVITY SURVEY

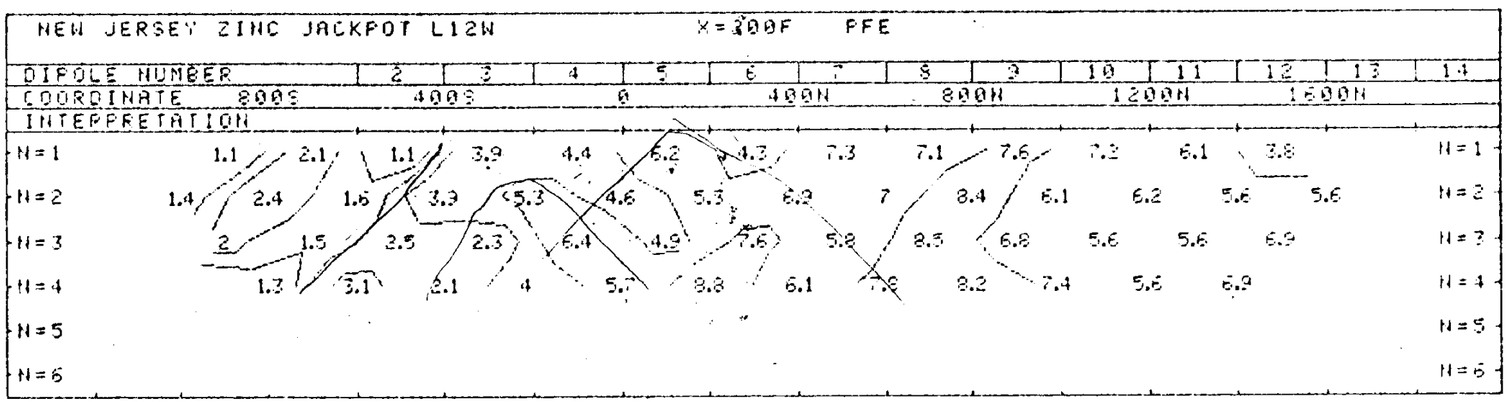
GEOLOGICAL BRANCH ASSESSMENT REPORT

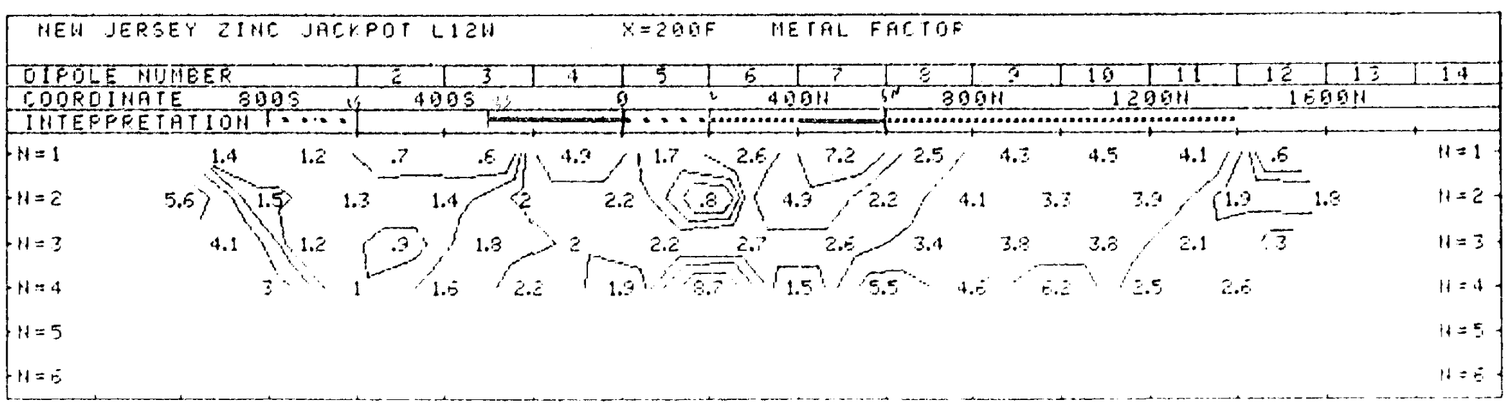
16,211

PART 1 OF 5

DWG NO -I P-5908 (7)







NEW JERSEY ZINC EX COCCANI LTD

JACKPOT PROPERTY NELSON M.D.

SALMO, BRITISH COLUMBIA

LINE NO -I-

PLOTTING POINT

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE .....
POSSIBLE - - - - - -

FREQUENCY (HERTZ) 4 8 16 32

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

DATE SURVEYED JUNE 1981

APPROVED

DATE Aug 27 '81

PHOENIX GEOPHYSICS LTD.

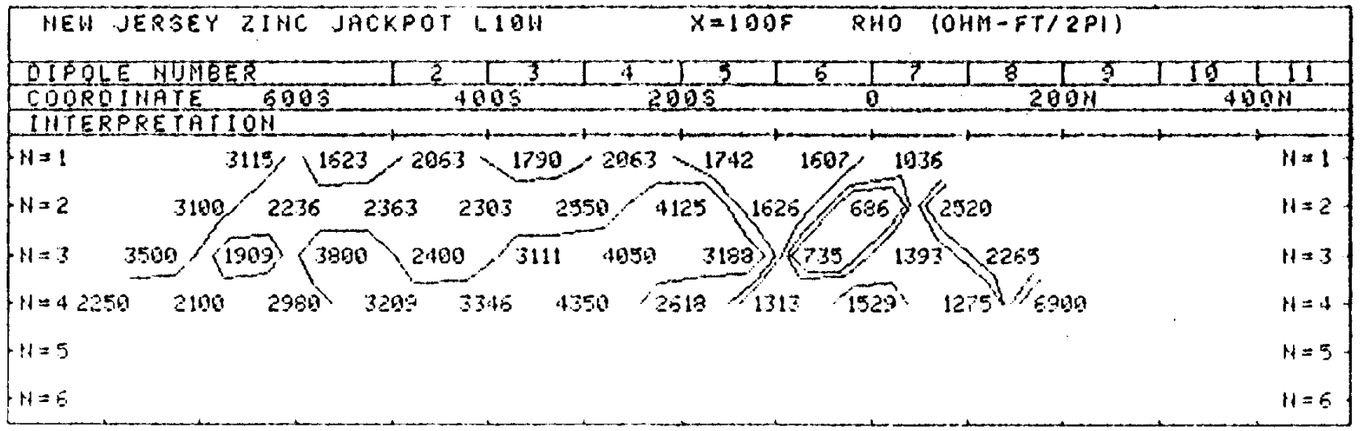
INDUCED POLARIZATION

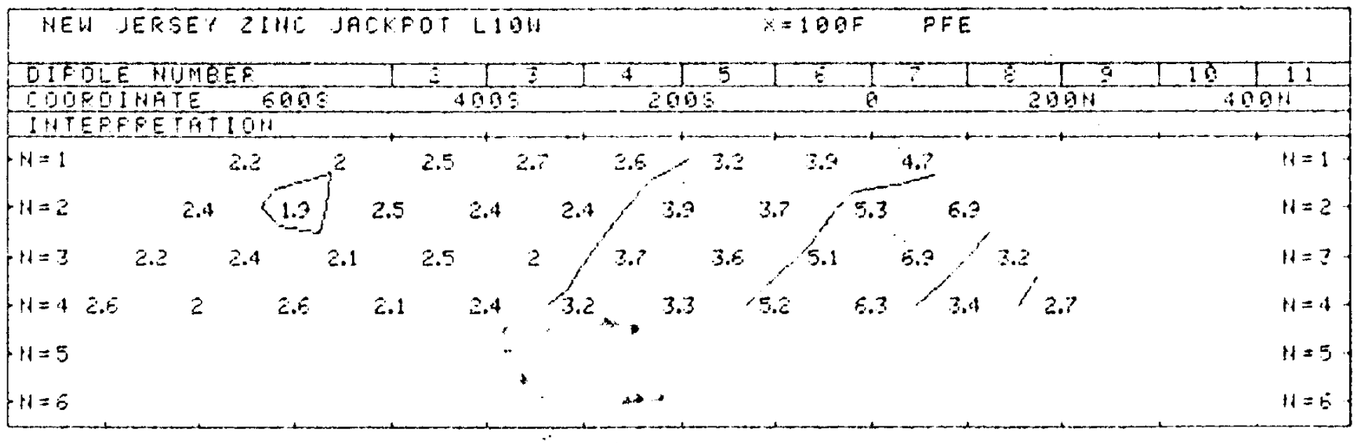
AND RESISTIVITY SURVEY

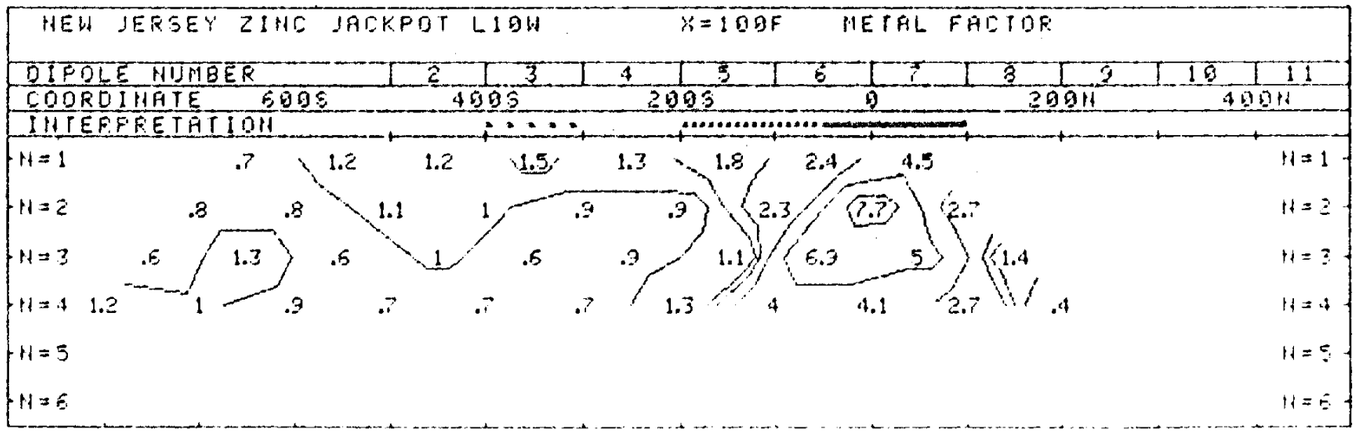
GEOLOGICAL BRANCH ASSESSMENT REPORT

11,163

PART 1 of 2





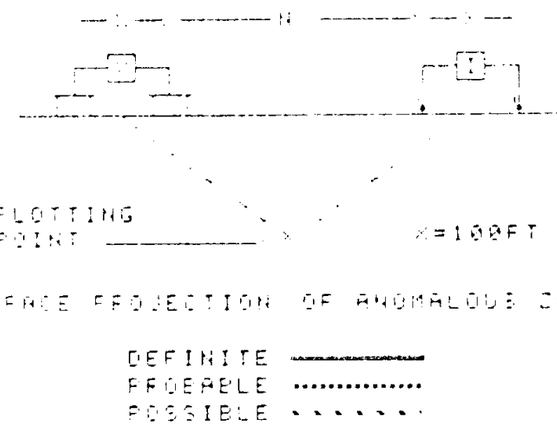


NEW JERSEY ZINC EX COCCAN) LTD

JACKPOT PROPERTY NELSON M D

SALMO BRITISH COLUMBIA

LINE NO -10N



FREQUENCY (HERTZ)
4 0 0 0 25

DATE SURVEYED JUNE 1991

APPROVED

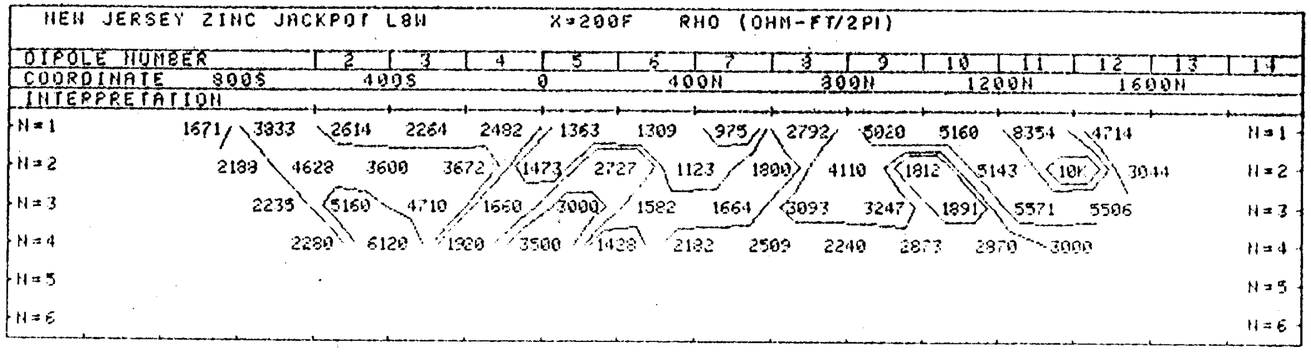
NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1,-1 5 -2 -3 -5,-7 5,-10

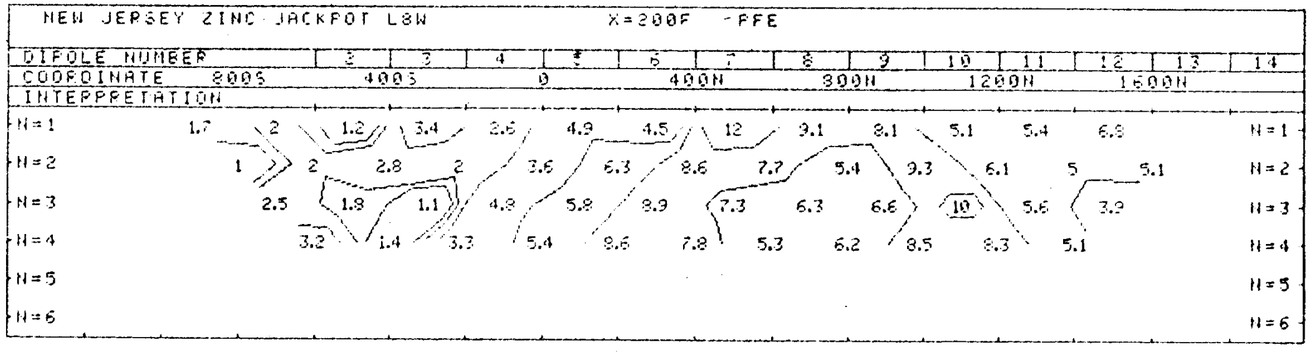
DATE Aug 26/81

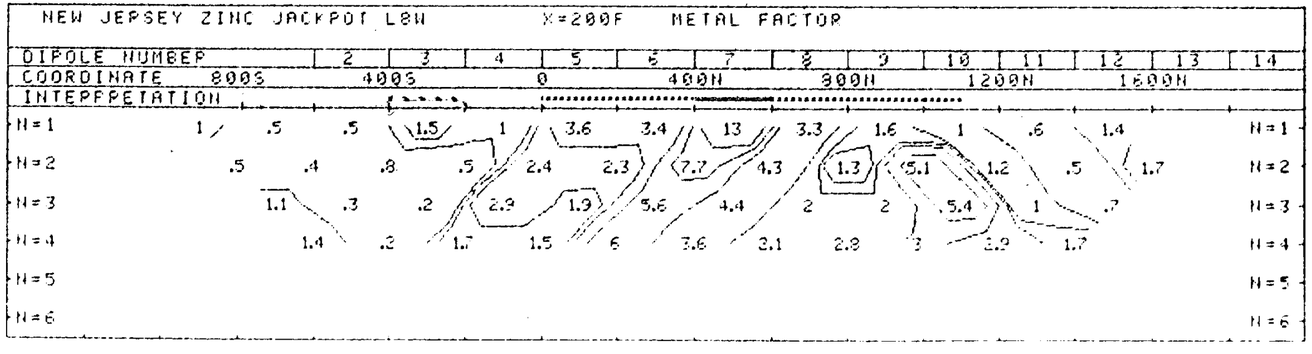
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







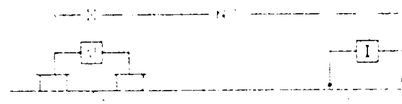
DWG NO -I P-5800-9

NEW JERSEY ZINC EX CO(CAN) LTD

JACKPOT PROPERTY NELSON M D

SALMO BRITISH COLUMBIA

LINE NO L8W



PLOTTING POINT

X=200F

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ———
PROBABLE .....
POSSIBLE - - - - -

FREQUENCY (HERTZ)
4 0/0 25

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

DATE SURVEYED JUNE 1981

APPROVED

Pric

DATE Aug 27/81

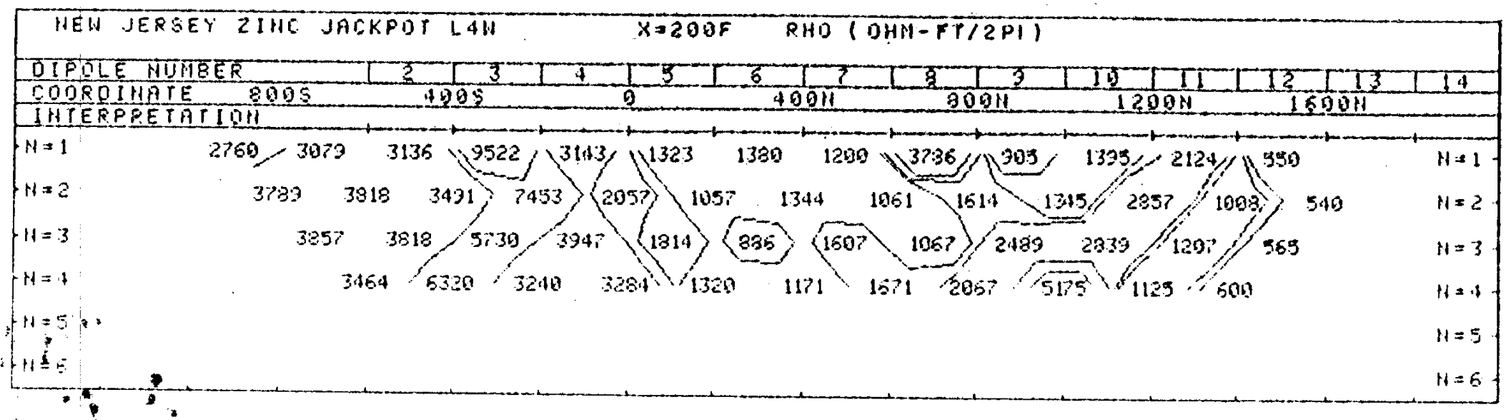
PHOENIX GEOPHYSICS LTD.

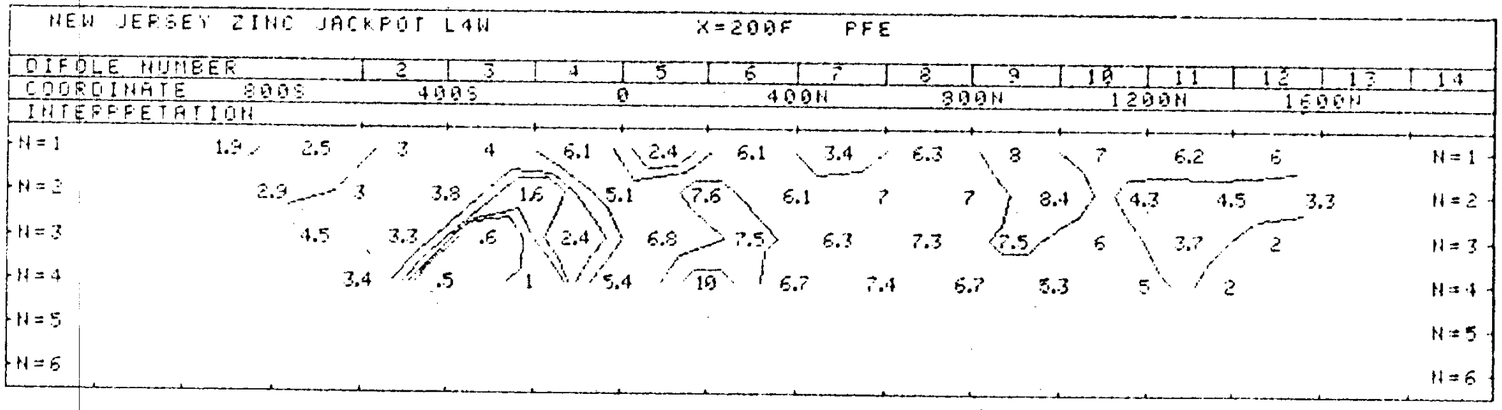
INDUCED POLARIZATION AND RESISTIVITY SURVEY

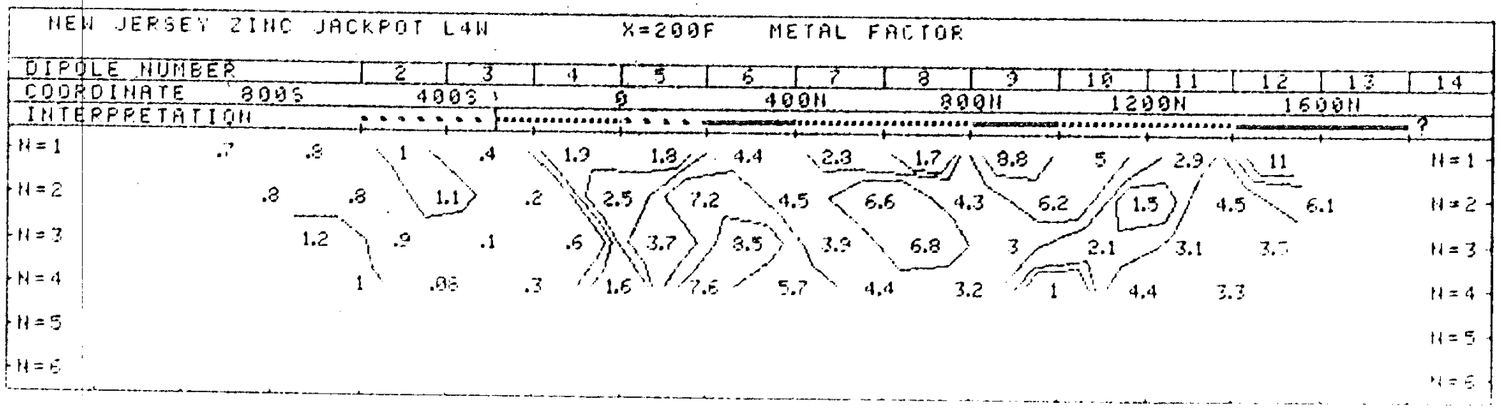
GEOLOGICAL BRANCH ASSESSMENT REPORT

PART 3 OF 5

11,163







GEOLOGICAL BRANCH
ASSESSMENT REPORT

OWG No. - I.P.-5808-(10)

11,163

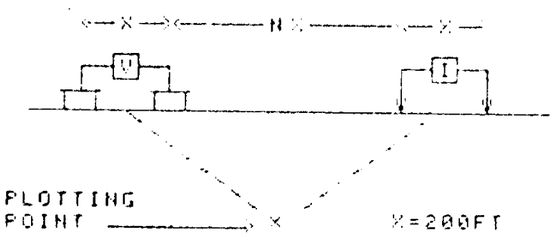
NEW JERSEY ZINC EXPLO(CAN) LTD

JACKPOT PROPERTY NELSON M D

SALMO BRITISH COLUMBIA

PART 3 OF 5

LINE NO -4W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE .....
POSSIBLE . . . . . .

FREQUENCY (HERTZ)
4 0.0 25

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

DATE SURVEYED JUNE 1981
APPROVED

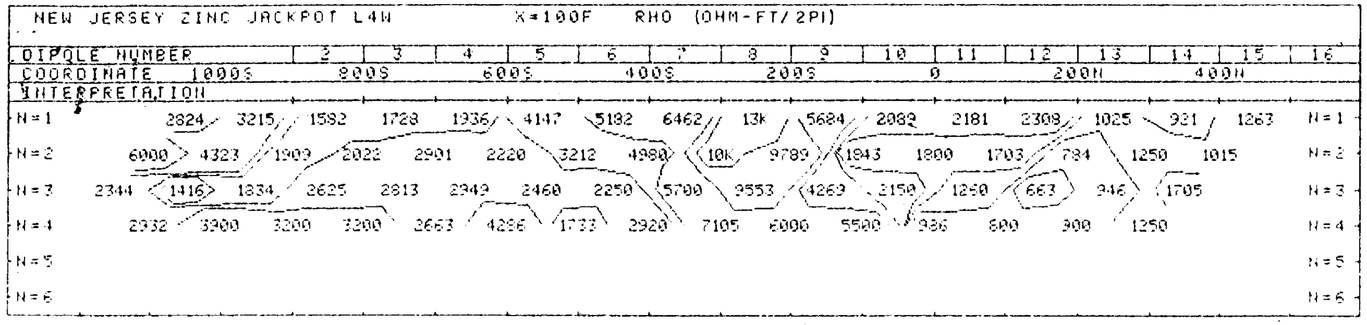
Pac

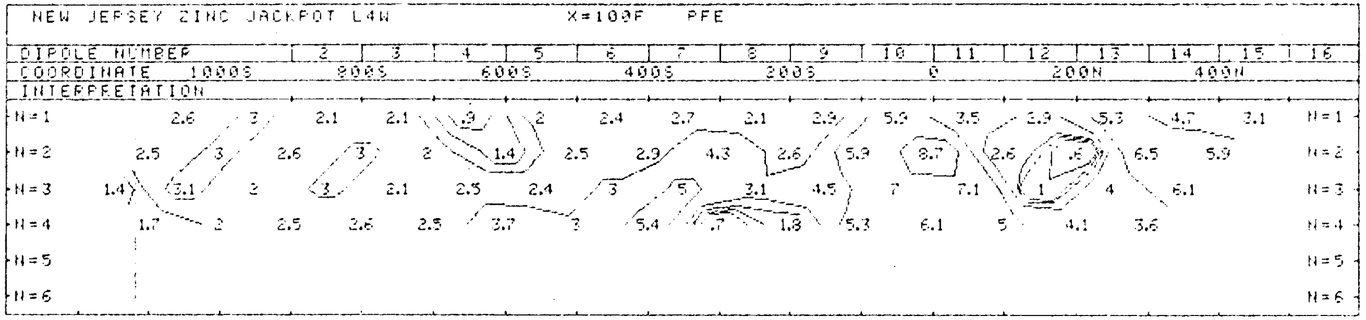
DATE Aug 27/81

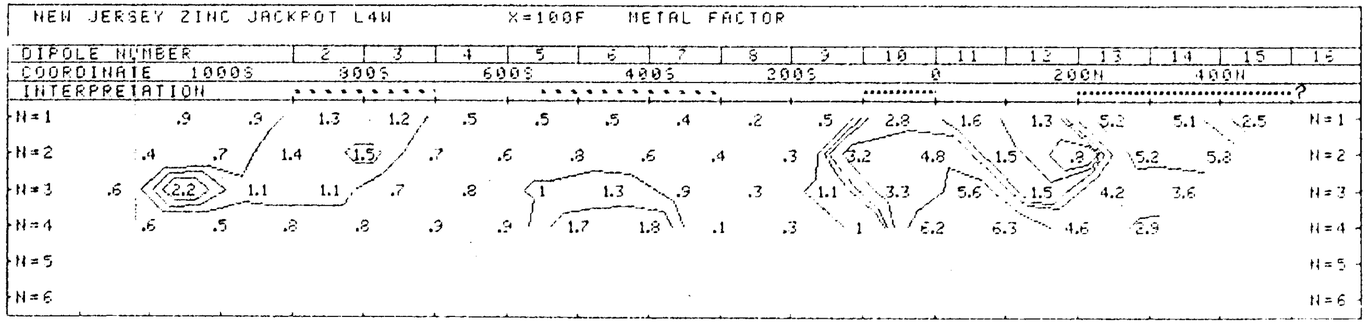
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







DWG NO. -I.P-5808-(11)

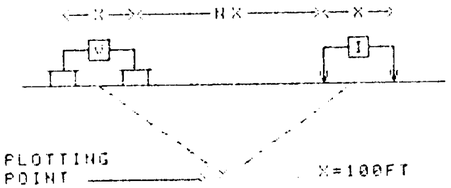
11,163 PART 3 OF 5

NEW JERSEY ZINC EX CO(CAN) LTD

JACKPOT PROPERTY, NELSON M.D

SALMO, BRITISH COLUMBIA

LINE NO -4N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

FREQUENCY (HERTZ)
4 0/0 25

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

DATE SURVEYED: JULY 1981

APPROVED

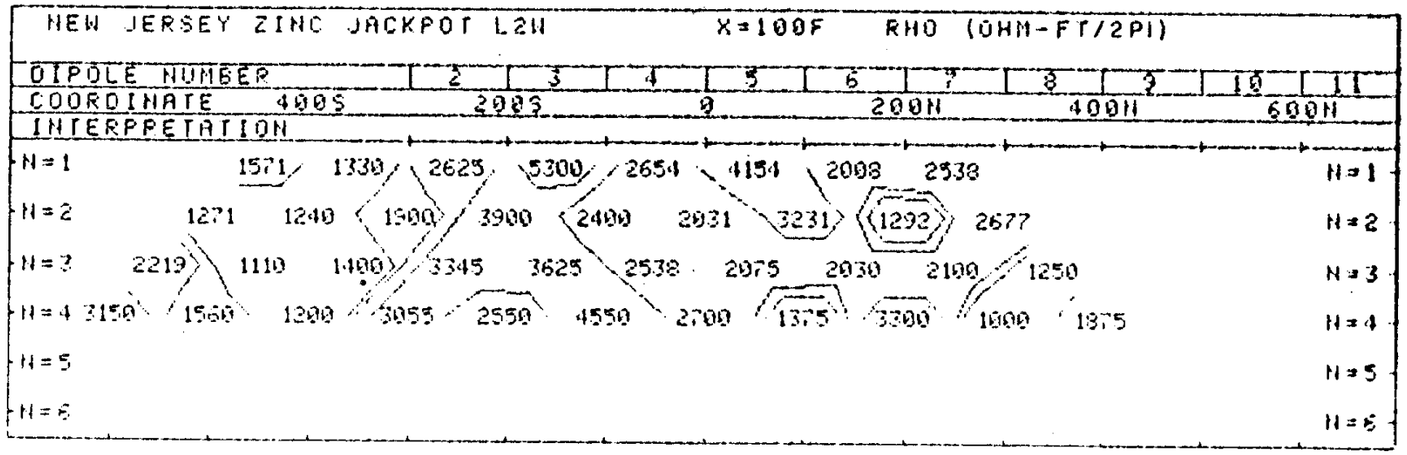
PAC

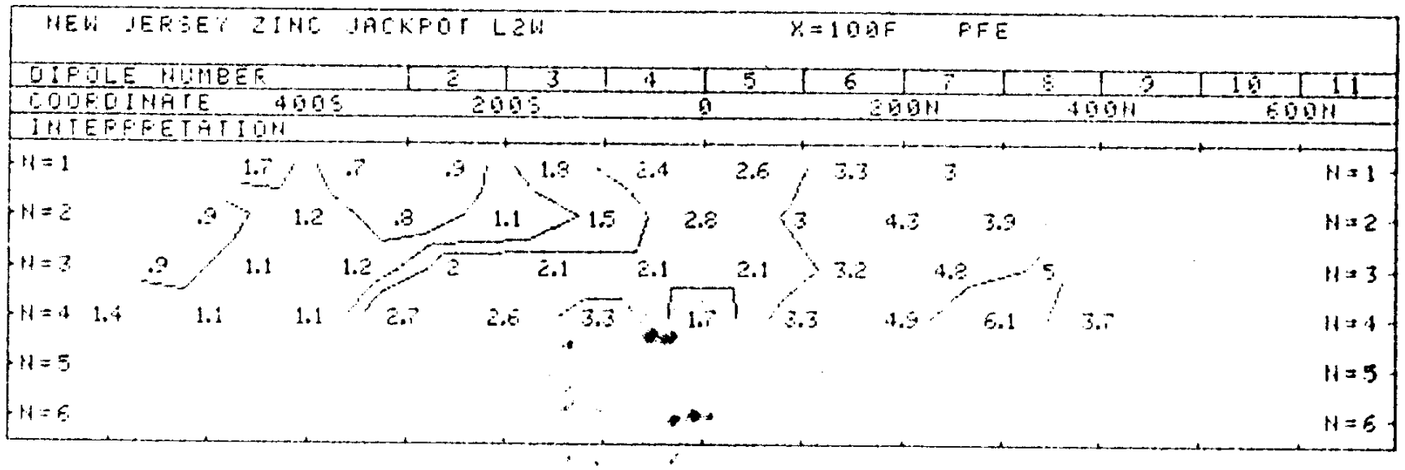
DATE Aug 26/81

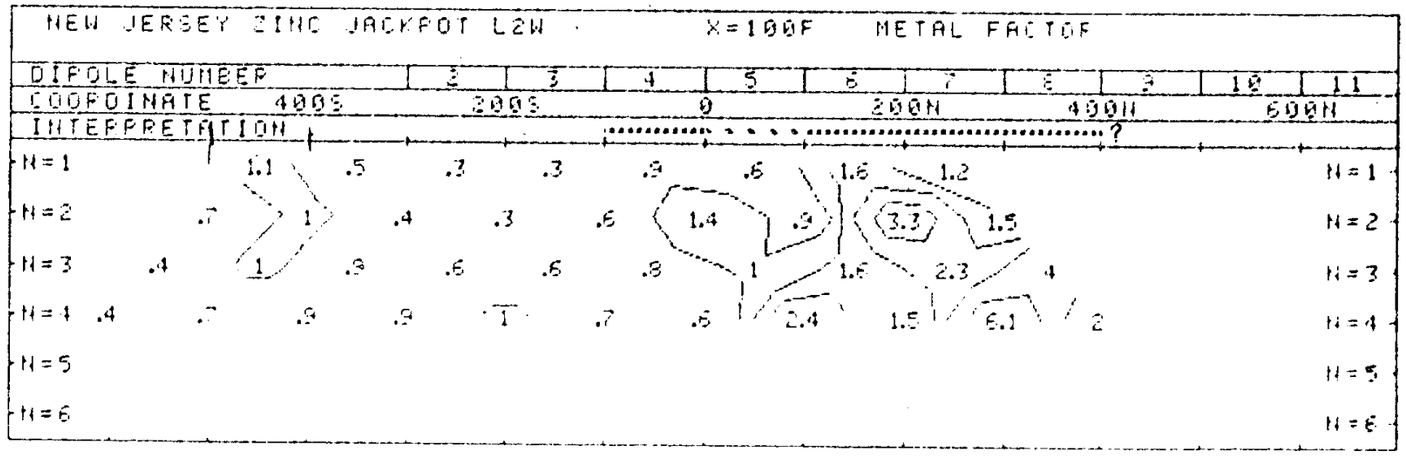
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







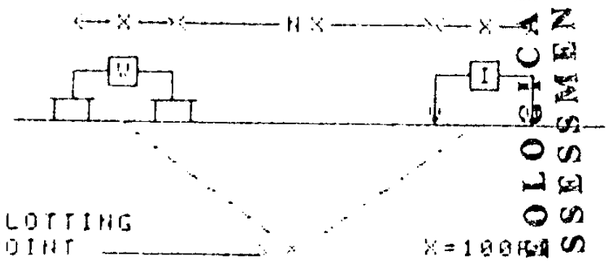
DWG. NO.-I.P.-5303-(12)

NEW JERSEY ZINC EX CO(CAN) LTD

JACKPOT PROPERTY, NELSON M.D.

SALMO, BRITISH COLUMBIA

LINE NO. -2W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE .....
POSSIBLE - - - - - -

FREQUENCY (HERTZ)
4 0/0.25

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

DATE SURVEYED: JULY 1981

APPROVED

PAC

DATE Aug 26/81

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

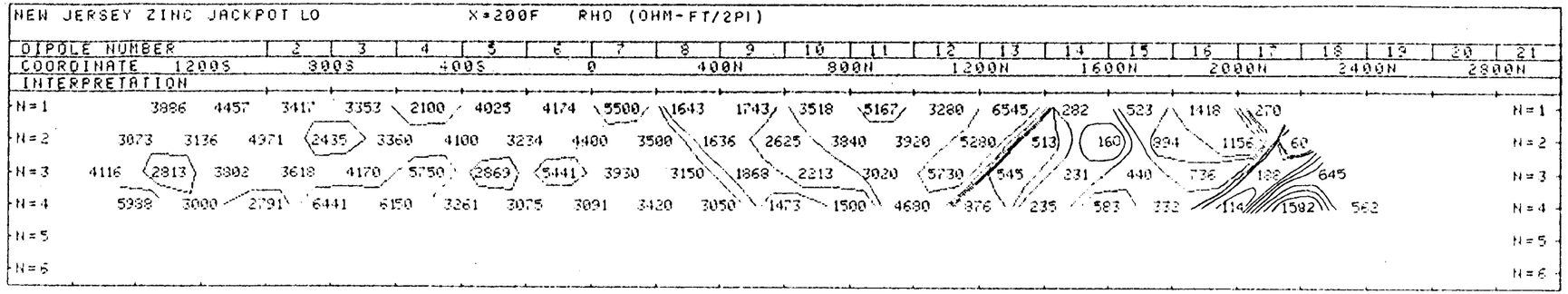
AND RESISTIVITY SURVEY

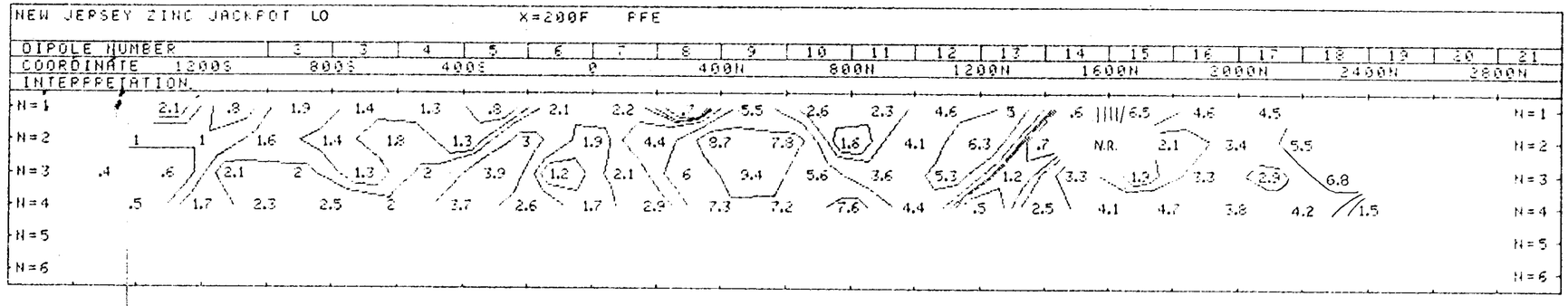
GEOLOGICAL BRANCH ASSESSMENT REPORT

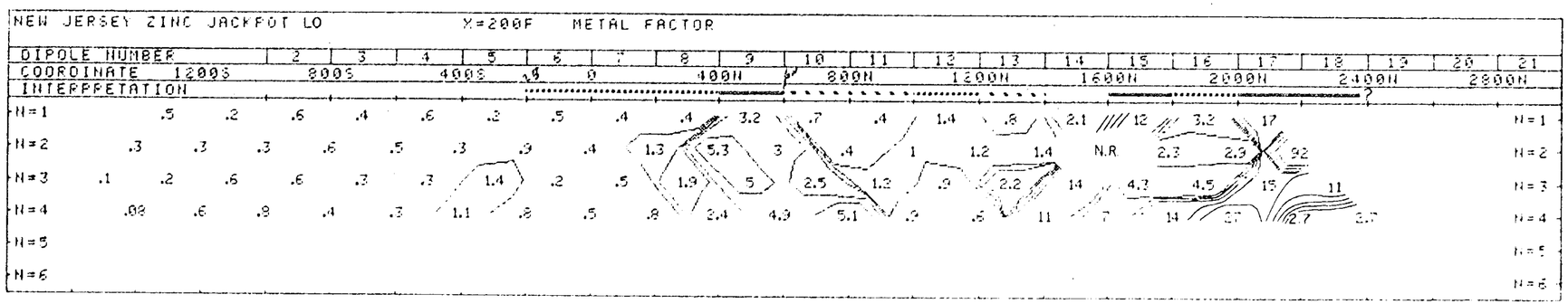
1,162

PART 1 of 5

DWG NO -I P-5808 (13)







NEW JERSEY ZINC EX CO(CAN) LTD

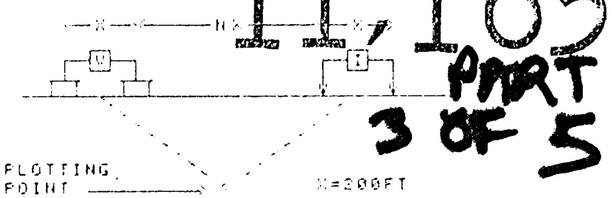
JACKPOT PROPERTY:NELSON M D

SALMO,BRITISH COLUMBIA

GEOLOGICAL BRANCH
ASSESSMENT REPORT

LINE NO -0

11,163
PART 3 OF 5



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE ....
POSSIBLE - - - - - - -

FREQUENCY (HERTZ)
4 0.0 25

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

DATE SURVEYED JUNE 1981
APPROVED

Pac

DATE Aug 26'81

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

NEW JERSEY ZINC JACKPOT LO X=100F RHO (OHM-FT/2PI)

DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
COORDINATE	300S	100S	100N	300N	500N	700N	900N	1100N	1300N							
INTERPRETATION																
N=1	2750	5182	NR	3591	7765	1828	2444	1816	1013	1333	2325	3409	6140	3170	2770	3140
N=2	2455	5236	5200	4125	4800	11K	1566	2200	1137	1067	2220	3627	5021	4930	3500	3290	6000
N=3	3955	3409	5714	885	7250	4223	4429	1359	3231	1176	2053	3837	4667	3979	4910	3200	4570
N=4	1718	4882	3428	900	6444	5290	3654	4147	1040	1603	2100	3400	4133	4180	3940	4050	3780
N=5																
N=6																

NEW JERSEY ZINC JACKPOT LO X=100F PFE

DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
COORDINATE	300S	100S	100N	300N	500N	700N	900N	1100N	1300N							
INTERPRETATION																
N=1	1.1	.4	NR	1.8	1.2	2.7	2.3	5.2	5.3	2.5	1.9	4	3.2	3.8	4.5	4.5
N=2	1.5	2.2	.3	2.1	2.4	1.7	4.4	5.4	6.7	6.2	3.7	2.8	2.3	1.8	3.6	3.2	2.6
N=3	1.5	1.6	1.2	3.9	2	1.9	2.8	6.7	7.5	8.3	5.3	1.8	2.3	2	3.2	4	2.7
N=4	1.5	1.2	1.1	8.2	1.6	2.5	2.5	3.7	7.5	9.2	7.3	7	2.3	.9	3.4	2.2	4.8
N=5																
N=6																

NEW JERSEY ZINC JACKPOT LO X=100F METAL FACTOR

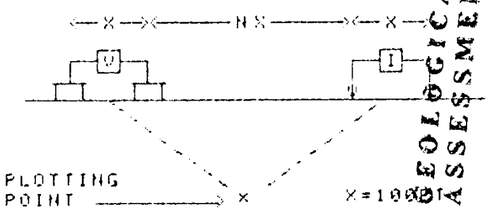
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
COORDINATE	300S	100S	100N	300N	500N	700N	900N	1100N	1300N							
INTERPRETATION																
N=1	.4	.08	NR	.5	.2	1.5	.9	2.9	5.2	1.9	.8	1.2	.5	1.2	1.6	1.4
N=2	.6	.4	.06	.5	.5	.2	2.8	2.5	5.9	5.3	1.7	.8	.5	.4	1	1	.4
N=3	.4	.5	.2	4.4	.3	.4	.6	4.9	2.3	7.1	2.6	.5	.3	.5	.7	1.3	.6
N=4	.9	.2	.3	3.1	.2	.5	.7	.9	7.2	5.7	3.5	2.3	.6	.2	.3	.5	1.3
N=5																
N=6																

NEW JERSEY ZINC EX CO(CAN) LTD

JACKPOT PROPERTY, NELSON M.D.

SALMO, BRITISH COLUMBIA

LINE NO. - O



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE ....
POSSIBLE - - - - - - -

FREQUENCY (HERTZ)
4 0.0.25

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

DATE SURVEYED JUNE 1981

APPPROVED

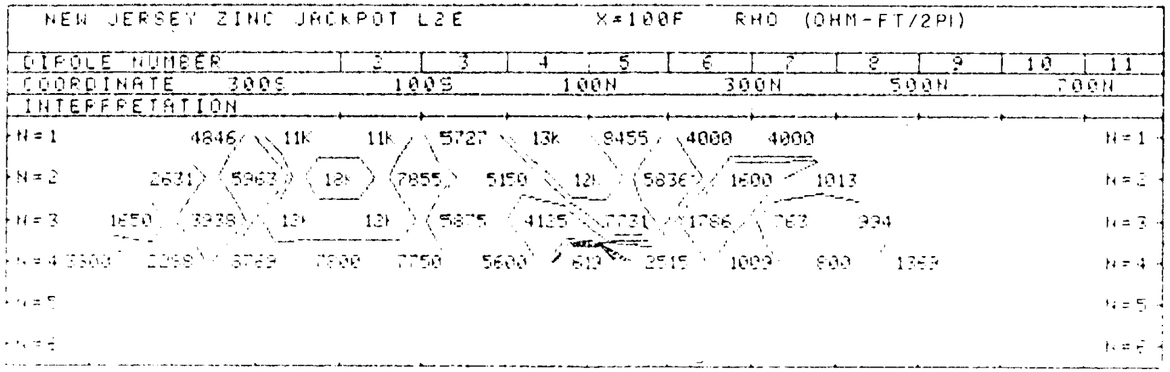
PAC

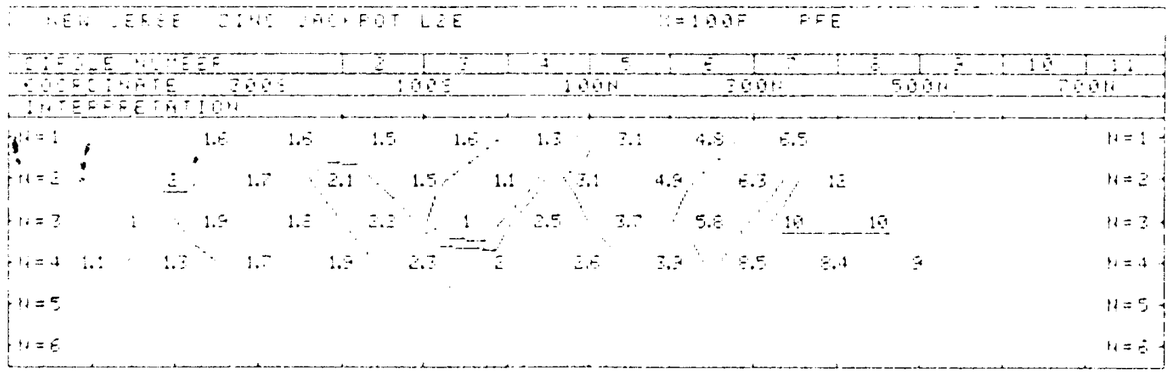
DATE Aug 26/81

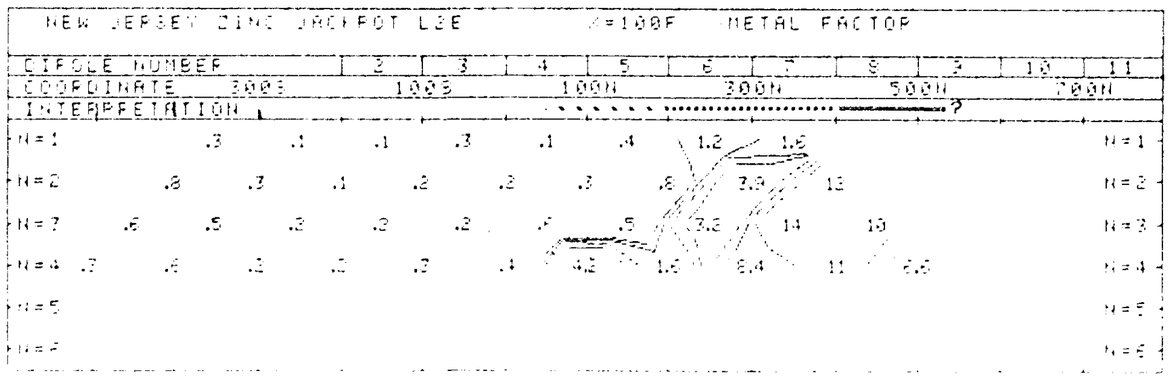
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







DWG NO -I P-5805 (15)

NEW JERSEY ZINC EX CO(CAN) LTD

JACKPOT PROPERTY NELSON M D

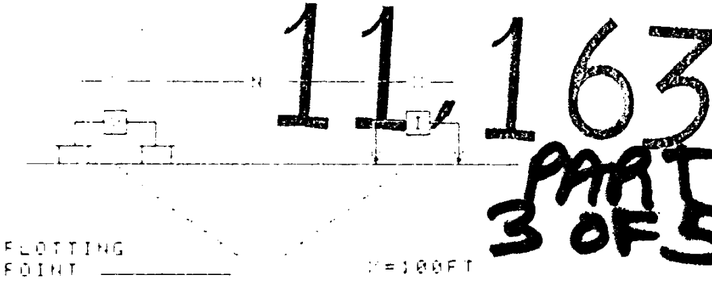
SALMO BRITISH COLUMBIA

GEOLOGICAL BRANCH
ASSESSMENT REPORT

LINE NO L2E

11,163

PART 3 OF 5



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE ....
POSSIBLE - - - - - - -

FREQUENCY (HERTZ)
4 0 0 25

DATE SURVEYED JULY 13-1
APPROVED

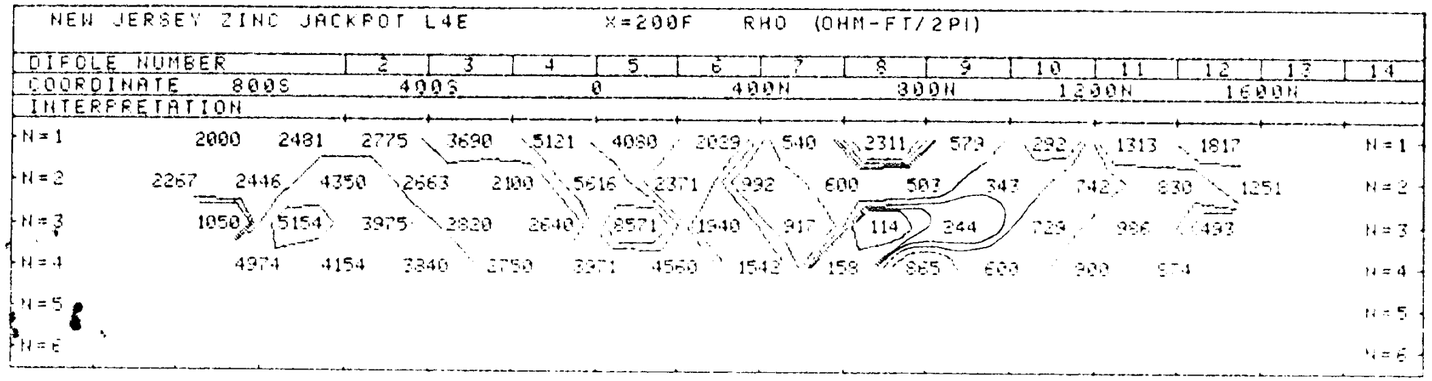
NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1.-1 5 -2 -3.-5.-7 5.-10

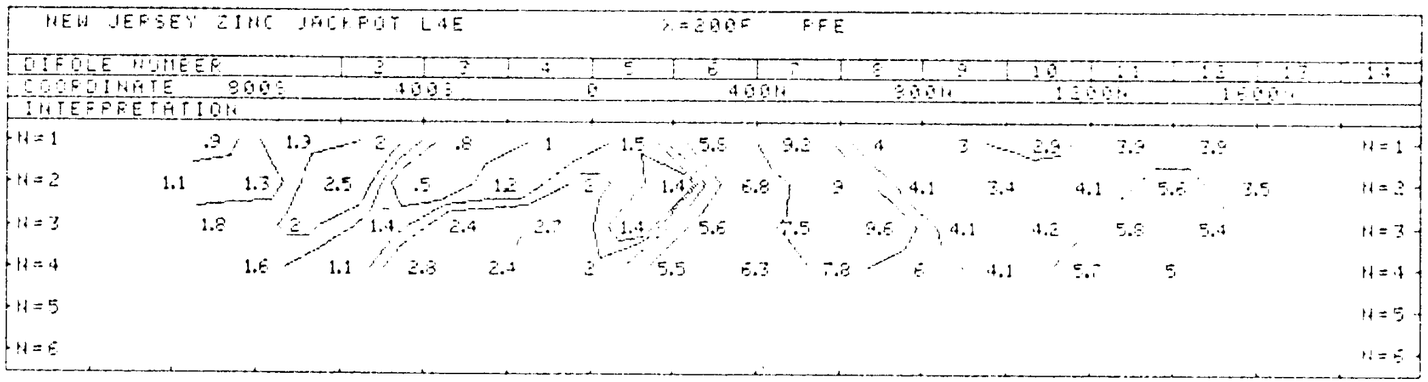
DATE Aug 21 8[illegible]

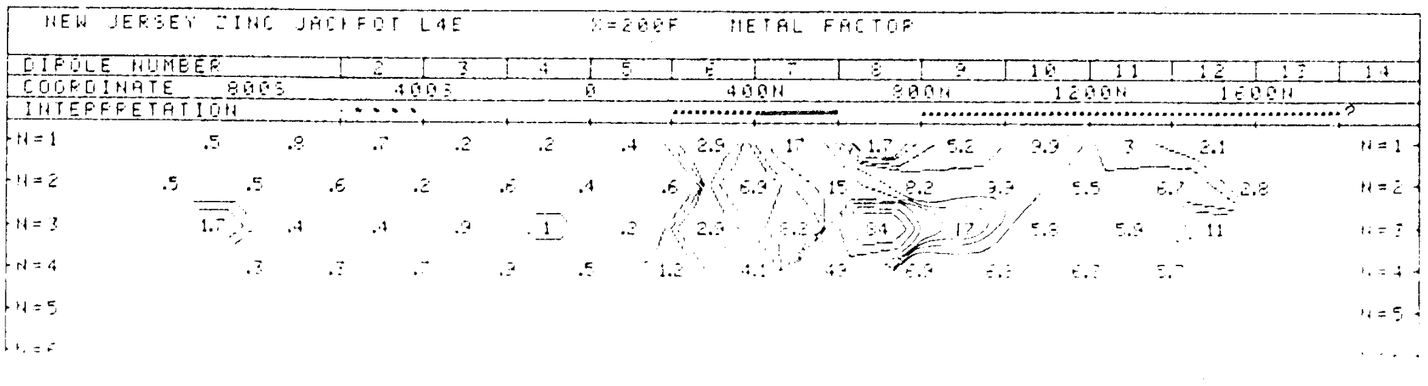
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







GEOLOGICAL BRANCH
ASSESSMENT REPORT

DWG NO -I P-5808-(15)

11,163

NEW JERSEY ZINC EX CO(CAN) LTD

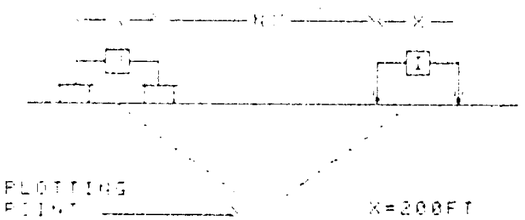
PPRT

3 OF 5

JACKPOT PROPERTY-NELSON M D

SALMO BRITISH COLUMBIA

LINE NO -4E



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE .....
POSSIBLE - - - - - -

FREQUENCY (HERTZ)
4 8 16 32

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

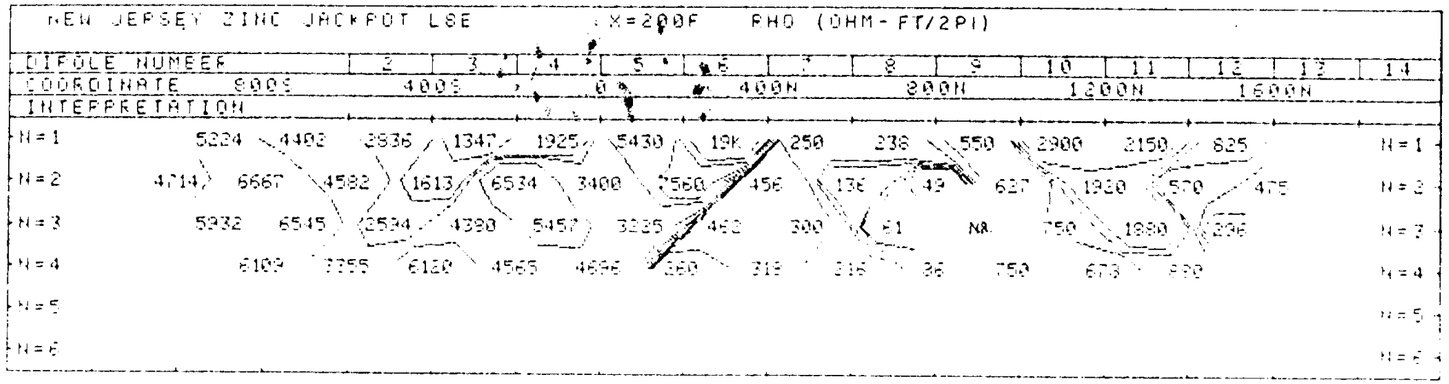
DATE SURVEYED JUNE 1981
APPROVED

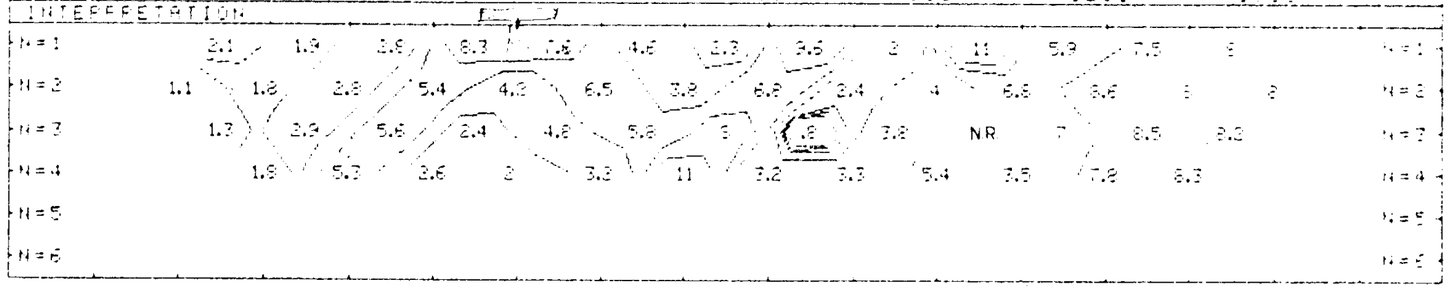
PAC

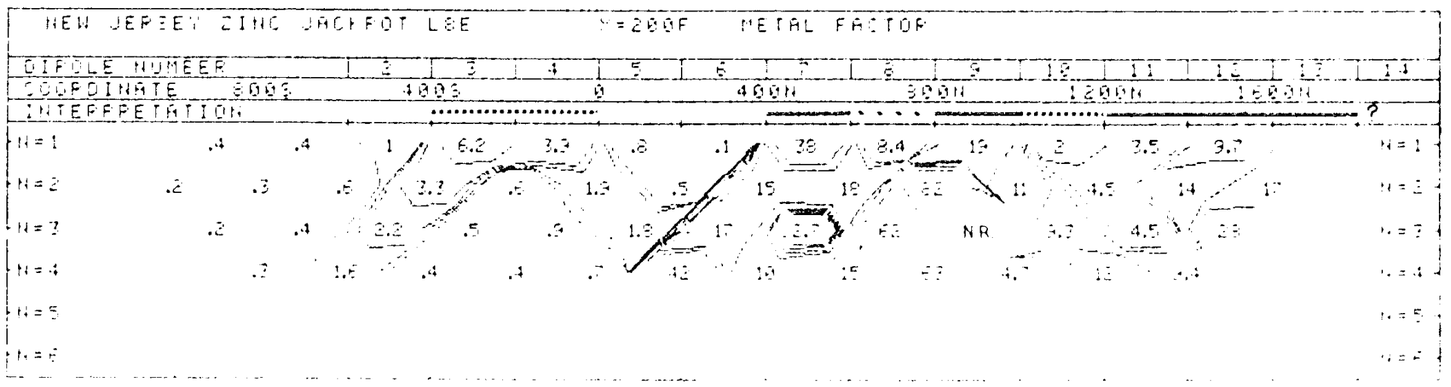
DATE Aug 26 81

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION







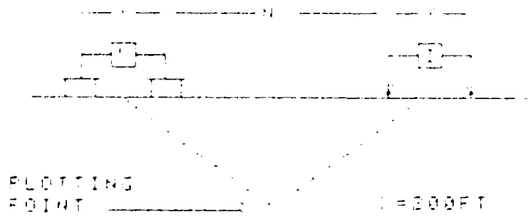
GEOLOGICAL BRANCH
ASSESSMENT REPORT 11,163 PART 5 OF 5

NEW JERSEY ZINC EXPLORATION (CAN) LTD

JACKPOT PROPERTY, NELSON M.D.

SALMO, BRITISH COLUMBIA

LINE NO. 4SE



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ——————
PROBABLE ....
POSSIBLE ^^^^^^^^

FREQUENCY (HERTZ)
4 8 16 32

NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1, -1.5, -2, -3, -5, -7, 9, -10

DATE SURVEYED JUNE 1981

APPROVED

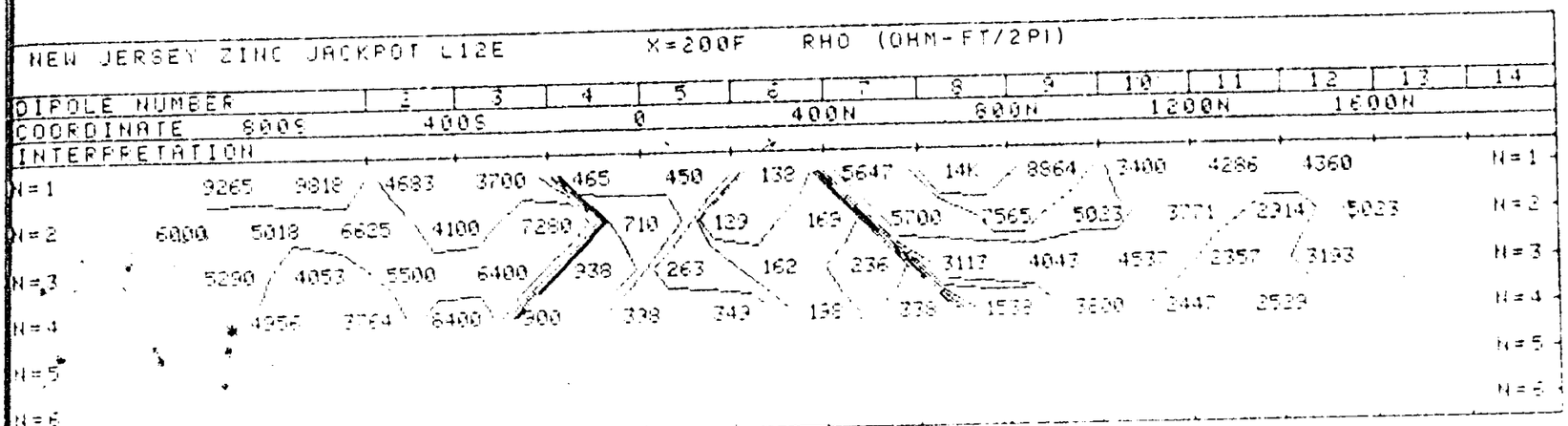
Per

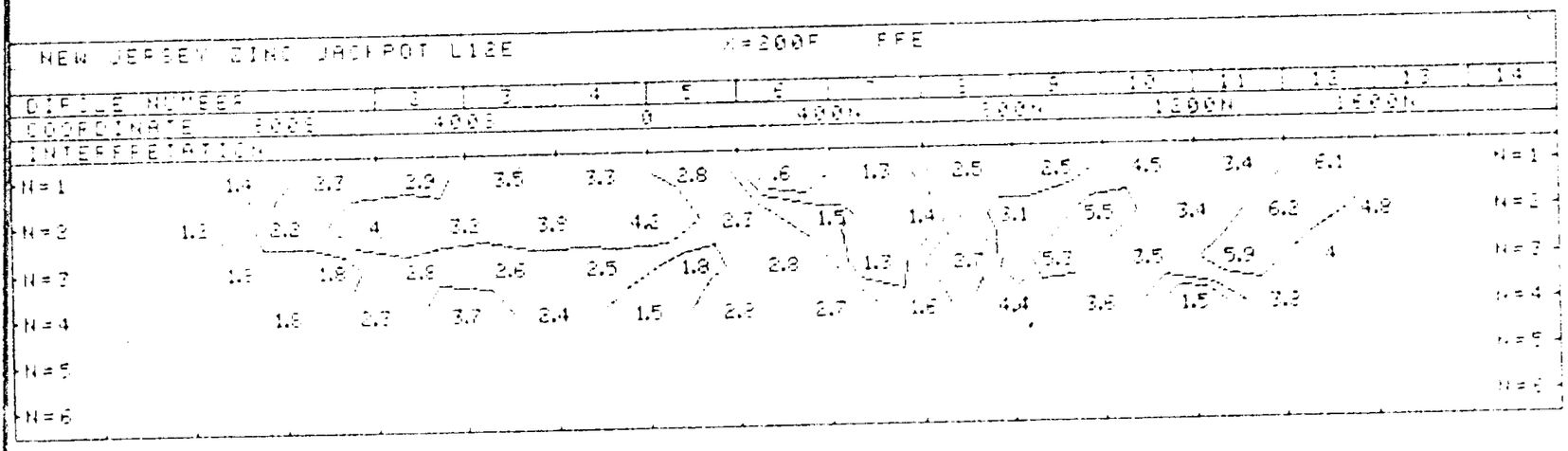
DATE Aug 26/81

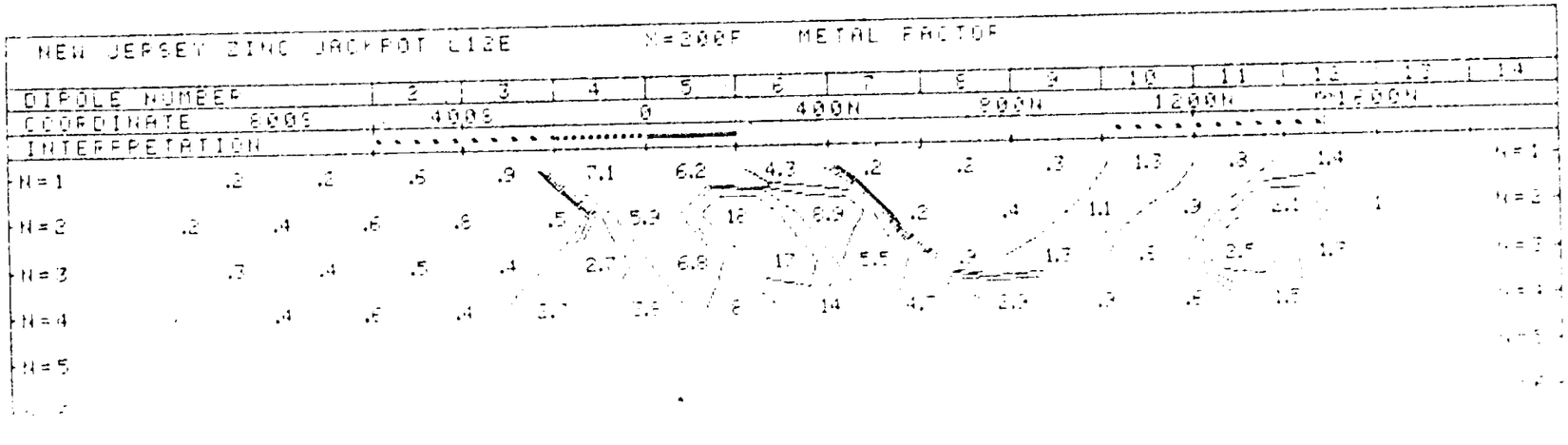
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







GEOLOGICAL BRANCH
ASSESSMENT REPORT

DWG NO -I F-5

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11,163

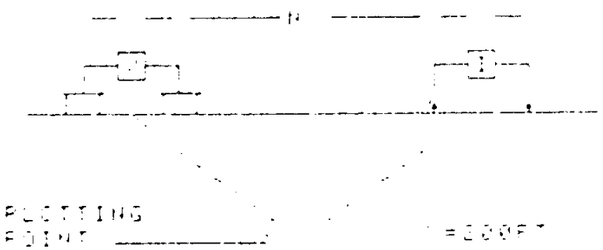
NEW JERSEY ZINC EX COCCAN

PART 3 OF 5

JACKPOT PROPERTY NELSON M D

SALMO BRITISH COLUMBIA

LINE NO -I2E



SURFACE PROJECTION OF MINERALIZED ZONE

DEFINITE
PROBABLE
POSSIBLE

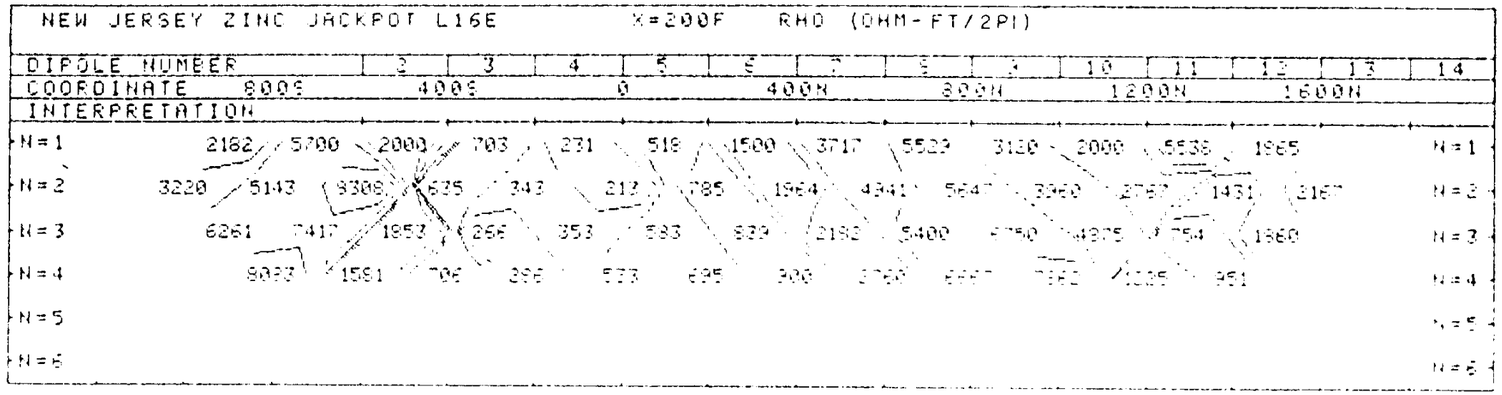
FREQUENCY (HERTZ)
4 0 0 32

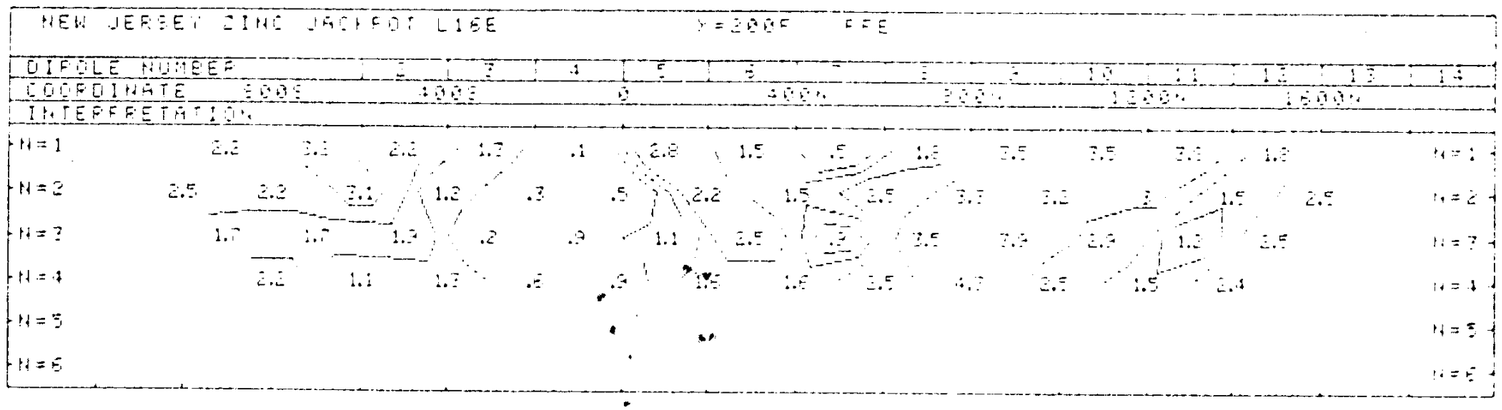
DATE SURVEYED / LINE
APPROVED

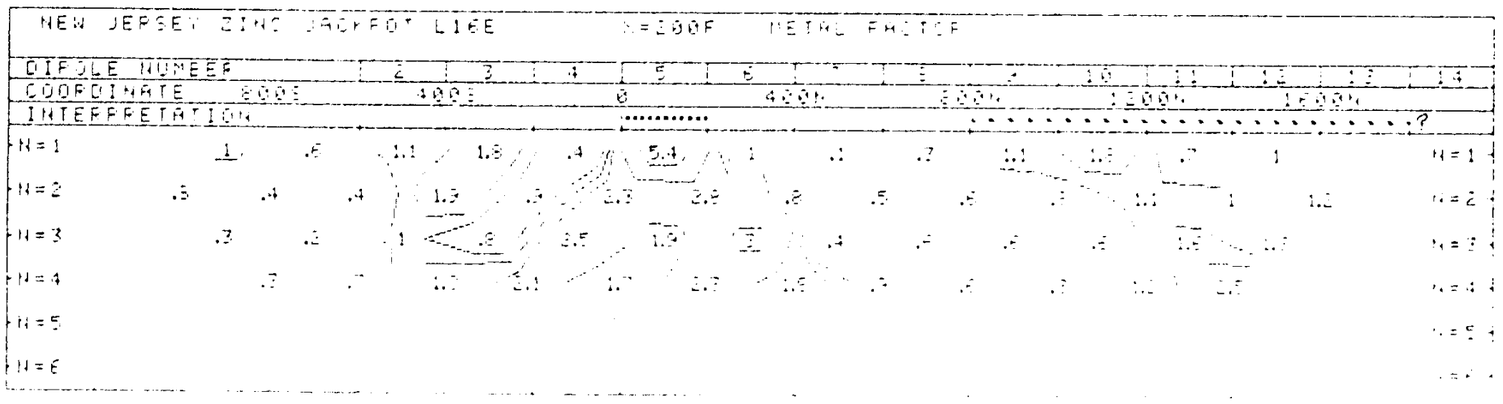
NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1 -1 5 -2 -3 -5 -7 5 -10

DATE

PHOENIX GEOPHYSICS LT





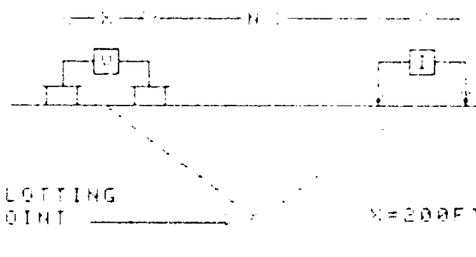


NEW JERSEY ZINC EX CO(CAN) LTD

JACKPOT PROPERTY, NELSON M.D.

SALMO, BRITISH COLUMBIA

LINE NO -16E



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,163

PART 1
3 OF 5

FREQUENCY (HERTZ)
4 0.0 25

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

DATE SURVEYED JUNE 1981

APPROVED

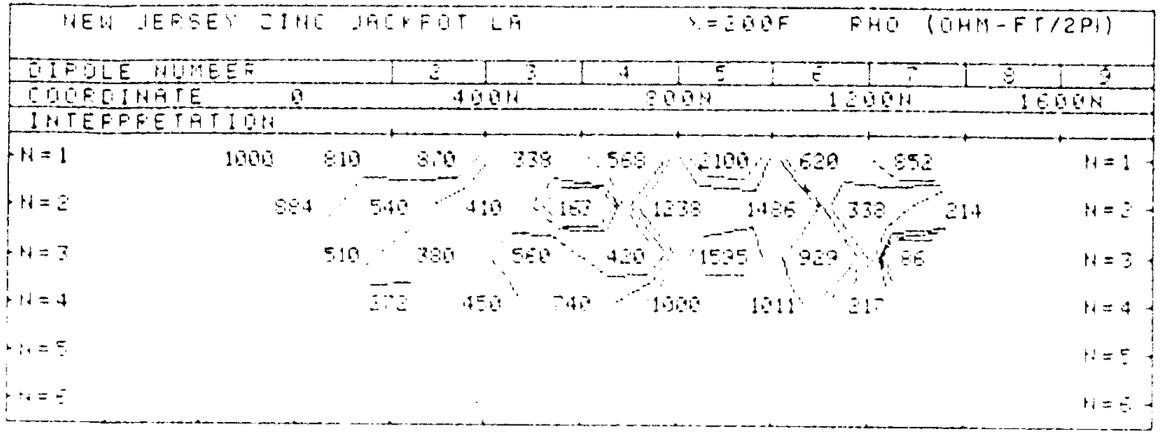
PAC

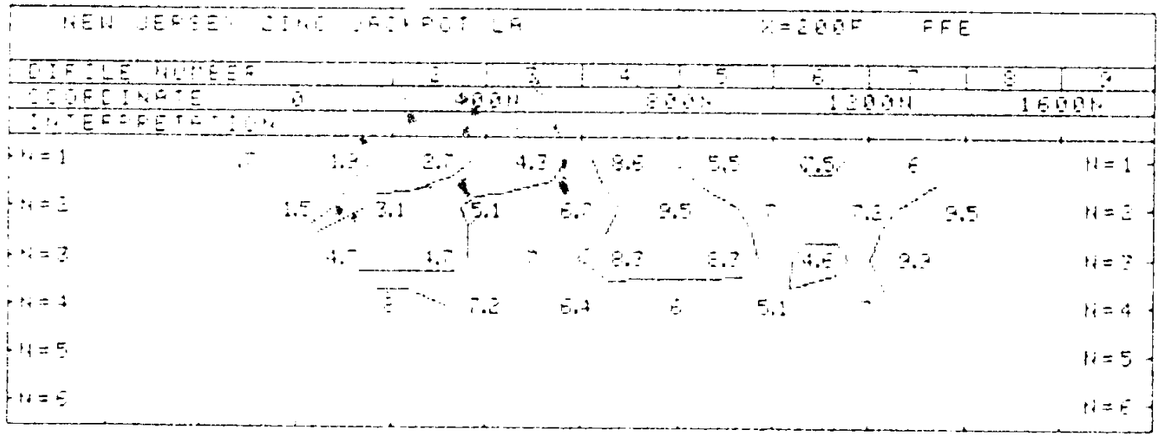
DATE Aug 26/81

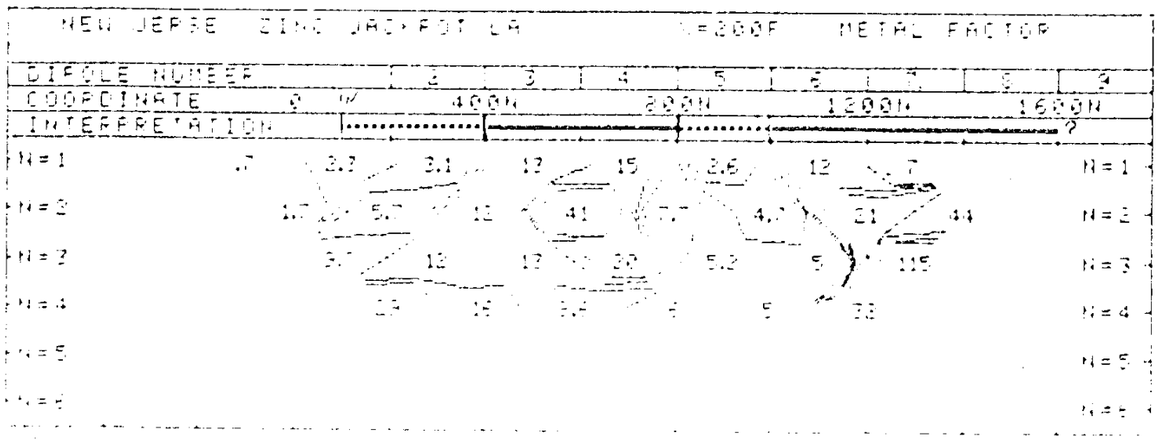
PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION

AND RESISTIVITY SURVEY







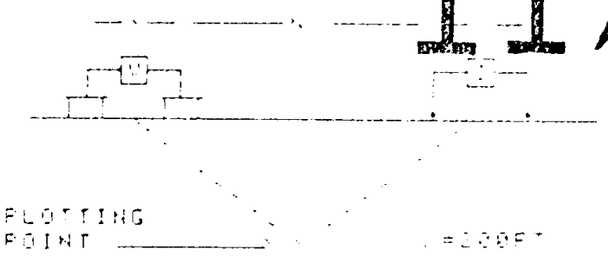
DWG NO -I P-5605 (M)

NEW JERSEY ZINC EX COCCAN) LTD

JACKPOT PROPERTY NELSON M.D.

SALMO BRITISH COLUMBIA

LINE NO. LA



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ———
PROBABLE .....
POSSIBLE - - - - - -

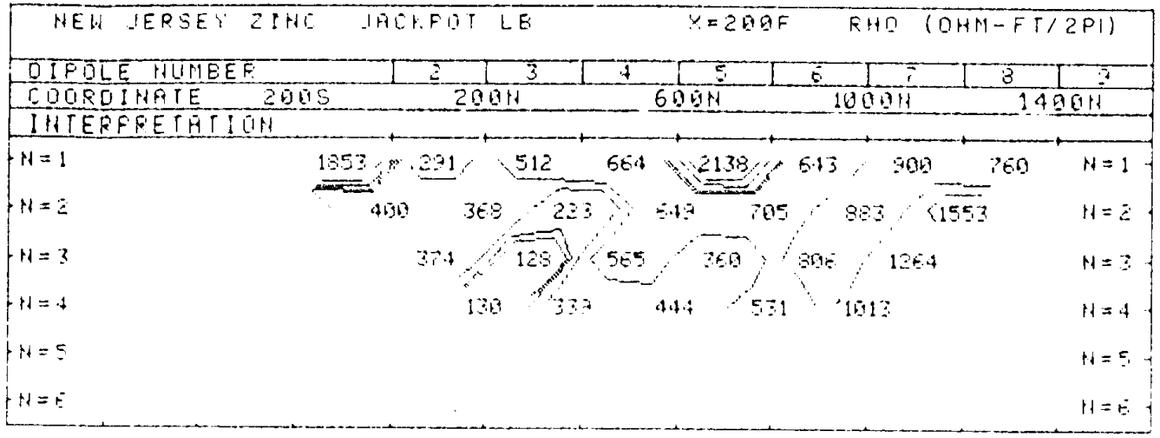
FREQUENCY (HERTZ)
4 0 0 25

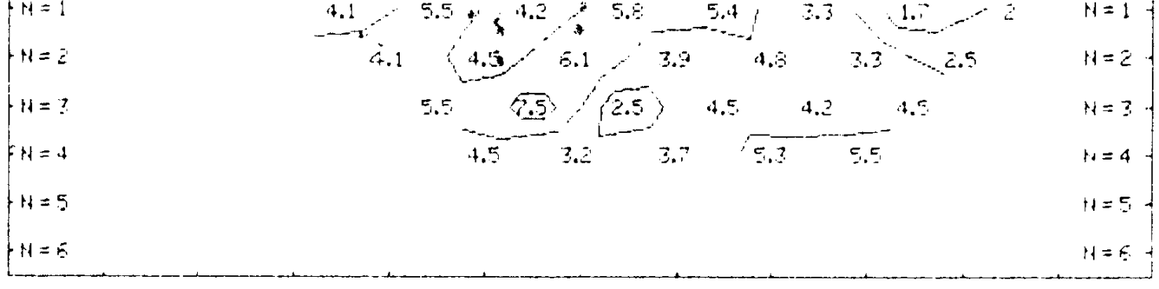
NOTE- CONTOURS AT LOGARITHMIC INTERVALS 1 -1 5 -2 -3 -5 -7 5 -10

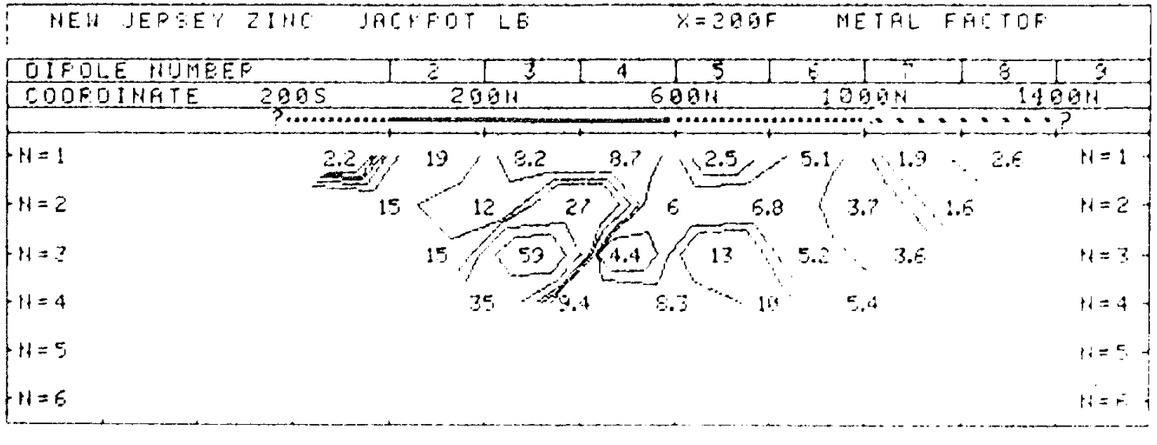
DATE SURVEYED JUNE 1981
APPROVED

DATE Oct 26/81

PHOENIX GEOPHYSICS LTD.







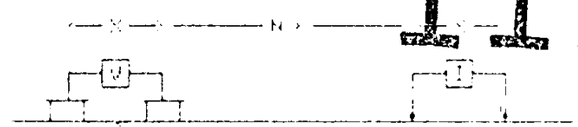
DWG NO -I P-5909-G

NEW JERSEY ZINC EX COCANO LTD

JACKPOT PROPERTY NELSON M D

SALMO BRITISH COLUMBIA

LINE NO -E



PLOTTING POINT _____ X=200E

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ————
PROBABLE ·····
POSSIBLE - - - - - -

FREQUENCY (HERTZ)
4 0.0 25

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

DATE SURVEYED JULY 1981
APPROVED

DATE Aug 28, 81

PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,163
PART
3 OF 5