'77-#409-# 6520

REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE KENA CLAIM GROUP

NELSON MINING DIVISION, B.C.

FOR

QUINTANA MINERALS CORPORATION

6520

6520

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

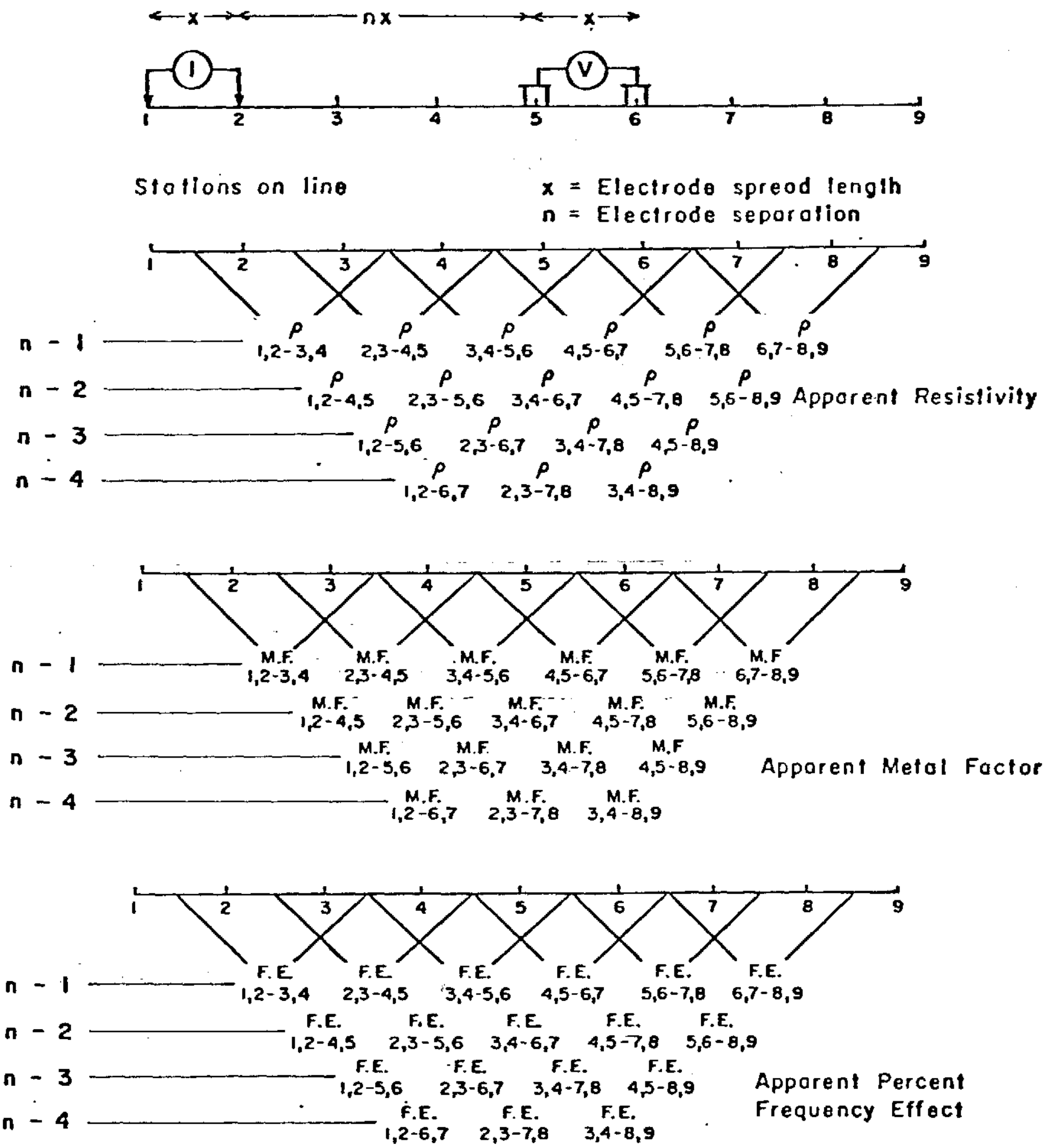

Fig. A

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REPORT ON THE

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

ON THE

KENA CLAIM GROUP

NELSON MINING DIVISION, B.C.

FOR

QUINTANA MINERALS CORPORATION

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1. INTRODUCTION

An Induced Polarization and Resistivity survey has been completed on the Kena Claim Group for the Quintana Minerals Corporation. The Kena Claims are located approximately 4 miles south of Nelson in the Nelson Mining Division, B.C.

The Kena Claim Group is positioned on the eastern flank of Toad Mountain at elevations ranging from 1000 to 1600 metres. Access is by a four-wheel drive logging road which leaves Highway #6, about 5.6 KM south of Nelson and leads into the centre of the claim group. The centre of the claims is located at about 117°16' west longitude and 49°26' north latitude in N.T.S. sheet #82F/6.

The purpose of the survey was to delimit the area of observed sulphide mineralization and investigate the area of the survey grid for evidence of massive sulphide bodies.

Field work was carried out during the period October 3 to October 15, 1977. This work was supervised by Mr. John Marsh, a Crew Leader with Phoenix Geophysics Limited. His certificate of qualification is appended to this report.

A McPhar frequency domain IP system operating at 0.3 and 5.0 Hz was used for the survey.

2. DESCRIPTION OF CLAIMS

The Kena Claim Group consists of the following claims:

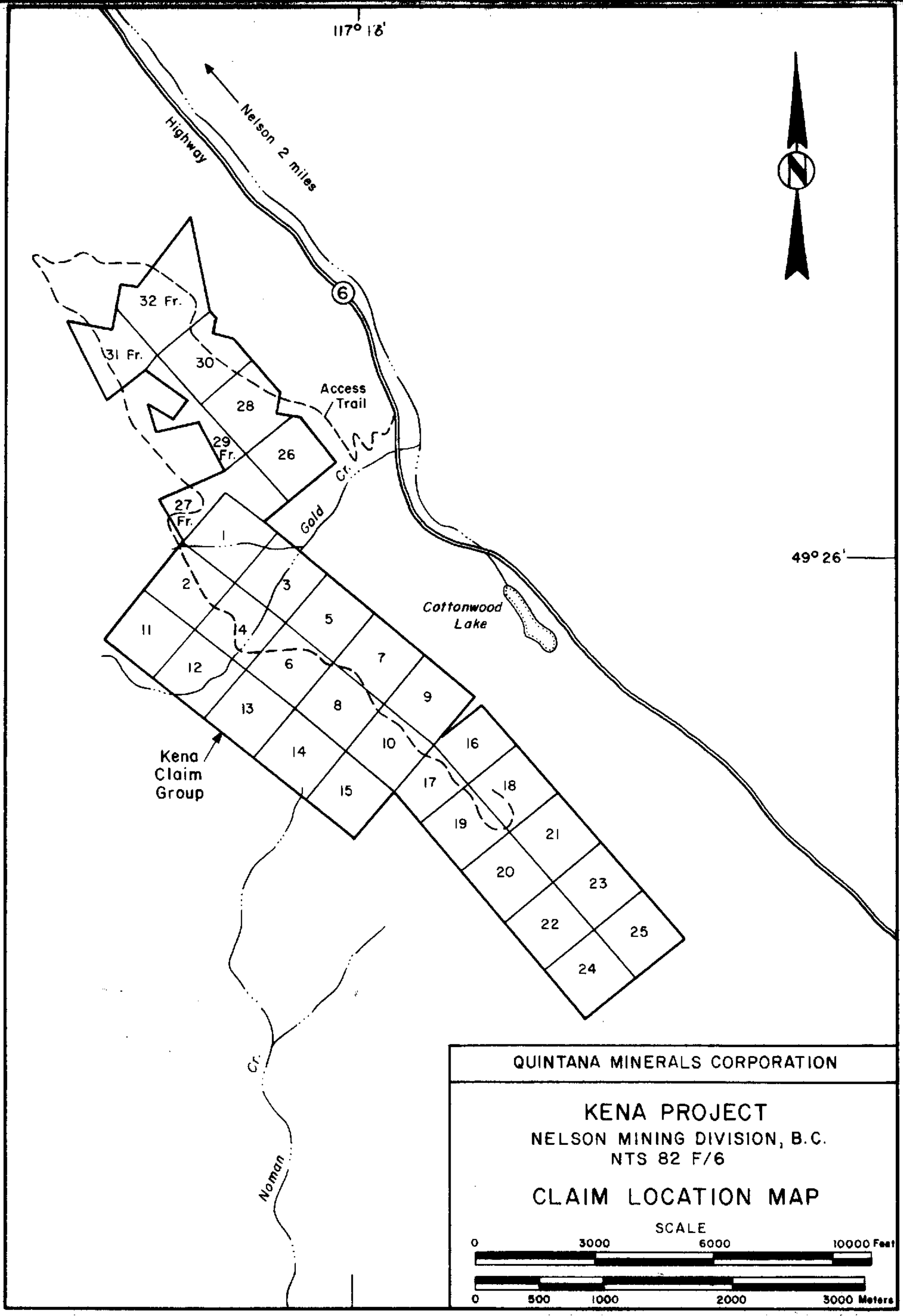
KENA 1-15 inclusive Record Nos.15323 - 15337 inclusive
KENA 16-32 inclusive Record Nos.15643 - 15659 inclusive

Anniversary date for the claims is November 5. The claims are held under an option agreement with Corbin J. Robertson, 601 Jefferson Street, Cullen Center, Houston, Texas 77002.

3. PRESENTATION OF RESULTS

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

Line No.	Electrode Interval	Dwg. No.
40E	300 feet	IP 5087-1
48E	300 feet	IP 5087-2
56E	300 feet	IP 5087-3
64E	300 feet	IP 5087-4


117° 18'
Nelson 2 miles
Highway
6
32 Fr.
31 Fr.
30
28
29 Fr.
26
27 Fr.
Access Trail
Gold Cr.
49° 26'
Cottonwood Lake
1
2
3
5
11
4
7
6
12
9
13
8
10
14
15
16
17
18
19
21
20
23
22
25
24
Kena Claim Group
Noman Cr.
QUINTANA MINERALS CORPORATION
KENA PROJECT
NELSON MINING DIVISION, B.C.
NTS 82 F/6
CLAIM LOCATION MAP
SCALE
0
3000
6000
10000 Feet
0
500
1000
2000
3000 Meters

LOCATION MAP

Line No.	Electrode Interval	Dwg. No.
72E	300 feet	IP 5087-5
80E	300 feet	IP 5087-6

Also enclosed with this report is Dwg. I.P.P. 3038, a plan map of the Kena Claim Grid at a scale of 1" = 400'. 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 300' electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 300' 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 the source, the length of the indicaed anomaly along the line should not be taken to represent the exact edges of the anomalous material.

The grid, claim and topographic information shown on Dwg.I.P.P. 3038 has been taken from maps made available by the staff of Quintana Minerals Corporation.

4. DESCRIPTION OF GEOLOGY

The description of general geology was obtained from G.S.C. Memoir #308 by H.W. Little.

The Kena Claim Group is underlain by andesitic volcanics of the Lower Jurassic Rossland formation, which has been intruded by porphyritic rocks thought to be part of the Nelson batholith. Most of the volcanic rocks have been altered to chlorite or sericite schist, and locally contain up to 5% finely disseminated pyrite and subordinate amounts of chalcopyrite.

5. DISCUSSION OF RESULTS

An interpretation of the subsurface resistivity levels is shown on the accompanying plan, Dwg. Misc. 3039. With this interpretive technique, the dominant underlying resistivity level is projected to the surface. The contoured presentation can be useful in outlining some geological formations, rock alteration, and generally determining strikes and trends.

The resistivity profiles are spaced at 800' intervals. This relatively wide spacing makes line to line correlation uncertain and some generalization was necessary in producing this contoured presentation.

The contoured resistivity presentation shows a core of moderate magnitude values flanked by higher resistivities to the northeast and southwest. This core strikes northwest through the survey grid and swings more northerly in the vicinity of Line 48E. The stronger Induced Polarization effects correspond approximately with the lower resistivities.

The IP survey has outlined an extensive area of relatively high frequency effects in a moderate to high resistivity environment. The anomalous zone is wide, about 1500 feet on Line 56E and Line 64E. The depth to the top of the source is shallow relative to the 300' electrode interval; the actual depth can be determined by making measurements with shorter electrode intervals. The IP effects are strongest on Line 48E to Line 72E. On either end of the grid, the resistivities increase and the frequency effects remain moderately high. The lowest resistivities encountered occur at the northeast end of Line 48E. There is some reduction in percentage frequency effect with the lower resistivities, however, the IP effects remain moderately anomalous. The most northerly frequency effect readings were unobtainable due to noise.

Most of the IP zone suggests a disseminated metallic source in a moderately resistive rock unit. There is no evidence of any significant volume of massive sulphide mineralization, with the possible exception of the north end of Line 48E. The line would have to be extended, and the measurements repeated with shorter electrode intervals, in order to investigate this possibility.

Two partial magnetometer profiles were measured on Line 64E and Line 72E. There is no apparent magnetic anomaly of any significant magnitude on these lines. This would suggest that disseminated magnetite does not contribute significantly to the recorded IP effect.

6. SUMMARY AND RECOMMENDATIONS

The Induced Polarization and Resistivity survey has outlined an anomalous IP zone characterized by relatively high frequency effects in a moderate magnitude resistivity environment. The results suggest a disseminated metallic mineral source.

Over most of the survey grid, there is no evidence of a large massive sulphide body. A possible exception is at the north end of Line 48E where lower resistivities were encountered. This anomalous IP zone is incomplete to the north. However, with the relatively large 300' electrode interval used for the survey, the inherent averaging with the IP method could make small massive sulphide bodies of less than 20' difficult to detect.

Within the anomalous IP zone, there are variations in magnitude of both resistivity and frequency effect. Any further testing of the anomalous zone should include all anomalous environments.

In all cases, the IP anomaly was not completely delineated. Consideration should be given to extending these lines, and particularly Line 48E where the measurements at the north end terminate in low resistivities.

A list follows of a number of anomalous locations within the IP zone. Testing at these zones would investigate the various anomalous environments located by the survey. If favourable results are obtained, consideration should be given to surveying the intermediate 400' spaced lines and to continue the survey on strike to delimit the anomaly extent.

LOCATION		COMMENTS
2+50S,	40E	High resistivity, high frequency effect.
6+00S,	48E	Moderate resistivity, high frequency effect.
0+50S,	48E	Low resistivity.
10+00S,	56E	Moderately-low resistivity, high frequency effect, correlating geochemistry.
14+00S,	64E	Moderate resistivity, moderate frequency effect, correlating geochemistry.

LOCATION		COMMENTS
9+50S,	64E	Moderately-low resistivity, high frequency effect.
3+50S,	64E	Moderately-high resistivity, high frequency effect.
7+00S,	72E	Moderate resistivity, high frequency effect, correlating geochemistry.
15+00S,	80E	Moderate resistivity, moderate frequency effect, high correlating geochemistry.

PHOENIX GEOPHYSICS LIMITED

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

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
HALLOF

Expiry Date: February 25, 1978

Dated: November 23, 1977

ASSESSMENT DETAILS

PROPERTY:	Kena Claim Group	MINING DIVISION:	Nelson
SPONSOR:	Quintana Minerals Corp.	PROVINCE:	British Columbia
LOCATION:	Nelson Area		
TYPE OF SURVEY:	Induced Polarization & Resistivity		
OPERATING MAN DAY:	6.0	DATE STARTED:	October 3, 1977
EQUIVALENT 8 HR. MAN DAY:	9.0	DATE FINISHED:	October 15, 1977
CONSULTING MAN DAY:	3.0	NUMBER OF STATIONS:	66
DRAFTING MAN DAY:	2.5	NUMBER OF READINGS:	408
TOTAL MAN DAYS:	20.5	MILES OF LINE SURVEYED:	3.41

CONSULTANTS:

Ashton W. Mullan, 1424 - 355 Burrard Street, Vancouver, B.C.
Philip G. Hallof, 15 Barnwood Court, Don Mills, Ontario.

FIELD TECHNICIANS:

John Marsh, c/o Phoenix Geophysics Ltd. 220 Yorkland Blvd. Willowdale, Ontario.
K. Blanshan c/o Phoenix Geophysics Ltd. 220 Yorkland Blvd. Willowdale, Ontario.
Extra Labourer:
B. Hastings, 1324 Fall Street S., Nelson, B.C.

DRAUGHTSMEN:

R.C. Norris, 71 Cass Ave. Unit #50, Agincourt, Ontario.

PHOENIX GEOPHYSICS LIMITED

Ashton W. Mullan per PGH

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

Dated: November 23, 1977

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. G. HALLOF

Expiry Date: February 25, 1978

STATEMENT OF COST

Quintana Minerals Corp. - IP Survey
Kena Project, B.C.

CREW: J. Marsh - K. Blanshan

EXTRA LABOURERS: B. Hastings

PERIOD: October 3 - 15, 1977

6 Operating days		@ $450.00/day	$2,700.00
3 Standby) 3½ Travel) 6½ days		@ $200.00/day	1,300.00
EXPENSES			
Fares	$ 312.80		
Vehicle Expenses:			
- Truck Rental	453.00		
- Gas	88.42		
Meals & Accommodation	798.08		
Telephone	30.35		
Supplies	33.80		
	1,716.45		
+ 15%	257.47		
			1,973.92
EXTRA LABOUR:	397.50		
+ 10%	39.75		
	437.25		437.25
			$6,411.17

PHOENIX GEOPHYSICS LIMITED

Ashton W. Mullan per MC

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

Dated: November 23, 1977

CERTIFICATE

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

1. That I am a geologist/geophysicist and a fellow of the Geological Association of Canada, Geophysics Division, with a business address at 1424 - 355 Burrard Street, Vancouver, B.C.

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

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

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

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

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

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

Dated at Vancouver

This 23rd day of November, 1977

A.W. Mullan per PMC

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

CERTIFICATE

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

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

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

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

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

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

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

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

Dated at Toronto

This 23rd day of November, 1977

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. G. HALLOF

Expiry Date: February 25, 1978

CERTIFICATE

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

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

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

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

4. I am presently employed as a geophysical crew leader by Phoenix Geophysics Ltd. of 1424 - 355 Burrard Street, Vancouver, B.C.

Dated at Vancouver, B.C.

This 29th Day of July, 1977

John Marsh

John Marsh

McPHAR
P660 VARIABLE FREQUENCY
INDUCED POLARIZATION EQUIPMENT

SPECIFICATIONS:

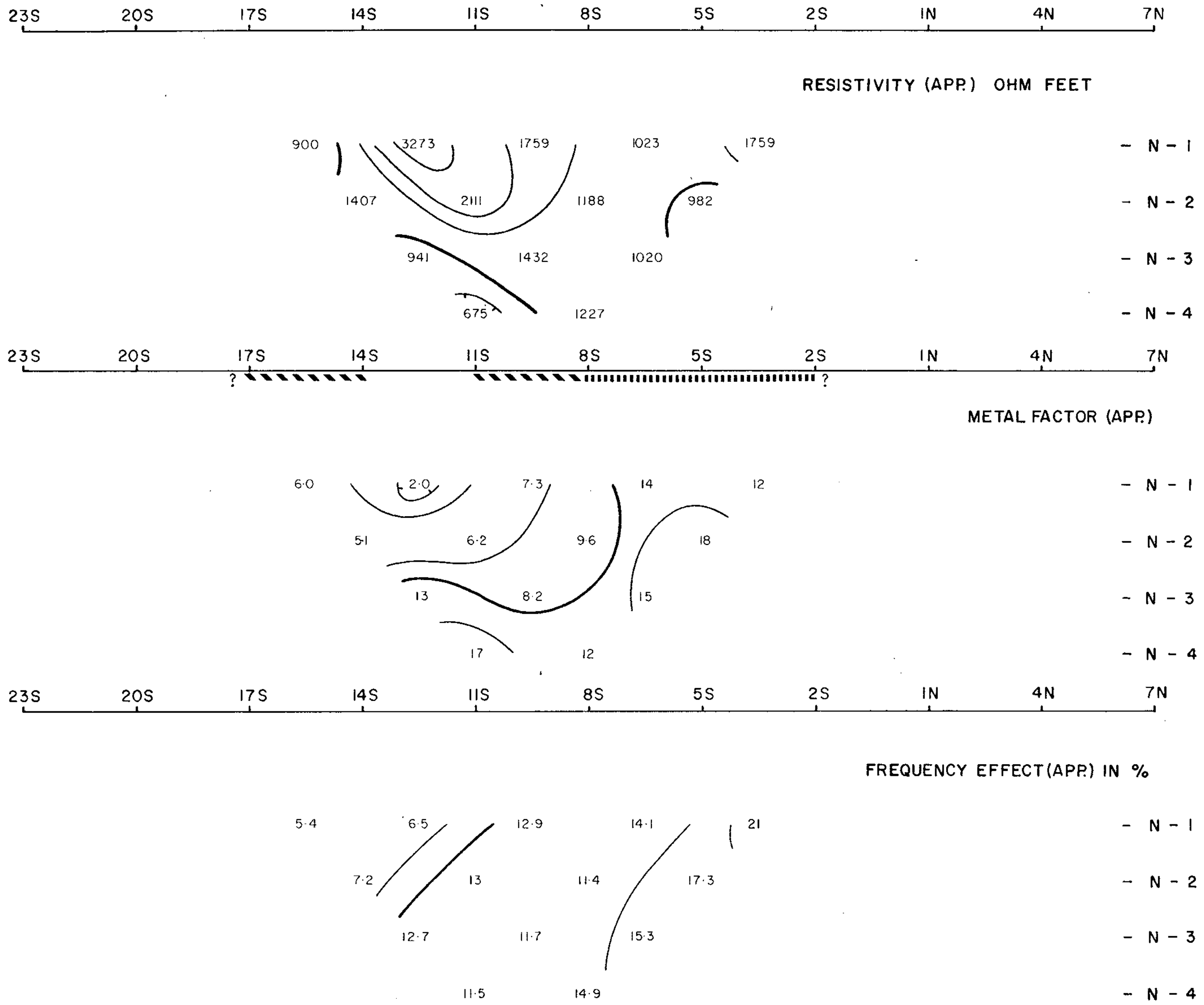
TRANSMITTER

Operating Voltage Range	:	30-700V R.M.S.
Maximum current at full voltage	:	5 amps
Minimum current at full voltage	:	20 ma.
Current regulation	:	3% (max) output current change for 10% input voltage change; .1% is typical.
Operating Temperature	:	$-40^{o}C$ to $60^{o}C$
Weight	:	34 pounds packboard mounted with nylon waterproof hood.

MOTOR GENERATOR

Output frequency	:	400 Hz nominal
Output voltage	:	125 Volts (nominal)
Output power	:	2.5 KVA
Voltage regulation	:	-5% no load to full load
Weight	:	Back pack mounted: 79 pounds

DWG. NO.- I.P.-5087-1



QUINTANA MINERALS CORP.

KENA PROJECT

NELSON AREA, B.C.

LINE NO.- 40E

ELECTRODE CONFIGURATION

←X→←NX→←X→

PLOTTING POINT → × X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 0·3-5·0 HZ.

DATE SURVEYED OCT. 1977

APPROVED

DATE 11/23/77

Expiry Date: February 25, 1978

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

MINERAL RESOURCES BRANCH

ASSESSMENT REPORT

NO. 6520

PHOENIX GEOPHYSICS LIMITED

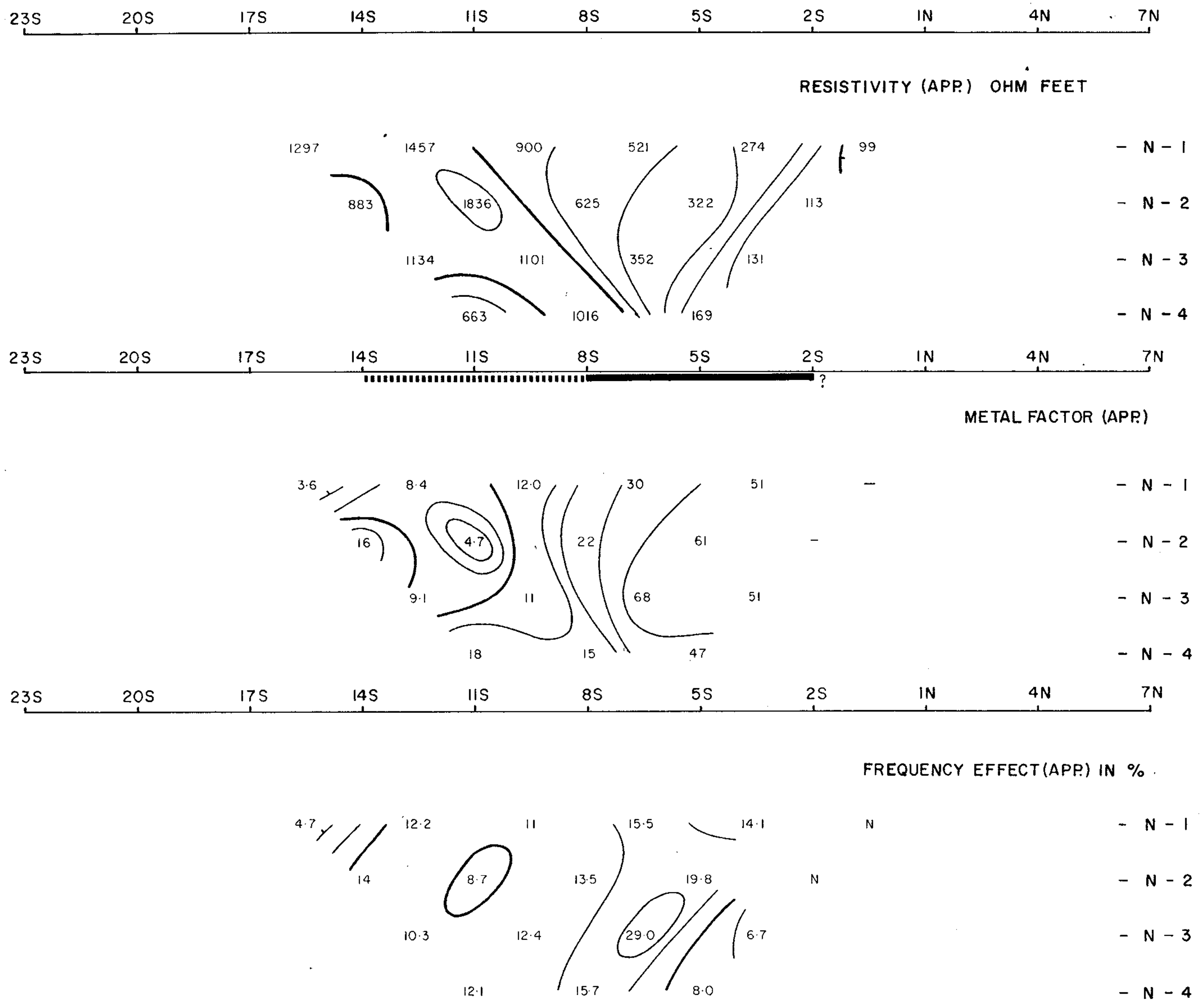
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO.– I.P.–5087-2

QUINTANA MINERALS CORP.

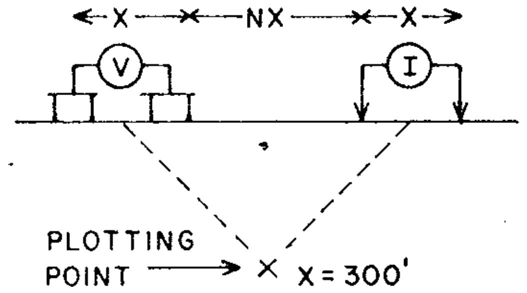
KENA PROJECT

NELSON AREA, B.C.



LINE NO.– 48E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ▬▬▬

PROBABLE ''''''''''''

POSSIBLE \\\\\\\

FREQUENCIES 0·3–5·0 HZ.

DATE SURVEYED OCT. 1977

APPROVED

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

DATE 11/23/77

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

Expiry Date: February 25, 1978

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6520

PHOENIX GEOPHYSICS LIMITED

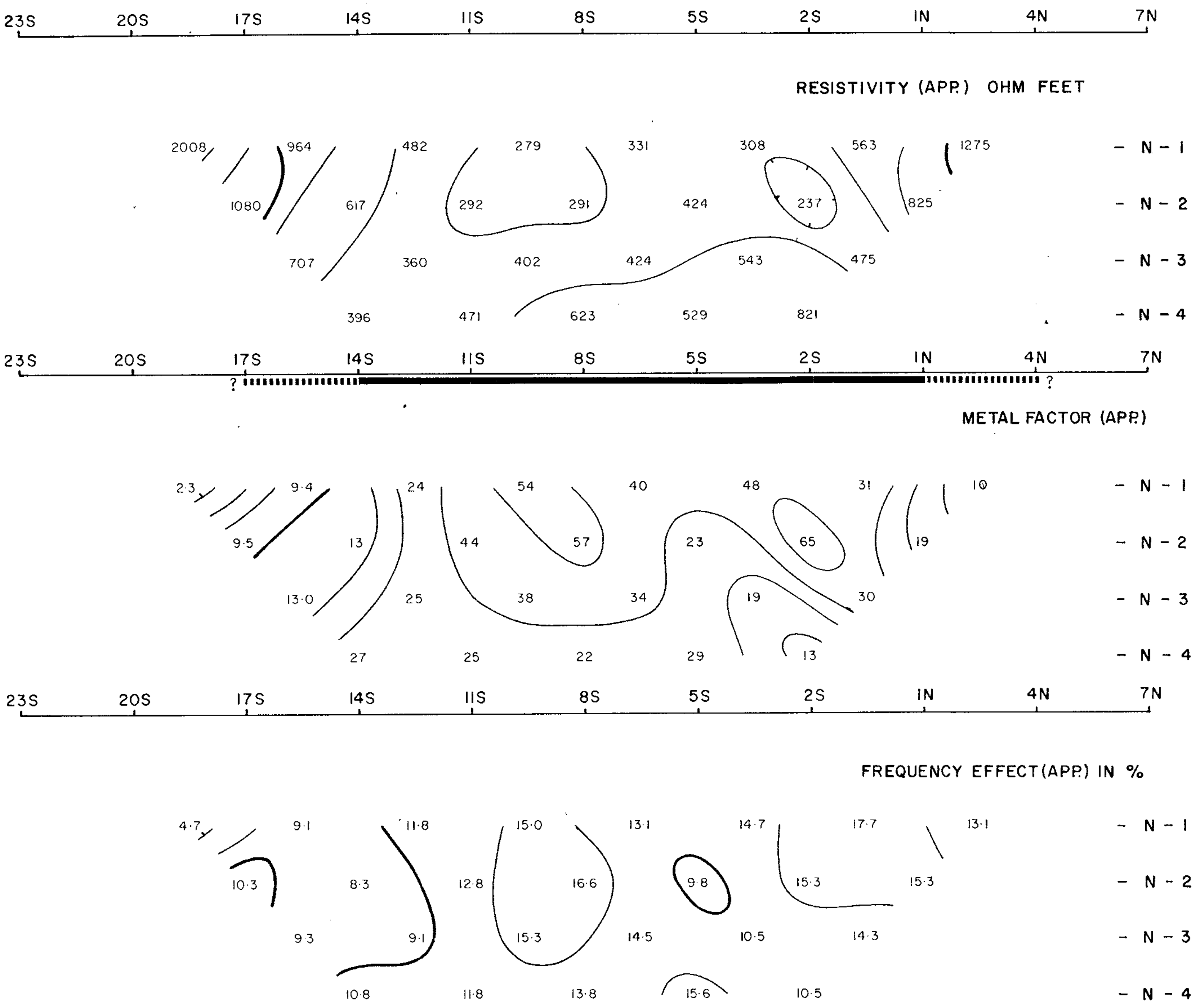
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO.– I.P.–5087-3

QUINTANA MINERALS CORP.

KENA PROJECT

NELSON AREA, B.C.



LINE NO.– 56E

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X X = 300'

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 0·3–5·0 HZ.

DATE SURVEYED OCT. 1977

APPROVED

DATE 11/23/77

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

PHOENIX GEOPHYSICS LIMITED

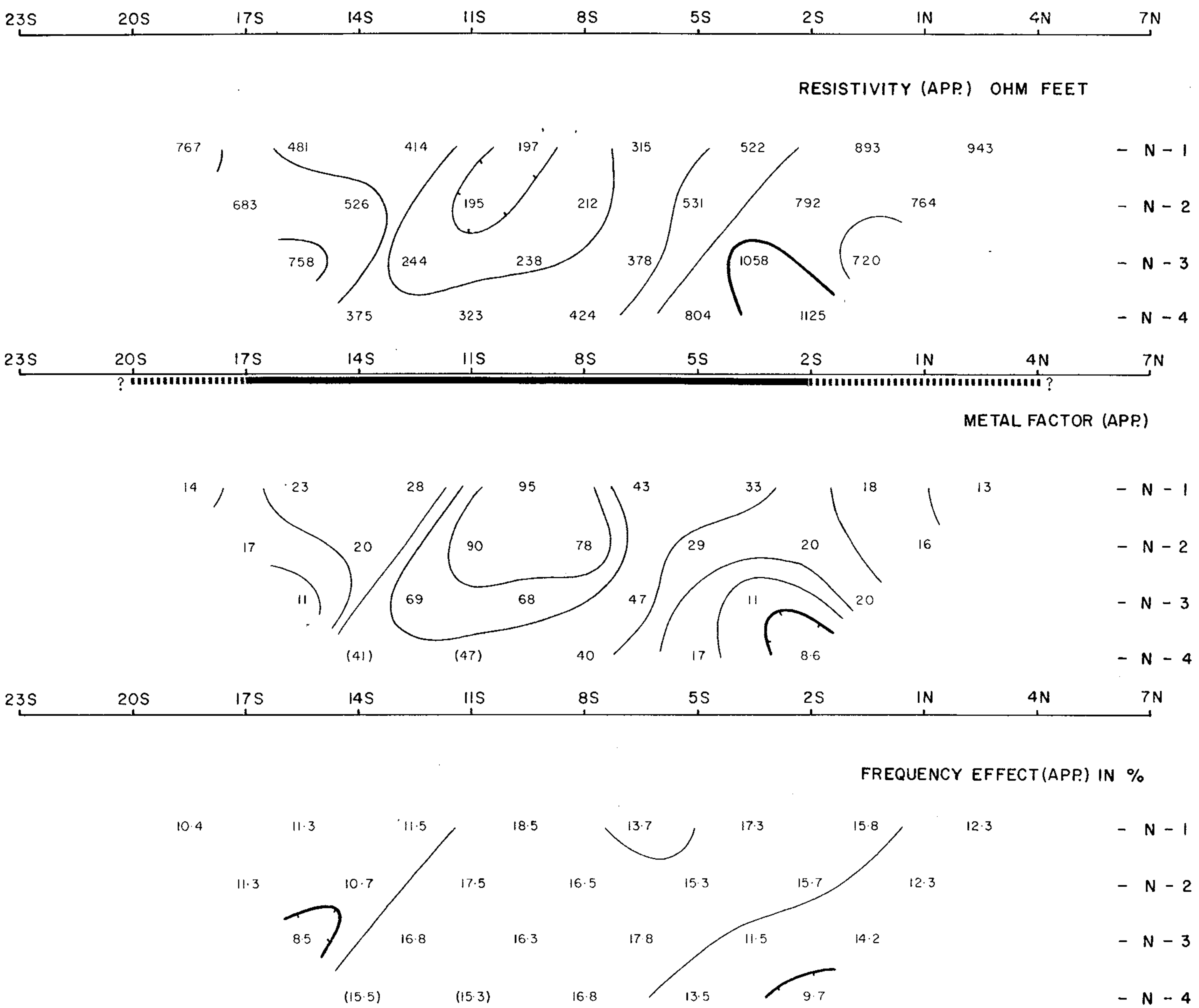
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO.– I. P.–5087–4

QUINTANA MINERALS CORP.

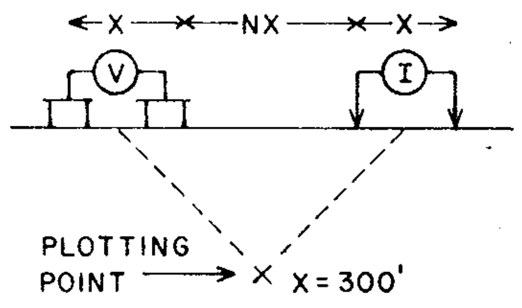
KENA PROJECT

NELSON AREA, B.C.



LINE NO.– 64 E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE ▬▬▬

PROBABLE ||||||||||||

POSSIBLE \\\\\\

FREQUENCIES 0·3–5·0 HZ.

DATE SURVEYED OCT. 1977

APPROVED 11/23/77

DATE

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

MINERAL RESOURCES BRANCH ASSESSMENT REPORT NO. 6520

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

Expiry Date: February 25, 1978

PHOENIX GEOPHYSICS LIMITED

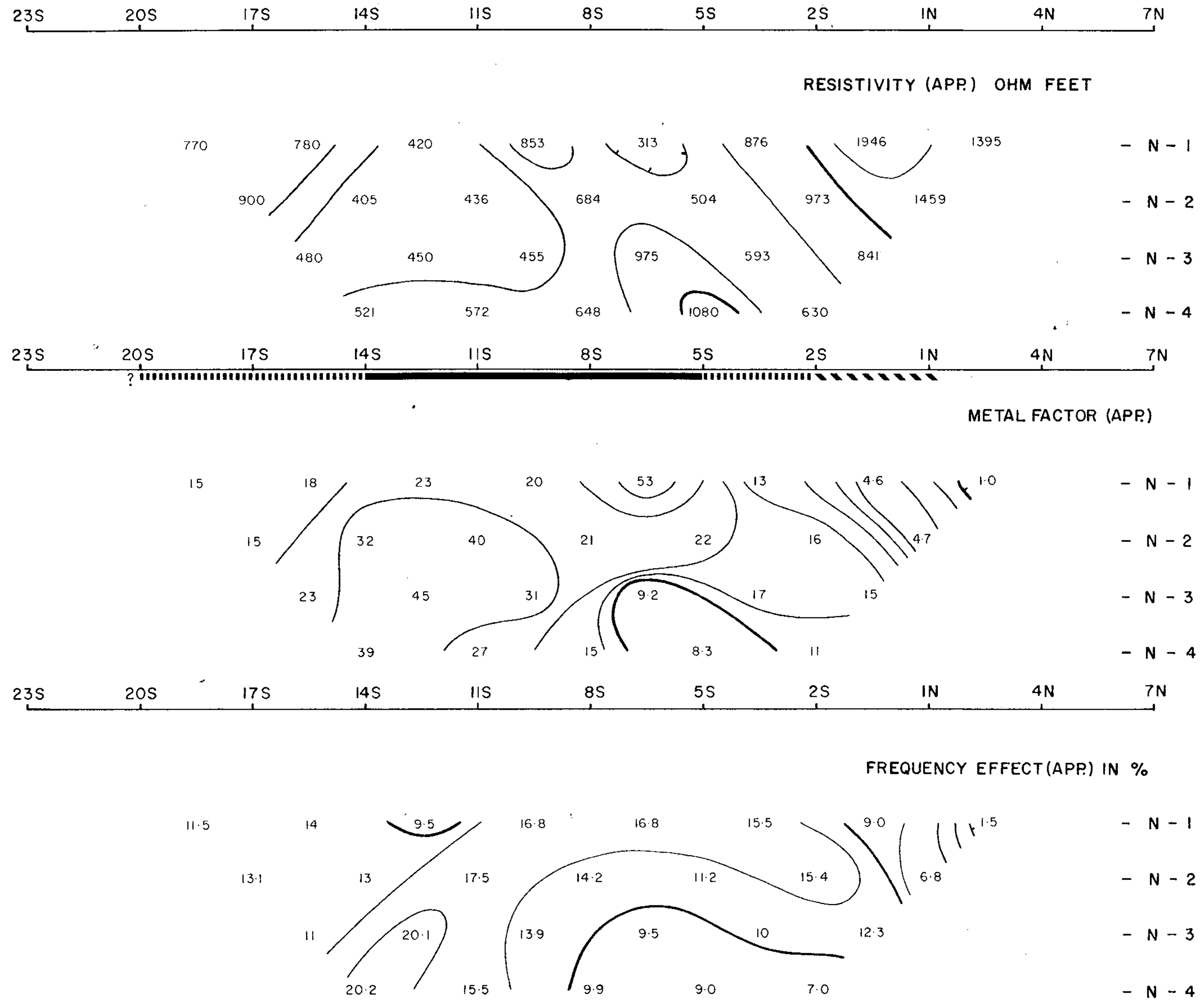
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO.– I. P.–5087-5

QUINTANA MINERALS CORP.

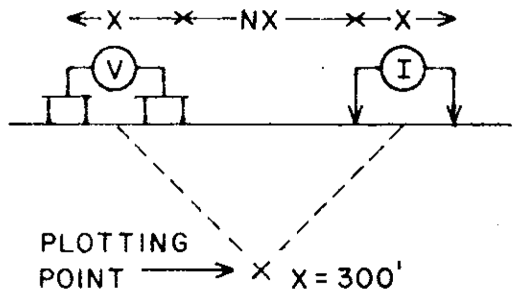
KENA PROJECT

NELSON AREA, B.C.



LINE NO.– 72 E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 0·3–5·0 HZ.

DATE SURVEYED OCT. 1977

APPROVED

DATE 11/23/77

Expiry Date: February 25, 1978

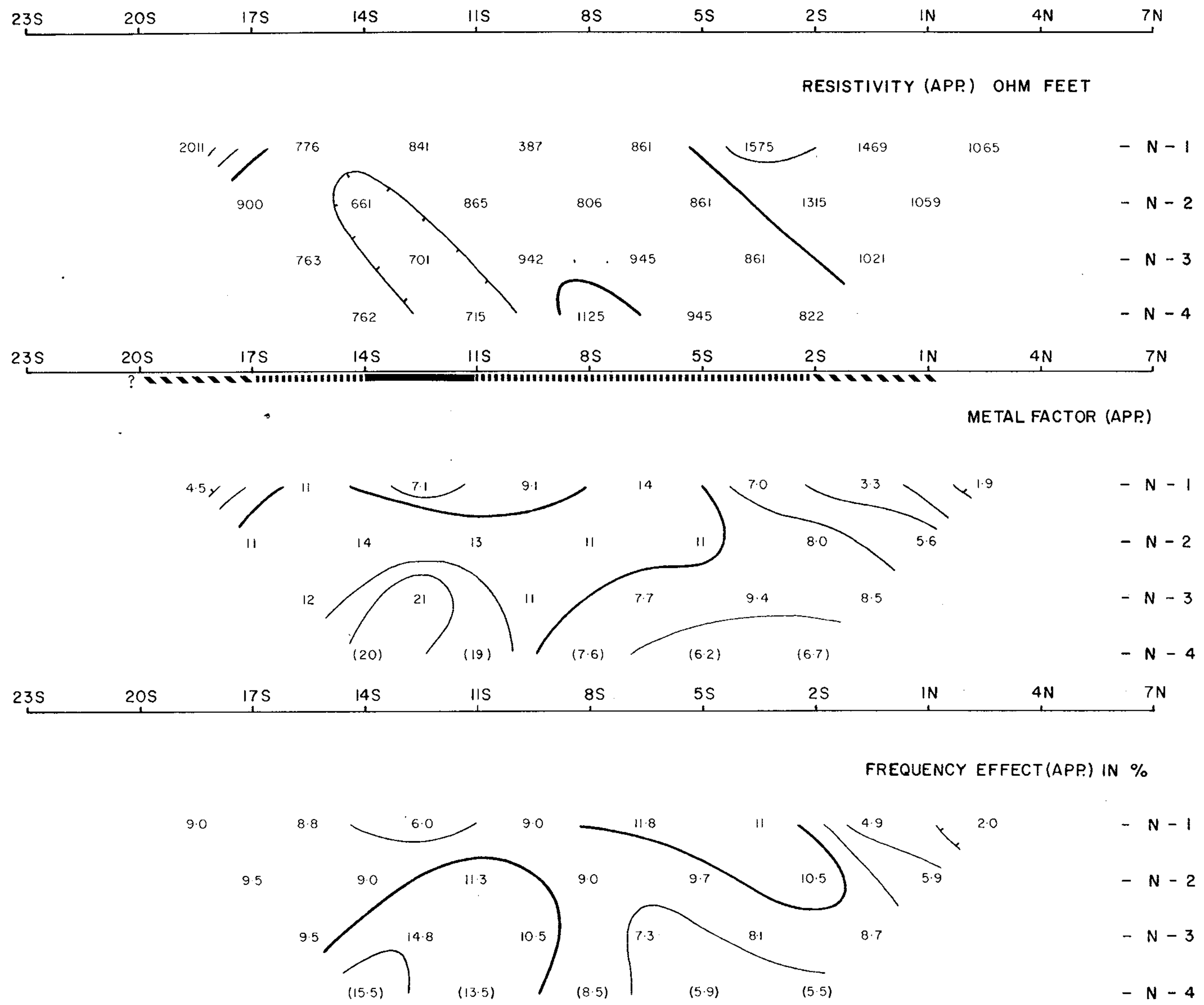
NOTE – CONTOURS AT LOGARITHMIC INTERVALS 1, -1·5, -2, -3, -5, -7·5, -10

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6520

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO.– I.P.–5087-6



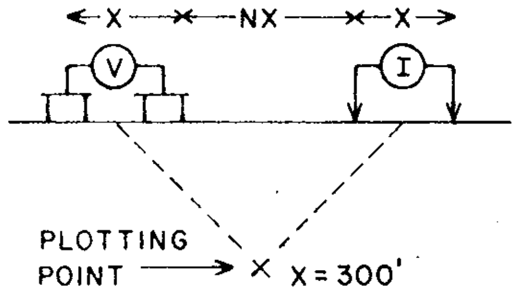
QUINTANA MINERALS CORP.

KENA PROJECT

NELSON AREA, B.C.

LINE NO.– 80 E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 0·3–5·0 HZ.

DATE SURVEYED OCT/ 1977

APPROVED

DATE 11/23/77

Expiry Date: February 25, 1978

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

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6520

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

DWG. NO. - I.P.P. - 3038

NOTE:

TO ACCOMPANY GEOPHYSICAL REPORT FOR QUINTANA MINERALS CORPORATION ON THE KENA CLAIMS SOUTH OF NELSON IN THE NELSON M.D., B.C., BY PHILIP G. HALLOF P.ENG., GEOPHYSICIST, AND A.W. MULLAN P.ENG., GEOLOGIST.

DATED NOV. 23, 1977.

SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE

NUMBER AT END OF ANOMALIES INDICATE SPREAD USED.

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP

DRAWN: R.C.N.
DATE: NOV. 1977
APPROVED:
DATE:
Expiry Date: February 25, 1978

QUINTANA MINERALS CORPORATION

KENA PROJECT

NELSON MINING DIVISION, B.C.

NTS 82 F/6

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6520

SCALE

0 400 800 1200 1600 2000 FEET

0 100 200 300 400 500 600 METERS

Contour interval : 50 feet
Elevations from pocket altimeter
(Modified from Lacanex 1975 Report)

10/77 amu

DWG. NO. - I.P.P. - 3038

DWG. NO.-MISC.- 3039

RESISTIVITY LEVELS

<200	OHM METRES
200 - 450	"
450 - 750	"
750 - 1100	"
1100 - 1500	"
1500 - 1950	"
>1950	"

APPROXIMATE BOUNDARY OF ZONES AT EQUAL RESISTIVITY.

NOTE:

TO ACCOMPANY GEOPHYSICAL REPORT FOR QUINTANA MINERALS CORPORATION ON THE KENA CLAIMS SOUTH OF NELSON IN THE NELSON M.D., B.C., BY PHILIP G. HALLOF P.ENG., GEOPHYSICIST, AND A.W. MULLAN P.ENG., GEOLOGIST.

DATED NOV. 23, 1977.

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP

DRAWN: R.C.N.
DATE: NOV. 1977
APPROVED: Philip G. Hallof
DATE 11/23/77
Expiry Date: February 25, 1978

QUINTANA MINERALS CORPORATION

KENA PROJECT
NELSON MINING DIVISION, B.C.
NTS 82 F/6

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6520

SCALE
0 400 800 1200 1600 2000 FEET
0 100 200 300 400 500 600 METERS

Contour interval = 50 feet
Elevations from pocket altimeter
(Modified from Locanex 1975 Report)

10/77 amu

DWG. NO.-MISC.-3039