465

GEOPHYSICAL REPORT.

ORMOND + CONTACT GROUPS

MATILDA BAY, FLORES ISLAND.

25 MILES SOUTH OF ZEBBALLOS

49° 126° ~~N. W.~~ S. E.

McPHAR GEOPHYSICS

GEOPHYSICIST, DON B. SUTHERLAND.

GEOLOGIST, ROBERT A. BELL.

VAN-WEST MINERALS LTD.

N. P. L.

WORK DONE MAY 11 - ~~JUNE 12~~ JUNE 19/62

TABLE OF CONTENTS

465

McPHAR GEOPHYSICS LIMITED

NOTES ON THE THEORY OF INDUCED POLARIZATION AND THE METHOD OF FIELD OPERATION

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 effectively stop all 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 "metal factor" or "M.F." are a measure of the amount of polarization present in the rock mass being surveyed. This parameter has been found to be very successful in mapping areas of sulphide mineralization, even those in which all other geophysical methods have been unsuccessful. The induced polarization measurement is more sensitive to sulphide content than other electrical measurements

because it is much more dependent upon the sulphide content. As the sulphide content of a rock is increased, the "metal factor" of the rock increases much more rapidly than the resistivity decreases.

Because of this increased sensitivity, it is possible to locate and outline zones of less than 10% sulphides that can't be located by E. M. Methods. The method has been successful in locating the disseminated "porphyry copper" type mineralization in the Southwestern United States.

Measurements and experiments also indicate that it should be possible to locate most massive sulphide bodies at a greater depth with induced polarization than with E. M.

Since there is no I. P. effect from any conductor unless it is metallic, the method is useful in checking E. M. anomalies that are suspected of being due to water filled shear zones or other ionic conductors. There is also no effect from conductive overburden, which frequently confuses E. M. results. It would appear from scale model experiments and calculations that the apparent metal factors measured over a mineralized zone are larger if the material overlying the zone is of low resistivity.

Apropos of this, it should be stated that the induced polarization measurements indicate the total amount of metallic constituents in the rock. Thus all of the metallic minerals in the rock, such as pyrite, as well as the ore minerals chalcopyrite, chalcocite, galena, etc. are responsible for the induced polarization effect. Some

oxides such as magnetite, pyrolusite, chromite, and some forms of hematite also conduct by electrons and are metallic. All of the metallic minerals in the rock will contribute to the induced polarization effect measured on the surface.

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 a distance (X) apart. The potentials are measured at two other points (X) feet apart, in line with the current electrodes. The distance between the nearest current and potential electrodes is an integer number (N) times the basic distance (X).

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

In plotting the results, the values of the apparent resistivity 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. The resistivity values are plotted above the line and the metal factor values below. 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. These 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, model and theoretical investigations. The position of the electrodes when anomalous values are measured must be used 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 100 feet to 1000 feet for (X). In each case, the decision as to the distance (X) and the values of (N) 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 1 below demonstrates the method used in plotting the results. Each value of the apparent resistivity and the apparent "Metal factor" 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.

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

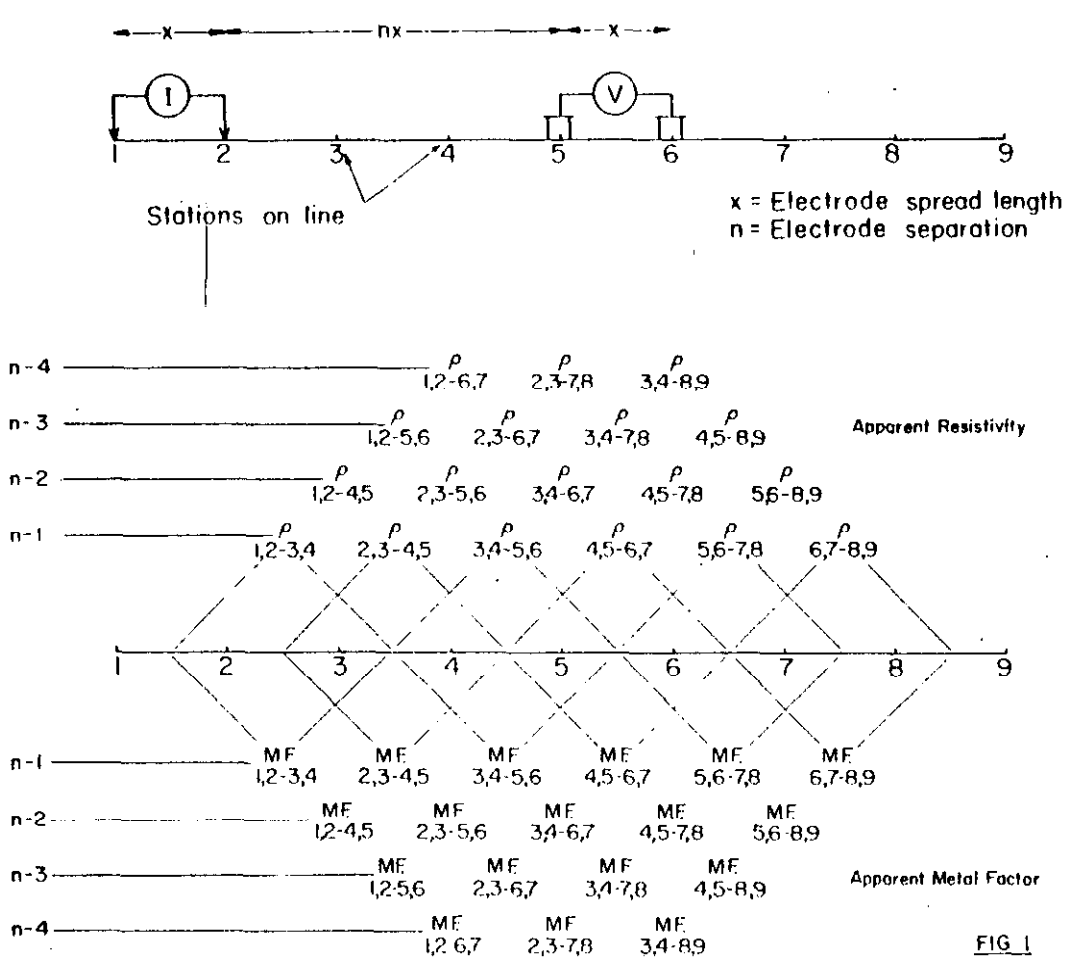

FIG 1

McPHAR GEOPHYSICS LIMITED

REPORT ON GEOPHYSICAL SURVEY

(INDUCED POLARIZATION)

MATILDA INLET GROUP

ALBERNI MINING DIVISION, B. C.

FOR

VANWEST MINERALS LIMITED

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1. INTRODUCTION

At the request of Mr. L. Hanson, a test induced polarization survey has been carried out over parts of the Matilda Inlet Property on Flores Island for Vanwest Minerals Limited. A showing of pyrrhotite, magnetite, and chalcopyrite had been reported to the west of Matilda Inlet and the purpose of the surveying was to establish whether the induced polarization method could detect mineralization of this type. Strong response was obtained over this known mineralization and additional lines on both the east and west side of the inlet were surveyed to locate any other mineralization on the property.

The pole-dipole electrode configuration was used for all the surveying which was completed during May 1962.

2. PRESENTATION OF RESULTS

The induced polarization and resistivity results are shown on the following data plots which accompany this report. The results are plotted in the manner described in the notes preceding this report.

West Area		
Line 7W	100' spreads	Dwg. I. P. 2893-1
Line 0+00	100' spreads	Dwg. I. P. 2893-2
Line 5S	100' spreads	Dwg. I. P. 2893-3
Line 9S	100' spreads	Dwg. I. P. 2893-4
Line 13S	100' spreads	Dwg. I. P. 2893-5
Base Line 2	100' spreads	Dwg. I. P. 2893-6
East Area		
Line 2S	100' spreads	Dwg. I. P. 2893-7
Line 14S	100' spreads	Dwg. I. P. 2893-8
Line 20S	100' spreads	Dwg. I. P. 2893-9
Line 24S	100' spreads	Dwg. I. P. 2893-10
Base Line 1	100' spreads	Dwg. I. P. 2893-11

Enclosed with this report is Dwg. Misc. 4714, a plan map of the property at a scale of 1" = 200'. The definite and possible induced polarization anomalies are indicated by solid and broken bars respectively on this plan map as well as the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Since the induced polarization measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the spread length; i. e.

when using 200' spreads the position of a narrow sulphide body can only be determined to lie between two stations 200' apart. In order to locate sources at some depth, larger spreads must be used, with a corresponding increase in the uncertainties of location. Therefore, while the center of the indicated anomaly probably corresponds fairly well with source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

3. DISCUSSION OF RESULTS

WEST AREA

Line 7W; Dwg. I. P. 2893-1

Small metal factors indicate a possible anomalous zone extending from 2N to 4N on this line. Although these values are several times background, they are considerably less than those obtained over the showing and consequently are considered to be relatively unimportant.

Line 0+00; Dwg. I. P. 2893-2

Moderate metal factors on this line indicate two possible anomalous zones.

The first, which is centered from 0 to 1W, appears to be either deep or to the side of the line. This anomaly lies near the east edge of the wide area of low resistivity that extends from 0 to 4W.

Between 2E and 3E the anomalous values occur on the first and second readings and are indicative of a shallow source. Low resistivities are also associated with this anomaly.

Line 5S; Dwg. I. P. 2893-3

Similar to Line 0+00, two anomalous zones are indicated by moderate metal factors on this line.

A deep source or one remote from the line, appears to lie between 0 and 1W in an area of low resistivities. This anomaly occurs just west of the baseline as does the anomaly on Line 0+00.

A shallow source is indicated near 2E that corresponds with the shallow anomaly on Line 0+00.

Line 9S; Dwg. I. P. 2893-4

The largest metal factor found in the surveying occurs between 0 and 1W near an outcrop of the known mineralization. This is a strong indication of a shallow zone of high metallic content and definitely warrants further investigation. The exact width of the mineralized area is difficult to determine, but it appears to be more than 100 feet wide on the shallowest portion with a possible broadening to the west at depth.

This anomaly is associated with a pronounced resistivity low.

Line 13S; Dwg. I. P. 2893-5

A well-defined anomalous zone is centered from 3W to 4W. The results are similar to those obtained on Line 9S and are probably due to a continuation of the same material. However, on Line 13S the shallowest portion of the source occurs on the east side of the anomalous area and the corresponding resistivity low. The data also suggests a broadening to the west at depth which could extend for 400 to 600 feet,

but similar results could be obtained from a source parallelling the line to the south. The latter condition would be consistent with the preliminary findings of the surface investigations and should be checked by surveying a series of N-S lines in this area.

On the extreme west end of Line 13S, near 13W, several high values indicate the presence of a second strong anomaly which is also associated with a resistivity low. Further work should be carried out to delineate these strong indications.

Base Line 2; Dwg. I. P. 2893-6

The anomaly near 9S on this line correlates well with the results on Line 9S. North of this point the results are suggestive of a deeper source or one lying to the side of the line. In the light of the reported outcrops the latter is considered the most likely.

Between 3S and 4S the results suggest a shallow source of moderate metallic content. This anomaly correlates well with the weaker and remote indications obtained in surveying Lines 0+00 and 5S. However, it is possible that none of the three lines in this vicinity (i. e. Lines 0+00, 5S, and Base Line 2) crosses the center of this anomaly and additional detail surveying should be carried out to delineate these strong indications.

EAST AREA

Line 2S; Dwg. I. P. 2893-7

Several small metal factors occur on the west end of the line

which suggest the possibility of an anomalous zone near the shore of Matilda Inlet. Additional surveying in the vicinity would be difficult, due to the water, and it is suggested that surface examination be made near the shoreline to determine the cause of the anomaly. Should the area prove to be of interest, additional surveying could be done on N-S lines.

Line 14S; Dwg. I. P. 2893-8

The possible anomalous zone between 3W and 4W is indicative of either a deep or remote source. Additional detail surveying should be done to confirm these moderate magnitude indications.

Several small metal factors are associated with low resistivities near the baseline, but additional data would be required to assess their importance.

Line 20S; Dwg. I. P. 2893-9

The results on Line 20S are quite complex.

The first and second separation data indicate a broad zone of low metallic content which correlates with a broad area of low resistivities and could be continuous from 13W to 20W. The shallowest portion of this anomalous material occurs near 18W, where surface mineralization has been reported.

In addition to the shallow effects, two high values are evident on the wide separation data near 19W and 20W. These indicate a zone of higher metallic content located either at depth or to the side of the line.

Additional surveying would be required to determine which is the correct interpretation.

Line 24S; Dwg. I. P. 2893-10

There are no anomalous induced polarization effects on this line.

Base Line 1; Dwg. I. P. 2893-11

A deep or remote source is suggested by the wide separation data between 7S and 8S. This area should be checked by detailed surveying.

A remote source is suggested by the small values in the vicinity of 17S and 18S. This possible anomalous zone could be due to the side effect of the reported mineralization near 18W on Line 24S.

A third anomaly, suggestive of a narrow weakly mineralized conductor, is located at Station 1S or between 1S and 2S.

4. SUMMARY AND RECOMMENDATIONS

WEST AREA

The strong responses on Lines 9S, 13S, and Base Line 2 appear to outline a zone of high metallic content, Zone A, which correlates closely with the known showings reported to contain pyrrhotite, magnetite, and chalcopyrite. Zone A apparently outcrops and has a width of at least one hundred feet, and appreciable depth extent. An intensive programme of drilling and/or trenching should be carried out to determine the economic possibilities of this zone. The following

drill holes have been spotted to test the better portions of the induced polarization anomaly. Additional holes to cross section the zone will be required if the results are sufficiently encouraging.

Line 9S at 0+50W; vertical, 200' minimum

Line 13S at 3+50W; vertical, 200' minimum

Zone A may extend further south or bend sharply westward. Detailed surveying should be carried out to delineate this anomaly and also the strong indication near 14W on Line 13S.

A series of reported outcrops and the weaker responses on Lines 0+00 and 5S suggest that Zone A extends further north. This portion of the zone is also shallow, but the data indicates that the source is weaker (or narrower) and the depth extent is not as great.

Zone B is a possible anomalous zone that has been inferred from the results on Lines 0+00, 5S, and Base Line 2. Its existence is certain, but its exact location and extent cannot be determined from the limited data available. Detailed surveying in this area should be carried out to determine the location and attitude of the anomaly.

EAST AREA

Six possible anomalous zones have been indicated by the reconnaissance survey on the East Area.

Surface examination is recommended to establish the cause of the anomalies near 4W on Line 2S and 18W on Line 20S.

Deep or remote sources have been indicated in the vicinity of 4W on 14S, 18W on 20S, 8S on Base Line 1, and 1S on Base Line 1.

Detailed surveying should be carried out to confirm the existence of these zones and to establish firmly their location.

McPHAR GEOPHYSICS LIMITED

D. B. Sutherland,
Geophysicist.

Robert A. Bell.
Robert A. Bell,
Geologist.

Dated: June 19, 1962.

ASSESSMENT DETAILS

PROPERTY: Matilda Inlet Property

SPONSOR: Vanwest Minerals Limited PROVINCE: British Columbia

LOCATION: Matilda Inlet, Flores Island, Vancouver Island

TYPE OF SURVEY: Induced Polarization

OPERATING MAN DAYS:	13	DATE STARTED:	May 11, 1962
EQUIVALENT 8 HR. MAN DAYS:	19.5	DATE FINISHED:	May 19, 1962
CONSULTING MAN DAYS:	4	NUMBER OF STATIONS OCCUPIED:	163
DRAUGHTING MAN DAYS:	3		
TOTAL MAN DAYS:	26.5	NUMBER OF READINGS TAKEN:	1018
		MILES OF LINE SURVEYED:	3

CONSULTANTS:
D. B. Sutherland, 412 Eglinton Avenue, East, Toronto 12, Ontario
R. A. Bell, 12 Cottonwood Drive, Don Mills, Ontario

FIELD TECHNICIANS:
F. Bottos, 10 Hursting Avenue, Toronto 10, Ontario
R. Auge, Box 343, Espanola, Ontario

DRAUGHTSMEN:
R. MacKenzie, 55 Shannon Drive, Scarborough, Ontario
D. Grant, 85 Yardley Avenue, Toronto 16, Ontario

McPHAR GEOPHYSICS LIMITED

D. B. Sutherland,
Geophysicist.

Dated: June 19, 1962.

SUMMARY OF COST

Crew

6-1/2 days Operating		@ $170.00/day	$1,105.00
1-1/2 days Travel 1 day Bad weather 9	2-1/2	@ $ 60.00/day	150.00

Expenses - Prorated on 9 days of a total of 21 (Received to date)

Transportation - Crew and Equipment (as per contract)	$ 80.00
Transportation - Vancouver Island	48.50
Meals and Accommodation	77.89
Supplies	7.09
Telephone and Telegraph	32.65
	$246.13

Your Portion 9/21 = 105.49

$1,360.49

McPHAR GEOPHYSICS LIMITED

D. B. Sutherland,
Geophysicist.

Dated: June 19, 1962.

CERTIFICATE

I, Don Benjamin Sutherland of the City of Toronto, Province of Ontario, do hereby certify that :

1. I am a geophysicist residing at 412 Eglinton Avenue, East, Toronto 12, Ontario.

2. I am a graduate of the University of Toronto in Physics and Geology with the degree of Bachelor of Arts (1954); and a graduate of the University of Toronto in Physics with the degree of Master of Arts (1955).

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

4. I have been practising my profession for over seven 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 Vanwest Minerals Limited.

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

Dated at Toronto

This 19th day of June 1962

Don B. Sutherland, M.A.

Church, Pickard, Lane & Newman

S. F. CHURCH, B. Com., C.A.
A. L. PICKARD, B.A., Acc., C.A.
W. R. LANE, C.A.
R. G. NEWMAN, C.A.

CHARTERED ACCOUNTANTS

PORT ALBERNI PHONE 1020
NANAIMO - PHONE 17

130 THIRD AVENUE SOUTH,
PORT ALBERNI, B.C.

VAN-WEST MINERALS, LIMITED

(No Personal Liability)

LIST OF WORK DONE ON CLAIMS - ORMOND GROUP AND CONTACT GROUP, AHOUSAT, B.C., DURING 1962

Required for Affidavit on Application for Certificate of Work:

Staking and Assessment. Wages	$ 309.00
I.P. Survey and Expenses connected therewith	1,922.63 ✓
Survey Expenses - Wages	949.98
Assay Expense	20.20
Boat Expenses	658.57
Camp Rent	775.00
Camp Fuel and Supplies	103.35
Unemployment Insurance - re staking and survey wages	12.94
Workmen's Compensation - re staking and survey wages	75.00
	$ 4,826.67

We hereby certify the above expenses on account of work done and paid for by Van-West Minerals, Limited during 1962 on the Ormond and Contact Group of claims at Ahousat, B.C., are a true summary of audited figures recorded in the Company's books.

Port Alberni, B.C.
January 21st, 1963.

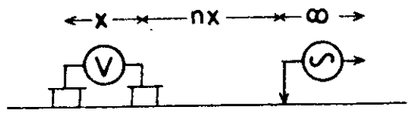
Church, Pickard, Lane & Newman
CHARTERED ACCOUNTANTS

DWG. NO.- I.P.- 2893-1

McPHAR GEOPHYSICS LIMITED

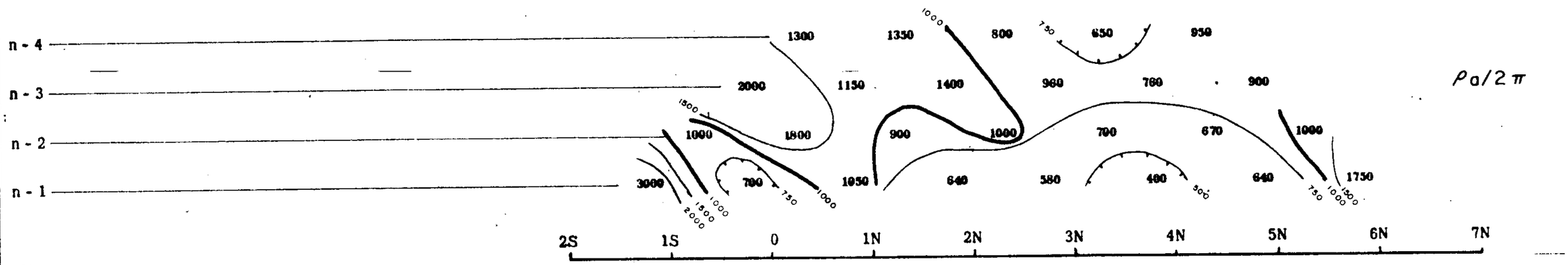
INDUCED POLARIZATION AND RESISTIVITY SURVEY

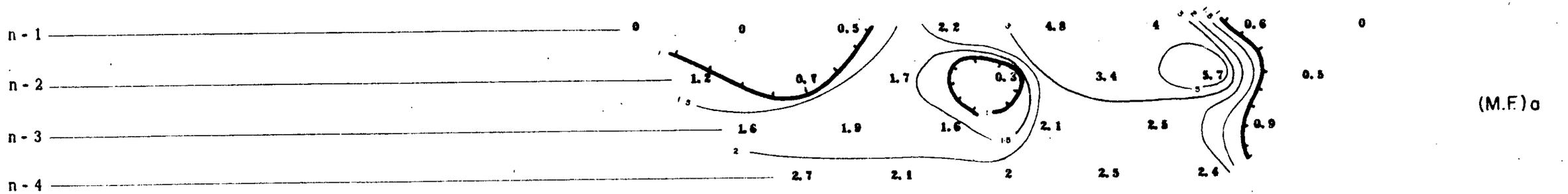
465



ELECTRODE CONFIGURATION

x - 100





VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE
LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 31-5 CPS

DATE SURVEYED MAY 1962

APPROVED [illegible]

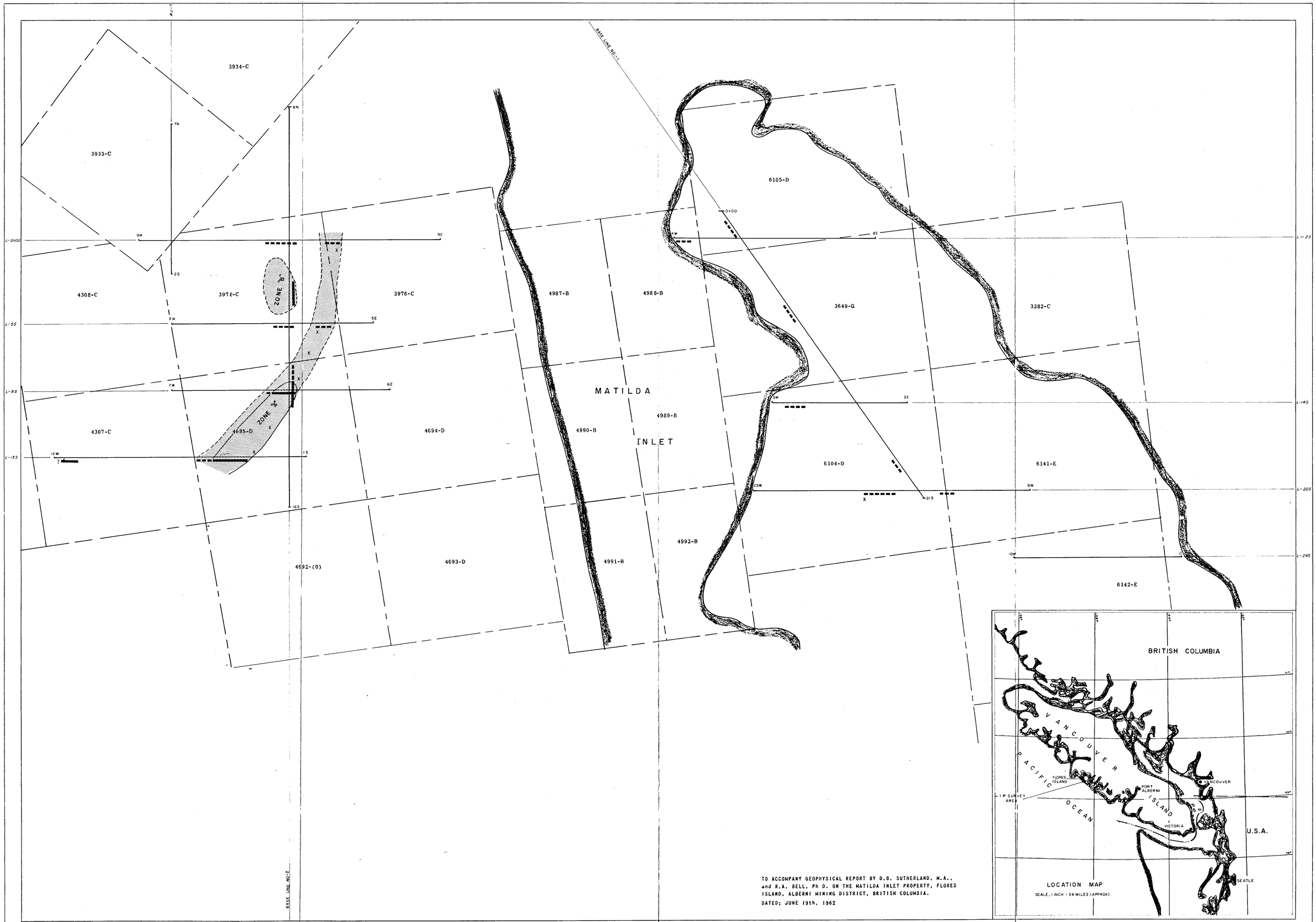
DATE June 1962

LINE NO.- 7W

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

LOCATION MAP



TO ACCOMPANY GEOPHYSICAL REPORT BY D.B. SUTHERLAND, M.A., and R.A. BELL, Ph D. ON THE MATILDA INLET PROPERTY, FLORES ISLAND, ALBERNI MINING DISTRICT, BRITISH COLUMBIA.
DATED; JUNE 19th, 1962

NOTE.
ANOMALOUS ZONE
POSSIBLE ANOMALOUS ZONE
——— — ——— APPROX. CLAIM BOUNDARY
X— REPORTED MINERALIZED OUTCROPS

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

SCALE

200 100 100 200 0 200 400 600 800 1000
FEET FEET

One Inch = Two Hundred Feet

465

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 465 MAP 1

DRAWN A.A.
DATE JUNE 1962.
APPROVED
DATE June 19/62

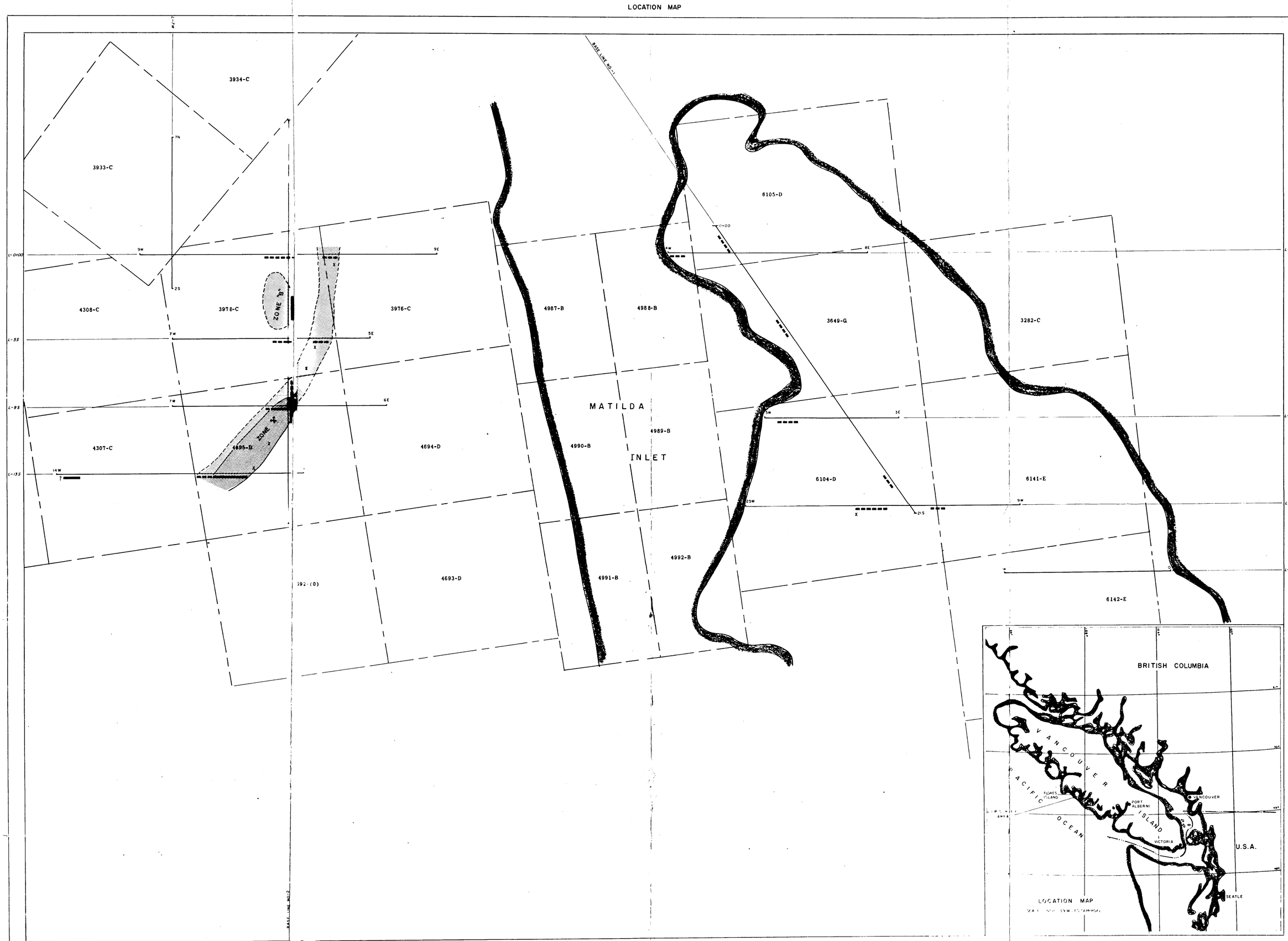
DWG. MISC.-4714

DWG. MISC-4714

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

LOCATION MAP



NOTE.

ANOMALOUS ZONE

POSSIBLE ANOMALOUS ZONE

——— — ——— APPROX. CLAIM BOUNDARY

X— REPORTED MINERALIZED OUTCROPS

N

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

SCALE

200 100 400 800 0 200 400 600 800 1000 FEET

One Inch = Two Hundred Feet

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 465 MAP 1

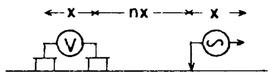
DRAWN A.A.
DATE JNE 1962
APPROVED
DATE June 19/62

DWG. MISC.-4714

DWG. NO.-I.P.-2893-2

McPHAR GEOPHYSICS LIMITED

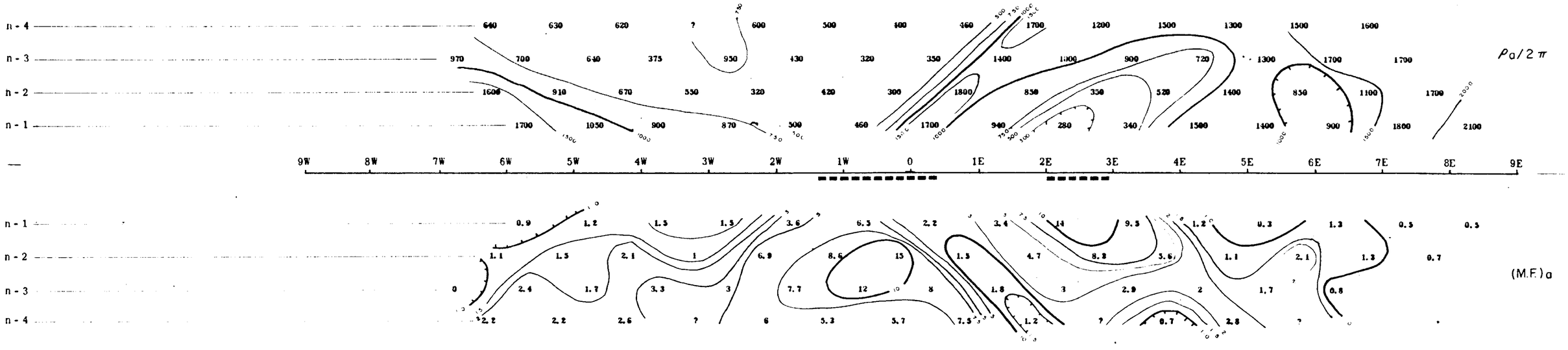
INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100

LINE NO.-0+00



ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE

LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale-One inch = 100 Feet

M3

FREQUENCY 7½ ~ 1½

DATE SURVEYED MAY 1962

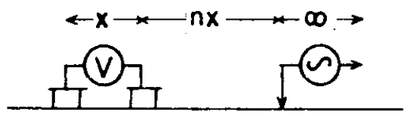
APPROVED [illegible]

DATE June 19/62

DWG. NO.-I.P.-2893-3

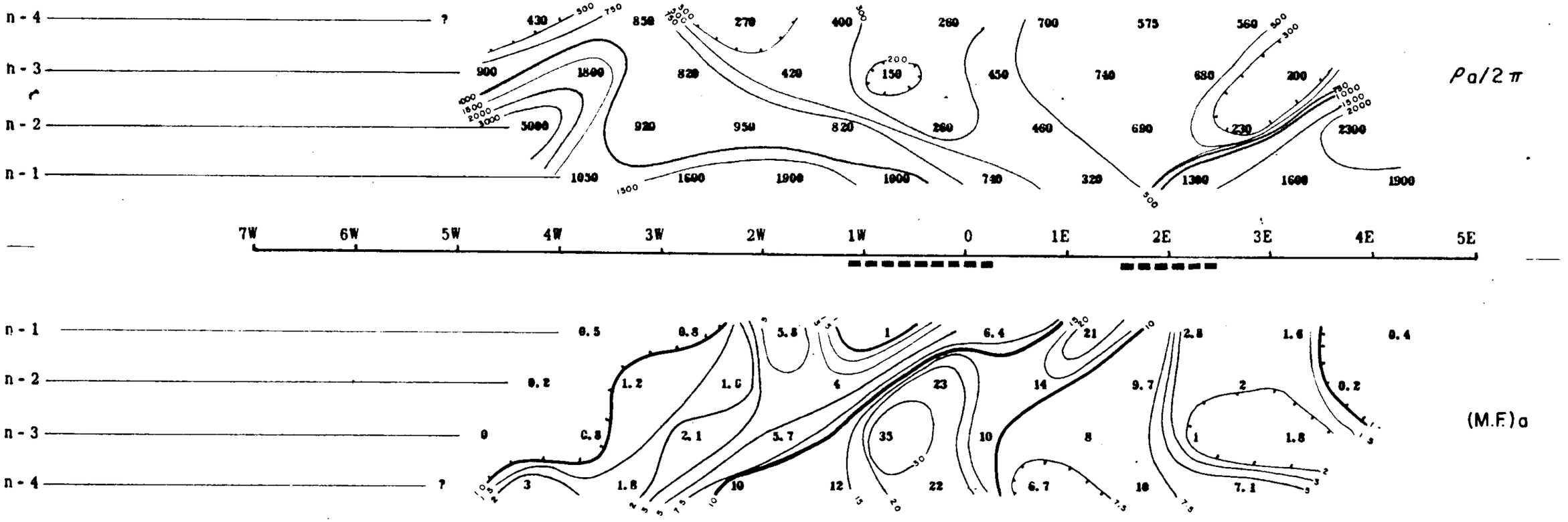
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100



LINE NO.- 5S

ANOMALOUS ZONE

POSSIBLE ANOMALOUS ZONE

NOTE
LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

FREQUENCY 31-5 CPS

DATE SURVEYED MAY 1962

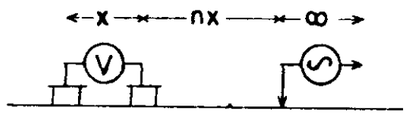
APPROVED [illegible]

DATE June 19/62

DWG. NO.-I.P.-2893-4

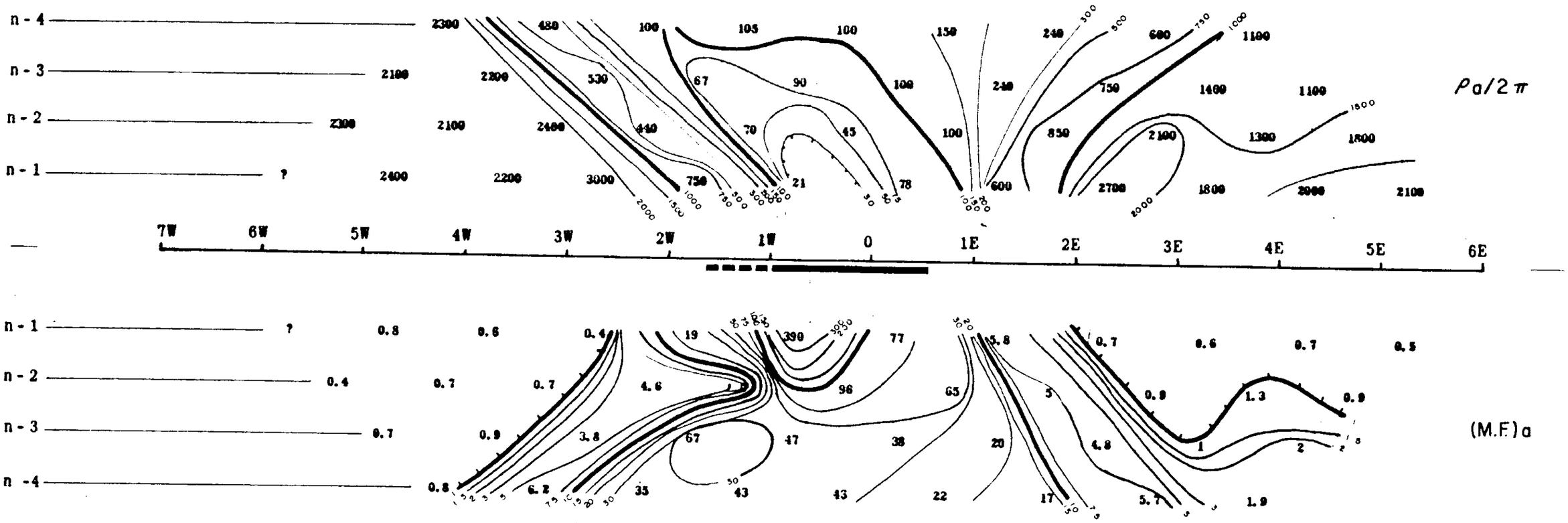
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100



ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE

LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

FREQUENCY 3.1 - 5 CPS

DATE SURVEYED MAY 1962

APPROVED H.B.S

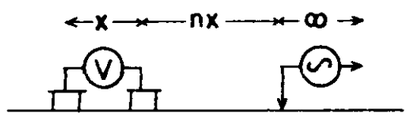
DATE June 19/62

LINE NO. - 96

DWG. NO.-I.P.-2893-5

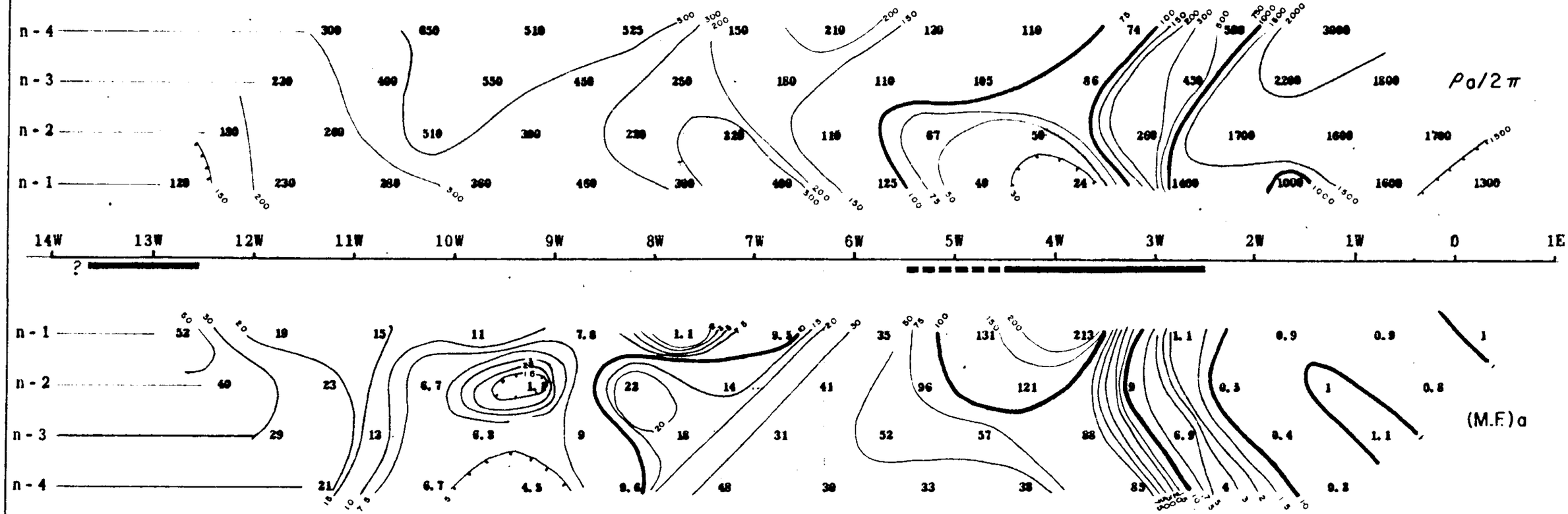
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100



ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE

LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

FREQUENCY 3 - 5 CPS

DATE SURVEYED MAY 1962

APPROVED dbS

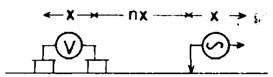
DATE June 15/62

LINE NO.-13S

DWG. NO.-I.P.-2893-6

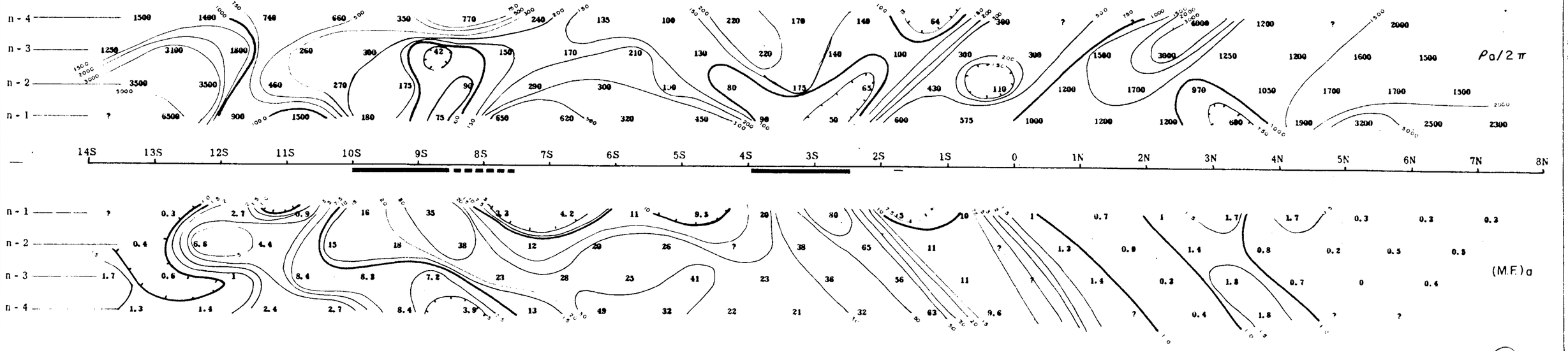
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100



LINE NO.- BASE LINE "2"

ANOMALOUS ZONE

POSSIBLE ANOMALOUS ZONE

NOTE
LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale-One inch = 100 Feet

FREQUENCY 1 - 5 - 10

DATE SURVEYED MAY 1962

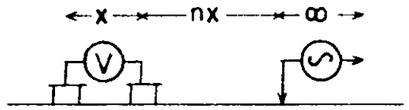
APPROVED

DATE June 19/62

DWG. NO.-I.P.-2893-7

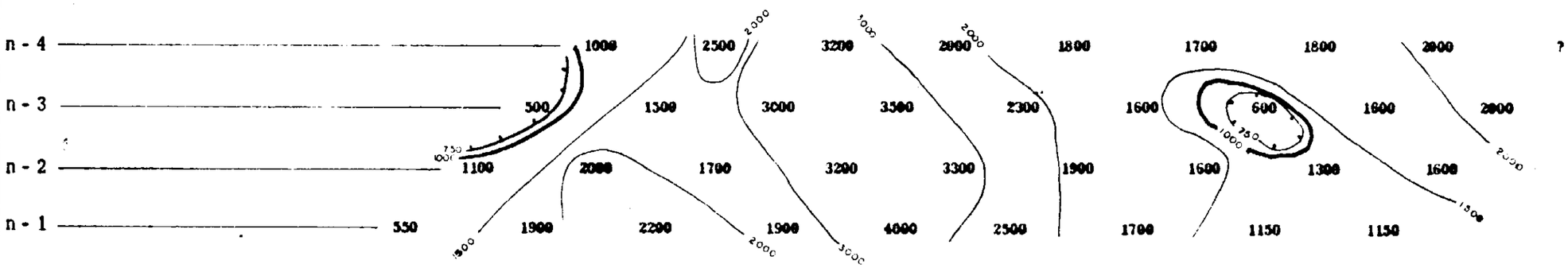
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100



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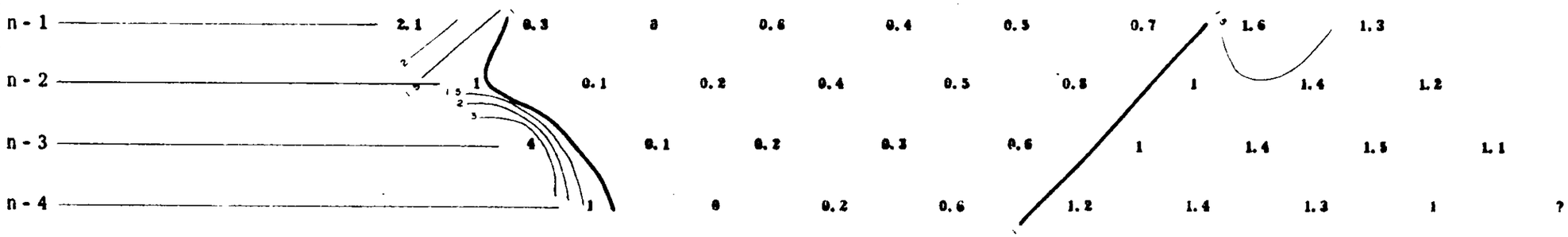


(M.F.)a

ANOMALOUS ZONE

POSSIBLE ANOMALOUS ZONE

NOTE

LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

M8

FREQUENCY 31-5 CPS

DATE SURVEYED MAY 1962

APPROVED [illegible]

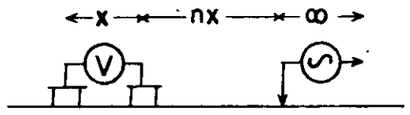
DATE June 19/62

LINE NO. - S2 -'0[illegible]

DWG. NO.-I.P.-2893-8

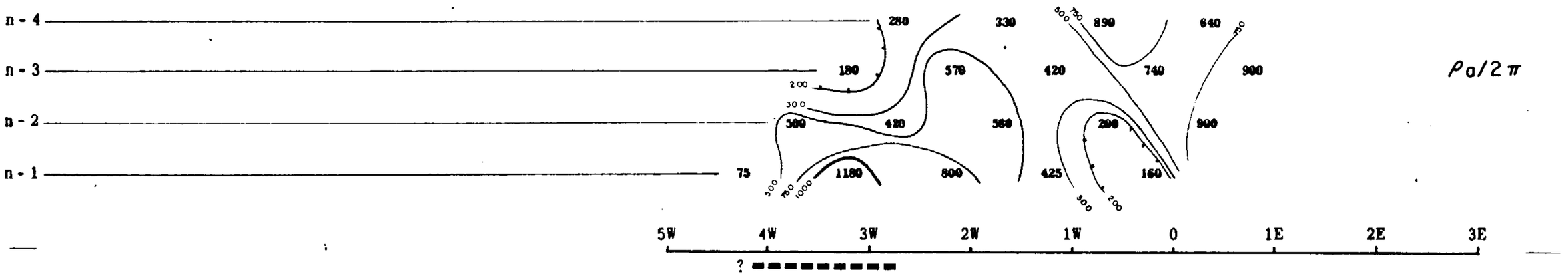
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

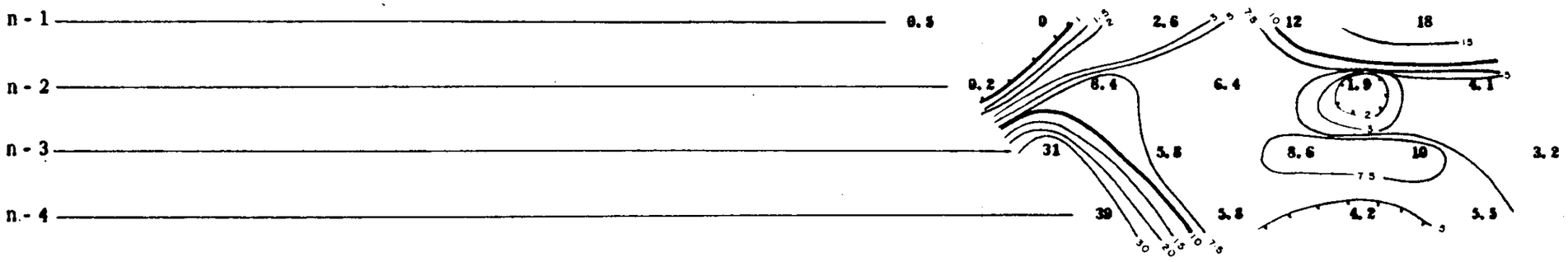


ELECTRODE CONFIGURATION

x - 100



$\rho a/2\pi$



(M.F.)a

LINE NO.-14S

ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE
LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

FREQUENCY 31-5 CPS

DATE SURVEYED MAY 1962

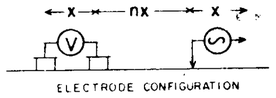
APPROVED [illegible]

DATE June 19/62

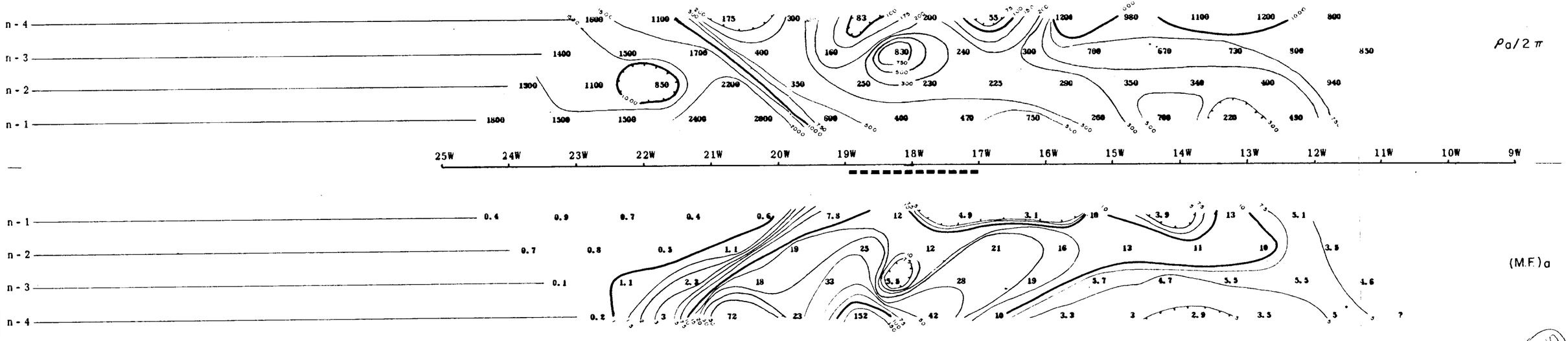
DWG. NO.-I.P.-2893-9

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY



x - 100



LINE NO.-20S

M10

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale-One inch = 100 Feet

ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE
LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 21-5 CPS

DATE SURVEYED MAY 1962

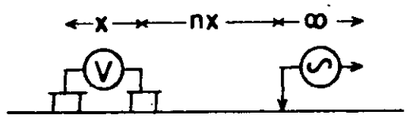
APPROVED [illegible]

DATE June 19/62

DWG. NO.-I.P.-2893-10

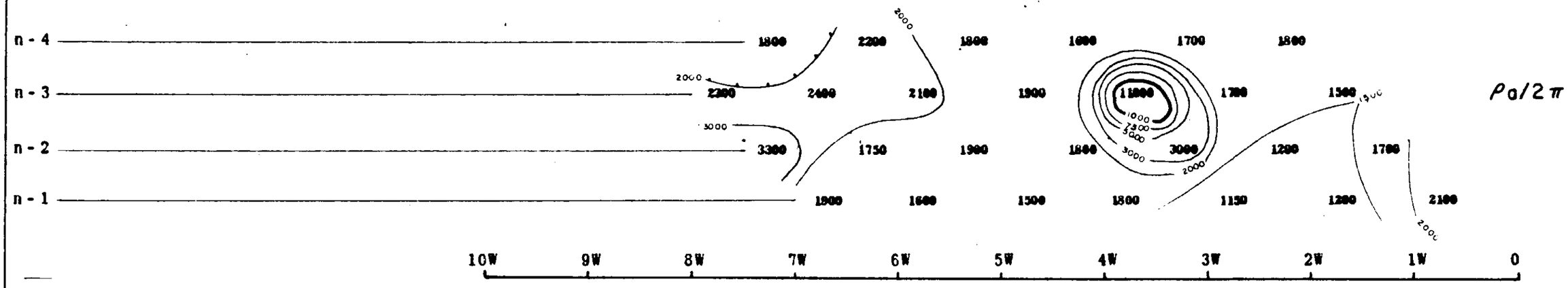
McPHAR GEOPHYSICS LIMITED

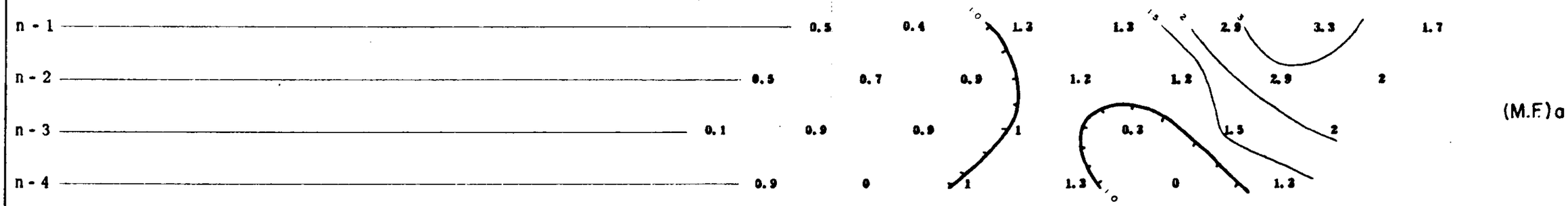
INDUCED POLARIZATION AND RESISTIVITY SURVEY



ELECTRODE CONFIGURATION

x - 100





LINE NO. 24S

M11

ANOMALOUS ZONE ——————

POSSIBLE ANOMALOUS ZONE — — —

NOTE
LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale - One inch = 100 Feet

FREQUENCY 31- ⅝ CPS

DATE SURVEYED MAY 1962

APPROVED [illegible]

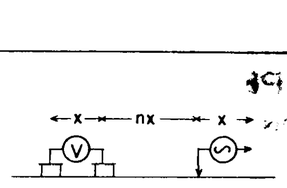
DATE June 1962

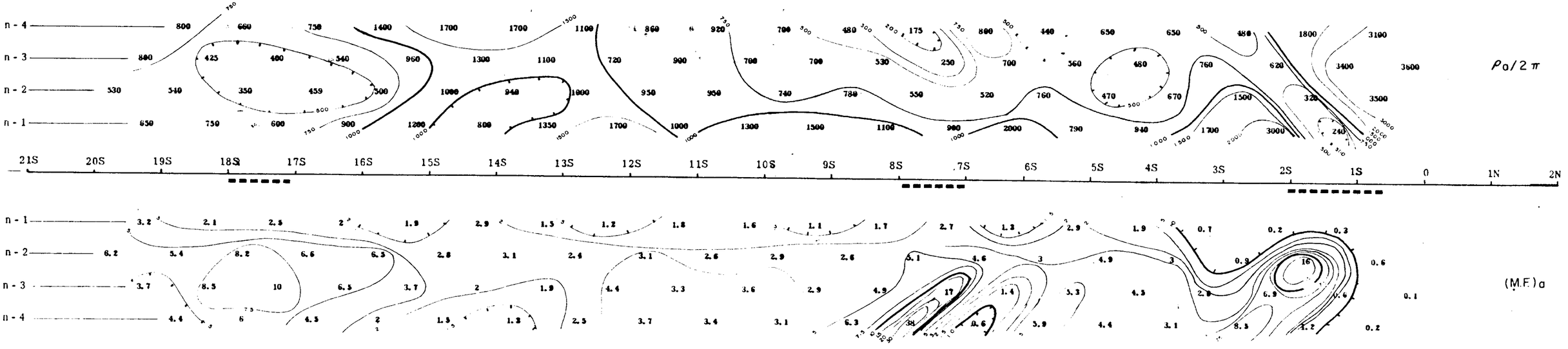
DWG. NO.-I.P.-2893-II

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

465





LINE NO.- BASE LINE "I"

ANOMALOUS ZONE ———

POSSIBLE ANOMALOUS ZONE — — —

NOTE
LOGARITHMIC CONTOUR INTERVAL

VANWEST MINERALS LIMITED

MATILDA INLET, FLORES ISLAND, BRITISH COLUMBIA

Scale-One inch = 100 Feet

FREQUENCIES

DATE SURVEYED MAY/62

APPROVED

DATE Nov 1962