886

REPORT ON THE
INDUCED POLARIZATION
AND RESISTIVITY SURVEY
ON THE
BREN CAP, BREN COLL
AND SANDBERG GROUPS
PEACHLAND AREA, BRITISH COLUMBIA
FOR
BRENMAC MINES LIMITED

Red Rock Ik
McGee, Robb,
Sandberg

82 E / 13W

BY

PHILIP G. HALLOF, Ph.D.

AND

ROBERT A. BELL, Ph.D.

NAME AND LOCATION OF PROPERTY:

BREN CAP CLAIM GROUP, PEACHLAND AREA

BREN COLL CLAIM GROUP, PEACHLAND AREA

SANDBERG CLAIM GROUP, PEACHLAND AREA

OSOYOOS MINING DIVISION, B.C. ~~49°N/120°W/N/E~~ 49° 119° NW

DATE STARTED: MAY 31, 1966

DATE COMPLETED: JULY 31, 1966

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McPHAR GEOPHYSICS LIMITED

REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE BREN CAP, BREN COLL AND SANDBERG GROUPS PEACHLAND AREA, BRITISH COLUMBIA FOR BRENMAC MINES LIMITED

1. INTRODUCTION

At the request of Mr. Alex Burton, geologist for the Company, an induced polarization and resistivity survey has been carried out in the Peachland area of British Columbia. The work was done on three nearby properties known as the Bren Cap, Bren Coll and Sandberg Groups, all in the Osoyoos Mining Division in the N/E quadrant of the 1° quadrilateral whose southeast corner is at 49°N and 120°W.

The claim groups are adjoining or near the property of Brenda Mines on which a large low-grade copper-molybdenum deposit has recently been discovered. The purpose of the present work was to locate any large zones of metallic mineralization which might represent extensions or repetitions of the Brenda deposit. The field work was done during the summer of 1966 using a McPhar frequency-type IP system.

2. PRESENTATION OF RESULTS

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

A) Bren Cap Group

Line 12N	400' spreads	Dwg. IP 2541-1
Line 12N	200' spreads	Dwg. IP 2541-2
Line 6N	400' spreads	Dwg. IP 2541-3
Line 2S	400' spreads	Dwg. IP 2541-4

B) Bren Coll Group

Line 124E	400' spreads	Dwg. IP 2542-1
Line 116E	400' spreads	Dwg. IP 2542-2
Line 108E	400' spreads	Dwg. IP 2542-3
Line 100E	400' spreads	Dwg. IP 2542-4
Line 100E	200' spreads	Dwg. IP 2542-5
Line 92E	400' spreads	Dwg. IP 2542-6
Line 84E	400' spreads	Dwg. IP 2542-7
Line 80E	400' spreads	Dwg. IP 2542-8
Line 76E	400' spreads	Dwg. IP 2542-9

c) Sandberg Group

Line 15W	100' spreads	Dwg. IP 2543-1
Line 12S	100' spreads	Dwg. IP 2543-2

Enclosed with this report are Drawings Misc. 3209, Misc. 4250 and Fig. 1, plans of the Bren Cap, Bren Coll and Sandberg grids (not included) at a scale of 1" = 400'. The definite and possible induced polarization anomalies are indicated by solid and broken bars respectively on this plan map as well as the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Since the induced polarization measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the spread length; i.e. when using 400' spreads the position of a narrow sulphide body can only be determined to lie between two stations 400' 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

A) Bren Cap Group

Three east-west traverses were surveyed on this property in an attempt to locate a westward extension of the Brenda deposit. A station interval of 400-feet was used since the target was a broad zone of weak mineralization; in addition part of Line 12N was checked with 200-foot spreads.

On Line 12N there is a low magnitude but definite anomaly centered at Station 40W. The source appears to be at considerable depth as no anomalous effects were measured on the first separation and only weak effects were measured on the second separation. The zone evidently has some width (between 1 and 3 electrode intervals) but this is uncertain because of the depth. The anomaly was checked with 200-foot spreads but no significant effects were measured, presumably because of the depth.

On Line 6N there is a possible weak anomaly again centered at Station 40W. The source is shallow here and narrower than on the preceding line.

Weak effects were measured on the eastern end of Line 2S, but the pattern is incomplete.

B) Bren Coll Group

Line 124E

This is the easternmost of the lines surveyed. Anomalous effects were measured from 92N to 124N, indicating a broad variable zone or several narrow closely spaced sources (i.e. at 98N, 114N and 122N.) The depth is indicated to be less than one electrode interval (400') and the source or sources can be better located and evaluated by detailing with 200-foot spreads.

Line 116E

Similar results were obtained on this line with the broad zone extending from about 98N to 144N. The shallow feature at 116N should be checked with 200 foot spreads.

Line 108E

The character of the results on this line is much different from the lines to the east. The main zone is narrower and somewhat weaker, extending from 100N to 112N. In addition there are several narrow anomalies some of which should be checked with 200 foot spreads (e.g. at 88N and 104N.)

Line 100E

Anomalous effects were measured throughout most of this traverse. The results suggest the presence of widespread weakly disseminated metallic mineralization. Part of the line was checked with 200-foot spreads and the results are similar to those from the reconnaissance survey.

Line 92E

The IP results here show a narrow, shallow anomaly centered at 102N; the source should be checked using 200 foot electrode intervals. A broad variable zone extends from 116N to about 156N. Included in this is a fairly definite feature measured for the larger separations at 124N - 128N. The source is at depth, or to the side, and therefor Lines 96E and 88E should be run with 400 foot spreads to check for lateral extensions.

Line 84E

Only weak irregular IP effects were measured on this line.

Line 80E

There is a shallow, narrow anomaly at 146N on this line, but it is weak.

Line 76E

A relatively strong, shallow anomaly occurs at 116N on this traverse, but the pattern is incomplete. The source should be checked with 200 foot spreads.

C) Sandberg Group

Only two lines were run on this property. Line 15W shows a broad variable zone from Station 11S to about 2S. Included in this is a strong, shallow, narrow source at 9S-10S. The second line was run at right angles to the first at 12S but did not extend far enough west to cross Line 15W. The IP results show only weak irregular effects.

4. SUMMARY AND RECOMMENDATIONS

On the Bren Gap property a definite anomaly was found on Line 12N. This feature should be checked by resurveying the line using 400 foot electrode separations but with the stations shifted 200 feet; in addition some of the readings should be repeated using DC. If the results are encouraging the grid should be extended to the north in order to outline the anomalous zone.

Anomalous effects were measured on all of the traverses on the Bren Coll group. The results are indicative of broad, irregular zones of weakly disseminated metallic mineralization containing several narrow sections of more concentrated mineralization. The narrow, shallow sources should be checked with 200 foot electrode separations as discussed in the preceding section. The geological control is extremely important in this area in view of the general low magnitude of the IP anomalies. In areas underlain by sediments and volcanics the weak effects are probably caused by minor disseminated pyrite or pyrite-graphite zones. However, those areas underlain by the favourable intrusives should be detailed and drilled, as the known mineral deposits in the district consist of weakly disseminated sulphides in the igneous rocks. The pyrite content is generally low so that 1-3% sulphide can be economic and would give rise to only weak IP anomalies.

Line 15W on the Sandberg group shows a broad zone of weak to moderate effects and a shallow strong source. A drill hole at 3+30S cut disseminated pyrite and graphite which explains the broad zone. In our opinion the strong anomaly at 9S-10S should also be drilled but parallel traverses should be surveyed beforehand to delineate the zone.

McPHAR GEOPHYSICS LIMITED

Philip G. Hallof,
Geophysicist.

Robert A. Bell,
Geologist.

Dated: October 18, 1966

ASSESSMENT DETAILS

PROPERTY: Bren Cap Property

MINING DIVISION: Osoyoos

SPONSOR: Brenmac Mines Ltd.

PROVINCE: British Columbia

LOCATION: Peachland Area

TYPE OF SURVEY: I.P.

OPERATING MAN DAYS:	37.5	DATE STARTED:	July 20, 1966
EQUIVALENT 8HR. MAN DAYS:	56	DATE FINISHED:	July 31, 1966
CONSULTING MAN DAYS:	1	NUMBER OF STATIONS:	61
DRAUGHTING MAN DAYS:	5	NUMBER OF READINGS:	348
TOTAL MAN DAYS:	62	MILES OF LINE SURVEYED:	3.78

CONSULTANTS:
R. A. Bell, 50 Hemford Crescent, Don Mills, Ontario
P. G. Hallof, 5 Minorca Place, Don Mills, Ontario

FIELD TECHNICIANS:
Bruce Bell, 7 Sydney St., Ottawa, Ontario
A. McLeod
Helpers supplied by client

DRAUGHTSMEN:
P. Coulson, 6 Paradise Ave., Markham, Ontario
B. Marr, 19 Kenewen Court, Toronto 16, Ontario
N. Lade, 35 Esterbrooke Ave., Willowdale, Ontario

McPHAR GEOPHYSICS LIMITED

Robert A. Bell,
Geologist.

Dated: October 18, 1966

SUMMARY OF COST

Eren Cap Property

Crew

3 1/2 days Operating	@ $195.00	$ 682.50
4 days Operating	@ $185.00	740.00
1 day Bad Weather	@ $ 75.00	75.00
1 day Electrode Preparation	@ $ 75.00	75.00
		$1,572.50

Expenses

Rented Vehicle	47.75	
Freight and Brokerage	110.54	
Camp Supplies & Groceries	44.75	
Supplies	1.90	
Tel & Tel	12.15	
Sub Contract Helper	12.00	229.09
		$1,801.59

McPHAR GEOPHYSICS LIMITED

Robert A. Bell
Robert A. Bell,
Geologist.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the CITY
of VANCOUVER , in the
Province of British Columbia, this 27
day of JANUARY /67 , A.D.

Myrtle Holmes

Hamilton **Sub-mining Recorder**

ASSESSMENT DETAILS

PROPERTY: Brencoll Property		MINING DIVISION:	Osoyoos
SPONSOR: Brenmac Mines Ltd.		PROVINCE:	British Columbia
LOCATION: Peachland Area			
TYPE OF SURVEY: I.P.			
OPERATING MAN DAYS:	75	DATE STARTED:	May 31, 1966
EQUIVALENT 8HR. MAN DAYS:	112.5	DATE FINISHED:	June 21, 1966
CONSULTING MAN DAYS:	2	NUMBER OF STATIONS:	193
DRAUGHTING MAN DAYS:	7	NUMBER OF READINGS:	1214
TOTAL MAN DAYS:	121.5	MILES OF LINE SURVEYED:	13.56

CONSULTANTS:
R. A. Bell, 50 Hemford Crescent, Don Mills, Ontario
P. G. Hallof, 5 Minorca Place, Don Mills, Ontario

FIELD TECHNICIANS:
B. Bell, 7 Sydney St., Ottawa, Ontario
J. Parker, Box 340, Choiceland, Saskatchewan
Helpers supplied by client

DRAUGHTSMEN:
P. Coulson, 6 Paradise Ave., Markham, Ontario
B. Marr, 19 Kenewen Court, Toronto 19, Ontario
N. Lade, 35 Esterbrooke Blvd., Willowdale, Ontario

McPHAR GEOPHYSICS LIMITED

Robert A. Bell,
Geologist.

Dated: October 18, 1966

SUMMARY OF COST

Bren Coll Property

Crew

15 days Operating	@ $215.00	$3,225.00
3 days Travel	@ $ 75.00	225.00
2 days Standby	@ $ 75.00	150.00
		$3,600.00

Expenses

Fares	366.85	366.85
Vehicle Expense	52.82	52.82
Taxi	21.60	21.60
Meals and Accommodation	59.65	59.65
Freight and Brokerage	120.42	120.42
Tel & Tel	64.49	64.49
Supplies	77.87	77.87
		$ 763.70
		$4,363.70

McPHAR GEOPHYSICS LIMITED

Robert A. Bell,
Geologist.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the CITY of VANCOUVER, in the Province of British Columbia, this 27 day of JANUARY /67, A.D.

Sub-mining Recorder

ASSESSMENT DETAILS

PROPERTY: Sandberg Property		MINING DIVISION: Osoyoos
SPONSOR: Brenmac Mines Ltd.		PROVINCE: British Columbia
LOCATION: Peachland Area		
TYPE OF SURVEY: Induced Polarization		
OPERATING MAN DAYS:	7.5	DATE STARTED: June 22, 1966
EQUIVALENT 8 HR. MAN DAYS:	11.0	DATE FINISHED: June 23, 1966
CONSULTING MAN DAYS:	0.5	NUMBER OF STATIONS: 31
DRAUGHTING MAN DAYS:	1	NUMBER OF READINGS: 184
TOTAL MAN DAYS:	12.5	MILES OF LINE SURVEYED: 0.54

CONSULTANTS:

Robert A. Bell, 50 Hemford Crescent, Don Mills, Ontario.
Philip G. Hallof, 5 Minorca Place, Don Mills, Ontario.

FIELD TECHNICIANS:

B. Bell, 7 Sydney Street, Ottawa, Ontario.
J. Parker, Box 340, Choiceland, Saskatchewan.
Helpers supplied by client.

DRAUGHTSMEN:

P. Coulson, 6 Paradise Avenue, Markham, Ontario.
B. Marr, 19 Kenewen Court, Toronto 16, Ontario.
N. Lade, Apt. 503, 35 Esterbrooke Ave., Willowdale, Ontario.

McPHAR GEOPHYSICS LIMITED

Robert A. Bell,
Geologist.

Dated: October 18, 1966

SUMMARY OF COST

Sandberg Property

Crew

1-1/2 days	Operating	@ $215.00	$322.50
1/2 day	Standby	@ $ 75.00	37.50
			$360.00

Expenses

Supplies	12.08
	$372.08

McPHAR GEOPHYSICS LIMITED

Robert A. Bell

Robert A. Bell,
Geologist.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the CITY of VANCOUVER, in the Province of British Columbia, this 27 day of JANUARY /67, A.D.

Myrtle Holmes

Hamilton

Sub-mining Recorder

A Commissioner for taking Affidavits within British Columbia

CERTIFICATE

I, Robert Alan Bell, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geologist residing at 50 Hemford Crescent, Don Mills, (Toronto) Ontario.

2. I am a graduate of the University of Toronto in Physics and Geology with the degree of Bachelor of Arts (1949); and a graduate of the University of Wisconsin in Economic Geology with the degree of Ph. D. (1953).

3. I am a member of the Society of Economic Geologists and a fellow of the Geological Association of Canada.

4. I have been practising my profession for over fifteen 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 Brenmac Mines 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 18th day of October, 1966

Robert A. Bell, Ph. D.

CERTIFICATE

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

1. I am a geophysicist residing at 5 Minorca Place, Don Mills, (Toronto), Ontario.

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

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

4. I have been practising my profession for ten years.

5. I have no direct or indirect interest, nor do I expect to receive any interest, directly or indirectly, in the property or securities of Brenmac Mines Limited.

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

Dated at Toronto

This 18th day October 1966

Philip G. Hallof, Ph. D.

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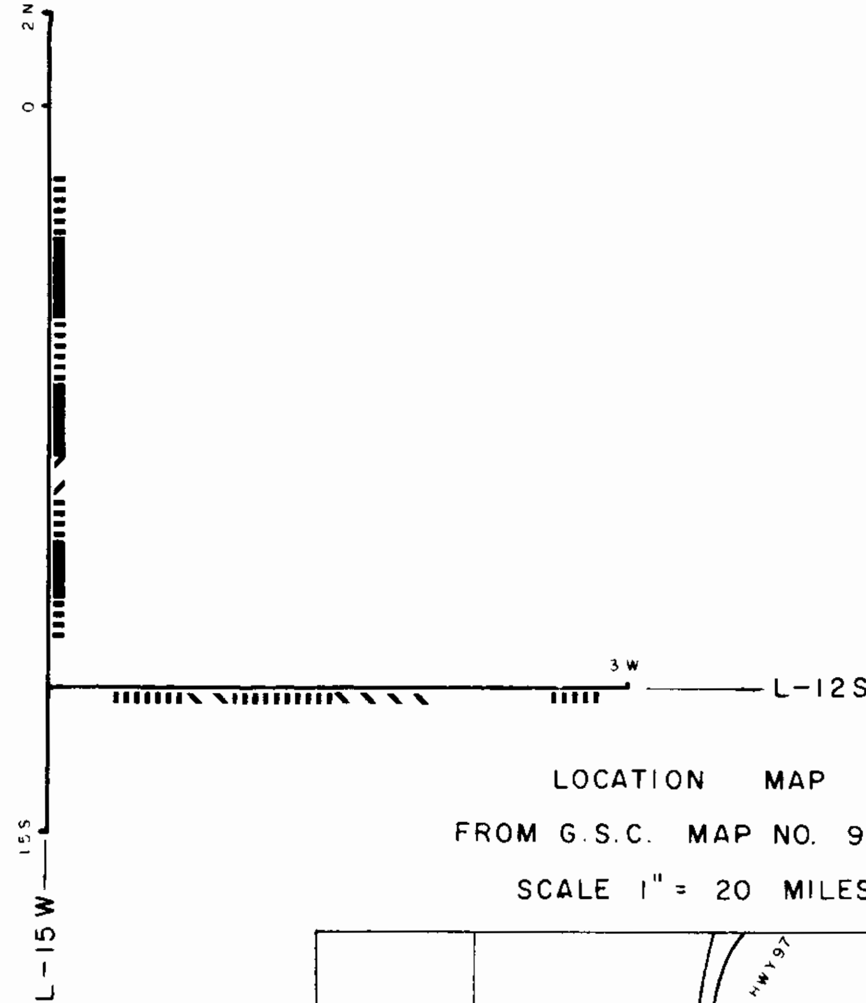
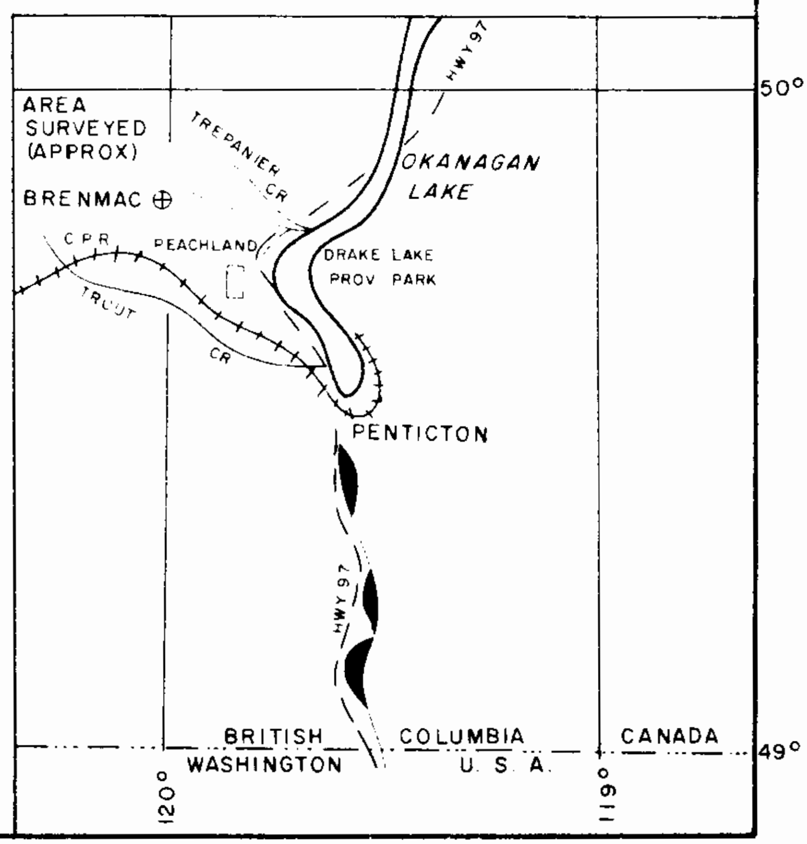
PLAN MAP



LOCATION MAP

FROM G.S.C. MAP NO. 932 A

SCALE 1" = 20 MILES



BRENMAC MINES LIMITED

SANDBERG PROPERTY

1" = 400'

FIG. 1

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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 South-western 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

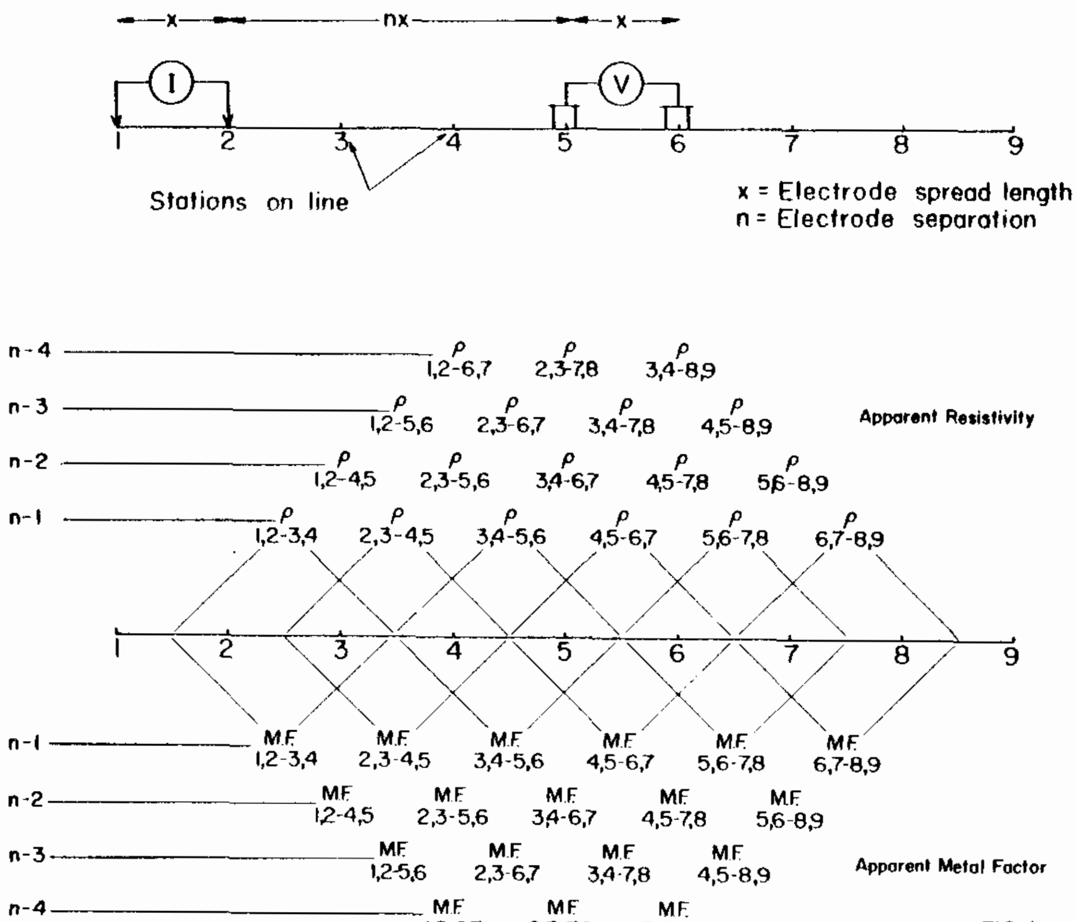

FIG. I

DWG. NO.–I.P.–2541–1

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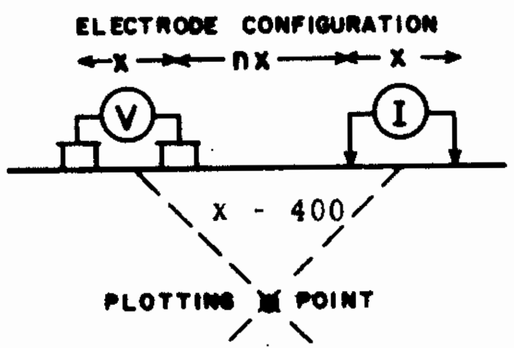
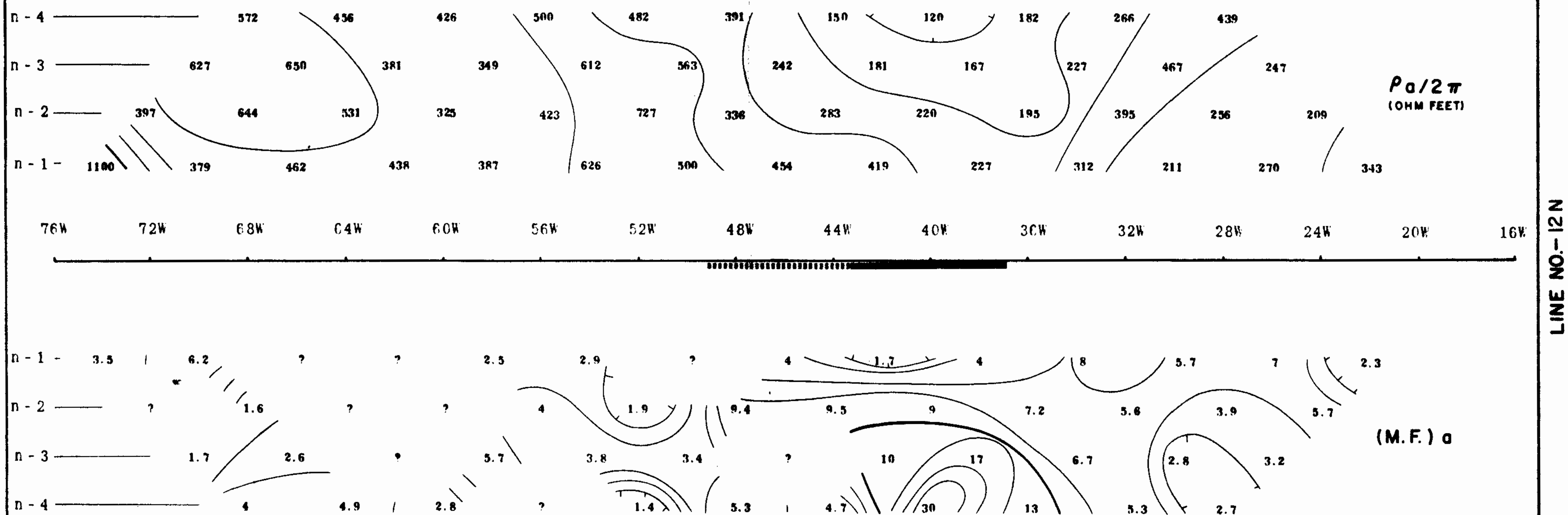
INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100





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BRENMAC MINES LIMITED

BREN–CAP PROPERTY, PEACHLAND AREA– OSOYOOS M.D., BRITISH COLUMBIA.

Scale–One inch = 400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▮▮▮▮▮▮

POSSIBLE ////////

FREQUENCY 0.3–3 c.p.s.

DATE SURVEYED JUNE 1966

APPROVED RAB

DATE Oct 17/66

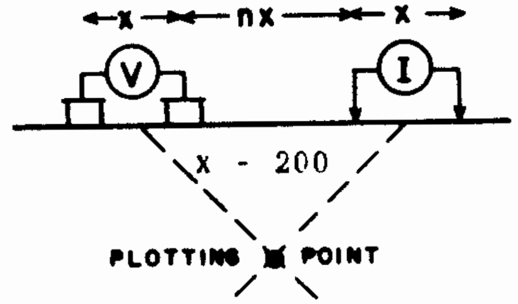
DWG. NO.-I.P.-2541-2

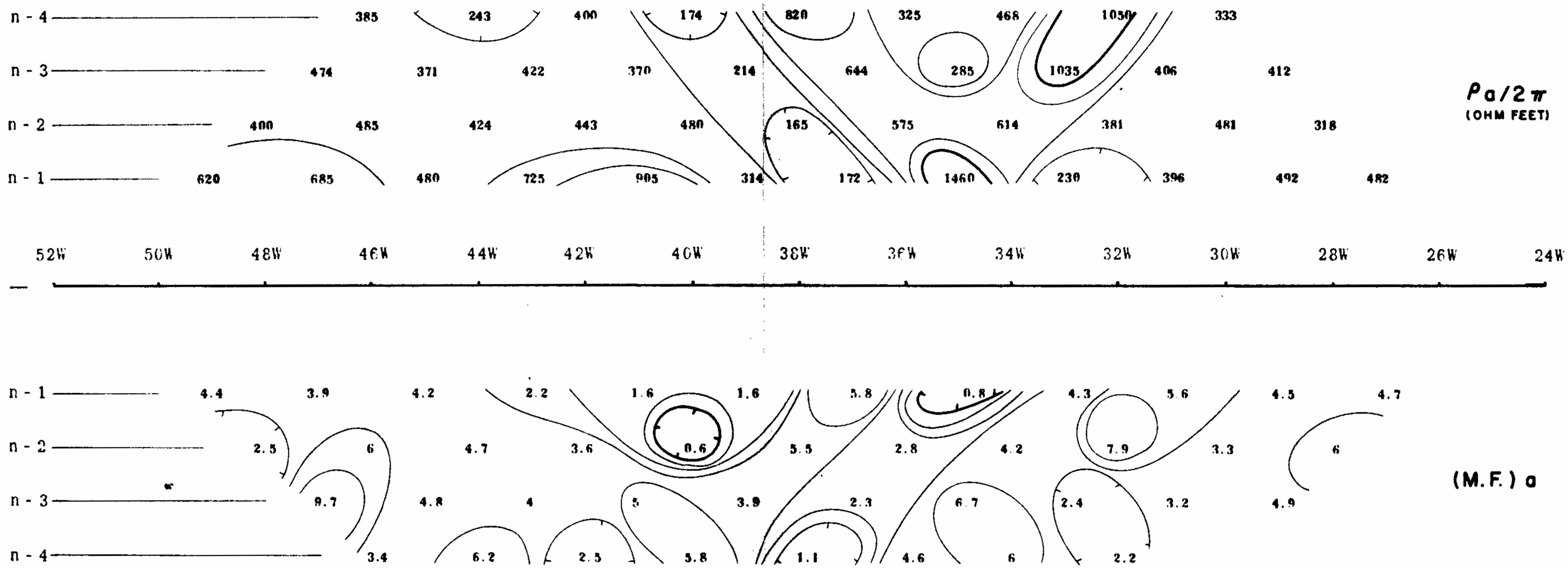
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100

ELECTRODE CONFIGURATION





LINE NO.-12N

886

BRENMAC MINES LIMITED

BREN-CAP PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

Scale-One inch = 200 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▮▮▮▮▮▮

POSSIBLE ////////

FREQUENCY 0.31 - 5 C.P.S.

DATE SURVEYED JUNE 1966

APPROVED RAB

DATE Oct 17/66

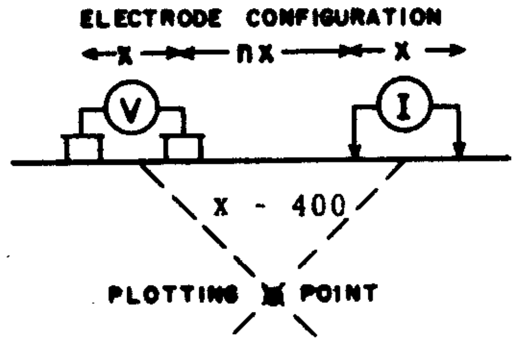
McPHAR GEOPHYSICS LIMITED

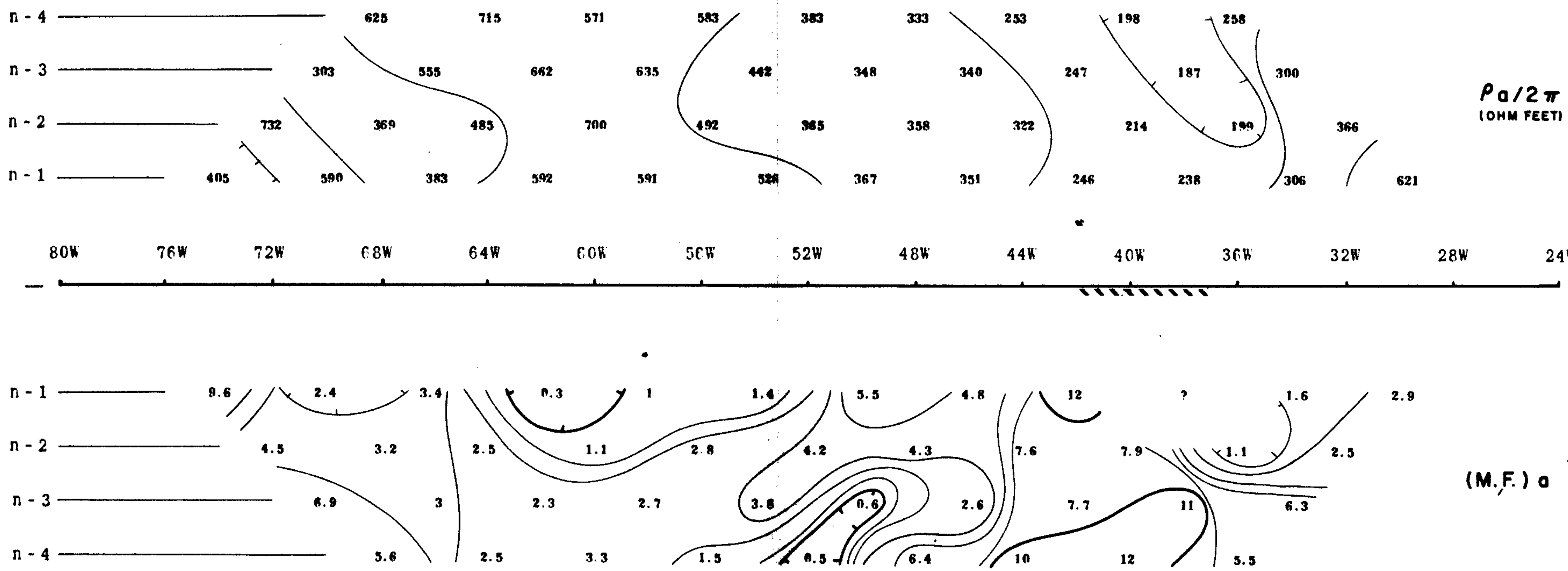
DWG. NO.-I.P.-2541-3

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100





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BRENMAC MINES LIMITED

BREN-CAP PROPERTY, PEACHLAND AREA- OSOYOOS M.D., BRITISH COLUMBIA.

Scale- One inch= 400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCY 0.31-5 C.P.S.

DATE SURVEYED JUNE 1966

APPROVED

DATE

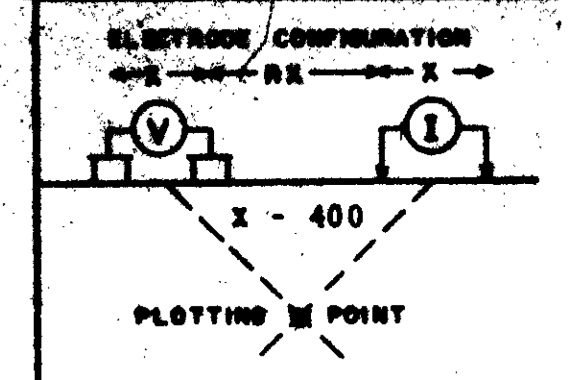
McPHAR GEOPHYSICS LIMITED

DWG. NO.–I.P.–2542-1

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100



LINE NO.–124E

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA–OSOYOOS M.D., BRITISH COLUMBIA.

Scale–One inch=400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY

DATE SURVEYED JUNE 1969

APPROVED

DATE

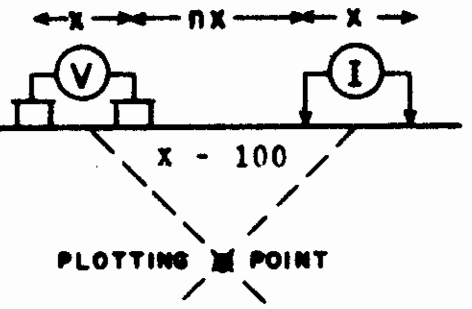
DWG. NO.-I.P.-2543-I

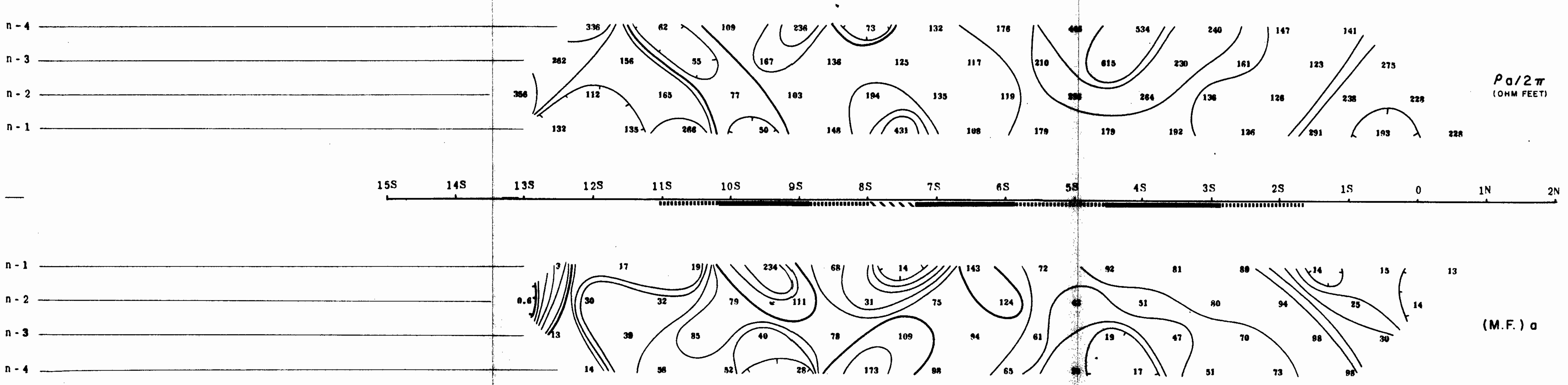
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100

ELECTRODE CONFIGURATION





LINE NO.-15W

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

SANDBERG PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

Scale-One inch = 100 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 0.31-5 CPS

DATE SURVEYED JUNE 1966

APPROVED

DATE

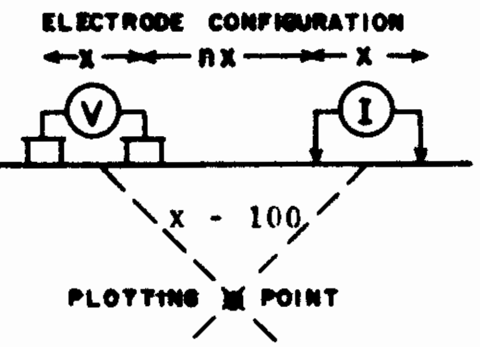
886

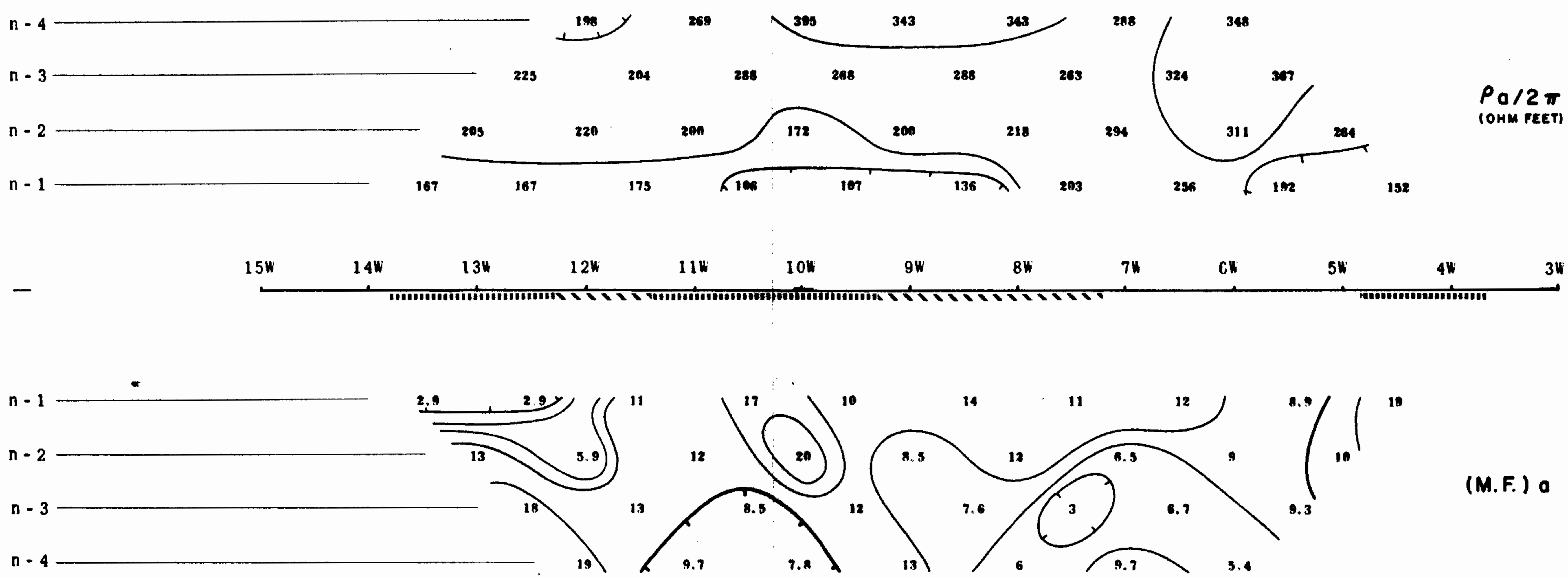
DWG. NO.-I.P.-2543-2

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100





LINE NO.- 12S

BRENMAC MINES LIMITED

SANDBERG PROPERTY, PEACHLAND AREA—OSOYOOS M.D., BRITISH COLUMBIA.

Scale—One inch = 100 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

886

FREQUENCY

DATE SURVEYED JUNE 1966

APPROVED

DATE

McPHAR GEOPHYSICS LIMITED

DWG. NO.–I.P.–2542–2

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100

ELECTRODE CONFIGURATION

x = 400

PLOTTING POINT

LINE NO.–116E

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA–OSOYOOS M.D., BRITISH COLUMBIA.

Scale–One inch = 400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY 0.31–5 CPS

DATE SURVEYED JUNE 1964

APPROVED

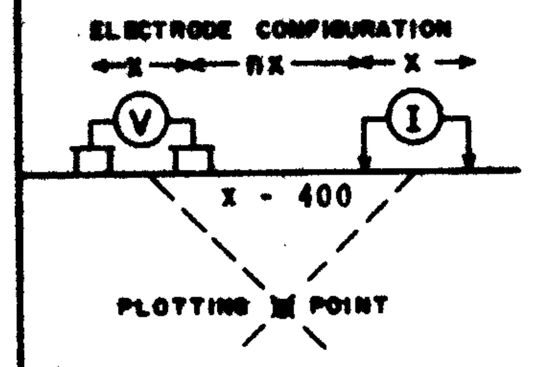
DATE

DWG. NO.–I.P.–2542–3

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100



LINE NO.–108E

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA–OSOYOOS M.D., BRITISH COLUMBIA.

Scale–One inch=400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY ... CPS

DATE SURVEYED JUNE 196

APPROVED

DATE

DWG. NO.–I.P.–2542–4

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA–OSOYOOS M.D., BRITISH COLUMBIA.

Scale–One inch=400 Feet

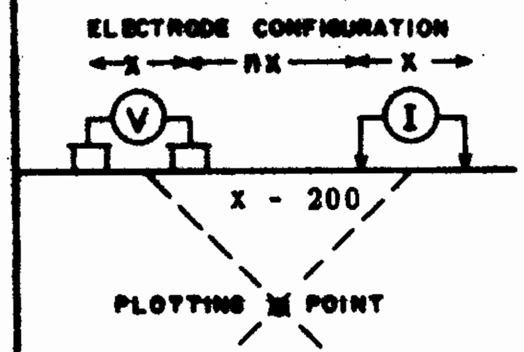
NOTE: LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY 0.31 C.P.S.
DATE SURVEYED JUNE 1966
APPROVED RGB
DATE Oct 17/66

McPHAR GEOPHYSICS LIMITED

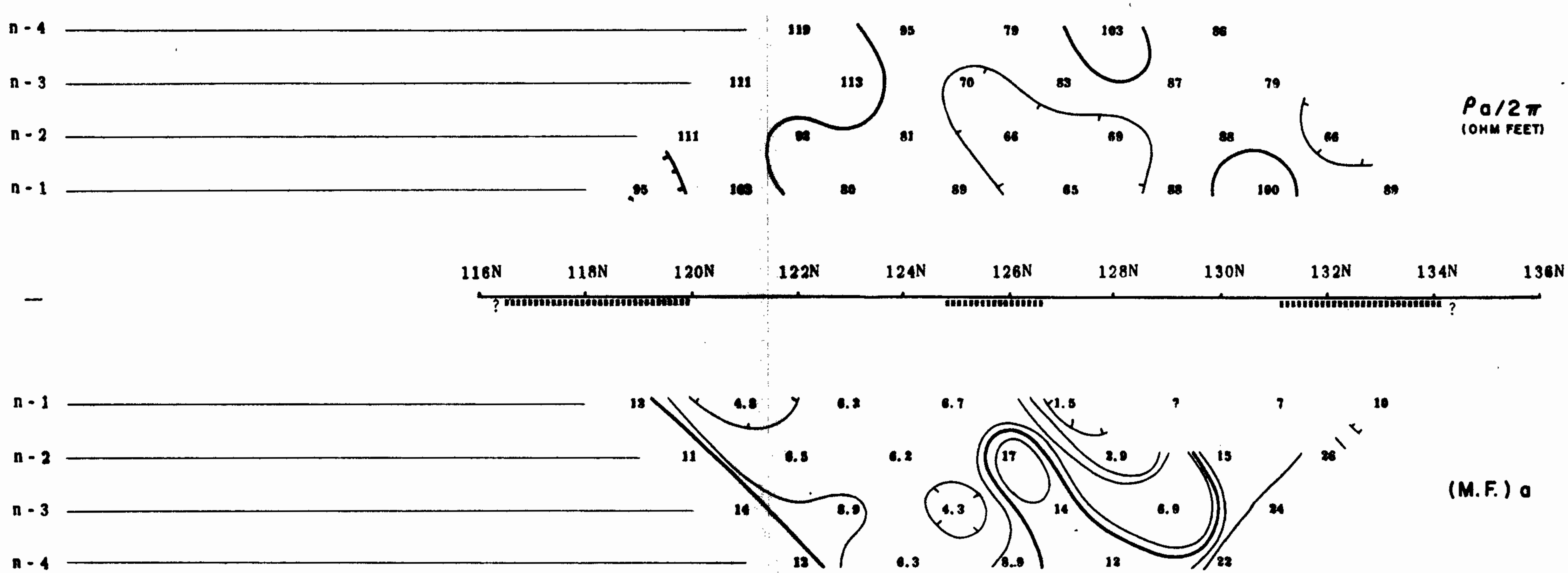
DWG. NO.– I.P.– 2542 – 5



McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100



LINE NO.– 100E

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA – OSOYOOS M.D., BRITISH COLUMBIA.

Scale – One inch = 200 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY 0.31 – 5 CPS

DATE SURVEYED JUNE 1966

APPROVED

DATE

McPHAR GEOPHYSICS LIMITED

DWG. NO.-I.P.-2542-6

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

Scale—One inch = 400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY

DATE SURVEYED JUNE 1968

APPROVED

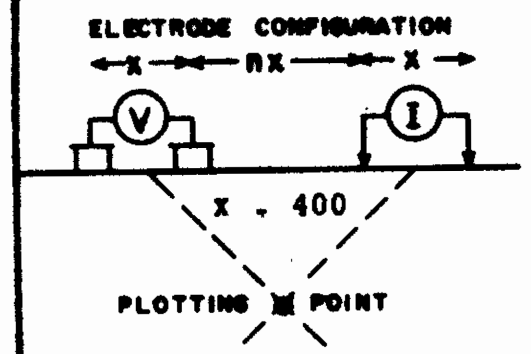
DATE

DWG. NO.-I.P.-2542-7

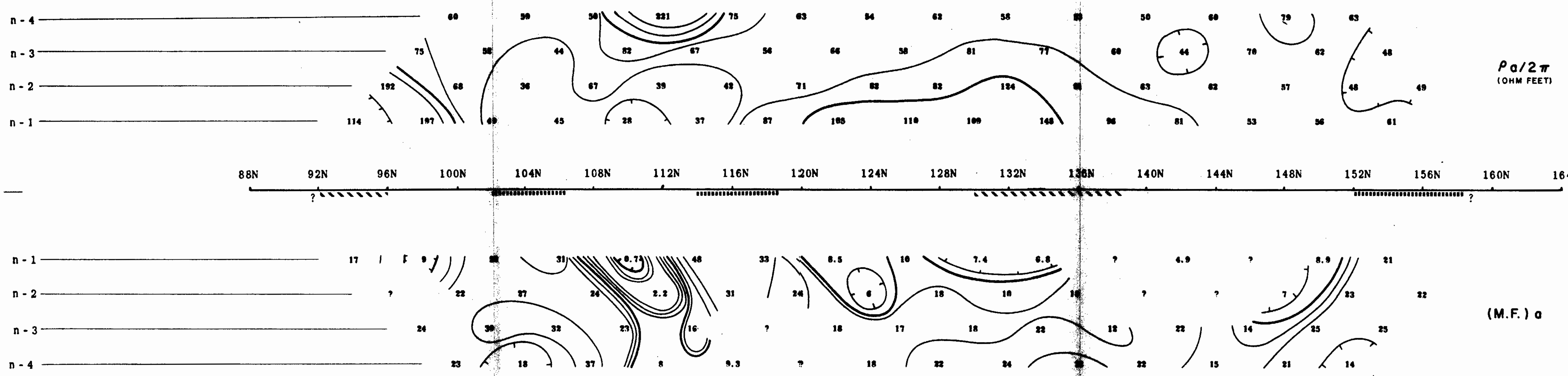
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100



LINE NO.-84E



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

Scale—One inch = 400 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

886

FREQUENCY 0.31-5 C.P.S.

DATE SURVEYED JUNE 1966

APPROVED RAB

DATE Oct 17/66

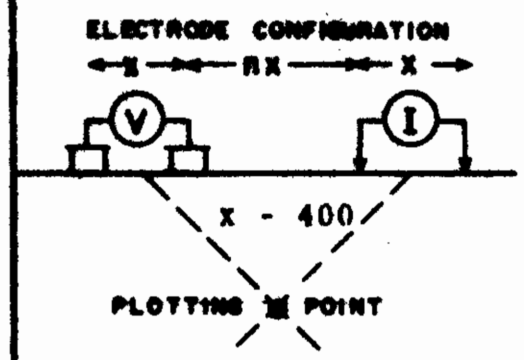
McPHAR GEOPHYSICS LIMITED

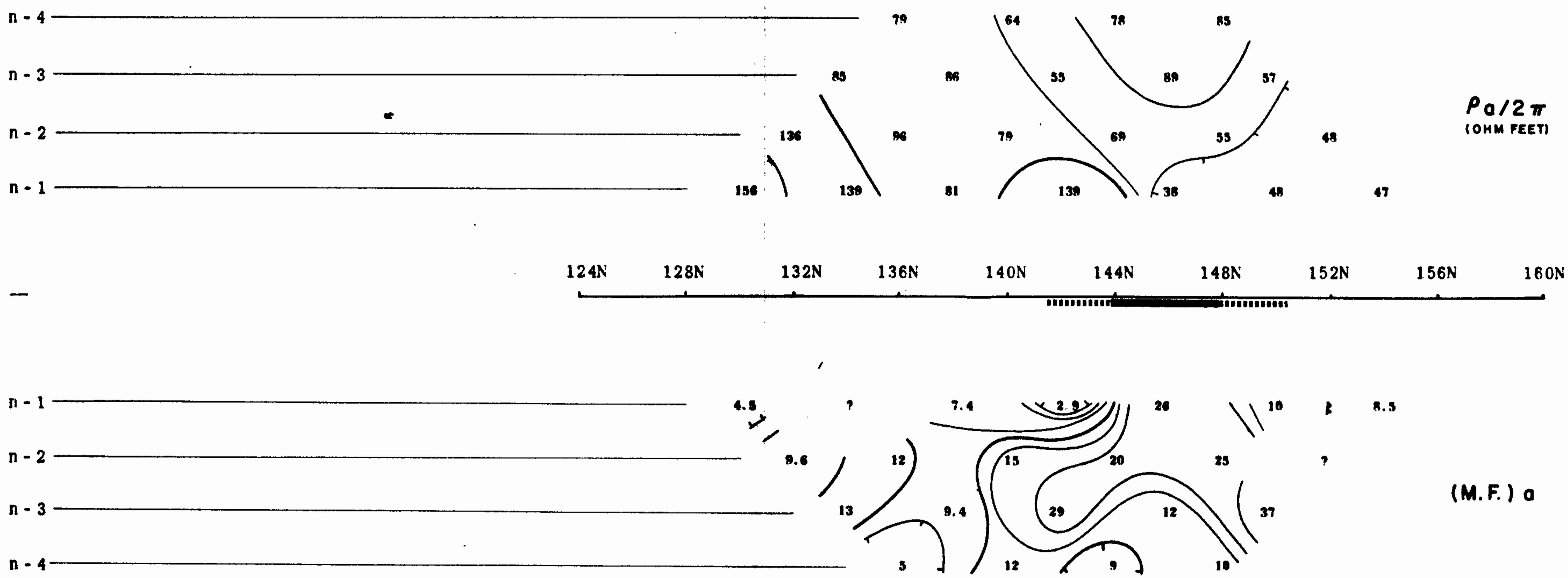
DWG. NO.-I.P.-2542-8

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100





LINE NO.-80E

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

Scale- One inch = 400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

886

FREQUENCY 0.31 - 5 CPS

DATE SURVEYED JUNE 1966

APPROVED RAB

DATE Oct 11/66

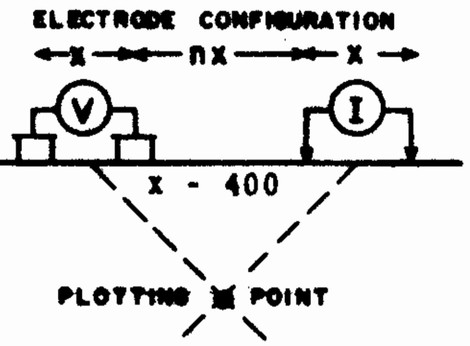
McPHAR GEOPHYSICS LIMITED

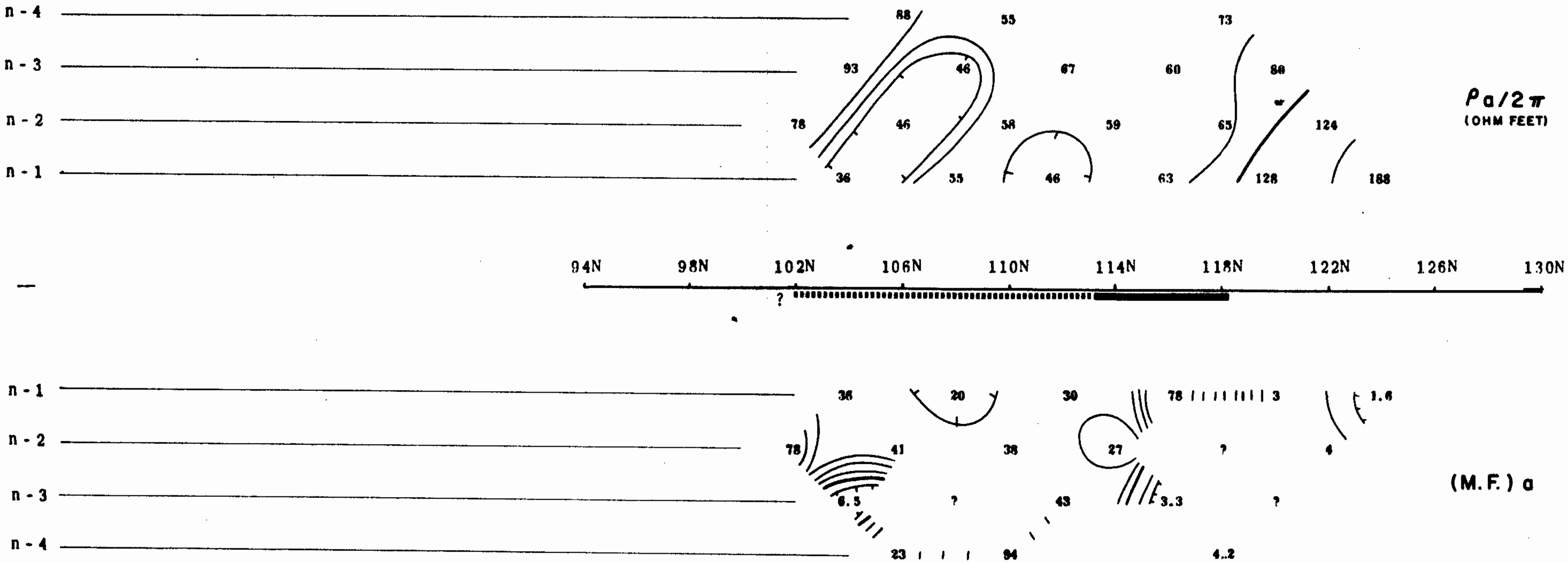
DWG. NO.-I.P.-2542-9

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100





LINE NO.- 76E

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA—OSOYOOS M.D., BRITISH COLUMBIA.

Scale—One inch = 400 Feet

NOTE: LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

886

FREQUENCY 0.31 CPS.

DATE SURVEYED JUNE 1966

APPROVED RRB

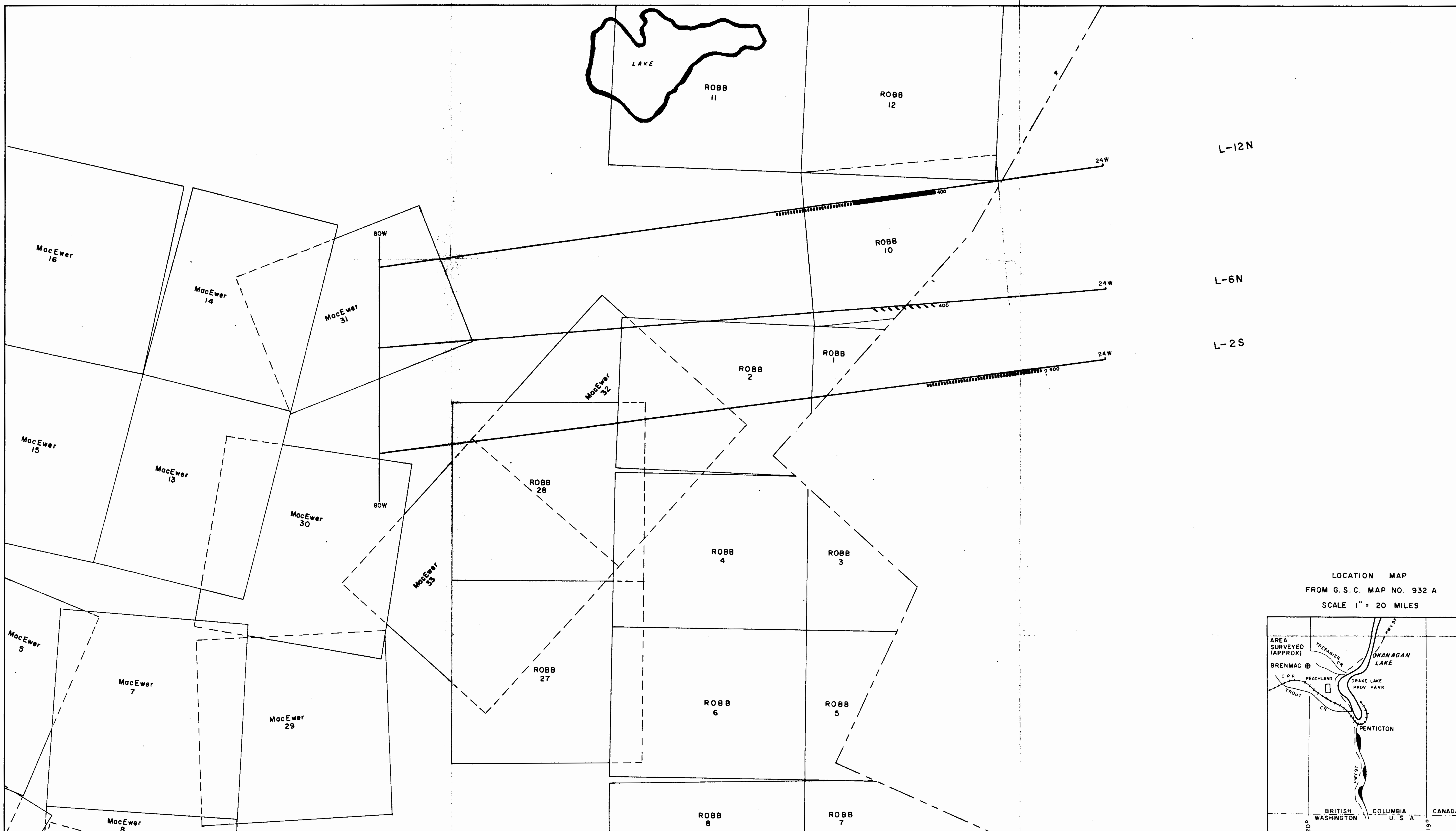
DATE [illegible] 17/66

McPHAR GEOPHYSICS LIMITED

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

Number of the end of anomaly indicates spread used.

N

BRENMAC MINES LIMITED

BREN-CAP PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

BRENDA MINES BOUNDARY

886

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 886 MAP #1

DRAWN: P.C.
DATE: SEPTEMBER '66
APPROVED: R.A.B.
DATE: Oct. 12/66

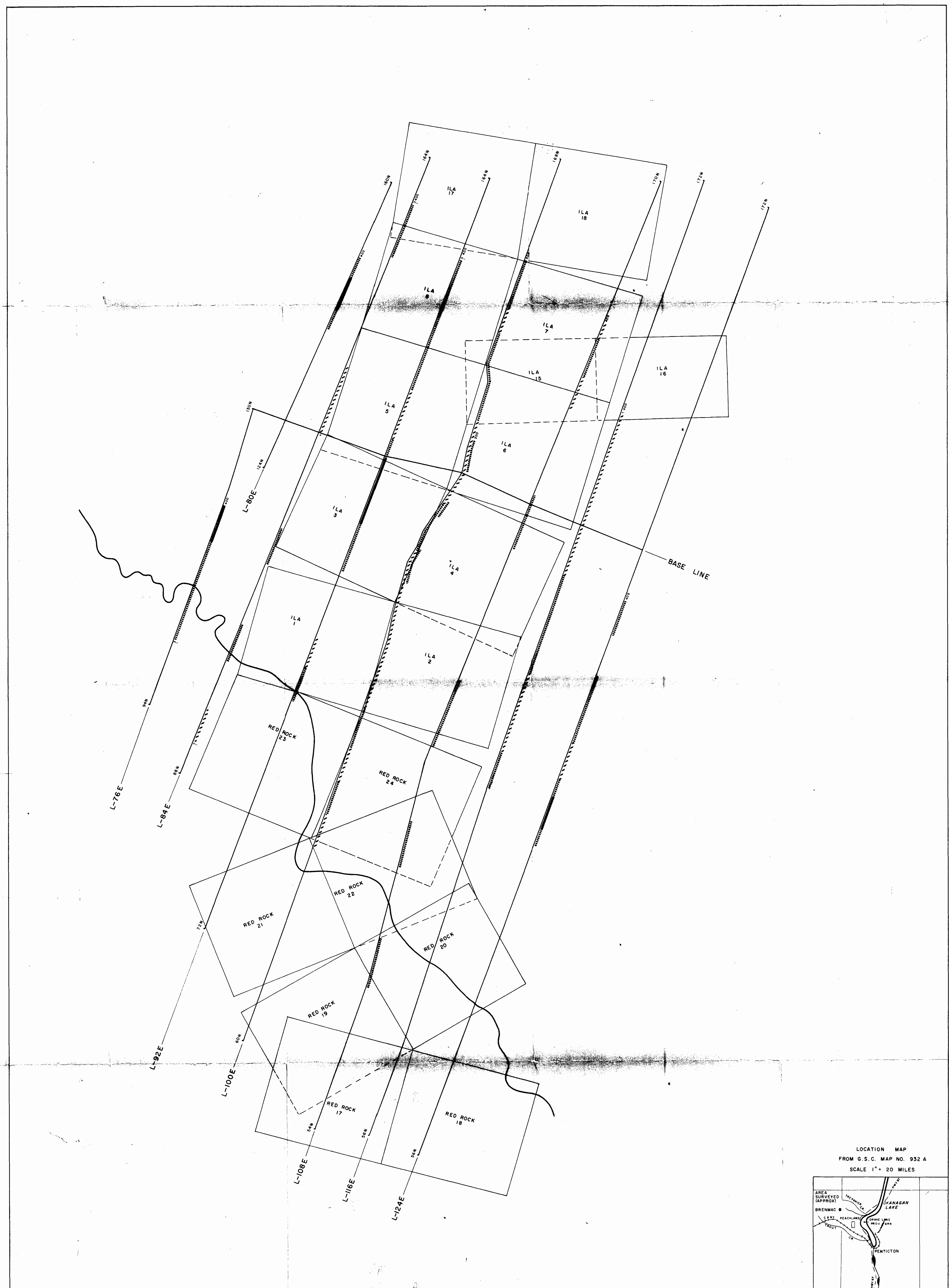
McPHAR GEOPHYSICS LIMITED

DWG. MISC. 3209

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

LOCATION MAP



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

NUMBERS AT ENDS OF ANOMALIES INDICATE SPREADS USED

BRENMAC MINES LIMITED

BRENCOLL PROPERTY, PEACHLAND AREA-OSOYOOS M.D., BRITISH COLUMBIA.

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

886

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 886 MAP #2

DRAWN: P.C.
DATE:
APPROVED:

McPHAR GEOPHYSICS LIMITED

DWG. MISC. 4250