2086

INDUCED POLARIZATION GEOPHYSICAL SURVEY
ON THE BIN CLAIMS, NOS. 29 to 48, 63, 64, 79
TO 114, 116 to 128, 163 AND 164, AND ON THE
BIN FRACTIONAL CLAIMS NOS. 115, 162, 165 AND
166, SITUATED 15 MILES SOUTHEAST OF
SPENCES BRIDGE, WITHIN THE KAMLOOPS MINING
DIVISION, 50° 20' N, 121° 02' W, NTS: 92I-6

BIN "A" GROUP - 38 claims and Two Fractional Claims

	Claim	Record Nos.	Requested Assessment Credit
12	Bin 29 - 40	70408 - 70425	Nil
2	Bin 47, 48	70865, 70866	Nil
2	Bin 63, 64	70881, 70882	Nil
6	Bin 95 - 100	71682 - 71687	2 years each claim
6	Bin 105 - 110	71692 - 71697	Nil
2	Bin 127, 128	71714, 71715	3 years each claim
1	Bin 163	71914	3 years
1	Bin 164	71915	Nil
32	Bin 165 Fr., 166 Fr.	71916, 71917	3 years each claim
		Total	27 years

Work on the Bin "A" Group was carried out during the period July 29 to August 28, 1969

BIN "B" GROUP - 35 Claims and Three Fractional Claims

Claim	Record Nos.	Requested Assessment Credit
Bin 79 - 94	71482 - 71487	Nil
Bin 101 - 104	71688 - 71691	2 years each claim
Bin 111 - 114	71698 - 71701	3 years each claim
Bin 115 Fr.	71702	Nil
Bin 116 - 126	71703 - 71713	3 years each claim
Bin 162 Fr.	71913	1 year
Bunny 1 Fr.	80900	2 years
	Total	56 years

Work on the Bin "B" Group was carried out during the period July 29 to August 28, 1969.

C O M I N C O L T D.

EXPLORATION WESTERN DISTRICT

NTS: 92I-6

INDUCED POLARIZATION AND RESISTIVITY SURVEY

BIN GRID

SPENCES BRIDGE AREA

HIGHLAND VALLEY, B. C.

September 23, 1969

John M. Hamilton

TABLE OF CONTENTS

SUMMARY

IP surveys comprising 26.32 miles of traverse on the Bin Grid located no further targets for exploration, and no further work is warranted within the surveyed area. Resistivity lows were located over creeks within the survey area, caused by greater concentrations of groundwater in these areas.

Consideration should be given to completing IP coverage over this property. It is felt that systematic IP coverage of any geologically favourable ground in the Highland Valley can be justified in view of the proven capabilities of the IP method, the concentration of known deposits, and the thin but extensive mantle of overburden.

INTRODUCTION

The Bin property is located about 15 miles southeast of Spences Bridge in the Highland Valley, at the intersection of Skuhun and Skuhost Creeks. Access is by way of a dirt road to Chataway Lakes Resort which joins the Spences Bridge - Merritt Highway 14.2 miles southeast of Spences Bridge. The property is located about 8.5 miles up the Chataway Lake Resort road. The property consists of the Bin "A" Group of 38 claims and 2 fractional claims plus the Bin "B" Group of 35 claims and 3 fractional claims and is held by Cominco under an option agreement with B. I. Nesbitt.

The present geophysical survey was conducted over most of the Bin "B" group as well as the southeast portion of the Bin "A" group. About 17.72 miles of traverse were completed on the Bin "B" group and 8.60 miles on the "A" group, at the suggestion of R. J Nicholson of Cominco. The purpose of the survey was to attempt to locate broad zones of weak sulphide mineralization at depths to top of up to 400 feet. Other work by Cominco to date consists of linecutting, geological surveys and limited soil geochemical, refraction seismic, and magnetometer traverses.

GEOLOGY

The northern portion of the property is underlain by Bethsaida granite. This is bounded south of the present grid by Witches Brook granodiorite, and to the west by Chataway granodiorite. Contact positions are not known with certainty. Faulting may be present in the Skuhun and/or Skuhost Creek valleys.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

Method:

The survey was performed by field technician Harry R. Claridge of Cominco Ltd. assisted by Derek Moule, Frank Hassard, Art Gates, Gerry Grisak and J. Bellamy, between July 29 and August 28, 1969. The survey was performed with Cominco's McPhar Model HPTX frequency domain IP unit, using frequencies of 0.31 and 5.0 c.p.s.

In all, 26.32 miles of line were surveyed on the Bin property, on 23 parallel lines spaced 500 feet apart, using 400 foot dipoles and five separations. Minor amounts of data were obtained on the Highland Queen property, at the south ends of Lines 20W to 45W, comprising a total of 1.19 miles.

Data Presentation:

The following data is included with this report:

Plate Bin IP - 1, grid map showing location of IP traverses, Scale 1" = 1000'.

The following data plots:

Line No.	Dipole Length	Plate No.
65E	400 Feet	IP - 50 - 1
60E	400 Feet	IP - 50 - 2
55E	400 Feet	IP - 50 - 3
50E	400 Feet	IP - 50 - 4
45E	400 Feet	IP - 50 - 5
40E	400 Feet	IP - 50 - 6
35E	400 Feet	IP - 50 - 7
30E	400 Feet	IP - 50 - 8

Line No.	Dipole Length	Plate No.
25E	400 Feet	IP - 50 - 9
20E	400 Feet	IP - 50 - 10
15E	400 Feet	IP - 50 - 11
10E	400 Feet	IP - 50 - 12
5E	400 Feet	IP - 50 - 13
0	400 Feet	IP - 50 - 14
5W	400 Feet	IP - 50 - 15
10W	400 Feet	IP - 50 - 16
15W	400 Feet	IP - 50 - 17
20W	400 Feet	IP - 50 - 18
25W	400 Feet	IP - 50 - 19
30W	400 Feet	IP - 50 - 20
35W	400 Feet	IP - 50 - 21
40 W	400 Feet	IP - 50 - 22
45W	400 Feet	IP - 50 - 23

Results:

No induced polarization anomalies of any apparent significance were obtained on this survey. Frequency effects are commonly in the 0.6 to 1.4 range, and seldomly exceed 2.0. A one-reading high of 3.6 at 20 N on Line 20E correlates in part with a high resistivity zone. This reading is not regarded as significant, and although it was carefully verified in the field, it may be due or partly due to a non-geologic cause such as poor ground contacts.

Resistivities on this survey range over two orders of magnitude. The most striking resistivity feature is a sharp low, where values are commonly less than 50 along the Skuhun Creek valley between 5E and 25E. This resistivity low is almost certainly due, at least in part, to increased amounts of sub-surface water in the valley. However, it is probably also in part due to geometric considerations applicable to the dipole - dipole electrode array, which produce spurious resistivity lows in valleys and highs over ridges. No economic significance can be attached to this strong resistivity low, or other weaker ones located elsewhere along this and other drainages on the property.

CONCLUSIONS

1. A total of 26.32 miles of frequency domain IP traverses on the Bin Group did not obtain any significant IP responses.

2. Resistivity lows were commonly encountered, associated with drainages.

RECOMMENDATIONS

1. No further work can be recommended within the surveyed area on the basis of this geophysical data.

2. The rest of the Bin property should be systematically covered with IP surveys, as this method has proven itself in the Highland Valley, where overburden is thin and extensive and ore potential is very high.

Submitted by: _____

John M. Hamilton, P. Eng.
Geophysicist, Exploration,
Cominco Ltd.

Endorsed for
Release by: _____

J. Richardson, P. Eng.,
Assistant Chief Geologist,
Western District,
Cominco Ltd.

Distribution:
Exploration, Montreal
Chief Geologist, Exploration (RGM)
Western District (3)
Mining Recorder (2)
Geophysical File, Vancouver

APPENDIX I

NOTES ON THE INDUCED POLARIZATION METHOD

March 10, 1969. John M. Hamilton

THEORY:

Polarization is the separation of charge, or blocking action, of metallic or electronic conductors within a medium of ionic solution conduction. Induced polarization refers to this blocking action when caused by an applied electric current.

In its geological context, polarization, or I.P., refers to the electrochemical blocking phenomenon exhibited by metallic minerals such as most sulphides, magnetite and graphite, under the influence of an applied current. When a current is passed through the subsurface, conduction is ionic and is dependent upon ions in the water content of the subsurface because most minerals have a much higher specific resistivity than ground water. The "metallic" minerals have specific resistivities which are much lower than ground water. The I.P., effect occurs at the interfaces between ionic conductive conditions in ground water and electronic conductive conditions in metallic minerals. Electronic charges are built up on these interfaces which oppose the flow of current that produces them.

The blocking action, or I.P. effect, increases with the time during which the current is flowing in a given direction. Hence, if the current is periodically reversed, a high frequency current will be subject to less blocking, or I.P. effect, than will a low frequency, since less time is available for the blocking to occur at a high frequency. It is therefore possible to measure the I.P. effect by measuring resistivity at two frequencies. This is the basis of the frequency domain I.P. system. Field readings consist of current readings between the transmitter electrodes, and voltage readings between the receiver electrodes, at both the high and the low frequency. From these readings a resistivity can be calculated for each frequency, using the relationship $V = IR$ (Ohm's Law) and geometrical constants applicable to the electrode array.

The resistivity values so obtained are actually apparent resistivity values, being an average of all the material sampled for each reading. The resistivity plotted is the high frequency value, since it is least dependent on blocking action or I.P. effect, and hence is a truer value if polarizable material is present. The units used are ohm-feet/2π . To convert these units into ohm-meters used in some other I.P. systems, the ohm-feet/2π values should be multiplied by 1.9.

The percent frequency effect, actually an apparent frequency effect, is defined as $(R_L - R_H)/R_H \times 100\%$, where R_L and R_H are the resistivities at the low and high frequencies, respectively. The percent frequency effect is the parameter measured to show the I.P. effect, and is the frequency domain equivalent of the chargeability "m" used in time domain I.P. work,

The metal factor values are obtained by dividing the percent frequency effect by the resistivity and multiplying by 1000. The metal factor is proportional to the change in conductivity as the frequency of the applied current is varied, and can be shown to be equal to $(\sigma_H - \sigma_L) \times 2\pi \times 10^5$, where σ_H and σ_L are the conductivities at the high and low frequencies, respectively. The metal factor is generally more indicative of the conductive metallic content than is the frequency effect, although there are exceptions to this.

FIELD PROCEDURE:

Current is applied to the ground at two current electrodes (C_1 and C_2) spaced a distance x apart as shown in the accompanying diagram. The potential is measured at two potential electrodes (P_1 and P_2) also spaced a distance x apart and in line with the current electrodes. For any given locations of C_1 and C_2, readings are taken when the distance between the nearest current and potential electrodes is equal to nx, and n has values of 1, 2, 3, etc. The electrode spacing x is determined by the requirements of the survey. Larger values of x would be used when the object is greater depth penetration and faster progress, whereas smaller values of x are employed in more detailed surveys, to provide more accurate anomaly location, but for the smaller values of x, the penetration is less and the survey slower. The value chosen for x should not greatly exceed the width of the target sought. The penetration is greater for the larger values of n.

INTERPRETATION:

The values of the resistivity, metal factor and percent frequency effect are plotted on "pseudo-sections", where the plotting point is determined by the intersection of lines drawn at 45° from the horizontal, and originating at the mid-points of the current electrode spread and the potential electrode spread, as shown in the accompanying diagram. The choice of 45° from the horizontal is made because it simplifies plotting on gridded paper. There is no other basis for it, and lines at any other angle would produce just as "correct" a distribution of plotted values. The percent frequency effect is shown either as a superscript to each metal factor value, or as a separate, contoured plot similar to the first two. Depths to causative bodies cannot be scaled from the "pseudo-section," because the relationship between "pseudo-section" depths and true depths depends on anomalous body configuration and size, and other other inhomegeneities in the true resistivity distribution in the earth, as well as on the method used to plot the section.

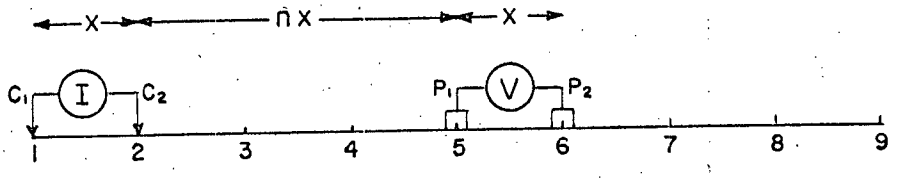
The most favourable type of anomaly would show a frequency effect high with a resistivity low, to provide a marked metal factor high. A frequency effect high, with little or no change in resistivity, to provide a metal factor high, mirroring the frequency effect high, is also favourable. Of lesser interest, but of possible importance, are those anomalies showing no frequency effect change, but a distinct resistivity low, to produce a metal factor anomaly. The type of anomaly, its strength, size and shape should be considered in relation to the geological setting and the target sought.

The surface projection of anomalous zones are shown under the base line of the "pseudo-sections", or data plots. The location of anomalous zones is made after studying the responses at all separations, and is aided by data from computer and tank model-studies, as well as case histories and local geology when known. The source of an anomaly can at best be located only to within one electrode interval or x distance.

Anomalies are classified into three groups: definite, probable and possible. Grouping is based on the strength of the metal

factor, the frequency effect, and the pattern of the anomaly. In general, the true metal factor is dependent on the concentration and distribution of chargeable material in the source, but the survey measures the apparent metal factor, which is an average. A large volume with a small percentage of sulphides could show the same metal factor as a smaller body with more concentrated sulphides. The apparent metal factor will approach the true metal factor when the anomalous body is large, and its depth to top small, relative to the electrode interval.

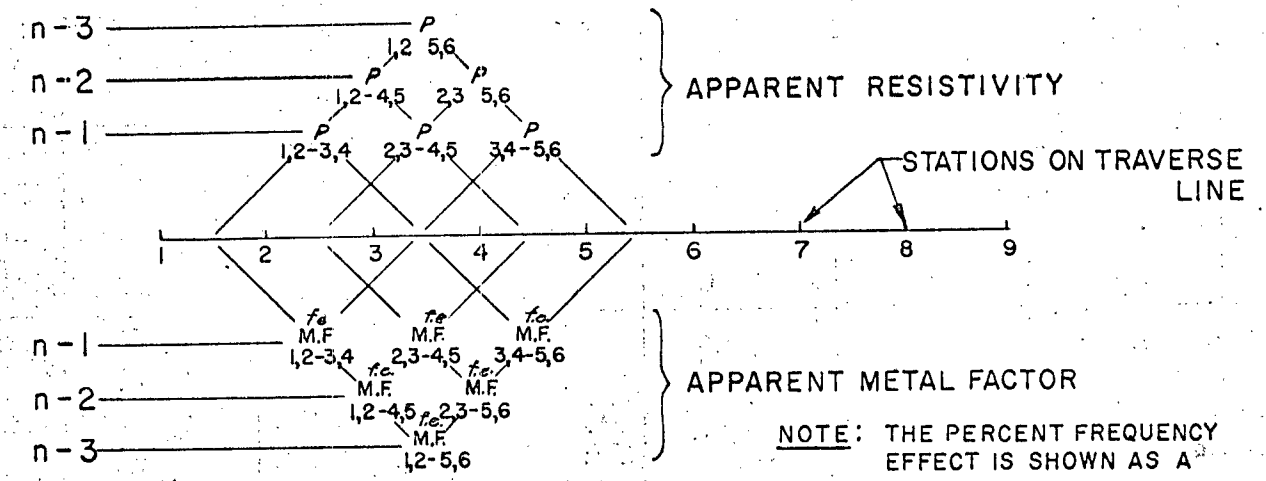
In some cases, a contoured data-plan is prepared, to show frequency effect, metal factor or resistivity values. Only data obtained at one separation is used on such a plan, and commonly the second separation data is plotted, to show results from an intermediate level of investigation. The surface projection of anomalous zones, as determined from the profiles, are also shown, and in many cases these will not coincide with contoured peaks, because data at other separations, if anomalous, will have been considered when locating anomalies. The most profitable use of contoured plans is as a trend indicator.



X = ELECTRODE SPREAD LENGTH OR ELECTRODE SPACING OR DIPOLE LENGTH

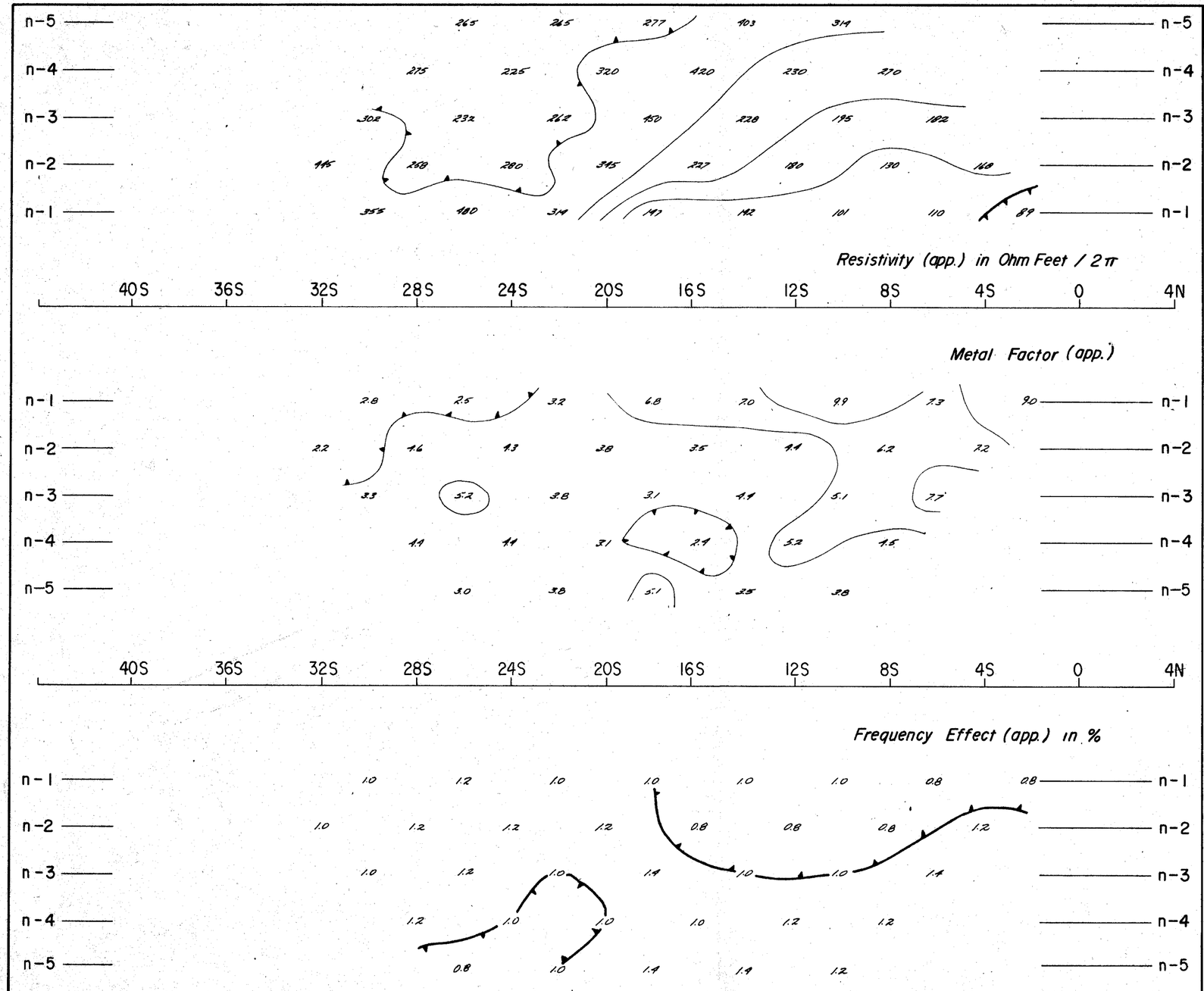
n = ELECTRODE SEPARATION = 1, 2, 3 . . . .

DIPOLE – DIPOLE ELECTRODE ARRAY



NOTE: THE PERCENT FREQUENCY EFFECT IS SHOWN AS A SUPERSCRIPT TO EACH METAL FACTOR VALUE, OR AS SEPARATE CONTOURED PLOT.

DIAGRAM SHOWING PLOTTING METHOD



DWG. NO. - I.P. - 50 - 1

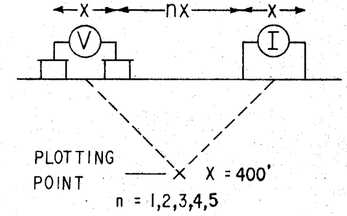
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 65 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED: [signature]

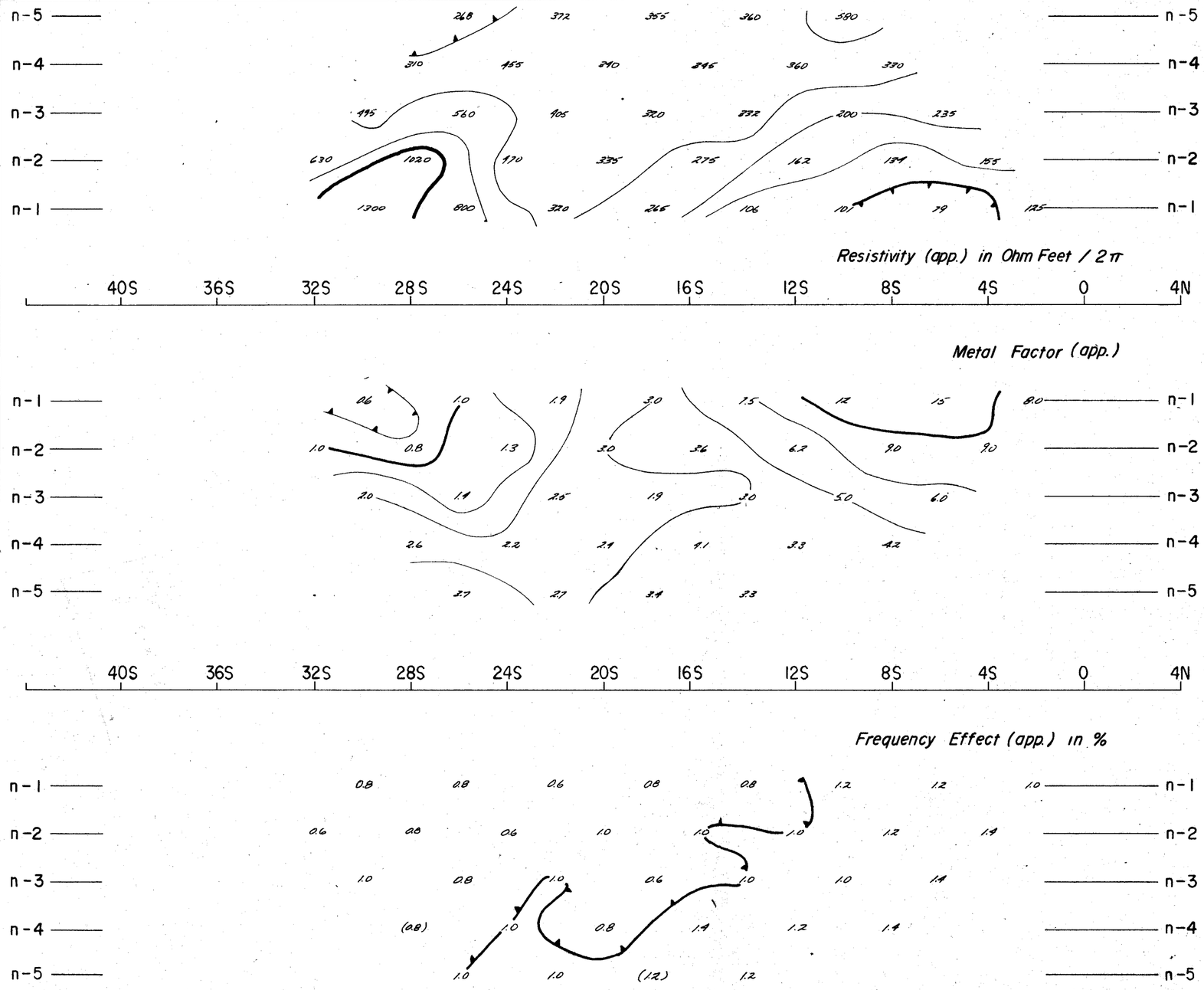
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 65 E



DWG. NO. - I.P. - 50 - 2

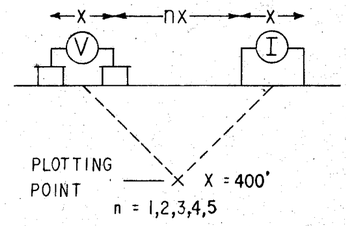
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.— 60 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED:

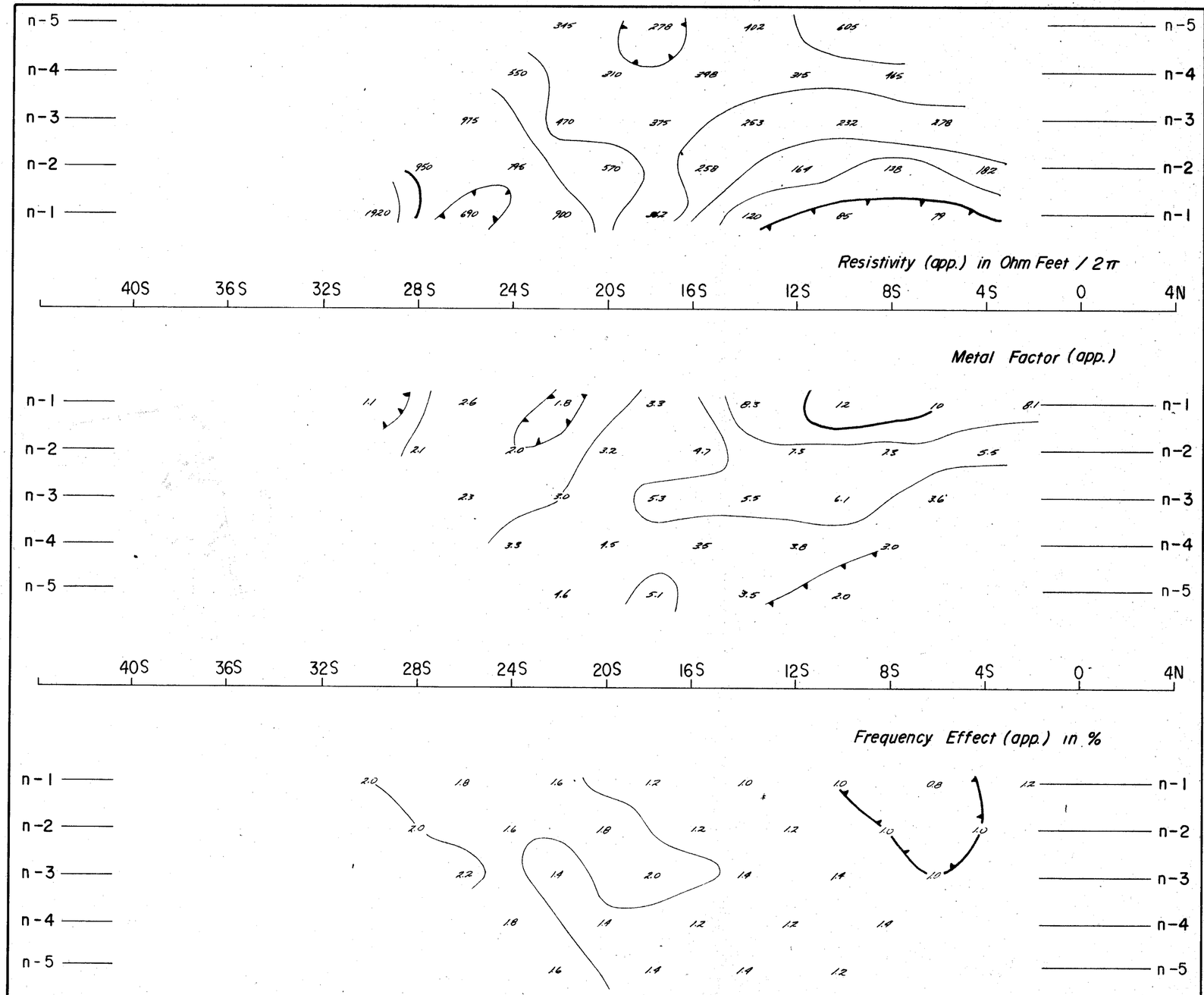
DATE: Sept. 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 60 E



DWG. NO. - I.P. - 50 - 3

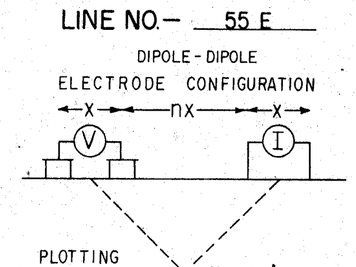
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.— 55 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

APPROVED:

DATE: Sept 22/69

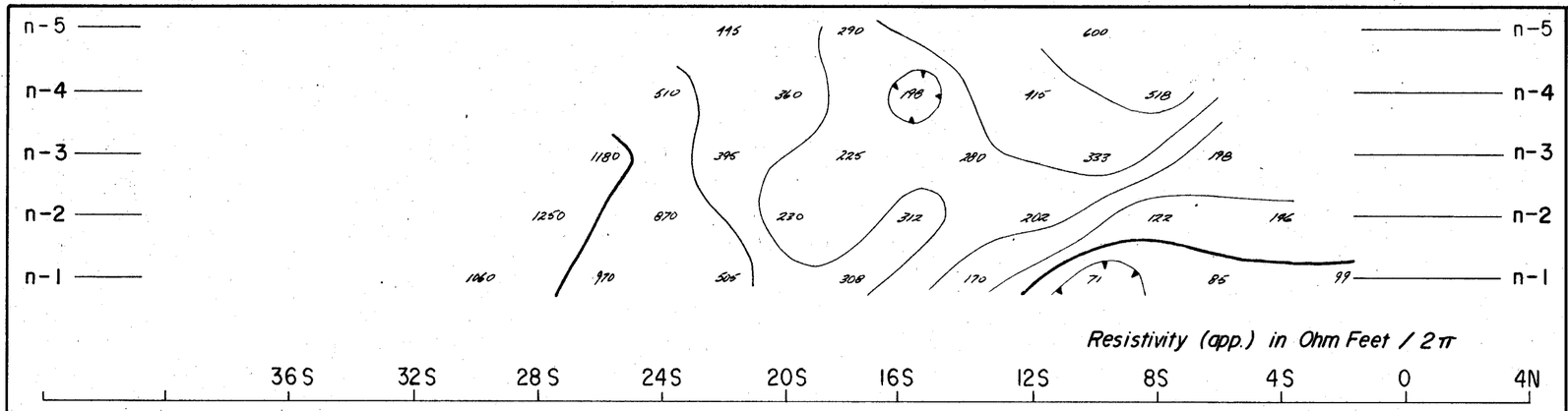
NOTE: CONTOURS AT LOGARITHMIC INTERVALS
1. - 1.5 - 2 - 3. - 5. - 7.5 - 10

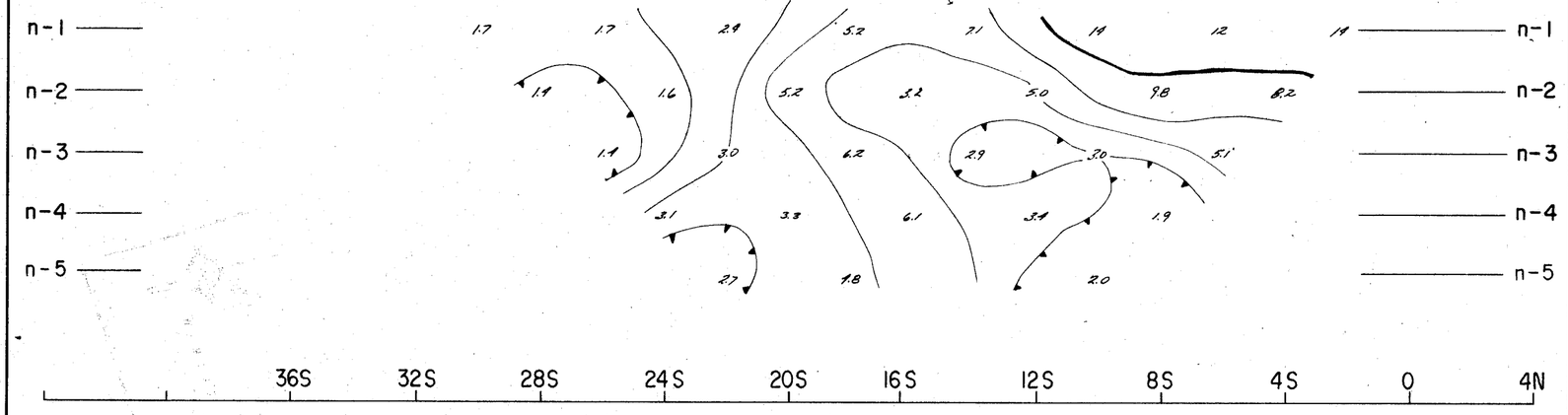
2086

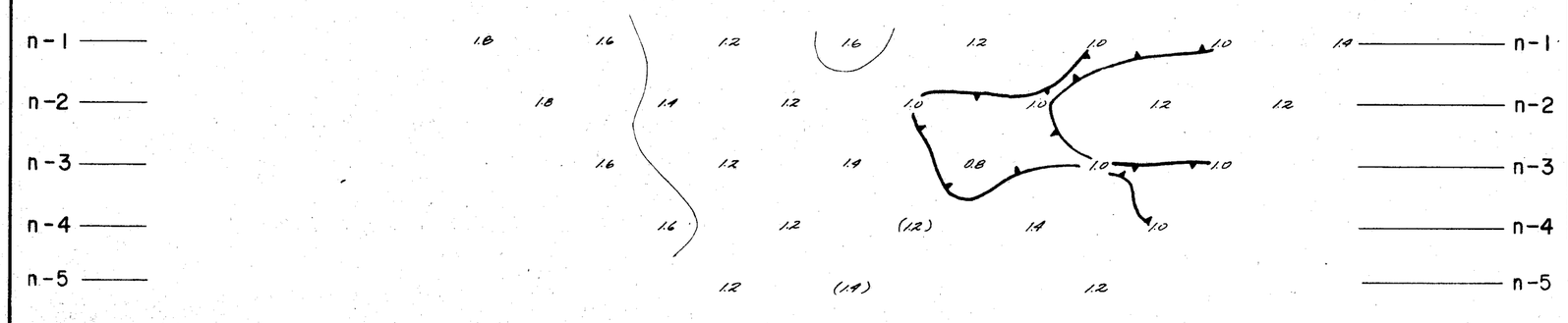
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 55 E







DWG. NO. - I.P. - 50 - 4

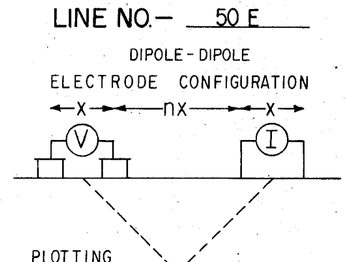
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.— 50 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED:

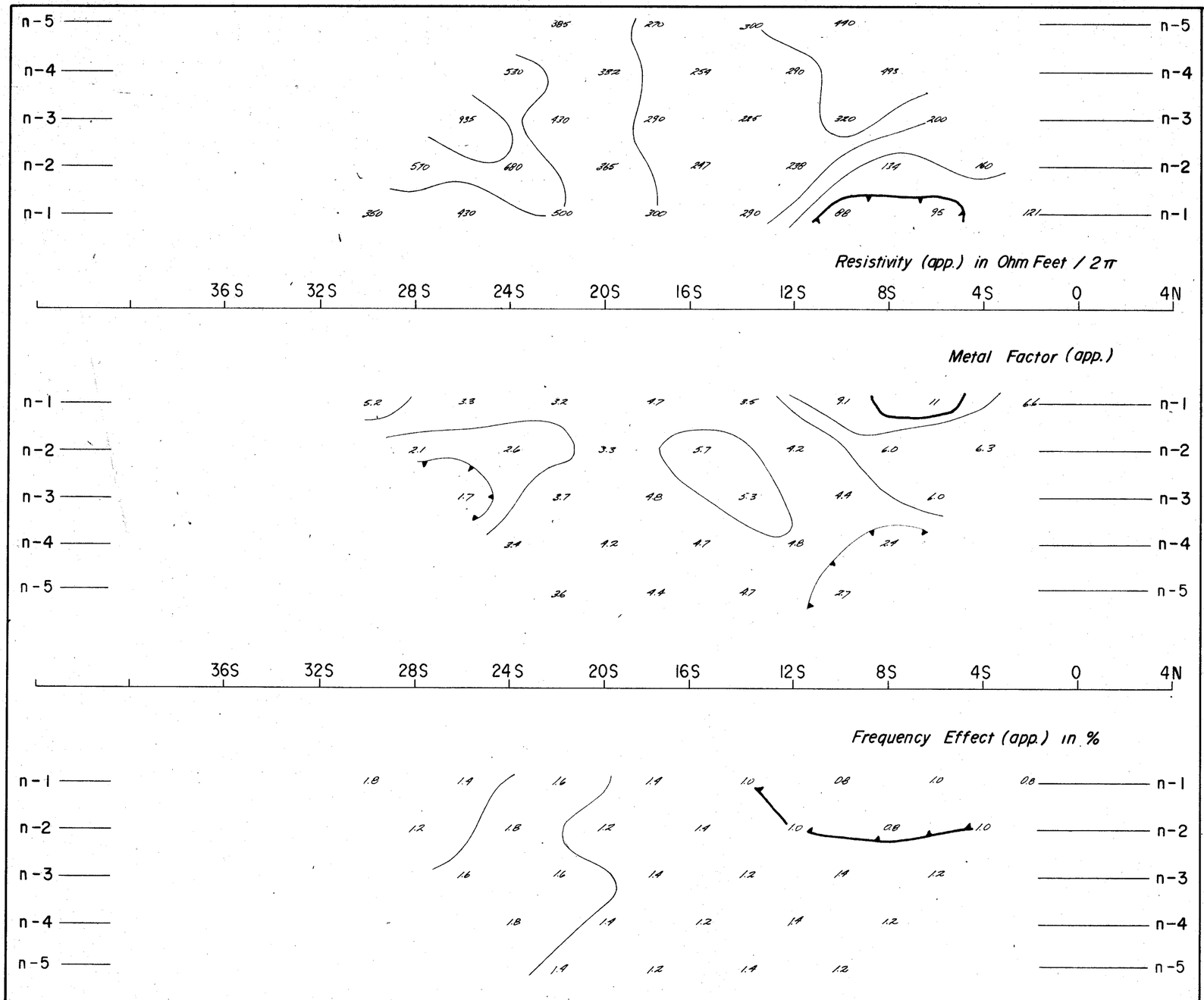
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 50 E



DWG. NO. - I.P. - 50 - 5

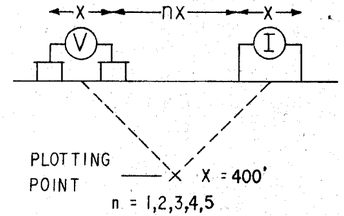
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 45 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

APPROVED:

DATE: Sept. 22/69

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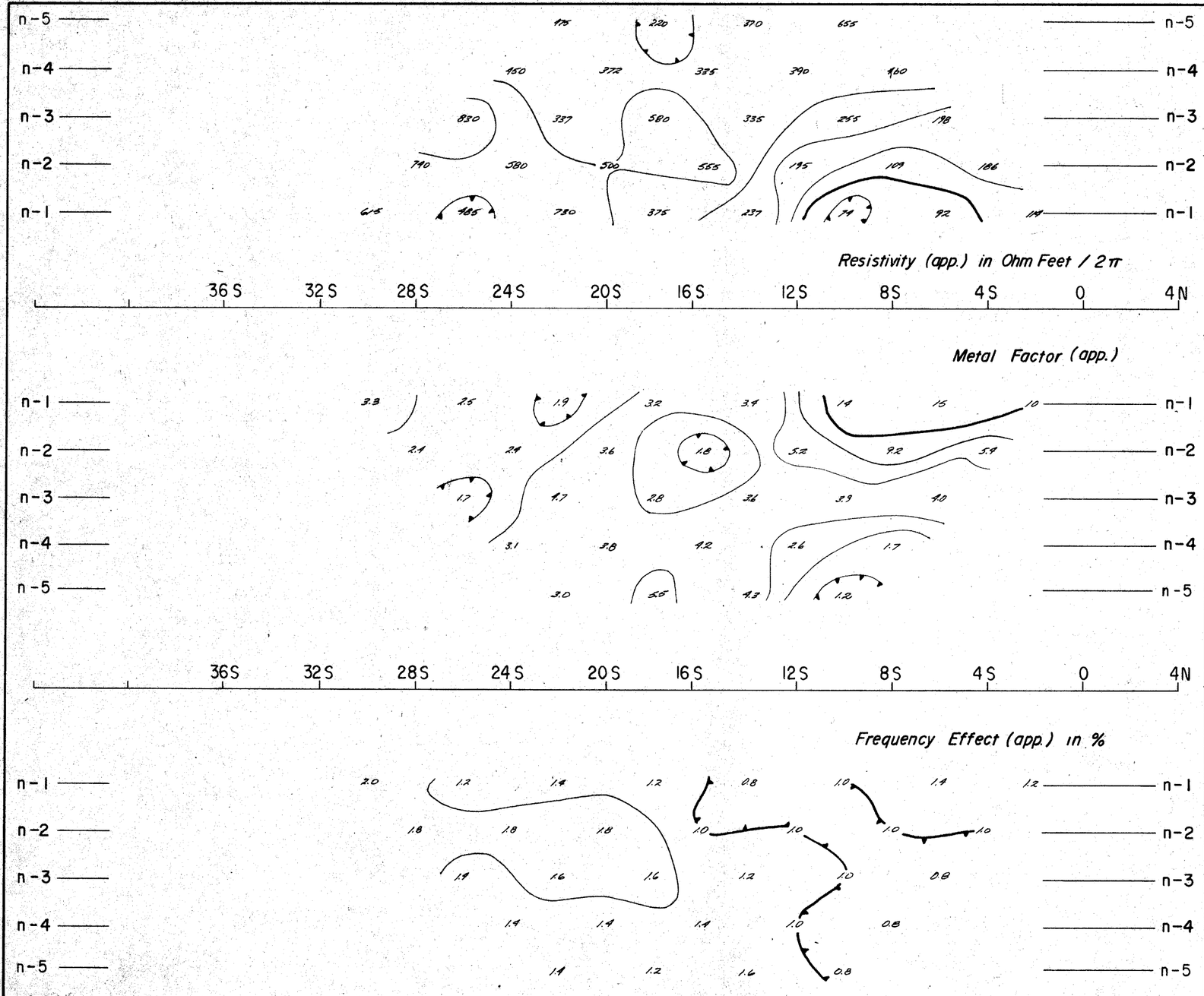
1. - 1.5 - 2. - 3. - 5. - 7.5 - 10

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 45 E



DWG. NO. - I.P. - 50 - 6

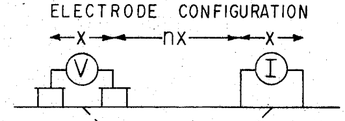
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.— 40 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'

n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

NOTE: CONTOURS AT LOGARITHMIC INTERVALS
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APPROVED:

DATE: Sept 22/69

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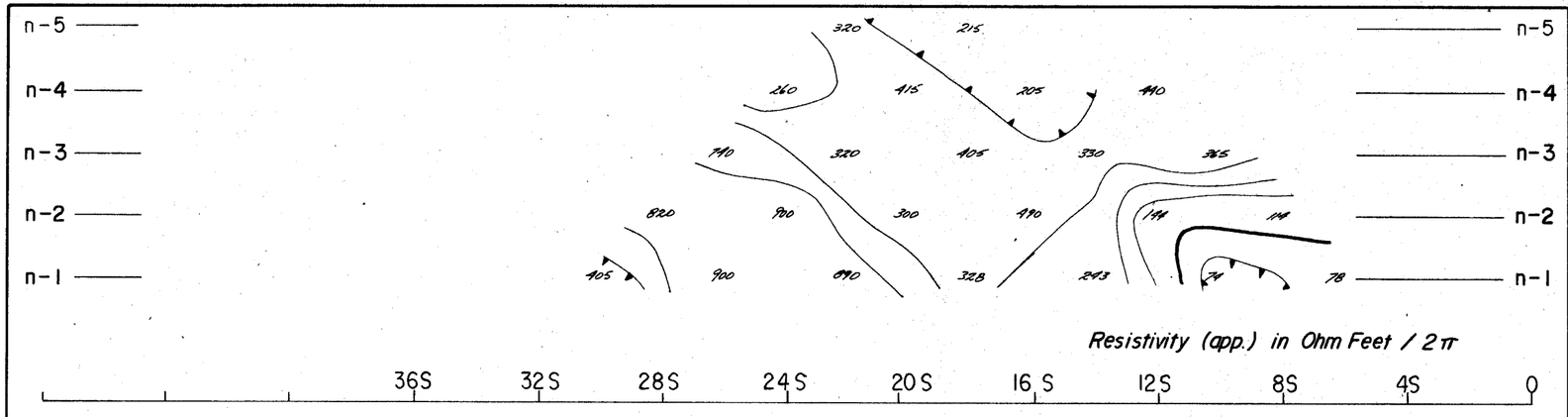
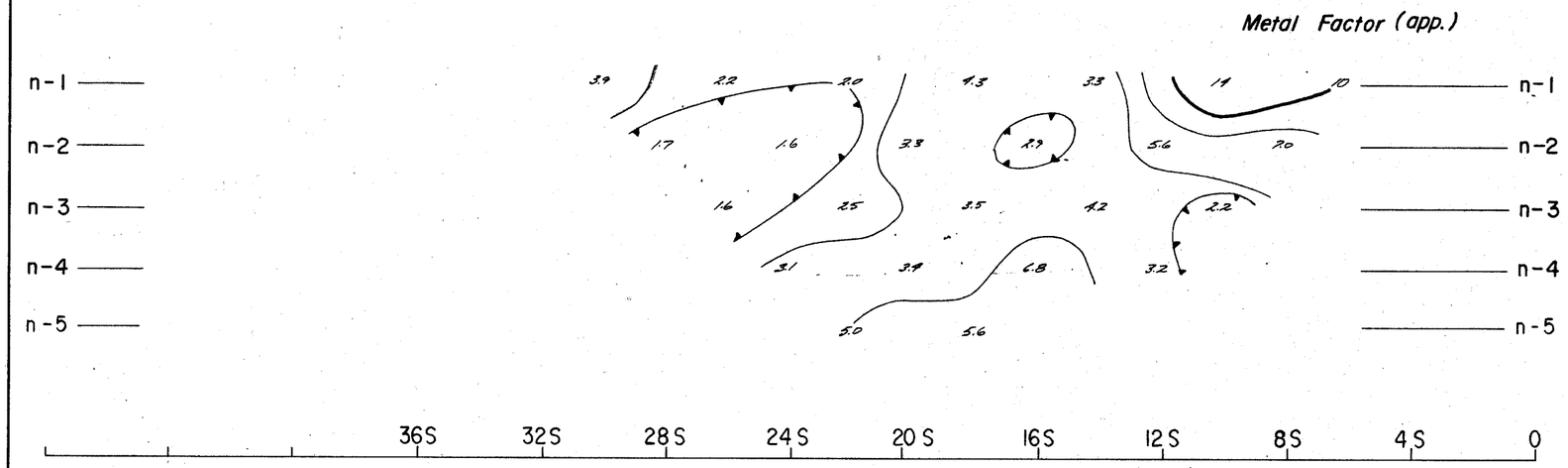
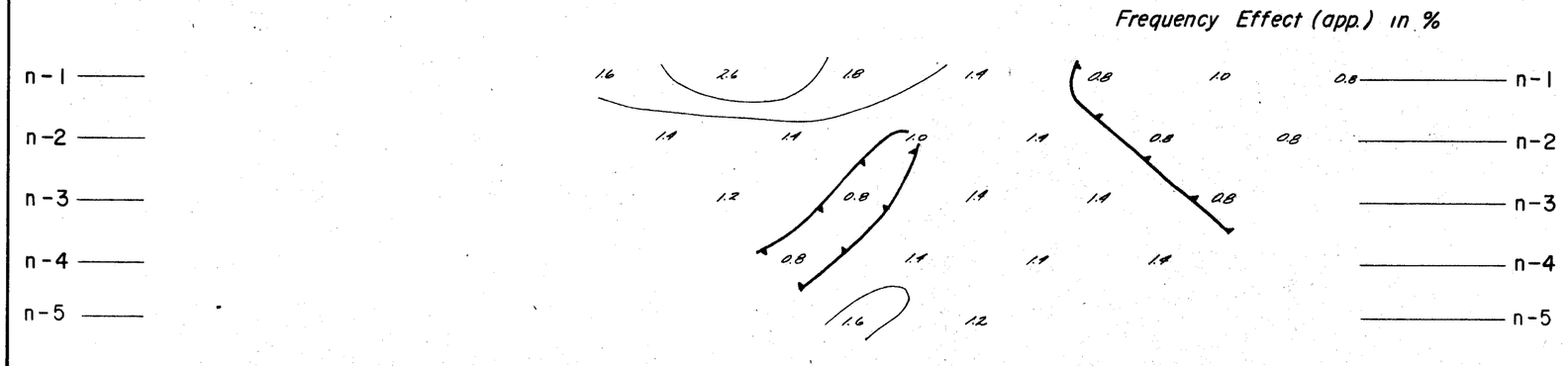
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 40 E







DWG. NO. - I.P. - 50 - 7

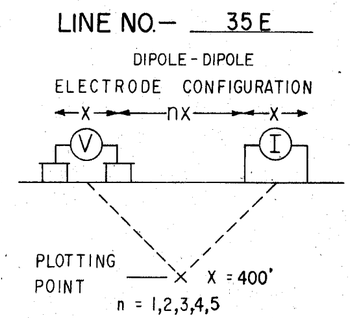
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 35 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
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FREQUENCIES: 0.31 & 5.0 cps

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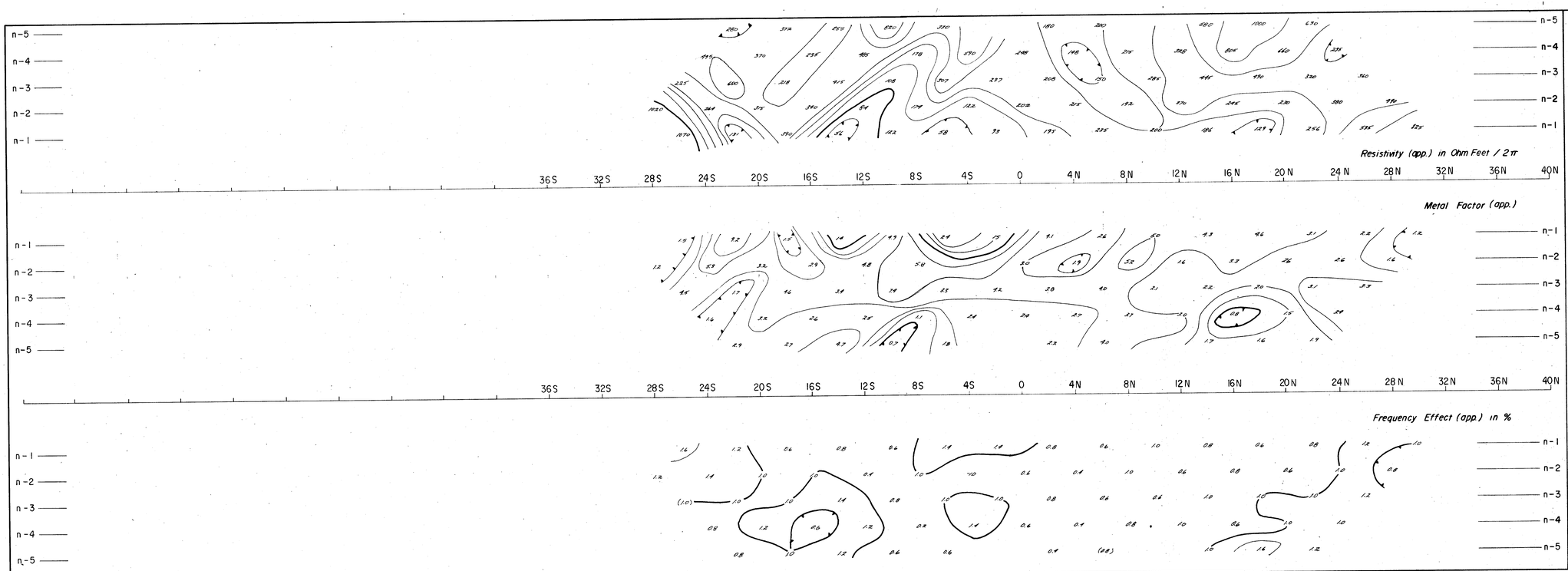
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 35 E



DWG. NO. - I.P. - 50 - 8

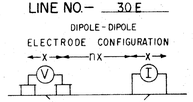
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 30E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'

n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

APPROVED:

DATE: Sept 27/69

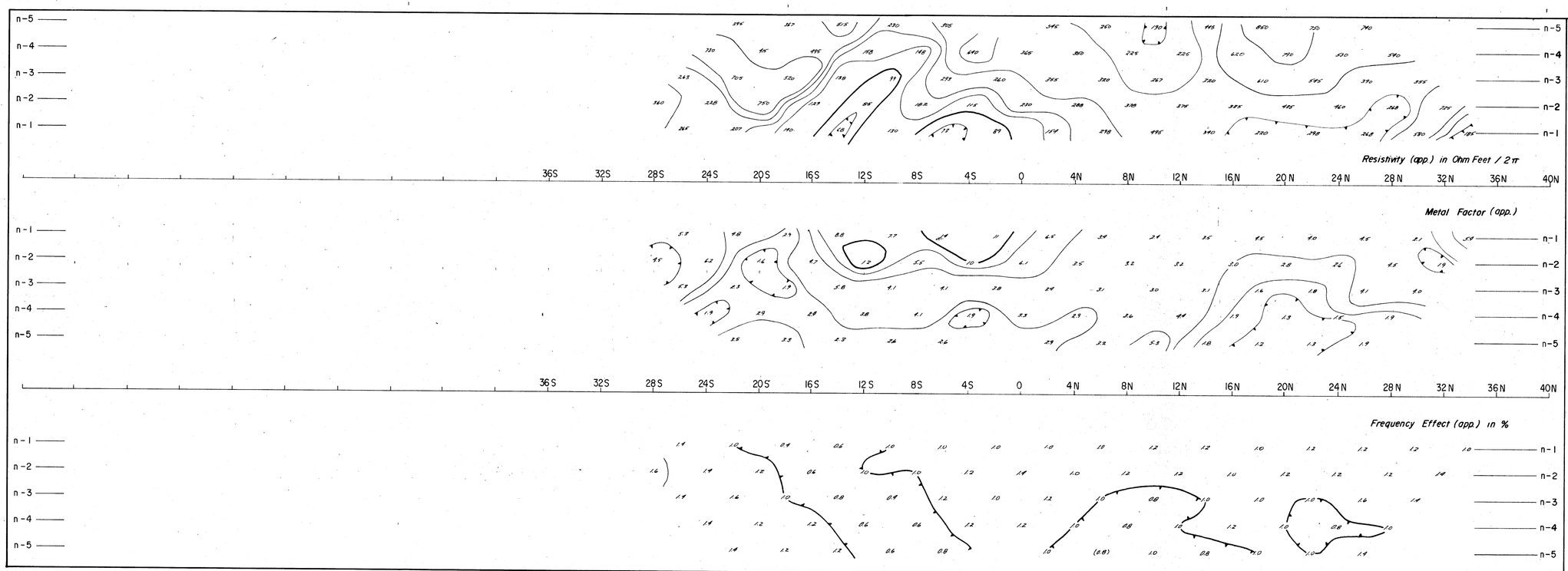
NOTE: CONTOURS AT LOGARITHMIC INTERVALS
1 - 1.5 - 2 - 3 - 5 - 7.5 - 10

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 30E



DWG. NO. - I.P. - 50 - 9

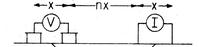
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 25 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X : 400'
n = 1,2,3,4,5
SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 - 8 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED:

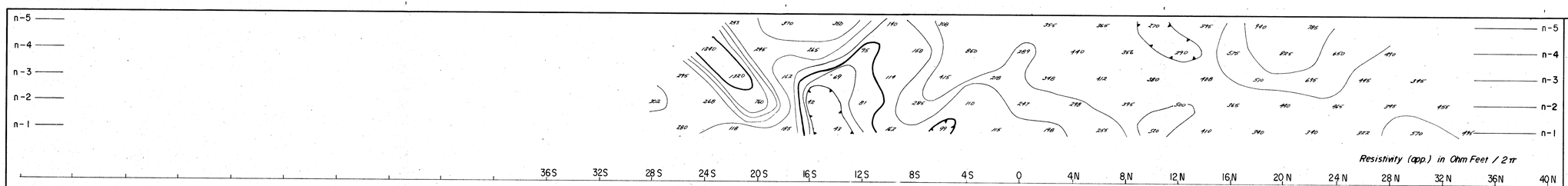
DATE: Sept 22/67

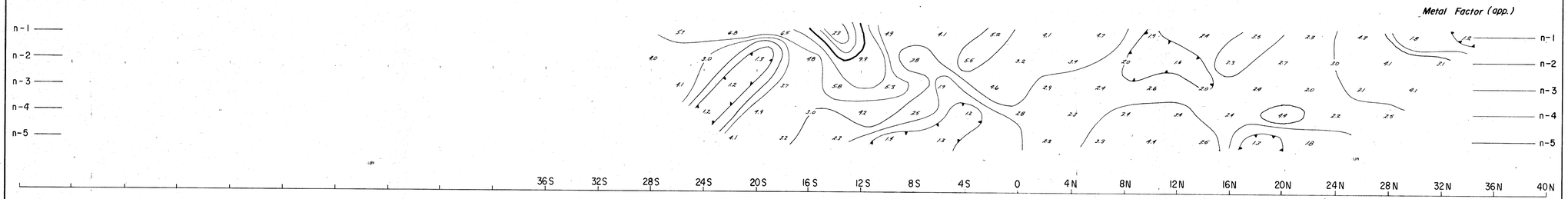
2086

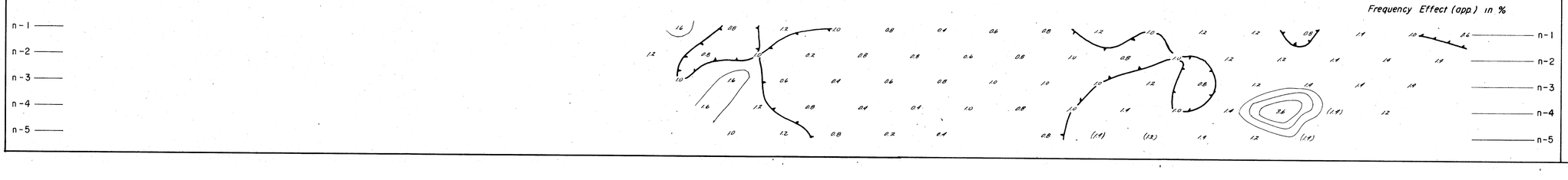
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. - 25 E







DWG. NO. - I.P. - 50 - 10

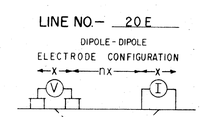
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 20E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED: [signature]

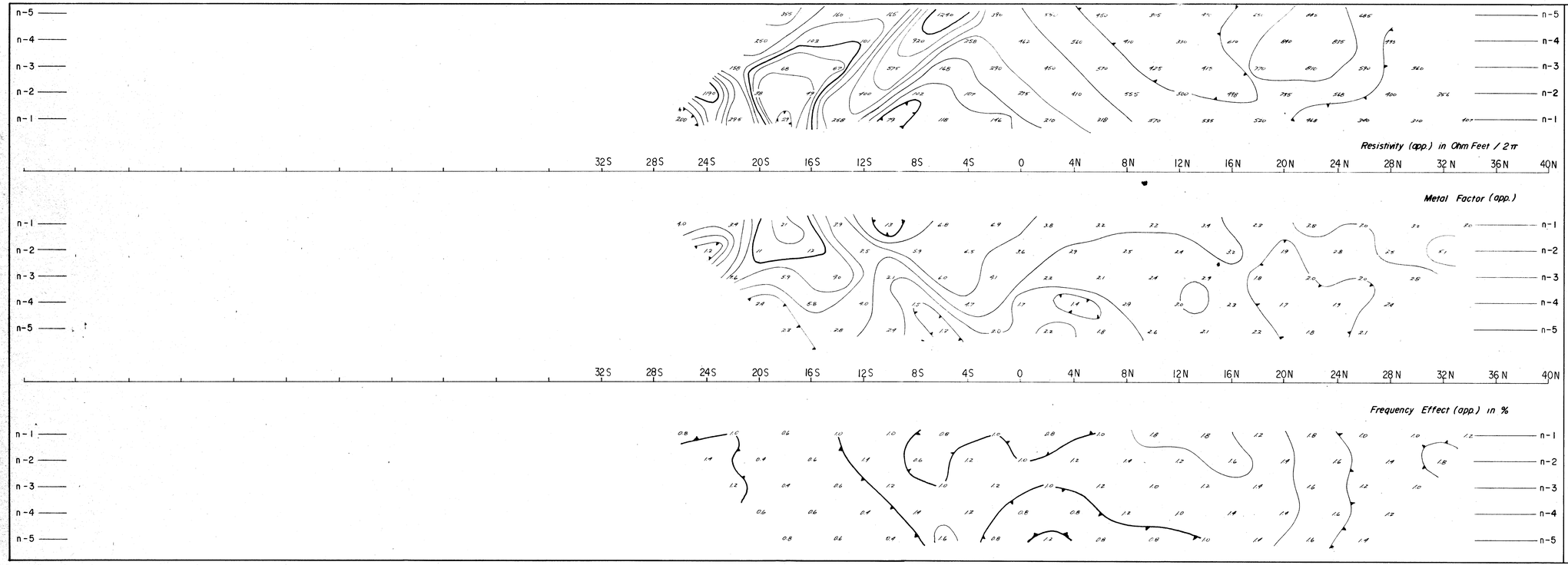
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 20E



DWG. NO. - I.P. - 50 - 11

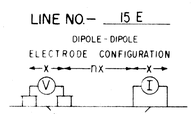
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 15 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED: Keith Wright

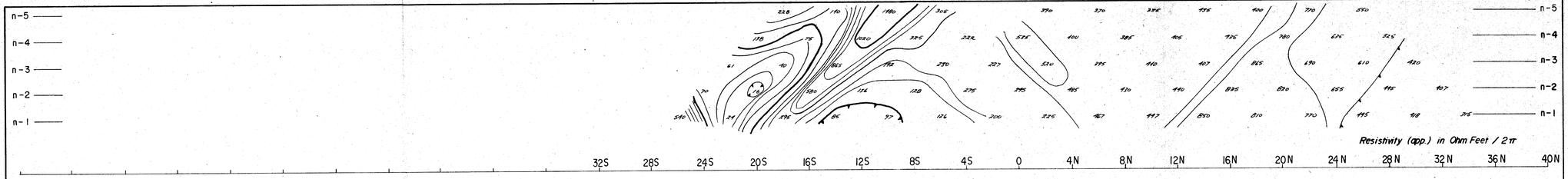
DATE: Sept 23/69

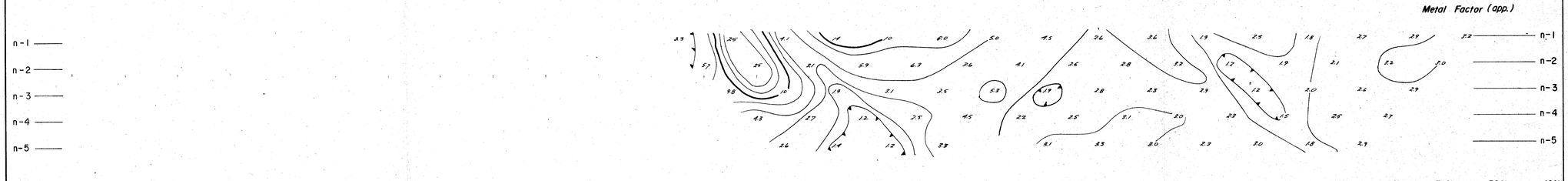
2086

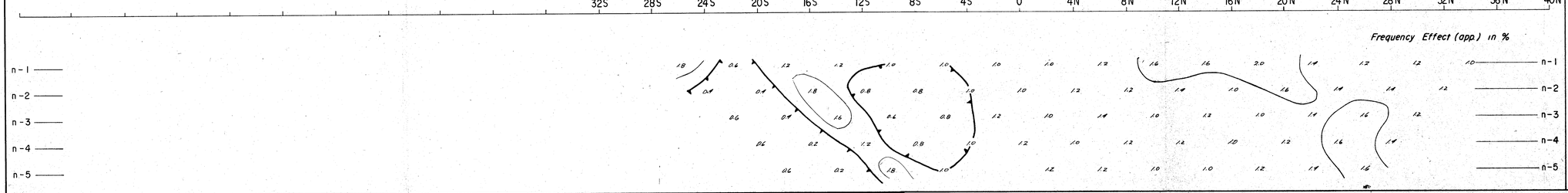
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 15 E







DWG. NO. - I.P. - 50 - 12

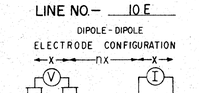
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 10 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug 1969

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

APPROVED:

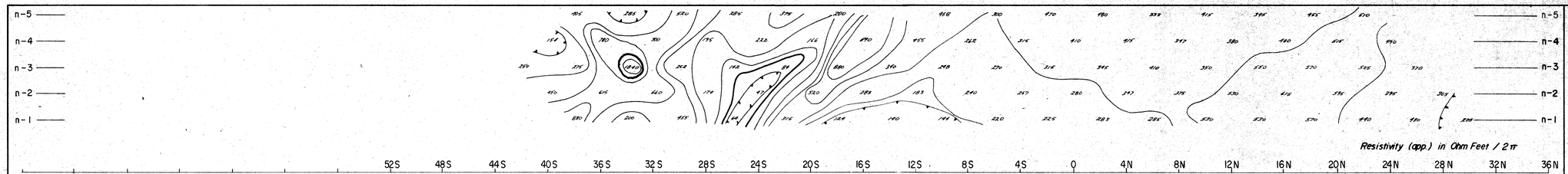
DATE: Sept 22/69

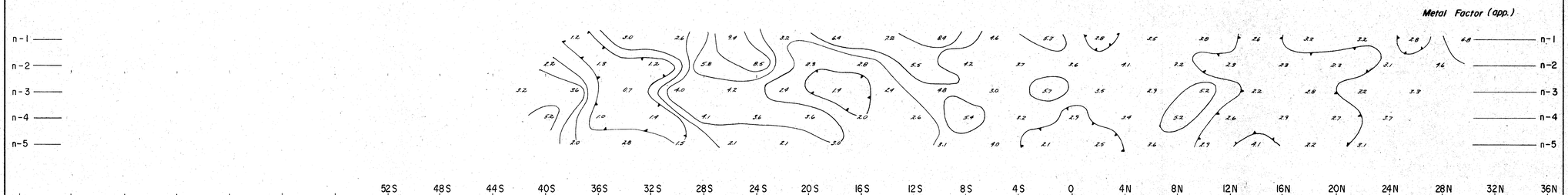
2086

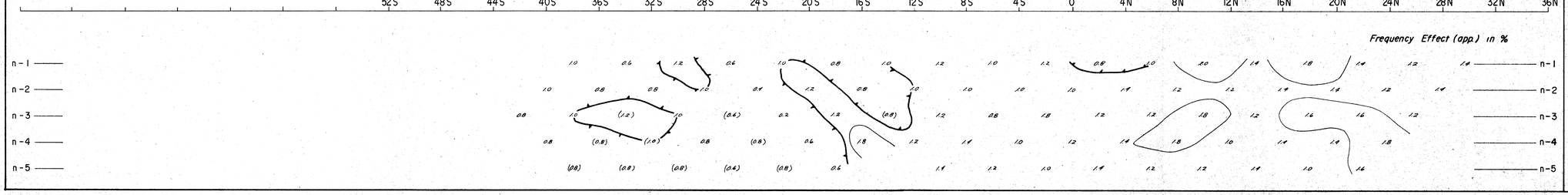
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 10E







DWG. NO. - I.P. - 50 - 13

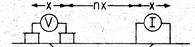
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 5 E

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'

n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED:

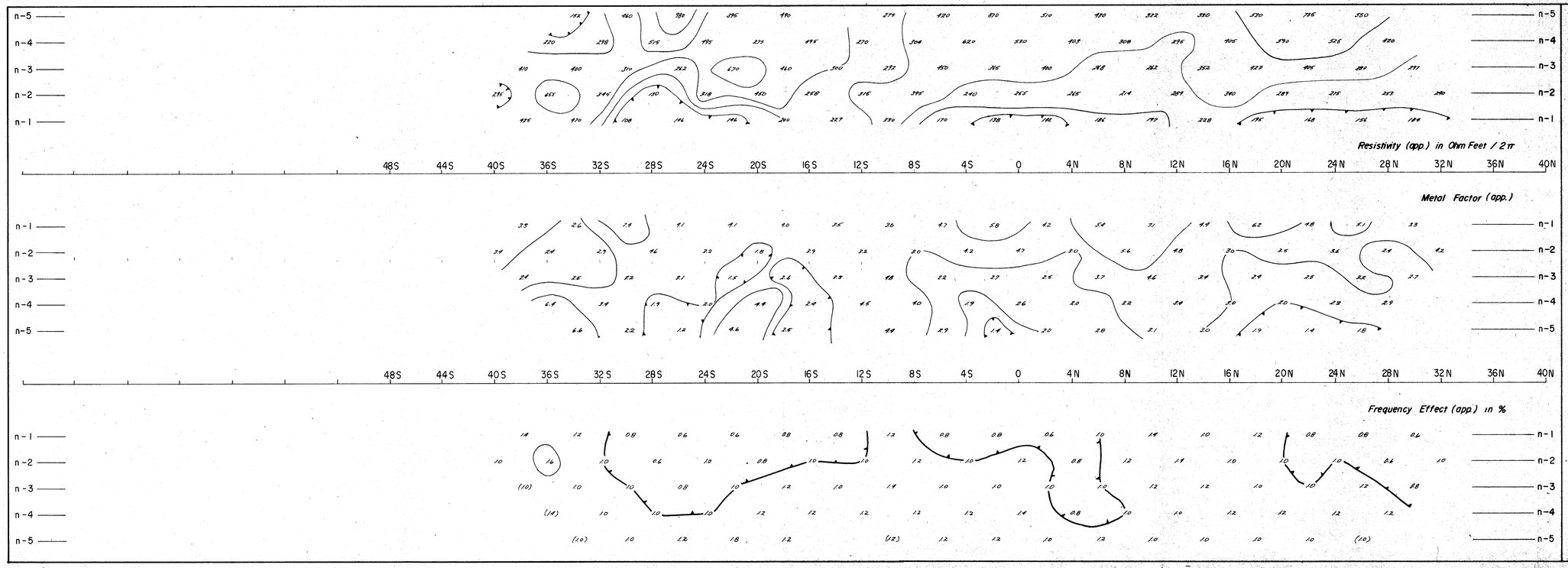
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 5 E



DWG. NO. - I.P. - 50 - 14

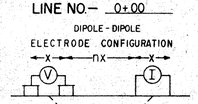
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 0+00

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED:

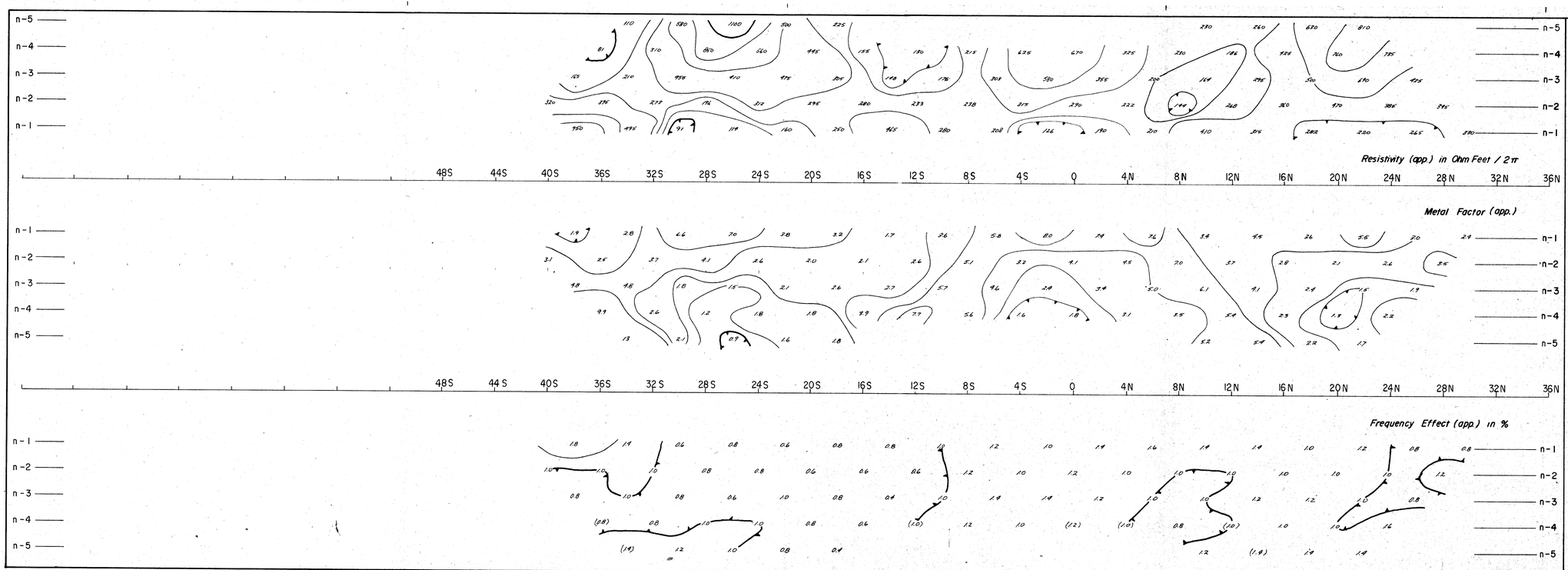
DATE: Sept 27/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 0+00



DWG. NO. - I.P. - 50 - 15

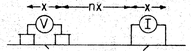
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 5 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X : 400'
n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug 1967

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

APPROVED:

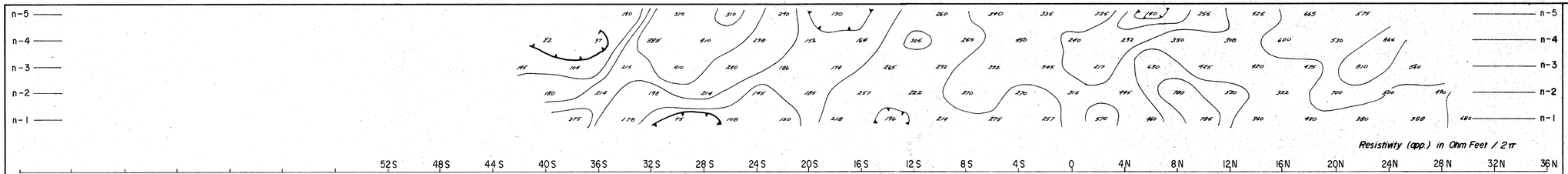
DATE: Sept 22/67

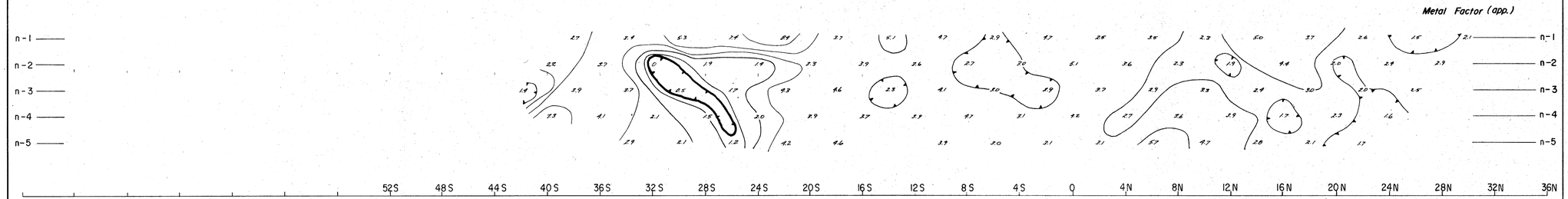
2086

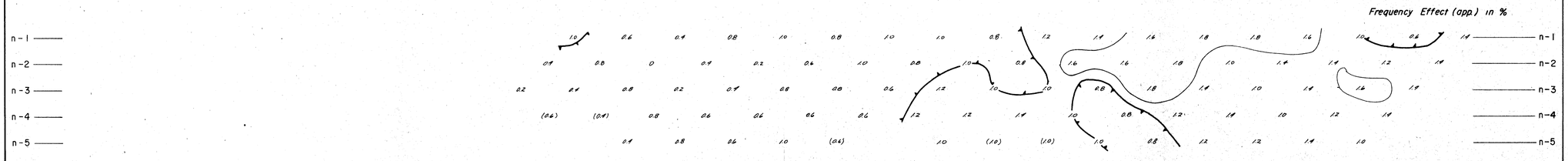
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 5 W







DWG. NO. - I.P. - 50 - 16

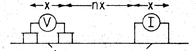
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 10 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'
n = 1,2,3,4,5
SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug 1969

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

APPROVED:

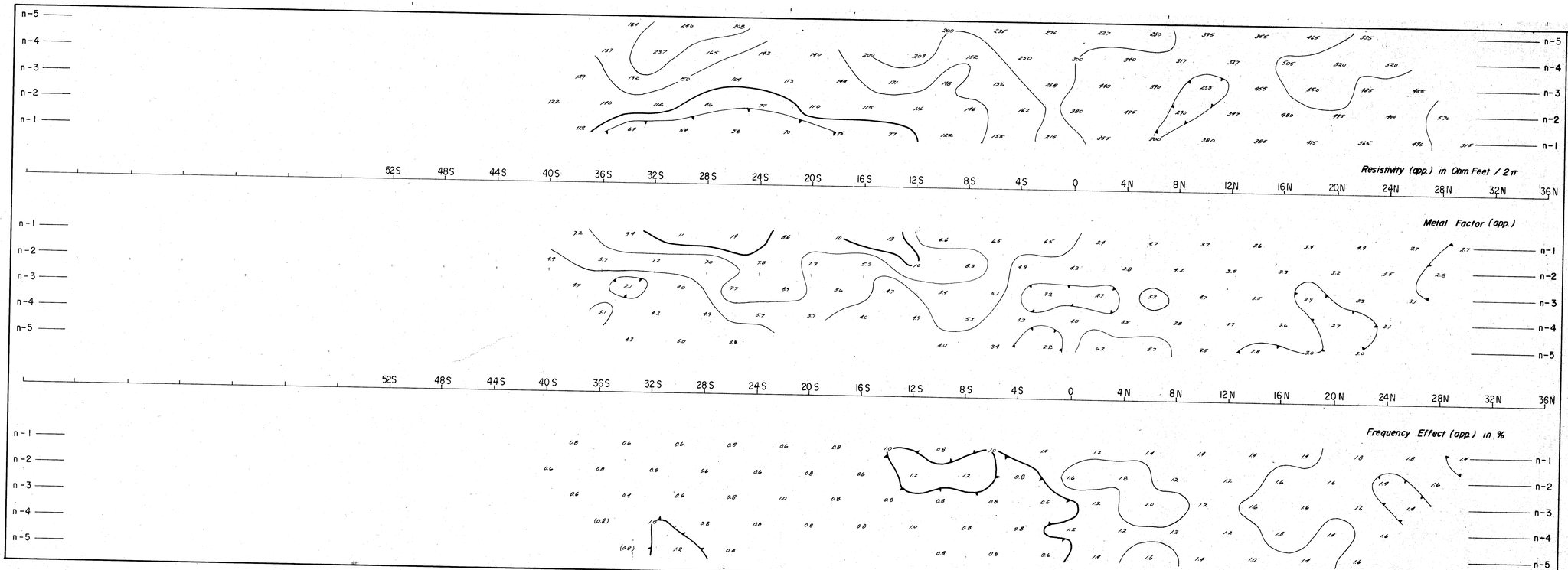
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 10 W



DWG. NO. - I.P. - 50 - 17

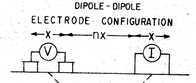
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 15 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'

n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug 1969

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

APPROVED:

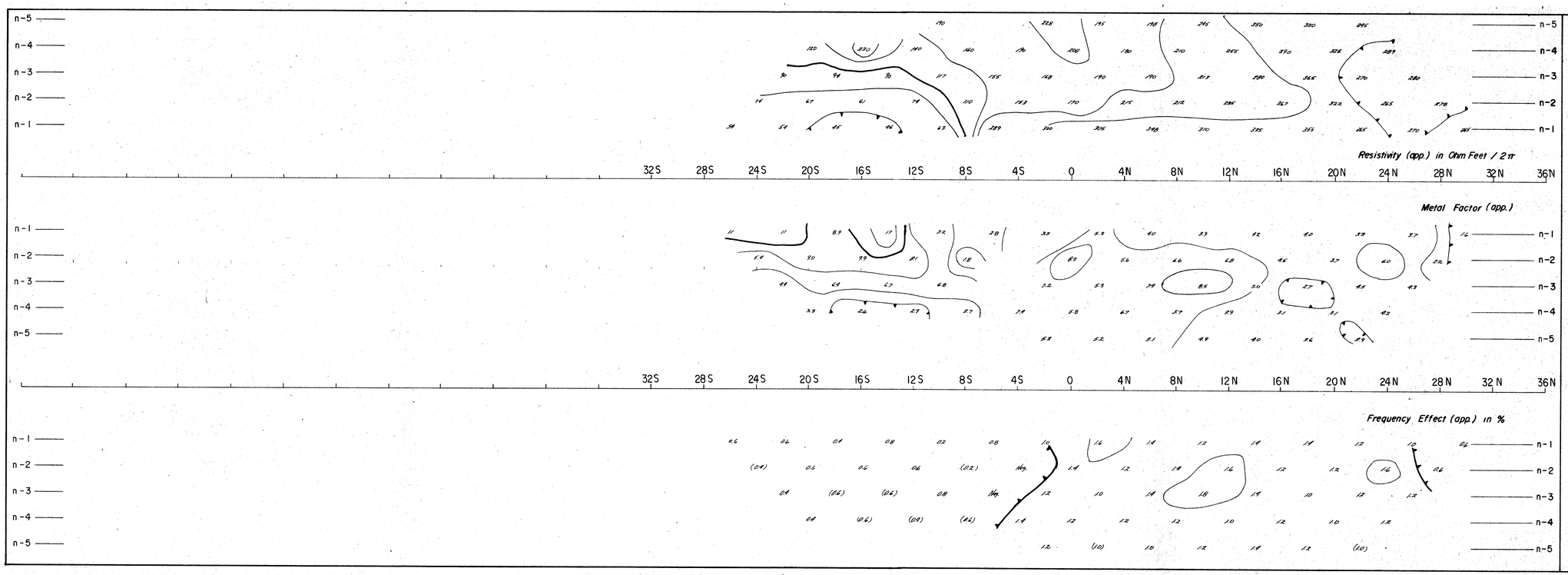
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 15 W



DWG. NO. - I.P. - 50 - 18

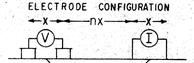
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 20 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'

n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

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

APPROVED:

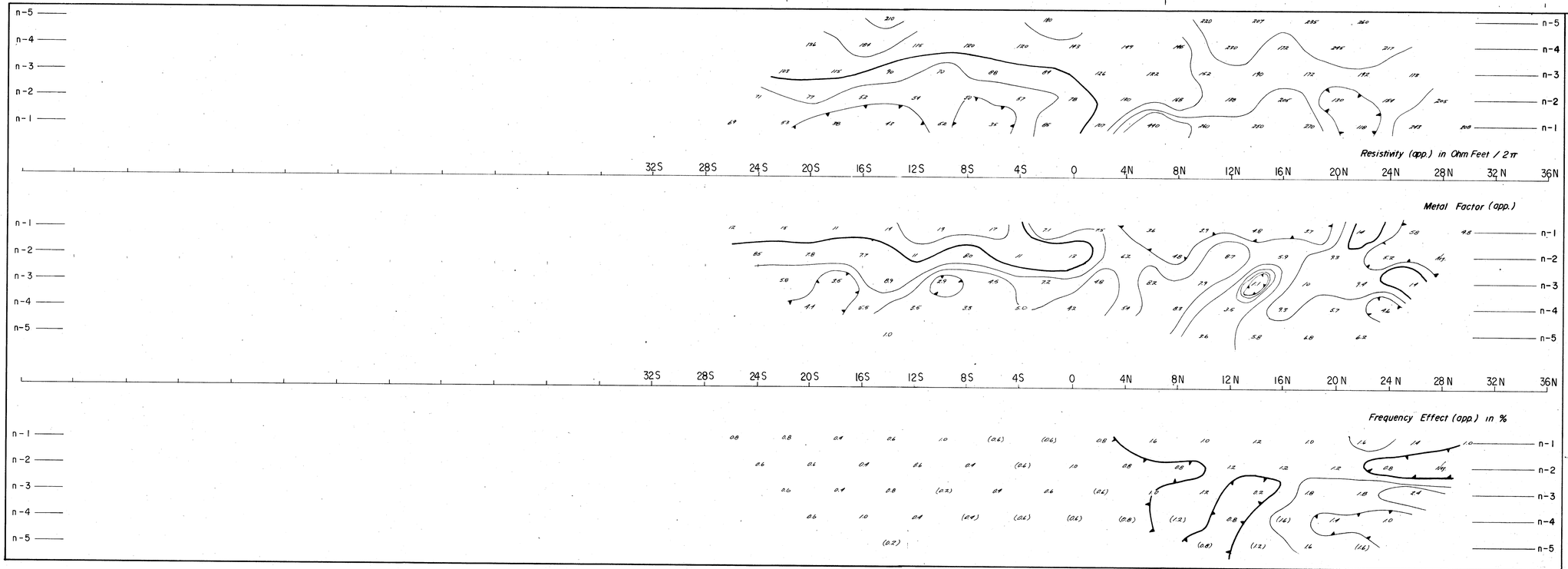
DATE: Sept 22/69

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 20 W



DWG. NO. - I.P. - 50 - 19

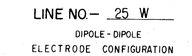
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 25 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X : 400'
n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug 1969

APPROVED:

DATE: Sept 22/69

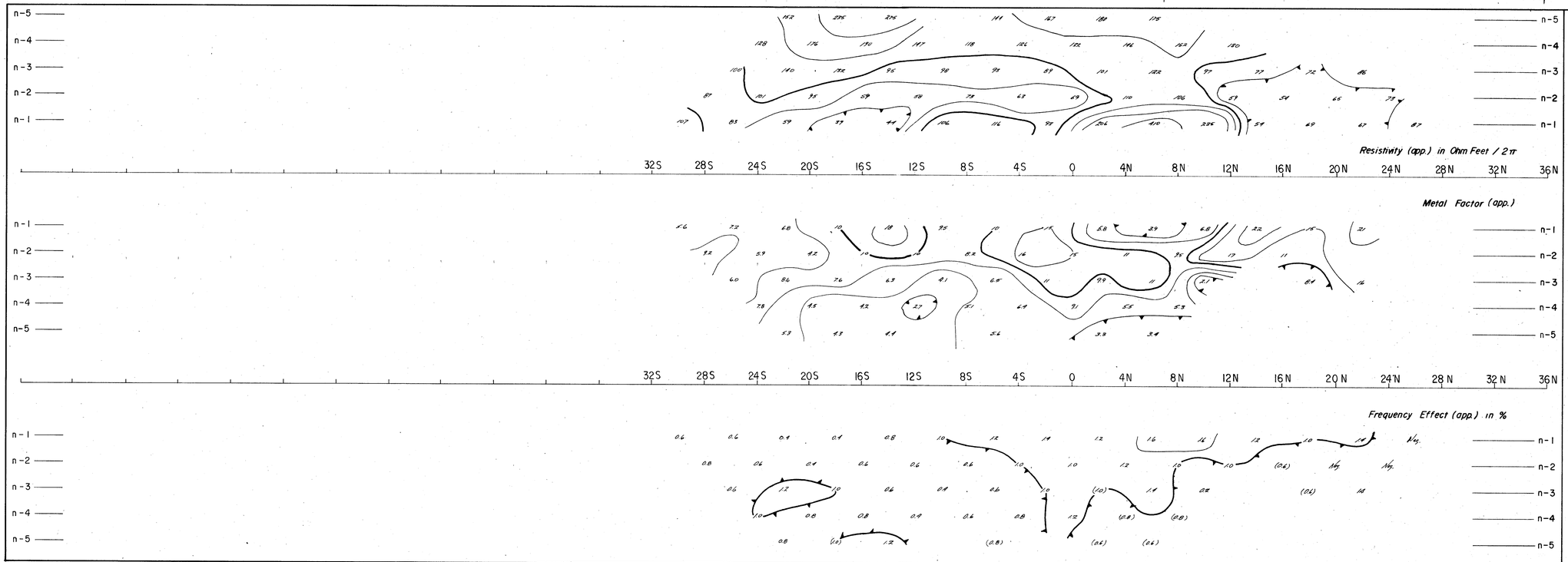
NOTE: CONTOURS AT LOGARITHMIC INTERVALS
1 - 1.5 - 2 - 3 - 5 - 7.5 - 10

2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 25 W



DWG. NO. - I.P. - 50 - 20

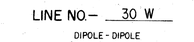
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO. - 30 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X = 400'
n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED. Aug. 1969

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

APPROVED:

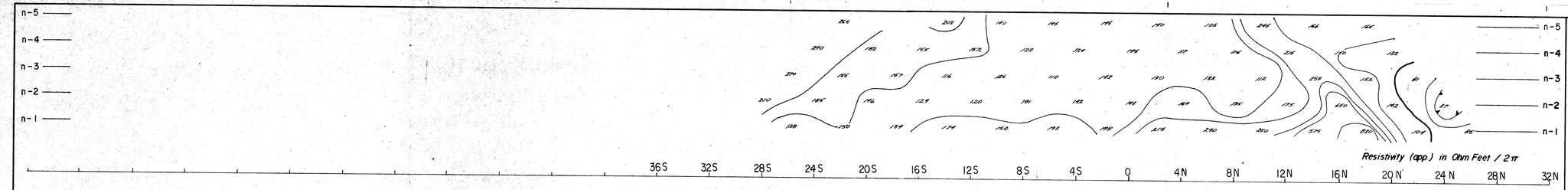
DATE: Sept 22/69

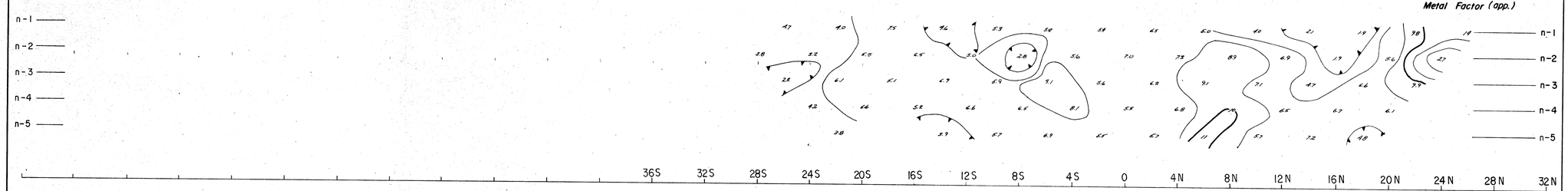
2086

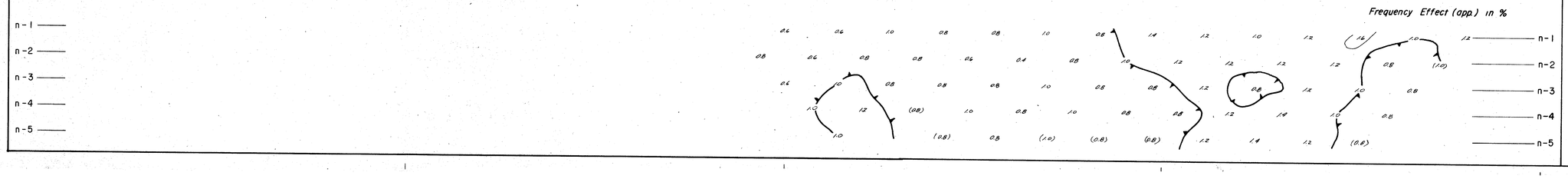
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 30 W







DWG. NO. - I.P. - 50 - 21

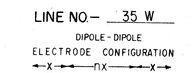
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 35 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT — X : 400'
n = 1,2,3,4,5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED. Aug 1969

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

APPROVED:

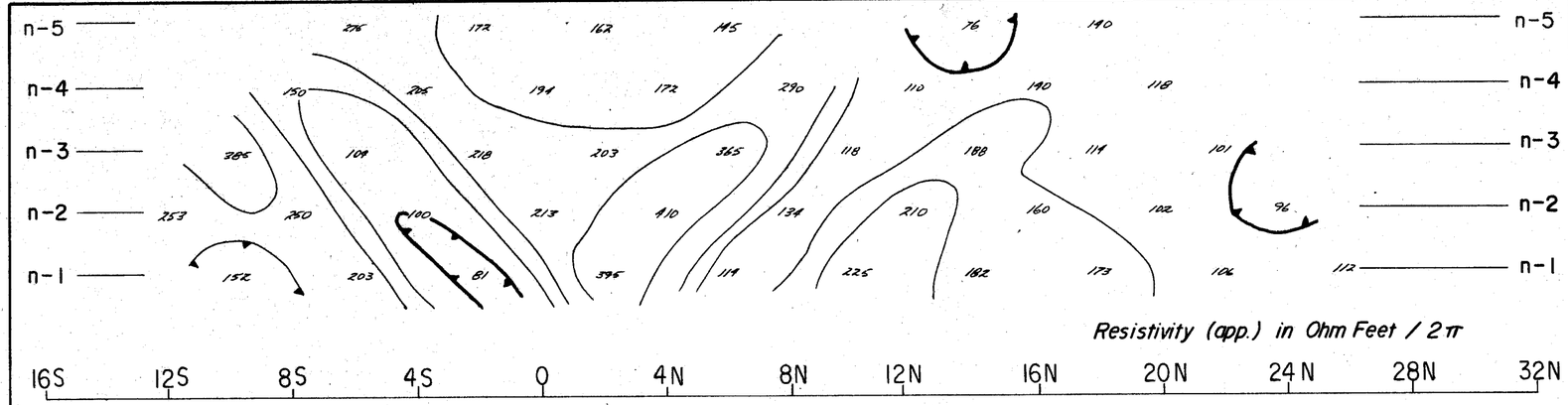
DATE: Sept 22/69

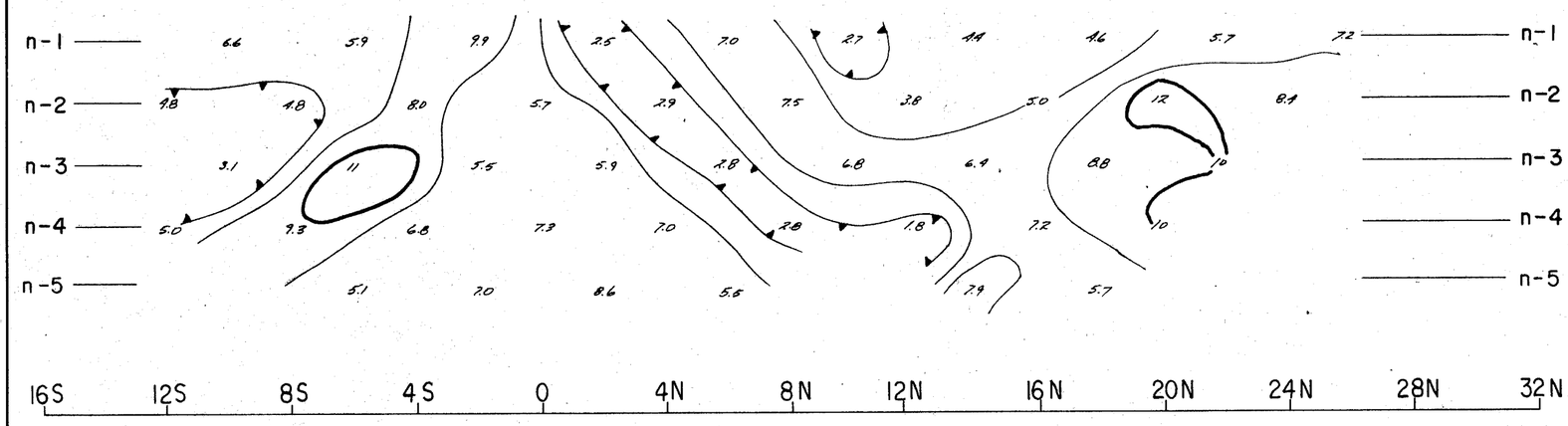
2086

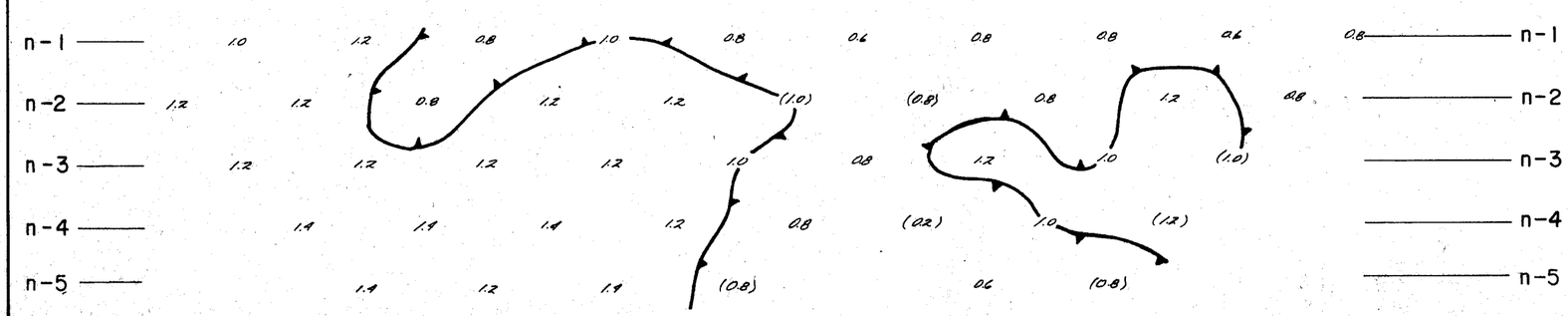
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 35 W







DWG. NO. - I.P. - 50 - 22

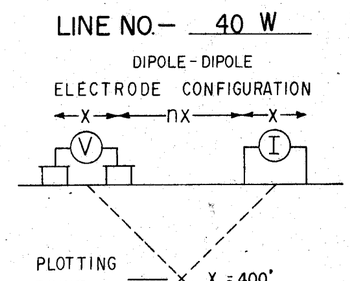
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 40 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

APPROVED:

DATE: Sept 22/69

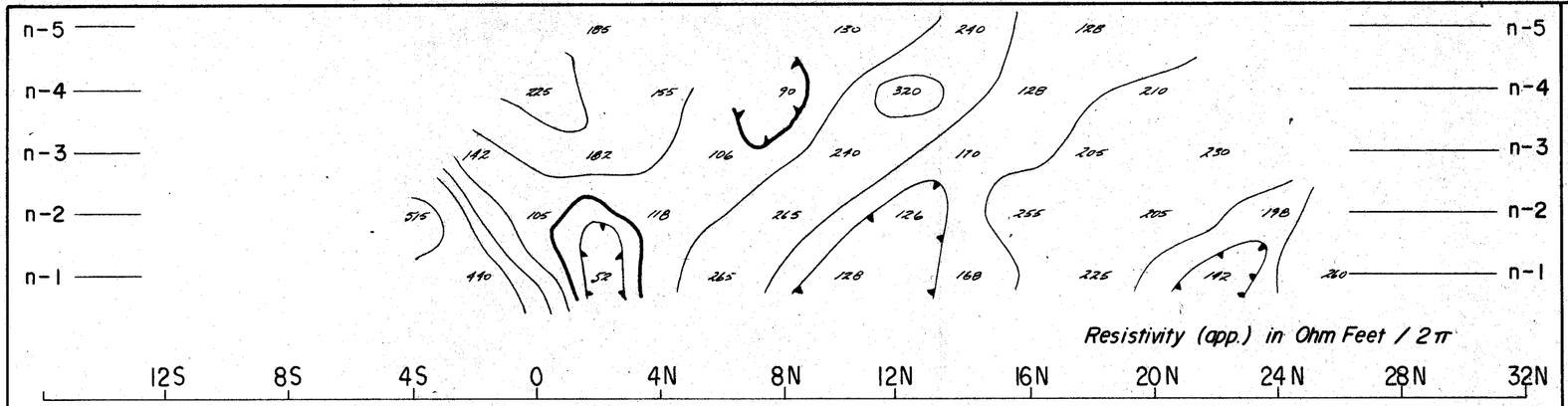
NOTE: CONTOURS AT LOGARITHMIC INTERVALS
1. - 1.5 - 2. - 3. - 5. - 7.5 - 10

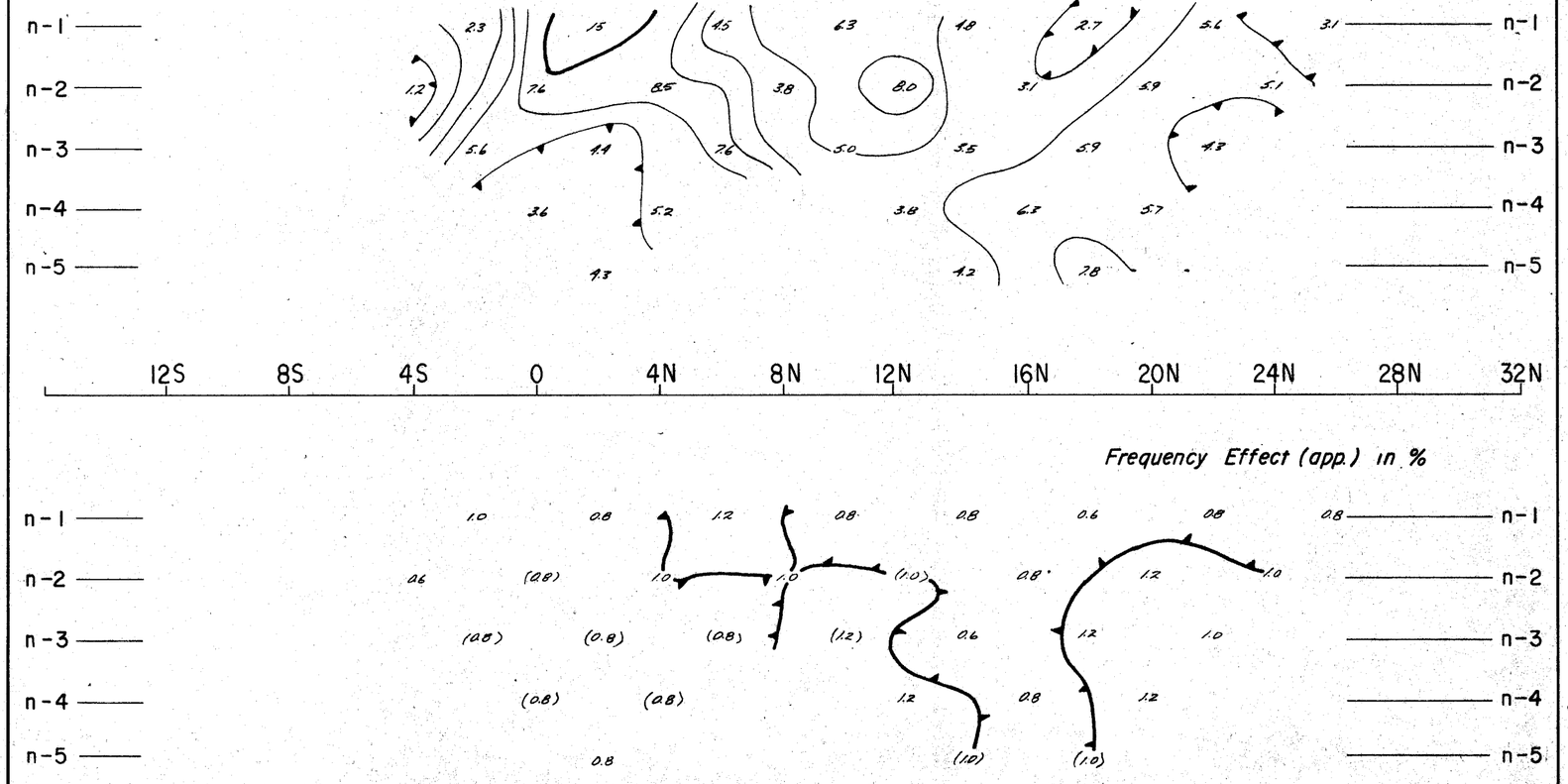
2086

FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 40 W





DWG. NO. - I.P. - 50 - 23

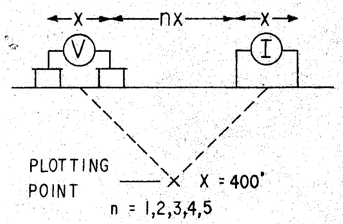
COMINCO LTD.

BIN GROUP

HIGHLAND VALLEY AREA, B.C.

LINE NO.- 45 W

DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31 & 5.0 cps

DATE SURVEYED: Aug. 1969

APPROVED:

DATE: Sept 22/69

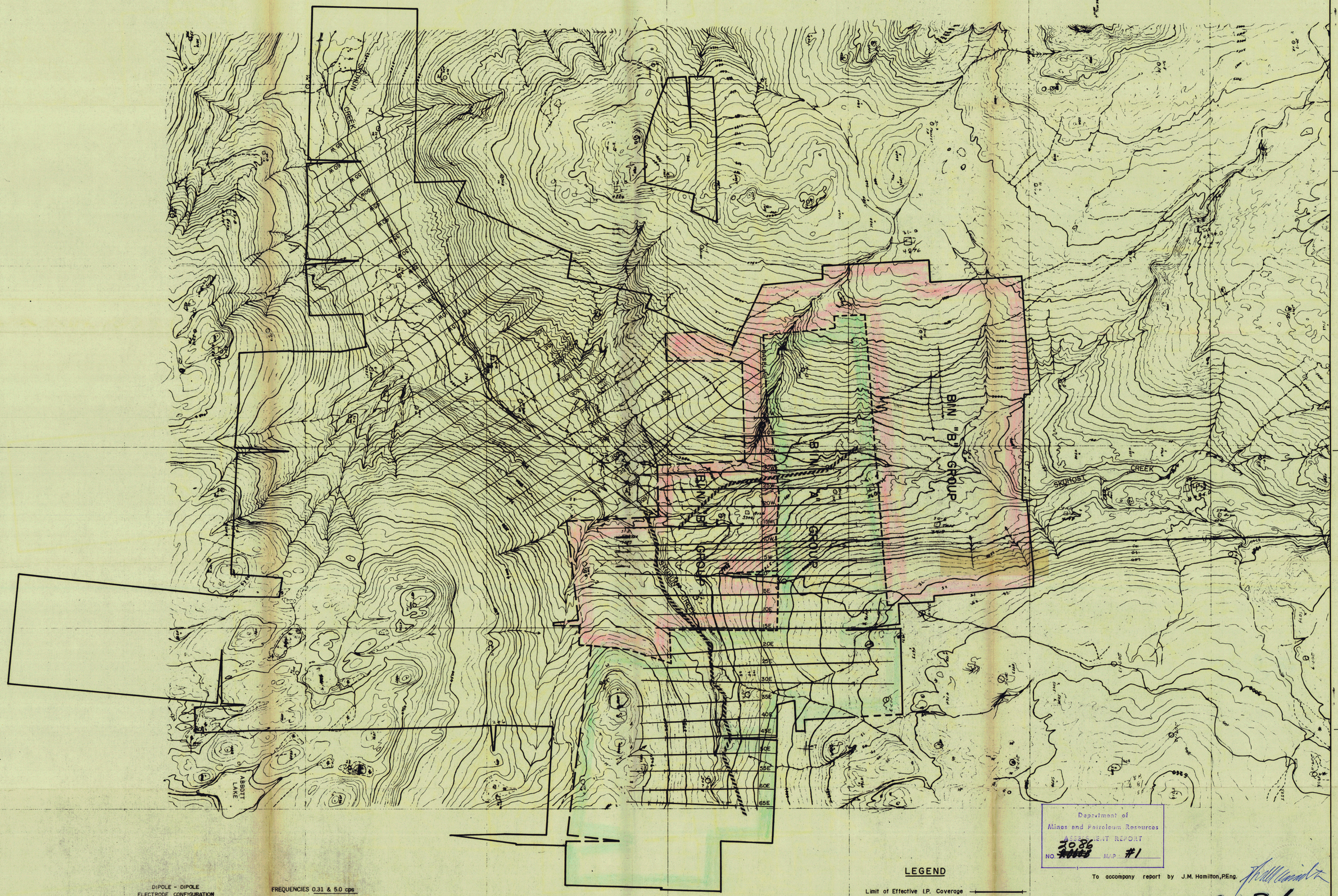
NOTE: CONTOURS AT
LOGARITHMIC INTERVALS
1. - 1.5 - 2. - 3. - 5. - 7.5 - 10

2086

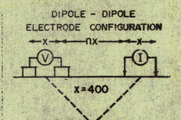
FREQUENCY DOMAIN PROFILE

INDUCED POLARIZATION AND RESISTIVITY TESTS
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LINE NO. 45 W



DIPOLE - DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT
n=1,2,3,4,5

FREQUENCIES 0.31 & 5.0 cps

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD. EXPLORATION DIVISION

LEGEND

Limit of Effective I.P. Coverage

Axes of Resistivity Lows

To accompany report by J.M. Hamilton, PEng.

2086

Cominco

Drawn by: R.J.N.	Traced by: G.K.T.

I.P. TRAVERSE LOCATIONS

BIN "A" AND "B" GROUPS

KAMLOOPS M.D., HIGHLAND VALLEY AREA, B.C., 92I6

Scale: 1" = 1000' | Date: SEPT 24, 1969 | Plate: BIN-I.P.-1