'79-#21-#7123

COMINCO LTD.

EXPLORATION
N.T.S.: 82M/4

WESTERN DISTRICT

INDUCED POLARIZATION SURVEY
BAY CLAIMS

Adams Lake Area, B.C.; Kamloops Mining Division
Latitude: 51°6'N; Longitude: 119°47'W

Work Performed: May 29 to June 6, 1978
On Claims: BAY 1, 2

JANUARY 1979

A. R. SCOTT

PART 2 OF 2

7123

COMINCO LTD.

EXPLORATION WESTERN DISTRICT
N.T.S.: 82M/4

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7123

JANUARY 1979

A. R. SCOTT

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ATTACHMENTS

* * * * * * * * *

INTRODUCTION

The BAY claims are located on the west shore of Adams Lake, some 60 kilometers northeast of Kamloops, B.C., as indicated on the accompanying location plan (Plate 135-78-1). The lines surveyed, in relation to the claims, are shown on Plate 135-78-2.

During the period May 29 to June 6, 1978, a Cominco geophysical crew completed some 7.6 line kilometers of multi separation induced polarization survey. The survey lines were short and steep so that progress was slow and difficult.

This report describes this induced polarization survey, presents the data, and discusses the results.

LOCATION AND ACCESS

The BAY claims are located along the steep hillside immediately northwest of Skwaam Bay, Adams Lake. Geographic coordinates are $50^{o}6'$N latitude by $119^{o}47'$W longitude.

Access to the property is by highway number 5 north from Kamloops to Louis Creek, thence eastward by secondary road to Agate Bay resort on Adams Lake.

GEOLOGY

The BAY claims are underlain by acid volcanics within the Paleozoic Eagle Bay Formation. The property is along strike some 3 kms southeast of the Homestake acid volcanogenic deposit. The geology of the property has been described by Cominco geologist P. J. Wojdak in an assessment report submitted in March, 1978.

The IP survey was initiated to determine if sulphides might be present within the favourable Homestake rhyolite unit, within the survey area.

INDUCED POLARIZATION SURVEY

G. J. Niemeyer, geophysical technician, was the party chief/receiver operator on the survey.

A Scintrex IPR-8 receiver, in combination with a Huntec 7.5 kw motor generator/transmitter were used on the survey. This equipment operates in the time domain, employing a 2 second current on/2 second current off alternating square wave. The chargeability (IP) values plotted are the M_{232} values, and the units are millivolts/volt. To convert to the more common millisecond value (such as would be obtained with the older model IPR-7), the numbers should be multiplied by 0.7, for a "typical" decay curve. For a more detailed discussion of this instrument, the reader is referred to the Scintrex manual for the IPR-8.

The pole-dipole electrode array was used on the survey, with an "a" spacing of 60 meters and "n" separation of 1, 2, 3, and 4. The current electrode was kept to the south of the potential dipole.

The apparent resistivity data is given in units of ohm-meters. It was calculated from the relation:

$$\text{apparent resistivity} = (V/I) \cdot K,$$

where V is the voltage across the potential measuring dipole due to a current I, and K is a constant dependant upon the "a" spacing and "n" separation.

DESCRIPTION OF RESULTS

The induced polarization (chargeability) and apparent resistivity data is presented in standard psuedo section format on accompanying Plates 135-78-3 to 15 inclusive.

A broad zone of high chargeability trends across the survey area. This zone is, in general, associated with moderately low apparent resistivities (on the order of a few hundred ohm meters), suggestive of a relatively disseminated polarizable source. The highest reading within this zone was obtained on line 12+00W, where an

n=3 value of 52.5 millivolts per volt plots at station 390N.

The highest n=1 value of the survey was 51.0 mv/v at 450N on line 20W. This reading is coincident with a very low apparent resistivity value of 20 ohm meters, suggestive of an electrically massive polarizing source. This low resistivity feature trends across the survey area, along the north portion of the broad chargeability high.

CONCLUSIONS

Portions of the BAY claims were surveyed with time domain IP in the summer of 1978.

A broad zone of high chargeability extends across the survey area, and is generally characterized by moderate apparent resistivities. A distinct apparent resistivity low lies along the north portion of this chargeability high. The strongest response within this resistivity low was on line 20W where an n=1 chargeability value of 51.0 mv/v is coincident with a resistivity low of 20 ohm meters. Further work to determine the source of this anomaly is recommended.

Respectfully submitted by:

Alan Scott
Geophysicist

Endorsed for Release by:

G. Harden
Manager, Exploration
Western District

ARS/deb
4 January 1979

Distribution:

Mining Recorder (2)
Western District (1)
Geophysics File (1)

APPENDIX I

IN THE MATTER OF THE B.C. MINERAL ACT

AND IN THE MATTER OF A GEOPHYSICAL PROGRAMME

CARRIED OUT ON PORTIONS OF THE BAY MINERAL CLAIMS

ON THE BAY PROPERTY

LOCATED 60 KM NE OF KAMLOOPS IN THE KAMLOOPS MINING DIVISION

OF THE PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY

N.T.S. 82M/4

S T A T E M E N T

I, ALAN SCOTT, OF THE CITY OF VANCOUVER IN THE PROVINCE OF BRITISH COLUMBIA, MAKE OATH AND SAY: -

1. THAT I AM EMPLOYED AS A GEOPHYSICIST BY COMINCO LTD. AND, AS SUCH, HAVE A PERSONAL KNOWLEDGE OF THE FACTS TO WHICH I HEREINAFTER DEPOSE;

2. THAT ANNEXED HERETO AND MARKED AS "APPENDIX II" TO THIS STATEMENT IS A TRUE COPY OF EXPENDITURES INCURRED ON GEOPHYSICAL SURVEY AND LINECUTTING ON THE BAY MINERAL CLAIMS;

3. THAT THE SAID EXPENDITURES WERE INCURRED BETWEEN THE 29TH OF MAY AND THE 6TH OF JUNE, 1978, FOR THE PURPOSE OF MINERAL EXPLORATION OF THE ABOVE NOTED CLAIMS.

Alan Scott

Alan Scott, Geophysicist

ARS/deb
4 January 1979

APPENDIX II

BAY CLAIMS

STATEMENT OF EXPENDITURES

(Linecutting and IP Survey)

SALARIES: (IP Survey done May 29-June 6 inclusive)

G.J. Niemeyer	9 days @ $120/day =	$ 1,080	
B. Lum	9 days @ $ 82/day =	$ 738	
I. Cummings	9 days @ $ 82/day =	$ 738	
C. LaPrairie	9 days @ $ 82/day =	$ 738	
J. Reader	9 days @ $ 82/day =	$ 738	
R. Grant	9 days @ $ 82/day =	$ 738	
D. Saunders	4 days @ $ 82/day =	$ 328	
			$ 5,098.00

MISCELLANEOUS:

Food, lodging, gas, consumables $ 2,205.58

OPERATING CHARGES:
(Towards report, drafting, supervision)

8 days @ $175/survey day $ 1,400.00

GEOPHYSICAL EQUIPMENT & TRUCK RENTALS AND CHARGES:

8 days @ $282/survey day $ 2,256.00

LINECUTTING:

10.02 km @ $275/km $ 2,775.50

TOTAL:..... $13,735.08

Alan Scott
Geophysicist

ARS/deb
4 January 1979

APPENDIX III

C E R T I F I C A T I O N

I, Alan Scott, of 4013 West 14th Avenue, in the city of Vancouver, in the Province of British Columbia, do hereby certify that: -

1. I graduated from the University of British Columbia in 1970 with a B.Sc. in Geophysics.

2. I am a member of the Association of Professional Engineers of the Province of Saskatchewan, the Society of Exploration Geophysicists of America, and the British Columbia Geophysical Society.

3. I have been practising my profession for the past nine years.

Alan Scott
Geophysicist

ARS/deb
4 January 1979

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

LOCATION MAP

KAMLOOPS M.D., B.C.

Scale: 1: 250,000 | Date: DEC 1978 | Plate: 135-78-1

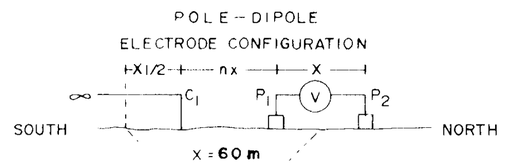
N.T.S. 82 M 4 DWG. NO. 135-78-3

COMINCO LTD.

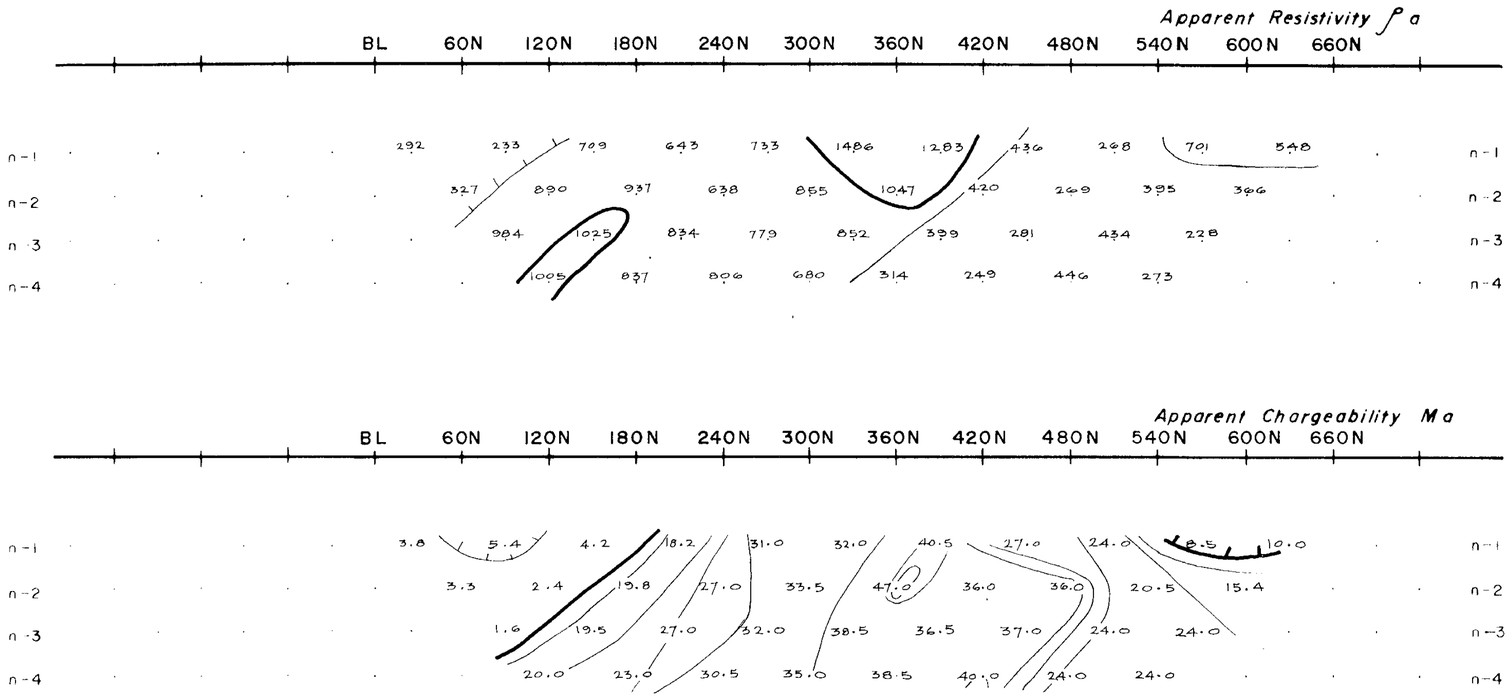
BAY PROPERTY

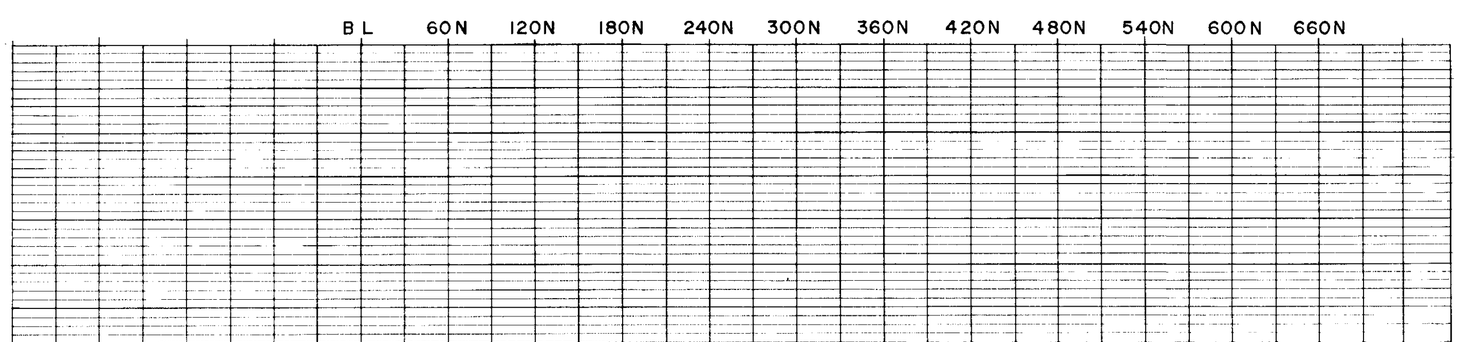
KAMLOOPS M.D., B.C.

LINE NO. 9+00 W



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE





CONTOUR INTERVALS :

APP RES. — 500/ρa
APP CHARG — 5.0 Mv/V

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

DATE SURVEYED JUNE 6, 1978

APPROVED

DATE

7123

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

LINE 9+00 W

2 of 2

N.T.S. 82 M 4

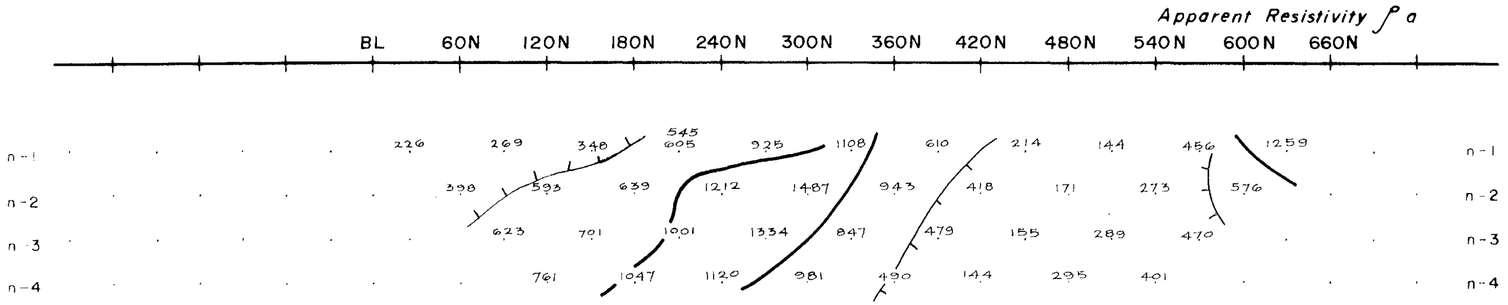
DWG. NO. 135-78-4

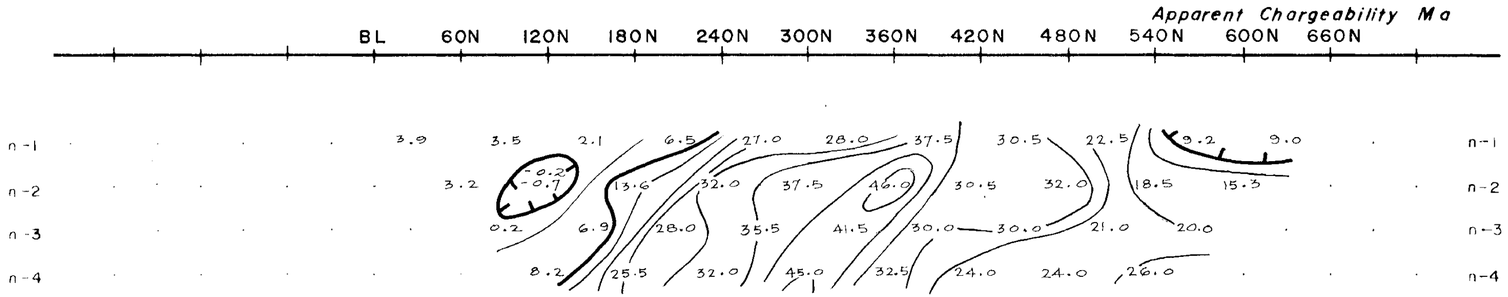
COMINCO LTD.

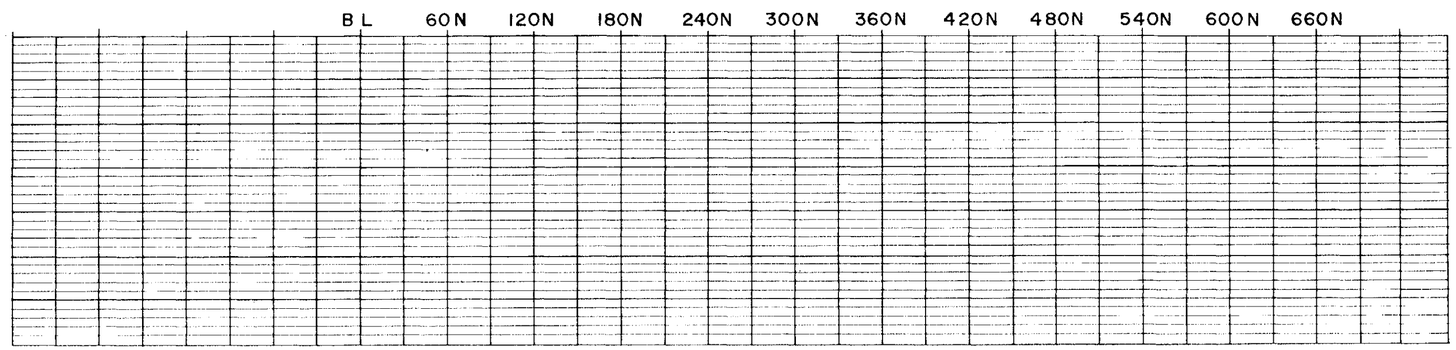
BAY PROPERTY

KAMLOOPS M.D., B.C.

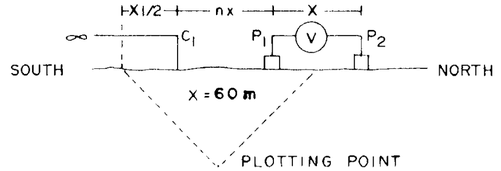
LINE NO. 10+00 W







POLE-DIPOLE ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS:

APP RES. — 500/ρa

APP CHARG — 5.0 Mv/V

TRANSMITTER — HUNTEC 7.5 Kw

RECEIVER — IPR 8

DATE SURVEYED JUNE 6, 1978

APPROVED

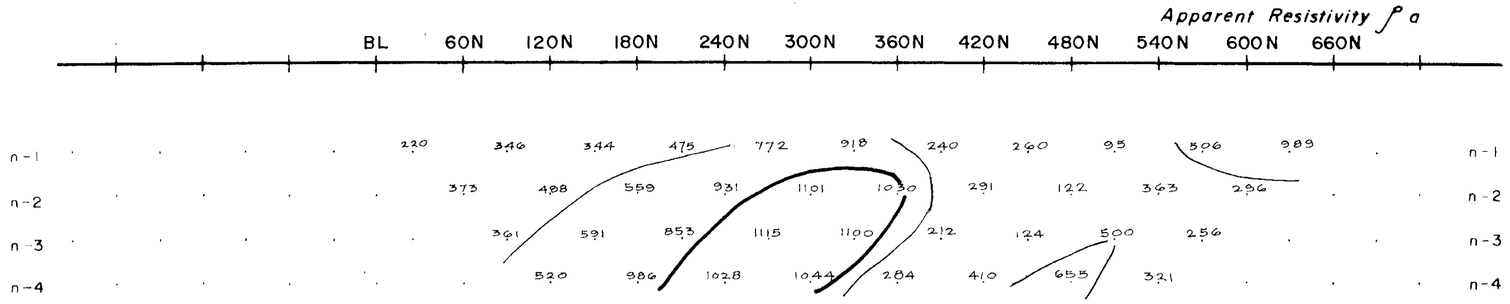
DATE

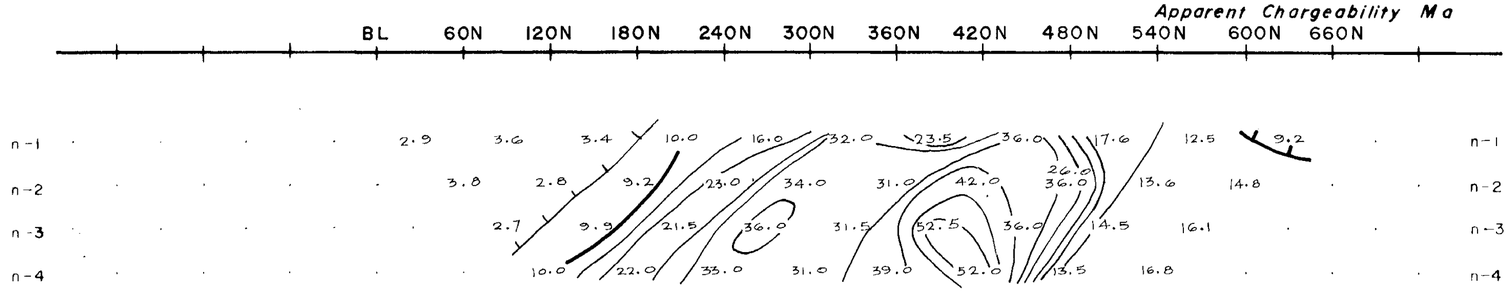
7123

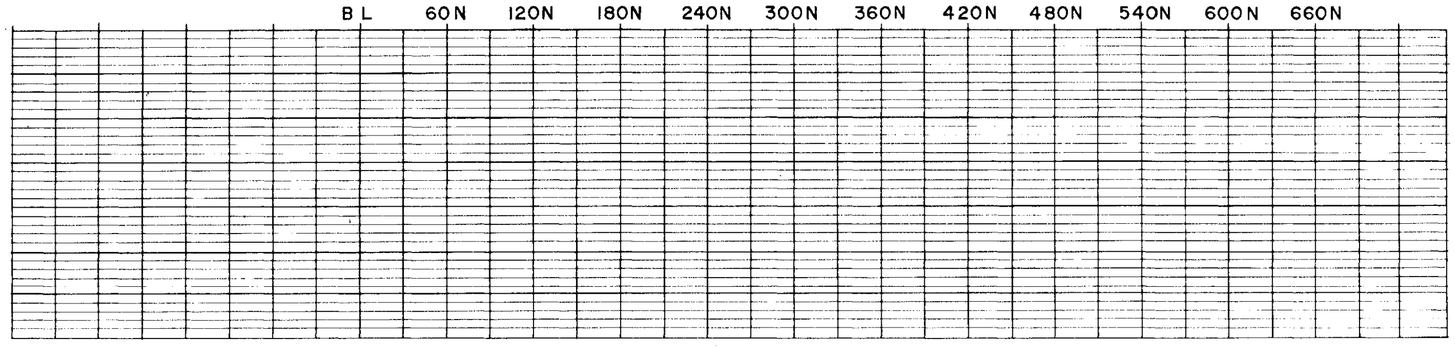
INDUCED POLARIZATION AND RESISTIVITY SURVEY

SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

LINE 10+00 W







N.T.S. 82 M 4

DWG. NO. 135-78-5

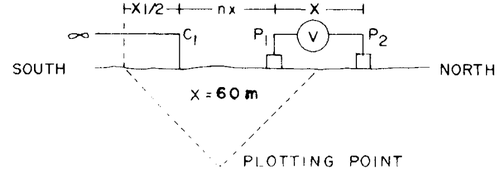
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 12+00W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS :

APP RES. -- 500/a
APP CHARG — 5.0 Mv/V

DATE SURVEYED JUNE 6, 1978

APPROVED

DATE

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

7123

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

2662

LINE 12+00W

N.T.S. 82 M 4

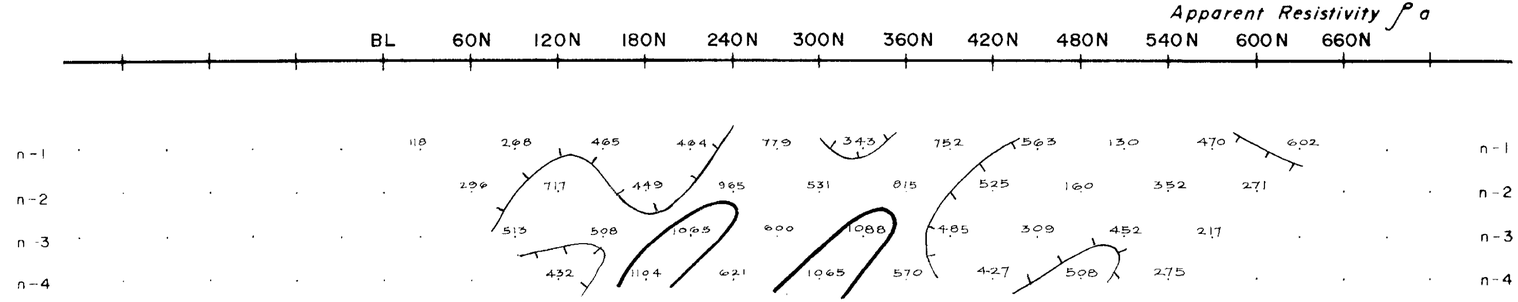
DWG. NO. 135-78-6

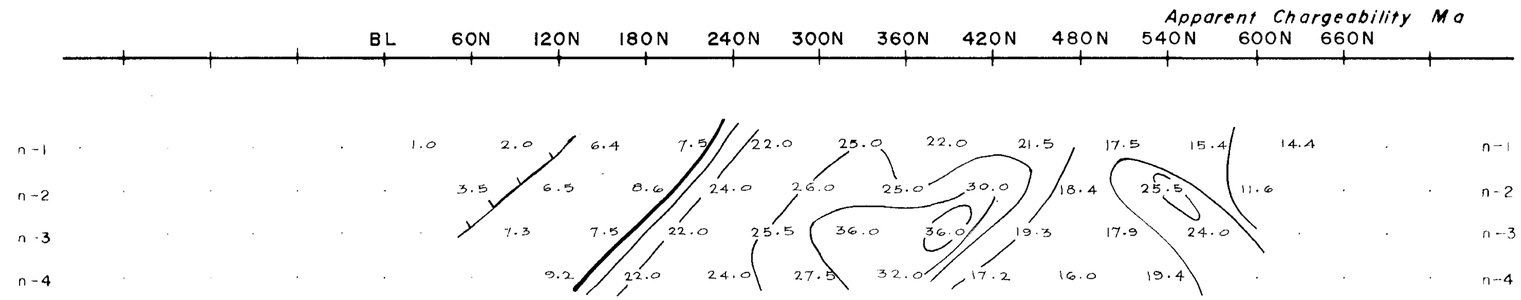
COMINCO LTD.

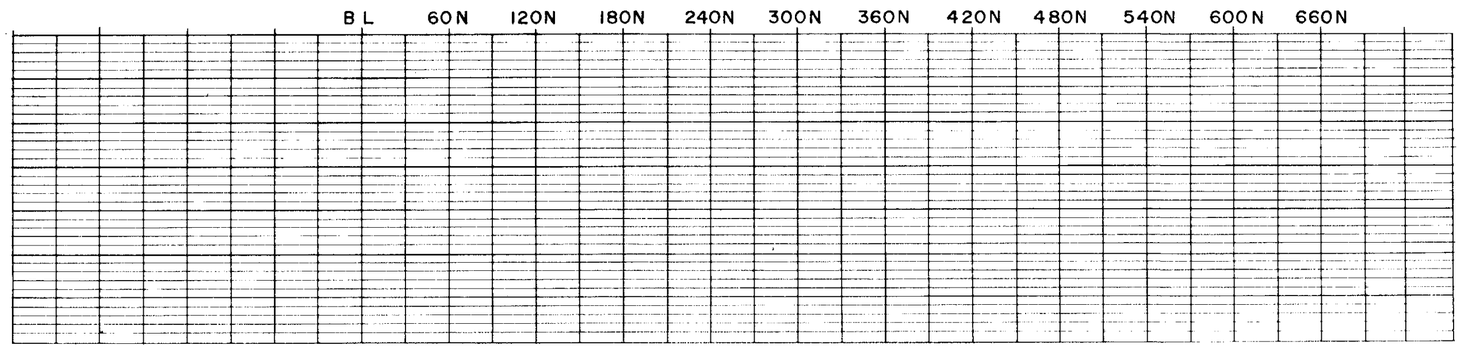
BAY PROPERTY

KAMLOOPS M.D., B.C.

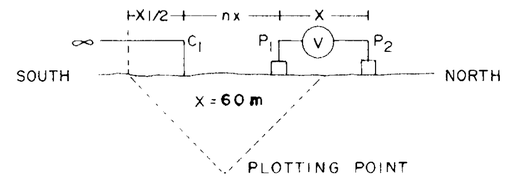
LINE NO. 13+00W







POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS:
APP RES. — 500 Ωa
APP CHARG — 5.0 Mv/V

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

DATE SURVEYED JUNE 3, 1978

APPROVED

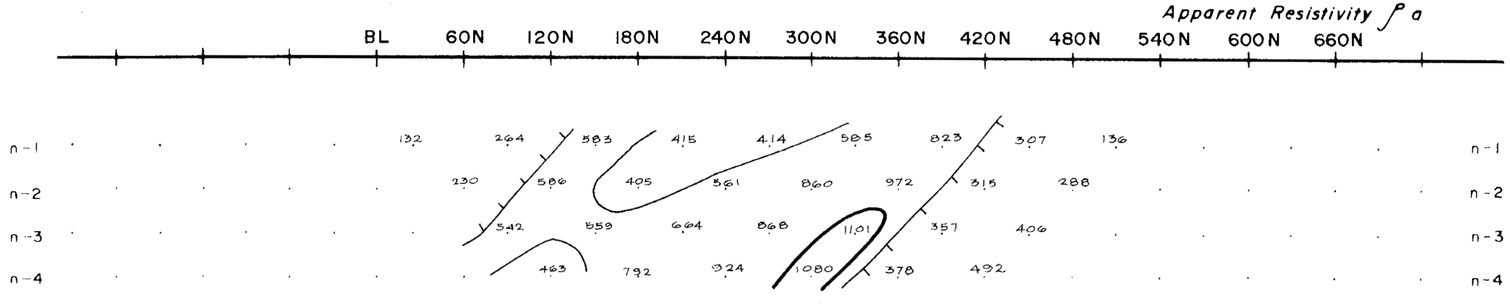
DATE

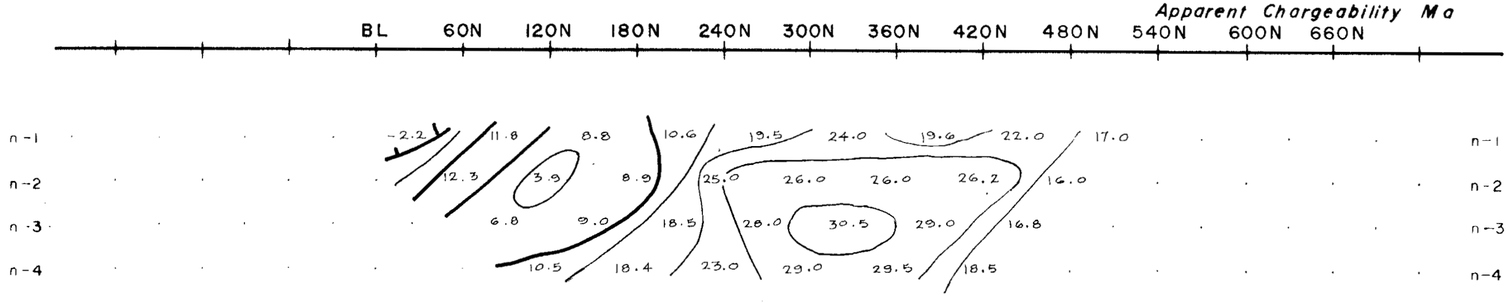
7123

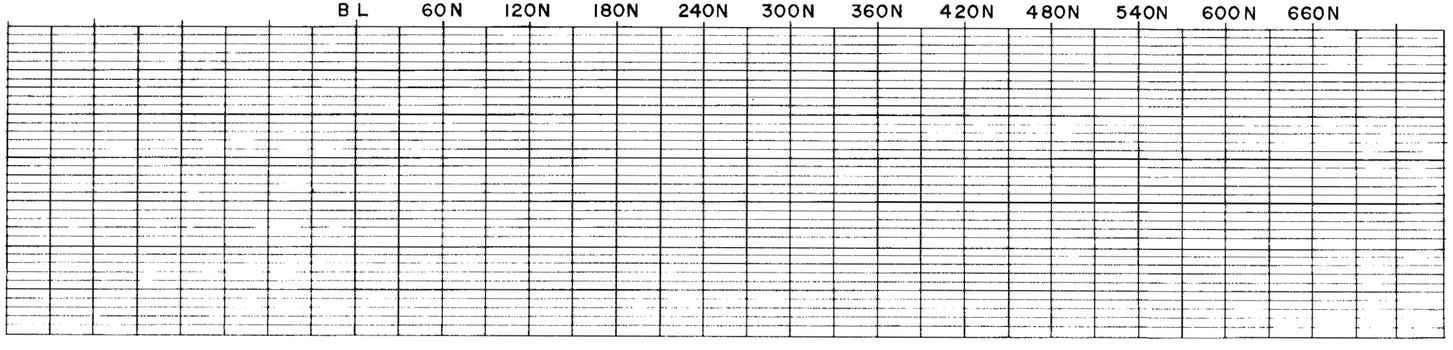
INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

2 of 2

LINE 13+00W







N.T.S. 82 M 4

DWG. NO. 135-78-7

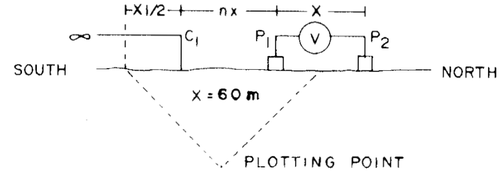
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 14+00 W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 3, 1978

CONTOUR INTERVALS:

APP RES. — 500 Ωa
APP CHARG. — 5.0 Mv/V

APPROVED

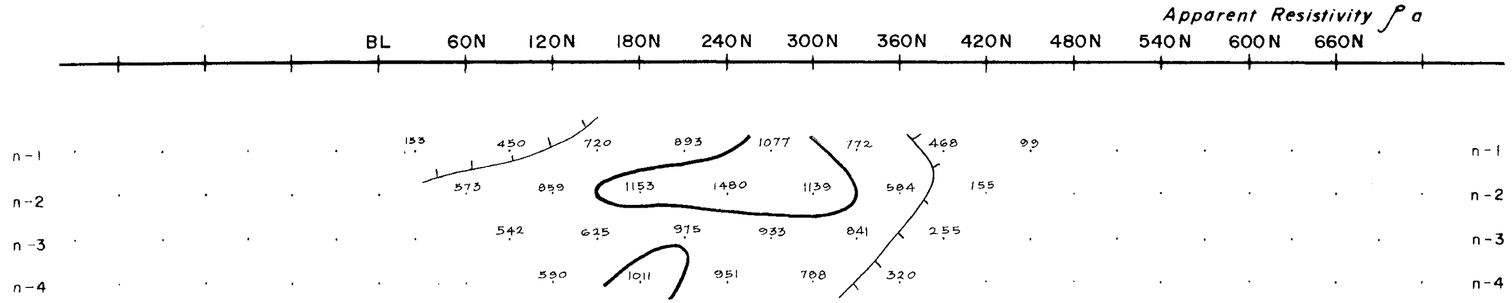
DATE

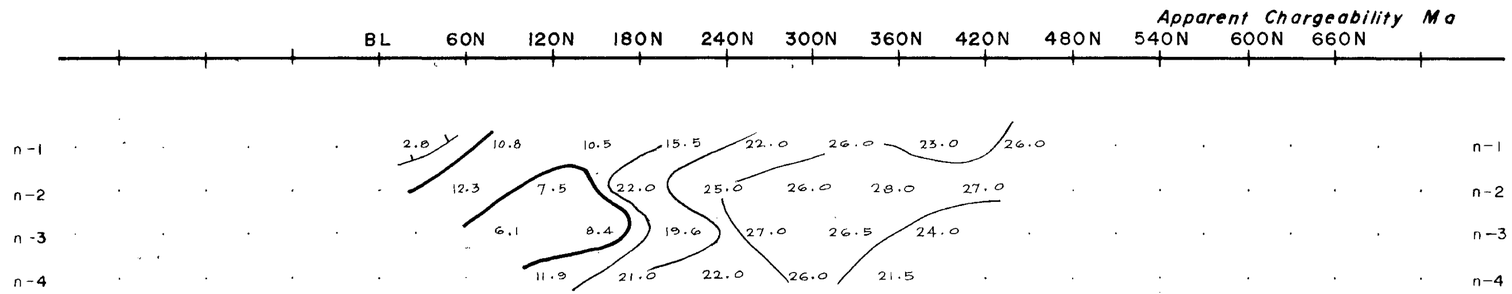
TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

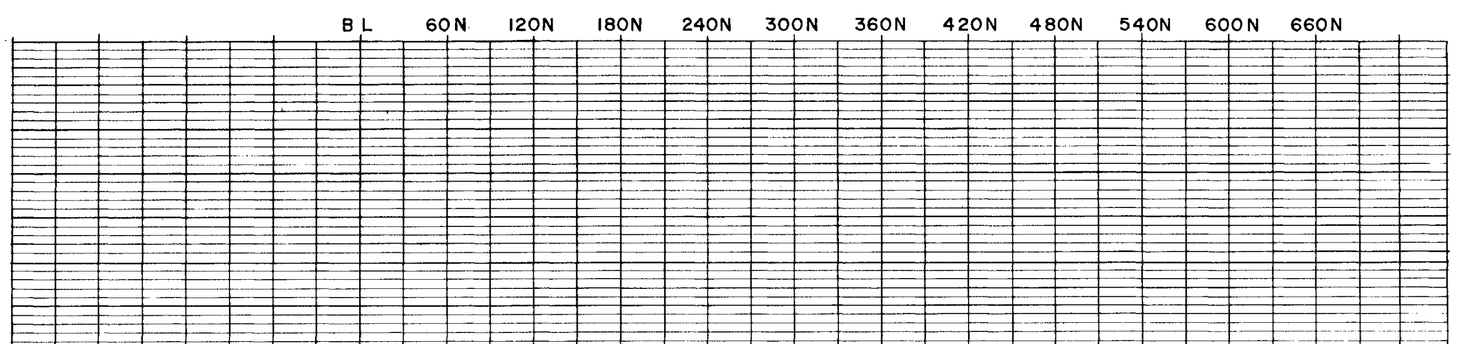
7123

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

LINE 14+00 W







N.T.S. 82 M 4

DWG. NO. 135-78-8

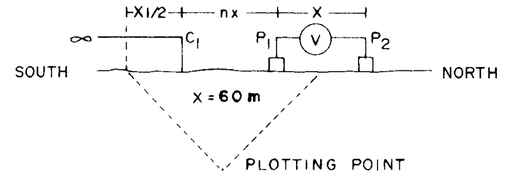
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 15+00W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 2, 1978

CONTOUR INTERVALS:
APP. RES. — 500 Ωa
APP CHARG — 5.0 Mv/V

APPROVED

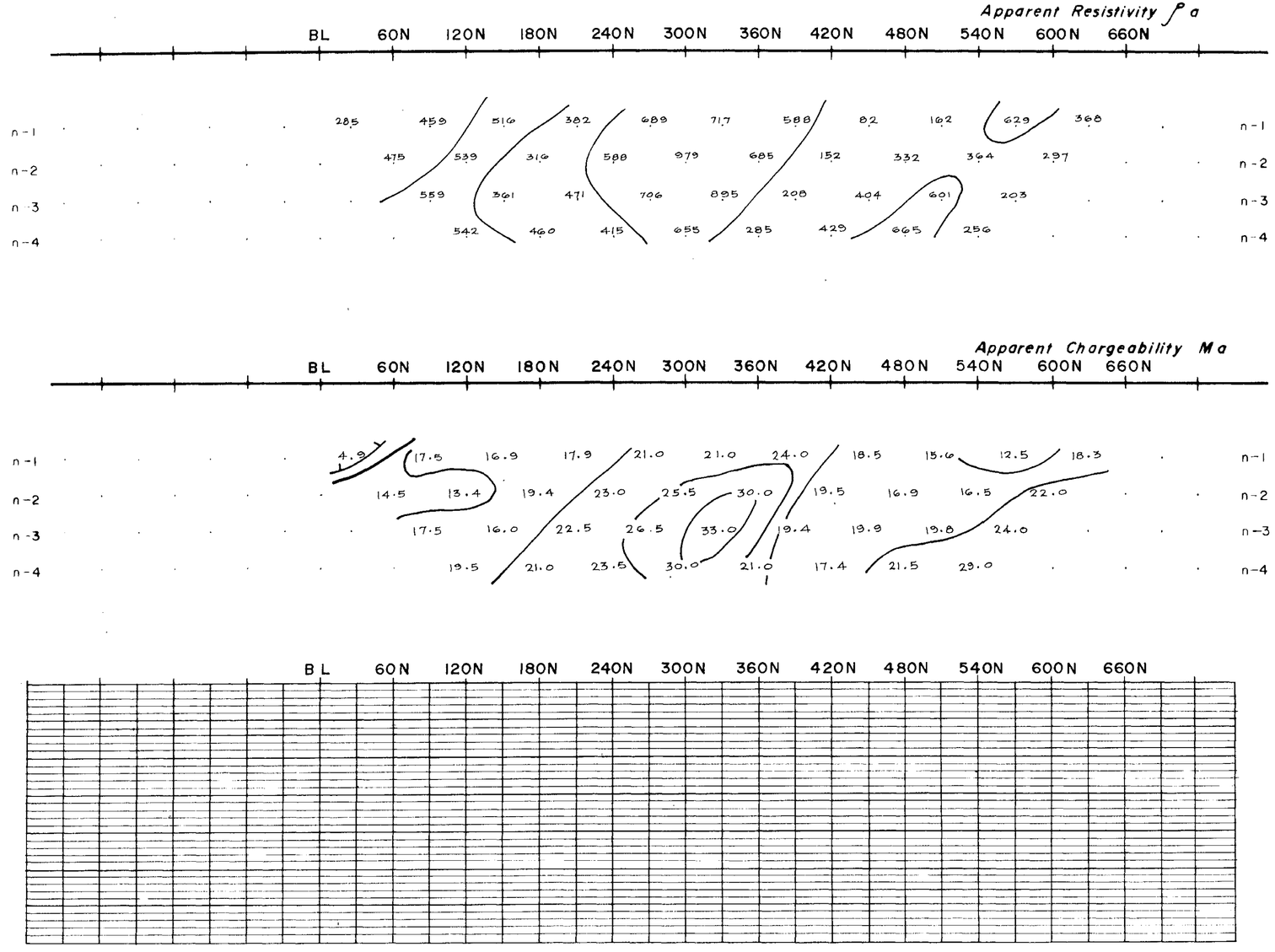
DATE

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

7123

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

LINE 15+00W



N.T.S. 82 M 4

DWG. NO. 135-78-9

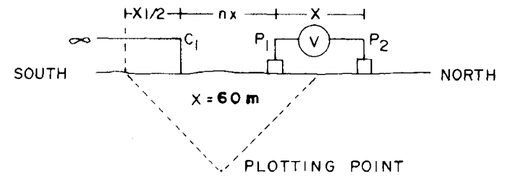
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 16+00W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 2, 1978

CONTOUR INTERVALS:

APP. RES. — 500Ωa
APP CHARG — 5.0 Mv/V

APPROVED

DATE

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

7123

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

LINE 16+00W

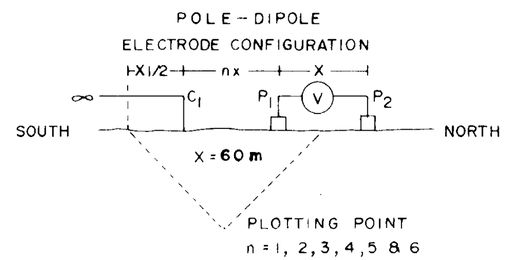
N.T.S. 82 M 4 DWG. NO. 135-78-10

COMINCO LTD.

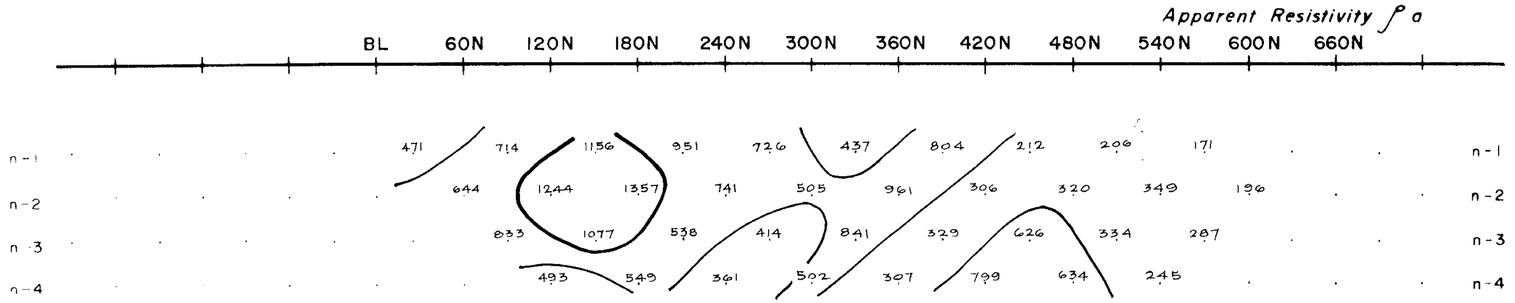
BAY PROPERTY

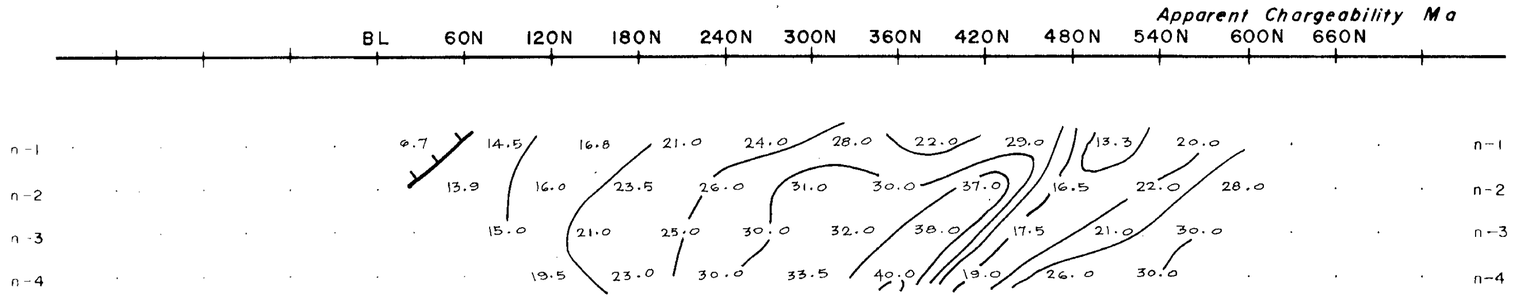
KAMLOOPS M.D., B.C.

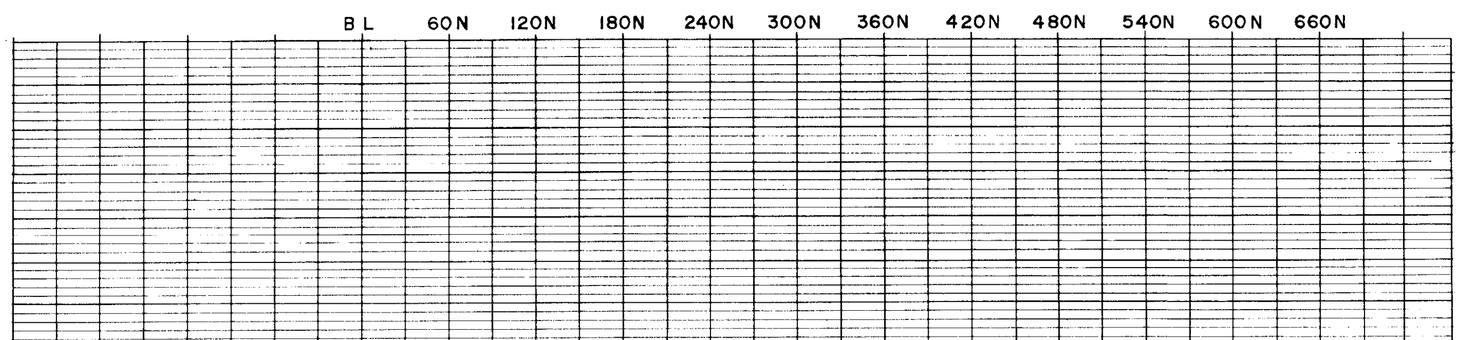
LINE NO. 17+00W



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE







CONTOUR INTERVALS:
APP RES. — 500/a
APP CHARG. — 5.0 Mv/V

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

DATE SURVEYED JUNE 1 1978

APPROVED

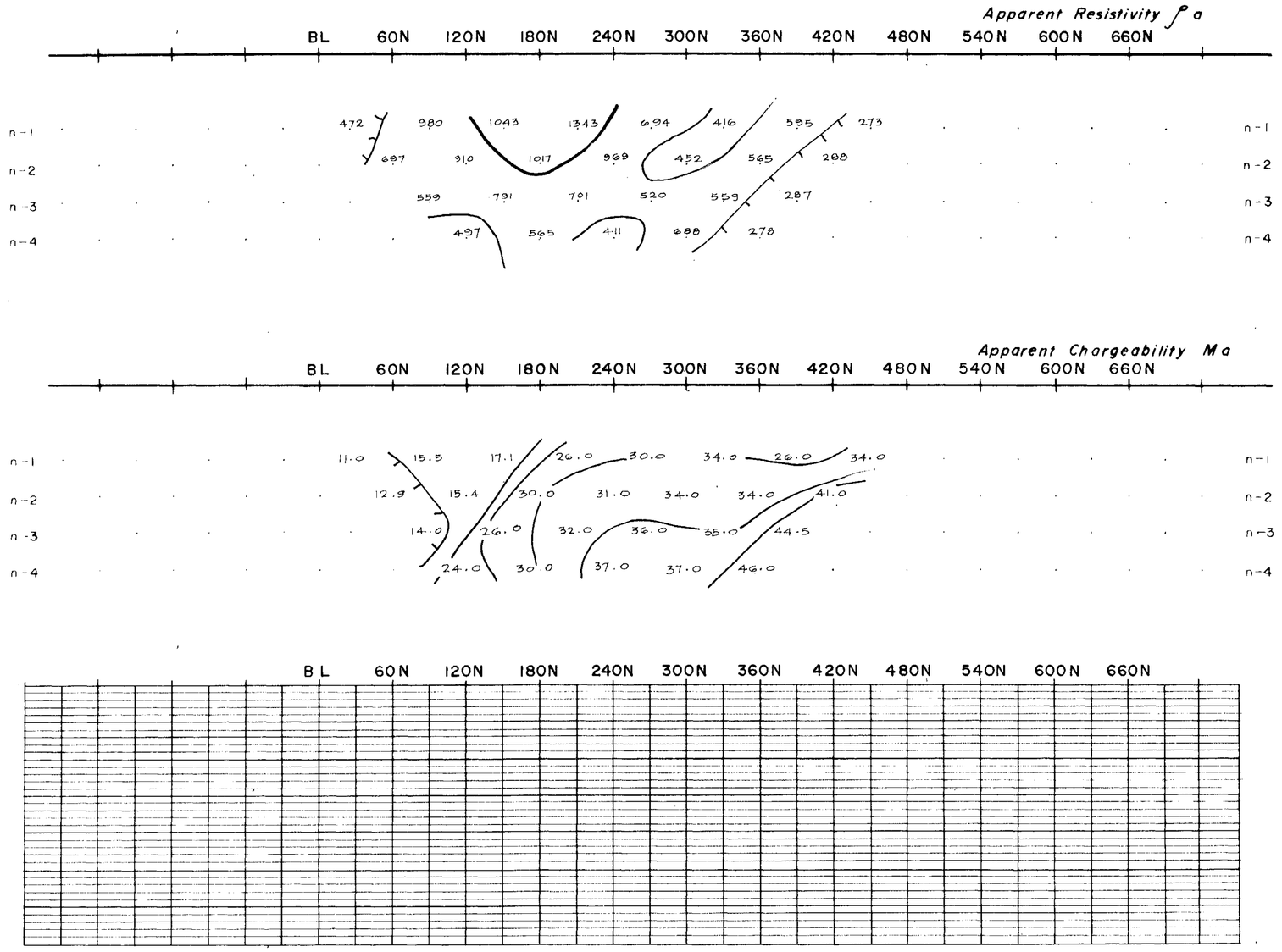
DATE

7123

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

2 of 2

LINE 17+00W



N.T.S. 82 M 4

DWG. NO. 135-78-11

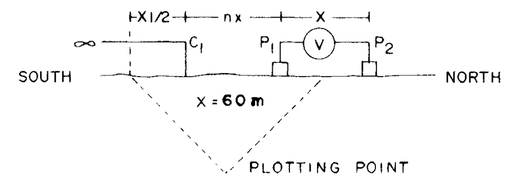
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 18+00W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 6 1978

CONTOUR INTERVALS:
APP RES. — 500/ρa
APP CHARG. — 5.0 Mv/V

APPROVED

DATE

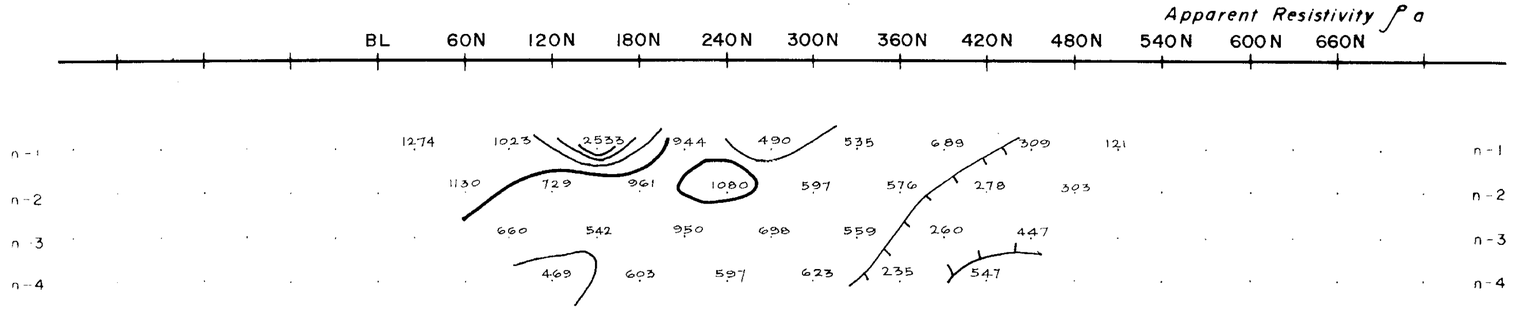
TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

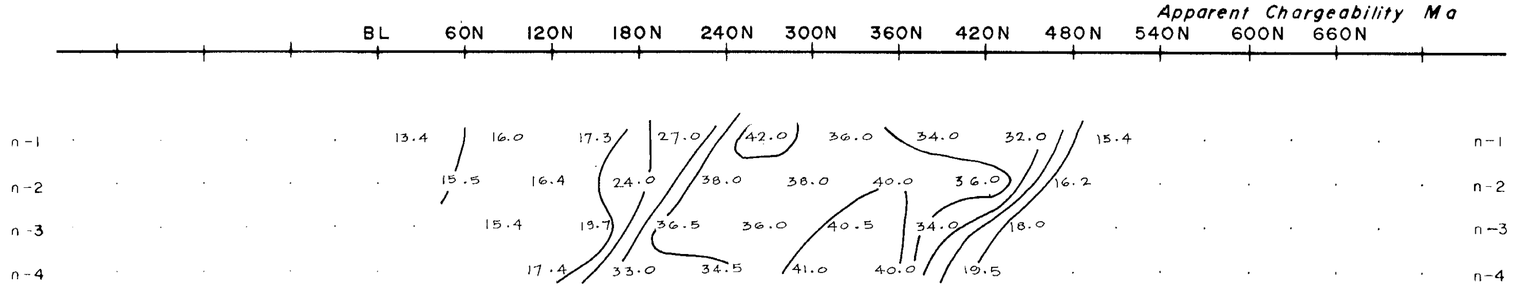
7123

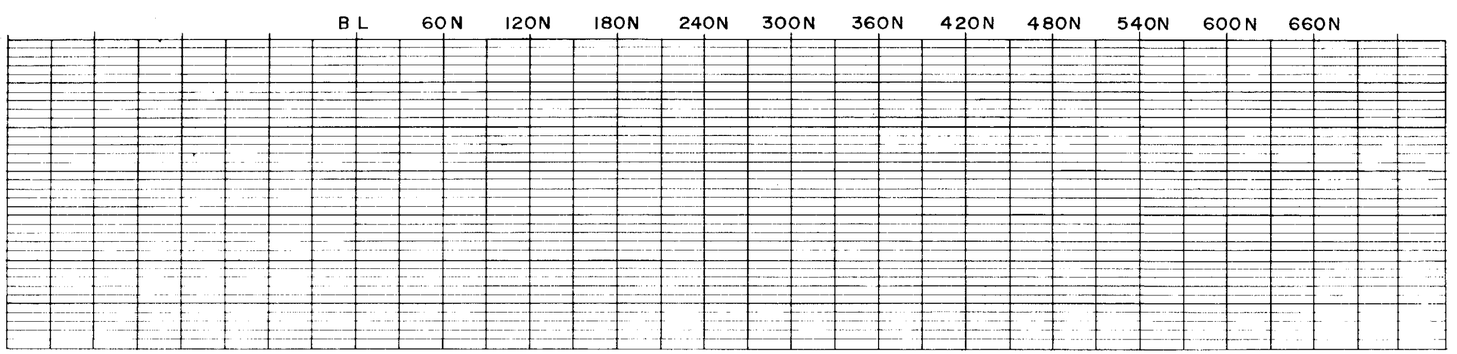
INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

2 of 2

LINE 18+00W







N.T.S. 82 M 4

DWG. NO. 135-78-12

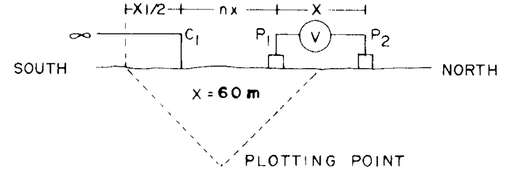
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 19+00W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 1, 1978

CONTOUR INTERVALS:
APP RES. — 500Ωa
APP CHARG — 5.0 Mv/V

APPROVED

DATE

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

7123

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

282

LINE 19+00W

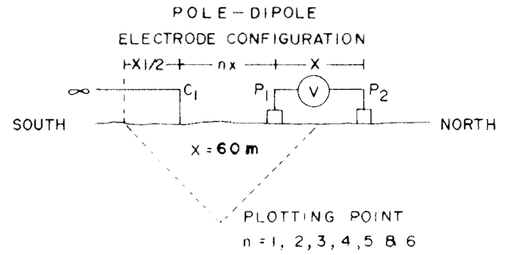
N.T.S. 82 M 4 DWG. NO. 135-78-13

COMINCO LTD.

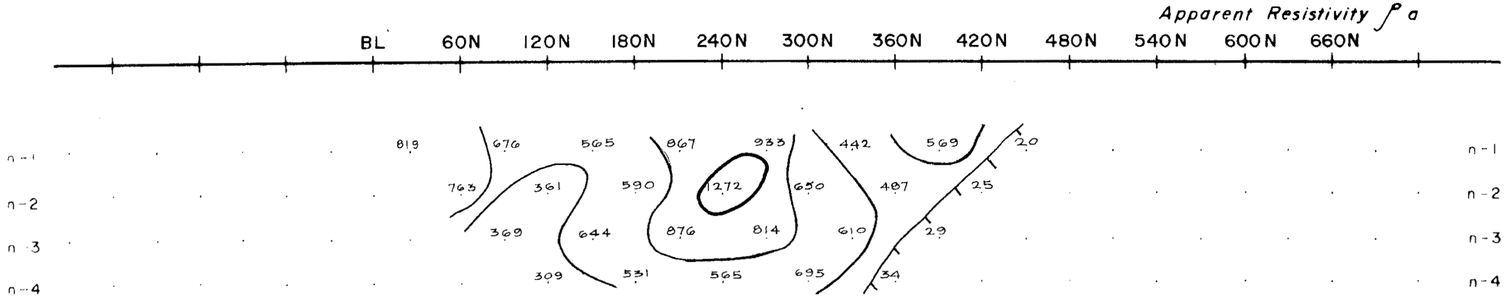
BAY PROPERTY

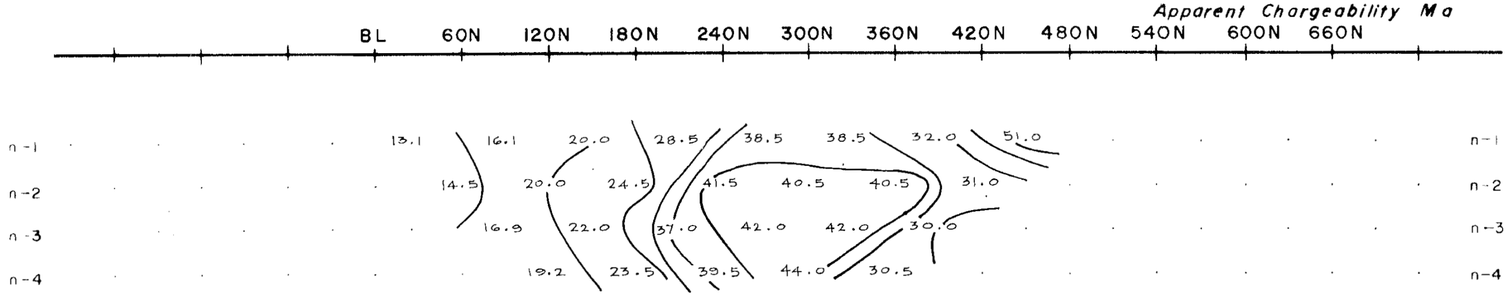
KAMLOOPS M.D., B.C.

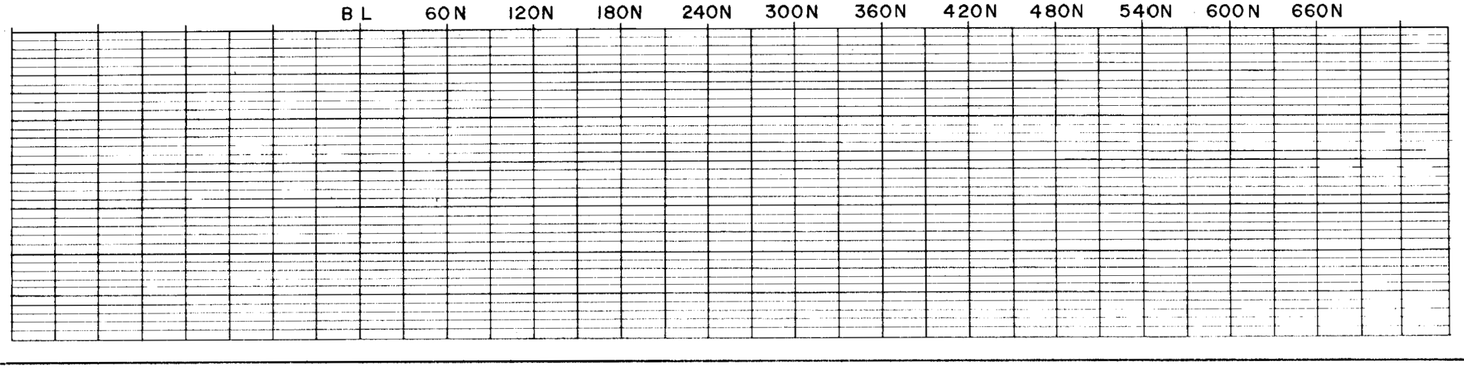
LINE NO. 20+00W



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE







DATE SURVEYED MAY 30 1978

CONTOUR INTERVALS :

APP RES. — 250 Ωa
APP CHARG — 5.0 Mv/V

APPROVED

DATE

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

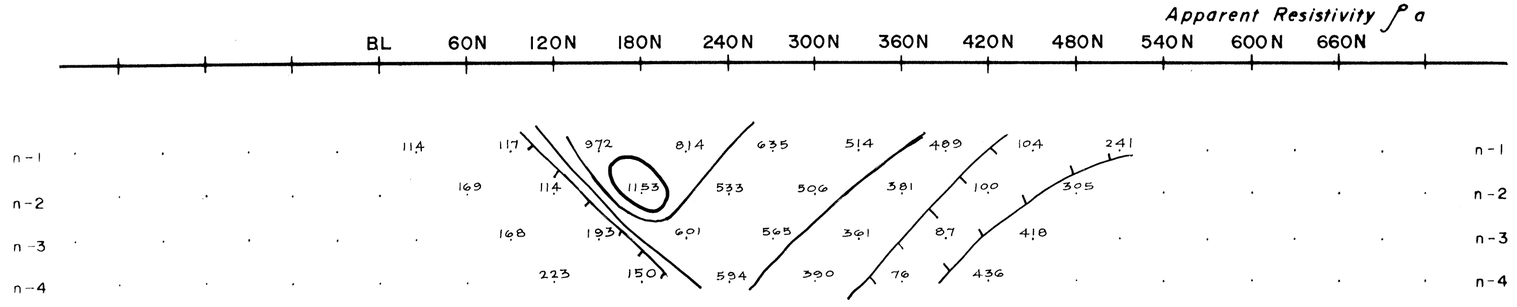
7123

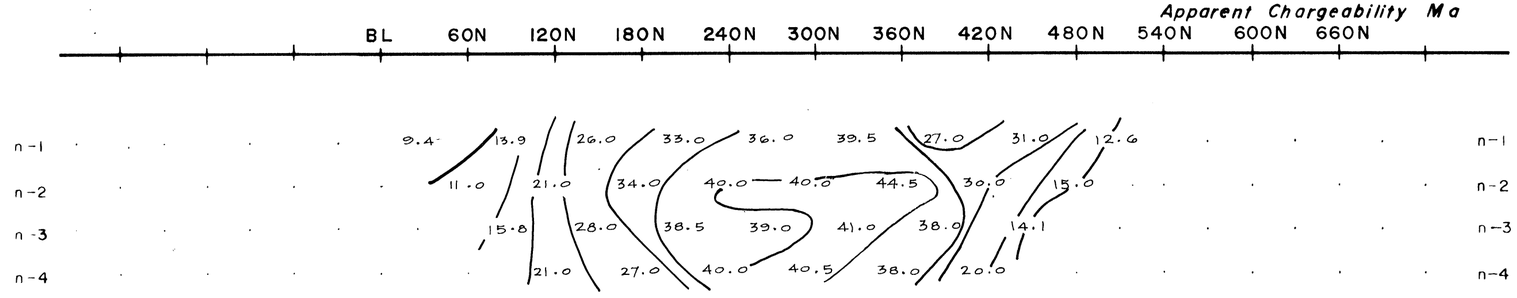
INDUCED POLARIZATION AND RESISTIVITY SURVEY

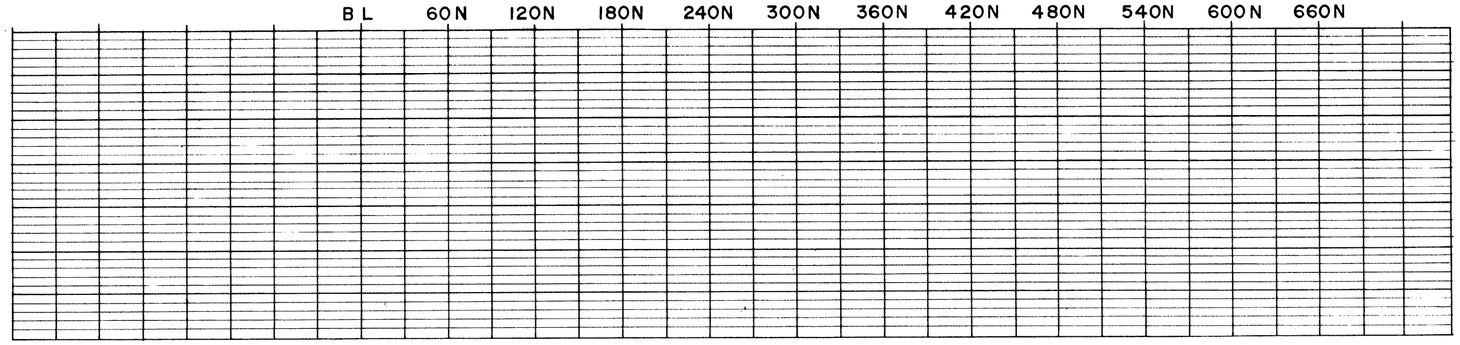
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

2882

LINE 20+00W







N.T.S. 82 M 4

DWG. NO. 135-78-14

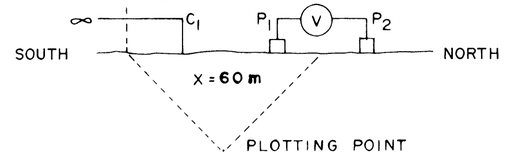
COMINCO LTD.

BAY PROPERTY

KAMLOOPS M.D., B.C.

LINE NO. 21+00W

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS:
APP RES. — 250 Ωa
APP CHARG. — 5.0 Mv/V

DATE SURVEYED MAY 31 1978

APPROVED

DATE

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

7123

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

282

LINE 21+00W

N.T.S. 82 M 4

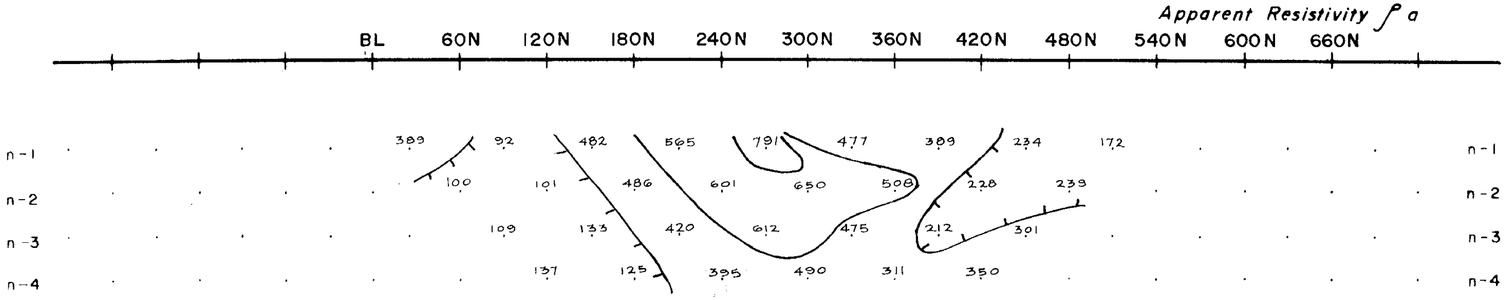
DWG. NO. 135-78-15

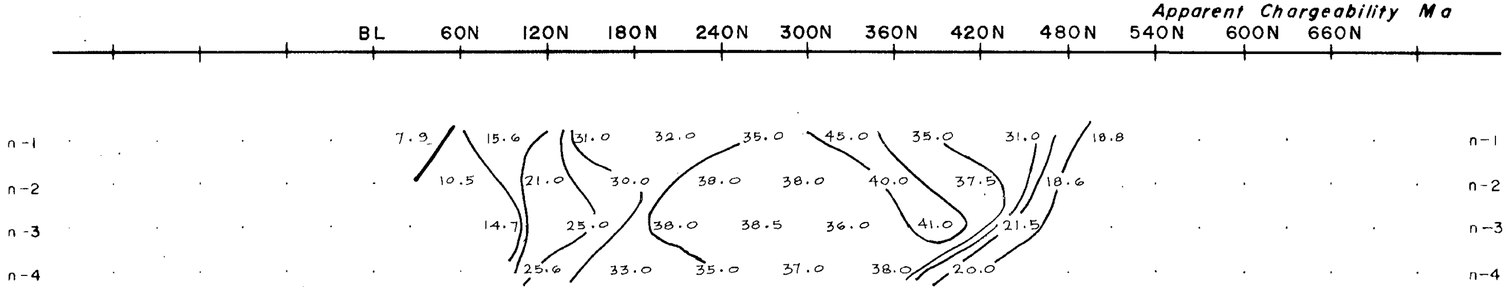
COMINCO LTD.

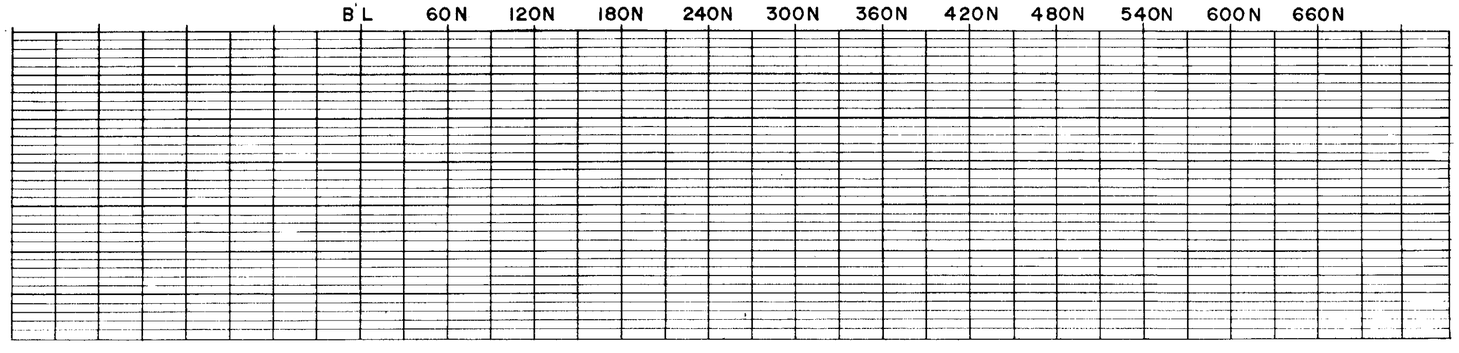
BAY PROPERTY

KAMLOOPS M.D., B.C.

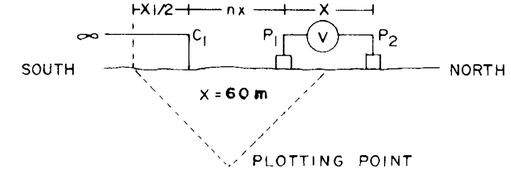
LINE NO. 22+00W







POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS:
APP RES. — 250 Ωa
APP CHARG — 5.0 Mv/V

TRANSMITTER — HUNTEC 7.5 Kw
RECEIVER — IPR 8

DATE SURVEYED MAY 31 1978

APPROVED

DATE

7123

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

LINE 22+00W

BAY PROPERTY

CLAIMS AND GRID MAP

NTS- 82 M-1

Drawn by: | Traced by:

Revised by | Date | Revised by | Date

Scale: 1:5000 | Date: JAN 1979 | Plate: 35-78-2

Metres 100 50 0 100 200

2 of 2

7123

FORM 210-0680

NCI-119-C.L