

COMINCO LTD.

EXPLORATION
NTS: 921/7W

WESTERN DISTRICT
March 18, 1981

G E O P H Y S I C A L R E P O R T O N A N
I N D U C E D P O L A R I Z A T I O N S U R V E Y I N C L U D I N G L I N E C U T T I N G
G U M P P R O P E R T Y

M A M I T L A K E A R E A , N I C O L A M I N I N G D I V I S I O N , B . C .

Latitude: 50°23'N Longitude: 120°44'W

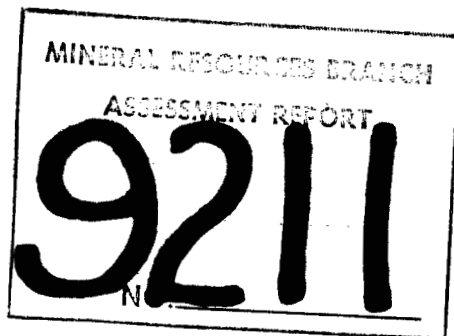
H I G H L A N D V A L L E Y A R E A , N I C O L A M . D . , B . C .

Field work performed: March 3-19, 1981 (Geophysics)

Feb. 8 - March 1, 1981 (Linecutting)

On Claims: Antler 1-7, Score 1, Lake 1&2, Elf 1,3-8,
MJC 1-3, Tom, Kam 1-4, Ore 1&2, Jet 1-8,
Bud 1-4, Mag 1&2, Set 1-6, Ford 1&2,
Snow 1-8, Dan 1-2.

APRIL 24, 1981



M.J. CASSELMAN
INGO JACKISCH
ALAN R. SCOTT

TABLE OF CONTENTS

	Page
INTRODUCTION	1
INDUCED POLARIZATION SURVEY	1
DISCUSSION OF RESULTS	2
CONCLUSIONS	3

Appendix I	Statement
Appendix II	Statement of Expenditures
Appendix III	Certification
Appendix IV	Assessment Report on Linecutting

ATTACHMENTS

Plate 207-81-1	General Location Map
Plate 207-81-2	Claims and Grid Map
Plate 207-81-3	Chargeability Contour Plan (n=1)
Plate 207-81-4	Apparent Resistivity Contour Plan (n=1)
Plate 207-81-5 to 11	Chargeability/Apparent Resistivity pseudosections.

COMINCO LTD.

EXPLORATION
NTS: 92I-7W

WESTERN DISTRICT
24 April 1981

GEOPHYSICAL REPORT

ON AN

INDUCED POLARIZATION SURVEY

G U M P P R O P E R T Y

INTRODUCTION

During the period March 3 - 19, 1981, some 19.5 line kilometers of multi-separation time domain induced polarization survey work was completed on the GUMP property. The work was done under contract for Cominco by Peter E. Walcott and Associates Ltd.

The GUMP property is located in the Highland Valley/Mamit Lake area of B.C., and the present survey was conducted on the ice over Mamit Lake. Plate 1 shows the general location of the property, and plate 2 the location of the survey lines with respect to the claims and geographic features.

This report describes the methodology of the survey, presents the data, and discusses the results.

INDUCED POLARIZATION SURVEY

A Crone IPR-4 IP receiver in combination with a Hunttec 7.5 kw motor generator/transmitter were used on the GUMP survey. Readings were taken in the time domain using a 2 second on/2 second off alternating square wave signal. The Crone receiver uses a delay time of 450 milliseconds and integration time of 450 msec. The Crone values were divided by a factor of 1.6 as an approximate conversion to the Hunttec M4 ($t_d = 120$ msec; $t_m = 900$ msec) which was used on a larger survey immediately west of Mamit Lake in the fall of 1980. The chargeability values are given in units of milliseconds.

The survey was of a regional reconnaissance nature with survey lines 400 meters apart, with some fill in to 200 meters. A pole dipole electrode array was used with an "a" spacing of 100 meters and "n" separations of 1,2,3, and 4. The current electrode was kept to the east of the potential electrodes on all survey lines.

For stations on the lake ice, a hole was drilled through the ice and a copper screen lowered into the water to make contact. Stations 41E to 49E on line 16S were surveyed both with the screen in the water and with the screens lowered into the sediments below the water. Repeatability of the two methods was very good (see plate 207-81-7).

The westernmost portions of lines 4S to 24S overlap with the fall 1980 M4 survey. The converted Crone values agree quite well with the M4 values, as indicated on the pseudosections.

The apparent resistivity values are given in units of ohm meters and were calculated from the relation:




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

where V is the voltage across the measuring dipole during the current (I) on period, and K is a geometric factor dependant on the "a" spacing and "a" separation.

In constraining the new grid to fit spacially into the old lines on the west and the power line and road on the east, it was found the station interval had to be drafted slightly less than 100 meters.

DISCUSSION OF RESULTS

The induced polarization survey results are plotted in pseudosection format on accompanying plates 207-81-5 to 11. The chargeability response has been categorized on the sections using the same response levels as the 1980 GUMP survey, namely:

	Strong IP high (10 msecs at near separation)
	Moderate IP high (8-10 msecs at near separation)
	Weak IP high (5-8 msecs at near separation) 5 msecs. at further separation

These categories appear to be somewhat too low for the present survey, as the majority of the Mamit Lake survey area has values of greater than 5 msecs., that is the present survey area has a higher background chargeability than the larger GUMP area surveyed in 1980.

The n=1 chargeability and apparent resistivity values are also presented in contour plan form on plates 207-81-3 and 4 respectively.

The chargeability anomalies have been labelled from D to K. Anomalies D to I have already been discussed in the previous report (Feb. 1981) and will not be considered here. The only changes made have been to join G and H, and to isolate the southern extremity of H.

Anomaly I has been found to continue east across the lake. It remains partially open to the east, completely open to the north, and joins with anomaly J to the south.

Anomaly J trends in the same direction as H and has high chargeability readings (9.0 msecs.).

Anomaly K also has strong chargeability readings. This anomaly could possibly join with J to the north and remains open to the south and east.

Taken as an aggregate these anomalies seem to delineate 3 intersecting zones. Anomalies D,E, and the southern extremity of H, anomalies G,H, and J, and anomalies I and J all form linear structures radiating from K.

There is little correlation with the resistivity and chargeability plans. The north-south resistivity trend for one is in a completely different direction. Resistivity highs or lows do not correlate consistently with chargeability highs. A large resistivity low occurs in, and in the direct vicinity of, Mamit Lake, probably due to lake or valley sediments.

There is occasionally a large error between coincident readings in the 1980 and 1981 surveys. This has been attributed to slightly different dipole spacings used between the surveys and the possibility that the 1981 lines are displaced from eastern end of the 1980 lines.

The power line and/or pipeline to the east of Mamit Lake have some influence on the readings on various lines. The pseudo-sections on lines 2200S, 2600 S, and 3600S show definite cultural effects. The areas of anomalies I,J, and K in which the power line occurs are therefore suspect to this outside influence.

CONCLUSIONS

Chargeability anomalies H and I from the 1980 IP survey have been followed across Mamit Lake. Anomalies I and K remain open to the north, south, and east. Three linear structures which include a combination of anomalies D,E,H, anomalies G,H,J, and anomalies I and J all intersecting at anomaly K seem to indicate a "W" like structure.

The resistivity plan of the first separation does not correlate with the chargeabilities. The trend appears north-south, which is similar to the 1980 magnetics survey. A resistivity low occurs in the area of Mamit Lake.

Respectively submitted:

Ingo Jackisch
Ingo Jackisch, Geophysicist

Alan R. Scott
Alan R. Scott, Geophysicist

Endorsed for release by:

D. W. Hedde
for G. Harden, Manager

Distribution: Mining Recorder (2) Exploration, Western District
Western District (1)
Geophysics file (1)
Vernon Office (1)

IJ/mh

APPENDIX I

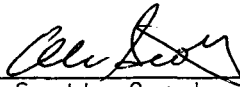
IN THE MATTER OF THE B.C. MINERAL ACT
AND IN THE MATTER OF A GEOPHYSICAL PROGRAMME
CARRIED OUT ON PORTIONS OF THE MJC MINERAL CLAIMS
ON THE GUMP PROPERTY
LOCATED AT MAMIT LAKE IN THE NICOLA MINING DIVISION
OF THE PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY
N.T.S.: 921-7

S T A T E M E N T

I, Alan R. 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 the annexed hereto and marked as "Appendix II" to this statement is a true copy of expenditures incurred on geophysical survey on the GUMP Property;
3. THAT the said expenditures were incurred for the purpose of mineral exploration of the above noted claims between the 3rd day and 19th day of March, 1981.

Signed: _____


Alan R. Scott, Geophysicist

APPENDIX II

STATEMENT OF EXPENDITURES

G U M P P R O P E R T Y

(Induced Polarization Survey)

1.	Contract Geophysics (Peter E. Walcott & Assoc. Ltd.) Invoice No. 1535	\$11,684.21
----	---	-------------

2.	Data Processing, report preparation, supervision	1,350.00
----	---	----------

	TOTAL EXPENDITURES	<u>\$13,034.21</u>
--	--------------------	--------------------

	<u>INCLUDING LINECUTTING</u>	<u>11760.50</u>
		24794.71

IEK

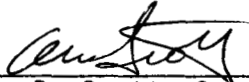
APPENDIX III

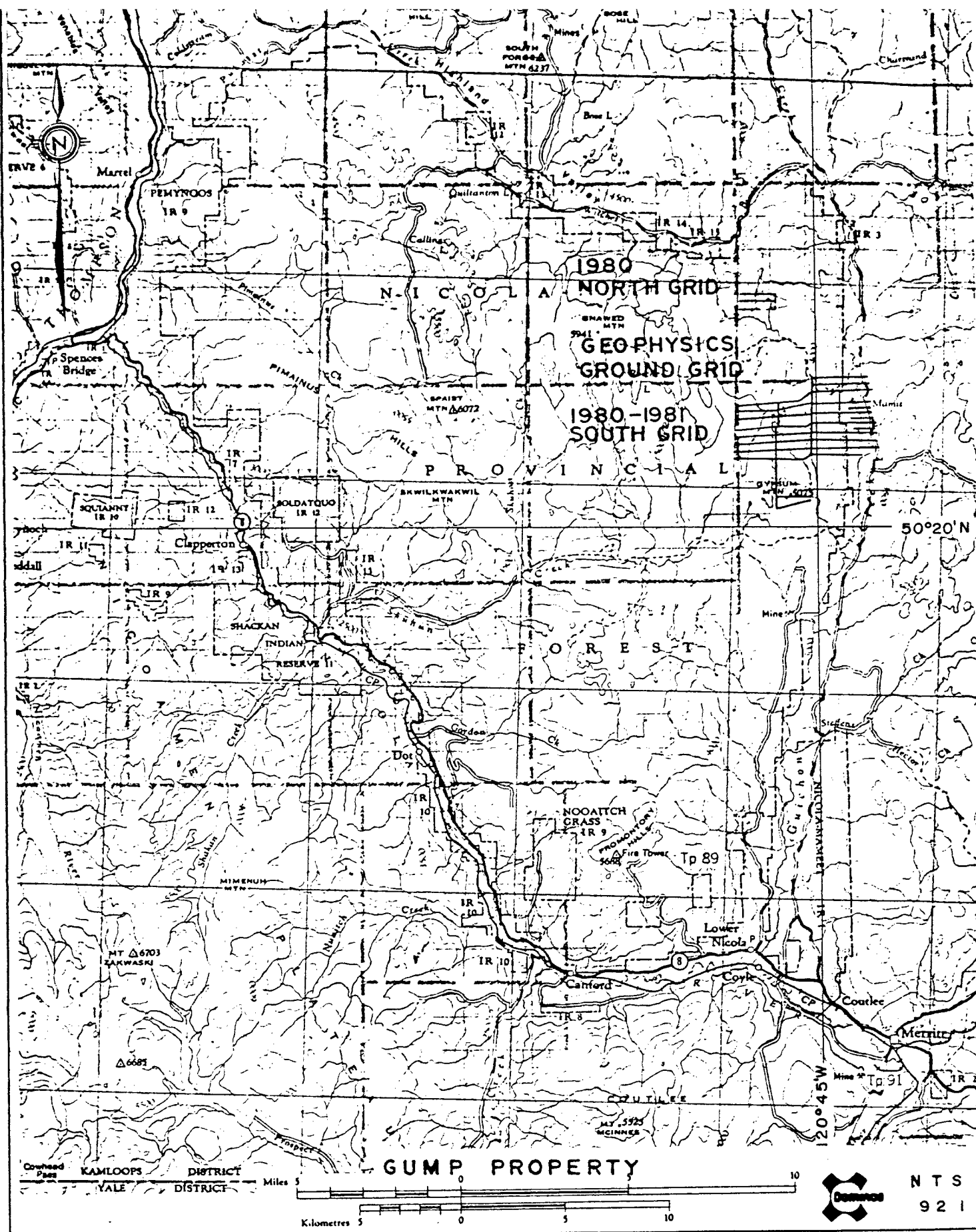
C E R T I F I C A T I O N

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

1. THAT I graduated from the University of British Columbia in 1970
with a B.Sc. in Geophysics;
2. THAT 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. THAT I have been practising my profession for the past eleven years.

Signed: _____


Alan R. Scott, Geophysicist



KAMLOOPS DISTRICT
VALE DISTRICT



NTS
921

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

LOCATION MAP
NICOLA M. D., B. C.

Scale: 1: 250,000 Date: FEB 1981 Plate: 207-81-1

COMINCO LTD.

EXPLORATION
NTS: 92I/7W

WESTERN DISTRICT
March 18, 1981

ASSESSMENT REPORT
OF LINECUTTING
ON THE GUMP PROPERTY

(Antler 1-7, Score 1, Lake 1&2
Elf 1, 3-8, MJC 1-3, Tom, Kam 1-4,
Ore 1&2, Jet 1-8, Bud 1-4, Mag 1&2,
Set 1-6, Ford 1&2, Snow 1-8, Dan 1&2,
Claims)

HIGHLAND VALLEY AREA, NICOLA M.D., B.C.

(Work performed February 8 - March 1, 1981)

LATITUDE: 50⁰23'N

LONGITUDE: 120⁰50'W

REPORT BY:

M.J. CASSELMAN

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
LOCATION AND ACCESS	1
TOPOGRAPHY AND VEGETATION	1
OWNERSHIP	2
LINECUTTING	2
 <u>APPENDIX</u>	
APPENDIX "A" Statement of Expenditure	4
APPENDIX "B" Statement of Qualifications	5
 <u>ATTACHMENTS</u>	
Plate 1 Claim Location Map	
Plate 2 Grid	

COMINCO LTD.

EXPLORATION
NTS: 92I/7W

WESTERN DISTRICT
March 18, 1981

ASSESSMENT REPORT

OF LINECUTTING

ON THE GUMP PROPERTY

(Antler 1-7, Score 1, Lake 1&2,
Elf 1, 3-8, MJC 1-3, Tom, Kam 1-4,
Ore 1&2, Jet 1-8, Bud 1-4, Mag 1&2,
Set 1-6, Ford 1&2, Snow 1-8, Dan 1&2,
Claims)

HIGHLAND VALLEY AREA, NICOLA M.D., B.C.

INTRODUCTION

During the interval of February 8th to March 1st, 1981, cut lines and a baseline were established on the Gump property by D. Martinson Linecutting and Staking Ltd. The linecutting represents an extension of a grid established by Cominco Ltd. in 1979 and 1980 and is to facilitate an IP survey which will commence in June, 1981. The E-W oriented crosslines and the baseline were flagged and blazed. The crosslines were spaced at 400 meter intervals and no distances were marked along these lines as requested by the IP crew. The baseline is the extension of one of the previously established surveyed control lines.

LOCATION AND ACCESS

The Gump property is situated on the east side of the Guichon Creek Batholith about 30 km north of Merritt. The property extends east-west from just east of Chataway Lake to just east of Mamit Lake and north-south from about 3.0 km SE of Gypsum Lake to just north of Gump Lake. Good road access exists to most of the east side of the property via the Merritt to Logan Lake highway or by dirt roads extending from this highway just south and north of Mamit Lake. Access to the west and central parts of the property is through the network of roads extending from either the Chataway Lake road which runs north from the Craigmont Mine access road or from the Billy Lake road which runs south from the Highland Valley highway, about 6 km west of Logan Lake.

TOPOGRAPHY AND VEGETATION

The claim area comprises moderately steep to rolling topography locally dissected by north-south striking gulleys. The area is mostly covered by fir and jack pine. Elevations range from about 1050 m to 1450 m above sea level.

OWNERSHIP

The Gump property, located in the Nicola Mining District, consists of 32 claims totalling 261 units. These claims are 100% Cominco owned with the exception of the Score, Lake, Tom, Kam, Ore, Jet, Bud, Mag, Set, Ford, Snow and Don claims which are optioned. Listed below are the claims, record numbers and number of units.

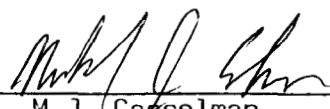
<u>CLAIM</u>	<u>RECORD NO.</u>	<u>NUMBER OF UNITS</u>
Elf 1	47	8
Elf 3	49	12
Elf 4	50	10
Elf 5	809	20
Elf 6	810	2
Elf 7	811	20
Elf 8	893	20
Antler 1	601	18
Antler 2	602	20
Antler 3	603	20
Antler 4	604	20
Antler 5	605	12
Antler 6	812	18
Antler 7	813	15
MJC 1	847	18
MJC 2	848	12
MJC 3	889	16
Lake 1	536	20
Lake 2	537	20
Score 1	534	20
Tom	522	4
Kam 1 to 4	547 to 550	4
Ore 1 & 2	578, 579	2
Jet 1 to 6	591 to 596	6
Bud 1 to 4	597 to 600	4
Mag 1 & 2	642, 643	2
Jet 7 & 8	644, 645	2
Set 1 to 6	668 to 673	6
Ford 1 & 2	674, 675	2
Snow 1 to 6	836 to 841	6
Dan 1 & 2	842, 843	2
Snow 7 & 8	849, 850	2


LINECUTTING


In 1979 and 1980 one baseline and two surveyed control lines, all north-south oriented, were put in as controls for the E-W oriented crosslines cut in those same years. The 1981 linecutting program represents an extension of this earlier established grid. The baseline extends south for 7.5 km from the Legal Corner Post of the Score 1 claim which represents the 4+00N position on

the line. The two control lines traverse the length of the property, parallel, and are located 1.5 km east and west, respectively, from the baseline. The east control is 13 km long with a 1 km offset in the northern part in order to circumnavigate a cliff. The west control line is 11 km long.

In 1981 72.7 km of E-W oriented crosslines and 2 km of N-S oriented baseline were cut. The crosslines are spaced at 400 m intervals. The baseline is the south continuation of the eastern surveyed control line, but was itself not surveyed. All crosslines and the baseline were blazed and flagged. No distances were placed along the E-W lines as requested by the geophysicists who will conduct the IP survey. The cut lines and the baseline cost \$155/km.

Report by: 
M.J. Casselman
Project Geologist

Endorsed by: 
F.L. Wynne
Senior Geologist

Approved for
Release by: 
for G. Harden
Manager, Western District
Exploration

MJC/sw

Distribution:

Department of Mines(2)✓
W.D. File(1)
Vernon File(1)

APPENDIX "A"

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

Statement of Expenditure for Linecutting on the Gump Property

SUPERVISION

M.J. Casselman - February 9 & 23, 1981 (2 days @ \$198/day) \$ 396.00

REPORT WRITING

M.J. Casselman - March 17 & 18, 1981 (2 days @ \$198/day) 396.00

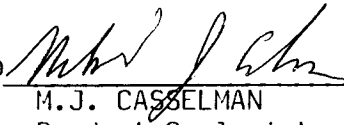
LINECUTTING

Crosslines - 70.7 km @ \$155/km 10,958.50

Baseline - 2.0 km @ \$155/km 310.00

TOTAL 12,060.50

SIGNED



M.J. CASSELMAN
Project Geologist

APPENDIX "B"

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT


STATEMENT OF QUALIFICATIONS

I, MICHAEL J. CASSELMAN, OF THE CITY OF VERNON, BRITISH COLUMBIA, HEREBY CERTIFY:

1. THAT I AM A GEOLOGIST, RESIDING AT 14056 PONDEROSA DRIVE, VERNON, BRITISH COLUMBIA, WITH A BUSINESS ADDRESS AT 4405 - 28th STREET, VERNON, BRITISH COLUMBIA.
2. THAT I GRADUATED WITH B.Sc. AND M.Sc. DEGREES IN GEOLOGY FROM THE UNIVERSITY OF BRITISH COLUMBIA IN 1969 AND CARLETON UNIVERSITY IN 1977.
3. THAT I HAVE PRACTISED GEOLOGY WITH COMINCO LTD. FROM 1969 TO THE PRESENT.

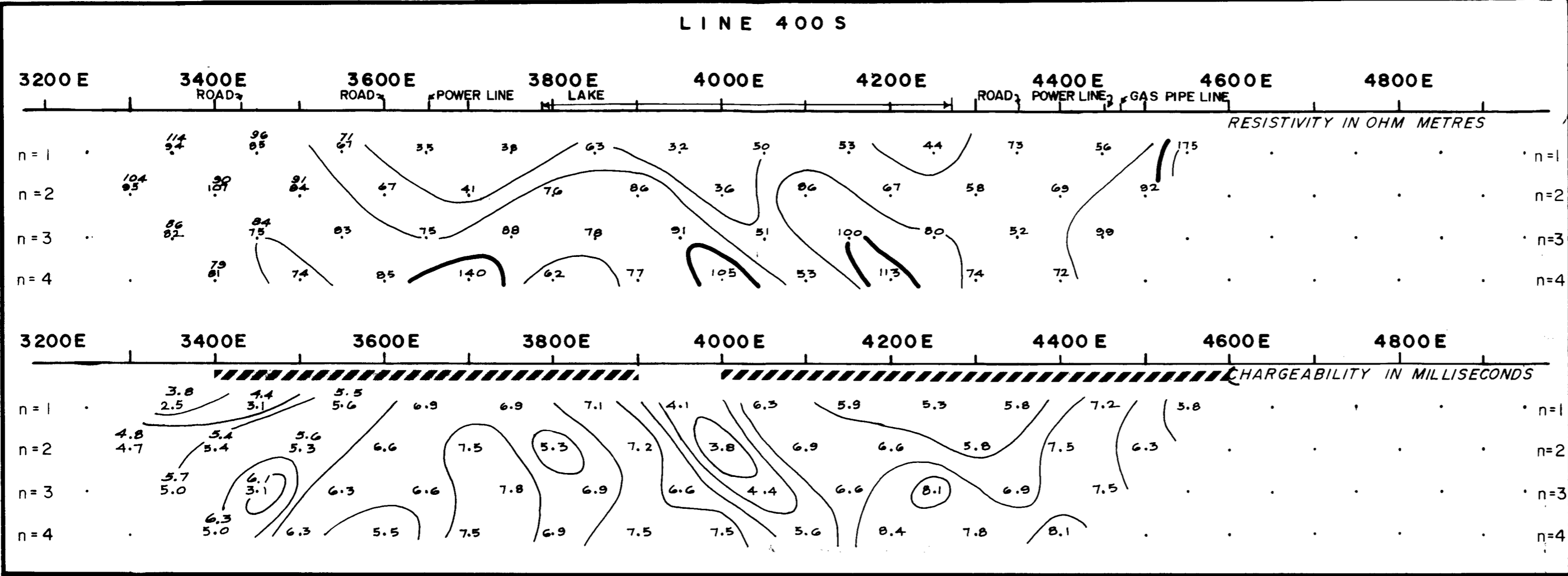
DATED THIS 17th day of March, 1981 at Vernon, British Columbia.

SIGNED

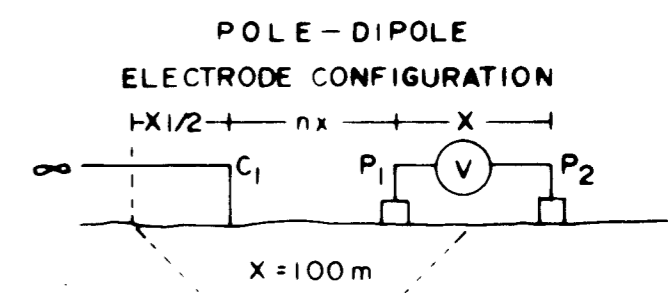


Michael J. Casselman, M. Sc.

COMINCO LTD. GUMP PROPERTY NICOLA M.D., B.C.

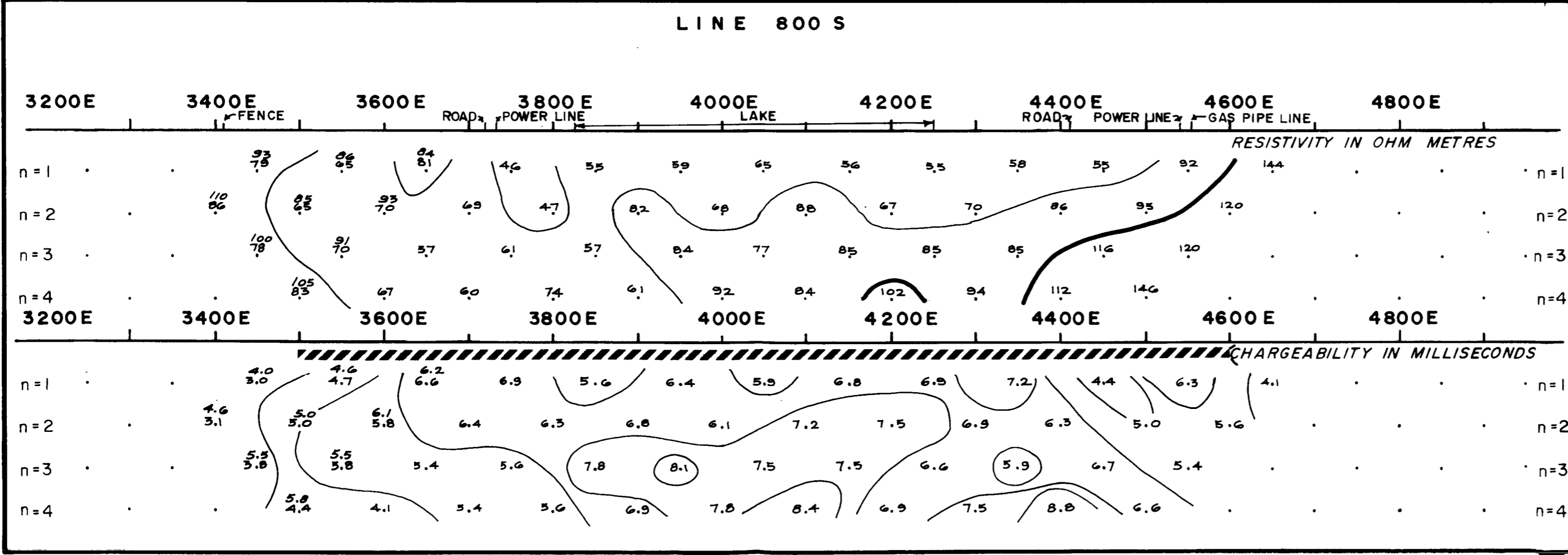


LINE NO. 400 S
LINE NO. 800 S



CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE

PLOTTING POINT
n = 1, 2, 3, 4



CHARGEABILITY (IP) INTERPRETATION

STRONG CHARGEABILITY HIGH
 MODERATE CHARGEABILITY HIGH
 WEAK CHARGEABILITY HIGH
 IP HIGH AT FURTHER SEPARATIONS

1980 SURVEY BY JOHN LLOYD GEOPHYSICS LTD
ARE THE *SLANTED* READINGS ABOVE THE
1981 READINGS DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :
APP RES. — 1,1.5,2,3,5,7.5,10 Ohm metres APPROVED _____
APP CHARG. — 1.0 milliseconds

DATE _____

TRANSMITTER — HUNTEC 7.5 Kw UNIT
RECEIVER — CRONE IPR 4 (VALUES
HAVE BEEN CONVERTED
TO APPROXIMATE HUNTEC M4
BY DIVIDING BY 1.6)

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9211

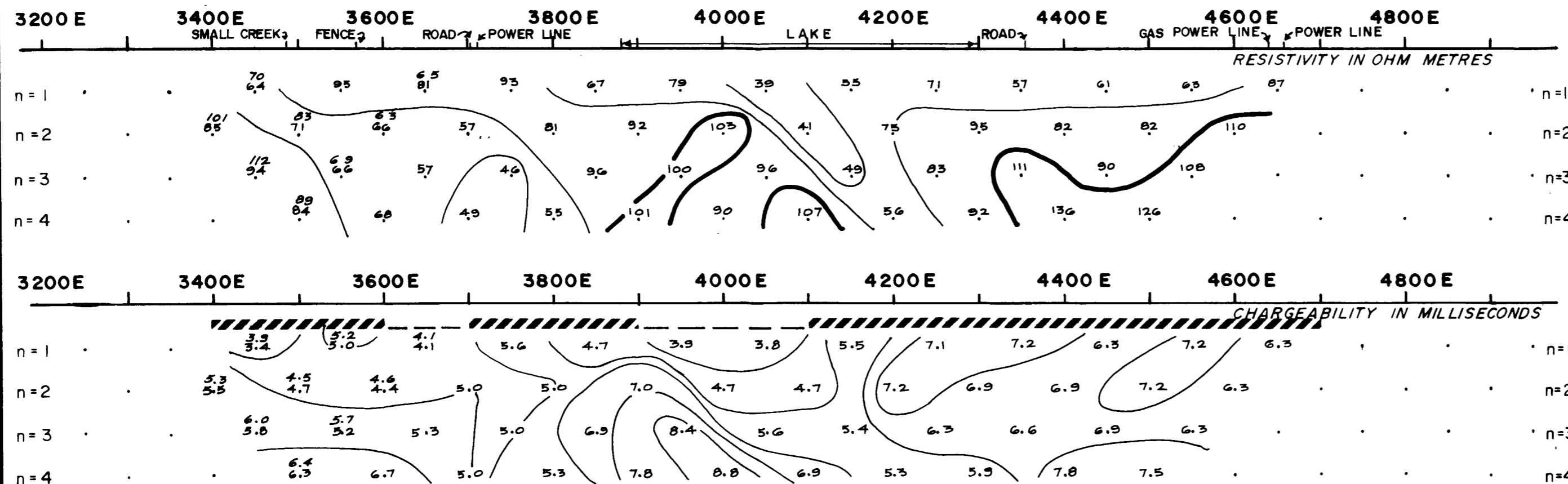
INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY PETER E. WALCOTT & ASSOCIATES

LINE 400 S
LINE 800 S

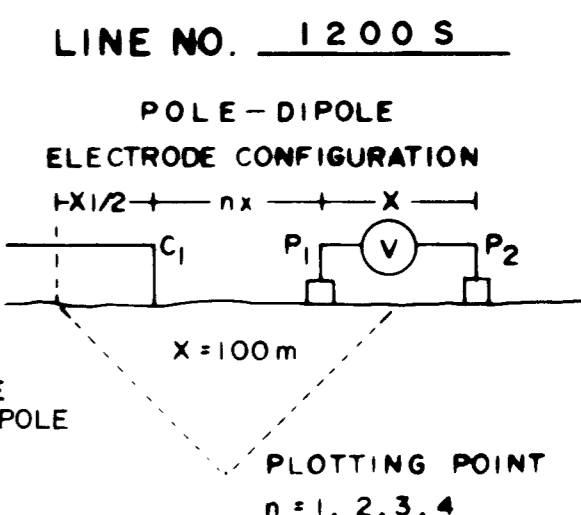
LINE 1200 S

N.T.S. 92-1-7

DWG. NO.207-81-6



**COMINCO LTD.
GUMP PROPERTY
NICOLA M.D., B.C.**



CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE

- CHARGEABILITY (IP) INTERPRETATION**
- STRONG CHARGEABILITY HIGH
 - MODERATE CHARGEABILITY HIGH
 - WEAK CHARGEABILITY HIGH
 - IP HIGH AT FURTHER SEPARATIONS

1980 SURVEY BY JOHN LLOYD GEOPHYSICS LTD
ARE THE *SLANTED* READINGS ABOVE THE
1981 READINGS

DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :

APP RES. — 1,1.5,2,3,5,7.5,10ohm metres

APP CHARG. — 1.0 milliseconds

APPROVED _____

DATE _____

TRANSMITTER — HUNTEC 7.5 Kw UNIT

RECEIVER — CRONE IPR 4 (VALUES
HAVE BEEN CONVERTED
TO APPROXIMATE HUNTEC M4
BY DIVIDING BY 1.6)

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

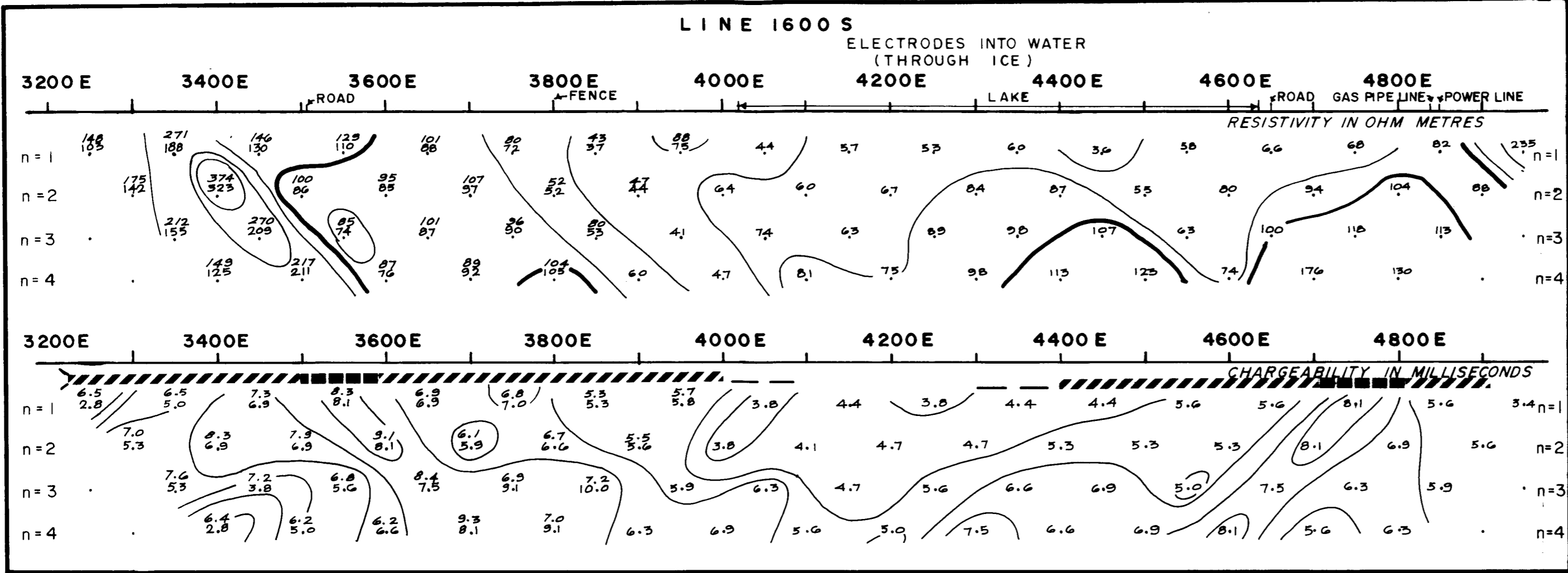
9211

NO.

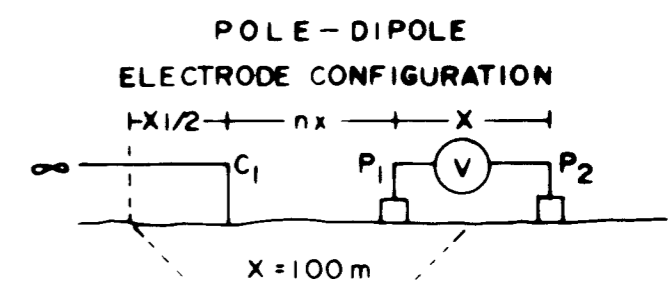
INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY PETER E. WALCOTT & ASSOCIATES

LINE 1200 S

COMINCO LTD. GUMP PROPERTY NICOLA M.D., B.C.

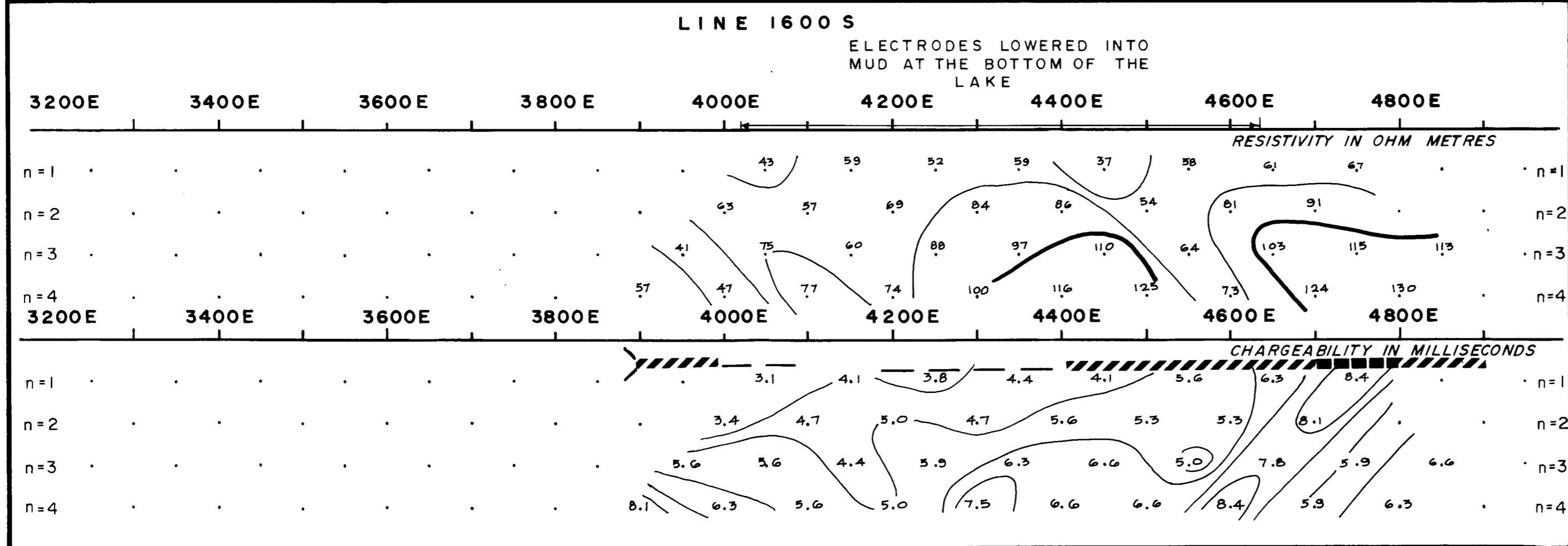


LINE NO. 1600 S
LINE NO. 1600 S



CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE

PLOTTING POINT
n = 1, 2, 3, 4



CHARGEABILITY (IP) INTERPRETATION

STRONG CHARGEABILITY HIGH
MODERATE CHARGEABILITY HIGH
WEAK CHARGEABILITY HIGH
IP HIGH AT FURTHER SEPARATIONS

1980 SURVEY BY JOHN LLOYD GEOPHYSICS LTD.
ARE THE *SLANTED* READINGS ABOVE THE
1981 READINGS
DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :
APP RES. — 1,1.5,2,3,5,7.5,10ohm metres
APP CHARG. — 1.0 milliseconds
APPROVED _____

DATE _____

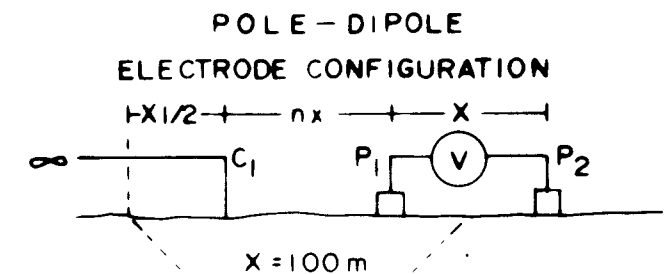
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9211
NO.

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY PETER E. WALCOTT & ASSOCIATES

LINE 1600 S
LINE 1600 S

COMINCO LTD. GUMP PROPERTY NICOLA M.D., B.C.

LINE NO. 1800 S
LINE NO. 2000 S



CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE

PLOTTING POINT
n = 1, 2, 3, 4

CHARGEABILITY (IP) INTERPRETATION

- STRONG CHARGEABILITY HIGH
- MODERATE CHARGEABILITY HIGH
- WEAK CHARGEABILITY HIGH
- IP HIGH AT FURTHER SEPARATIONS

1980 SURVEY BY JOHN LLOYD GEOPHYSICS LTD.
ARE THE *SLANTED* READINGS ABOVE THE
1981 READINGS

DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :

APP RES. — 1,1.5,2,3,5,7.5,10ohm metres
APP CHARG. — 2.0 milliseconds

APPROVED _____

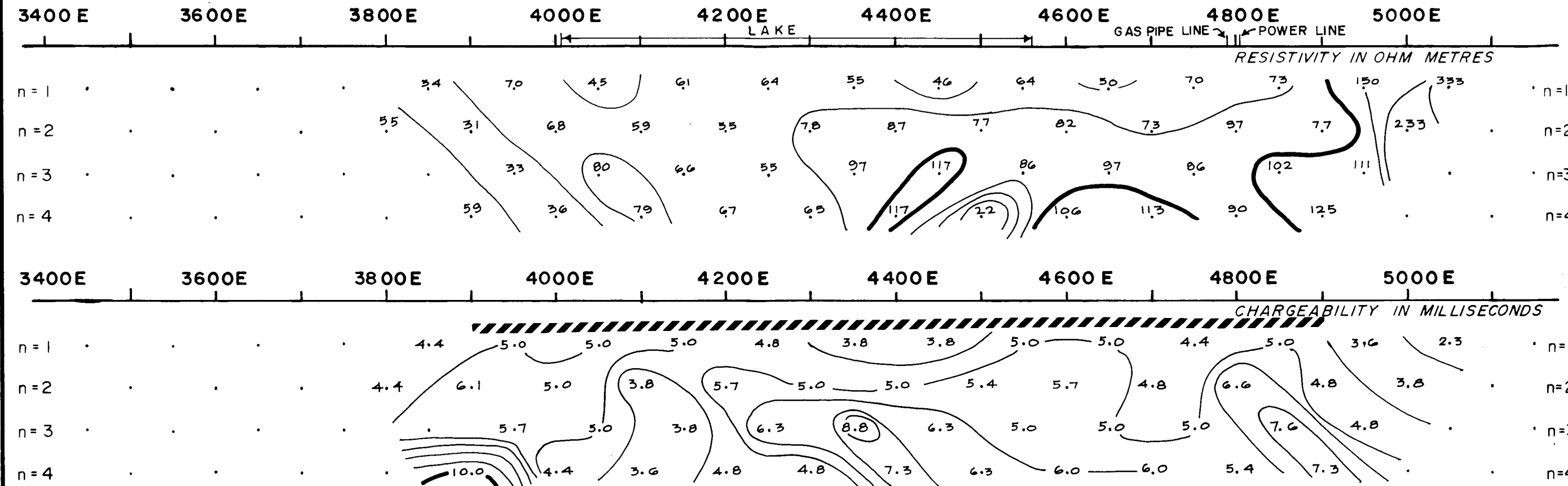
DATE _____

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9211
NO.

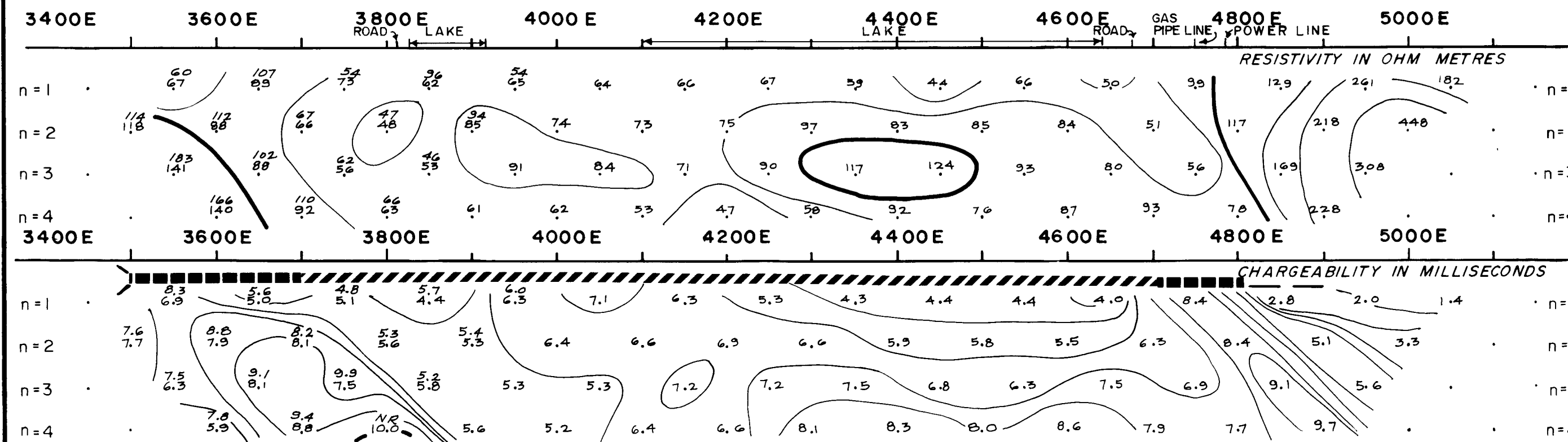
TRANSMITTER — HUNTEC 7.5 Kw UNIT
RECEIVER — CRONE IPR 4 (VALUES
HAVE BEEN CONVERTED
TO APPROXIMATE HUNTEC M4
BY DIVIDING BY 1.6)

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY PETER E. WALCOTT & ASSOCIATES

LINE 1800 S

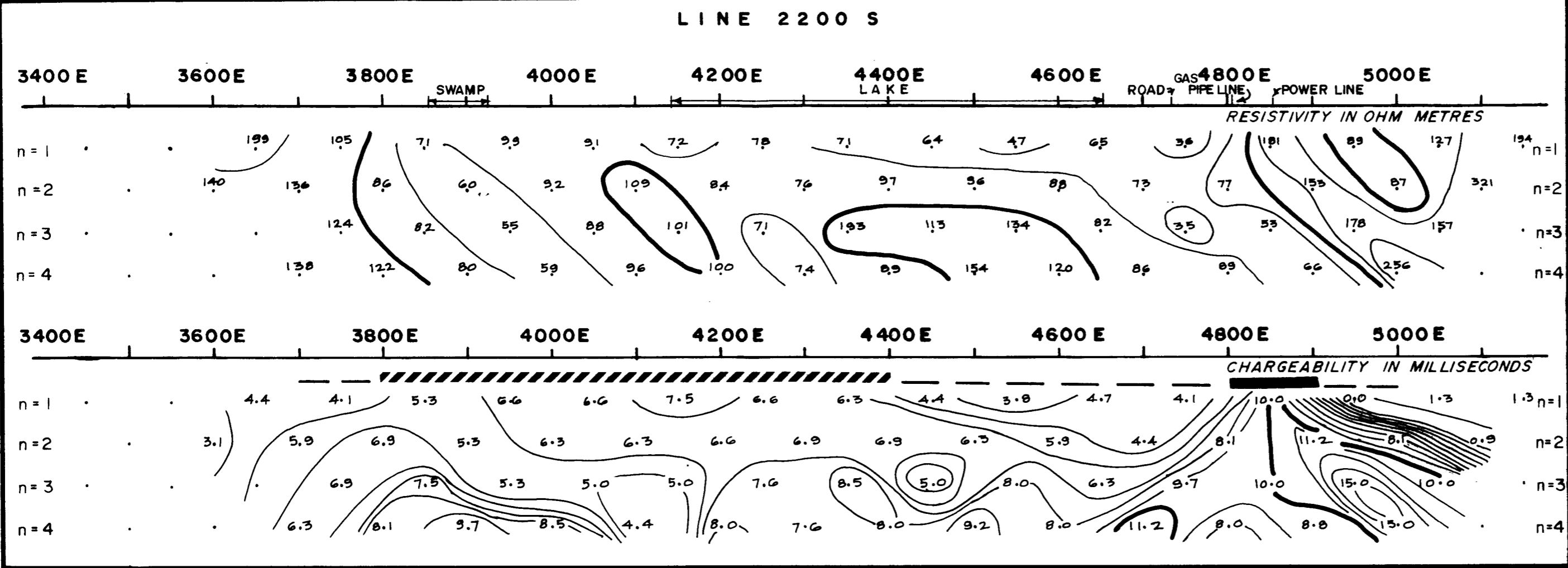


LINE 2000 S

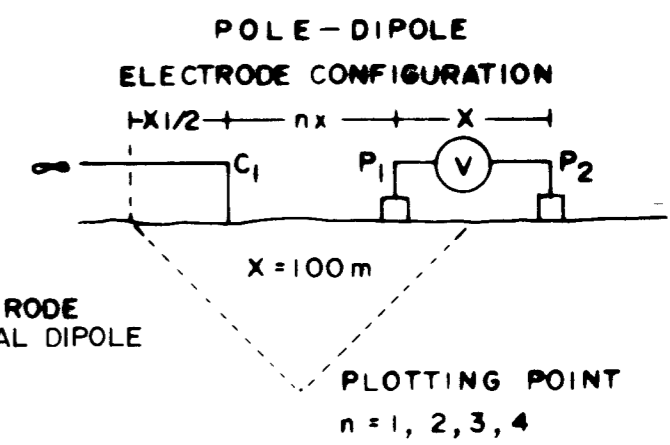


LINE 1800 S
LINE 2000 S

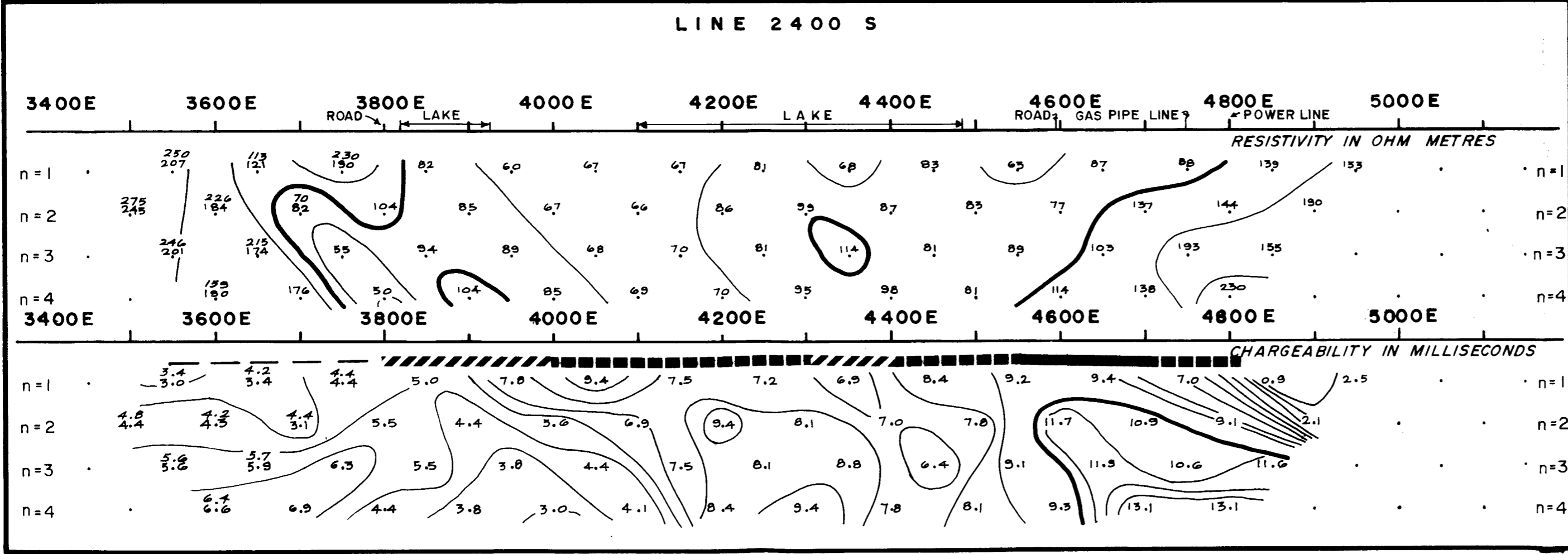
COMINCO LTD. GUMP PROPERTY NICOLA M.D., B.C.



LINE NO. 2200 S
LINE NO. 2400 S



CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE



CHARGEABILITY (IP) INTERPRETATION

- STRONG CHARGEABILITY HIGH
- MODERATE CHARGEABILITY HIGH
- WEAK CHARGEABILITY HIGH
- IP HIGH AT FURTHER SEPARATIONS

1980 SURVEY BY JOHN LLOYD GEOPHYSICS LTD.
ARE THE *SLANTED* READINGS ABOVE THE
1981 READINGS

DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :

APP RES. — 1,1.5,2,3,5,7.5,10 Ohm metres
APP CHARG. — 2.0 milliseconds

APPROVED _____

DATE _____

TRANSMITTER — HUNTEC 7.5 Kw UNIT
RECEIVER — CRONE IPR 4 (VALUES
HAVE BEEN CONVERTED
TO APPROXIMATE HUNTEC M4
BY DIVIDING BY 1.6)

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

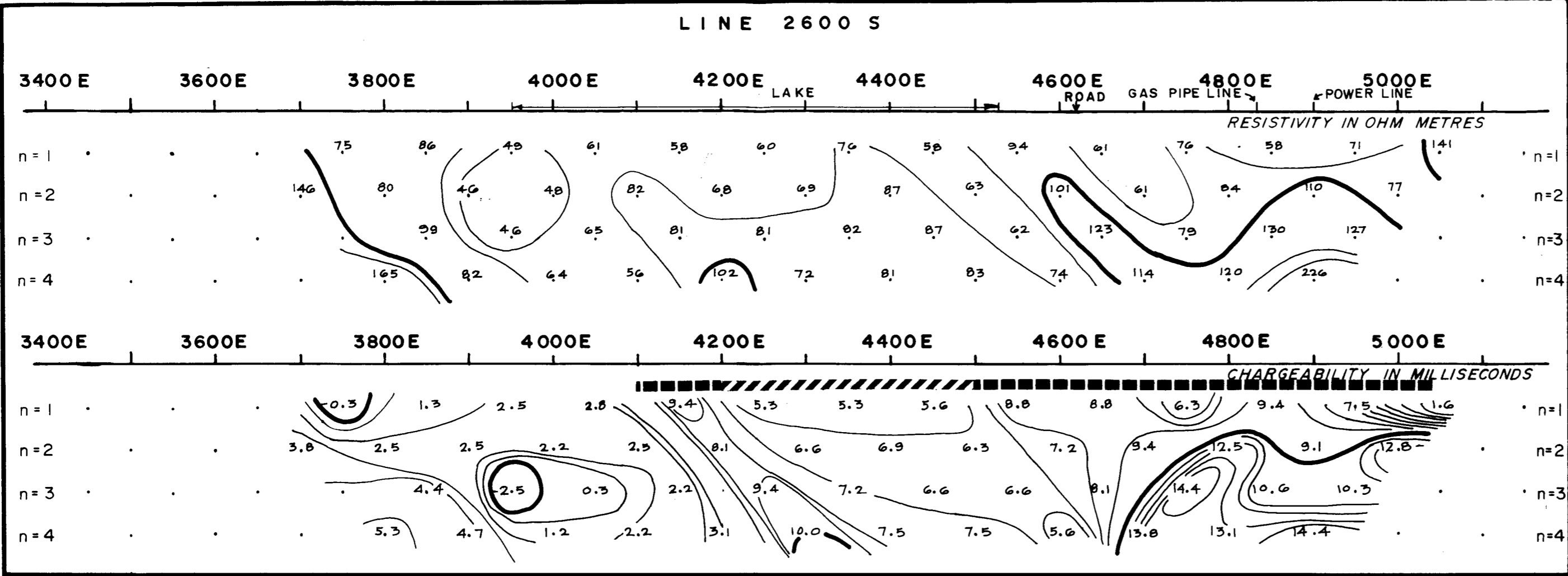
9211

NO.

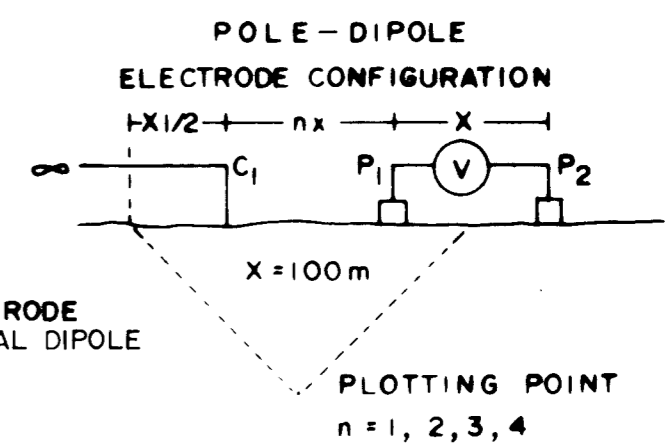
**INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY PETER E. WALCOTT & ASSOCIATES**

LINE 2200 S
LINE 2400 S

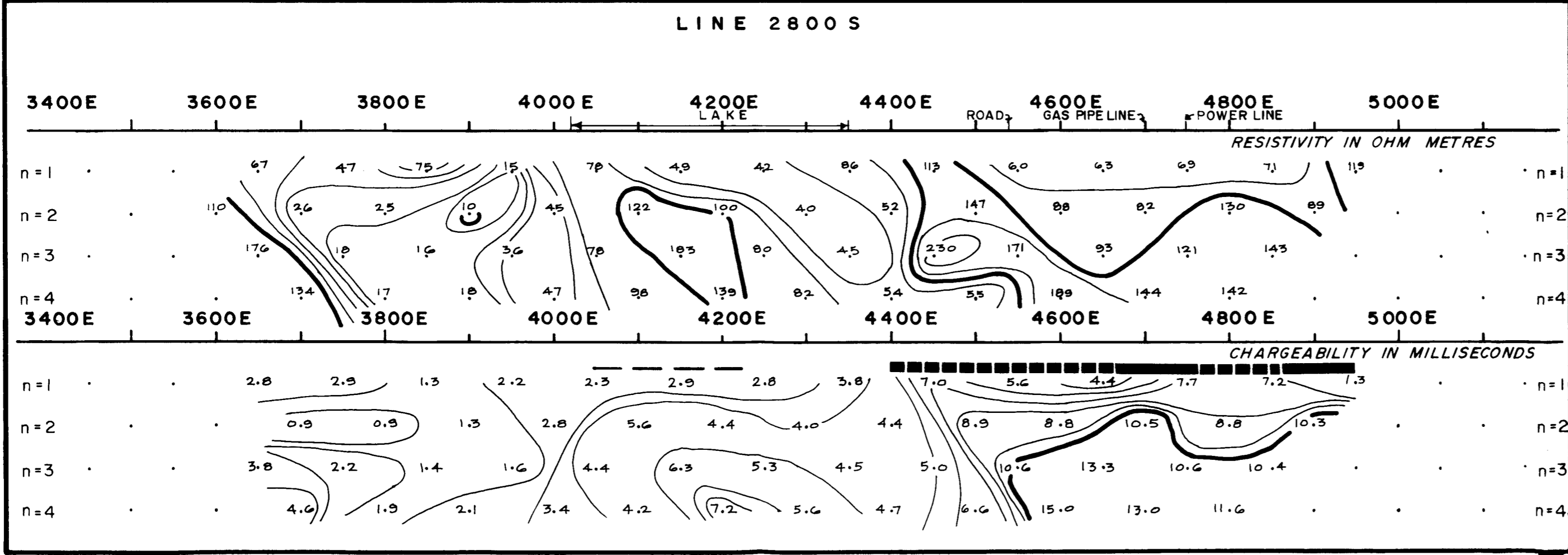
COMINCO LTD. GUMP PROPERTY NICOLA M.D., B.C.



LINE NO. 2600 S
LINE NO. 2800 S



CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE



CHARGEABILITY (IP) INTERPRETATION

- STRONG CHARGEABILITY HIGH
- MODERATE CHARGEABILITY HIGH
- WEAK CHARGEABILITY HIGH
- IP HIGH AT FURTHER SEPARATIONS

DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :

APP RES. — 1, 1.5, 2, 3, 5, 7.5, 10 Ohm metres
APP CHARG. — 2.0 milliseconds

APPROVED _____

DATE MINERAL RESOURCES BRANCH

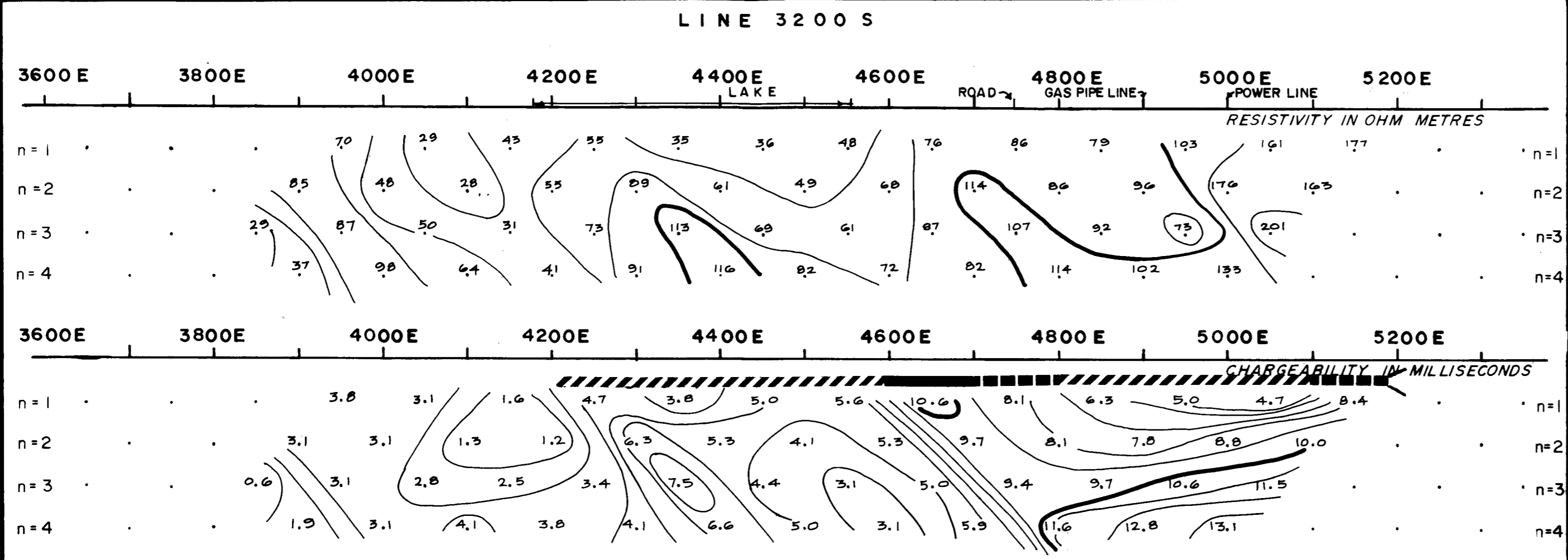
TRANSMITTER — HUNTEC 7.5 Kw UNIT
RECEIVER — CRONE IPR 4 (VALUES
HAVE BEEN CONVERTED
TO APPROXIMATE HUNTEC M4
BY DIVIDING BY 1.6)

ACCOMPLISHMENT REPORT
9211
NO.

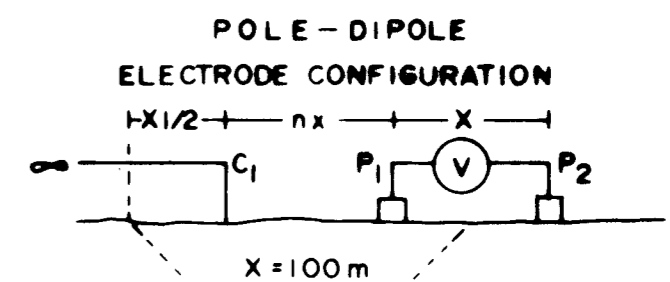
INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY PETER E. WALCOTT & ASSOCIATES

LINE 2600 S
LINE 2800 S

COMINCO LTD. GUMP PROPERTY NICOLA M.D., B.C.



LINE NO. 3200 S
 LINE NO. 3600 S

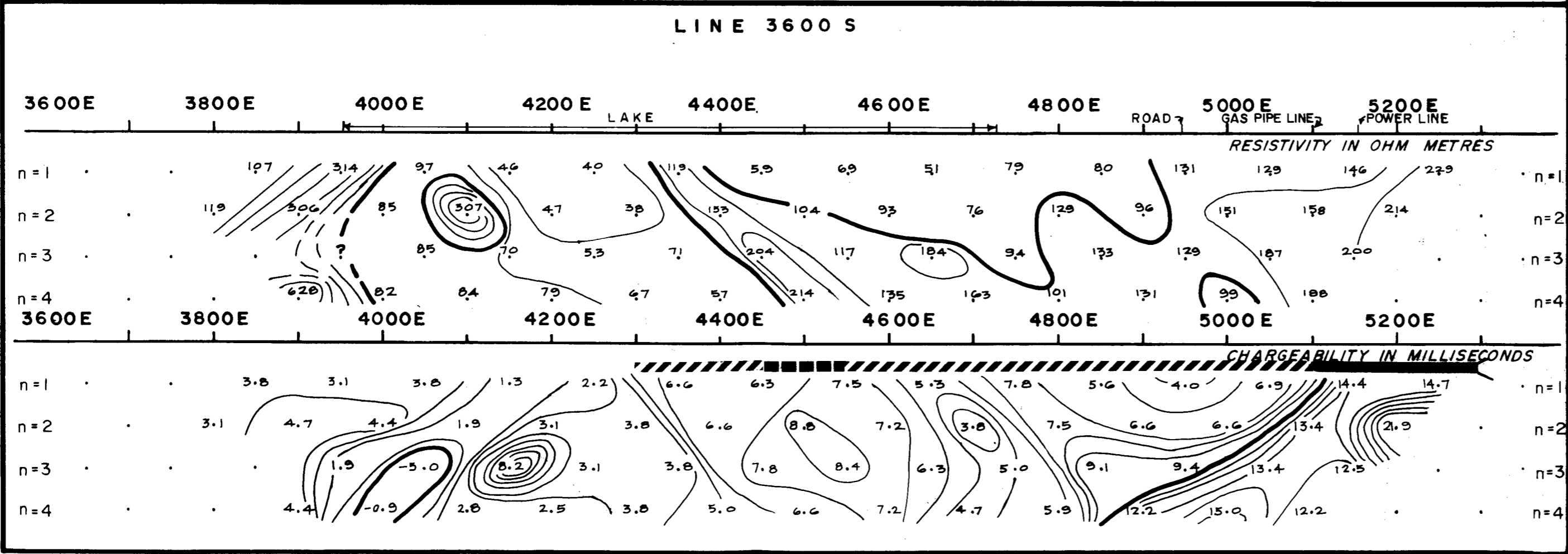


CURRENT ELECTRODE
EAST OF POTENTIAL DIPOLE

PLOTTING POINT
n=1, 2, 3, 4

CHARGEABILITY (IP) INTERPRETATION

- STRONG CHARGEABILITY HIGH
- MODERATE CHARGEABILITY HIGH
- WEAK CHARGEABILITY HIGH
- IP HIGH AT FURTHER SEPARATIONS



DATE SURVEYED MARCH 1981

CONTOUR INTERVALS :

APP RES. — 1,1.5,2,3,5,7.5,10ohm metres
 APP CHARG. — 2.0 milliseconds

APPROVED _____

DATE _____

TRANSMITTER — HUNTEC 7.5 Kw UNIT
 RECEIVER — CRONE IPR 4 (VALUES
 HAVE BEEN CONVERTED
 TO APPROXIMATE HUNTEC M4
 BY DIVIDING BY 1.6)

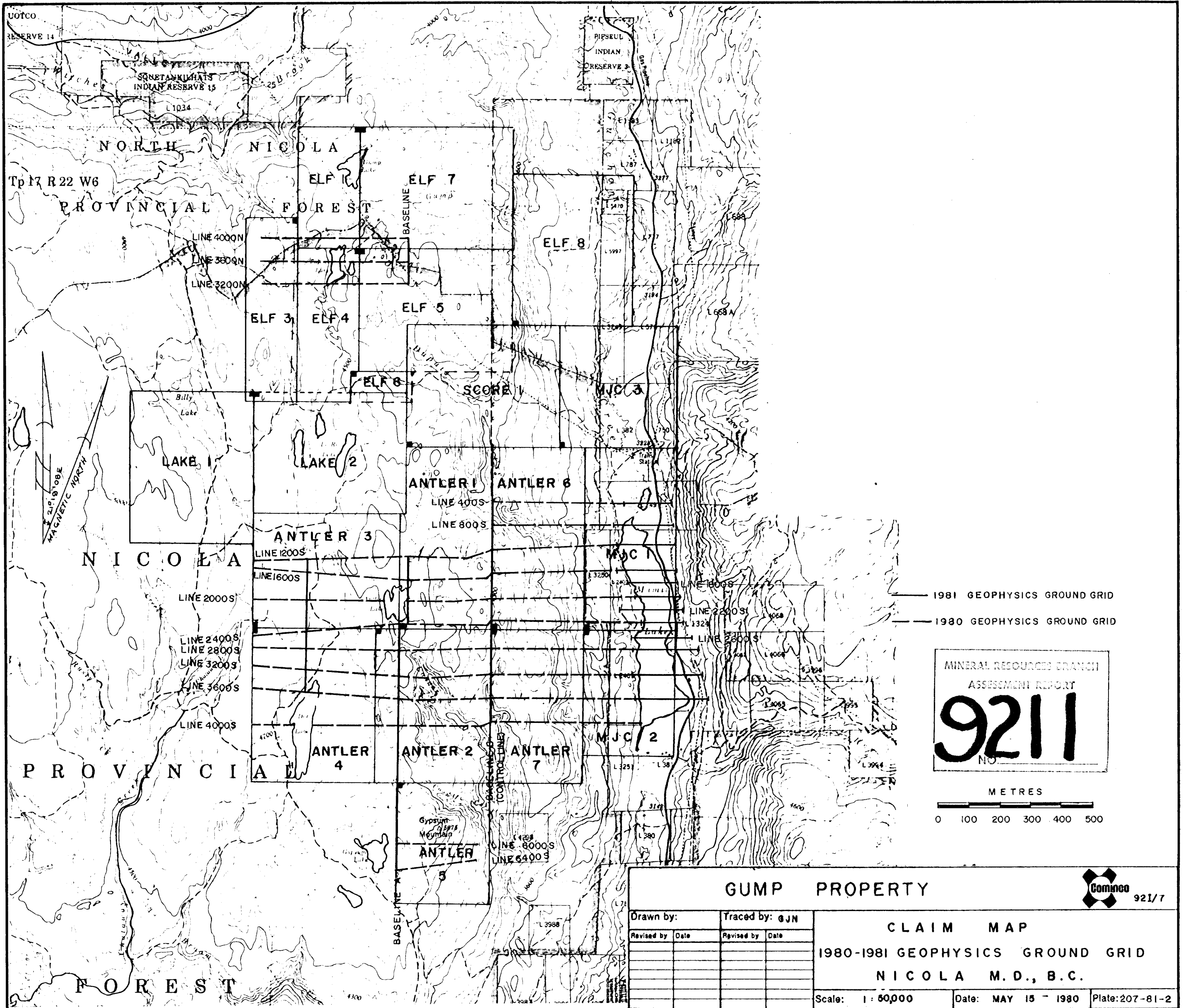
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

9211

NO.

INDUCED POLARIZATION AND RESISTIVITY SURVEY
 SURVEYED BY PETER E. WALCOTT & ASSOCIATES

LINE 3200 S
LINE 3600 S

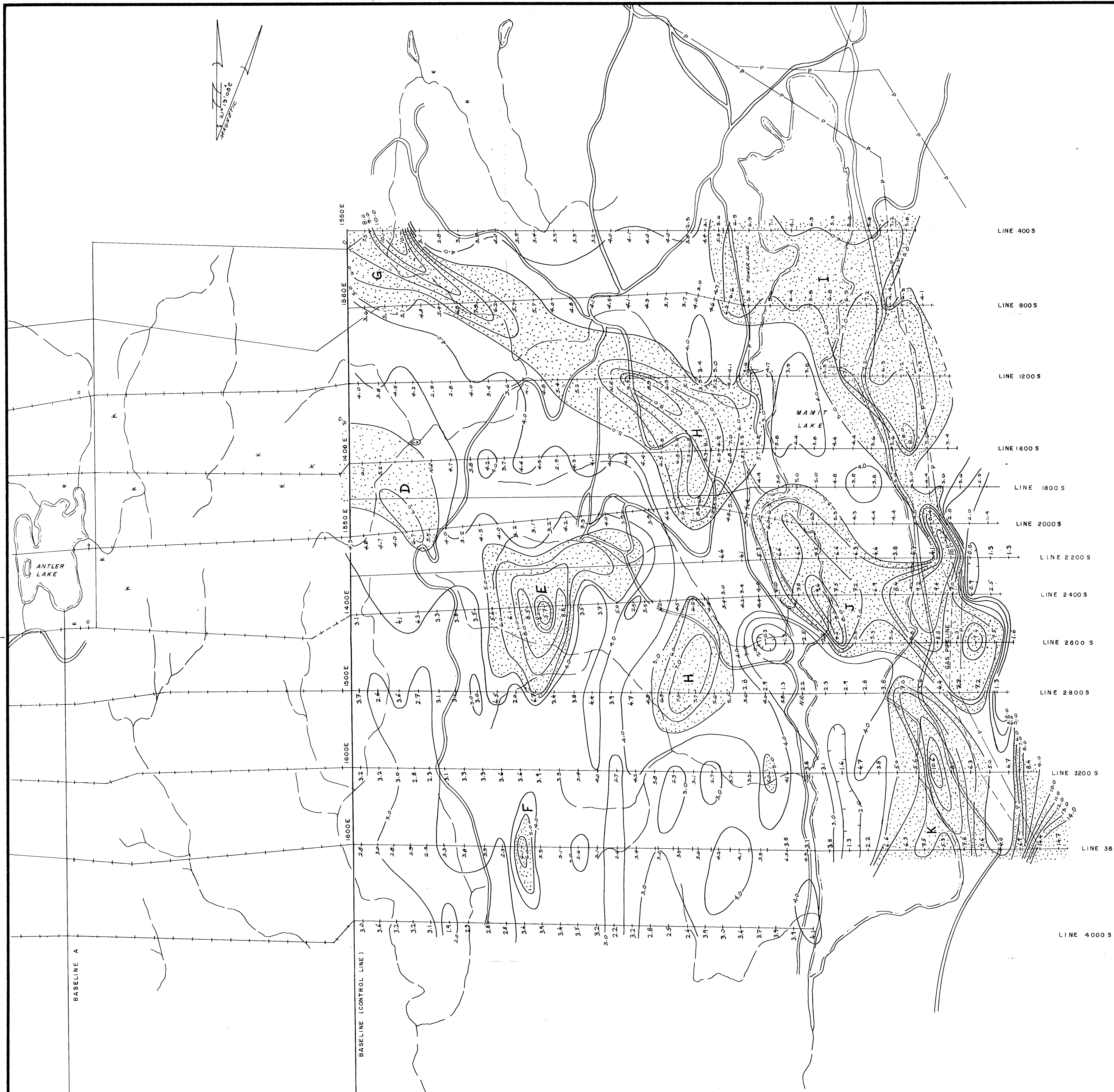
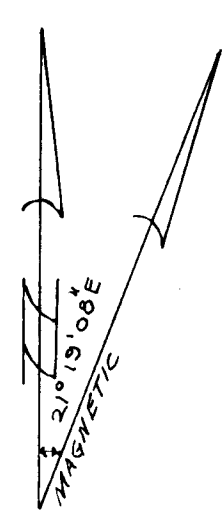


— 1981 GEOPHYSICS GROUND GRID
 - - - 1980 GEOPHYSICS GROUND GRID

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
9211
 NO.



GUMP PROPERTY				921/7	
Drawn by:	Traced by: gjn			CLAIM MAP	
Revised by	Date	Revised by	Date		
				1980-1981 GEOPHYSICS GROUND GRID	
				NICOLA M.D., B.C.	
				Scale: 1:50,000	Date: MAY 15 - 1980
					Plate: 207-81-2

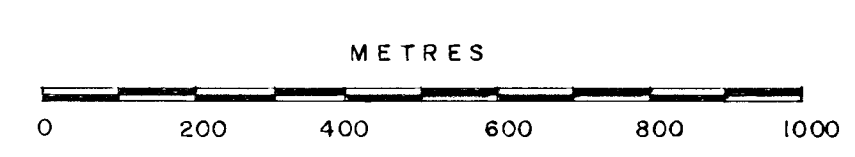


LINE 400 S
 LINE 800 S
 LINE 1200 S
 LINE 1600 S
 LINE 1800 S
 LINE 2000 S
 LINE 2200 S
 LINE 2400 S
 LINE 2600 S
 LINE 2800 S
 LINE 3200 S
 LINE 3600 S
 LINE 4000 S

- P — POWER LINE
- - - GAS PIPELINE
- LAKE
- CREEK
- SWAMP
- ROAD
- 1981 GEOPHYSICS GROUND GRID (PETER E. WALCOTT & ASSOCIATES)
- 1980 GEOPHYSICS GROUND GRID (LLOYD GEOPHYSICS LTD.)

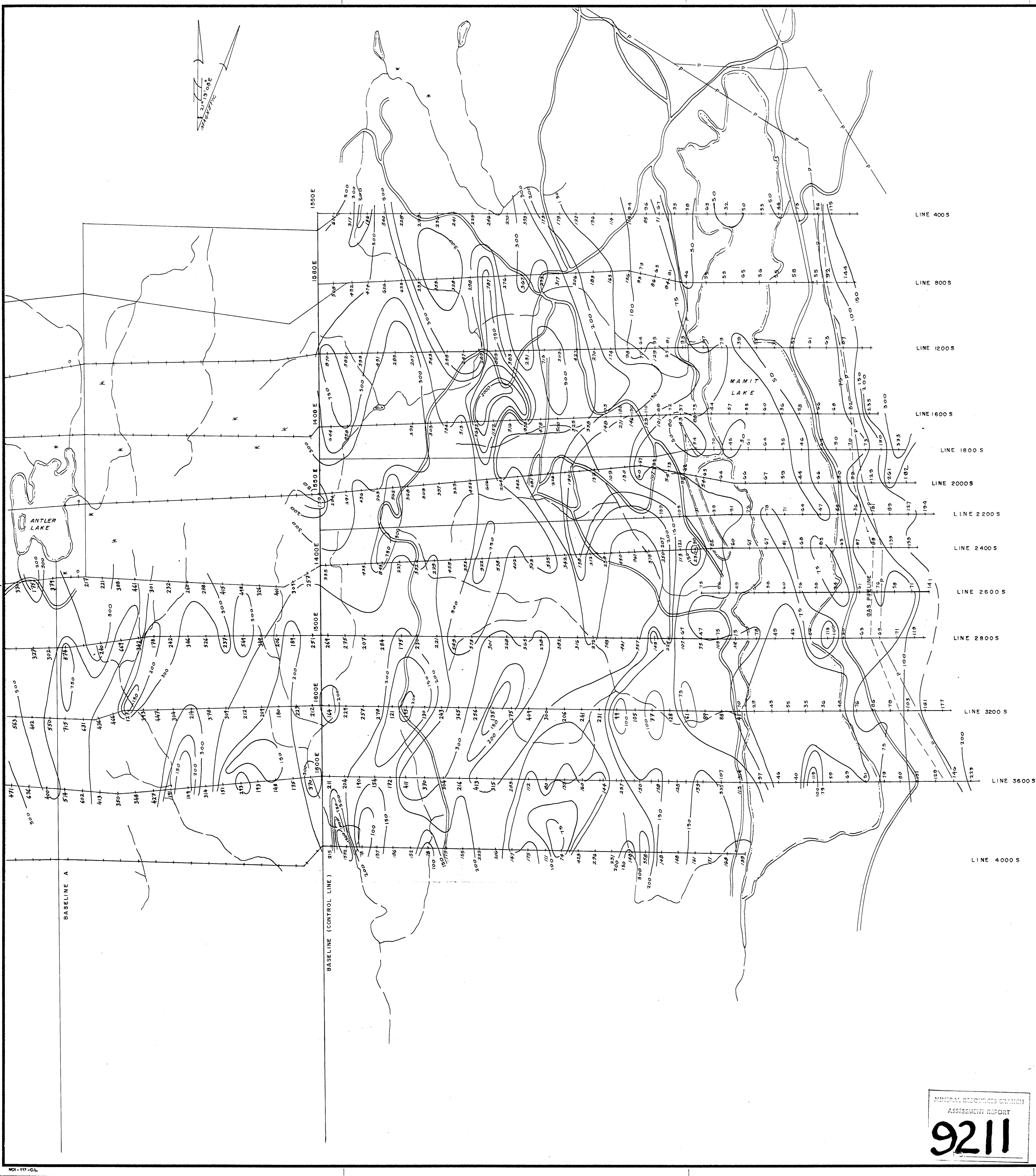
INSTRUMENT:
 TRANSMITTER HUNTEC 7.5 KW UNIT
 RECEIVER CRONE IPR 4 (VALUES HAVE BEEN CONVERTED TO APPROXIMATE HUNTEC M4 BY DIVIDING BY 1.6)

> 5.0 MILLISECONDS



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
9211

GUMP PROPERTY			
Drawn by:		Traced by:	
Revised by:	Date:	Revised by:	Date:
SOUTH GRID CHARGEABILITY IP, n=1 NICOLA M.D., B.C.			
Scale:	1:10,000	Date:	APRIL 1981
Plate:	207-81-3	FORM 210-0000	



LINE 400 S
 LINE 800 S
 LINE 1200 S
 LINE 1600 S
 LINE 1800 S
 LINE 2000 S
 LINE 2200 S
 LINE 2400 S
 LINE 2600 S
 LINE 2800 S
 LINE 3200 S
 LINE 3600 S
 LINE 4000 S

- P — POWER LINE
- - - GAS PIPELINE
- LAKE
- CREEK
- ≡ SWAMP
- == ROAD

123 456 123
 1981 GEOPHYSICS GROUND GRID
 (PETER E. WALCOTT & ASSOCIATES)

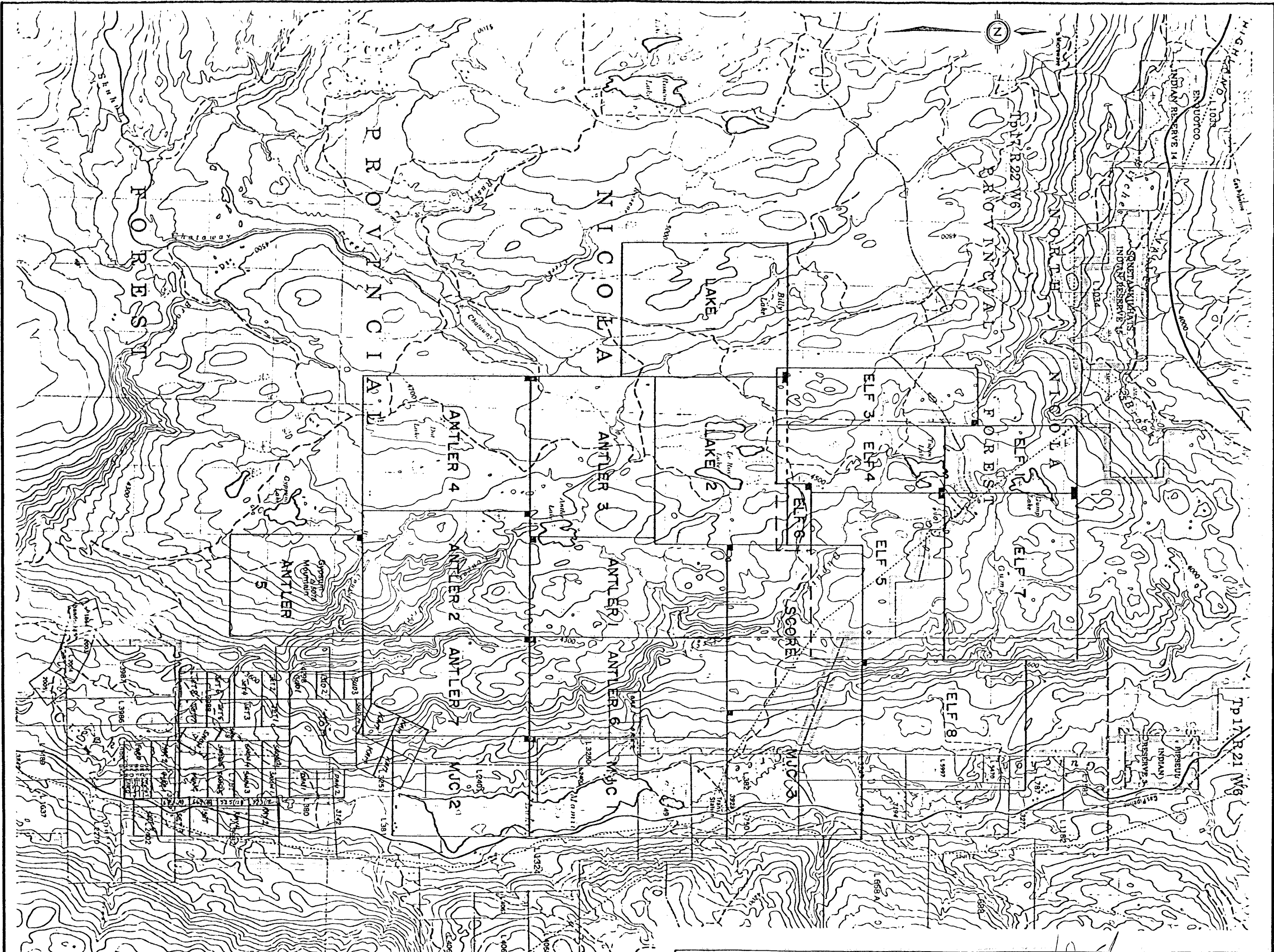
23 456 23
 1980 GEOPHYSICS GROUND GRID
 (LLOYD GEOPHYSICS LTD.)

INSTRUMENT:
 TRANSMITTER HUNTEC 7.5 KW UNIT
 RECEIVER CRONE IPR 4 (VALUES HAVE BEEN CONVERTED
 TO APPROXIMATE HUNTEC M4 BY DIVIDING BY 1.6)



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
9211

GUMP PROPERTY		NTS 92-1-7	
Drawn by:	Traced by:	SOUTH GRID	
Revised by:	Revised by:	RESISTIVITY, n = 1.	
		NICOLA M.D., B.C.	
		Scale: 1:10,000	Date: APRIL 1981
			Plate: 207-81-4



ASSESSOR'S REPORT
9211

GUMP PROPERTY				 921/7
Drawn by:	Traced by: GJN			
Revised by	Date	Revised by	Date	CLAIM LOCATION MAP

COMINGO 92117

GUMP PROPERTY

Drawn by: G.J.N.		Traced by:	
Revised by	Date	Revised by	Date

GRID

Scale: 1 : 50,000 Date: 19 MARCH 1981 Plate: B1-2

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

9211
NO.

LEGEND

- LINES CUT IN 1979 & 1980
- LINES CUT IN 1981

