

'85-10-#13430

LOGISTICS REPORT  
on an  
INDUCED POLARIZATION SURVEY

performed on the

RICK, GOLDMASTER AND IMPASSE CLAIMS  
JACOBIE LAKE AREA  
CARIBOO MINING DIVISION  
NTS93A/12  
52°18'N, 121°25'W

for

ASAMERA INCORPORATED

Geotrex Limited

S. WARDLAW, B.Sc.

Sidney, British Columbia  
October, 1984.

Job #4-121

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

13,430

part  
2 of 3

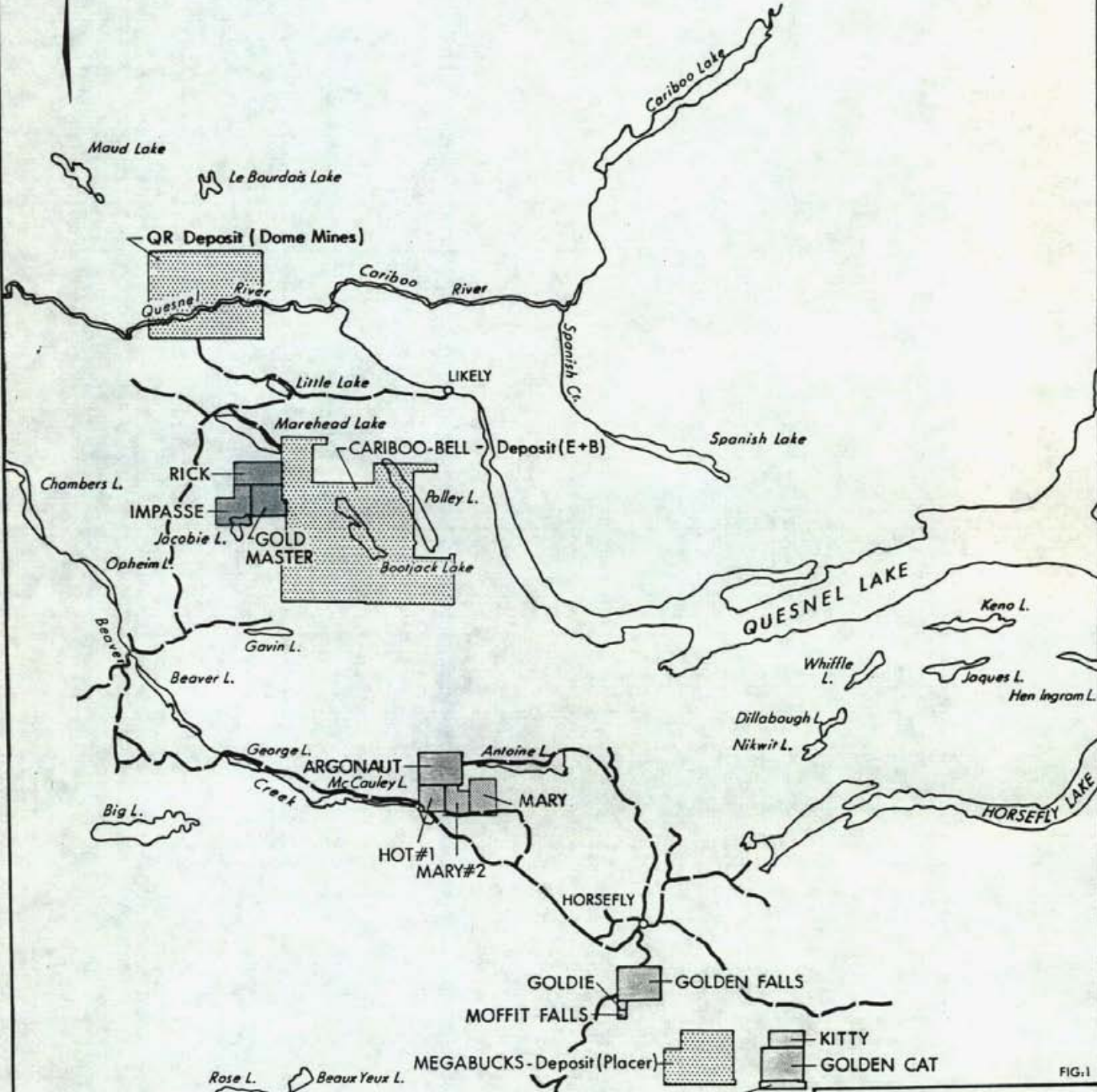
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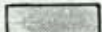
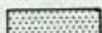

## I. INTRODUCTION

During the period from September 18 to September 25, 1984, Geoterrex Limited of 9865 West Saanich Road, Suite 107A, Sidney, British Columbia, V8L 3S1, conducted an induced polarization survey on the Rick claims on behalf of Asamera Incorporated, 2100 - 144 4th Avenue S.W., Calgary, Alberta, T2P 3N4.

A total of 8.7 line-kilometres were surveyed using the pole-dipole technique as well as two dipole-dipole arrays covering a total of 1.6 line-kilometres and one Schlumberger electrical sounding.



**LEGEND:**

-  ASAMERA CLAIM BLOCKS
-  PROPERTIES CONTAINING SIGNIFICANT DEPOSITS
-  ROADS

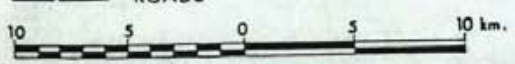


FIG. 1

<b>ASAMERA INC.</b>
LOCATION MAP
<b>CARIBOO - GOLD PROJECT</b>
QUESNEL LAKE, B.C.
NTS-93A/5,6,12

## II. PROPERTY AND OWNERSHIP

The Rick property is comprised of three claim blocks totalling approximately 2950 acres. The property was acquired in late 1983 through an outright cash purchase agreement, subject to a 7.5% NPI. There are no work commitments relating to the claims and in each case ownership is 100% Asamera. Property data is summarized in Table 1.

Table 1.

<u>Claim</u>	<u>Record #</u>	<u>Record Date</u>	<u>Unit *</u>	<u>Acreage</u>	<u>Expiry Date</u>
Rick	5132(9)	Sept.16/83	18	1112	Sept.16/86
Goldmaster	5100(8)	Aug. 23/83	20(12.92)	798	Aug. 23/86
Impasse	5102(8)	Aug. 23/83	20(16.77)	1036	Aug. 23/86

\*Figure in brackets indicates size of claim (approx.) after originally staked claim was reduced in size as a result of prior staking.

### III. LOCATION AND ACCESS

The property is situated in the Cariboo Mining Division, approximately 60 kilometres north of Williams Lake in south-central B.C. Good access onto the claims is provided by a network of logging roads leading from Horsefly, a small community in the centre of the project area, which is accessible by main roads from Williams Lake.

#### IV. EXPLORATION HISTORY

Although the copper showings in this historic gold placer mining area probably were known locally for decades, no record exists of their exploration before 1964 when Mastodon-Highland Bell Mines Limited, jointly with Leitch Gold Mines Limited, discovered copper oxides at the site of a prominent aeromagnetic anomaly indicated by newly published federal-provincial surveys.

Results of initial work led to the formation of a new company, Cariboo-Bell Copper Mines Limited, which began drilling in 1966 and was joined subsequently by a consortium of Japanese companies that later withdrew on recognition of metallurgical difficulties resulting from the degree of oxidation of the deposit. In 1969, Teck Corporation acquired control of Cariboo-Bell Copper Mines Limited. E & B began work on the claims in 1981 and acquired control of the property in 1982. Total drilling on the property amounts to 120,940 feet including 77,662 feet of diamond drilling.

Several other gold deposits in the area were originally tested for their porphyry copper potential. These include the Megabucks and Takom deposits which were staked as copper showings by Exploram in 1971. An initial program of reconnaissance I.P. and magnetic surveys, soil and rock sampling and diamond drilling outlined the two zones mentioned above which are currently being tested by Placer Development

Ltd.

In addition to the above, early in 1983 Dome announced they had defined one million tons grading 0.2 ounces per ton gold on their QR deposit and that they were embarking on a major drill program. Although the results of the drilling are not yet public, Dome's initial success prompted an extensive staking rush in the area during the last half of 1983 and at least one other significant find (Eureka) was made.

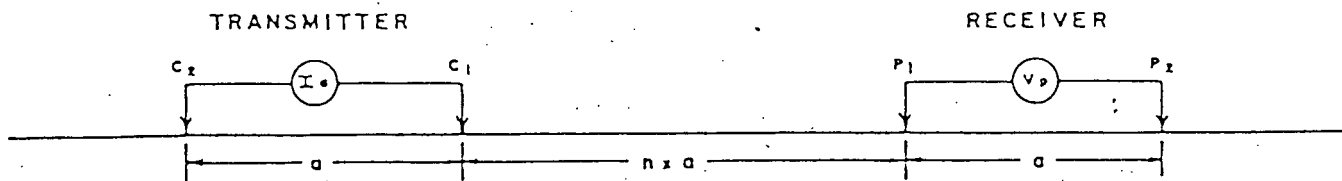


V. TOPOGRAPHY

The property lies in rolling terrain dissected by several small drainages flowing to the north which have locally cut steep gullies. In general, bedrock exposure is very sparse, seen almost exclusively in the south-central portion of the grid with the remainder covered by thick tills, sand and glacial-fluvial deposits. Thick coniferous forest and moderate undergrowth cover approximately half the grid with the rest having been logged and burned.

FIGURE 1

DIPOLE-DIPOLE ELECTRODE CONFIGURATION



- C<sub>1</sub>, C<sub>2</sub> ..... CURRENT ELECTRODES
- P<sub>1</sub>, P<sub>2</sub> ..... POTENTIAL ELECTRODES
- I<sub>a</sub> ..... APPLIED CURRENT
- V<sub>p</sub> ..... PRIMARY VOLTAGE
- a ..... DIPOLE LENGTH
- n ..... 1, 2, 3, ... etc.

APPARENT RESISTIVITY  $\rho_a = K_n V_p / I_a$

WHERE  $K_n = \pi a n (n+1) (n+2)$

PLOTTING OF MEASUREMENTS ON PSEUDO-SECTIONS

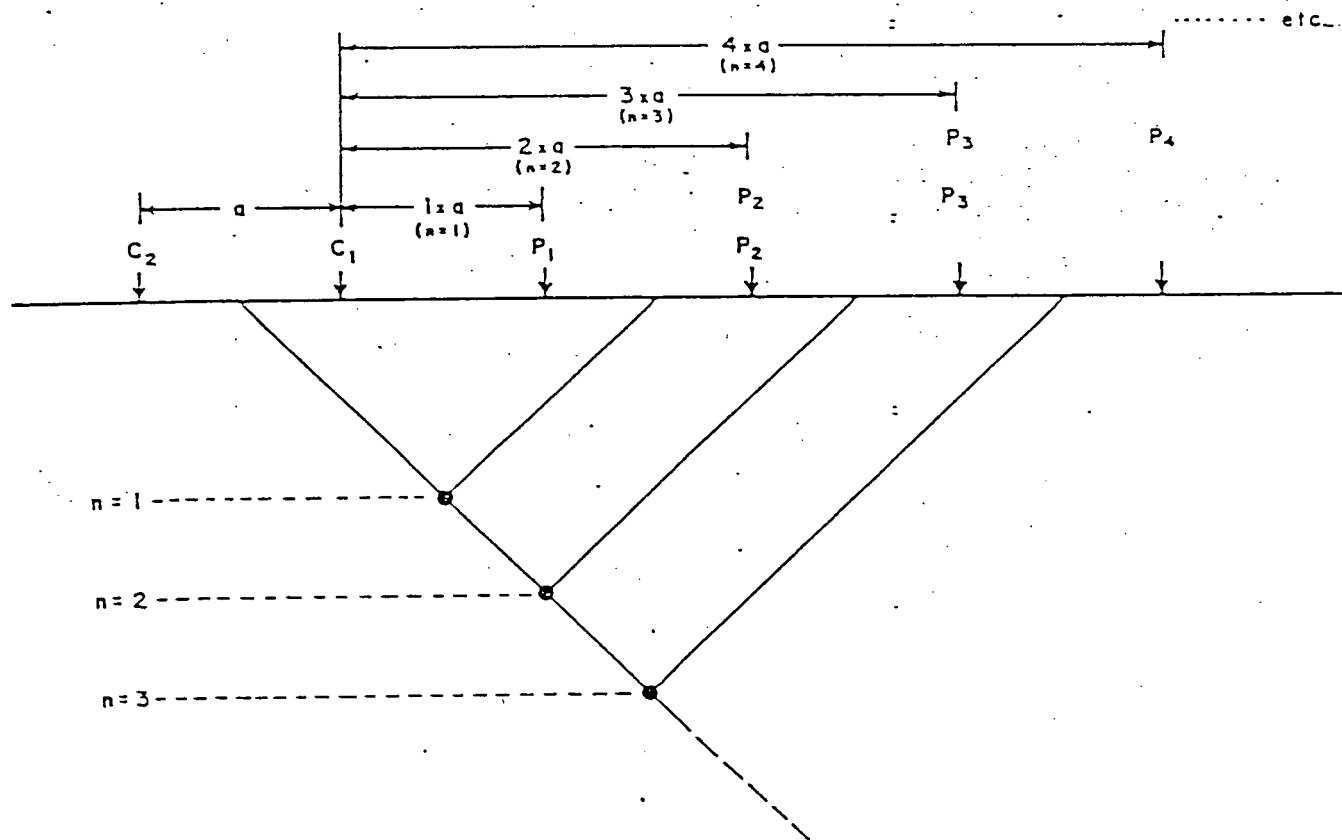
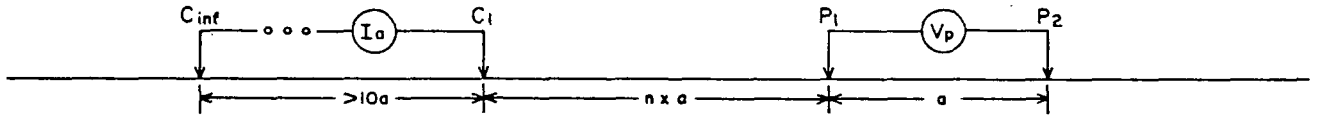


FIGURE 2

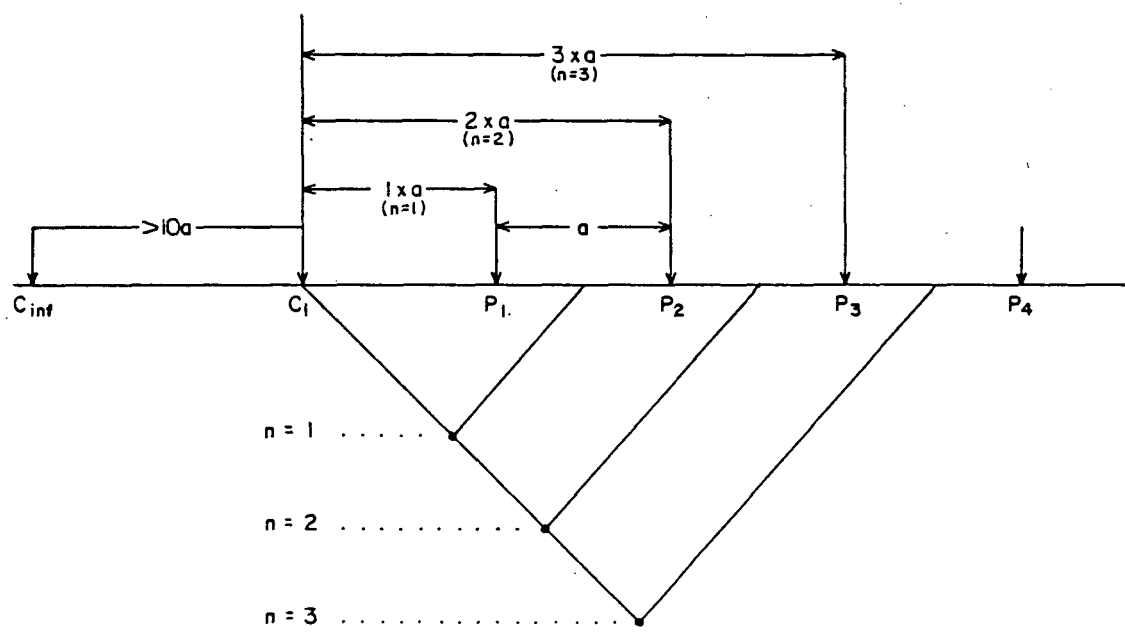
POLE-DIPOLE ELECTRODE CONFIGURATION



- $C_1$  ..... MOVING ELECTRODE
  - $C_{inf}$  ..... INFINITE ELECTRODE
  - $P_1, P_2$  ..... POTENTIAL ELECTRODES
  - $I_a$  ..... APPLIED CURRENT
  - $V_p$  ..... PRIMARY VOLTAGE
  - $a$  ..... DIPOLE LENGTH
  - $n$  ..... 1, 2, 3, ... etc.
- APPARENT RESISTIVITY  $\rho_a = K_n V_p / I_a$

WHERE  $K_n = 2\pi a (n+1)(n)$

PLOTTING OF MEASUREMENTS ON PSEUDO-SECTIONS



## VI. PERSONNEL AND EQUIPMENT

### A. Personnel

Geoterrex Limited provided the following personnel to perform the survey:

<u>Name</u>	<u>Position</u>	<u>Dates</u>
Stephen Wardlaw	Geophysicist/Party Manager	Sept. 18-25
Ronaldo Largaespada	Geophysical Technician	Sept. 18-25
John Laughlin	Helper	Sept. 19-25
Ron Woolsey	Helper	Sept. 20-25
Marcel St. Pierre	Helper	Sept. 21-25
Gary Gregoire	Helper	Sept. 19 only

### B. Equipment

Geoterrex Limited provided the following equipment:

- 1 Huntec M-4 induced polarization receiver
- 1 Scintrex IPR-7 induced polarization receiver
- 1 Elliot 15A induced polarization transmitter and  
motor generator
- 1 McPhar 2.5 KVA motor generator
- 3 Motorola MT500 radio transceivers

- 1 Texas Instrument TI58C programmable calculator
- 1 3/4 ton pickup truck

All wire, tools, and ancillary equipment necessary for safe and efficient field operations. Instrument specifications may be found in Appendix A, following this report.

## VII. SURVEY PROCEDURES

### A. Theory

The induced polarization method (IP) is based on the electrochemical phenomenon of "over-voltage", that is; on the establishment and detection of double layers of electrical charge at the interface between ionic and electronic conducting material when the electrical current is caused to pass across the interface.

All naturally occurring sulphides of metallic lustre, some oxides and graphite give marked induced polarization responses when present in sufficient volume even when such materials occur in low concentrations and in the form of discrete unconnected particles. Thus, induced polarization has general application to the direct detection of disseminated sulphide deposits. Each rock and soil type also exhibits an induced polarization response, usually confined to a relatively low amplitude range, which is characteristic of the mineral or soil. However, certain clays and "laminar" minerals including serpentine, sericite and chlorite may give rise to an anomalous response. These effects are attributed largely to "membrane" polarization.

In order to measure IP effects in a volume of rock, a current is caused to flow through it via two current electrode contact points and

the resulting potential differences are measured across two potential electrode contact points.

In practice, two different techniques are used, namely "Time Domain" and "Frequency Domain". For the Time Domain technique, which was used for this survey, a direct current is allowed to flow for several seconds and then cut off. The decay of the polarization voltages built up during the passage of the current is studied during the time after the current is switched off. In the Frequency Domain technique, a Sine wave current form of two low, but well separated frequencies, is used. Since polarization effects take an appreciable time to build up, the response at the lower frequencies will be greater so that apparent resistivities or transfer impedances between the current and measuring circuits will be larger at lower frequency.

The field measurements taken with the Time Domain technique are as follows:

1. the applied current,  $I_a$ , flowing throughout the two current electrodes:
2. the difference in potential,  $V_p$ , existing between the potential electrodes while the current is flowing;
3. the apparent chargeability,  $M_a$ , which is the observed IP

effect for a single pulse.

The IP effect measured for the present survey is the normalized integrated decay voltage between 0.45 seconds and 1.10 seconds following the current shut off time. The transmitted current cycle timing was 2 seconds on, 2 seconds off.

Figures 1 and 2 illustrate the dipole-dipole and pole-dipole arrays.

#### B. Field Operations

At the beginning of the program, two seven electrode dipole-dipole arrays, each centred on 400W were surveyed on lines 10N and 12N respectively. A dipole size of 100 metres was employed and apparent resistivity and chargeability measurements were recorded from  $n=1$  to  $n=4$ .

From these results it was questionable whether or not the dipole-dipole method was seeing through the overburden. In an attempt to resolve this question a Schlumberger electrical sounding was run on L12N, centred at 400W. Unfortunately, this test also proved inconclusive.

It was then decided to proceed using the pole-dipole array rather than the dipole-dipole array.



The pole-dipole array is more suited to reconnaissance type exploration where access to the grid is limited and less detail is required. It also proceeds somewhat faster than the dipole-dipole array.

A total of 8.7 line kilometres of pole-dipole surveying was carried out as indicated in Table 2. A dipole length of 100 metres was used throughout the survey.

Table 2. Pole-Dipole Coverage

<u>Line</u>	<u>Coverage</u>	<u>Line-kilometres</u>
4S	0 - 1400E	1.4
6S	0 - 1400E	1.4
8S	500W - 1300E	1.8
10S	0 - 1300E	1.3
12S	0 - 1300E	1.3
16N	800W - 700E	1.5
	Total	8.7

Three different infinite electrode locations were required during the survey. In all three cases it was possible to use the existing road network when running the current wire out to the electrode. In order to obtain the best possible electrical contact, wet swampy ground was chosen for the electrode site and several pounds of coarse salt was mixed into the mud. Sheets of aluminum foil were used to make the electrical contact with the ground. Table 3 shows the location of the infinite electrode for each line surveyed.

Table 3. Infinite Electrode Locations

<u>Line</u>	<u>Electrode Location</u>
4S	L10N, 550W
6S	L10N, 550W
8S	Approx. L17S, 1300W
10S	Approx. L17S, 1300W
12S	Approx. L17S, 1300W
16N	Off grid - approx 1.5 km west of L12N, 900W

The current electrodes along the survey lines consisted of aluminum foil sheets in shallow pits or several steel rods pounded into the ground to a depth of about two feet. Apparent resistivity and chargeability readings were recorded from n=1 to n=3 on all lines except L16N which was read to n=4.

### C. Data Reduction and Presentation

Data reduction and plotting conventions for the dipole-dipole pole-dipole arrays are outlined in Figures 1 and 2. Data is presented as pseudo-sections contoured at intervals of 10, 15, 20, 25, 32, 40, 50, 65, 80 ohm-metres per decade for the resistivity data, and 1 millisecond contour intervals for the chargeability data.

The Schlumberger sounding data is plotted on standard log-log paper as apparent resistivity versus half current electrode separation.

Final plots can be found accompanying this report.

VIII. CONCLUSIONS AND RECOMMENDATIONS

Both the dipole-dipole and pole-dipole techniques proved unsuccessful in locating any anomalous chargeable zones. The data indicates a fairly layered structure with a resistivity which appears to be increasing somewhat with depth.

Unless a specific target is identified with some other technique no further induced polarization is recommended at this time.

Respectfully submitted



S. Wardlaw  
Geophysicist.

APPENDIX A

INSTRUMENT SPECIFICATIONS

HUNTEC M-4  
INDUCED POLARIZATION RECEIVER  
GENERAL SPECIFICATIONS

INPUTS

Signal Channel

Range	$5 \times 10^{-5}$ to 10 volts. Automatic gain ranging Overload indication above 10 volts
Resistance	Greater than $10^9$ ohms differential (i.e. between + and - terminals)
Bandwidth	Basic bandwidth is 100 Hz. A 12 Hz digital lowpass filter is selectable via a switch on the programming panel.
SP Cancellation Range	-5 to +5 volts (automatic)
Battery	10 Nickel-Cadmium "F" cells in series. Nominal 12.5 volts. 8 hours continuous operation in RUN or STANDBY mode.

Functional Specifications

Electrical

Memory

Random Access

Memory (RAM) 4k, expandable to 8k

Erasable Programmable

Read Only Memory

(EPROM) 6k, expandable to 8K

Mechanical

M-4 receiver  
with battery  
pack

45 cm x 33 cm x 14 cm, 9.1 kg

M-4 Receiver  
 (with battery pack  
 and cassette  
 DataLogger)      45 cm x 33 cm x 14 cm, 10.1 kg

Replaceable  
 battery pack      3.3 cm x 11 cm x 45 cm, 3 kg

Environmental

Temperature      Operation: -20C to +55C  
                          Storage:      -40C to +70C

Humidity            Moisture proof, operable in light drizzle.  
                          Splash-proof switches, keypad protected by  
                          rubber boots, gasket seals on programming  
                          panel cover, main chassis and cassette loader.

Altitude            -1525 m to +4775 m

Shock and  
 Vibration            Suitable for transport in bush vehicles.

Displays and Indicators

Analogue Meter      Ohms scale for receiver electrode resistance measurements  
                          and indication of instrument activity, which facilitates  
                          qualitative judgments of signal and noise levels.

LCD, 3½ digits      Provides the operator with numeric indication of measure-  
                          ment results, and of instrument faults discovered during  
                          execution of diagnostic routines. An over-range arrow  
                          indicates that the display reading is to be multiplied  
                          by 1000.

SPECIFICATIONS

SCINTREX IPR-7

INDUCED POLARIZATION RECEIVER

MANUFACTURER: Scintrex Limited,  
222 Snidercroft Road,  
Concord, Ontario

USE: Induced Polarization/Resistivity

TYPE: Time Domain, Analog Newmont type

INPUT IMPEDANCE: 300 K ohms

PRIMARY VOLTAGE RANGE: 300 microvolts to 30 volts

ACCURACY:  $\pm 3\%$  full scale

CHARGEABILITY (M)

RANGE: 0 to 100 and 0 to 300 milliseconds

ACCURACY:  $\pm 5\%$  full scale

CURVE FACTOR (L)

RANGE: 0 to 100 and 0 to 300 milliseconds

ACCURACY:  $\pm 5\%$  full scale

DELAY TIME BEFORE  
INTEGRATION: 0.45 seconds

INTEGRATION PERIOD: 0.65 seconds

SP AND VLF NOISE  
COMPENSATION: Manual:  $\pm 1.5$  millivolts  
Automatic: 1 mV range  $\pm$  mV total  
30 mV range  $\pm$  mV total

OPERATING TEMPERATURE: -20°F to 130°F/-29°C to 55°C  
(to 100% humidity non-condensing)

POWER SUPPLY: Internal rechargeable Nicad batteries  
12 volts external charger

DIMENSIONS: 14 x 11 x 6.5 inches/35.5 x 28 x 16.5 centimeters

WEIGHT: 13.5 pounds/6.1 kilograms including batteries



SPECIFICATIONS

ELLIOT 15A

INDUCED POLARIZATION TRANSMITTER

MANUFACTURER: Elliot Geophysical Company  
4653 East Pima Street,  
Tucson, Arizona 85712

USE: Induced Polarization/Resistivity

TYPE: TimeDomain - Solid State

INPUT POWER: Single Phase - 400 cps, 115 volts, 2 KVA

OUTPUT POWER  
VOLTAGE: 200 to 3000 volts in 12 taps  
CURRENT: 5 amperes maximum

TIMING CYCLE: On and off periods adjustable

OPERATING TEMPERATURE: +5°F to 140°F / -15°C to + 60°C

DIMENSIONS: 10.5 x 16 x 11.5 inches/26.7 x 40.6 x 29.2 centimeters

WEIGHT: 45 pounds/20.4 kilograms

SPECIFICATIONS

ELLIOT 15A

INDUCED POLARIZATION TRANSMITTER POWER SUPPLY

MANUFACTURER: Elliot Geophysical Company  
4653 East Pima Street,  
Tucson, Arizona 85712

TYPE: Alleco Brushless, single phase, 400 cps,  
120 volts, shaft driven

OUTPUT: 2 KVA

ENGINE: Briggs and Stratton type 100232, gasoline 4 hp,  
aircooled, recoil start

DIMENSIONS: 17 x 25 x 18 inches/ 43.2 x 63.5 x 45.7 centimeters

WEIGHT: 72 pounds/ 32.7 kilograms

SPECIFICATIONS

2.5 KVA MOTOR GENERATOR

INDUCED POLARIZATION TRANSMITTER POWER SUPPLY

MANUFACTURER: McPhar Geophysics Limited  
Toronto, Ontario

TYPE: 3 phase, 120 volts, 400 cps, belt driven,  
rotating field

SPEED: 6,000 rpm

OUTPUT: 2.5 KVA

ENGINE: Briggs and Stratton type 1035-01, 7 hp.  
air cooled, recoil start, gasoline

VOLTAGE REGULATOR: Elliot modification, range 90 to 140 volts, A.C.

DIMENSIONS: 20 x 32 x 16 inches/51 x 81.3 x 40.6 centimeters

WEIGHT: 115 pounds / 52 kilograms

APPENDIX B

CURRICULUM VITAE

## CURRICULUM VITAE

NAME: WARDLAW, Stephen J.  
POSITION: Geophysicist  
CITIZENSHIP: Canadian  
DATE OF BIRTH: 2 February 1957  
EDUCATION: B.Sc. (Physics), University of Toronto  
1979

### EXPERIENCE

Sept. 1979 to  
Present

Joined Geoterrex Ltd., as a Junior Field Geophysicist. After a year doing Induced Polarization and Gravity surveys in Canada, transferred to the Australian office of Geoterrex. Gained extensive experience running Gravity, IP, and EM surveys in hostile environments. Returned to Canada in November 1983 to assume position of Assistant Manager in Ground Geophysics Department.

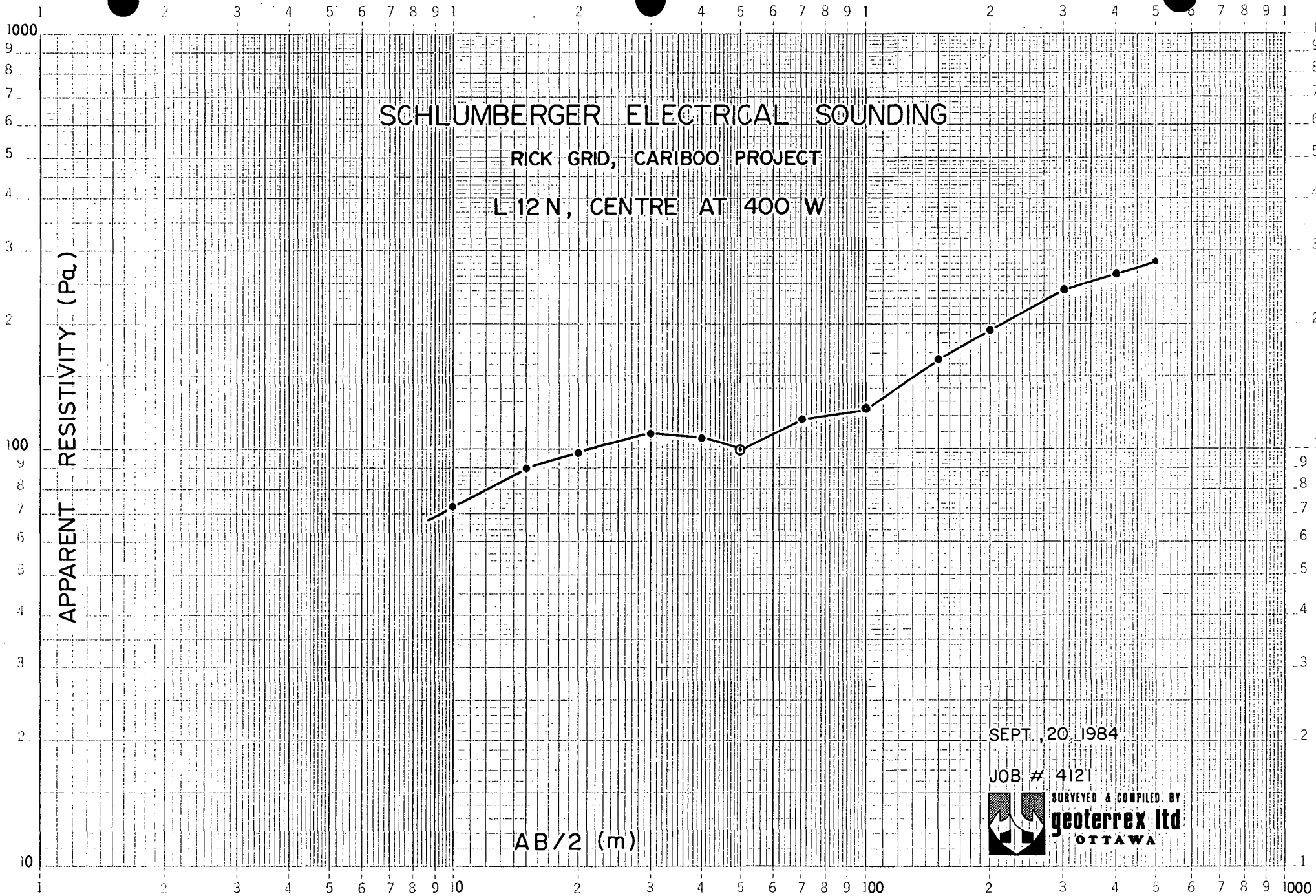
Duties now include selling jobs, organizing field crews and some field work.

May to August  
1979

Employed by the Geological Survey of Canada as assistant geophysicist. Duties included field work and interpretation of electrical sounding data.

May to August  
1978

Employed by University of Toronto as general geophysical field hand. Projects included EM and AMT methods.



SEPT., 20 1984

JOB # 4121



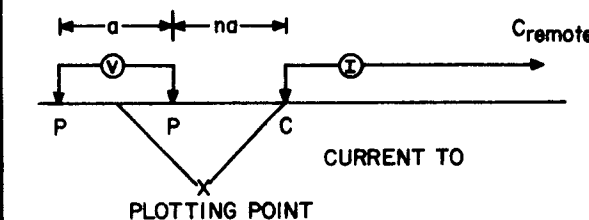
AB/2 (m)

TIME DOMAIN  
INDUCED POLARIZATION  
SURVEY

POLE-DIPOLE ARRAY

(CHARGEABILITY MEASURED PER PULSE)

L-12 S



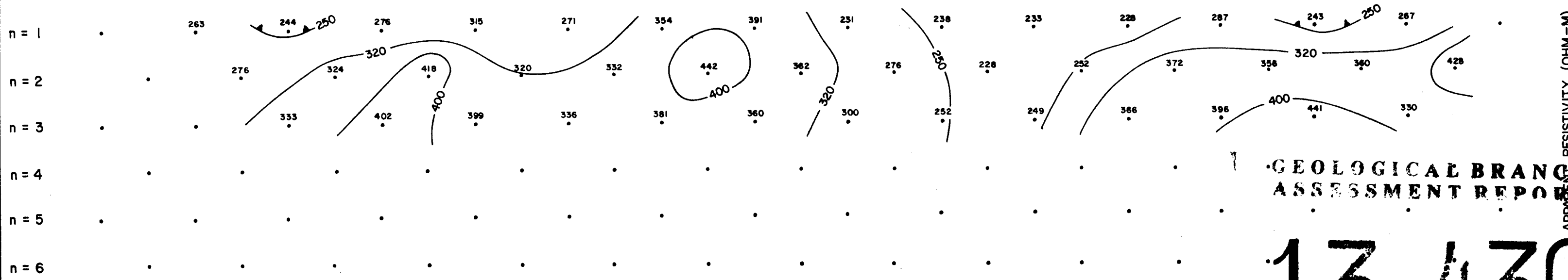
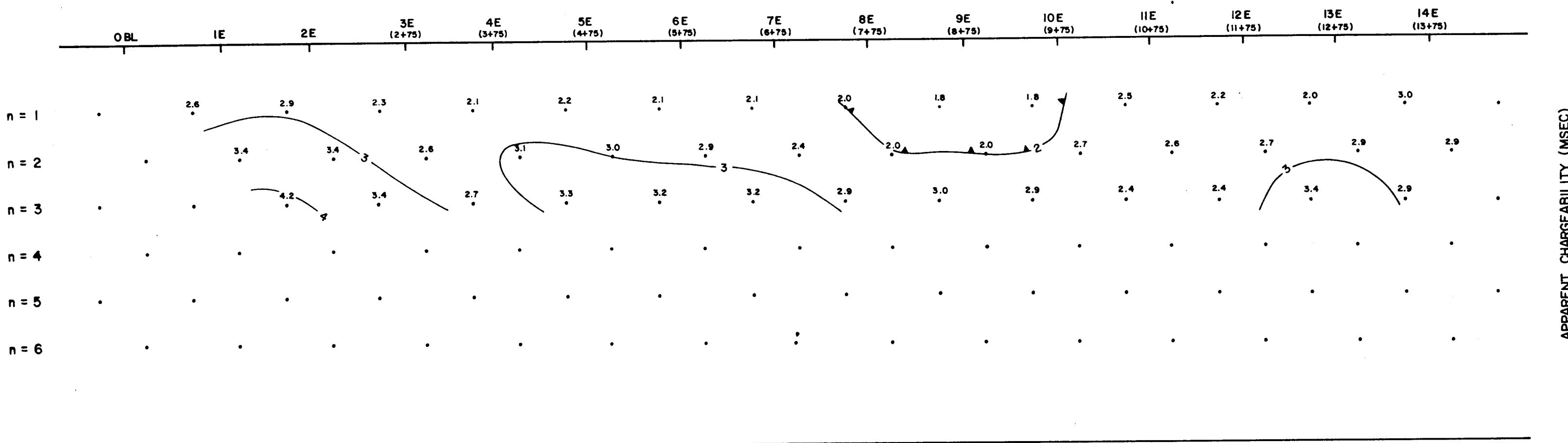
CHARGEABILITY CONTOUR INTERVAL : 1 msec

RESISTIVITY CONTOUR INTERVALS : ohm-metres  
10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH : 100 m  
TIME SEQUENCE : 2/2  
INTEGRATION TIME : 450-1100 msec  
TRANSMITTER TYPE : ELLIOT 1.5 kvd  
RECEIVER TYPE : HUNTEC M-4  
HORIZONTAL SCALE : 1:3,937  
SURVEYED BY : SW, RL  
DATE : SEPT. 23, 1984

SURVEYED AND COMPILED BY : **GEOTERREX LTD.** PROJECT NO. 4121

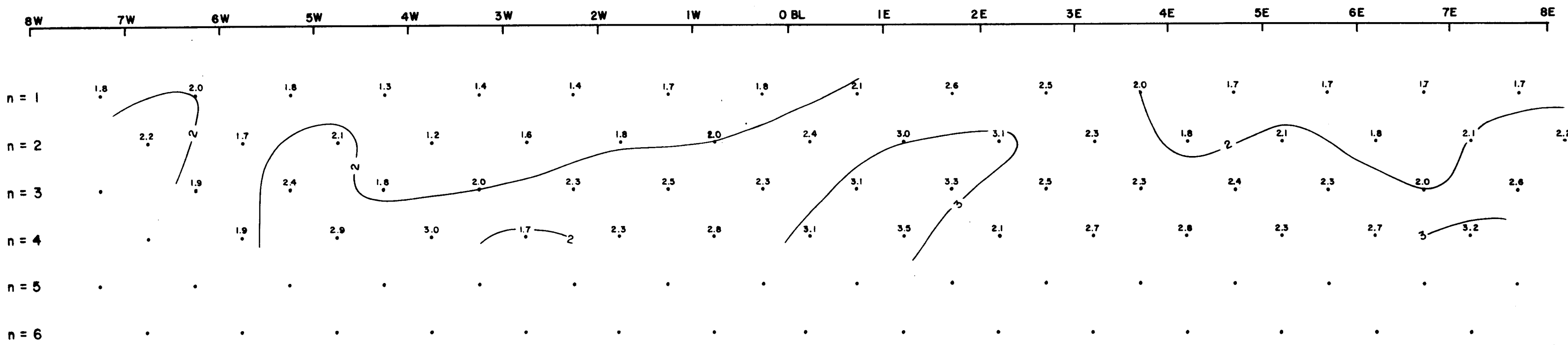
CLIENT : ASAMERA INC.  
PROJECT : CARIBOO  
AREA : LIKELY, B.C.  
GRID : RICK  
LINE : 12 S



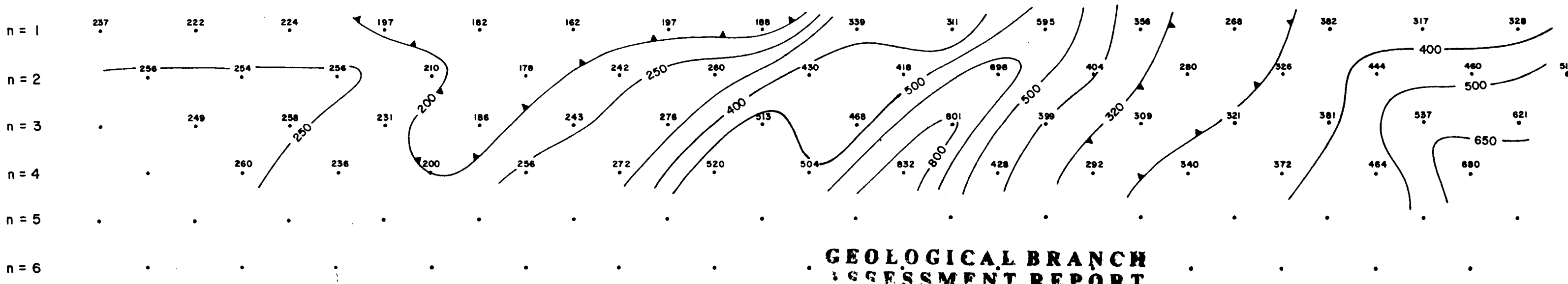
GEOLOGICAL BRANCH  
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PART  
2 OF 3



APPARENT CHARGEABILITY (MSEC)



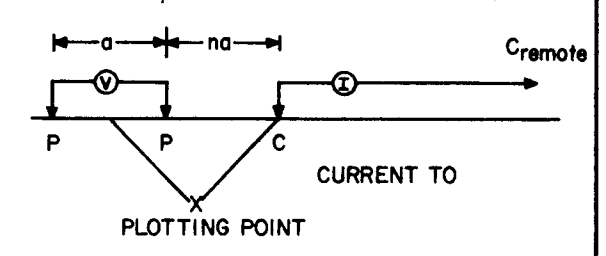
APPARENT RESISTIVITY (OHM-M)

TIME DOMAIN  
INDUCED POLARIZATION  
SURVEY

POLE-DIPOLE ARRAY

(CHARGEABILITY MEASURED PER PULSE)

L-16N



CHARGEABILITY CONTOUR INTERVAL : 1 msec  
RESISTIVITY CONTOUR INTERVALS : ohm-metres  
10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH : 100 m  
TIME SEQUENCE : 2/2  
INTEGRATION TIME : 450-1100 msec  
TRANSMITTER TYPE : ELLIOT 1.5 kva  
RECEIVER TYPE : HUNTEC M-4  
HORIZONTAL SCALE : 1:3,937  
SURVEYED BY : SW, RL  
DATE : SEPT. 25, 1984

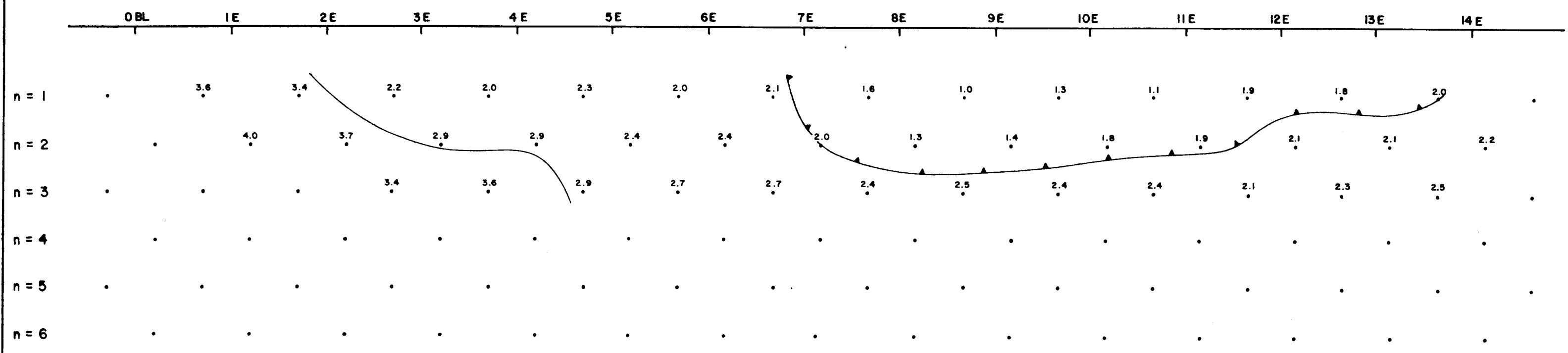
SURVEYED AND COMPILED BY		PROJECT NO.
GEOTERREX LTD.		4121

CLIENT : ASAMERA INC.  
PROJECT : CARIBOO  
AREA : LIKELY, B.C.  
GRID : RICK  
LINE : 16N

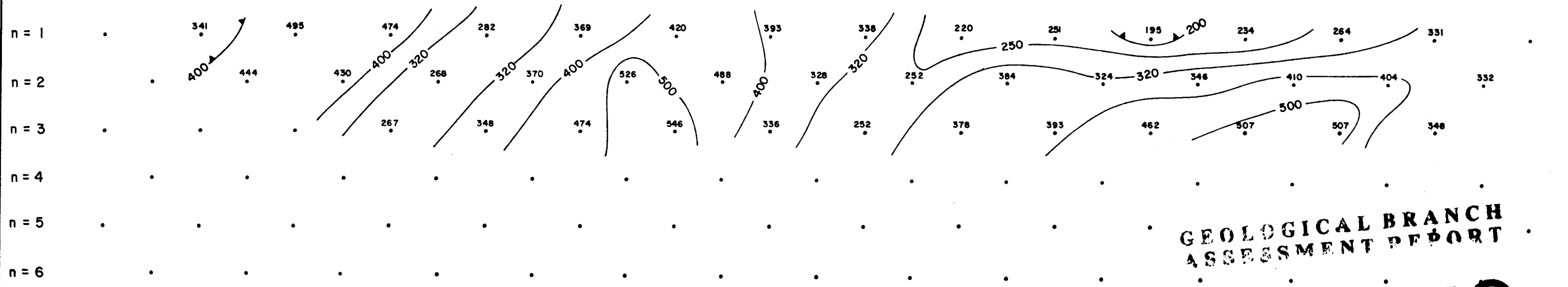
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

13,430  
PART 2 OF 3





APPARENT CHARGEABILITY (MSEC)

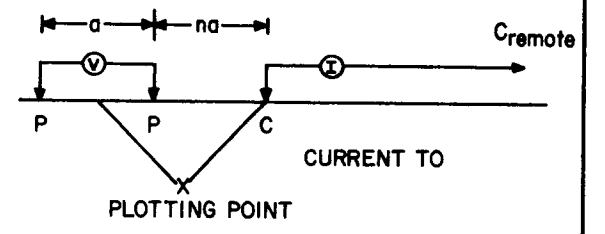


APPARENT RESISTIVITY (OHM-M)

TIME DOMAIN  
INDUCED POLARIZATION  
SURVEY

POLE-DIPOLE ARRAY  
(CHARGEABILITY MEASURED PER PULSE)

L-10 S



CHARGEABILITY CONTOUR INTERVAL : 1 msec  
RESISTIVITY CONTOUR INTERVALS : ohm-metres  
10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH : 100 m  
TIME SEQUENCE : 2/2  
INTEGRATION TIME : 450 - 1100 msec  
TRANSMITTER TYPE : ELLIOT 1.5 kva  
RECEIVER TYPE : HUNTEC M-4  
HORIZONTAL SCALE : 1:3,937  
SURVEYED BY : SW, RL  
DATE : SEPT. 22, 1984

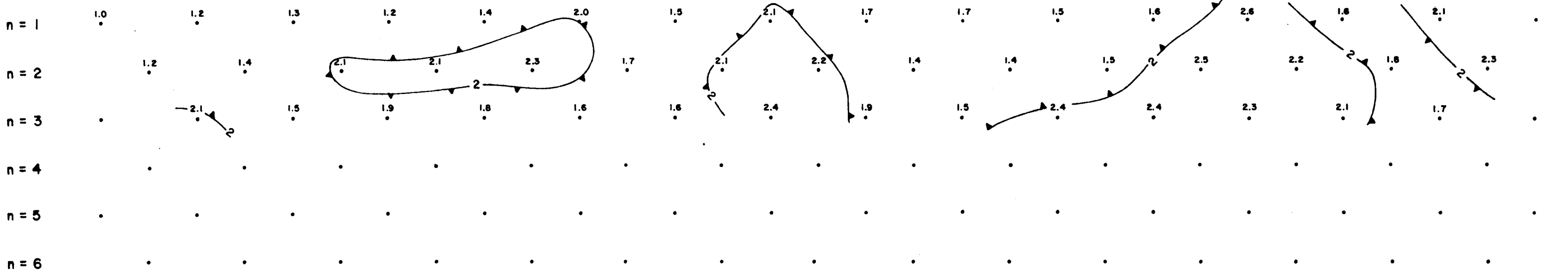
SURVEYED AND COMPILED BY : GEOTERREX LTD. PROJECT NO. 4121

CLIENT : ASAMERA INC.  
PROJECT : CARIBOO  
AREA : LIKELY, B.C.  
GRID : RICK  
LINE : 10 S

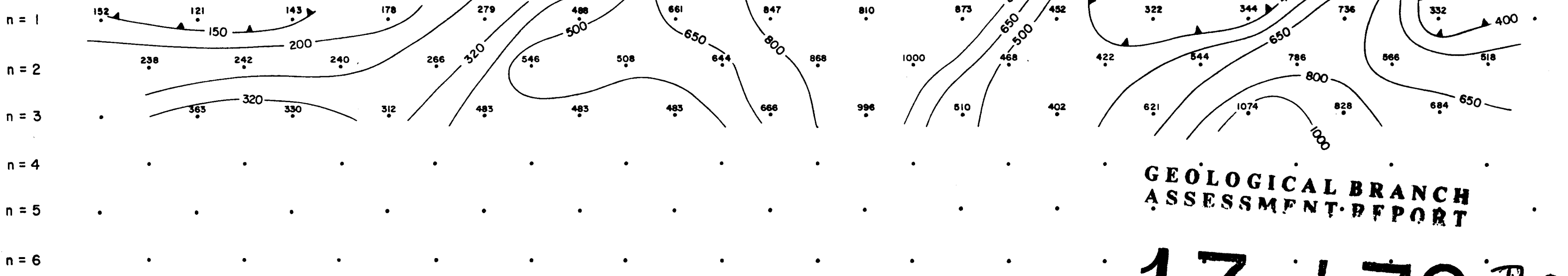
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0 BL 1E 2E 3E 4E 5E 6E 7E 8E 9E 10E 11E 12E 13E 14E 15E



APPARENT CHARGEABILITY (MSEC)



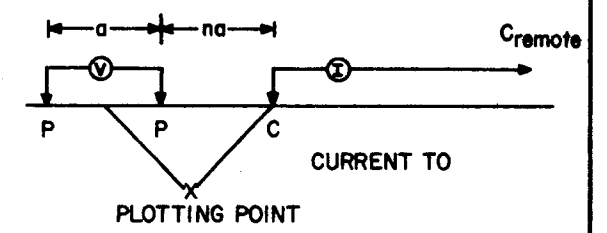
APPARENT RESISTIVITY (OHM-M)

**TIME DOMAIN  
INDUCED POLARIZATION  
SURVEY**

**POLE-DIPOLE ARRAY**

(CHARGEABILITY MEASURED PER PULSE)

**L-4S**



CHARGEABILITY CONTOUR INTERVAL : 1 msec

RESISTIVITY CONTOUR INTERVALS : ohm-metres  
10, 15, 20, 25, 32, 40, 50, 65, 80, 100

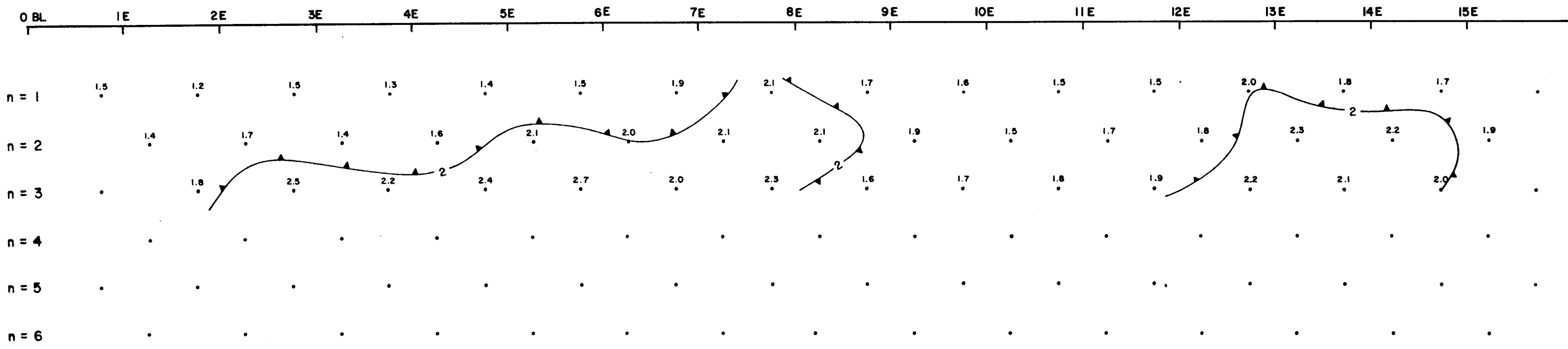
DIPOLE LENGTH : 100 m  
TIME SEQUENCE : 2/2  
INTEGRATION TIME : 450-1100 msec  
TRANSMITTER TYPE : ELLIOT 1.5 kva  
RECEIVER TYPE : HUNTEC M-4  
HORIZONTAL SCALE : 1:3,937  
SURVEYED BY : SW, RL  
DATE : SEPT. 23, 1984

	SURVEYED AND COMPILED BY	PROJECT NO.
	GEOTERREX LTD.	4121

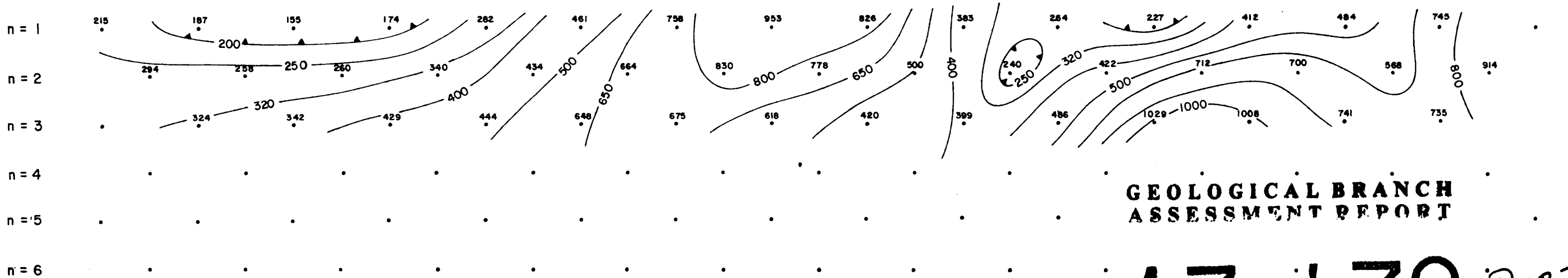
CLIENT : ASAMERA INC.  
PROJECT : CARIBOO  
AREA : LIKELY, B.C.  
GRID : RICK  
LINE : 4S

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,430** PART 2 OF 3



APPARENT CHARGEABILITY (MSEC)

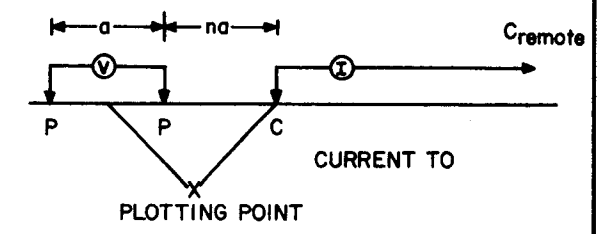


APPARENT RESISTIVITY (OHM-M)

**TIME DOMAIN  
INDUCED POLARIZATION  
SURVEY**

**POLE-DIPOLE ARRAY**  
(CHARGEABILITY MEASURED PER PULSE)

L-6S



CHARGEABILITY CONTOUR INTERVAL : 1 msec  
RESISTIVITY CONTOUR INTERVALS : ohm-metres  
10, 15, 20, 25, 32, 40, 50, 65, 80, 100

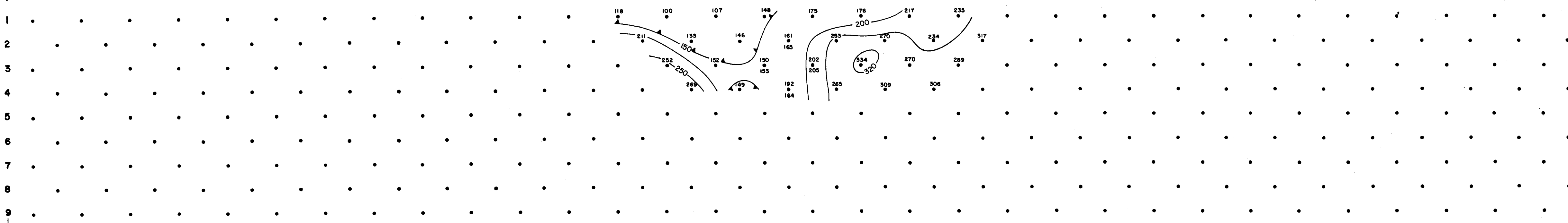
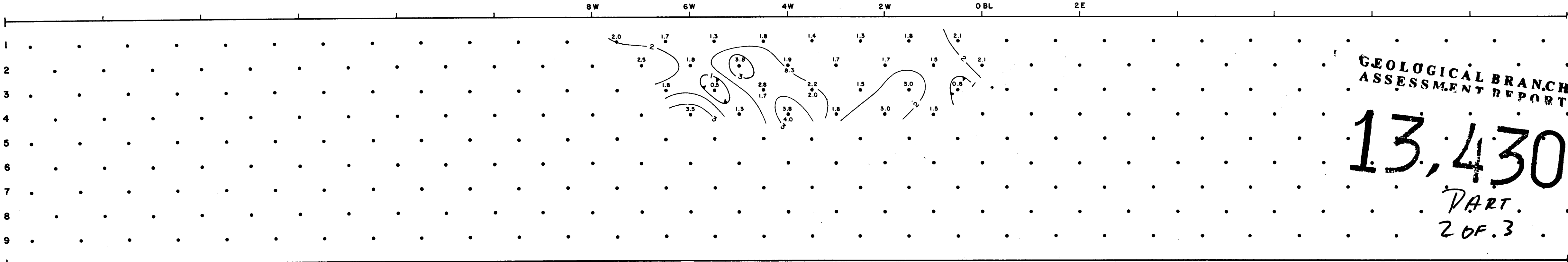
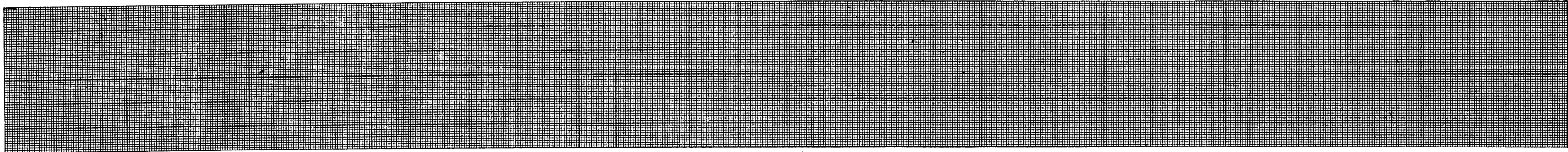
DIPOLE LENGTH : 100 m  
TIME SEQUENCE : 2/2  
INTEGRATION TIME : 450-1100 msec  
TRANSMITTER TYPE : ELLIOT 1.5 kva  
RECEIVER TYPE : HUNTEC M-4  
HORIZONTAL SCALE : 1:3,937  
SURVEYED BY : SW, RL  
DATE : SEPT. 24, 1984

SURVEYED AND COMPILED BY  
**GEOTERREX LTD.** PROJECT NO. 4121

CLIENT : ASAMERA INC.  
PROJECT : CARIBOO  
AREA : LIKELY, B.C.  
GRID : RICK  
LINE : 6 S

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,430** PART 2 OF 3



MAGNETIC INTENSITY  
(NANOTESLAS)

APPARENT CHARGEABILITY (Ma)  
(MILLISECONDS)

APPARENT RESISTIVITY (Pa)  
(OHM-METRES)

## INDUCED POLARIZATION AND MAGNETIC INTENSITY SURVEY

**INDUCED POLARIZATION (TIME DOMAIN) :**

CHARGEABILITIES MEASURED FOR COMPLETE CYCLE

CHARGING TIME . . . . . 2 secs	Where not specified, times are 2, 2, 0.45 and 0.65 secs respectively, modified to be equivalent to Newmont standard cycle 3; 3; 1
OFF TIME . . . . . 2 secs	
DELAY TIME . . . . . 0.45 secs	
INTEGRATION TIME . . . . . 0.65 secs	

CONFIGURATION . . . . . DIPOLE - DIPOLE

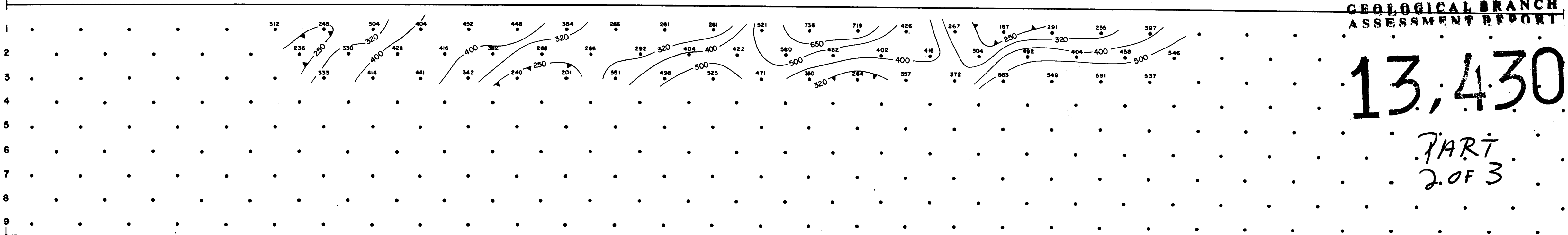
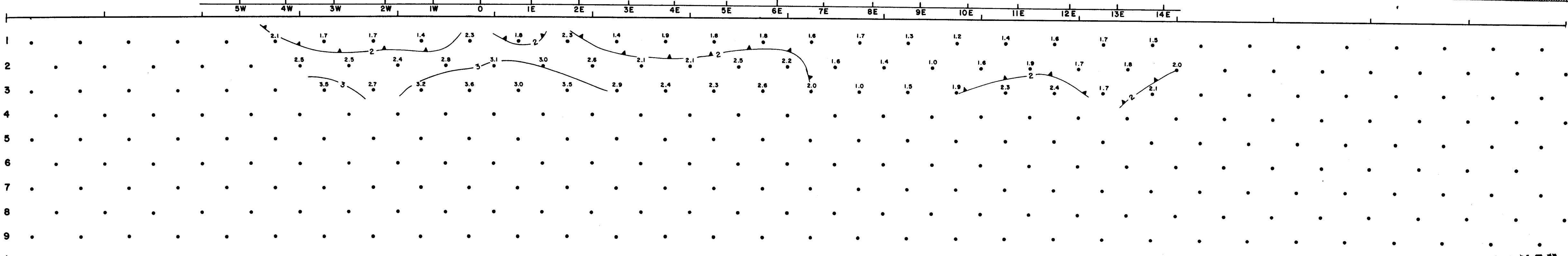
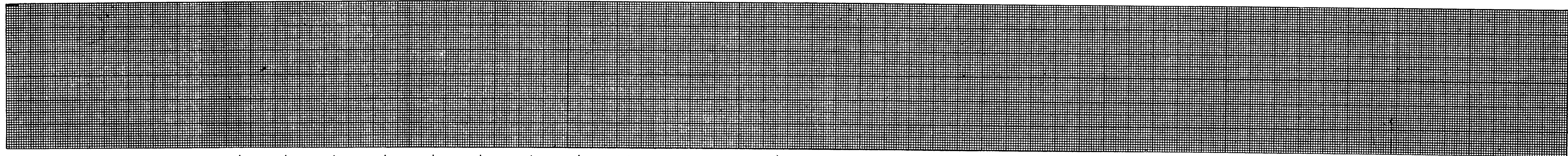
DIPOLE LENGTH . . . . . 100 m

C1 . . . . . P1

**MAGNETIC INTENSITY :**

FIELD COMPONENT . . . . .

 SURVEYED & COMPILED BY <b>geoterrex</b> <small>INC.</small>	FOR <b>ASAMERA INC.</b>
CARIBOO PROSPECT - LIKELY, B.C.	
Scales : HORIZONTAL : 1:5,000 VERTICAL (Magnetics) : 1cm = CONTOUR INTERVALS (I.P.) : Ma = 1 milliseconds Pa = per decade, ohm-metres 10, 15, 20, 25, 32, 40, 50, 65, 80 (pseudo-logarithmic)	RICK GRID LINE ION
<b>Instruments :</b> I.P. Rx. HUNTEC M-4 I.P. Tx. ELLIOT 1.5 kva MAGNETOMETER	SURVEY BY : SW, RL DATE : SEPT. 19, 1984 PLOTTED BY : SW GEOTERREX PROJECT No. 4121



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

13,430

PART  
2 OF 3

MAGNETIC INTENSITY  
(NANOTESLAS)

APPARENT CHARGEABILITY (Ma)  
(MILLISECONDS)

APPARENT RESISTIVITY (Pa)  
(OHM-METRES)

# INDUCED POLARIZATION AND MAGNETIC INTENSITY SURVEY

**INDUCED POLARIZATION (TIME DOMAIN) :**

CHARGEABILITIES MEASURED FOR COMPLETE CYCLE

CHARGING TIME ..... 2 secs  
OFF TIME ..... 2 secs  
DELAY TIME ..... 0.45 secs  
INTEGRATION TIME ..... 0.65 secs

Where not specified, times are 2, 2, 0.45 and 0.65 secs respectively, modified to be equivalent to Newmont standard cycle 3; 3; 1

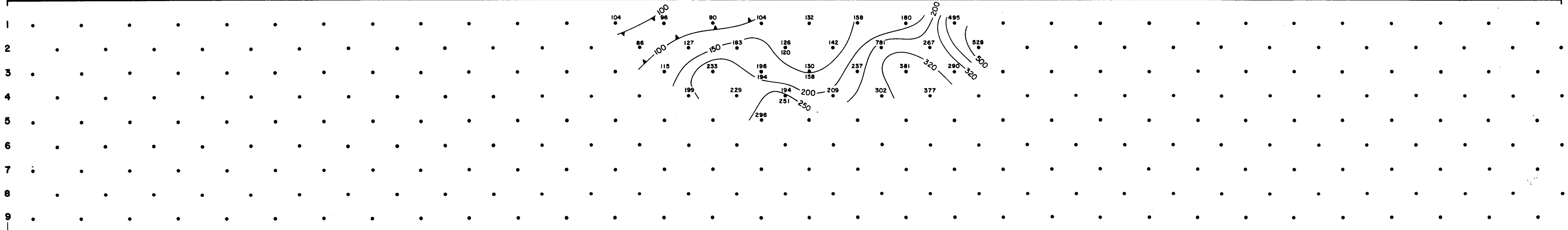
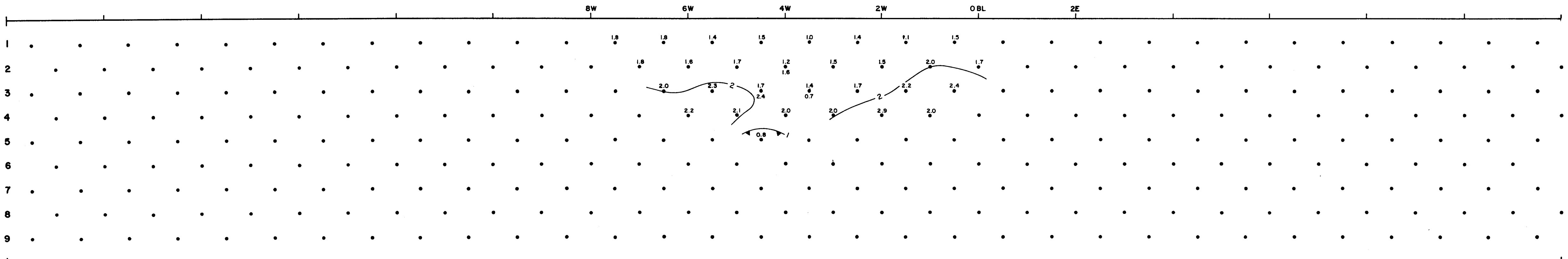
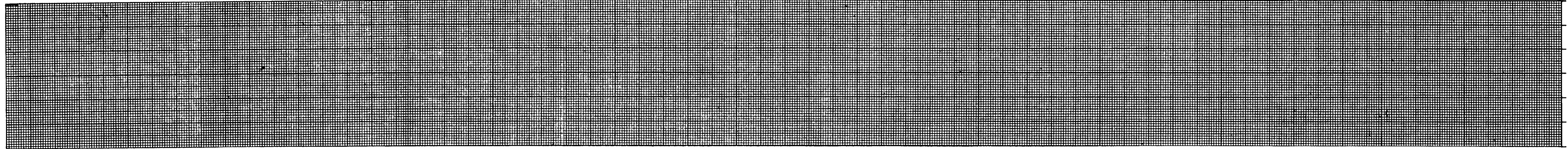
CONFIGURATION ..... POLE - DIPOLE  
DIPOLE LENGTH ..... 100 m  
C<sub>1</sub> ..... P<sub>1</sub>

**MAGNETIC INTENSITY :**

FIELD COMPONENT .....

	SURVEYED & COMPILED BY	FOR
	<b>geoterrex</b>	ASAMERA INC.
CARIBOO PROSPECT - LIKELY, B.C.		
<b>Scales :</b> HORIZONTAL : 1:5,000 VERTICAL (Magnetics) : 1cm = CONTOUR INTERVALS (I.P.) : Ma = 1 milliseconds Pa = per decade, ohm-metres 10,15,20,25,32,40,50,65,80 (pseudo-logarithmic)	RICK GRID LINE 8 S	
<b>Instruments :</b> I.P. Rx. HUNTEC M-4 I.P. Tx. ELLIOT 1.5 kva MAGNETOMETER	SURVEY BY : SW, RL DATE : SEPT. 21, 1984	PLOTTED BY : SW GEOTERRIX PROJECT No. 4121





MAGNETIC INTENSITY  
(NANOTESLAS)

APPARENT CHARGEABILITY (Ma)  
(MILLISECONDS)

APPARENT RESISTIVITY (Pa)  
(OHM-METRES)

**INDUCED POLARIZATION  
AND  
MAGNETIC INTENSITY  
GEOLOGICAL BRANCH  
ASSESSMENT SURVEY REPORT**

PART  
2 OF 3

13,430

INDUCED POLARIZATION (TIME DOMAIN) :

CHARGEABILITIES MEASURED FOR COMPLETE CYCLE	
CHARGING TIME . . . . .	secs
OFF TIME . . . . .	secs
DELAY TIME . . . . .	secs
INTEGRATION TIME . 450-1100msecs	

Where not specified, times are 2, 2, 0.45 and 0.65 secs respectively, modified to be equivalent to Newmont standard cycle 3; 3; 1

CONFIGURATION . . . . . DIPOLE - DIPOLE  
DIPOLE LENGTH . . . . . 100 m  
C<sub>1</sub> . . . . . P<sub>1</sub>

MAGNETIC INTENSITY :  
FIELD COMPONENT . . . . .

 <b>SURVEYED &amp; COMPILED BY</b> <b>geoterrex</b> <small>INC.</small>	FOR <b>ASAMERA INC.</b>
<b>CARIBOO PROSPECT - LIKELY, B.C.</b>	
<b>Scales :</b> HORIZONTAL : 1:5,000 VERTICAL (Magnetics) : 1cm = CONTOUR INTERVALS (I.P.) : Ma = 1 milliseconds Pa = per decade, ohm-metres 10, 15, 20, 25, 32, 40, 50, 65, 80 (pseudo-logarithmic)	<b>RICK GRID</b> <b>LINE 12N</b>
<b>Instruments :</b> I.P. Rx. HUNTEC M-4 I.P. Tx. ELLIOT 1.5 kva MAGNETOMETER	SURVEY BY : SW, RL DATE : SEPT. 19, 1984 PLOTTED BY : SW GEOTERREX PROJECT No. 4121