



42A06SW0022 2.10721 ADAMS

010

GEOPHYSICAL REPORT

ON AN

INDUCED POLARIZATION SURVEY
ADAMS TOWNSHIP, Porcupine Mining Division

FOR

BELMORAL PORCUPINE RESOURCES LIMITED

RECEIVED

JAN 11 1988

MINING LANDS SECTION

Prepared by:

R. J. Meikle
EXSICS EXPLORATION LIMITED
November 11, 1987



42A06SW0022 2.10721 ADAMS

010C

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CERTIFICATION	

IP PSUEDO SECTIONS

- L 7W a= 25m pole-dipole
- L 5W a= 25m pole-dipole
- L 4W a= 25m pole-dipole
- L 3W a= 25m pole-dipole
- L 2W a= 25m pole-dipole
- L 1W a= 25m pole-dipole
- L 0 a= 25m pole-dipole
- L 0 a= 50m pole-dipole
- L 1E a= 50m pole-dipole

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INTRODUCTION

An Induced Polarization survey was conducted on an 8 claim property in Adams Township, Timmins, Ontario. The Induced Polarization survey was carried out on a contract basis by Exsics Exploration Ltd., Timmins, Ontario, for Belmoral Porcupine Resources Limited.

The purpose of the survey was to follow-up a previous magnetometer/VLF-EM survey testing several anomalies for any indication of sulphide mineralization prior to a diamond drilling program. This report will deal with the interpretation of the current I.P. survey and its correlation with the previous surveys.

LOCATION AND ACCESS

The property is located in the north central part of Adams Township approximately 8 miles south of the city of Timmins, Ontario.

Access to the property is via a good all-weather road which extends south from Timmins along the west side of Adams

Township. A gravel road goes out from here along the south edge of the property (Figures 1 & 2).

CLAIM STATUS

The property consists of 8 contiguous, unpatented mining claims in the Porcupine Mining Division. The claims are held in the name of Belmoral Porcupine Resources Limited, 27 Queen St. E., Toronto, Ontario, M5C 2M6. The claim numbers are as follows:

LOCATION	CLAIM NUMBER
Adams Township	P-814128
"	P-814129
"	P-814130
"	P-814131
"	P-814132
"	P-814133
"	P-814134
"	P-814135

ED LK.

KENORA

HUDSON BAY

JAMES BAY

QUEBEC

ONTARIO

FORT ALBANY

EASTMAN

MOOSONEE

LK. NIPYSON

GERALTON

HEARST

CHIBOUGAMAU

THUNDER BAY

QUEVILLON

LAKE SUPERIOR

PROJECT AREA
TIRIUS

AMOS

SENNETERRE

WAWA

ROUYH

NORANDA

VALDOR

SAULT STE. MARIE

SUXBURY

NORTH BAY

MONTREAL

LK. MICHIGAN

LK. HURON

OTTAWA

TORONTO

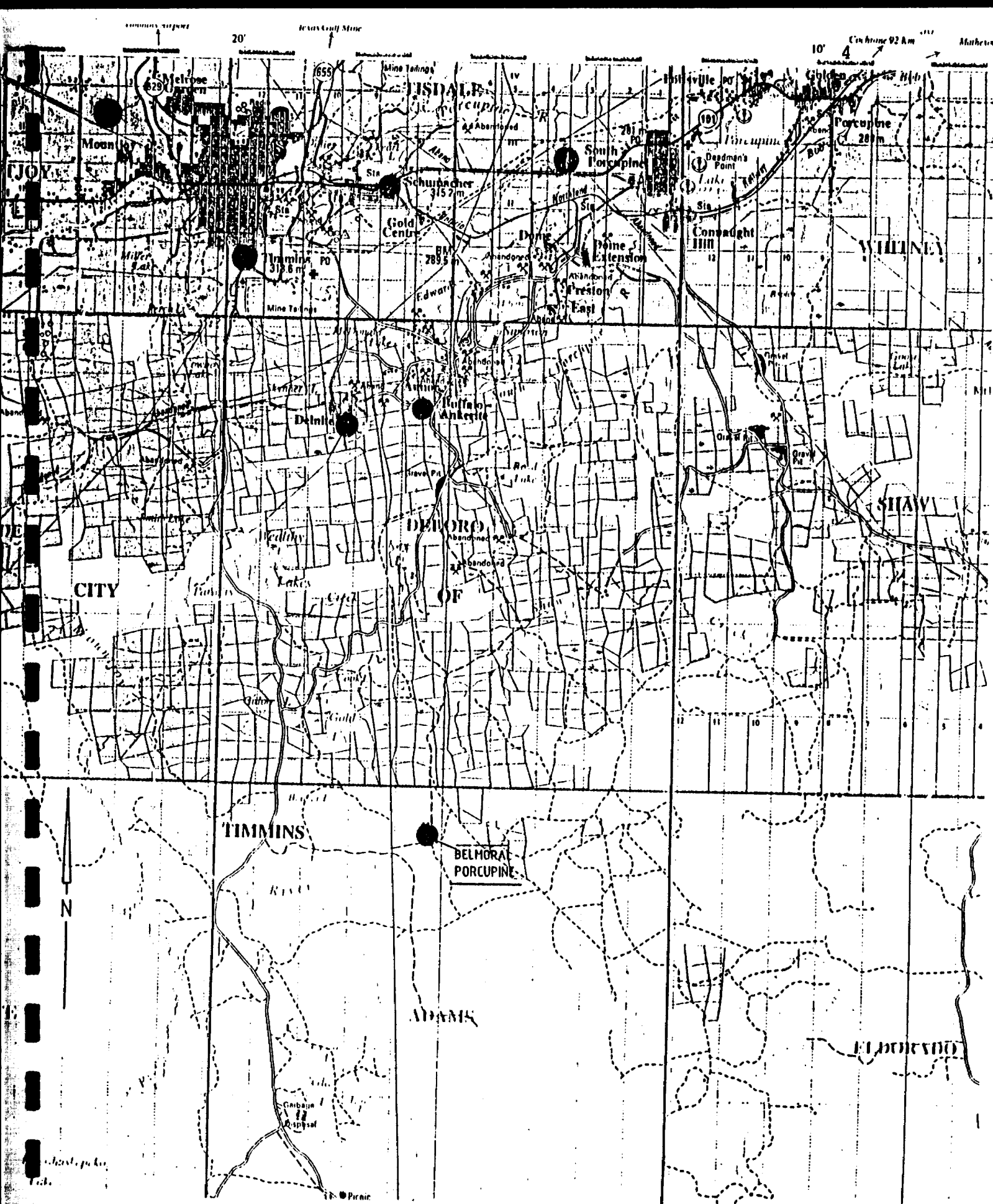
LK. ONTARIO

BELMORAL PORCUPINE

LOCATION MAP

scale: 1" = 125 miles

fig. 1



BELMORAL PORCUPINE

LOCATION MAP

1: 100,000

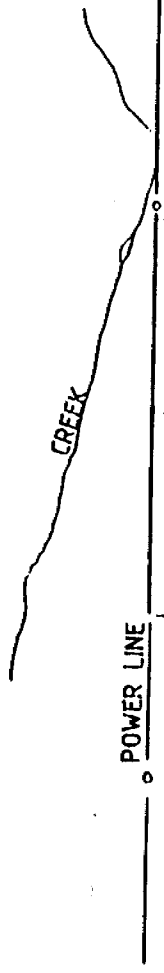
FIG. 2

DELORO TWP.

ADAMS TWP.



3M



814133	814128	814129	814134
814132	814131	814130	814135

BELMORAL PORCUPINE

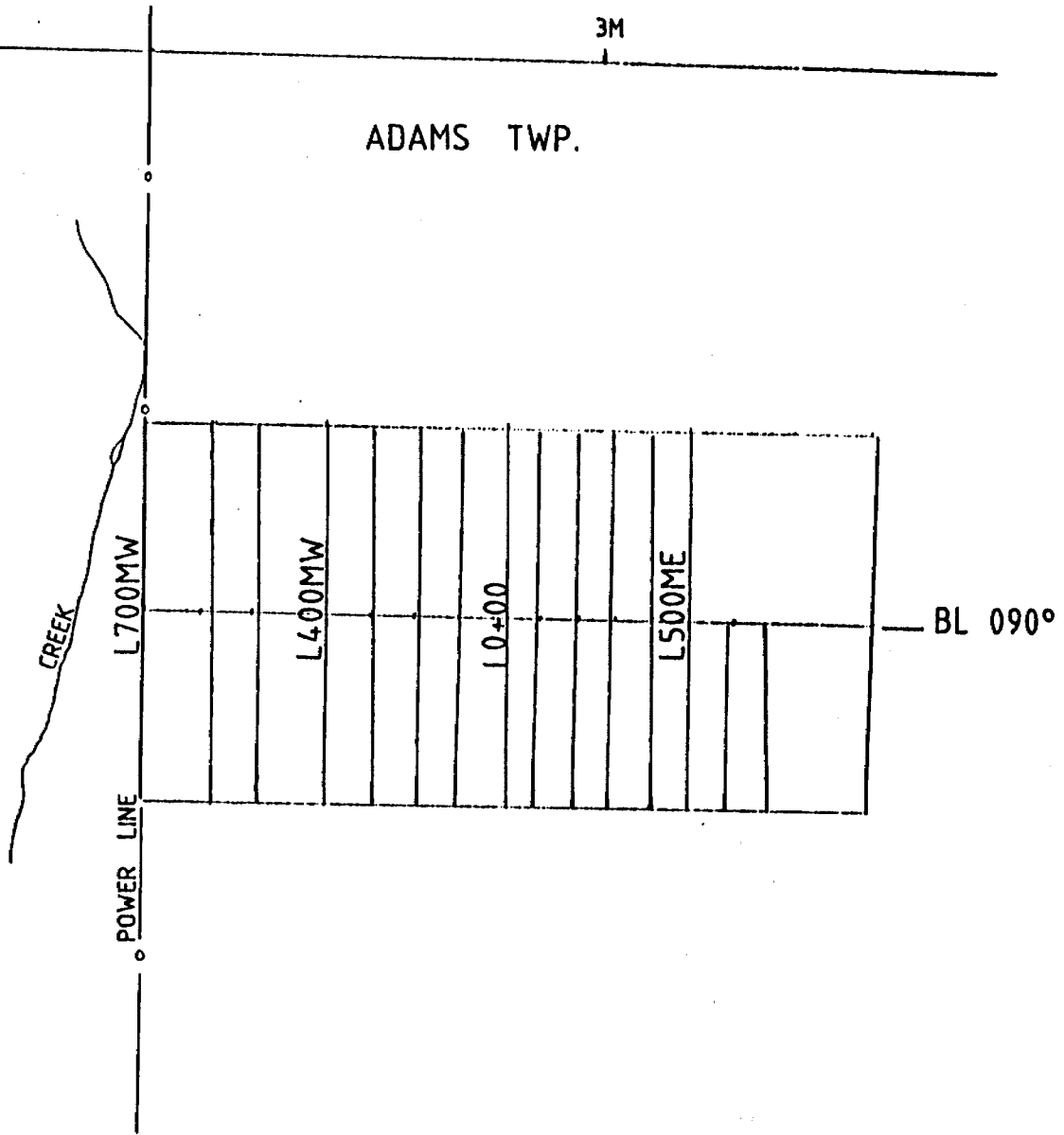
CLAIM BLOCK SKETCH

1" = 1/4 mile

FIG. 3.

DELORO TWP.

ADAMS TWP.



BELMORAL PORCUPINE

LINECUTTING SKETCH

1" = 1/4 mile

FIG. 4

PERSONNEL

The following personnel were directly involved with the project between April 14 - May 2, 1987:

Wayne Perry	Timmins, Ontario
Gerry Boucher	Timmins, Ontario
Peter Rasmussen	Bancroft, Ontario
Ed Brunet	Timmins, Ontario

SURVEY PARAMETERS

The method IP involves applying voltage across two electrodes in a pulsed manner i.e. 2 seconds on, 2 seconds off. A second "dipole" or electrode pair, measures the residual potential or voltage between them after the voltage is shut off or during the 2 second off cycle. The potential is recorded at different times after the shut off. If, for example, there is sulphide mineralization within the measuring dipoles, they will be polarized or charges set up in the sulphide particles. This polarization gives the zone a capacitor effect, thereby blocking the current delay giving a higher chargeability reading.

A typical signature for many gold showings would be a chargeability high, resistivity high and magnetic low. This would be characteristic of a mineralized, highly altered carbonitized and/or silicified zone. However, this is by no means the only geological setting for gold, therefore every IP profile should be looked at individually and correlated with all other geophysical-geological data.

Because of the dry sand cover over most of the grid, a Pole-Dipole array was used with a spacing of 25 m. Lines 7W, 5W, 4W, 3W, 2W, 1W, 0 were surveyed using a Pole-Dipole array with a 25 m. 'a' spacing. Lines 0, 1E were re-surveyed with a Pole-Dipole array and a 50 m. 'a' spacing. Lines 0 and 1E were also surveyed using a Gradient array.

PARAMETERS

Method	Time Domain
Electrode Array	Pole-Dipole and Gradient
"a" spacing	25 m and 50 m
Pulse Duration	2 seconds on, 2 seconds off
Delay Time	900 ms
Integration Time	450 ms
Receiver	EDA IP-2
Transmitter	Scintrex TSQ-3 3kw

POLE-DIPOLE ARRAY

In this array, one electrode is fixed at an infinite point from the grid and one pole or current electrode plus a dipole or two potential electrodes are moved in unison about the grid. In this case, the "a" spacing or distance between the two receiving potential electrodes was fixed at 100 feet while the distance between the moving current electrode and the nearest potential electrode was 100 feet, 200 feet and 300 feet, corresponding to $N=1, 2$ and 3 on the pseudosections.

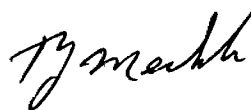
GRADIENT ARRAY

In this array, two electrodes (C1 and C2) are placed a fixed distance off each end of a survey line. A voltage is applied across these two electrodes and a continuous 2 second on 2 second off pulse is maintained. A receiver dipole of 100 feet is moved along the C1 C2 line as well as parallel lines. Only the middle third section is surveyed to ensure that neither C1 or C2 influence the dipole. The plotting point is in the middle of the receiver dipole. This array generates one chargeability reading and one apparent resistivity reading every 100 feet along the lines surveyed. A conductive sulphide zone would yield a high chargeability-low resistivity while a disseminated, silicified altered sulphide zone would have a high chargeability and a high resistivity.

RESULTS AND RECOMMENDATIONS

The surveys were unsuccessful in deliniating any obvious anomalies. The pole-dipole array with a 25 m "a" spacing appears to have worked well. The survey penetrated the overburden in all cases. Lines 0 and 1E are the more important lines and as no anomaly was found, both a larger "a" spacing and a different electrode array (gradient) was tried.

Respectfully Submitted,



R.J. Meikle

I, Raymond Meikle of Timmins, Ontario hereby certify that:

1. I hold a three year Technologist Diploma from the Haileybury School of Mines, Haileybury, Ontario obtained in 1975.
2. I have been practising my profession since 1973 in Ontario, Quebec, NWT, Manitoba, New Brunswick, Nova Scotia for Teck Exploration Ltd., Metallgesellschaft Canada Ltd., Rayan Exploration., Sabina Industries Ltd., and most recently Exsics Exploration Ltd.
3. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience, and on the results of the field work conducted on the property during April, 1987 which was carried out under my overall supervision.
4. I hold no interest, directly or indirectly in this property other than professional fees, nor do I expect to receive any interest in the property or in Belmoral Porcupine Resources Limited or any of it's subsidiary companies.

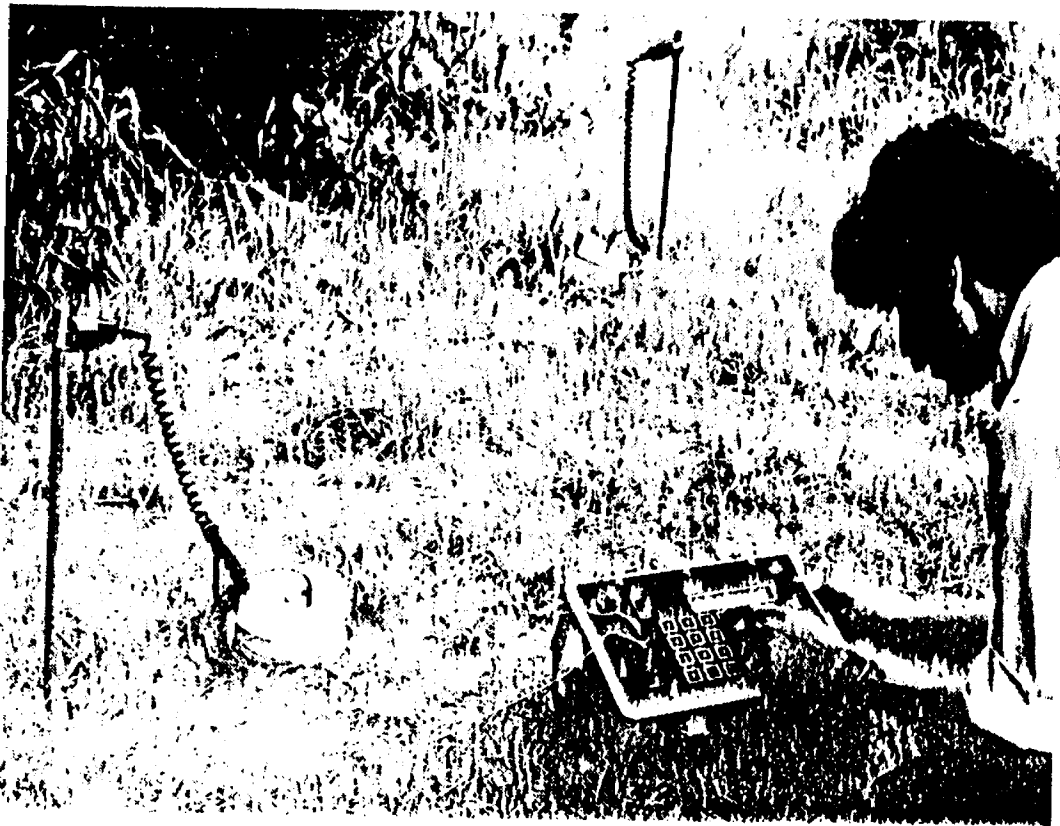
Dated this 11th day of November, 1987
at Timmins, Ontario



R.J. Meikle

Product Information

IP-2 TWO DIPOLE TIME DOMAIN IP RECEIVER



MAJOR BENEFITS

- * TWO DIPOLES SIMULTANEOUSLY MEASURED .
- * SOLID STATE MEMORY
- * AUTOMATIC PRIMARY VOLTAGE (V_p) RANGING
- * AUTOMATICALLY CALCULATES APPARENT RESISTIVITY
- * COMPUTER COMPATIBLE

EDA Instruments Inc., Head Office: 4 Thorncliffe Park Drive, Toronto, Canada M4H 1H1
Telephone: (416) 425-7800, Telex: 06 23222 EDA TOR, Cables: INSTRUMENTS TORONTO

In USA, EDA Instruments Inc., 5151 Ward Road, Wheat Ridge, Colorado 80033
Telephone: (303) 422-9112

Specifications

Dipoles	Two simultaneous input dipoles.
Input Voltage (Vp) Range	40 microvolts to 4 volts, with automatic ranging and overvoltage protection.
Vp Resolution	10 microvolts.
Vp Accuracy	0.3% typical; maximum 1% over temperature range.
Chargeability Resolution	1 %.
Chargeability Accuracy	0.3% typical; maximum 1% over temperature range for Vp > 10 mV.
Automatic SP Compensation	± 1 V with linear drift correction up to 1 mVs.
Input Impedance	1 Megohm.
Sample Rate	10 milliseconds.
Automatic Stacking	3 to 99 cycles.
Synchronization	Minimum primary voltage level of 40 microvolts.
Rejection Filters	50 and 60 Hz power line rejection greater than 100 dB.
Grounding Resistance Check	100 ohm to 128 kilo-ohm.
Compatible Transmitters	Any time domain waveform transmitter with a pulse duration of 1 or 2 seconds and a crystal timing stability of 100 ppm.
Programmable Parameters	Geometric parameters, time parameter, intensity of current, type of array and station number.
Display	Two line, 32-character alphanumeric liquid crystal display protected by an internal heater for low temperature conditions.
Memory Capacity	600 sets of readings.
RS-232C Serial I/O Interface	1200 baud, 8 data bits, 1 stop bit, no parity.
Console Power Supply	Six 1.5V "D" cell disposable batteries with a maximum supply current of 70 mA and auto power save.
Operating Environmental Range	-25°C to +55°C; 0-100% relative humidity; weatherproof.
Storage Temperature Range	-40°C to +60°C.
Weight and Dimensions	5.5 kg, 310x230x210 mm.
Standard System Complement	Instrument console with carrying strap, batteries and operations manual.
Available Options	Stainless steel transmitting electrodes, copper sulphate receiving electrodes, alligator clips, bridge leads, wire spools, interface cables, rechargeable batteries, charger and software programs.

EDA Instruments Inc.
 4 Thorncliffe Park Drive,
 Toronto, Ontario
 Canada M4H 1H1
 Telex: 06 23222 EDA TOR
 Cable: Instruments Toronto
 (416) 425 7800

In U.S.A.
 EDA Instruments Inc.
 5151 Ward Road,
 Wheat Ridge, Colorado
 U.S.A. 80033
 (303) 422 9112

TSQ Series Time and Frequency Domain Transmitters

The TSQ Transmitters have multifrequency, square wave outputs suitable for induced polarization and resistivity measurements in either the time or frequency domain. Both the 750 Watt TSQ-2E and the 3000 Watt TSQ-3 transmitter consoles are powered by a separate motor generator.

These transmitters were designed primarily for use with the Scintrex IPR time domain and IPRF-2 frequency domain receivers although they are compatible with most receivers. The standard frequency domain frequencies are 0.1, 0.3, 1.0 and 3.0 Hz while the standard time domain pulse durations are 1, 2, 4 and 8 seconds. Other frequencies and timings are optional.

The TSQ transmitters feature output overload, underload, thermal, input voltage overload and other built-in safety protections. They have very favorable power/weight ratios, solid state circuitry and a high efficiency.

Current amplitude stabilization is an important feature of the TSQ Transmitters. The current can be held stable within $\pm 0.1\%$ for large external load variations or up to $\pm 10\%$ input voltage variation.

The TSQ-2E Transmitter weighs only 11.5 kg but gives the following maximum outputs: 5A, 1000 V or 750 VA. The TSQ-3, weighing 25.0 kg has maximum outputs of: 10A, 1500 V or 3000 VA.

TSQ Serie de Transmisores para Dominio del Tiempo y Frecuencia

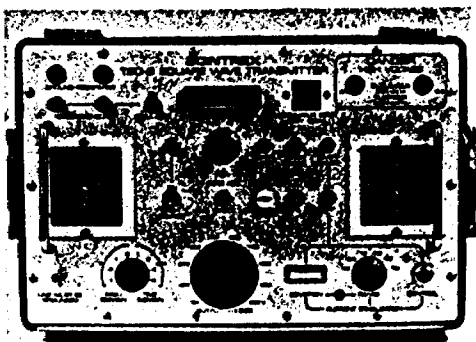
Los transmisores TSQ son de multifrecuencias y de onda cuadrada, útiles para medidas de polarización inducida y resistividad en el dominio del tiempo y de frecuencia. Tanto el TSQ-2E de 750 Watt, como el TSQ-3 de 3000 Watt son consolas de transmisión que requieren energía de un motor-generador separado.

Estos transmisores fueron diseñados, principalmente, para uso con los receptores Scintrex IPR en el dominio del tiempo e IPRF-2 en el dominio de frecuencia, pero sin embargo, son compatibles con muchos otros receptores. Las frecuencias standard son 0.1, 0.3, 1.0 y 3.0 Hz, en tanto que la duración de pulsos en el dominio del tiempo son normalmente de 1, 2, 4 y 8 segundos. Otros tiempos y frecuencias son opcionales.

Los transmisores TSQ tienen protección incorporada contra sobrecargas, bajos voltajes, efectos térmicos y otros. Tienen relaciones de potencia/peso muy favorables, junto a una alta eficiencia y circuitos de estado sólido.

Una importante característica de los transmisores TSQ es la estabilización de amplitud de corriente. La corriente puede mantenerse estable en $\pm 0.1\%$ bajo grandes variaciones del cargado externo, y hasta $\pm 10\%$ para variaciones de voltaje de entrada del motor.

El transmisor TSQ-2E pesa solo 11.5 kg y tiene salidas máximas de: 5A, 1000V ó 750 VA. El TSQ-3, que pesa 25.0 kg, tiene salidas máximas de: 10A, 1500V ó 3000 VA.



TSQ-3/3000W

TSQ: Emetteurs en domaines de temps et de fréquence.

Les émetteurs TSQ fournissent des sorties à plusieurs fréquences d'ondes carrées convenant aux mesures de polarisation provoquée et de résistivité en domaine de temps ou de fréquence. Les deux émetteurs de 750 W, modèle TSQ-2E et de 3000 Watts, modèle TSQ-3 sont alimentés par un groupe électrogène séparé.

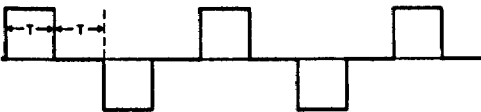
Ces émetteurs sont conçus principalement pour une utilisation avec les récepteurs Scintrex de type IPR pour le domaine de temps et IPRF-2 pour le domaine de fréquence, bien qu'ils soient compatibles avec la plupart des récepteurs. Les fréquences standard en domaine de fréquence sont de 0,1, 0,3, 1,0 et 3,0 Hz, cependant que les durées d'impulsion en domaine de temps sont de 1, 2, 4 et 8 secondes. D'autres fréquences et minutages sont facultatifs.

Les émetteurs TSQ-3 sont caractérisés par des circuits de protection de sortie: de surcharge, de charge trop faible, thermique, d'entrée de tension maximum et d'autres protections de sécurité incorporées. Ils ont un rapport puissance/poids très favorable, des circuits à semi-conducteurs et une haute efficacité.

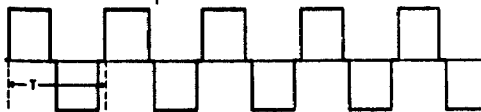
La stabilisation d'amplitude de courant est une caractéristique importante des émetteurs de type TSQ. Le courant peut être maintenu stable à moins de $\pm 0.1\%$ pour de grandes variations de charge externe ou pour jusqu'à $\pm 10\%$ de variation de tension d'entrée.

Le poids de l'émetteur TSQ-2E est de 11,5 kg seulement et il a les maximums de sortie suivants: 5 A, 1000 V ou 750 volt-ampères. Le TSQ-3 qui pèse 25 kg a les maximums de sortie suivants: 10 A, 1500 V ou 3000 VA.

Time Domain: $T = 1, 2, 4$ or 8 seconds, switch selectable.

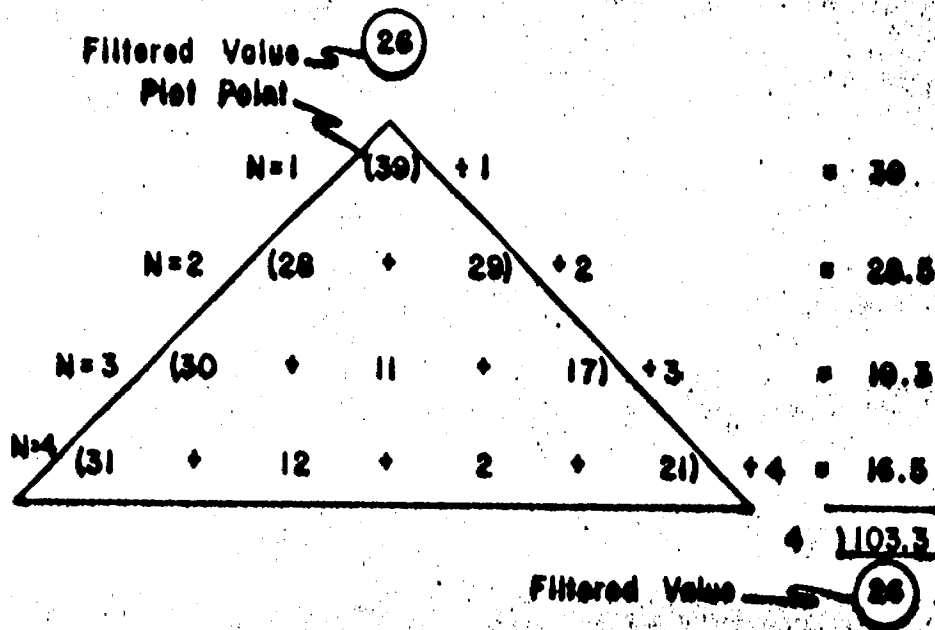


Frequency Domain: $T = \frac{1}{f}$ and $f = 0.01, 0.3, 1.0$ or 3.0 Hz.



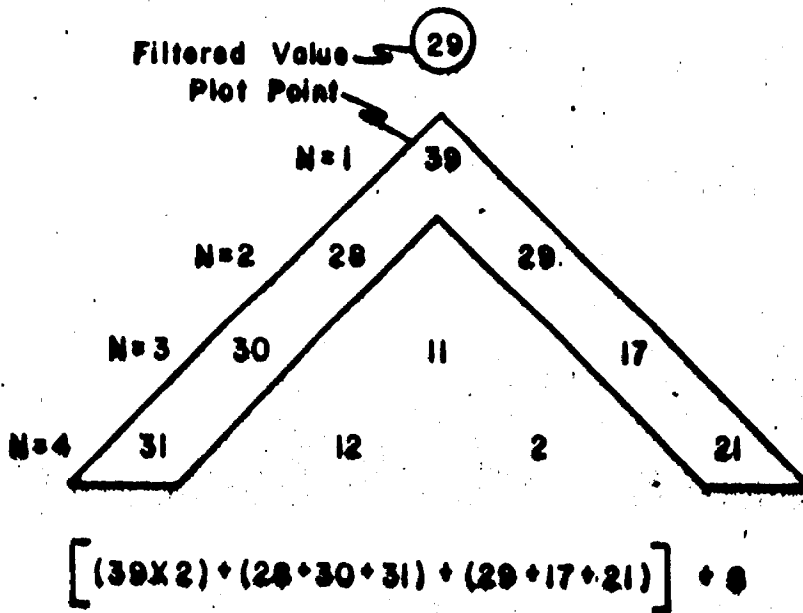
TSQ-2E/750 W

FRASER FILTER METHOD A



FRASER FILTER METHOD B

DOUBLE WEIGHTED 1st N



METAL FACTOR CALCULATION

$$MF = \frac{\text{CHARGEABILITY} \times 2000}{6.6 \times \text{RESISTIVITY}}$$



File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) INDUCED POLARIZATION
Township or Area ADAMS TOWNSHIP
Claim Holder(s) BELMORAL PORCUPINE RESOURCES LIMITED
Survey Company EXSICS EXPLORATION LTD.
Author of Report R.J. MEIKLE
Address of Author P.O. BOX 1880, TIMMINS, ONT.
Covering Dates of Survey APRIL 14, - MAY 2, 1987
Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

Table with 2 columns: Prefix (P), Number (814128-814135). Total claims: 8

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

Table with 2 columns: Geophysical, DAYS per claim. Includes Electromagnetic, Magnetometer, Radiometric, Other I.P. - 42, Geological, Geochemical.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Oct. 29/87 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 2-3860

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations 384 Number of Readings 384
Station interval 25m Line spacing 100m
Profile scale _____
Contour interval _____

MAGNETIC

Instrument _____
Accuracy – Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

ELECTROMAGNETIC

Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____
(specify V.L.F. station)
Parameters measured _____

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____
Elevation accuracy _____

**INDUCED POLARIZATION
RESISTIVITY**

Instrument RECEIVER - EDA IP-2
Method Time Domain Frequency Domain
Parameters – On time 2 seconds Frequency _____
– Off time 2 seconds Range _____
– Delay time _____
– Integration time _____
Power 3000 watts
Electrode array Pole-Dipole, Gradient
Electrode spacing a= 25m a=50m
Type of electrode Stainless Steel and porous pots

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

SCALE : 1:1250

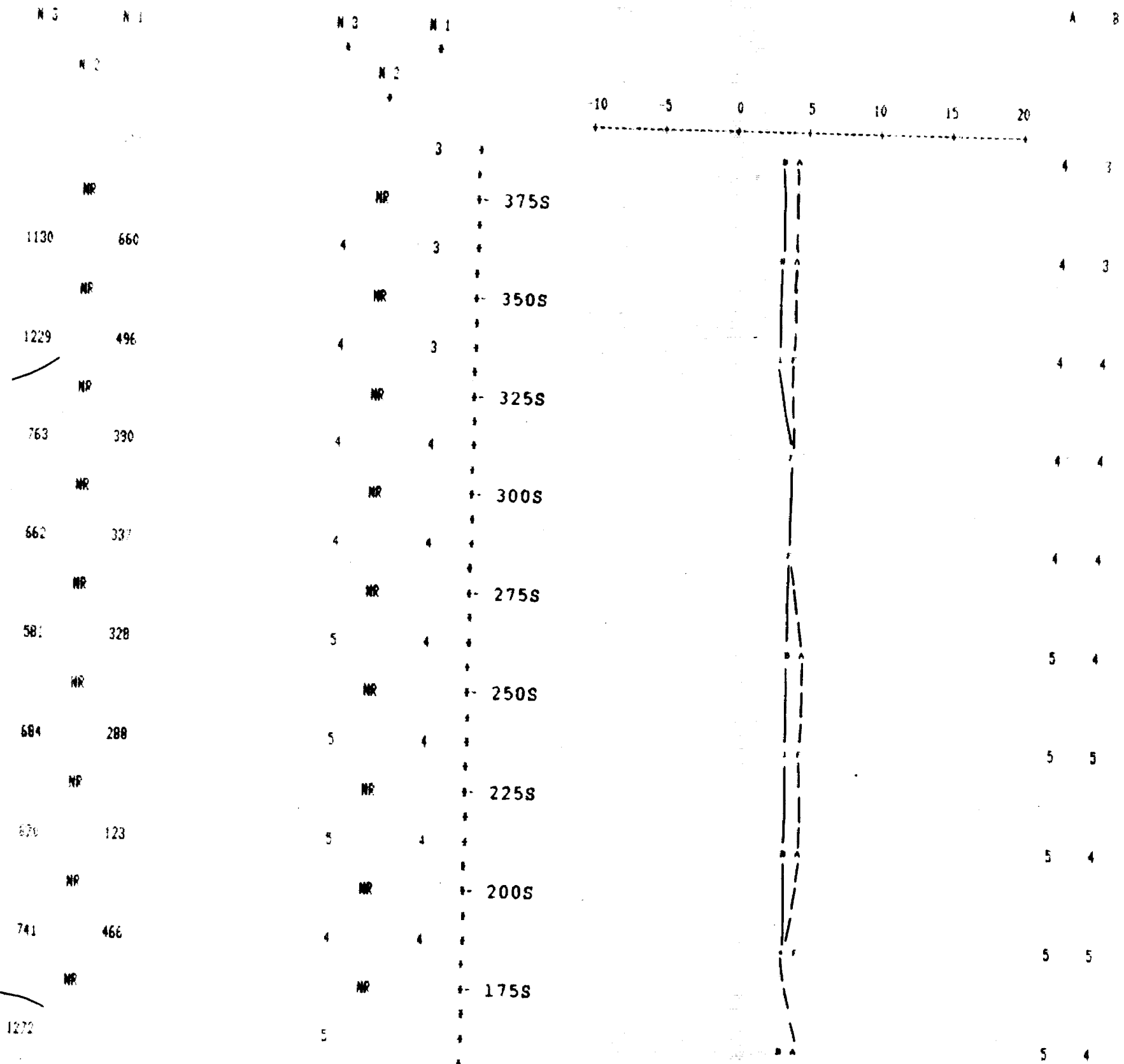
RESISTIVITY
(ohm - metres)

CHARGEABILITY
(milliseconds)

CHARGEABILITY PROFILE

F
R
A
S
E
O

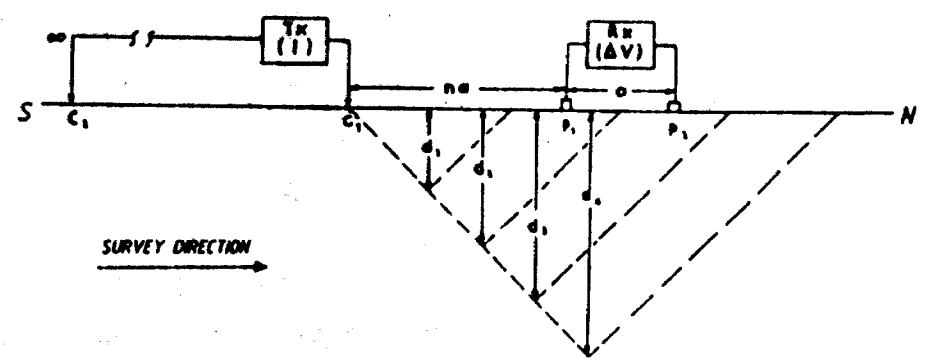
A B



662	337	4	4	+		4	4
	NR		NR	+	275S		
581	328	5	4	+		5	4
	NR		NR	+	250S		
684	288	5	4	+		5	5
	NR		NR	+	225S		
670	123	5	4	+		5	4
	NR		NR	+	200S		
741	466	4	4	+		5	5
	NR		NR	+	175S		
1270		5		+		5	4

Property : ADAMS TOWNSHIP
 Client : BELMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : MP
 Electrode Array : POLE - DIPOLE
 Mode : TIME DOMAIN
 Receiver : IP-2
 Transmitter : SCINTREX IPC-7
 Pulse Time : 2 Sec on 2 Sec off
 Delay Time : 500 ms
 Integration Time : 920 ms



 EXSICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3
 'a' Spacing = 25 M

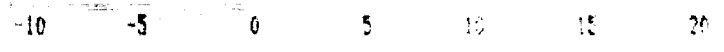
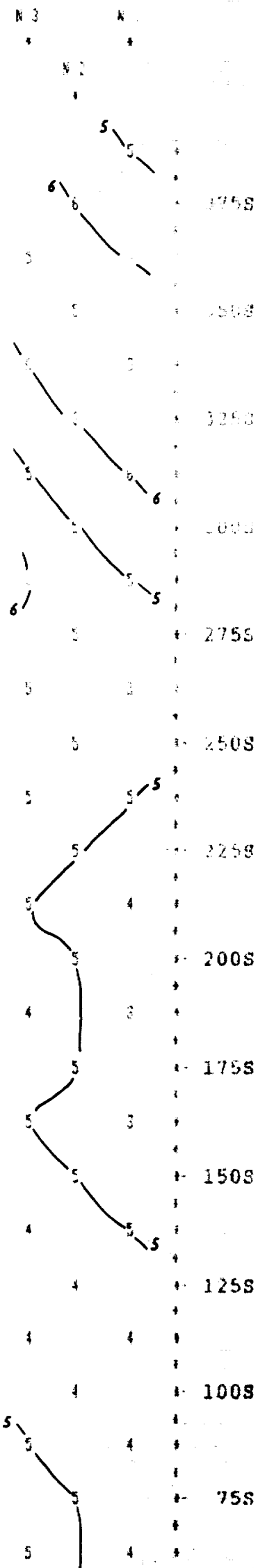
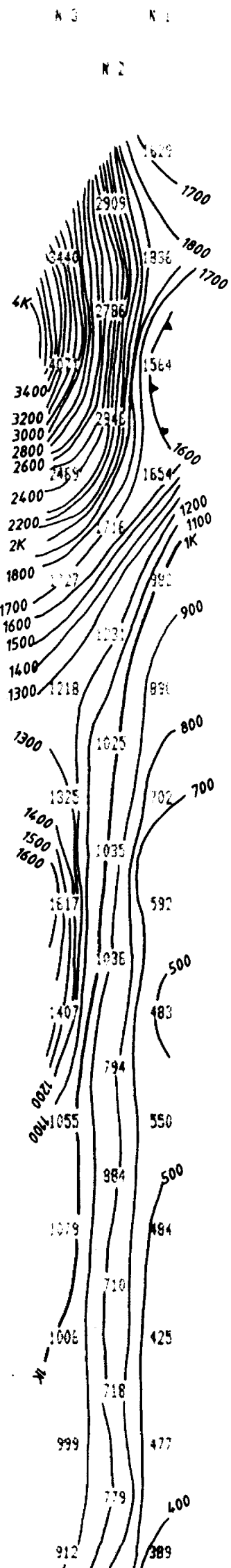
LINE 700 W

SCALE : 1 : 1250

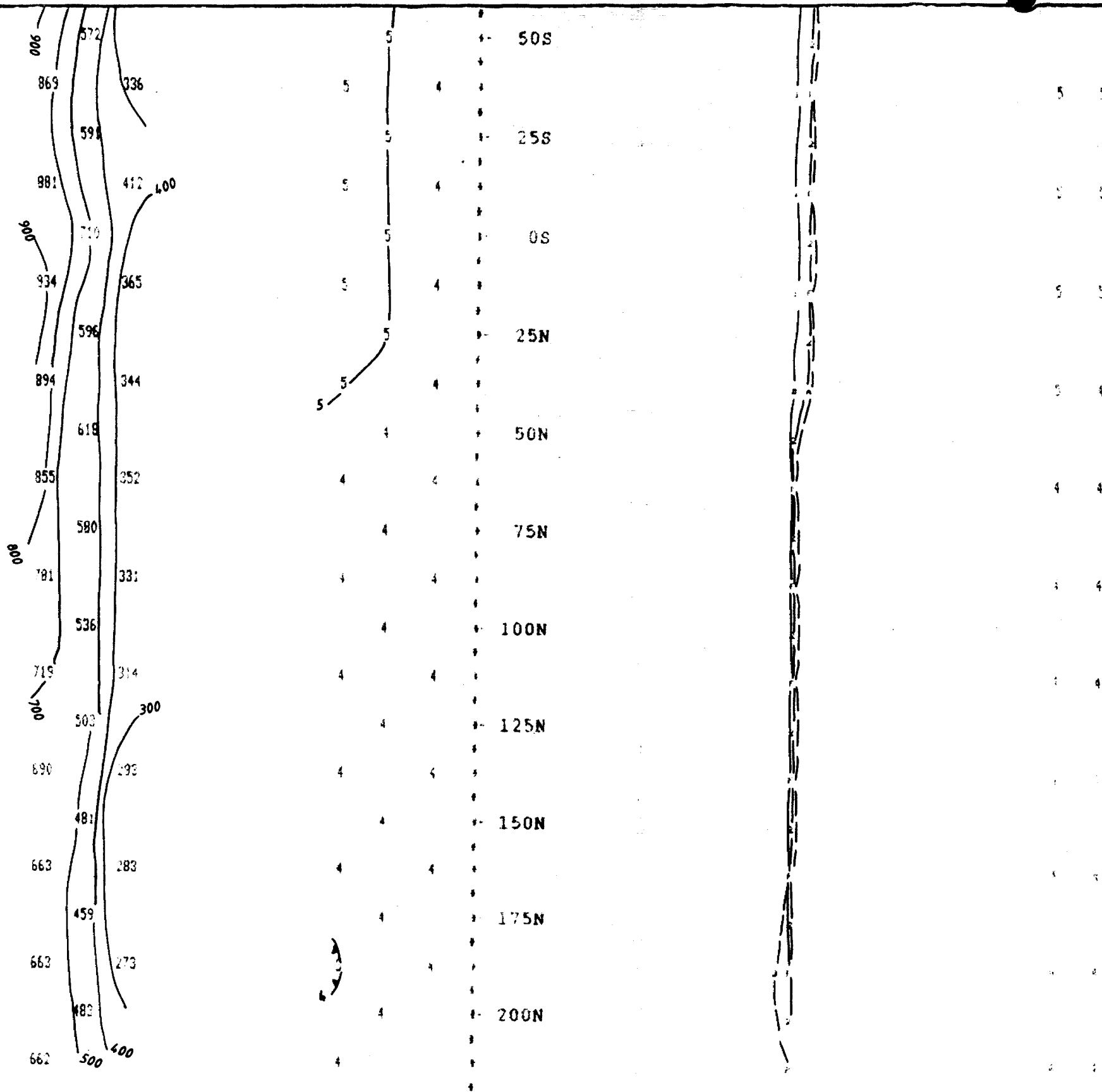
RESISTIVITY
ohm-metres

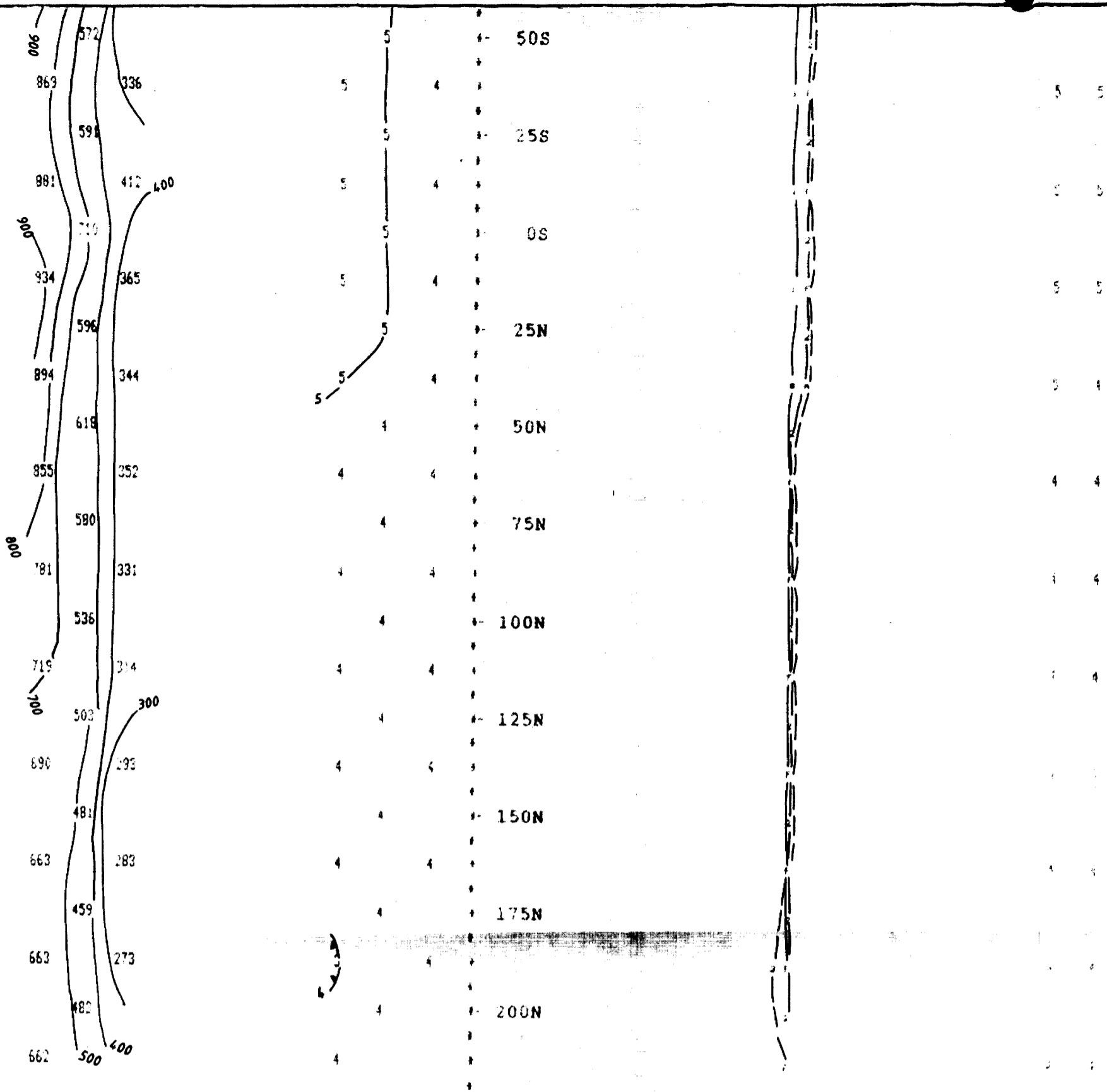
CHARGEABILITY
milliseconds

CHARGEABILITY PROFILE



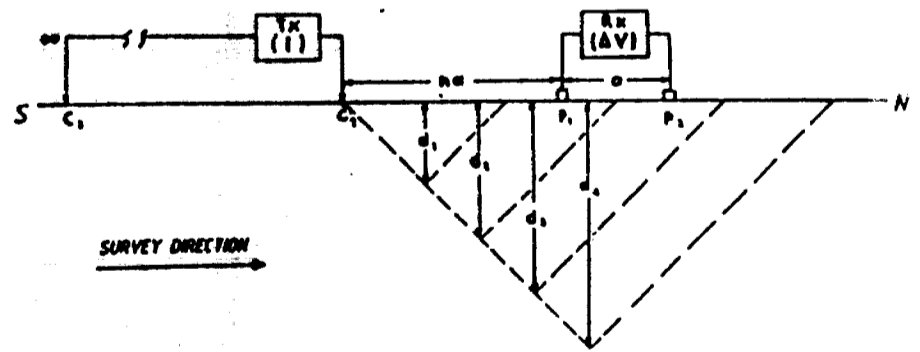
RESISTIVITY PROFILE
CHARGEABILITY PROFILE
A B





Property : ADAMS TOWNSHIP
 Client : SCUMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : WP
 Electrode Array : POLE DIPOLE
 Mode : TIME DOMAIN
 Receiver : EDA IP-2
 Transmitter : SCINTREX IPC-7
 Pulse Time : 2 Sec on 2 Sec off
 Delay Time : 350 ms
 Integration Time : 700 ms



 EXSICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3

'a' Spacing = 25 M

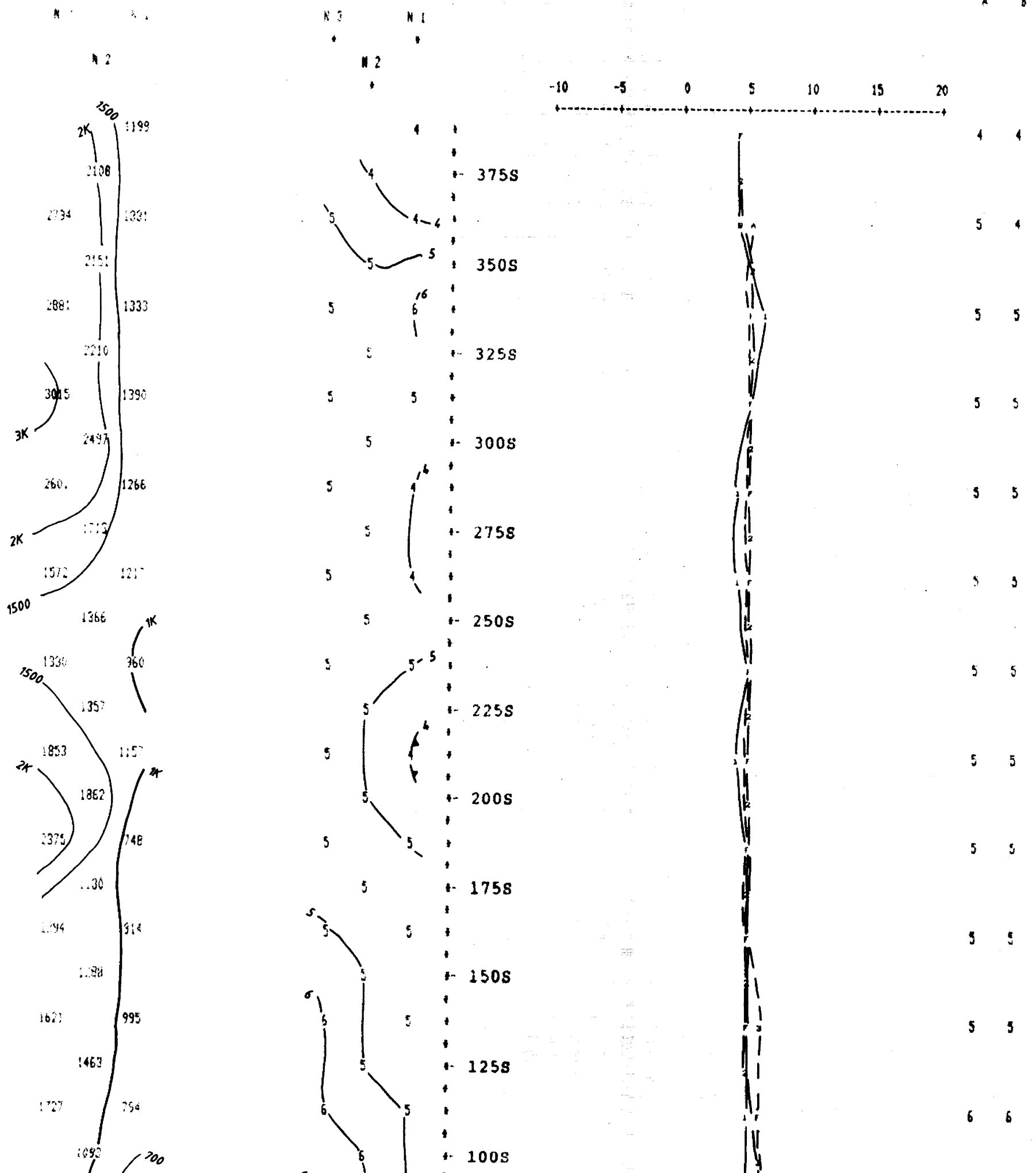
LINE 500 W

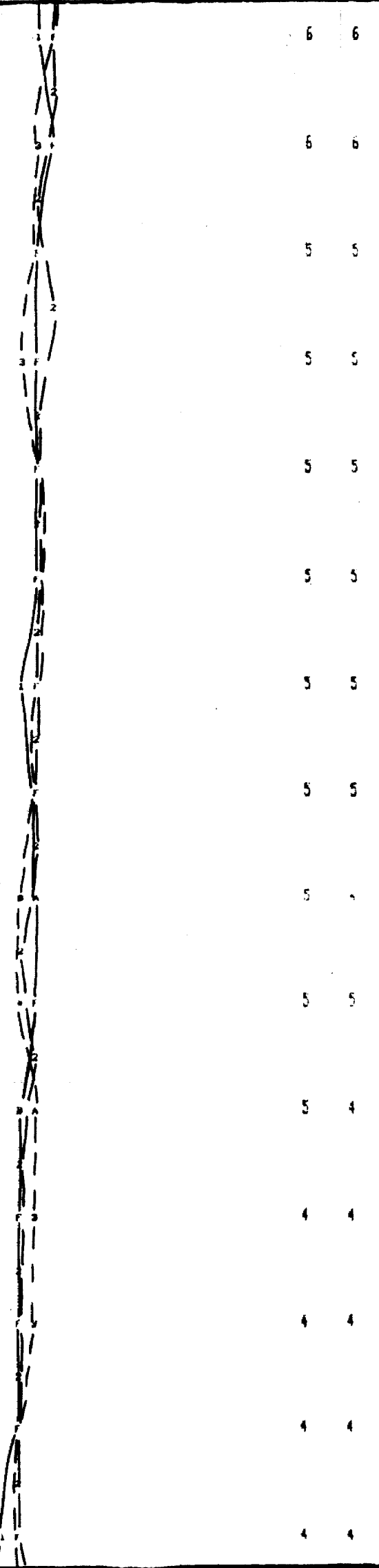
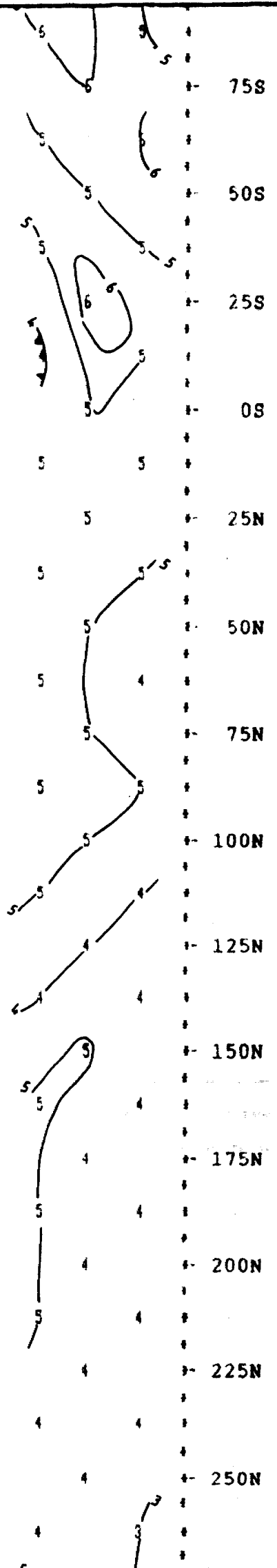
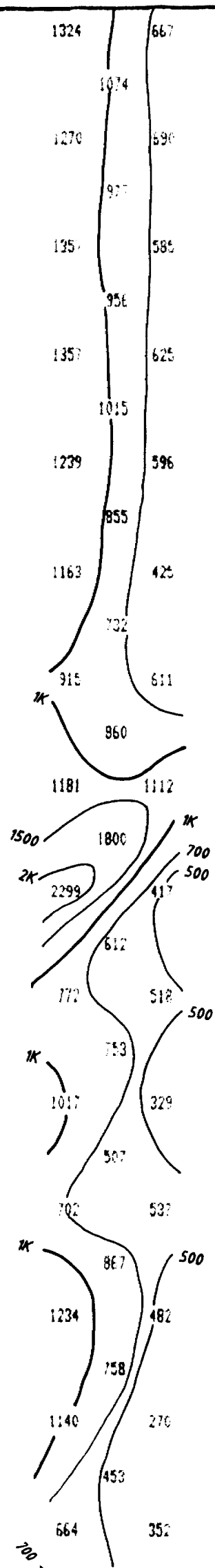
SCALE : 1 : 1250

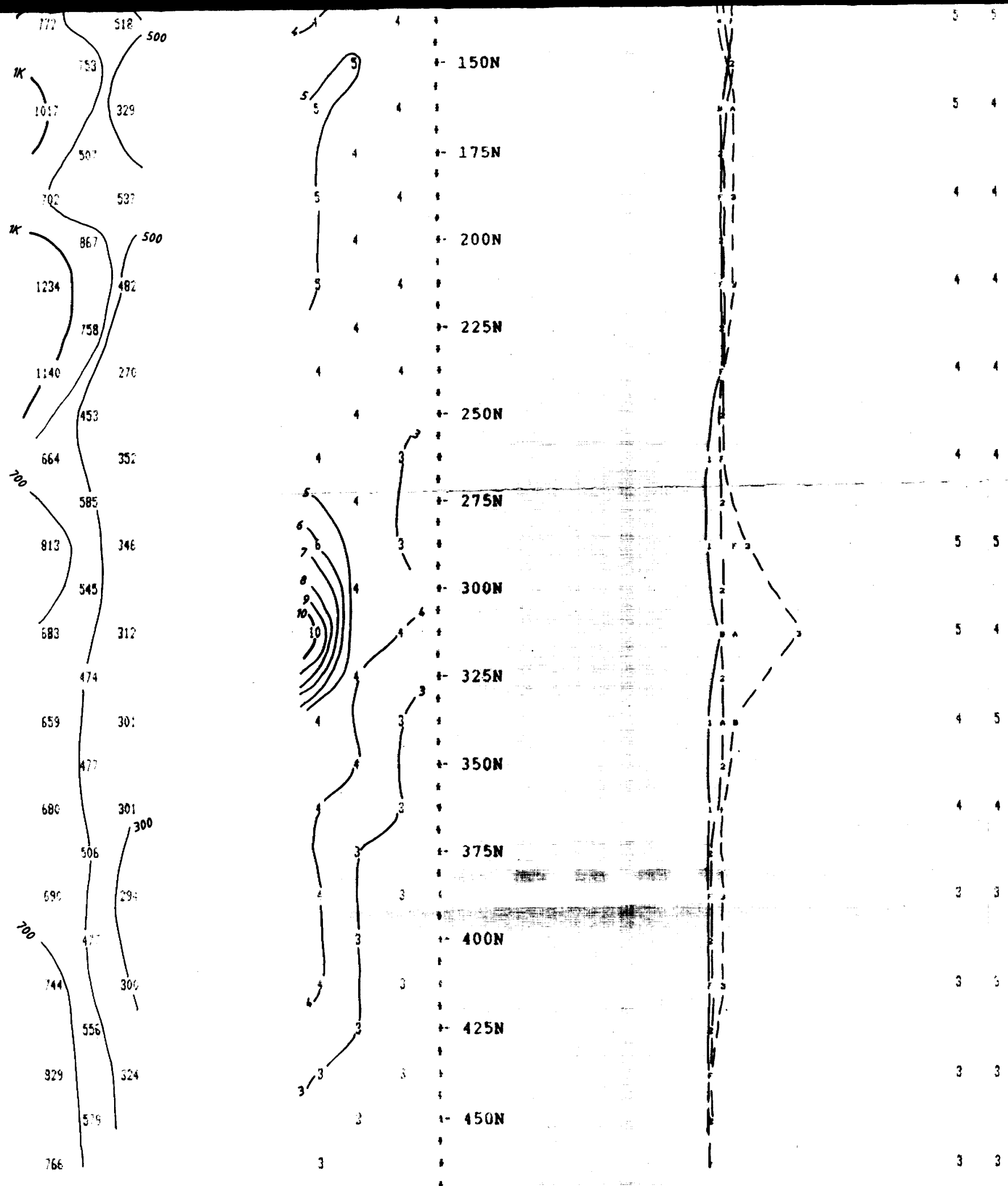
RESISTIVITY
(ohm metres)

CHARGEABILITY
(milliseconds)

CHARGEABILITY PROFILE

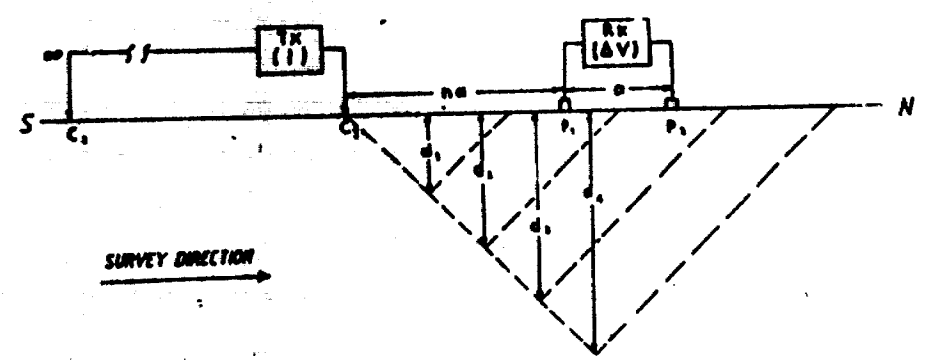






Property : ADAMS TOWNSHIP
 Client : BELMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : WP
 Electrode Array : POLE - DIPOLE
 Mode : TIME DOMAIN
 Receiver : IP-2
 Transmitter : SCINTREX IPC-7
 Pulse Time : 2 Sec on 2 Sec off
 Delay Time : 350 ms
 Integration Time : 700 ms



 EXSICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3
 'a' Spacing = 25 M

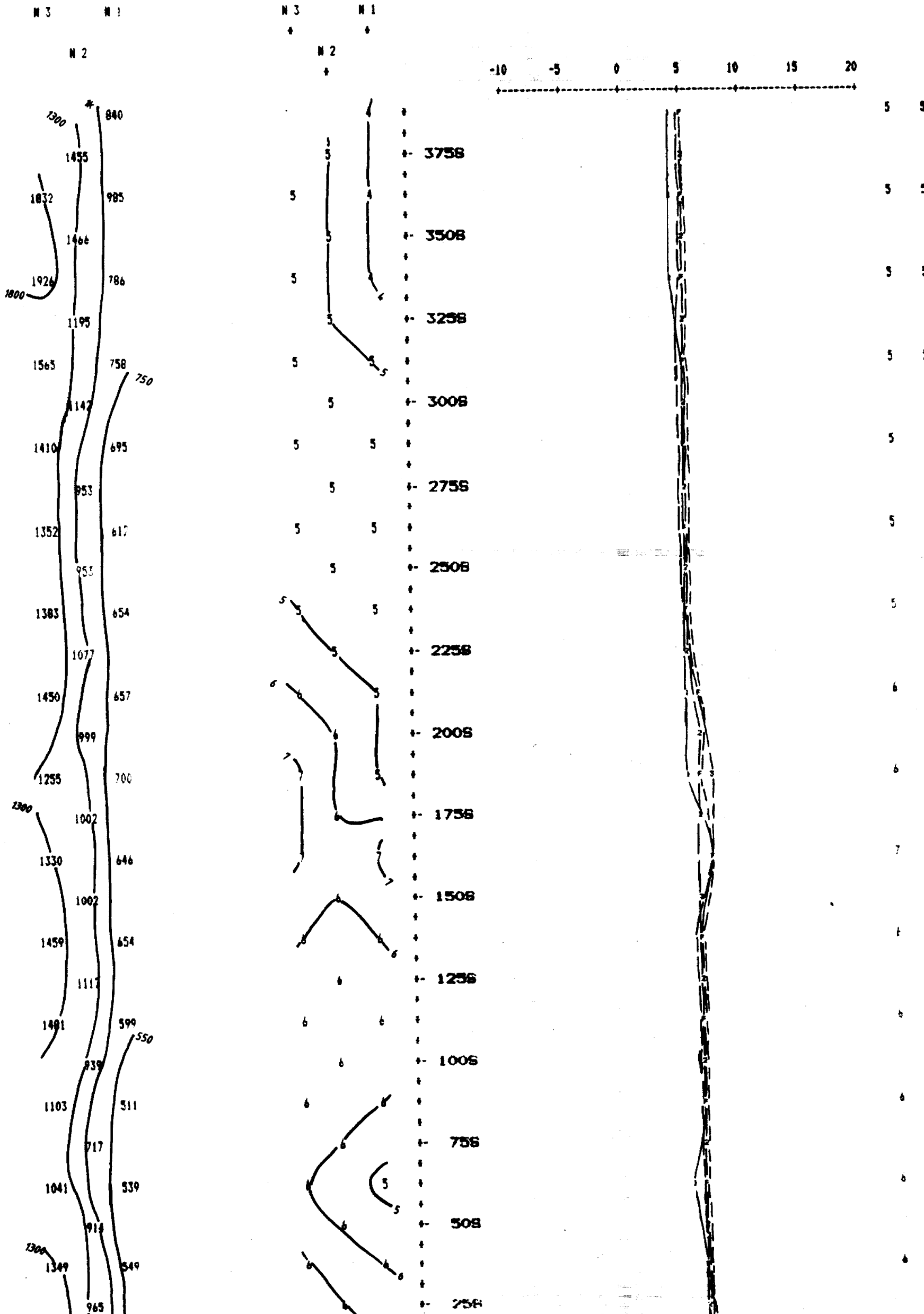
SCALE : 1 : 1250

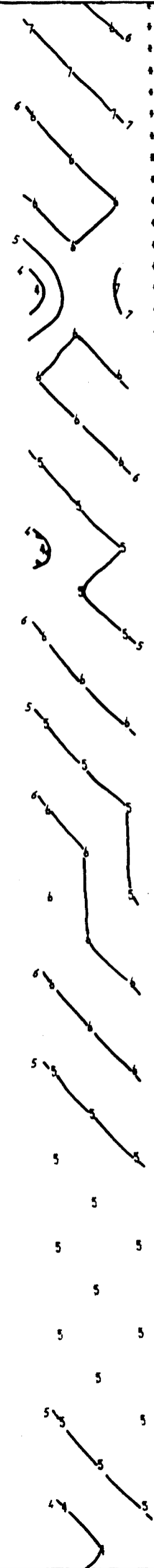
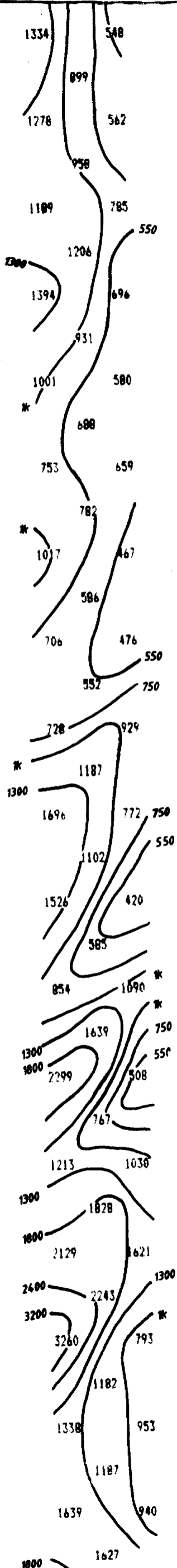
RESISTIVITY
(ohm - metres)

CHARGEABILITY
(milliseconds)

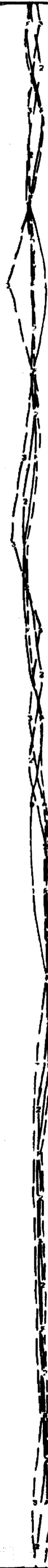
CHARGEABILITY PROFILE

RESISTIVITY
CHARGEABILITY
A B

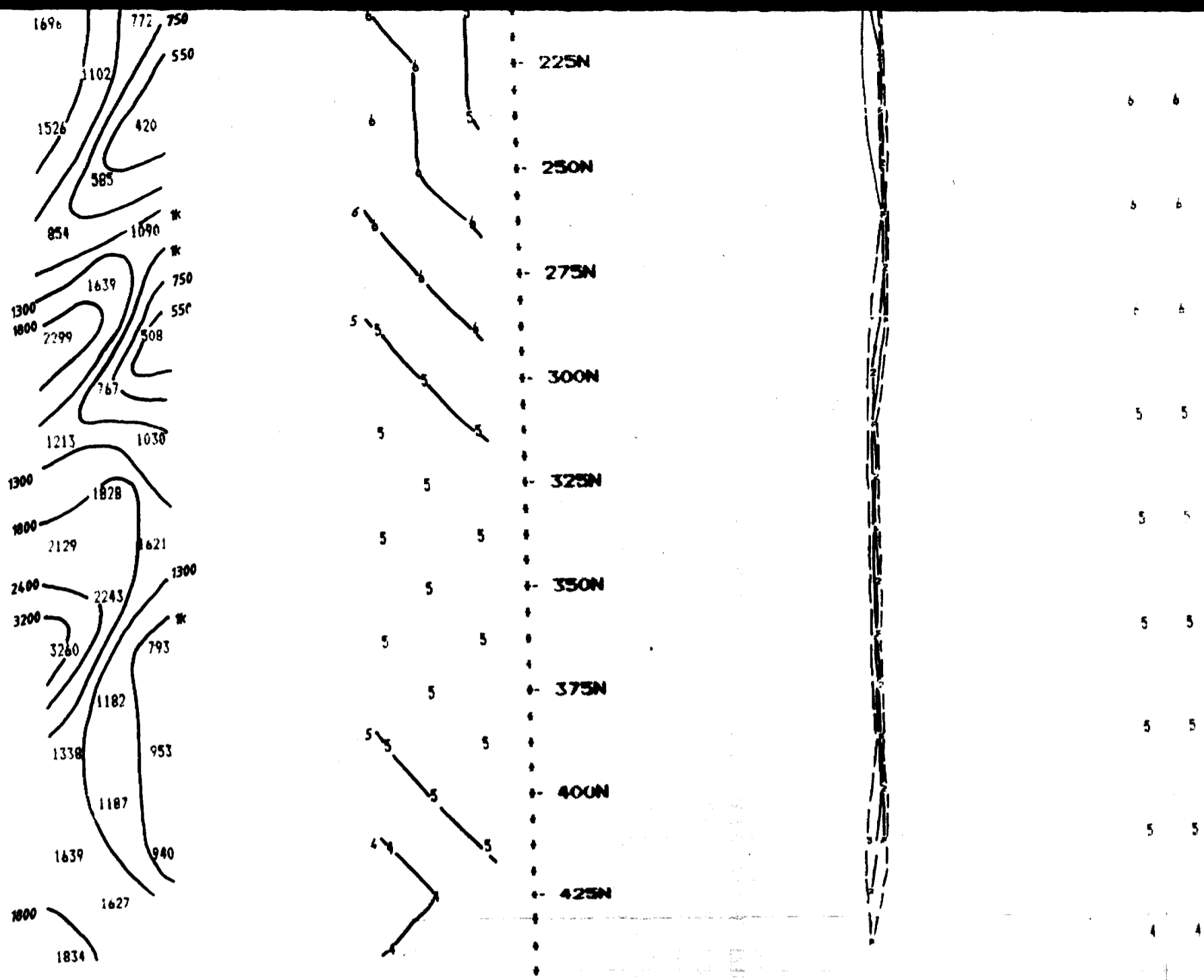




OS
 25N
 50N
 75N
 100N
 125N
 150N
 175N
 200N
 225N
 250N
 275N
 300N
 325N
 350N
 375N
 400N
 425N



6
 7 7
 6 6
 6 6
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 5 5



Property : ADAMS TOWNSHIP

Client : BELMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87

Operator : WF

Electrode Array : POLE - DIPOLE

Mode : TIME DOMAIN

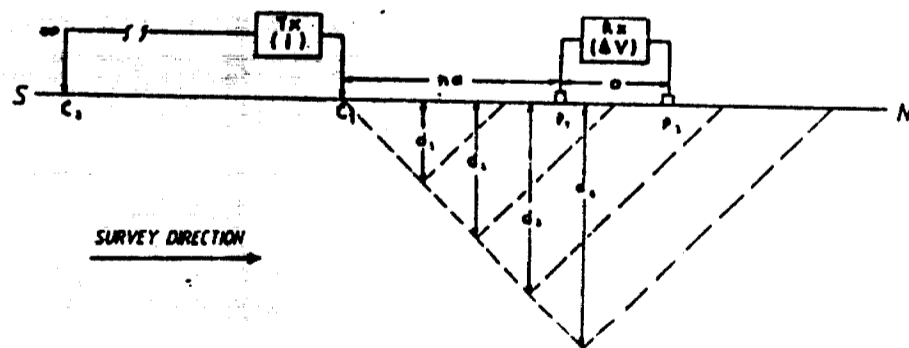
Receiver : IP-2

Transmitter : SCINTREX IPC-7

Pulse Time : 2 Sec on 2 Sec off

Delay Time : 280 MS

Integration Time : 500 MS



 EXSICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3

'a' Spacing = 25 M

LINE 300 W

SCALE : 1 : 1250

RESISTIVITY
(ohm metres)

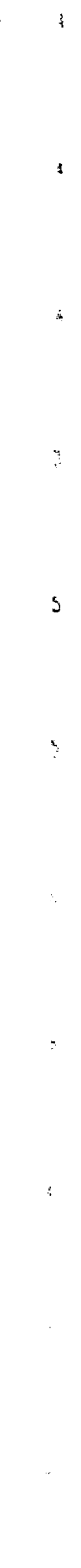
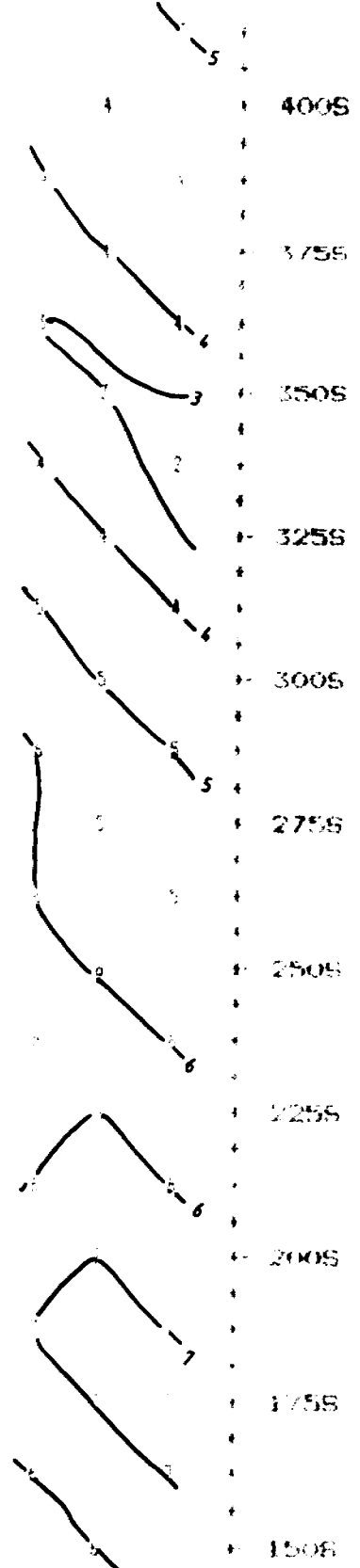
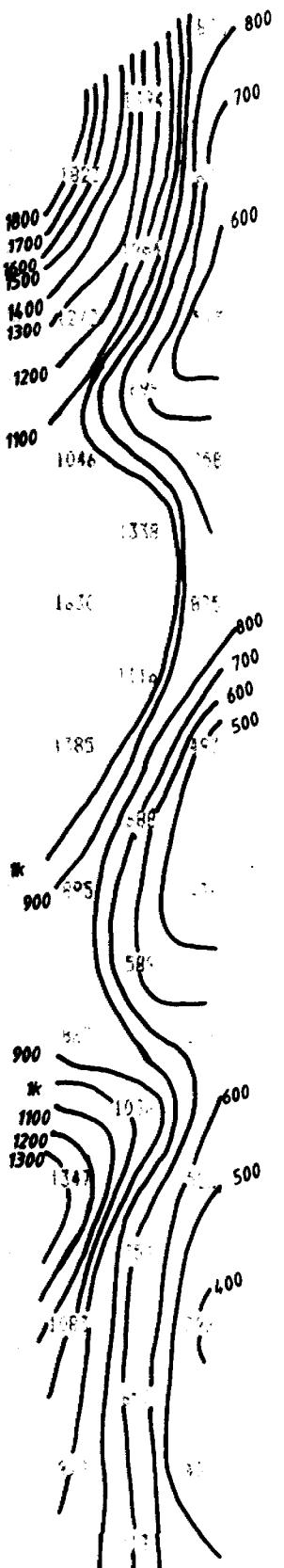
PERMEABILITY
(msec/cm)

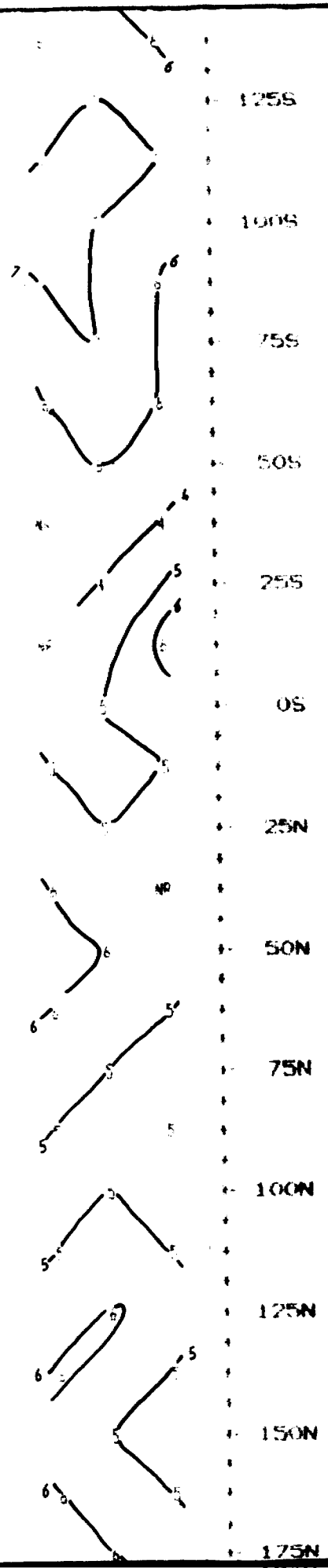
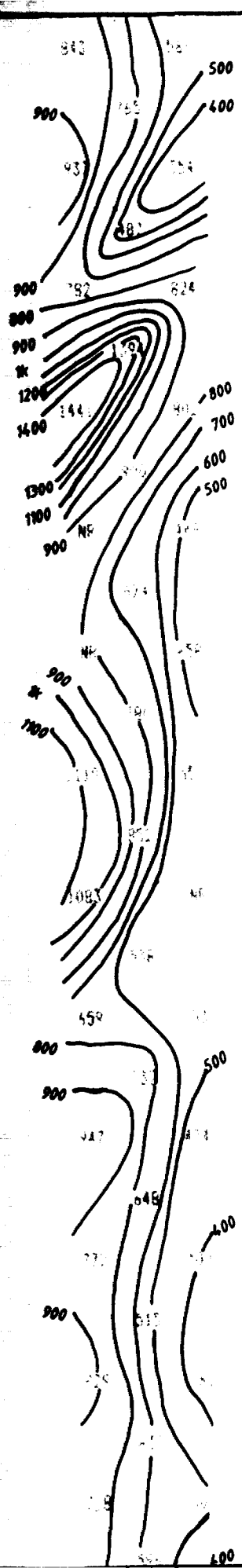
CHARGEABILITY PROFILE

RESISTIVITY
PERMEABILITY
CHARGEABILITY

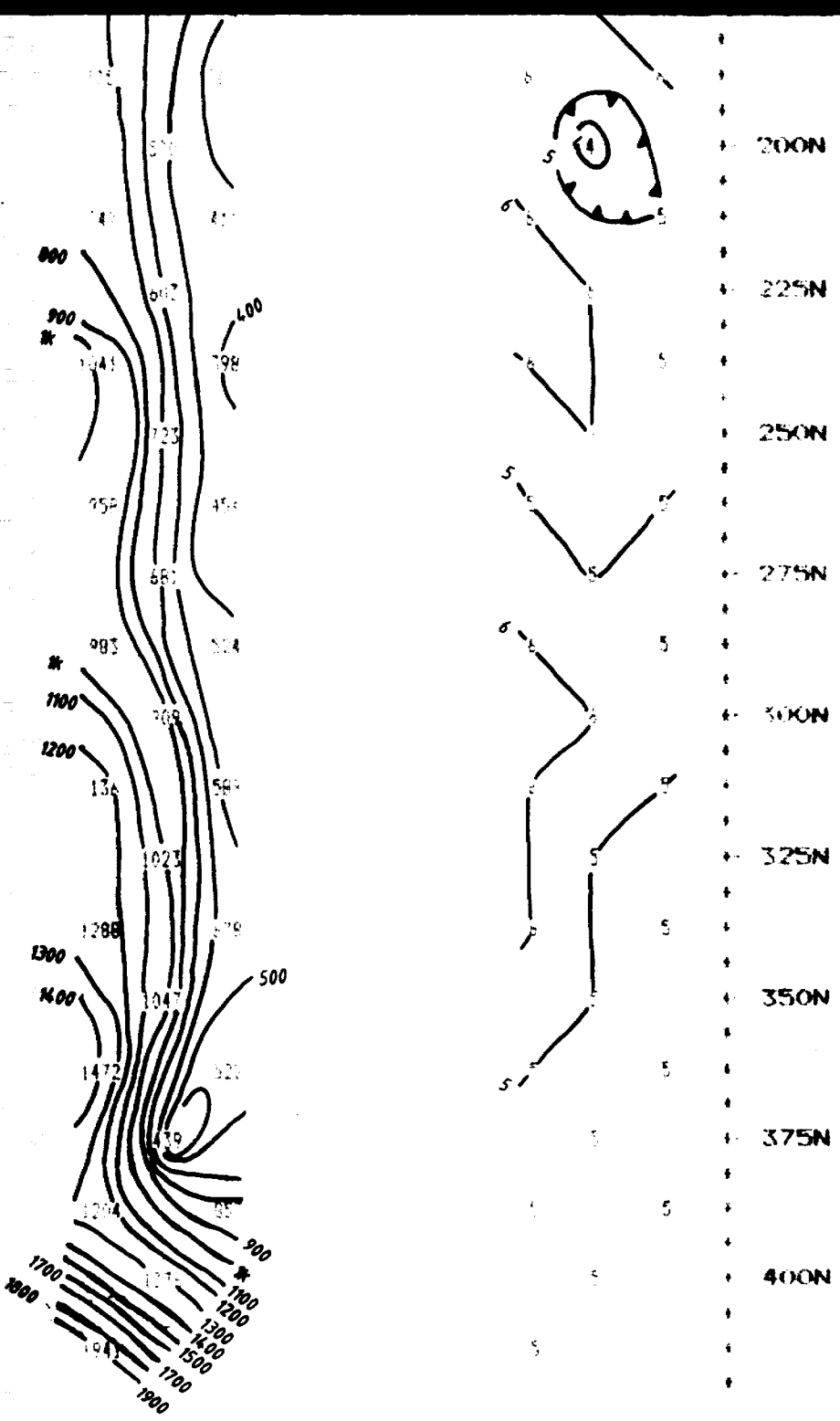
A B

10 5 0 5 10 15 20



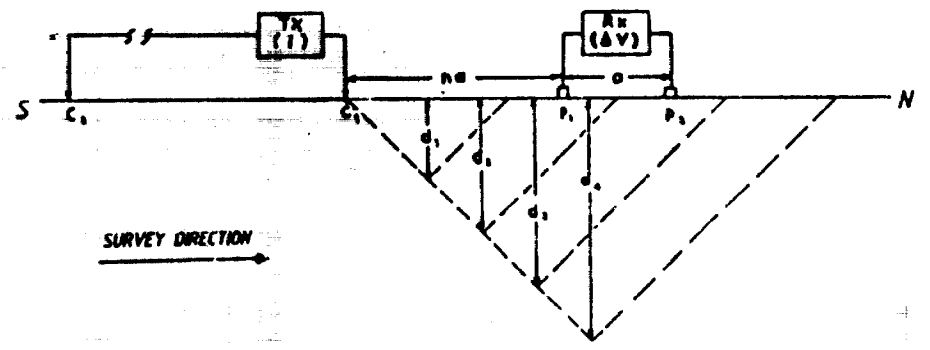


6	0
7	1
8	2
9	3
5	0
4	1
5	1
6	6
6	5
5	5
5	5
6	5
6	5



Property : ALGMS FIMBIRIP
 Client : BELMORA OFFSHORE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : WF
 Electrode Array : PILE - DIPOLE
 Mode : TIME DOMAIN
 Receiver : IP-2
 Transmitter : SCINTREX IPC-7
 Pulse time : 2 Sec on 2 Sec off
 Delay Time : 280 MS
 Integration time : 500 MS



 EXBICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3

'a' Spacing = 25 M

LINE 290 W

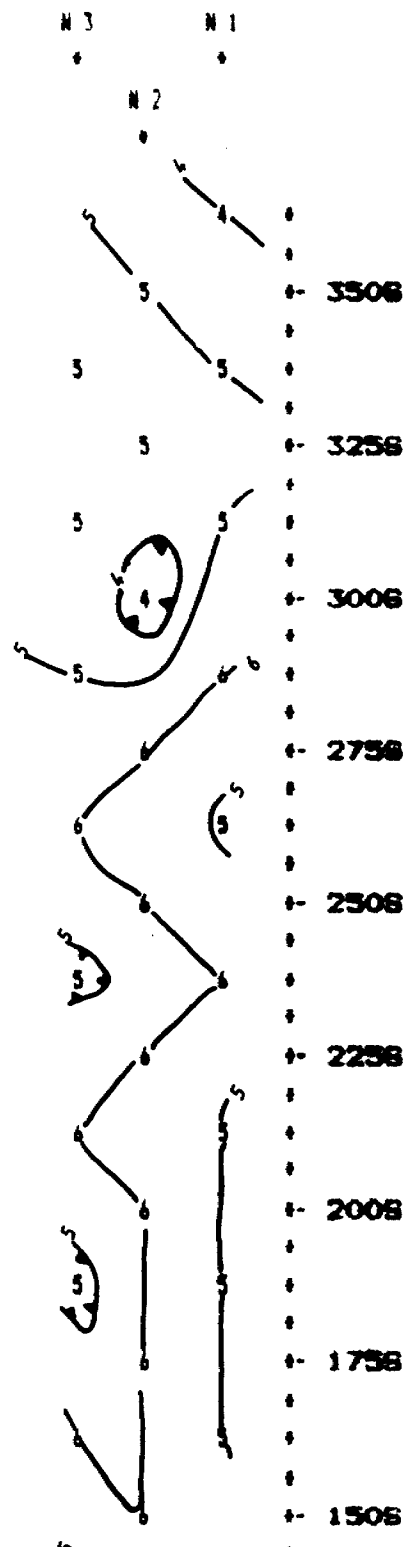
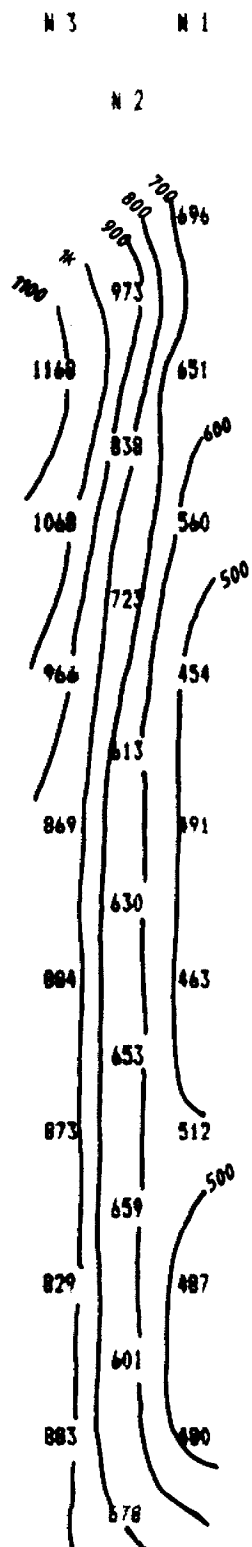
SCALE : 1 : 1250

RESISTIVITY
(ohm - metres)

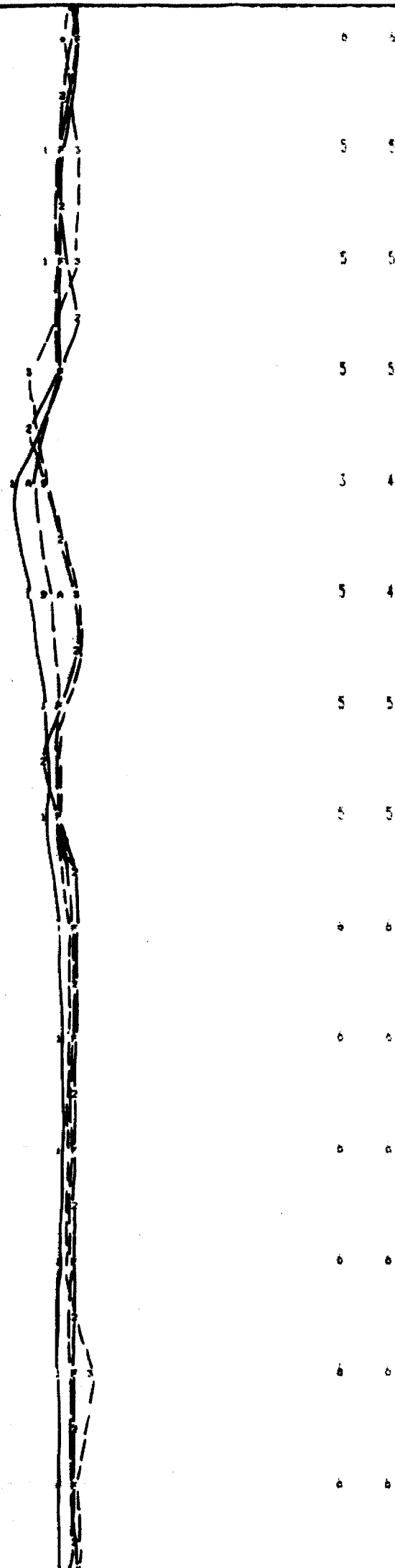
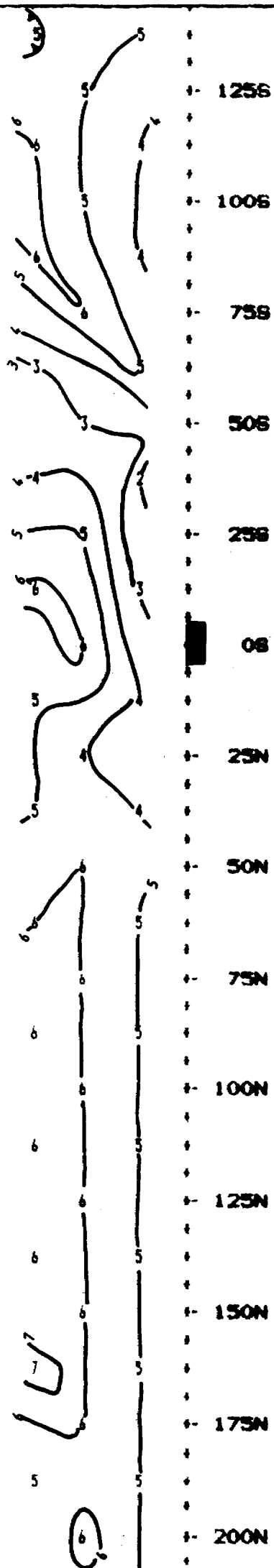
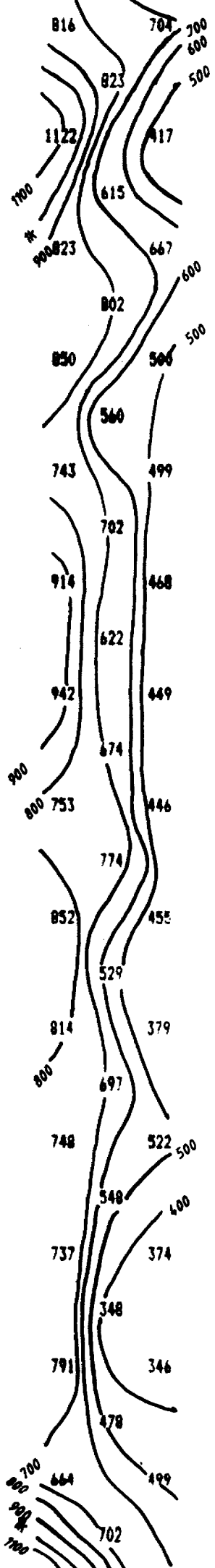
CHARGEABILITY
(milliseconds)

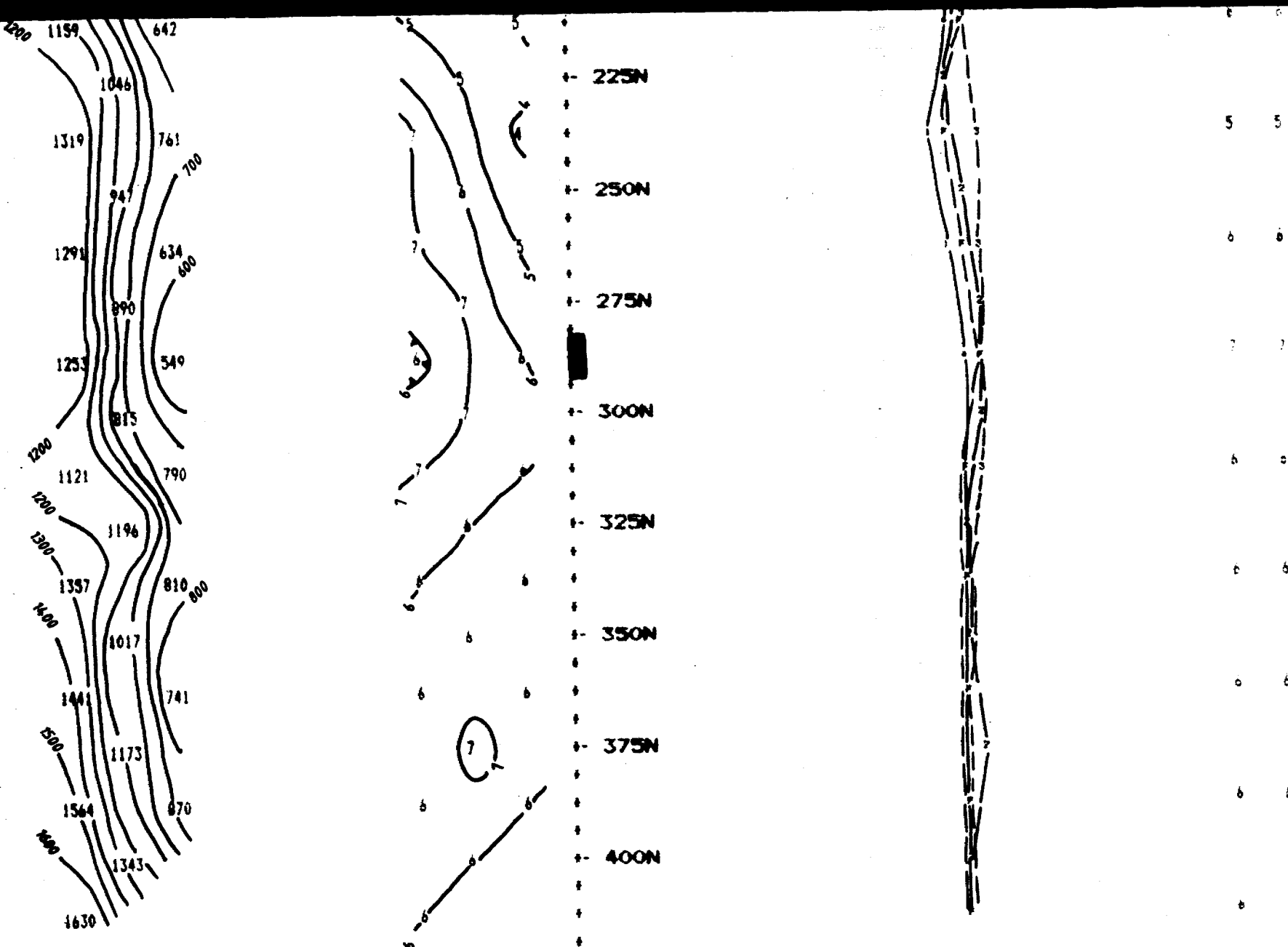
CHARGEABILITY PROFILE

F I L T E R
A B



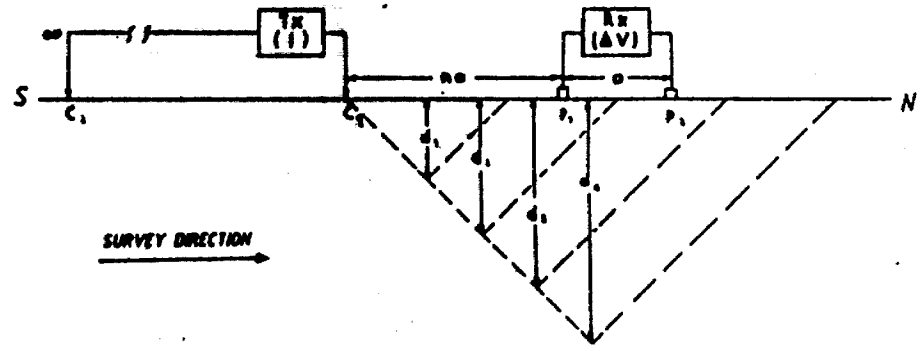
Filter A	Filter B
5	5
5	5
3	5
5	6
5	5
6	6
5	5
6	6
5	5





Property : ADAMS TOWNSHIP
 Client : BELMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : WP
 Electrode Array : POLE - DIPOLE
 Mode : TIME DOMAIN
 Receiver : IP-2
 Transmitter : SCINTREX IPC-7
 Pulse Time : 2 Sec on 2 Sec off
 Delay Time : 280 MS
 Integration Time : 500 MS



 EXSICS EXPLORATION LTD.
 ***** *W. M. Smith*

IP Pseudosections for N = 1 to 3
 a Spacing = 25 M
 LINE 100 W

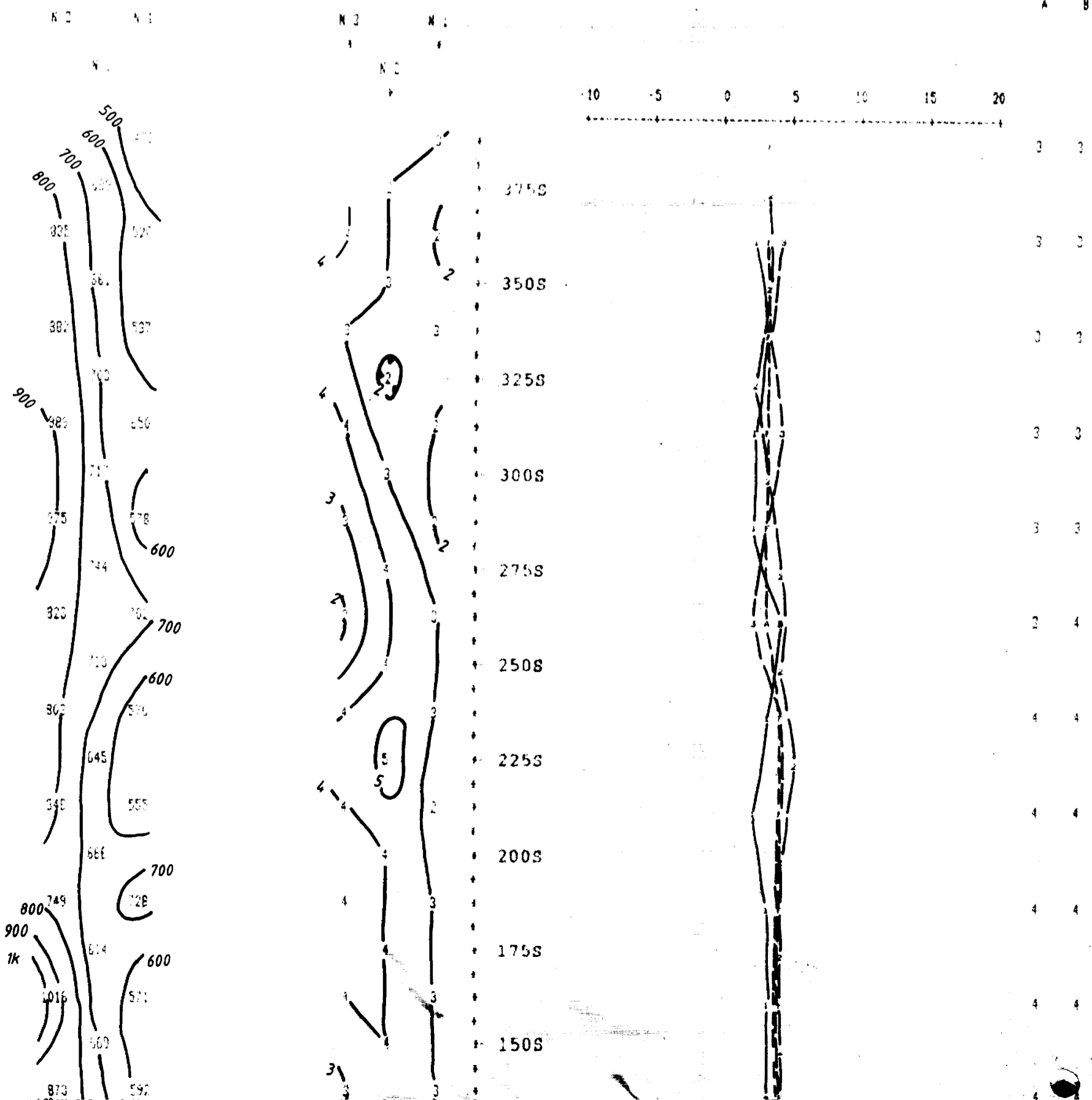
SCALE : 1:1250

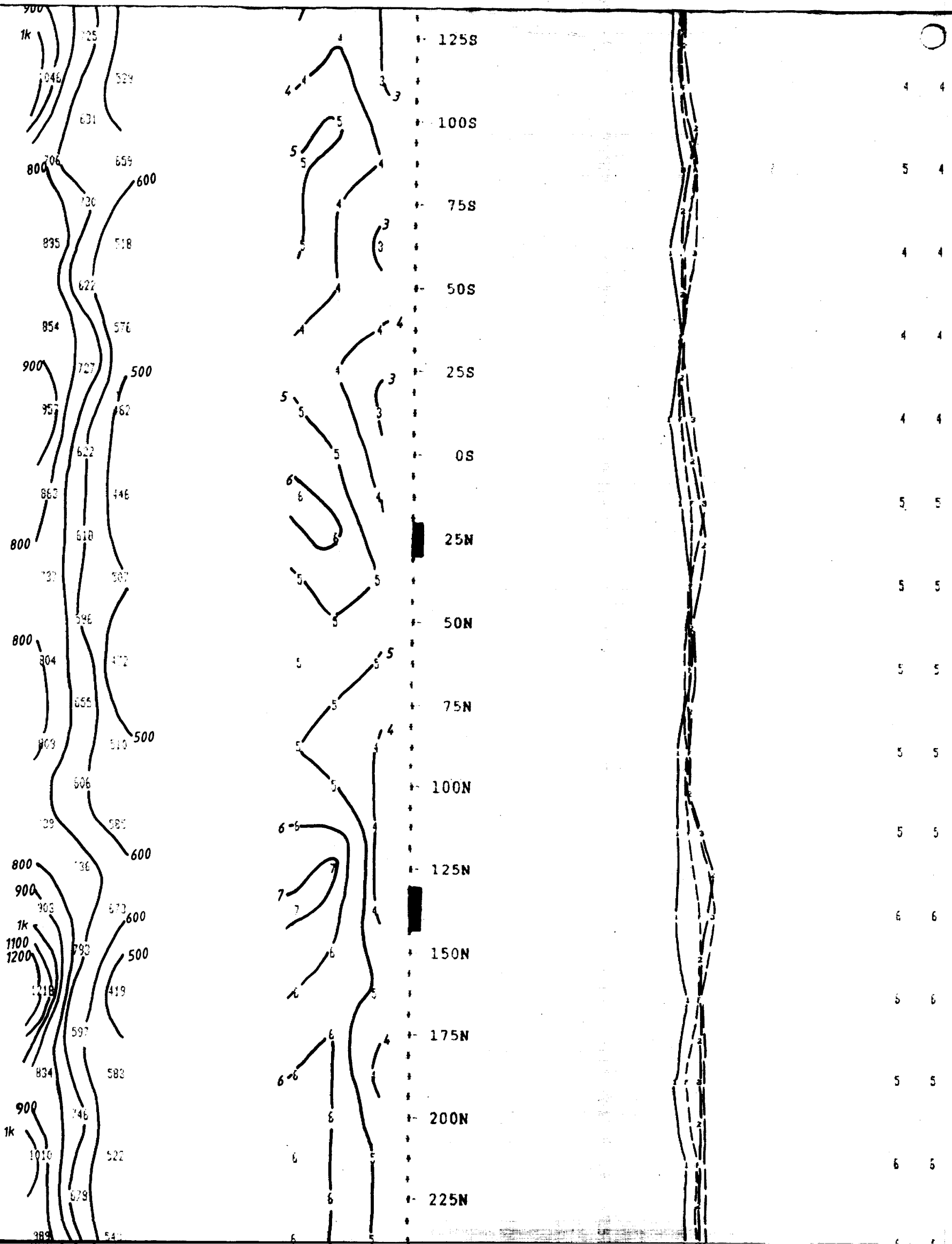
RESISTIVITY
(ohm metres)

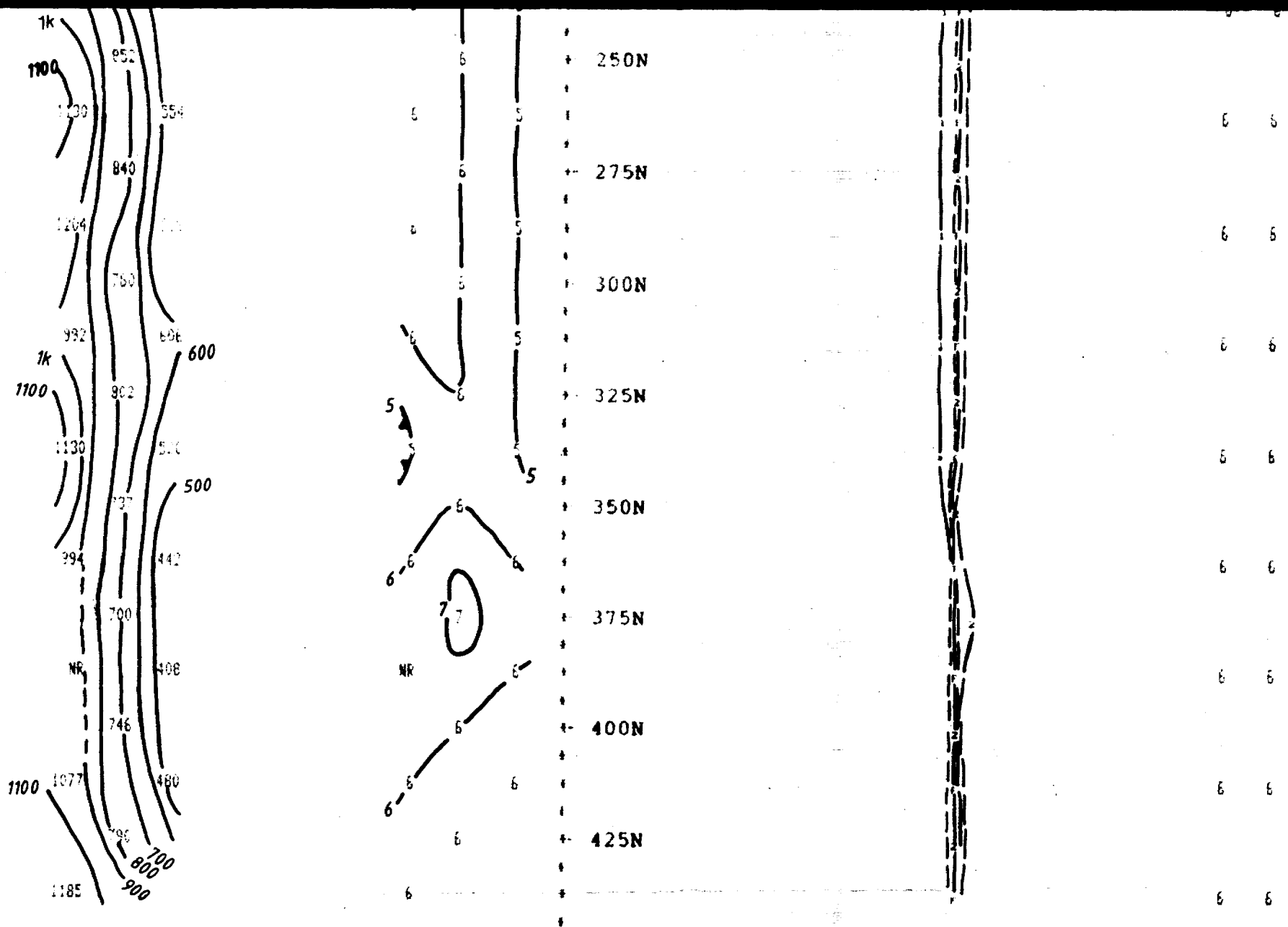
CHARGEABILITY
(milliseconds)

CHARGEABILITY PROFILE

LINE NUMBER
A B

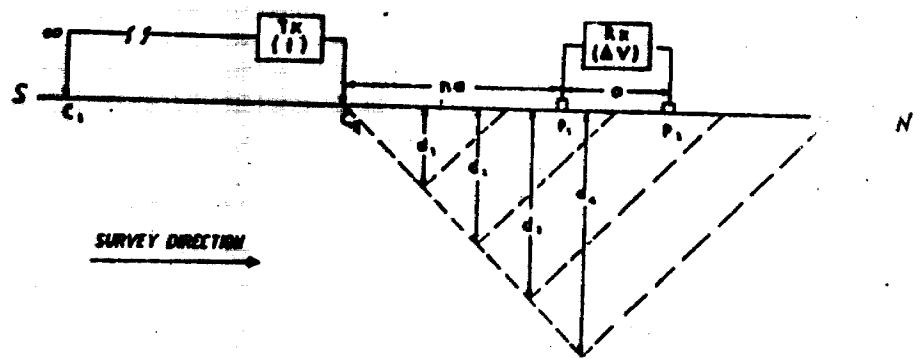






Property : ADAMS TOWNSHIP
 Client : BELMORAI PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : WP
 Electrode Array : POLE - DIPOLE
 Mode : TIME DOMAIN
 Receiver : IP-2
 Transmitter : SCINTREX IPC-7
 Pulse Time : 2 Sec on 2 Sec off
 Delay Time : 280 MS
 Integration Time : 500 MS



 EXSICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3

'a' Spacing = 20 M

LINE 0 W

SCALE = 1:2500

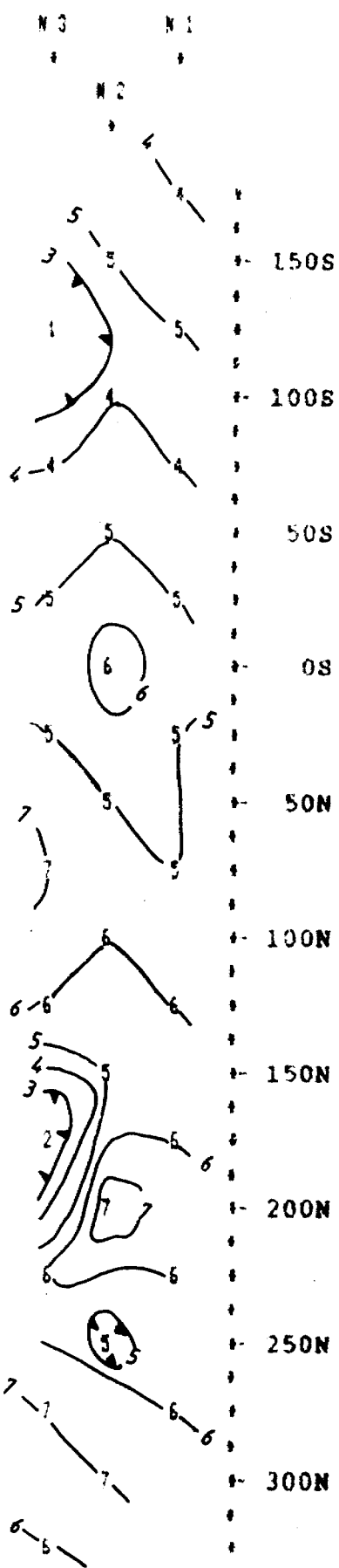
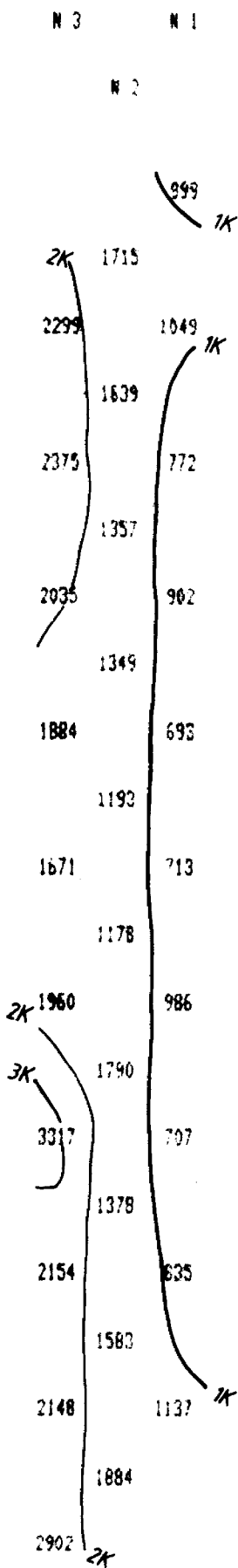
RESISTIVITY
(ohm - metres)

CHARGEABILITY
(milliseconds)

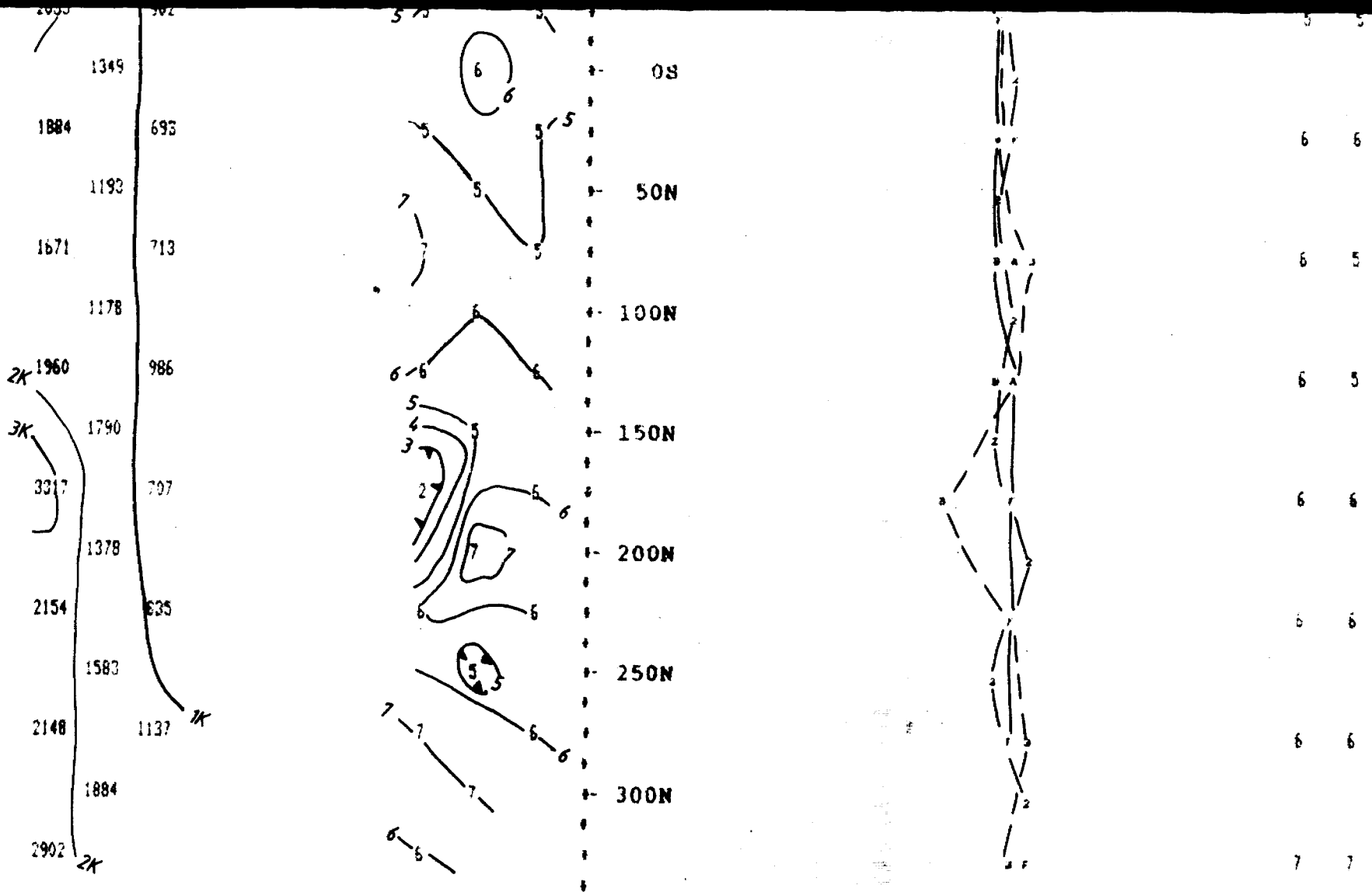
CHARGEABILITY PROFILE

FRACER
A B

A B

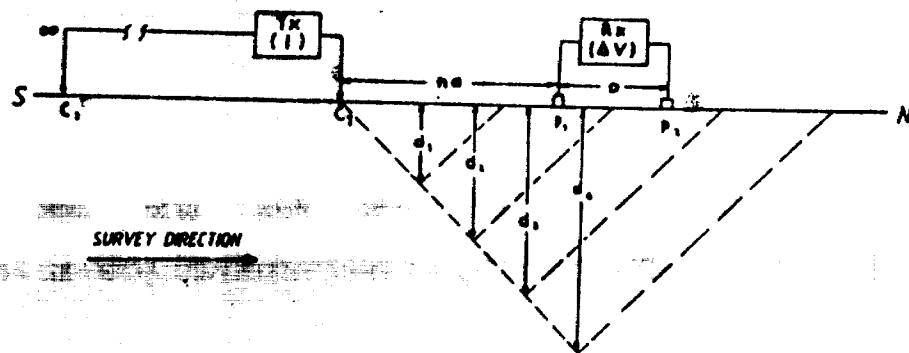


Fraser	Filter
3	4
4	5
4	4
5	5
6	6
6	5
6	5
6	6
6	6
6	6
7	7



Property : ADAMS TOWNSHIP
 Client : BELMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
 Operator : WP
 Electrode Array : POLE - DIPOLE
 Mode : TIME DOMAIN
 Receiver : IP-2
 Transmitter : SCINTREX IPC-7
 Pulse Time : 2 Sec on 2 Sec off
 Delay Time : 500 ms
 Integration Time : 920 ms



 EXSICS EXPLORATION LTD.
 ***** *Small*

IP Pseudosections for N = 1 to 3

'a' Spacing = 50 M

LINE O E

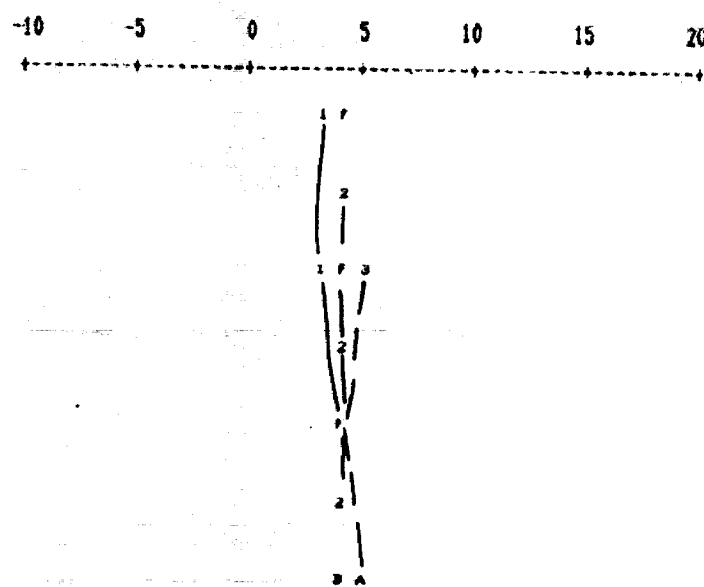
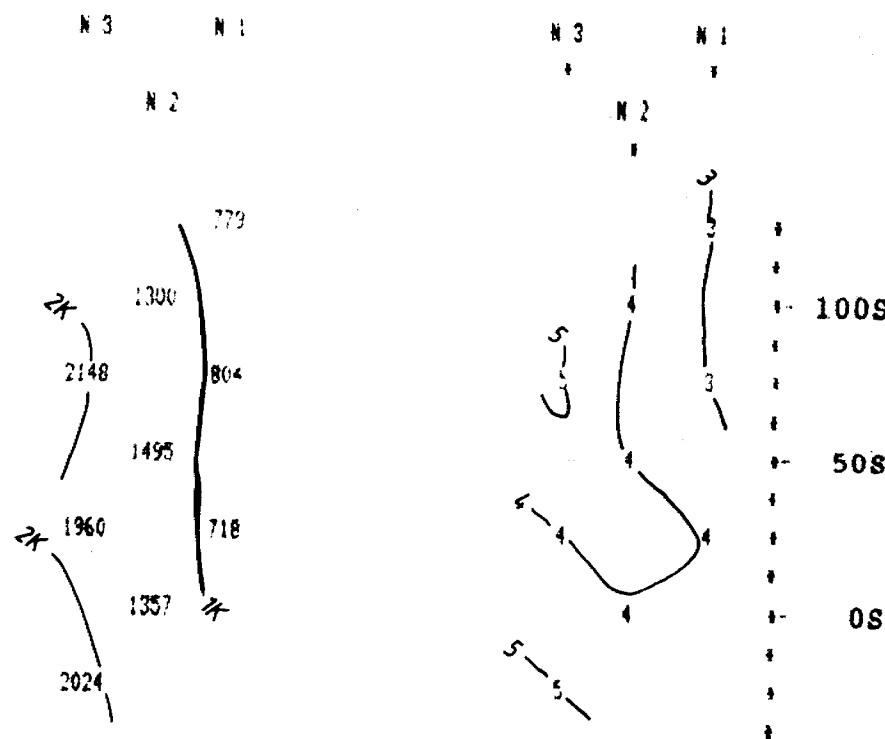
SCALE : 1:2500

RESISTIVITY
(ohm - metres)

CHARGEABILITY
(microseconds)

CHARGEABILITY PROFILE

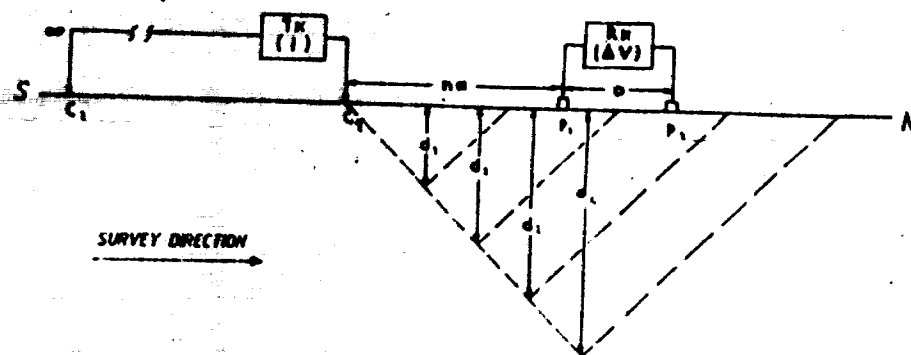
F
R
A
C
T
I
O
N
F
I
L
T
E
R



FRAC	FILT
A	B
4	4
4	4
4	4
5	4

Property : ADAMS TOWNSHIP
Client : BELMORAL PORCUPINE RESOURCES LTD.

Date of Survey : 20/4/87
Operator : WP
Electrode Array : POLE - DIPOLE
Mode : TIME DOMAIN
Receiver : IP-2
Transmitter : SCINTREX IPC-7
Pulse Time : 2 Sec on 2 Sec off
Delay Time : 500 ms
Integration Time : 920 ms



EXSICS EXPLORATION LTD.

IP Pseudosections for N = 1 to 3

'a' Spacing = 50 M

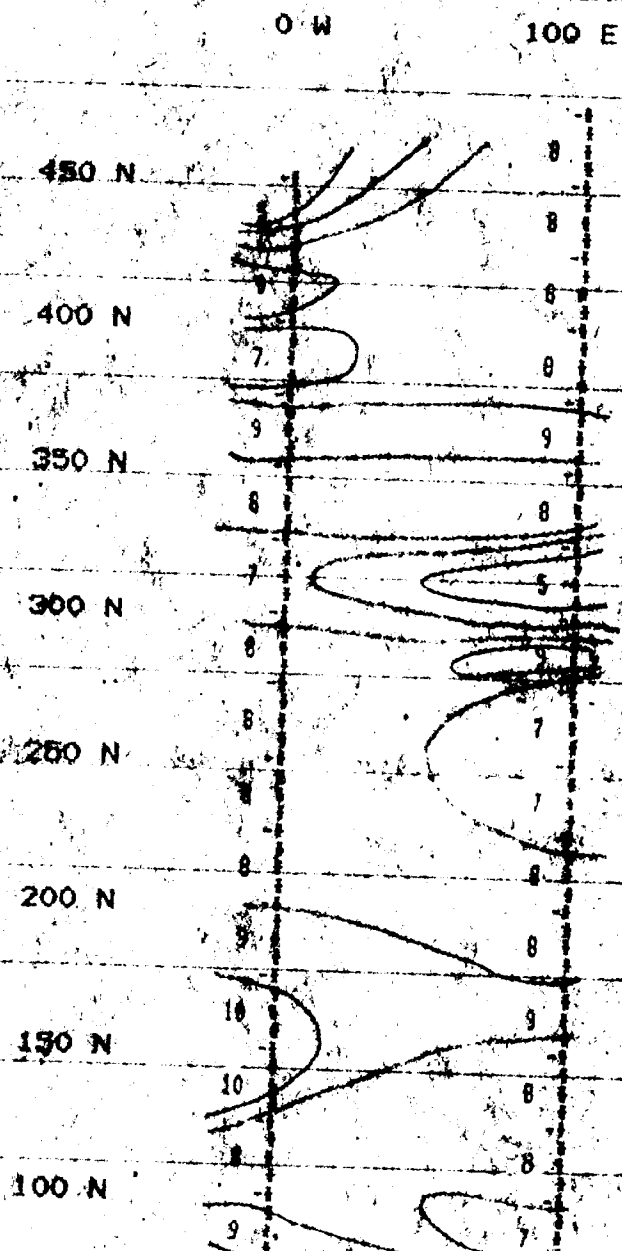
LINE 100 E

EXBROS EXPLORATION LTD.

Gradient I.P. Survey
Chargability Plot

Property : G-ADAMS TWP.
Client : BELMORAL PORCUPINE RESOURCES LTD.

Survey Conducted May 1987
A Spacing : 25 M
Receiver : EDA JP-2



400 N

350 N

300 N

250 N

200 N

150 N

100 N

50 N

0 N

50 S

100 S

150 S

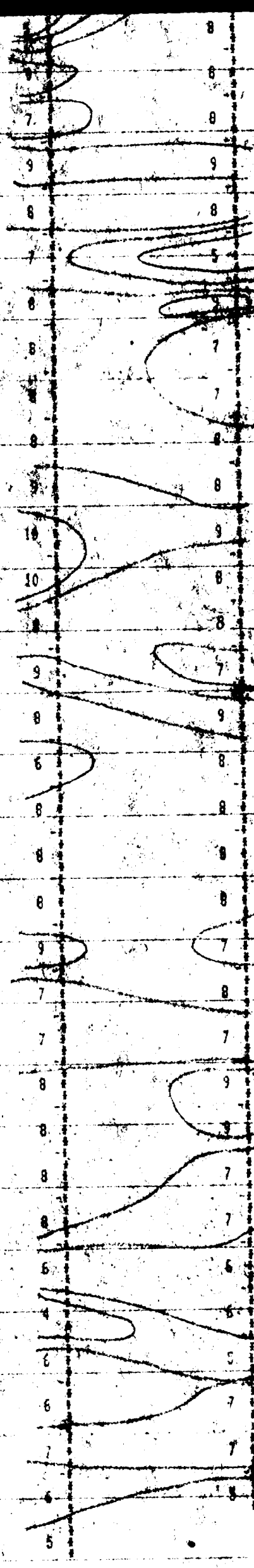
200 S

250 S

300 S

350 S

400 S



0 W

100 E

 BELMORAL PORCUPINE RESOURCES LTD. *J. Smith*

Gradient T.P. Survey
 Resistivity Plot

Property : G-ADAMS TWP.
 Client : BELMORAL PORCUPINE RESOURCES LTD.
 Survey Conducted May 1987
 A Spacing : 25 M
 Receiver : EDA IP-2

	0 M	100 E
		2711
450 N	2920	2992
	2879	2995
400 N	2807	2742
	2924	3270
350 N	2819	2976
	3369	3087
300 N	3246	3194
	3343	3089
250 N	3432	3148
	3264	3478
200 N	3877	3051
	3411	3874
150 N	2653	3171
	2419	2415
100 N	2716	3261
	2797	2745
50 N	2792	3320
	2769	3058
0 N		

	2807	2742
350 N	2724	3270
	2819	2976
300 N	3369	3087
	3246	3194
250 N	3343	3059
	3432	3148
200 N	3264	3478
	3077	3051
150 N	3417	3874
	2653	3171
100 N	2419	2415
	2716	3261
50 N	2737	2745
	2788	3320
0 N	2789	3058
	2483	3068
50 S	2759	2780
	2792	2766
100 S	2727	2745
	2444	2717
150 S	2419	2683
	2653	2906
200 S	2611	2595
	2364	2797
250 S	2762	3901
	2452	2663
300 S	2388	2589
	2319	2509
350 S	2245	2426
	2306	2339
400 S	2715	



Ministry of
Northern Affairs
and Mines

Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

2



42A06SW0022 2.10721 ADAMS

300

W8706.00 296

M.

DO NOT use stamped areas below.

Type of Survey(s) <i>Induced Polarization Survey</i>		Township or Area <i>ADAMS</i>
Claim Holder(s) <i>Percepine Balmain Resources Limited</i>		Prospector's Licence No. <i>T-4791</i>
Address <i>27 Queen St. E. Suite 402 Toronto ONT M5C 2M6</i>		
Survey Company <i>EXSICS EXPLORATION LTD.</i>	Date of Survey (from & to) <i>14 4 87 30 4 87</i> Day Mo. Yr. Day Mo. Yr.	Total Miles of line Cut
Name and Address of Author (of Geo-Technical report) <i>R.J. Meikle P.O. Box 1830 Timmins ONT P4N 7X1</i>		

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other <i>1. A</i>	<i>42</i>
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other <i>1. P</i>	<i>42</i>
	Geological	
	Geochemical	
Airborne Credits	Electromagnetic	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Magnetometer	
	Radiometric	

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
<i>P</i>	<i>814128</i>	<i>42</i>			
	<i>814129</i>				
	<i>814130</i>				
	<i>814131</i>				
	<i>814132</i>				
	<i>814133</i>				
	<i>814134</i>				
	<i>814135</i>	<i>✓</i>			

Expenditures (excludes power stripping)

Type of Survey (Induced Polarization)	
RECEIVED OCT 28 1987	
Calculation of Expenditure Days Credits	Total Days Credits
Total Expenditures \$ <input type="text"/>	$\div 15 =$ <input type="text"/>
Instructions Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.	

RECORDED
OCT 28 1987

Total number of mining claims covered by this report of work.

For Office Use Only		
Total Days Cr. Recorded <i>336</i>	Date Recorded <i>Oct. 28 / 87</i>	Mining Recorder <i>[Signature]</i>
Date Approved as Recorded <i>28 Jan 88</i>	Branch Director <i>[Signature]</i>	

Date <i>Oct 28 / 87</i>	Recorded Holder or Agent (Signature) <i>R.J. Meikle</i>
----------------------------	--

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying <i>R.J. Meikle P.O. Box 1830 Timmins ONT P4N 7X1</i>	
Date Certified <i>Oct 28 / 87</i>	Certified by (Signature) <i>[Signature]</i>

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
		7										

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
		7										

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
		7										

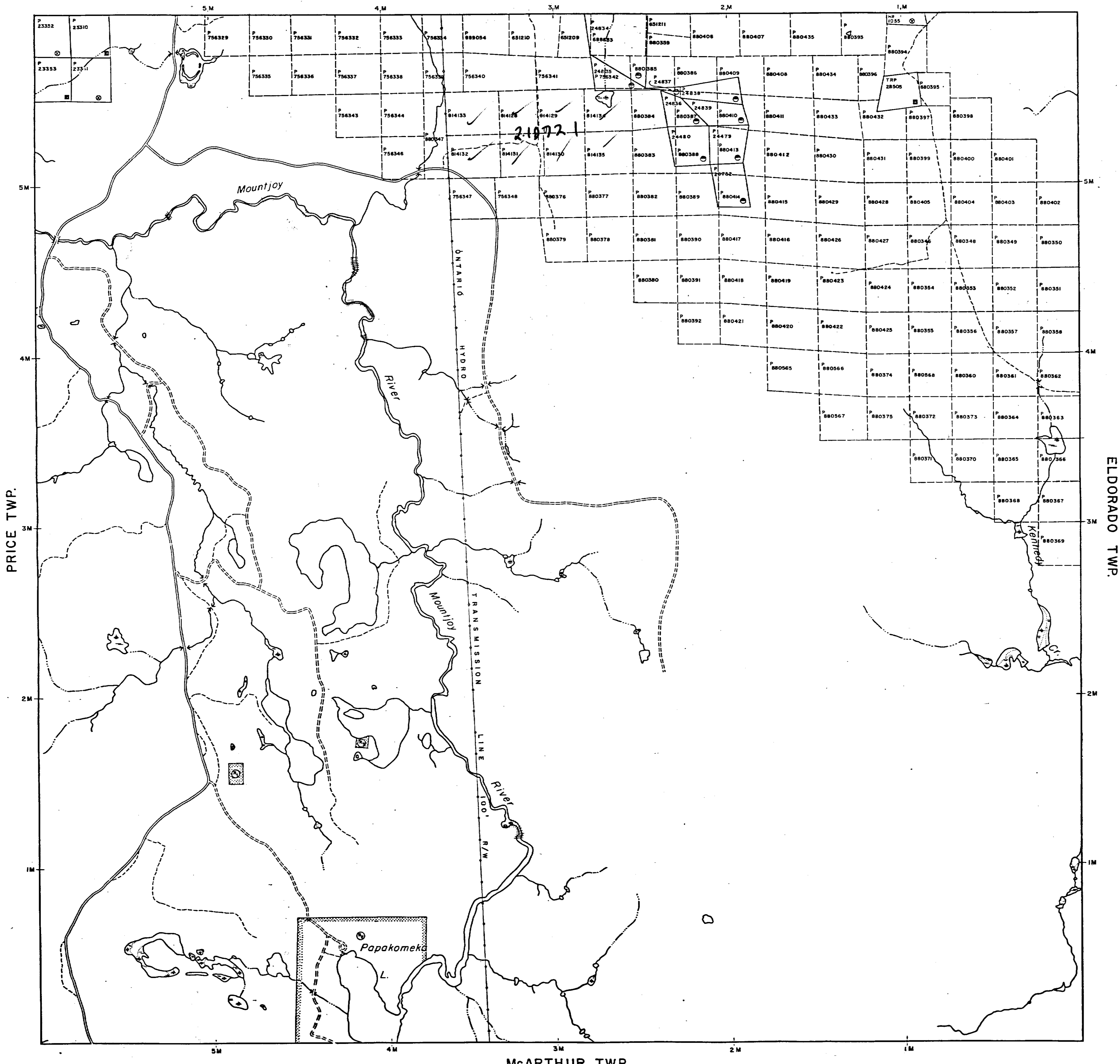
Type of Survey												
<i>Induced Polarization Survey (pole locate and gradient)</i>												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
48		7		336				336		8		42

4 man IP crew for 11.5 days = 4 x 11.5 = 46 Tech days

1 draftsman for 2 days (Pseudosections) = 2 Tech days

Total 48 Technical Days

DELORO TWP.



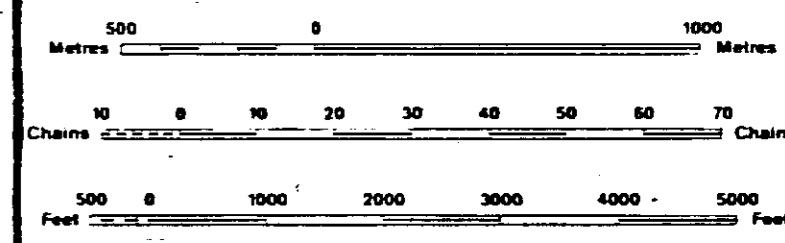
LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 - LOT LINES
 - PARCEL BOUNDARY
 - MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

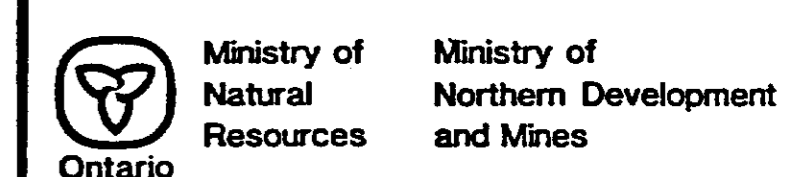
TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.



SCALE 1:20 000

TOWNSHIP
ADAMS
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
COCHRANE



Date: SEPTEMBER, 1986 Number: **G-3925**

