REPC

010

METRON EXPLORATION LIMITED
Stull Twp. Property
Ontario.

INTRODUCTION

An I.P. Survey was conducted by Peter Mark of McPhar Geophysics Ltd.,Toronto,Ont., on two small grid systems on claims which form part of a larger group held by Metron Exploration Limited of Toronto,Ont., in Stull Twp., Sudbury Mining Division. Supervision of the program was by the writer who was in attendance during the survey. The lines were cut by T.D.Brown of North Cobalt,Ont.

Access to the property is by forty miles of good gravel bush road south from Highway No. 560 at a point 5 miles west of Shiningtree,Ont., or at a point 5 miles east of Shiningtree,Ont. Neither of these roads are kept open in the winter and snow machines were used for transportation.

METHOD OF SURVEY

The North Grid system was cut on claims 220501 & 2, and 213821 & 2. A 3000' base line was established in a N 43° W direction and a total of 3 miles of picket lines were cut at 400' intervals and stations established every 100'. Readings were taken along all of these lines with some being done in more detail a second time.

The South Grid system was cut on claims 213745 - 9 inclusive, 213754, 213724 and 213733. A base line 2800' long was established in a N 20° W direction. Picket lines totalling approximately 5¼ miles were cut at 400' intervals and at 200' intervals in the central part of the grid. Readings were taken along all of these lines with some being done a second time in more detail.

Profiles attached to this report each show the electrode configurations, frequencies used and contours of readings. Plans showing the results plotted and other details are included in the envelope.

D.C.Fraser of Teck Corp. has contoured the results in plan for Metal Factor, Frequency Effect and Resistivity at the n-2 level and these maps are included in an enevelope. Dr. Fraser's accompanying remarks are included at the end of this report.

RESULTS OF THE SURVEY

North Grid

A definite anomaly lies parallel and 300' east of the base line on lines 10N, 18N, and 22N. This is further supported by the presence of a probable anomalous zone on line 14N. Possible anomalous areas appear to form a halo surrounding this anomaly and coorelate the anomaly.

Another definite anomaly is located on line 22N, 300' west.

South Grid

A probable anomaly lies parallel and 300' west of the base line. Another anomaly lies 2400' west on lines 8N,12N and 16N. This anomaly is coincident with a high tension power line and has since been proven to be caused by the power line by ground investigation.

SUMMARY AND CONCLUSIONS

The I.P. Survey has located two anomalies on the North Grid and one anomaly on the South Grid that warrant testing by diamond drilling. These arealocated on the North Grid at 300' east and parallel to the base line on lines 10N to 22N, and at 300' west, line 22N, and on the South Grid at 300' west and parallel to the base line on lines 8S to 12N.

Respectfully submitted,

J.G.Willars B.A.S c.,P.Eng.

New Liskeard,Ont.
Dec.15,1970.

BOX 49, TORONTO-DOMINION CENTRE
TORONTO 1, ONTARIO

FROM: D. C. Fraser

DATE: May 27, 1970

TO: J. L. May

SUBJECT: Metron Exploration I.P.
Stull Twp., Ontario

1. The I.P. data was contoured for frequency effect, metal factor, and resistivity, for level n=2.

2. The south sheet grid contains two anomalies,

   (a) On the east side, a metal factor-resistivity anomaly occurs with weak frequency effect correlation. The resistivity pattern could be used to guide drilling if the observed mineralization in this vicinity warrants follow-up.

   (b) On the west side, a strong anomaly occurs and is due to a power line or cable.

3. The north sheet grid contains a strong anomaly running parallel to the base line at 3E from 14N to 22N. Further, a small anomaly occurs on L22N at 6W. These could be considered as drill targets if warranted by geological observations.

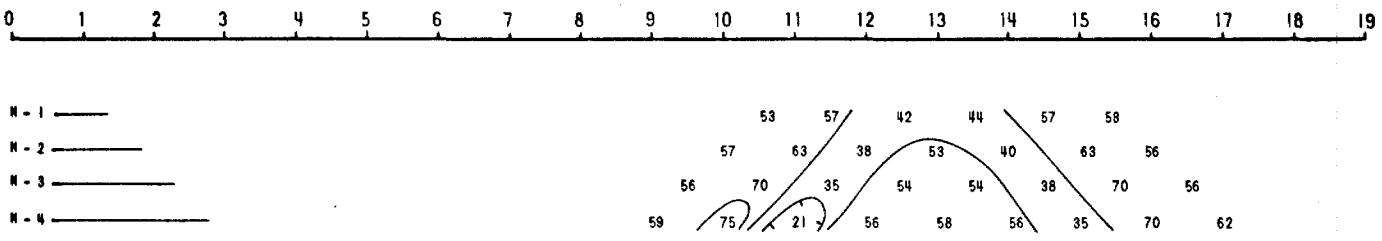
4. Holes should be spotted to hit the centres of anomalies at a depth of 200 feet below surface.

D. C. Fraser:em

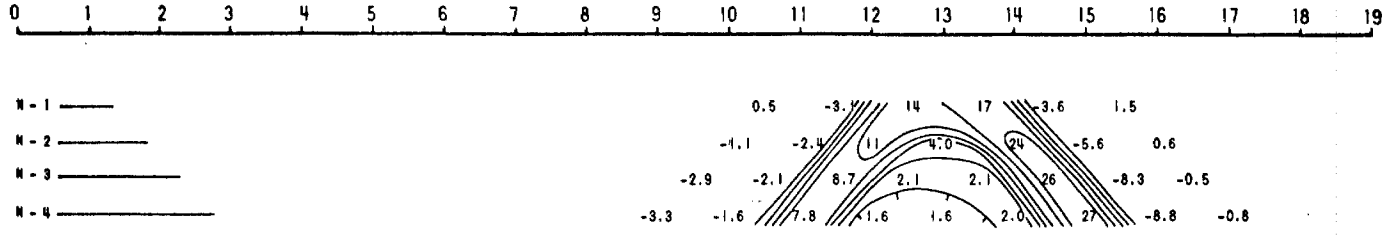
McPHAR GEOPHYSICS LIMITED

Theoretical Induced Polarization and Resistivity Studies

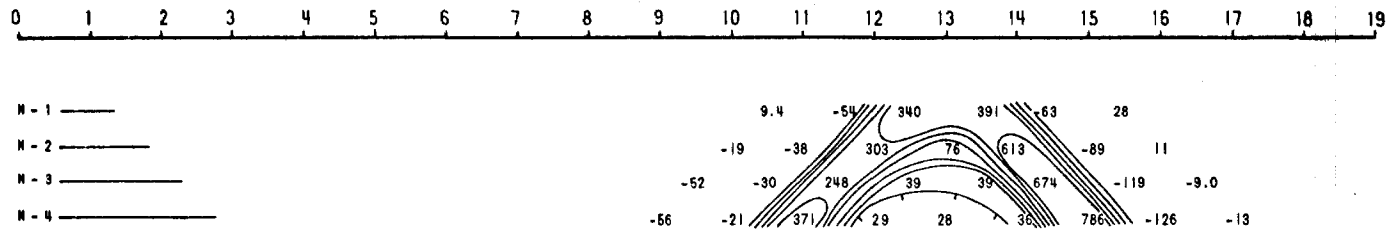
Scale Model Cases



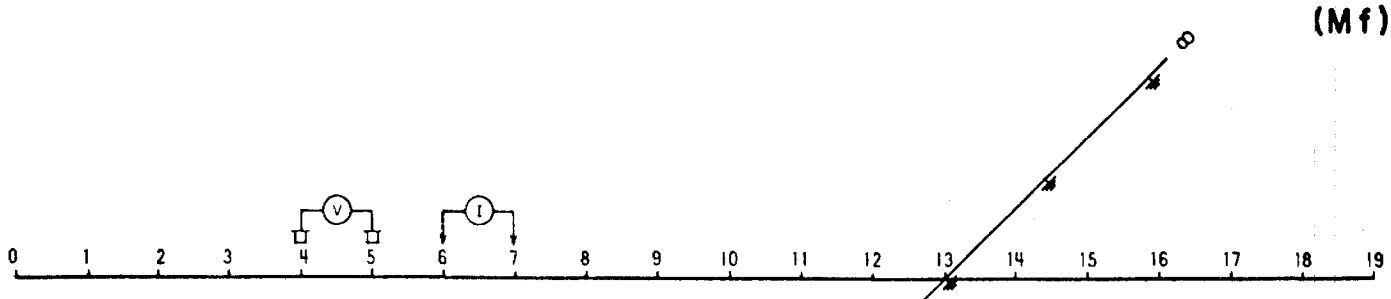
$(\rho/2\pi)a$



(fe)a

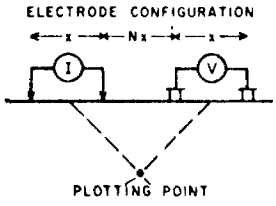


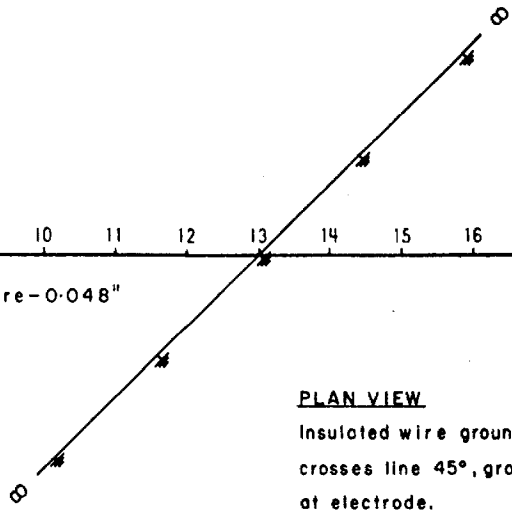
(Mf)a



$(\rho/2\pi)_1 = 60$

$(Mf)_1 = 0$





PLAN VIEW

Insulated wire grounded every two units, crosses line 45°, grounded point at electrode.

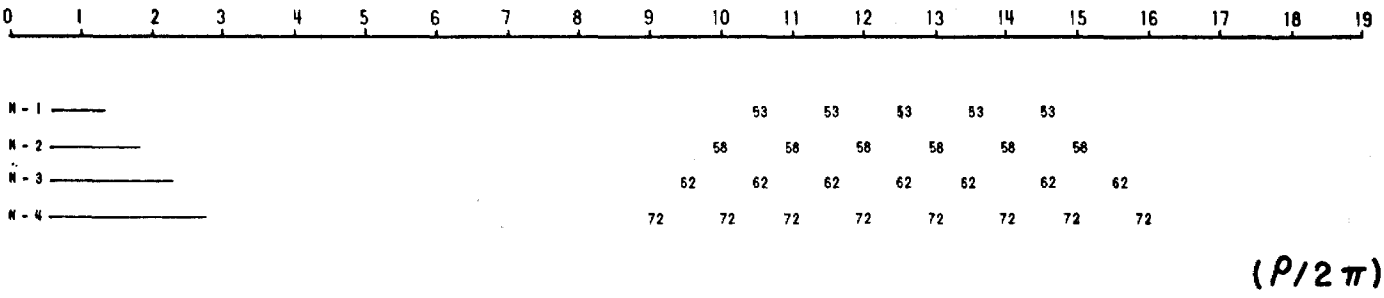
CASE

W-45°-gr. 2u-a e-gr. on lir

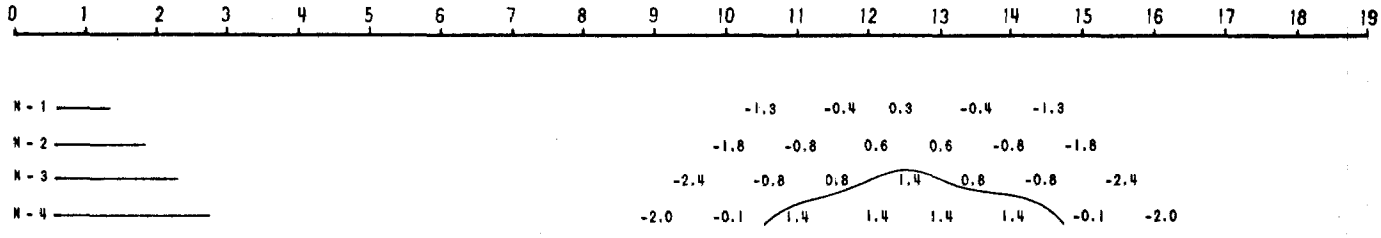
McPHAR GEOPHYSICS LIMITED

Theoretical Induced Polarization and Resistivity Studies

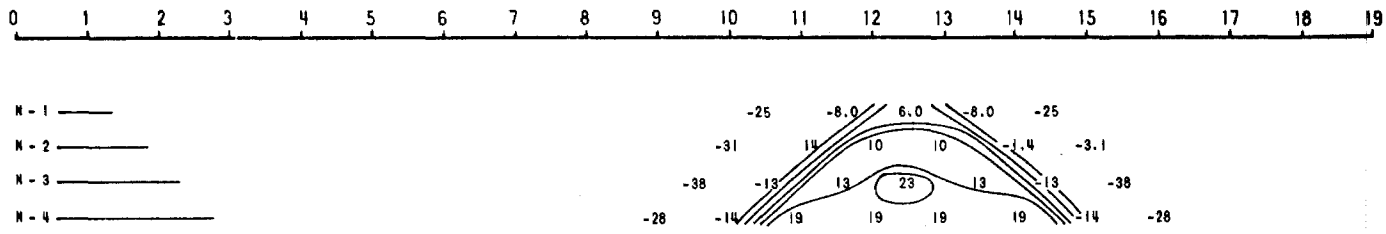
Scale Model Cases



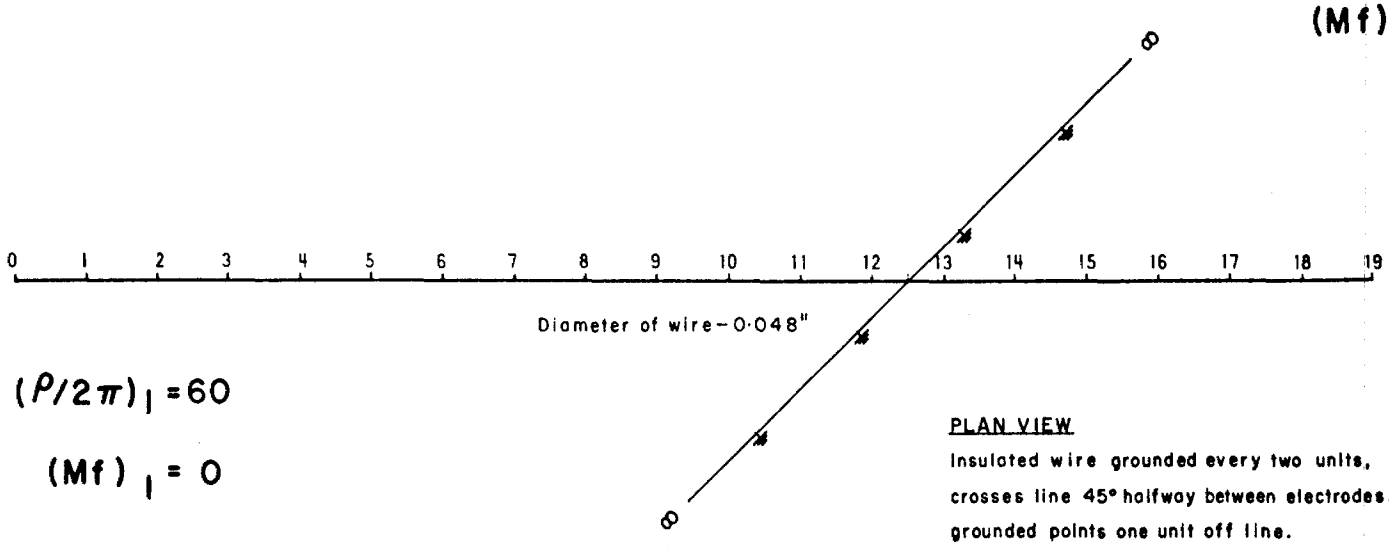
$(\rho/2\pi)a$



(fe)a



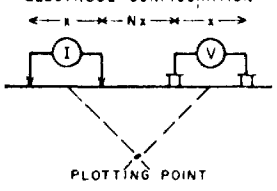
(Mf)a



$(\rho/2\pi)_1 = 60$

$(Mf)_1 = 0$

ELECTRODE CONFIGURATION



PLAN VIEW

Insulated wire grounded every two units, crosses line 45° halfway between electrodes, grounded points one unit off line.

CASE

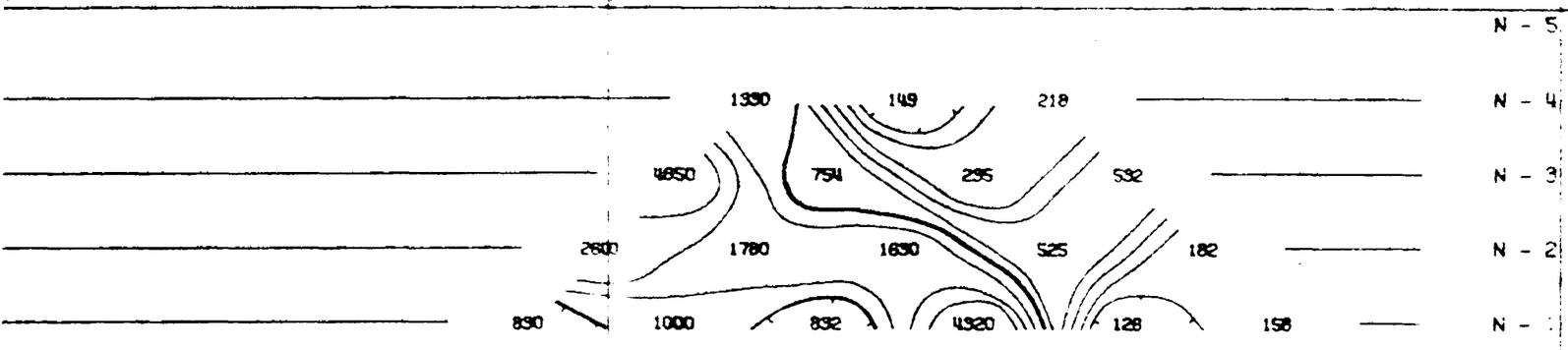
W-45°- gr. 2u- be- gr. off line

DWG. NO.- I.P.-_____

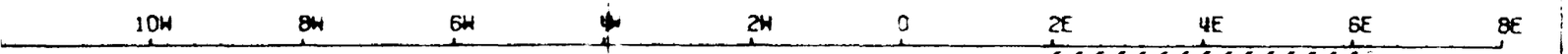
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

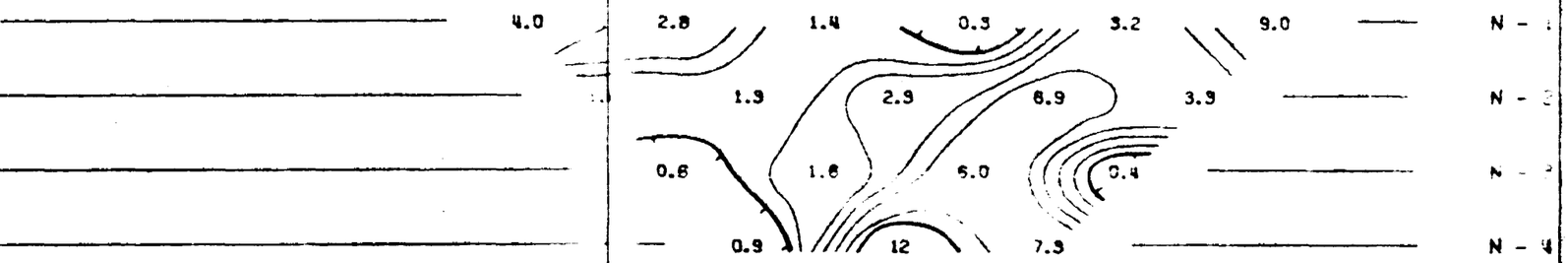
GRID 1

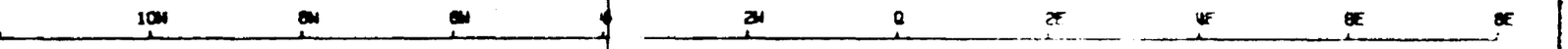


RESISTIVITY (APP.) IN OHM FEET / 2π

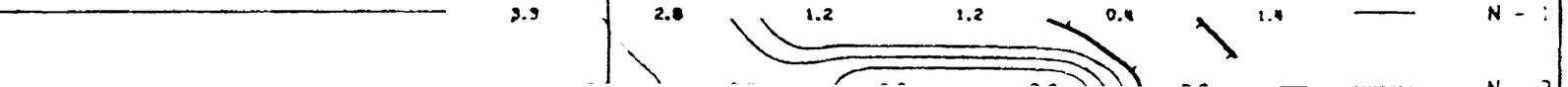


METAL FACTOR (APP.)



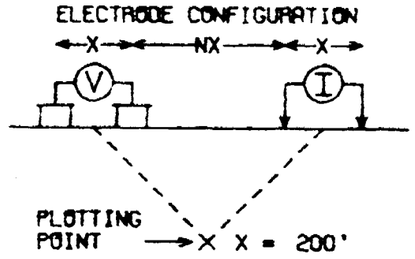


FREQUENCY EFFECT (APP.) IN %



LINE NO.- 2N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ·····

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: FEB 1970

APPROVED:

_____

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

DATE: _____

N - 5

N - 4

N - 3

N - 2

N - 1

2600

890

1350 149 218

4850 754 295 532

1780 1650 525 182

1000 892 4320 128 158

RESISTIVITY (APP.) IN OHM FEET / 2π

10W 8W 6W 4W 2W 0 2E 4E 6E 8E

METAL FACTOR (APP.)

4.0

2.8 1.4 0.3 3.2 9.0

1.9 2.9 6.9 3.9

0.6 1.6 6.0 0.4

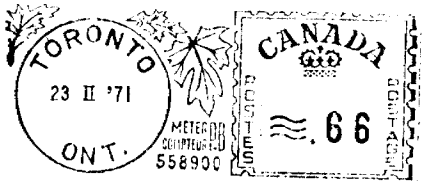
0.9 12 7.9

FREQUENCY EFFECT (APP.) IN %

3.9

2.8 1.2 1.2 0.4 1.4

Metron Exploration Limited
Suite 2302 - 401 Bay Street
Toronto 1, Ontario



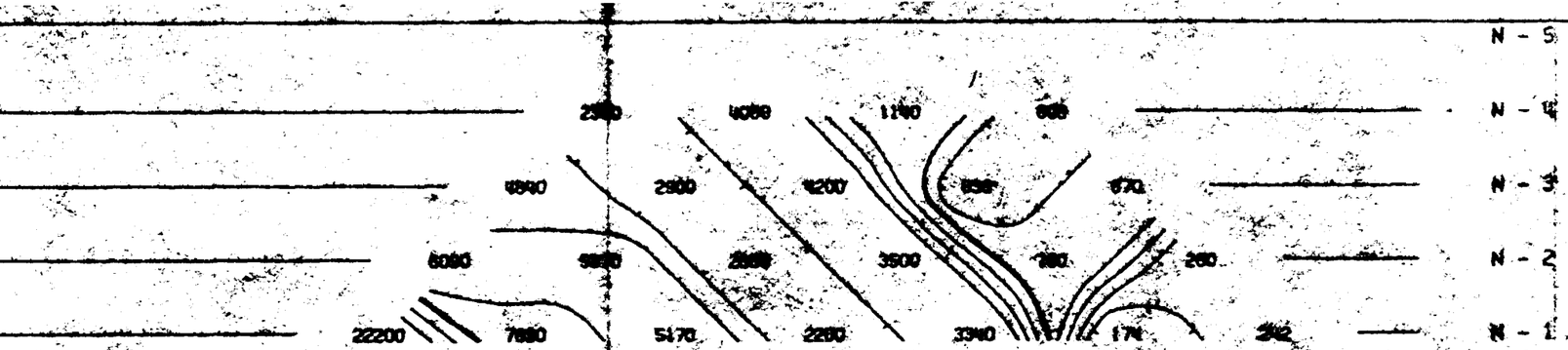
Department of Mines and Northern Affairs
Mining Lands Branch
Whitney Block
Queen's Park
Toronto 182, Ontario

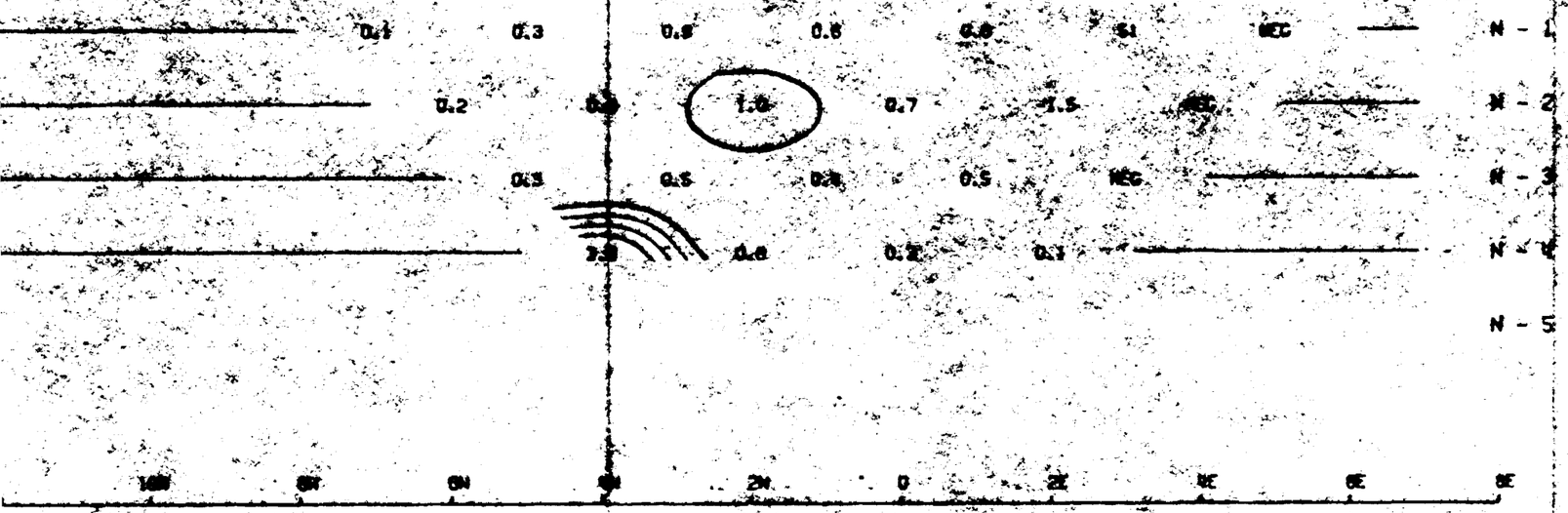
DWG. NO.- I.P.-

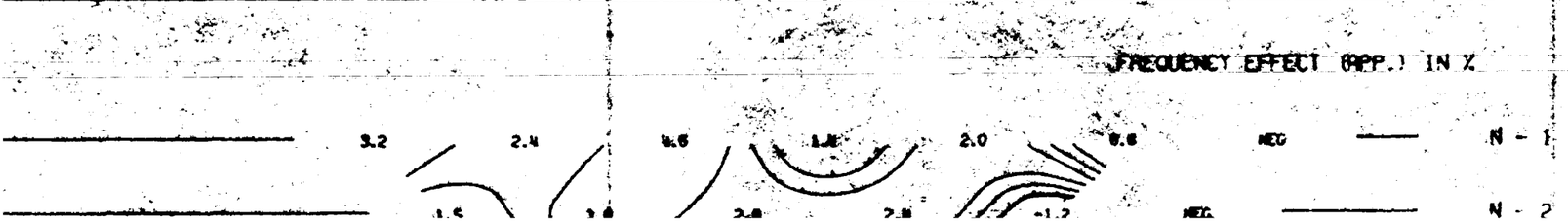
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

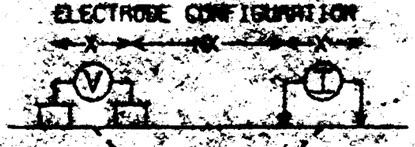






LINE NO.- 19N

ELECTRODE CONFIGURATION



PLOTTING POINT — X X = 200'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

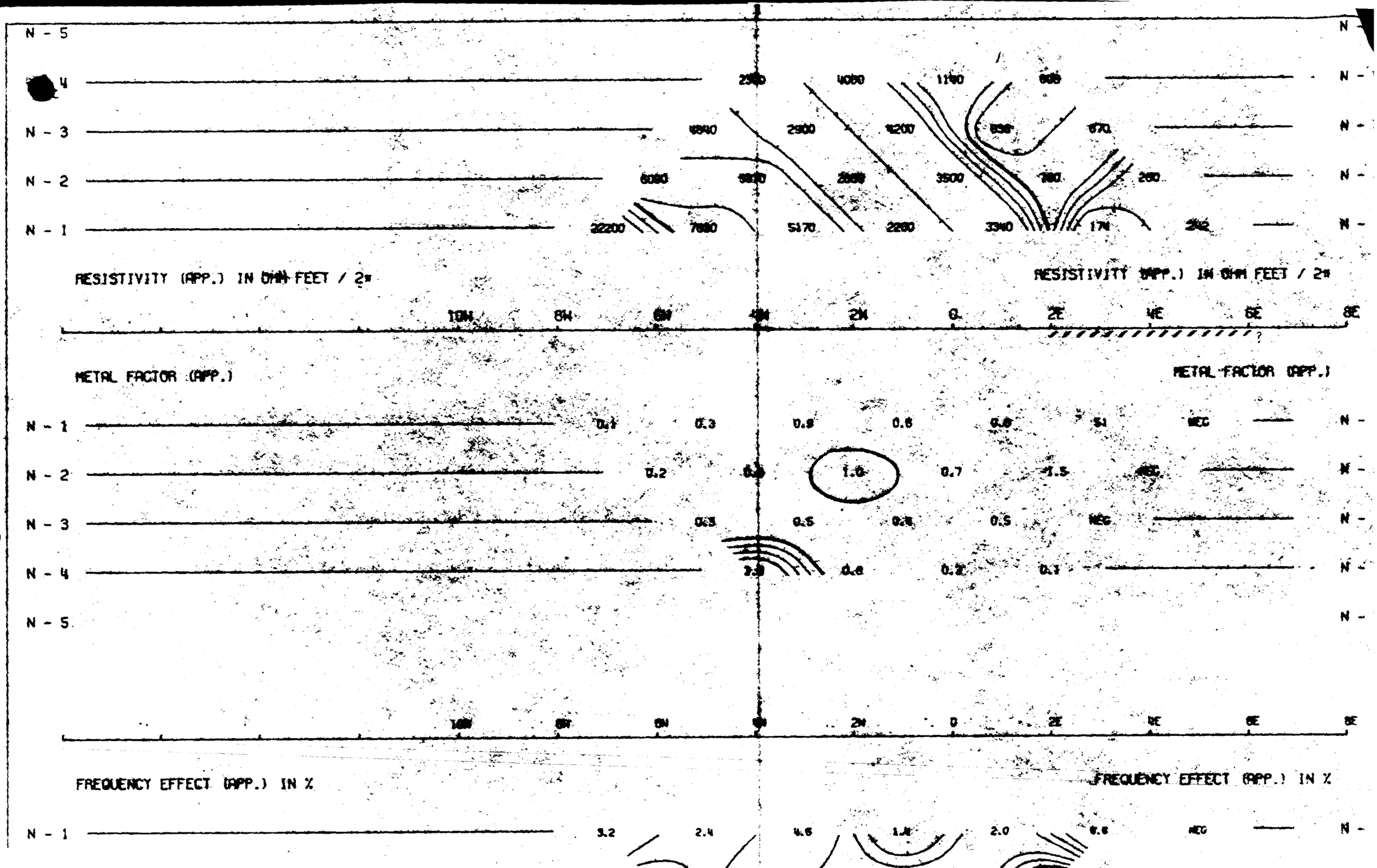
FREQUENCIES: 0.31-5.0 CPS

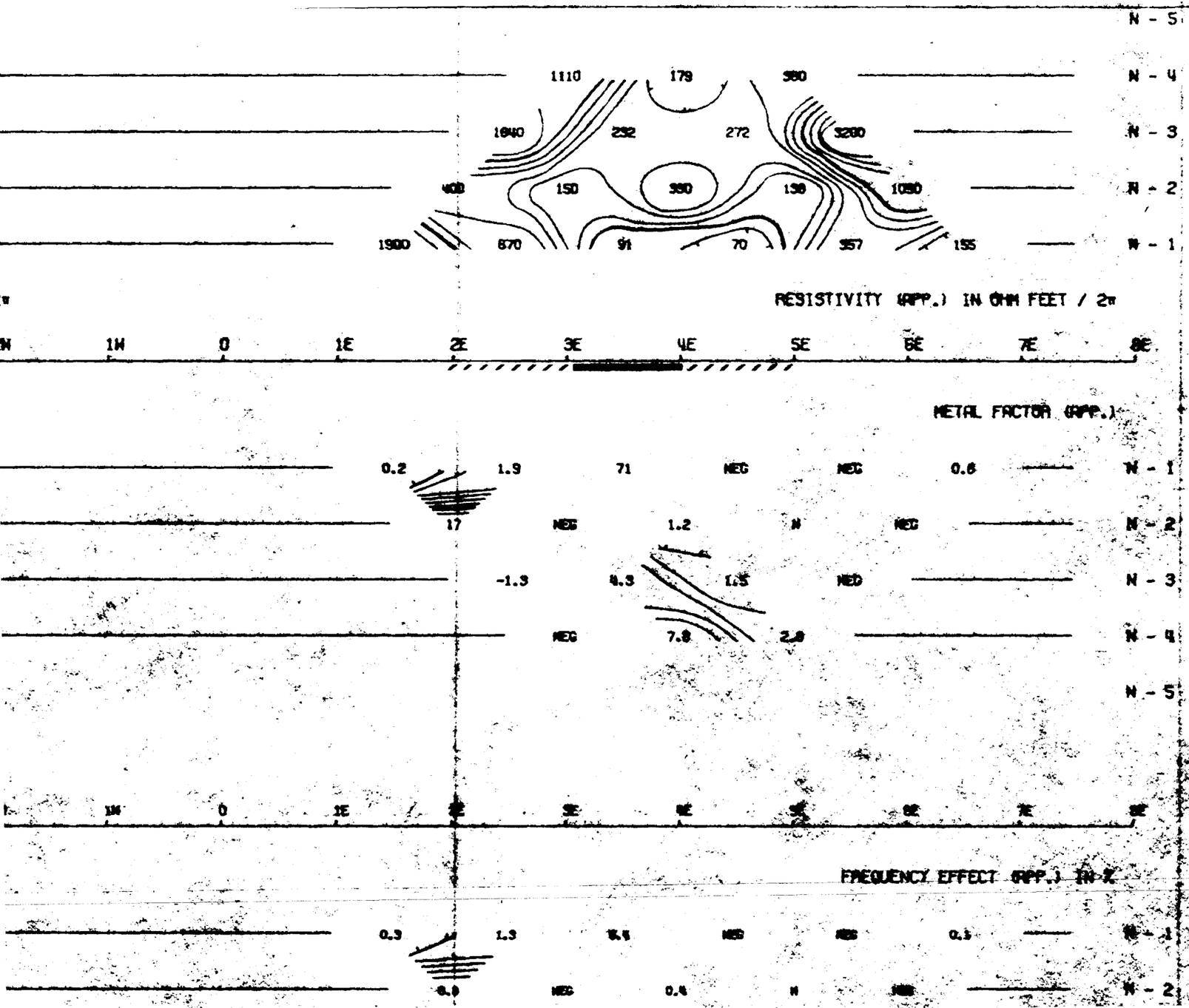
DATE SURVEYED: FEB 1970

APPROVED:

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

DATE:


N - 5
N - 4
N - 3
N - 2
N - 1
RESISTIVITY (APP.) IN OHM FEET / 2"
RESISTIVITY (APP.) IN OHM FEET / 2"
METAL FACTOR (APP.)
METAL FACTOR (APP.)
FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %



DWG. NO.- I.P.-_____

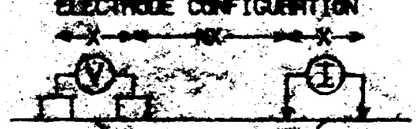
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

LINE NO.- 10N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.3-1.3-5.0 CPS

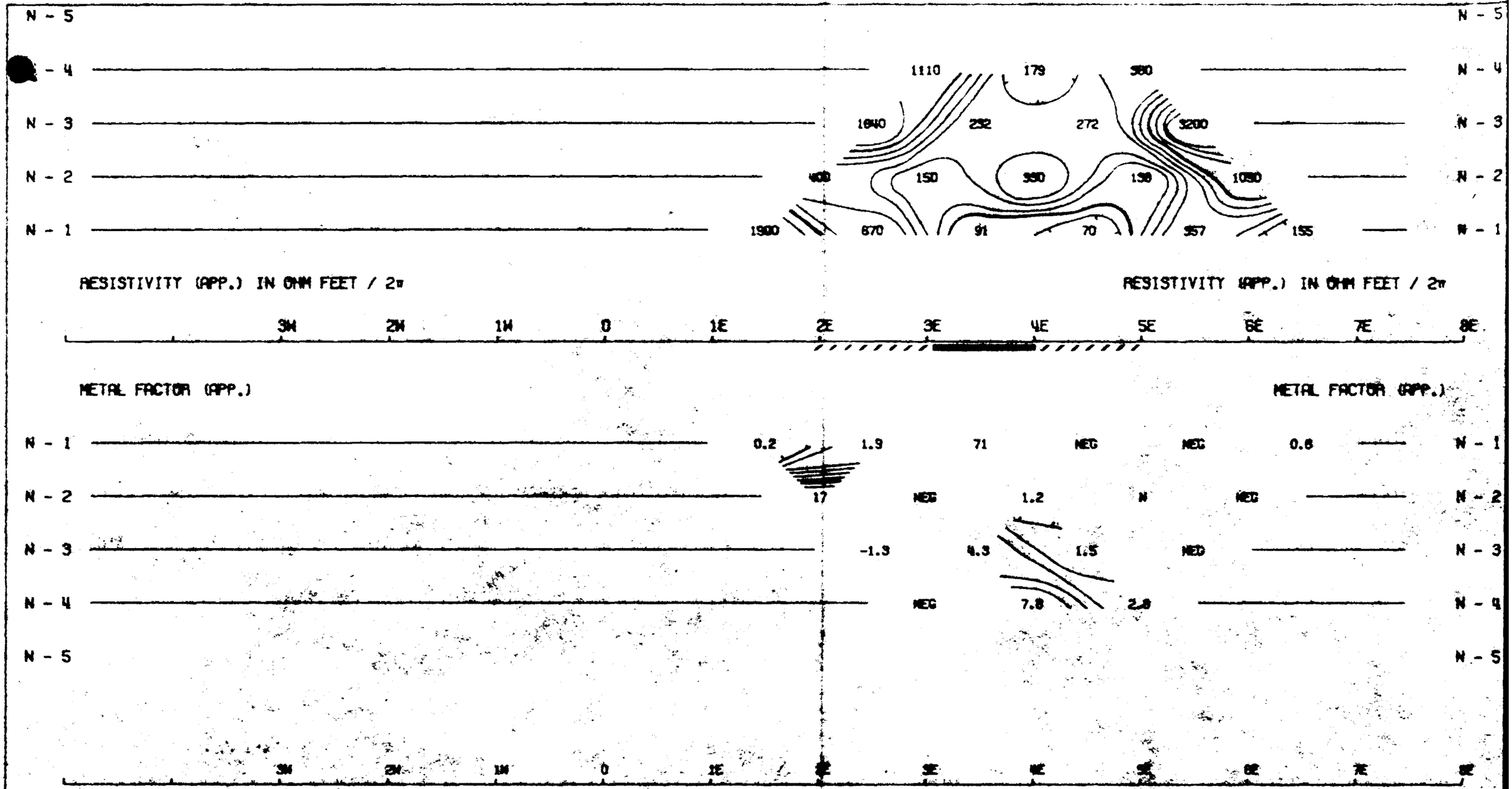
DATE SURVEYED: FEB 1970

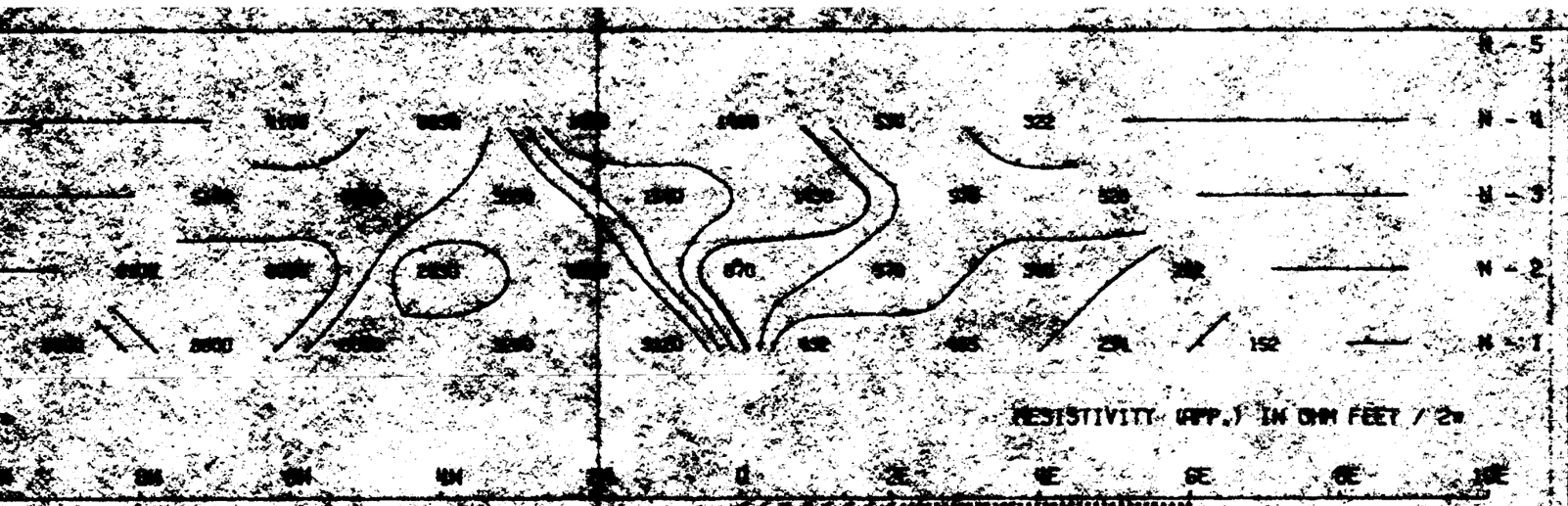
APPROVED:

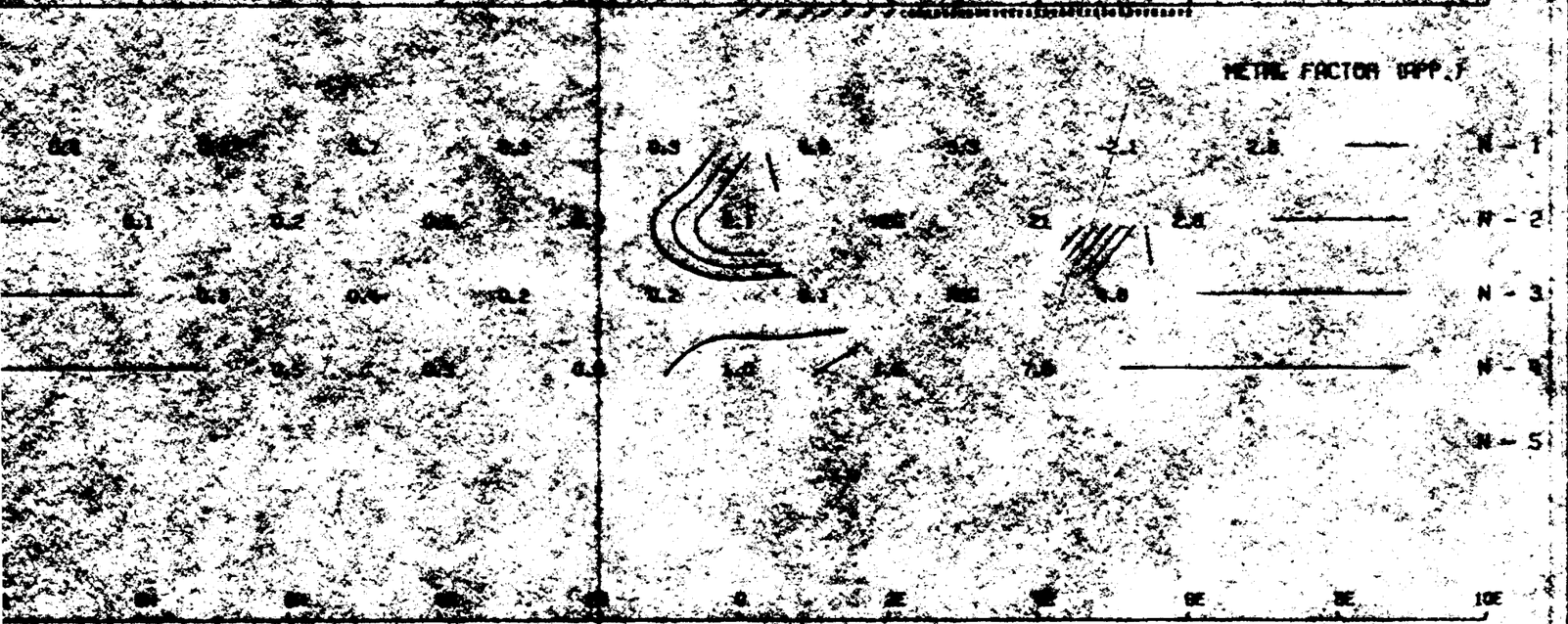
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE:

John Williams


N - 5
N - 4
N - 3
N - 2
N - 1
1110
179
380
1640
252
272
3200
150
380
130
1080
1900
670
91
70
357
155
RESISTIVITY (APP.) IN OHM FEET / 2π
RESISTIVITY (APP.) IN OHM FEET / 2π
3W
2W
1W
0
1E
2E
3E
4E
5E
6E
7E
8E
METAL FACTOR (APP.)
METAL FACTOR (APP.)
0.2
1.9
71
NEG
NEG
0.6
17
NEG
1.2
N
NEG
-1.3
4.3
1.5
NEG
NEG
7.8
2.8
FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %
0.9
1.3
15.1
NEG
NEG
0.1
8.0
NEG
0.4
N





DWG. NO.- I.P.-

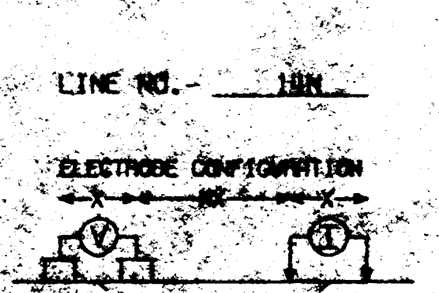
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

LINE NO.- 10N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.3/5.0 CPS

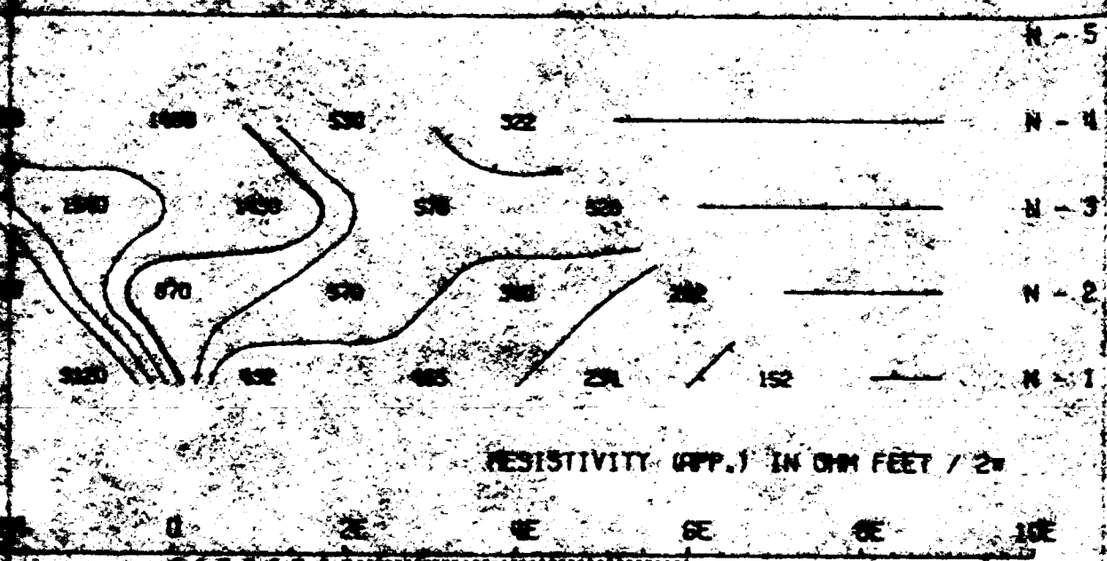
DATE SURVEYED: FEB 1970

APPROVED:

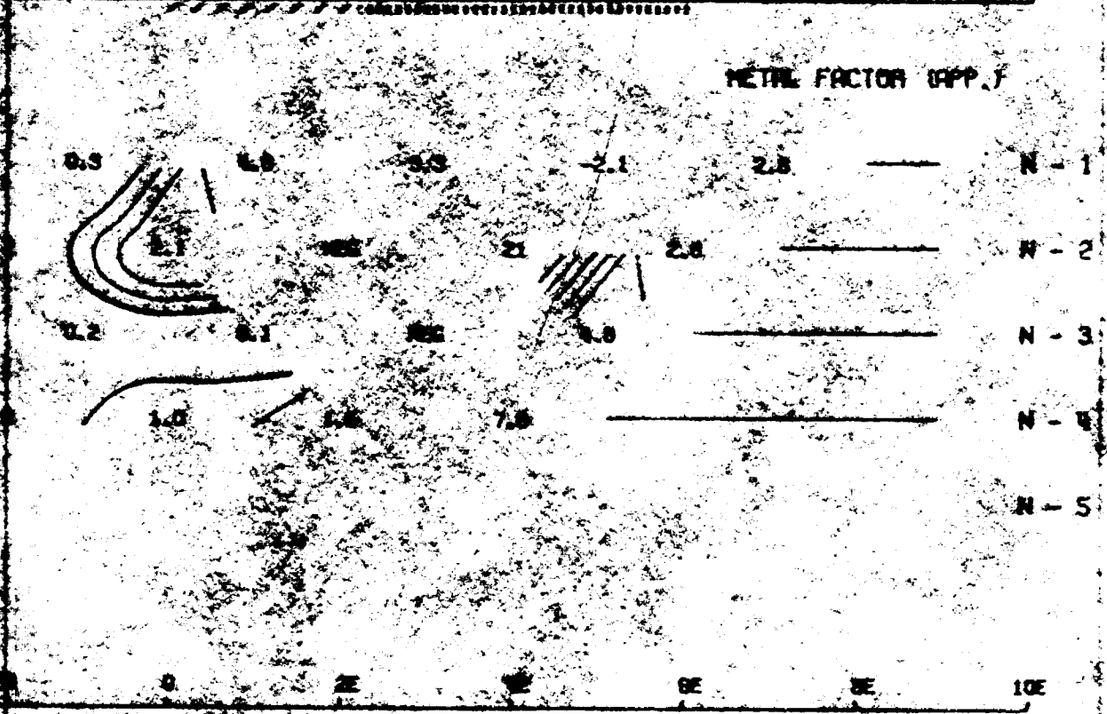
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE:

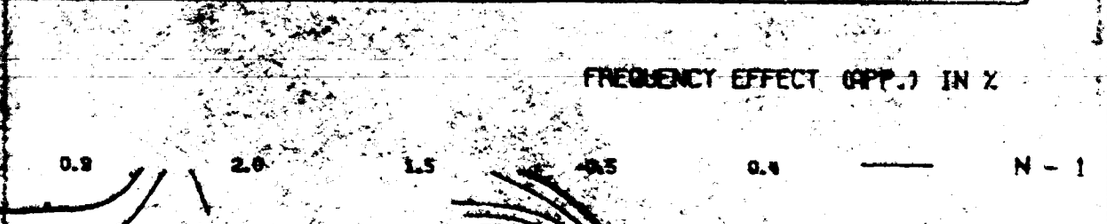

N - 5
N - 4
N - 3
N - 2
N - 1
RESISTIVITY (APP.) IN OHM FEET / 2π


N - 5
N - 4
N - 3
N - 2
N - 1
RESISTIVITY (APP.) IN OHM FEET / 2π
0
2E
4E
6E
8E
10E


METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5


METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5
0
2E
4E
6E
8E
10E


FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
N - 3
N - 4
N - 5


FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
N - 3
N - 4
N - 5
0
2E
4E
6E
8E
10E

ENG. NO. - I.P. -

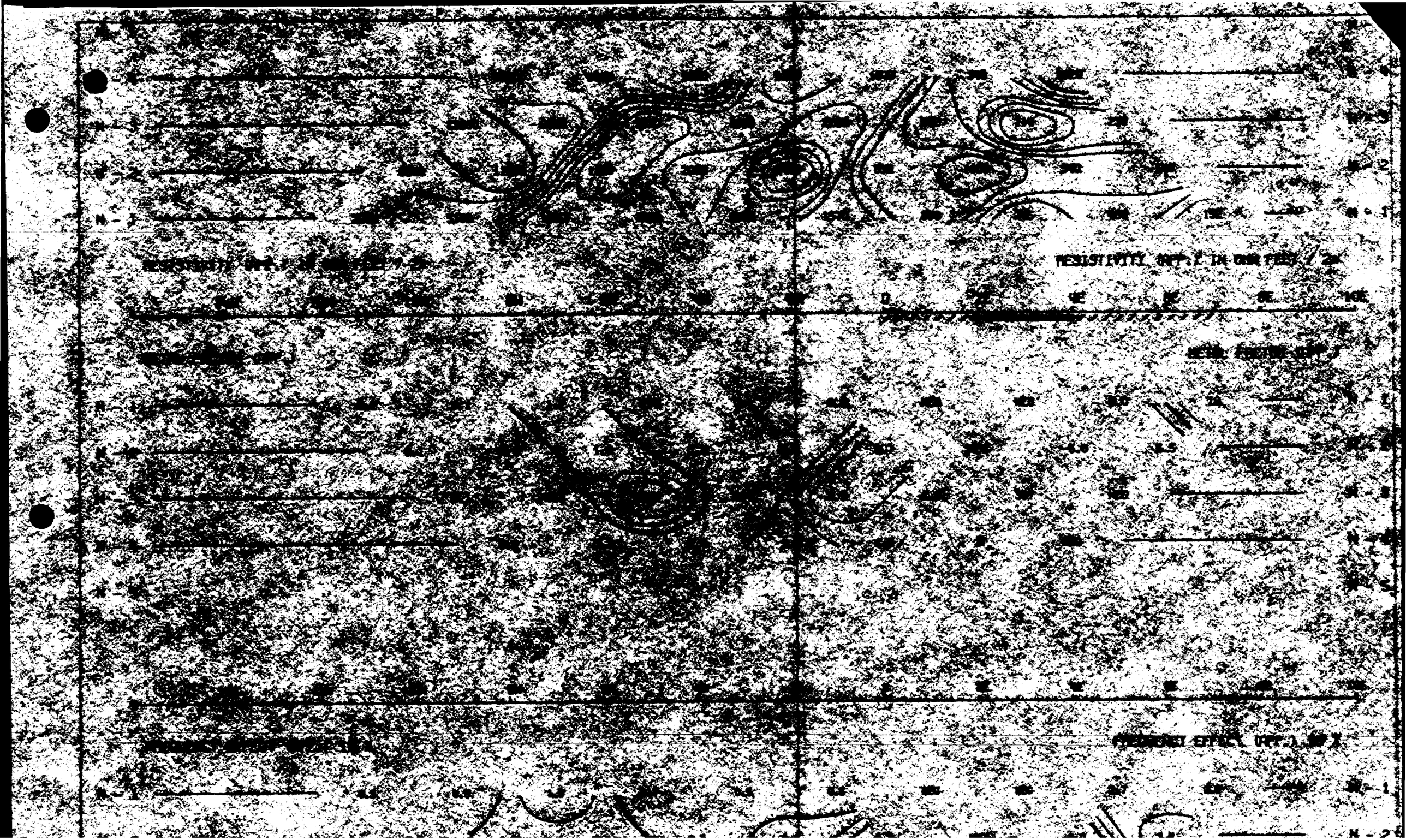
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

LINE NO. - 16N

DATE: Dec 15/70

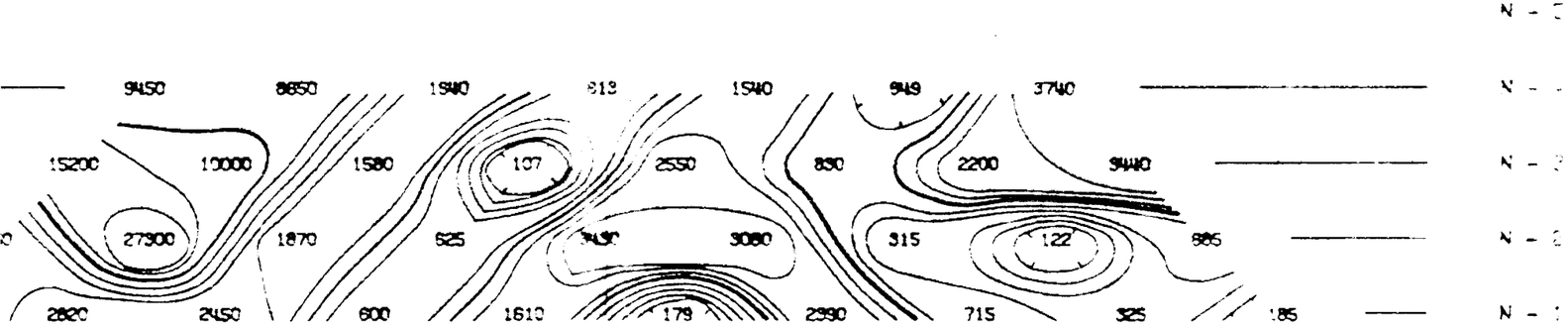


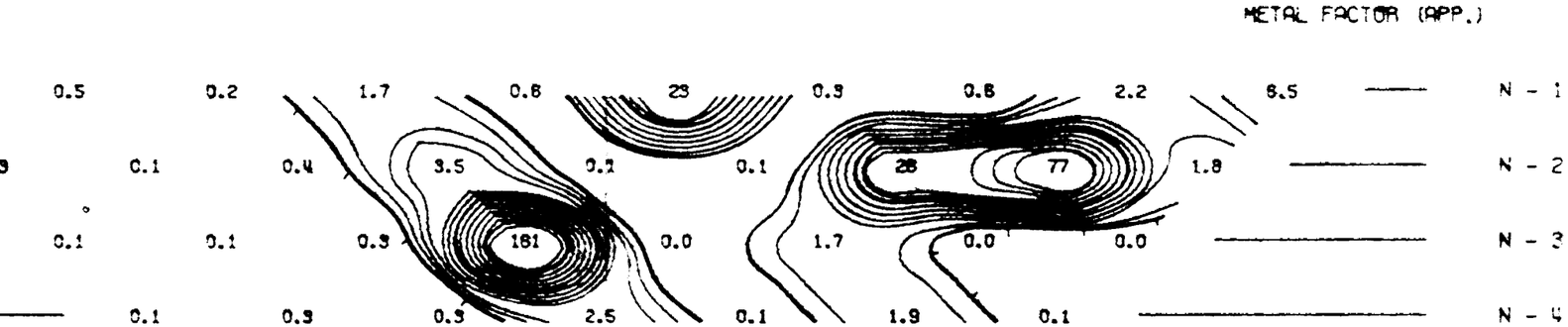
DWG. NO.- I.P.-_____

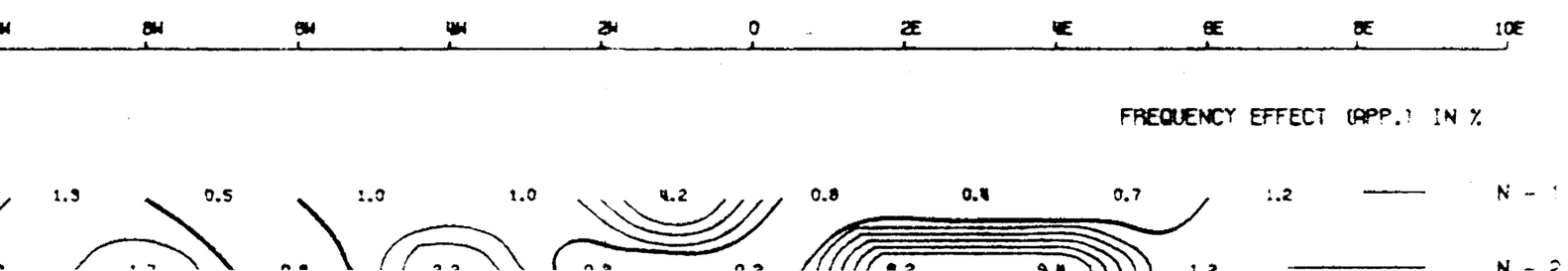
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

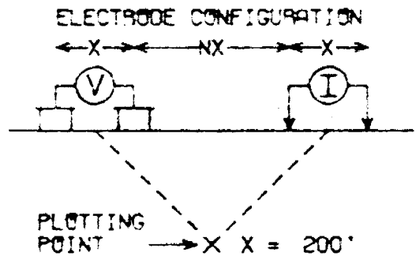






LINE NO.- 22N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

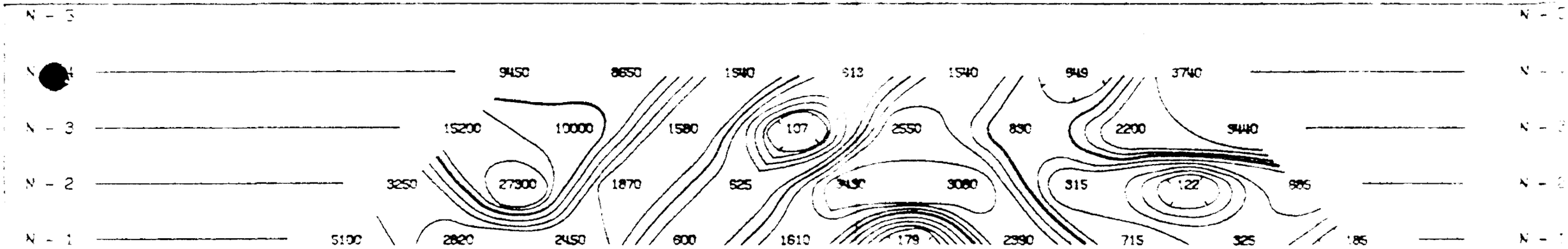
DATE SURVEYED: FEB 1970

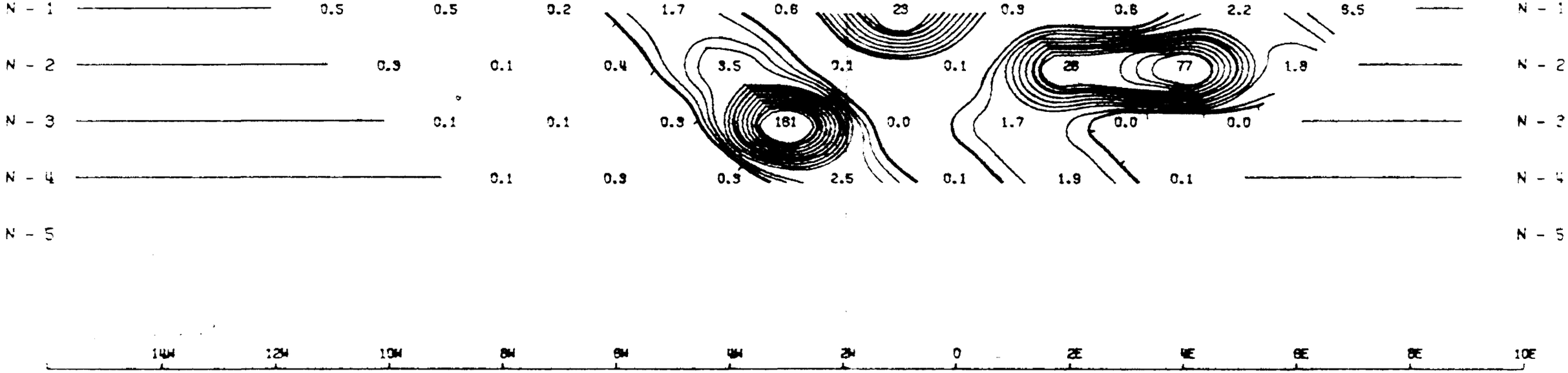
APPROVED:

_____

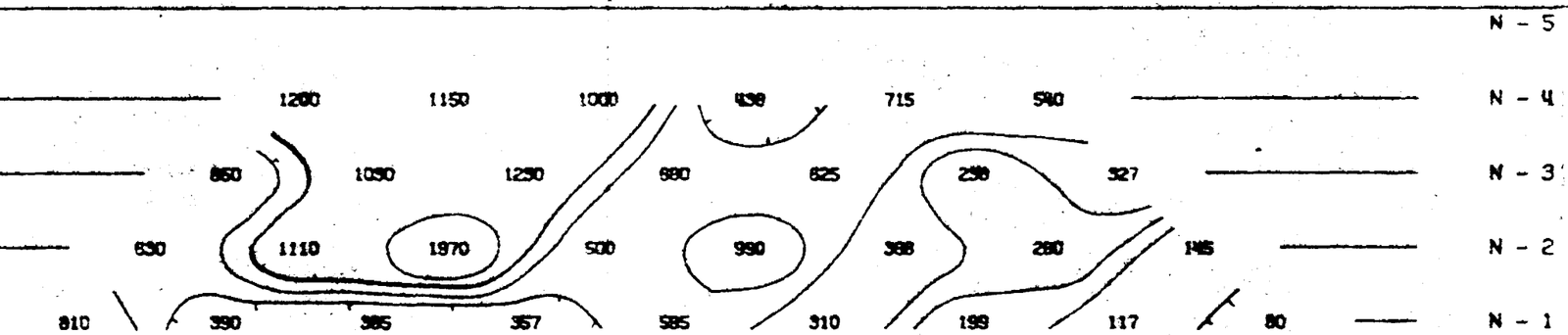
DATE: _____

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

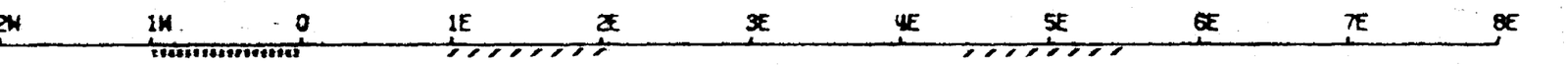

N - 3
N - 2
N - 1
9450
8650
1540
613
1540
949
3740
15200
10000
1580
107
2550
850
2200
9440
3250
27900
1870
625
3080
315
122
886
5100
2820
2450
600
1610
179
2390
715
325
185
RESISTIVITY (APP.) IN OHM FEET / 2π
RESISTIVITY (APP.) IN OHM FEET / 2π
14W
12W
10W
8W
6W
4W
2W
0
2E
4E
6E
8E
10E


METAL FACTOR (APP.)
METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5
0.5
0.5
0.2
1.7
0.6
23
0.9
0.8
2.2
8.5
0.9
0.1
0.4
3.5
2.1
0.1
28
77
1.8
0.1
0.1
0.9
161
0.0
1.7
0.0
0.0
0.1
0.9
0.9
2.5
0.1
1.9
0.1
14W
12W
10W
8W
6W
4W
2W
0
2E
4E
6E
8E
10E

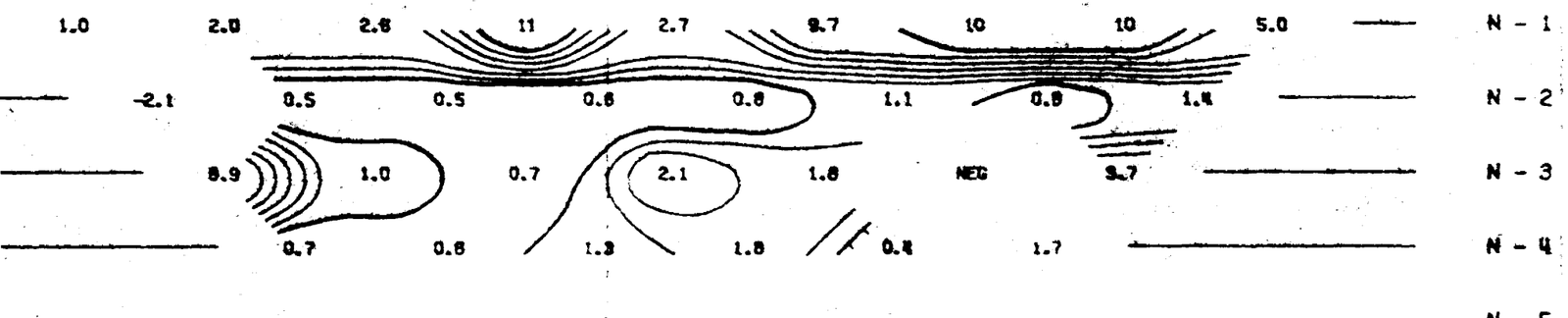
FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
N - 3
N - 4
N - 5
2.9
1.9
0.5
1.0
1.0
4.2
0.8
0.8
0.7
1.2
1.0
1.7
0.8
2.2
0.2
0.2
8.2
9.8
1.2
0.1
0.1
0.3
0.3
0.1
0.1
0.1
0.1
14W
12W
10W
8W
6W
4W
2W
0
2E
4E
6E
8E
10E

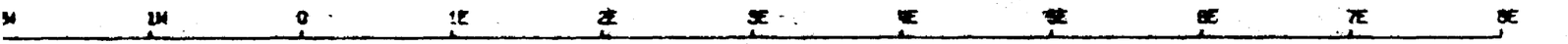


RESISTIVITY (APP.) IN OHM FEET / 2π

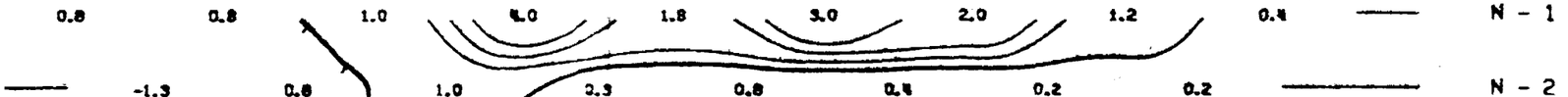


METAL FACTOR (APP.)





FREQUENCY EFFECT (APP.) IN %



DWG. NO.- I.P.-_____

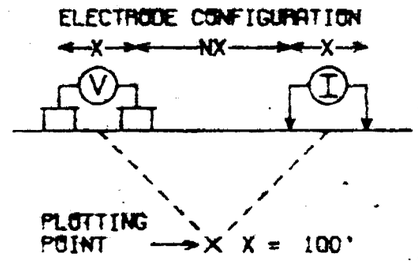
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

LINE NO.- 22N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: FEB 1970

APPROVED:

_____

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

DATE: _____

N - 5

N - 4 — 1200 1150 1000 698 715 540 —

N - 3 — 860 1050 1250 680 625 258 327 —

N - 2 — 630 1110 1970 500 990 368 280 145 —

N - 1 — 810 390 385 367 585 310 199 117 80 —

RESISTIVITY (APP.) IN OHM FEET / 2π

3W 2W 1W 0 1E 2E 3E 4E 5E 6E 7E 8E

METAL FACTOR (APP.)

N - 1 — 1.0 2.0 2.6 11 2.7 9.7 10 10 5.0 —

N - 2 — -2.1 0.5 0.5 0.6 0.8 1.1 0.8 1.4 —

N - 3 — 8.9 1.0 0.7 2.1 1.6 NEG 3.7 —

N - 4 — 0.7 0.6 1.2 1.8 0.4 1.7 —

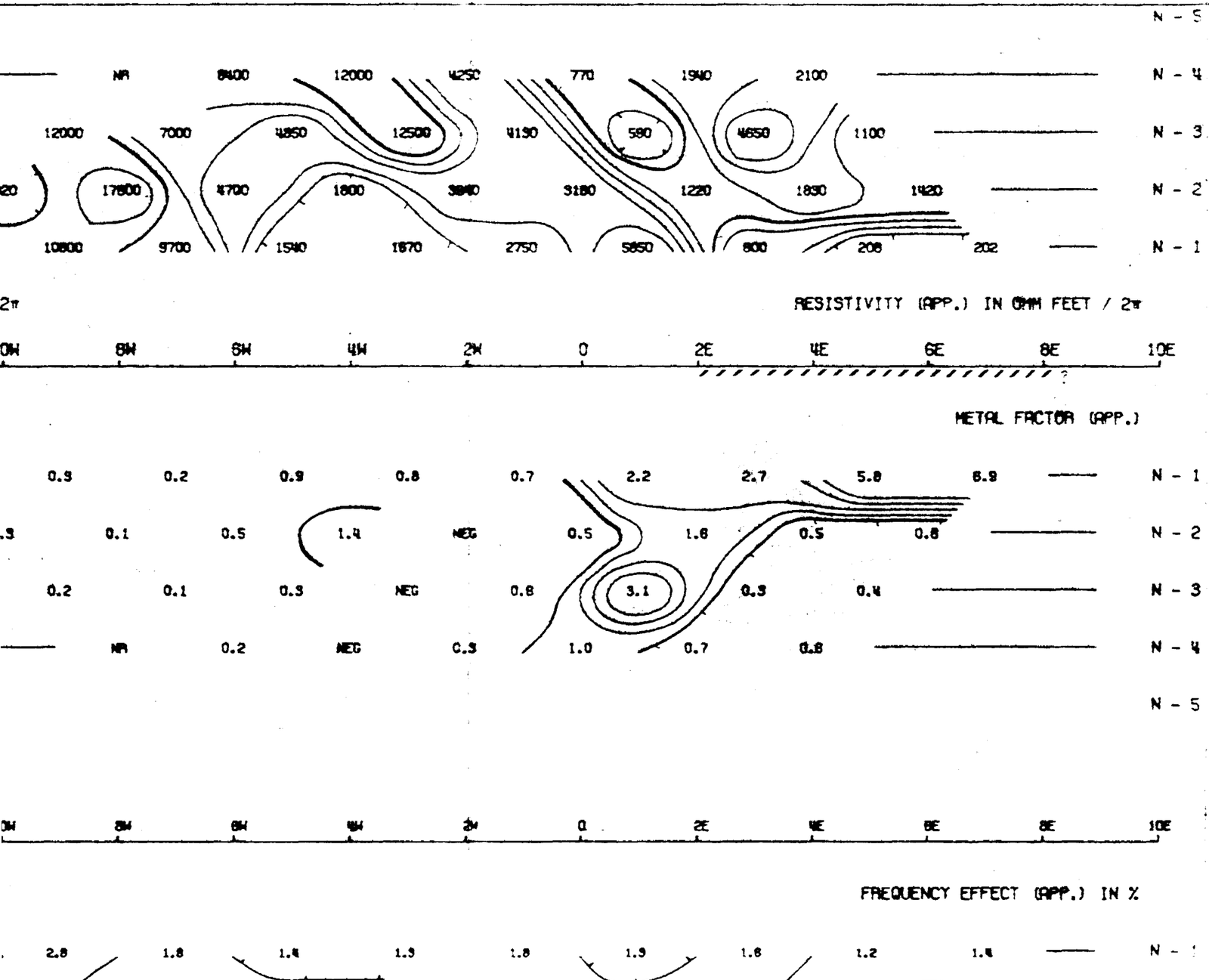
N - 5

3W 2W 1W 0 1E 2E 3E 4E 5E 6E 7E 8E

FREQUENCY EFFECT (APP.) IN %

N - 1 — 0.8 0.8 1.0 4.0 1.8 3.0 2.0 1.2 0.4 —

N - 2 — -1.3 0.8 1.0 2.1 0.8 2.5 1.2 0.8 —



DWG. NO.- I.P.-_____

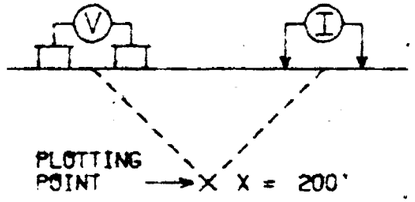
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 1

LINE NO.- 26N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

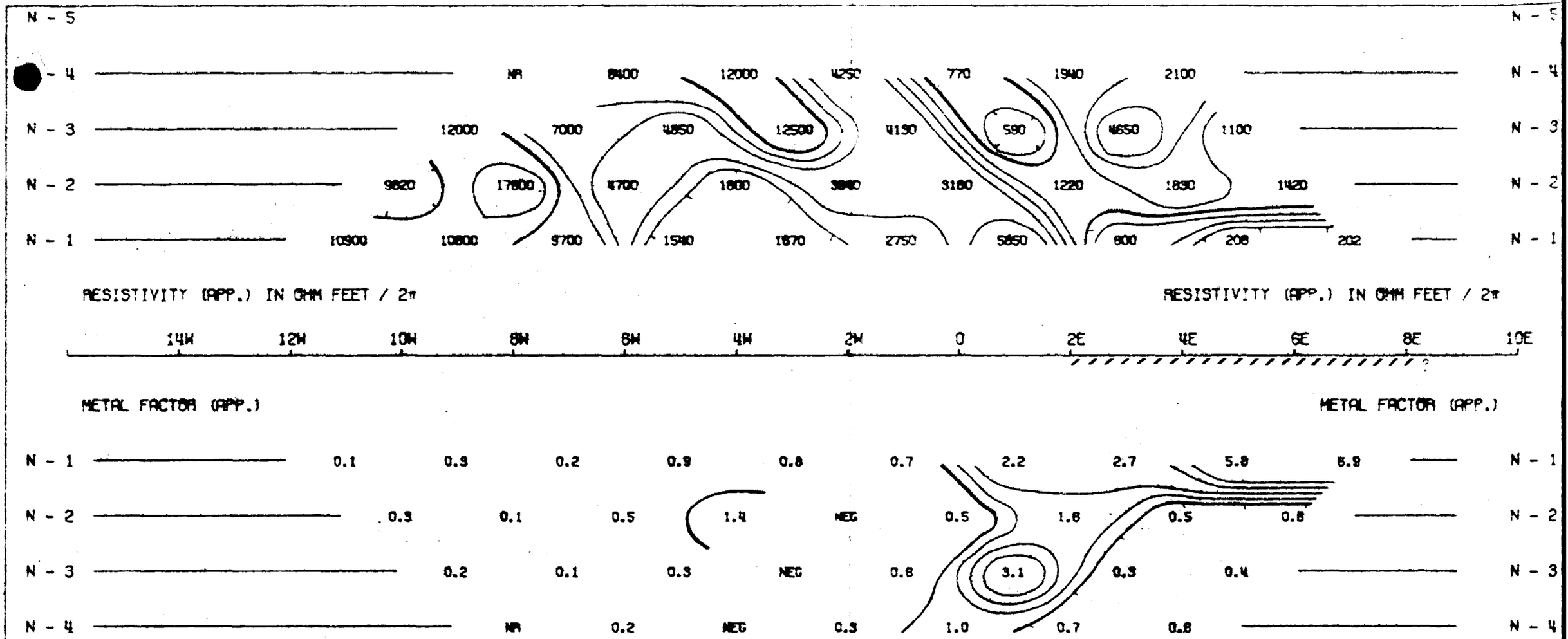
DATE SURVEYED: FEB 1970

APPROVED:

_____

DATE: _____

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

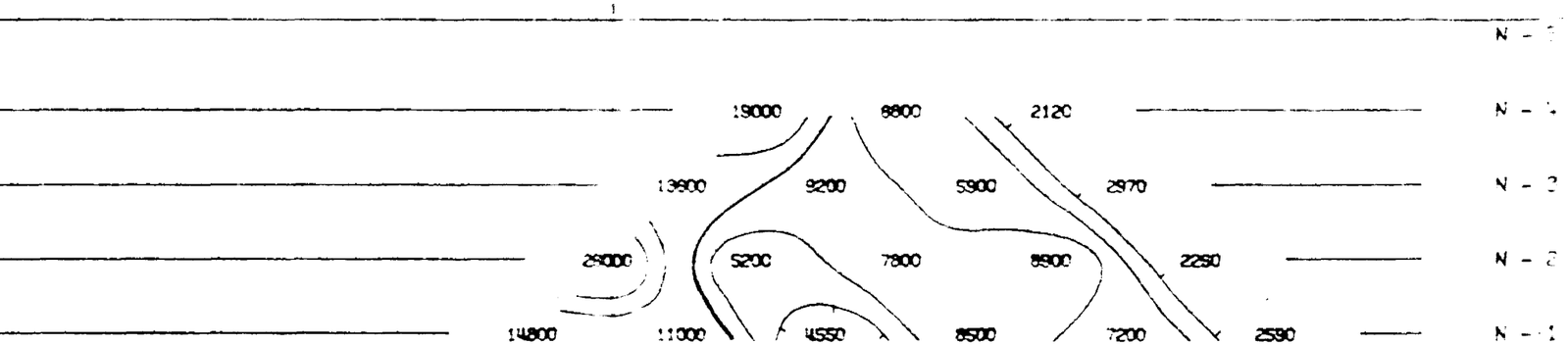

N - 5
N - 4
N - 3
N - 2
N - 1
NR
8400
12000
4250
770
1940
2100
12000
7000
4850
12500
4150
590
4650
1100
3620
17600
4700
1800
3840
3180
1220
1830
1420
10900
10800
9700
1540
1870
2750
5850
800
208
202
RESISTIVITY (APP.) IN OHM FEET / 2π
14W
12W
10W
8W
6W
4W
2W
0
2E
4E
6E
8E
10E
METAL FACTOR (APP.)
0.1
0.9
0.2
0.9
0.8
0.7
2.2
2.7
5.8
6.9
0.3
0.1
0.5
1.4
NEG
0.5
1.8
0.5
0.8
0.2
0.1
0.3
NEG
0.8
3.1
0.3
0.4
NR
0.2
NEG
0.3
1.0
0.7
0.8
FREQUENCY EFFECT (APP.) IN %
1.5
2.8
1.8
1.4
1.3
1.8
1.3
1.8
1.2
1.4
2.8
1.3
2.2
2.8
NEG
1.8
2.9
1.0
0.8

DWG. NO.- I.P.-

METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

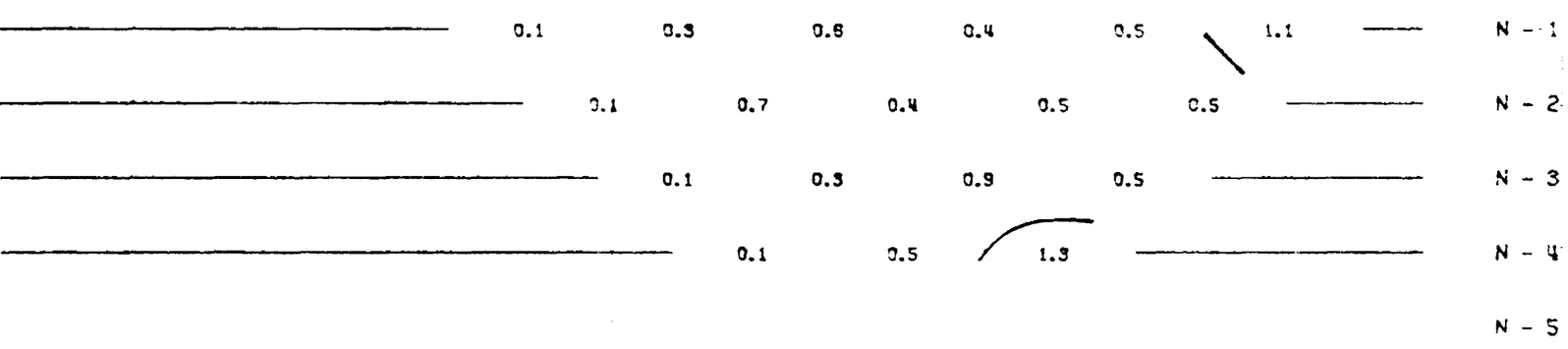
GRID 1



2π RESISTIVITY (APP.) IN OHM FEET / 2π

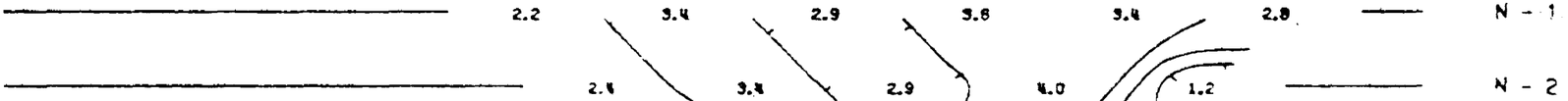
12W 10W 8W 6W 4W 2W 0 2E 4E

METAL FACTOR (APP.)



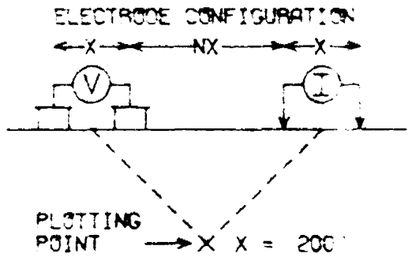
12W 10W 8W 6W 4W 2W 0 2E 4E

FREQUENCY EFFECT (APP.) IN %



LINE NO.- 30N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ·····

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: FEB 1970

APPROVED:

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

DATE:

N - 5

N - 4 — 19000 — 8800 — 2120 —

N - 3 — 13900 — 9200 — 5900 — 2870 —

N - 2 — 28000 — 5200 — 7800 — 8900 — 2250 —

N - 1 — 14800 — 11000 — 4550 — 8500 — 7200 — 2590 —

RESISTIVITY (APP.) IN OHM FEET / 2π

12W 10W 8W 6W 4W 2W 0 2E 4E

METAL FACTOR (APP.)

N - 1 — 0.1 — 0.3 — 0.6 — 0.4 — 0.5 — 1.1 —

N - 2 — 0.1 — 0.7 — 0.4 — 0.5 — 0.5 —

N - 3 — 0.1 — 0.3 — 0.9 — 0.5 —

N - 4 — 0.1 — 0.5 — 1.3 —

N - 5

12W 10W 8W 6W 4W 2W 0 2E 4E

FREQUENCY EFFECT (APP.) IN %

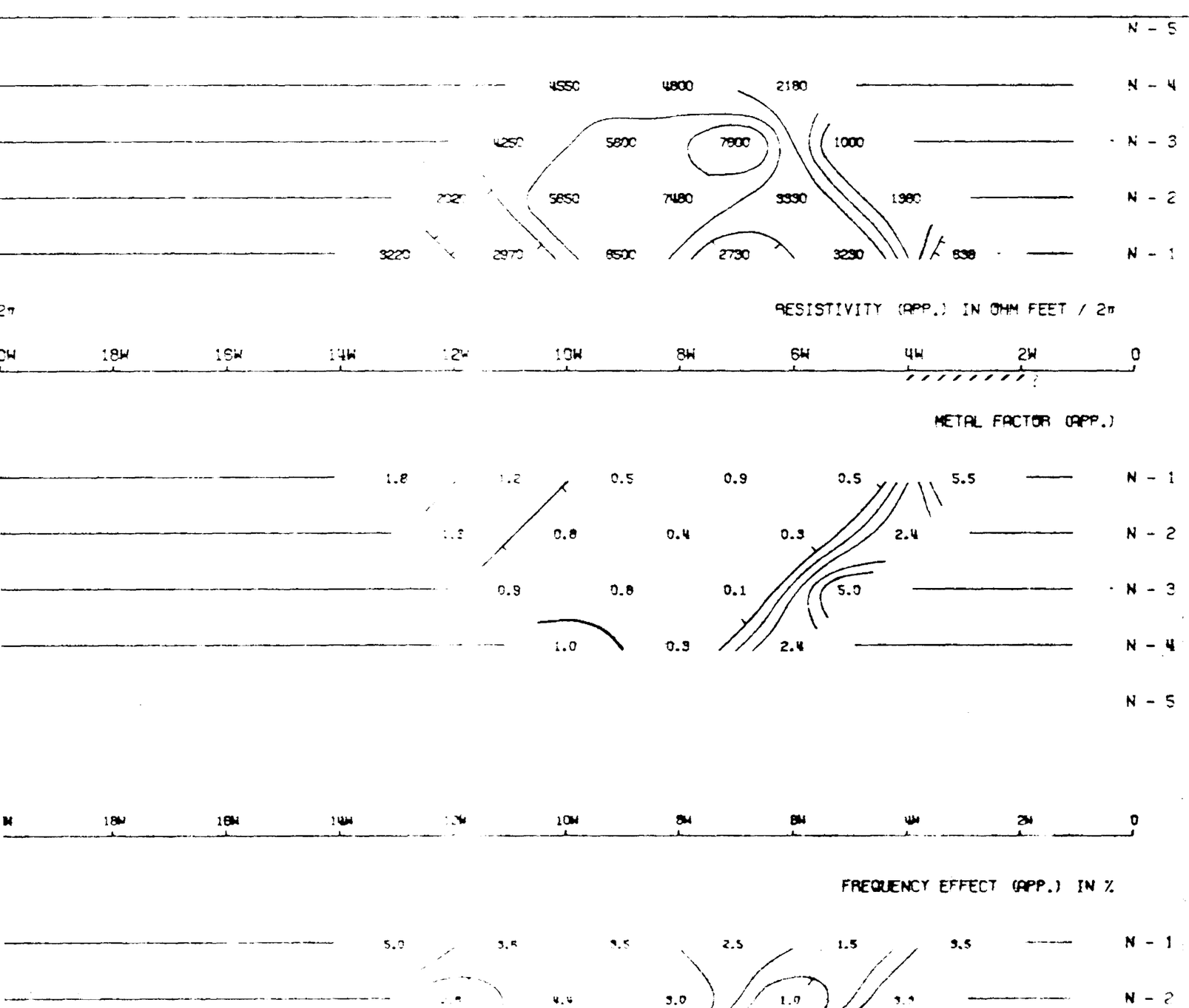
N - 1 — 2.2 — 3.4 — 2.9 — 3.6 — 3.4 — 2.8 —

N - 2 — 2.5 — 3.4 — 2.9 — 4.0 — 1.2 —

N - 3 — 2.5 — 3.4 — 3.2 — 4.0 —

N - 4 — 2.5 — 3.4 — 3.2 —

N - 5



DWG. NO.- I.P.-_____

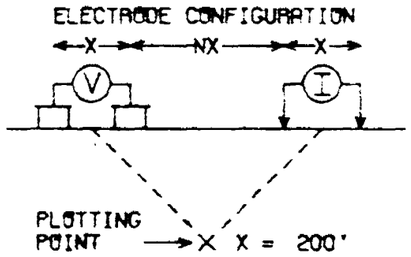
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 8S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE ////////

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: JAN 1970

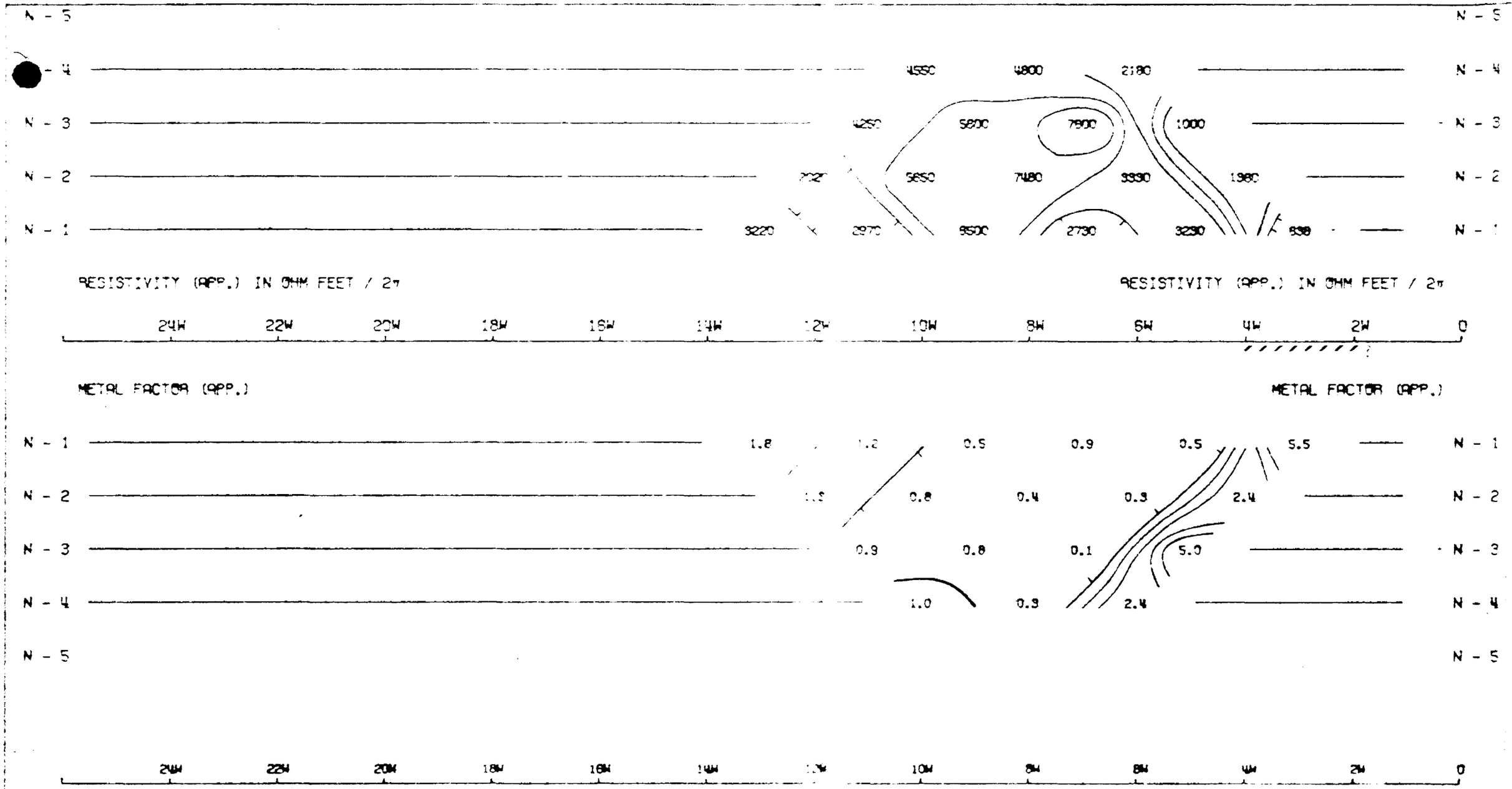
APPROVED:

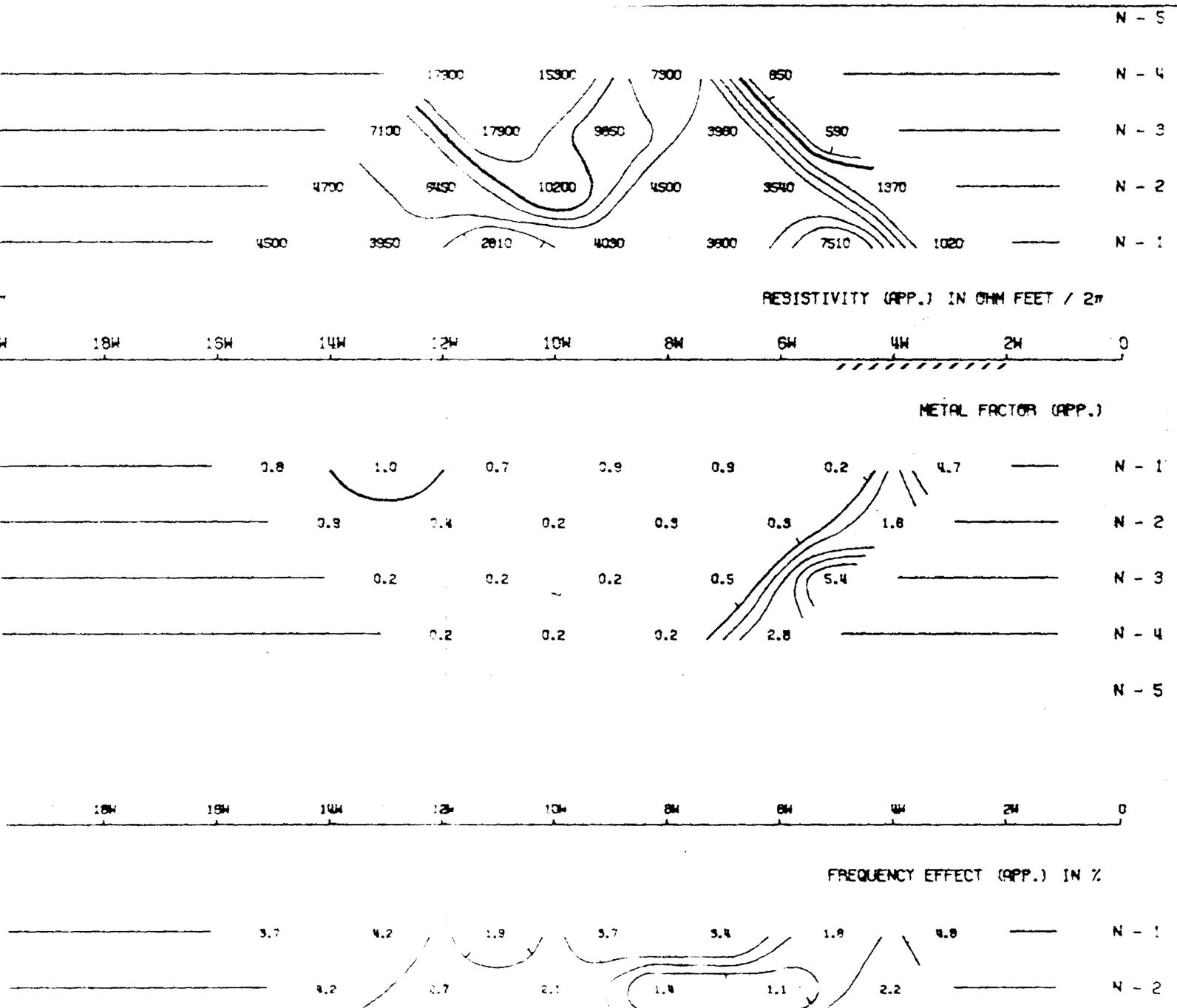
_____

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

DATE: _____

J. Scott Williams


N - 5
N - 4
N - 3
N - 2
N - 1
3220
4550
4800
2180
4250
5800
7900
1000
5650
7480
3330
1980
2970
9500
2730
3290
RESISTIVITY (APP.) IN OHM FEET / 2π
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0
METAL FACTOR (APP.)
1.8
1.2
0.5
0.9
0.5
5.5
0.8
0.4
0.3
2.4
0.8
0.1
5.0
1.0
0.9
2.4
FREQUENCY EFFECT (APP.) IN %
5.0
3.5
3.5
2.5
1.5
3.5



DWG. NO.- I.P.-_____

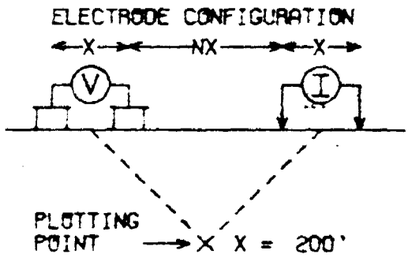
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 4S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: JAN 1970

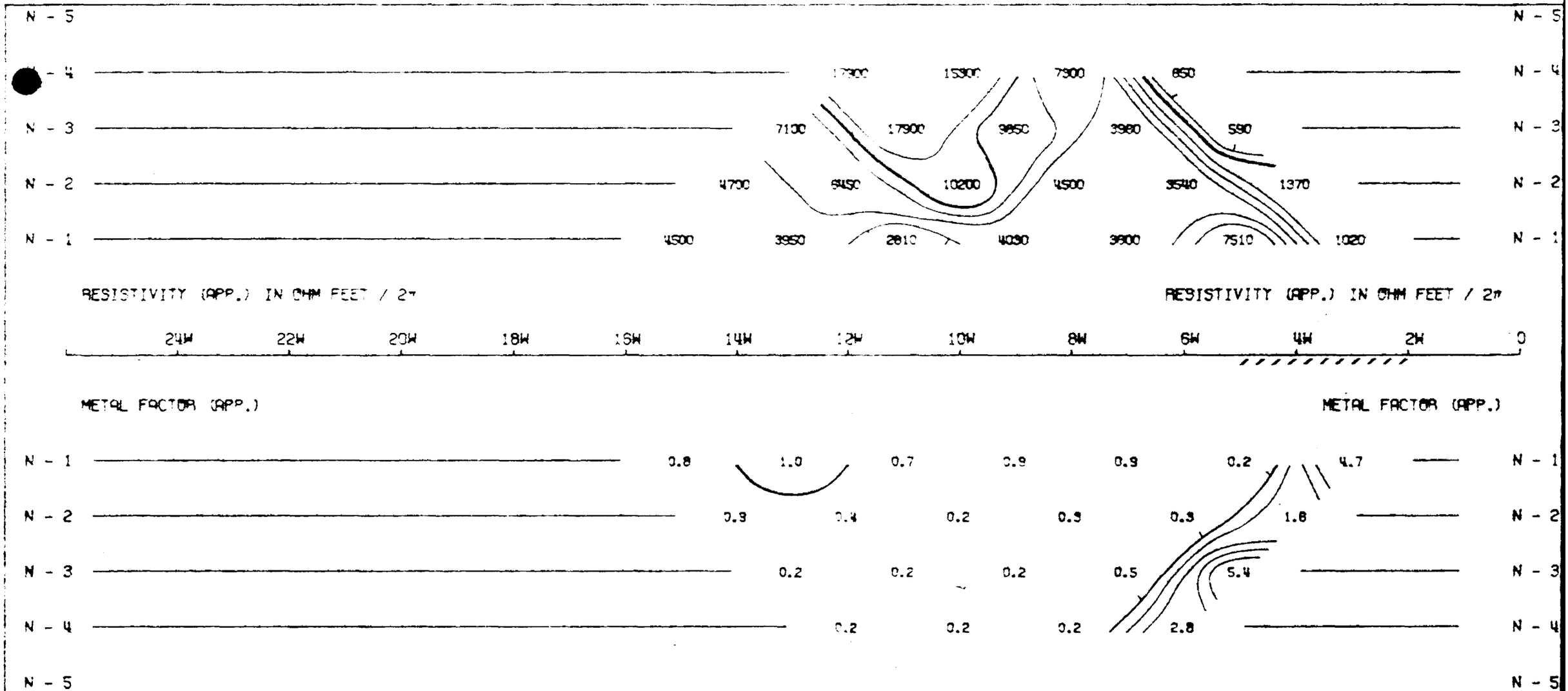
APPROVED:

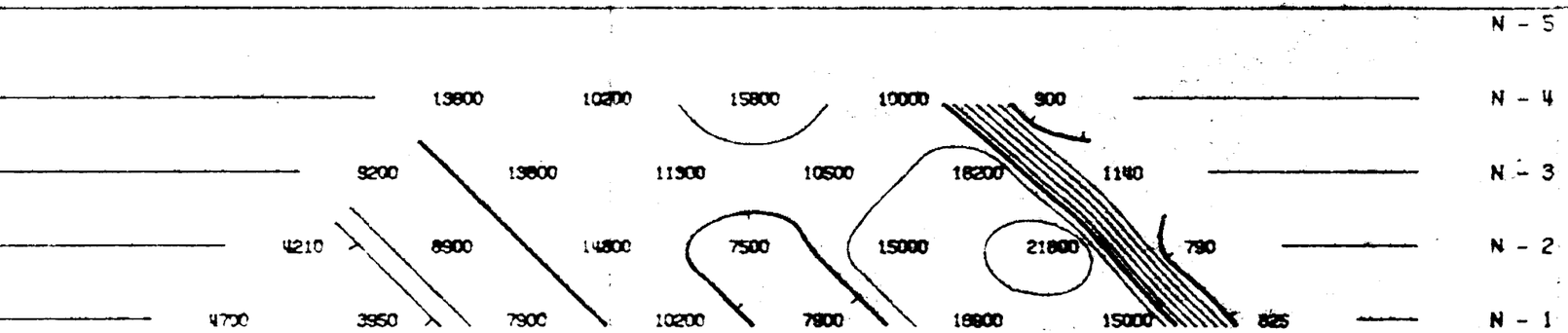
_____

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

DATE: _____

G. R. Gillies

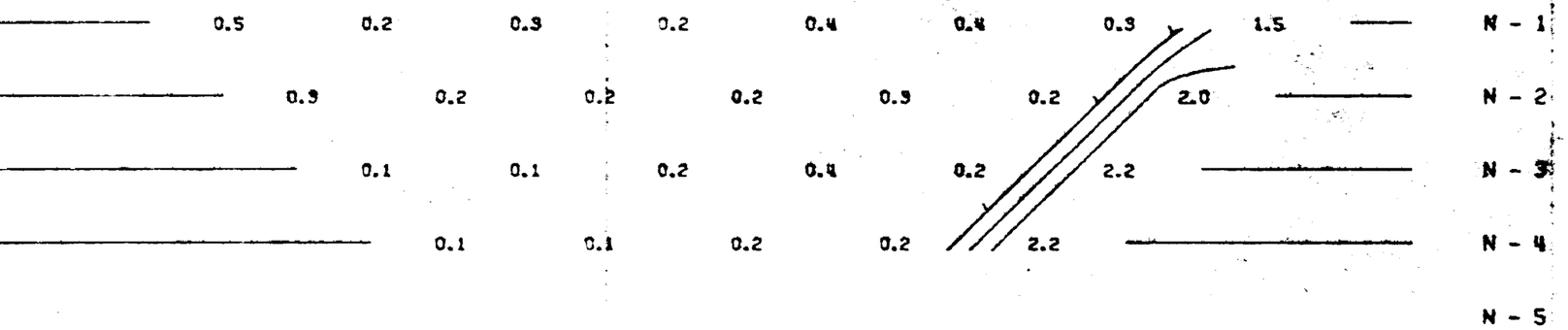

N - 5
N - 4
N - 3
N - 2
N - 1
4700
4500
17900
15300
7900
7100
17900
9850
6450
10200
4500
3950
2810
4090
650
3980
590
3540
1370
3900
7510
1020
RESISTIVITY (APP.) IN OHM FEET / 2π
RESISTIVITY (APP.) IN OHM FEET / 2π
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0
METAL FACTOR (APP.)
METAL FACTOR (APP.)
0.8
1.0
0.7
0.9
0.9
0.2
4.7
0.9
0.4
0.2
0.9
0.3
1.8
0.2
0.2
0.2
0.5
5.4
0.2
0.2
0.2
2.8
FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %
3.7
4.2
1.9
3.7
3.4
1.9
4.8
4.2
3.7
2.1
1.4
1.1
2.2



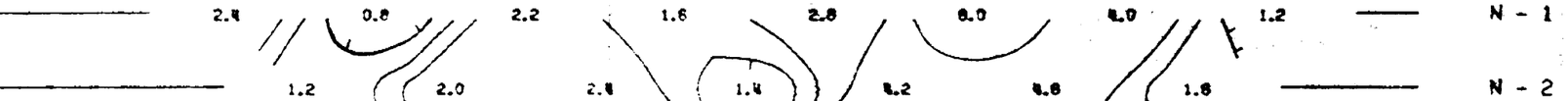
2π

RESISTIVITY (APP.) IN OHM FEET / 2π

20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0



20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0



DWG. NO.- I.P.-

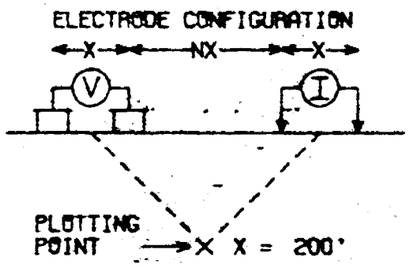
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 0

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: JAN 1970

APPROVED:

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

DATE:

N - 5

N - 4

N - 3

N - 2

N - 1

13800 10200 15800 10000 900

9200 13800 11500 10500 16200 1180

4210 8900 14800 7500 15000 21600 790

4700 3950 7900 10200 7900 18800 15000 825

RESISTIVITY (APP.) IN OHM FEET / 2π

RESISTIVITY (APP.) IN OHM FEET / 2π

24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0

METAL FACTOR (APP.)

METAL FACTOR (APP.)

N - 1 0.5 0.2 0.3 0.2 0.4 0.4 0.3 1.5

N - 2 0.3 0.2 0.2 0.2 0.3 0.2 2.0

N - 3 0.1 0.1 0.2 0.4 0.2 2.2

N - 4 0.1 0.1 0.2 0.2 2.2

N - 5

24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0

FREQUENCY EFFECT (APP.) IN %

FREQUENCY EFFECT (APP.) IN %

N - 1 2.4 0.8 2.2 1.6 2.8 6.0 4.0 1.2

N - 2 1.2 2.0 2.8 1.4 4.2 4.8 1.8

N - 3 0.8 1.8 2.4 1.2 3.8 4.2 1.6

N - 4 0.8 1.6 2.2 1.2 3.6 3.8 1.4

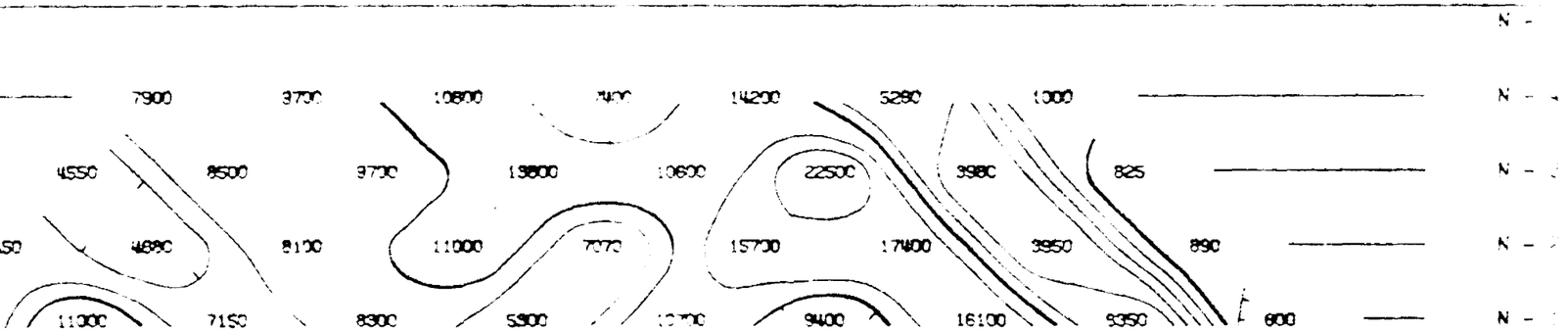
N - 5

DWG. NO.- I.P.-_____

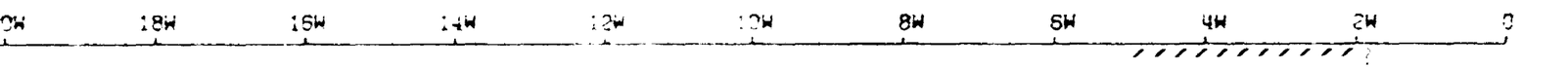
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

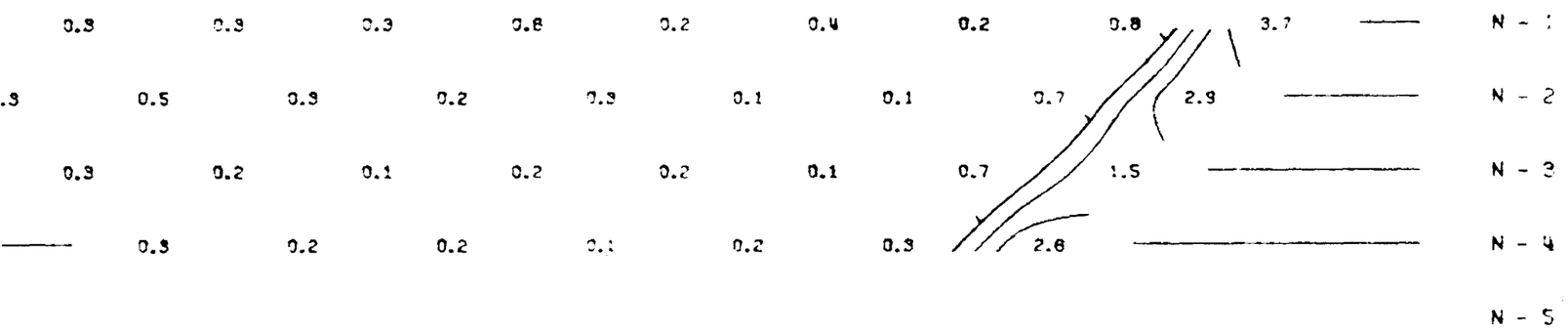
GRID 2

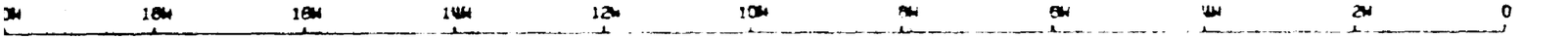


RESISTIVITY (APP.) IN OHM FEET / 2π



METAL FACTOR (APP.)

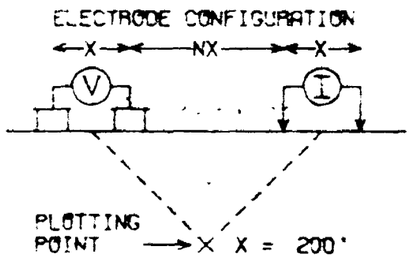




FREQUENCY EFFECT (APP.) IN %

LINE NO.- 2N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

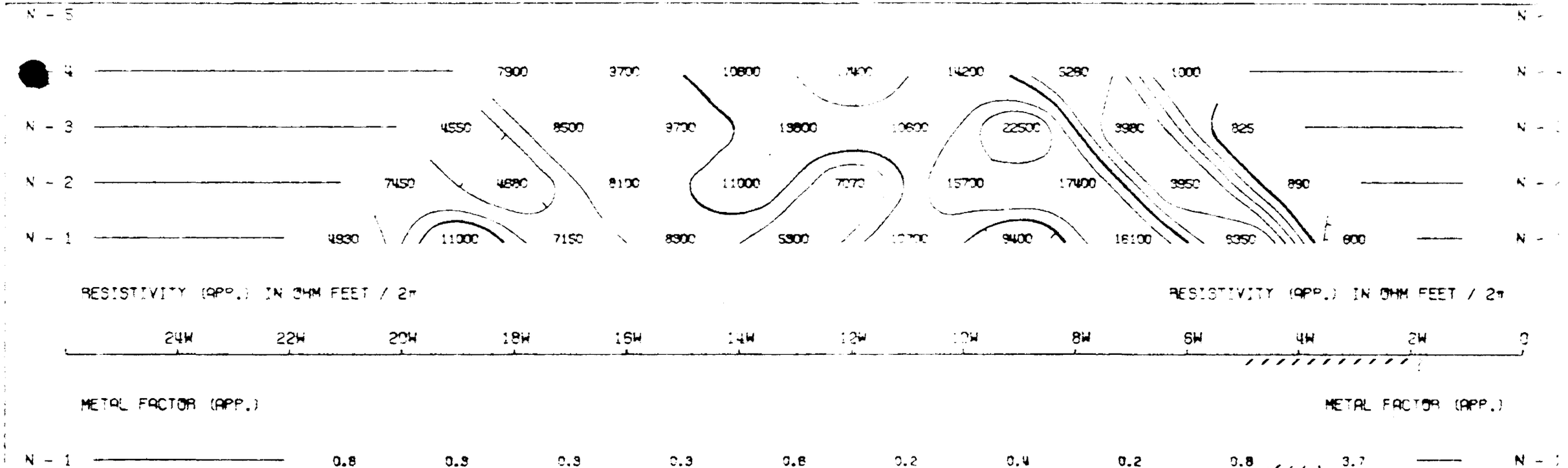
DATE SURVEYED: JAN 1970

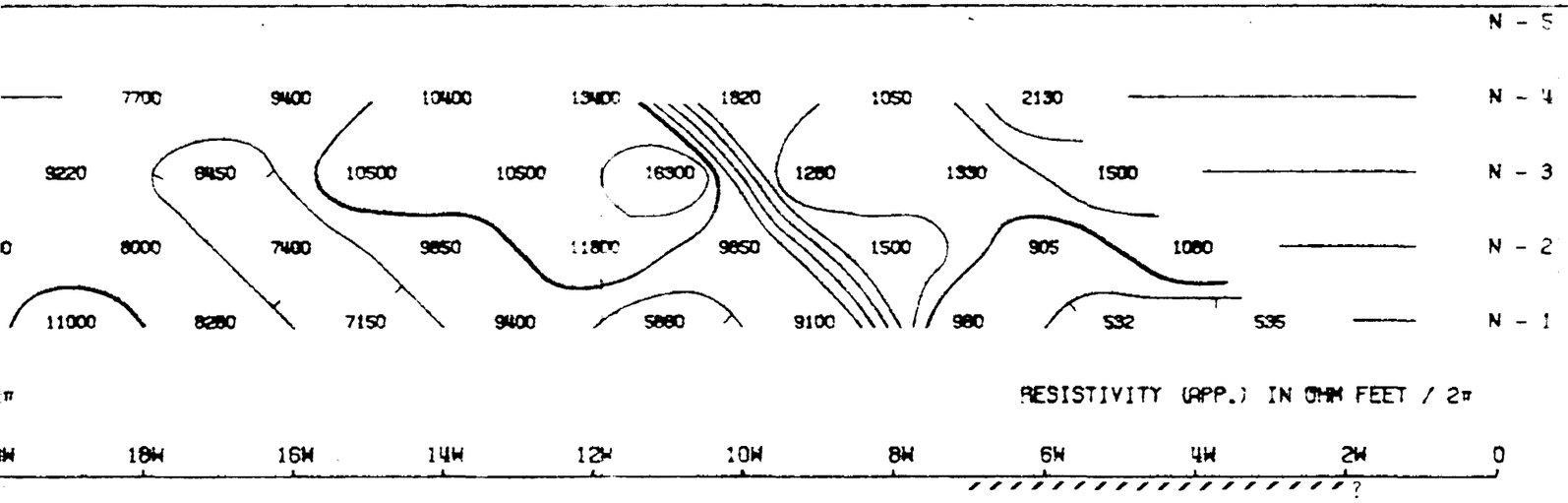
APPROVED:

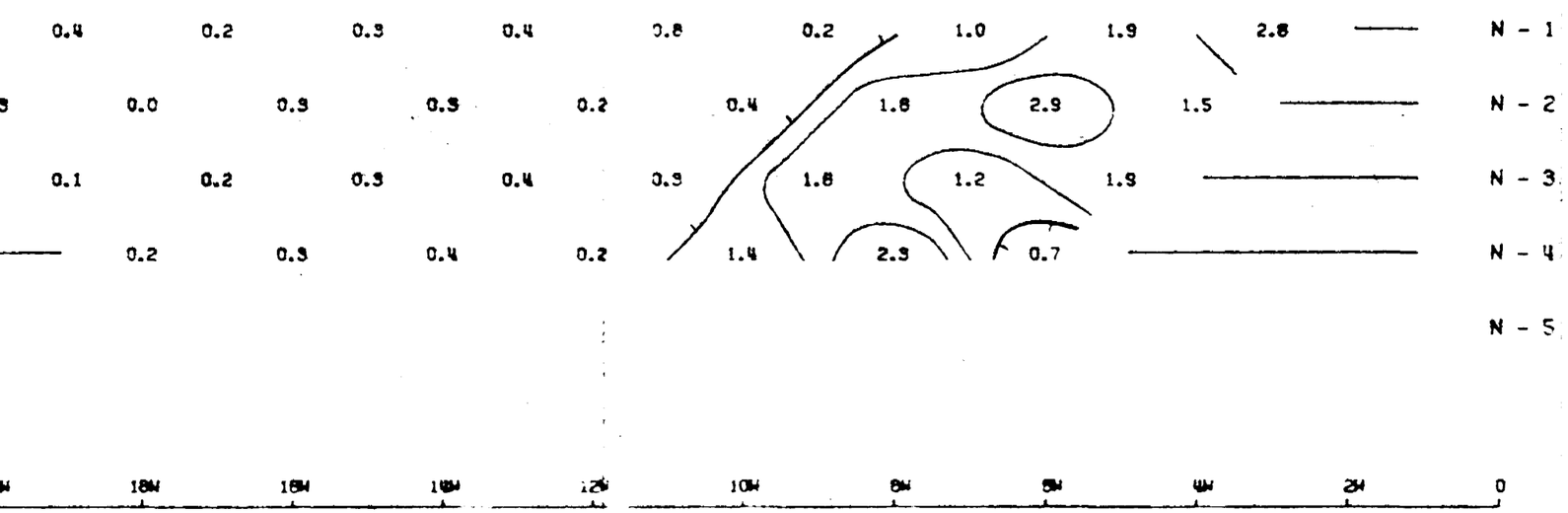
_____

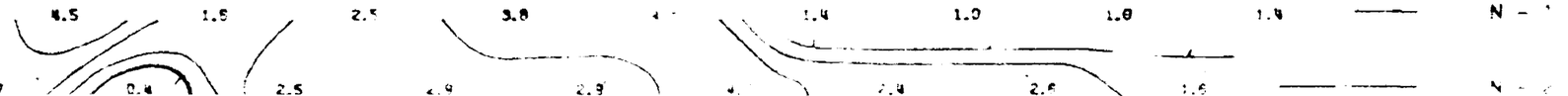
DATE: _____

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


N - 5
N - 4
N - 3
N - 2
N - 1
7900 3700 10800 14200 5280 1000
4550 8500 9700 19800 10600 22500 3980 825
7450 4890 8100 11000 7070 15700 17400 3950 890
4930 11000 7150 8900 5800 9400 16100 9350 600
RESISTIVITY (APP.) IN OHM FEET / 2π
24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0
METAL FACTOR (APP.)
0.8 0.8 0.9 0.3 0.8 0.2 0.4 0.2 0.8 3.7
0.9 0.5 0.9 0.2 0.3 0.1 0.1 0.7 2.9
0.8 0.2 0.1 0.2 0.2 0.1 0.7 1.5
0.8 0.2 0.2 0.1 0.2 0.8 2.8
FREQUENCY EFFECT (APP.) IN %
3.1 3.7 2.9 2.9 3.0 2.5 4.2 3.0 4.9 2.2
3.1 2.9 2.4 2.9 2.9 1.5 2.4 2.9 2.5
2.9 2.4 2.9 2.9 2.9 2.4 2.9 2.5
2.9 2.9 2.9 2.9 2.9 2.9 2.5







DWG. NO.- I.P.-_____

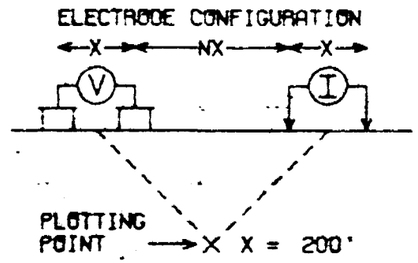
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 4N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ·····

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

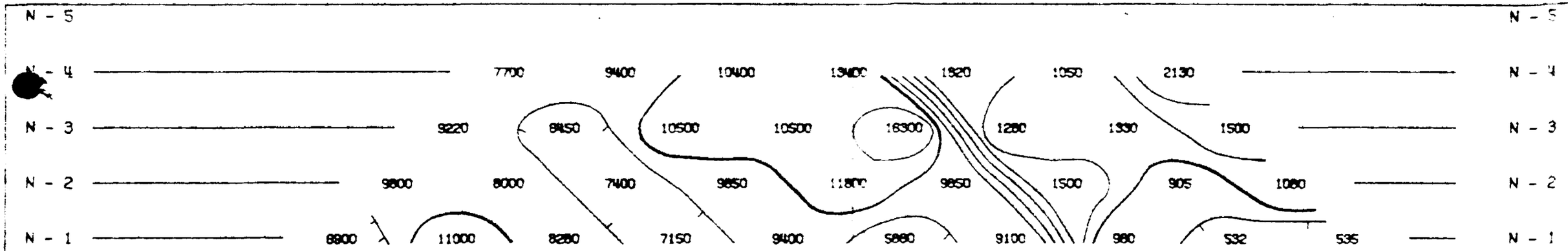
DATE SURVEYED: JAN 1970

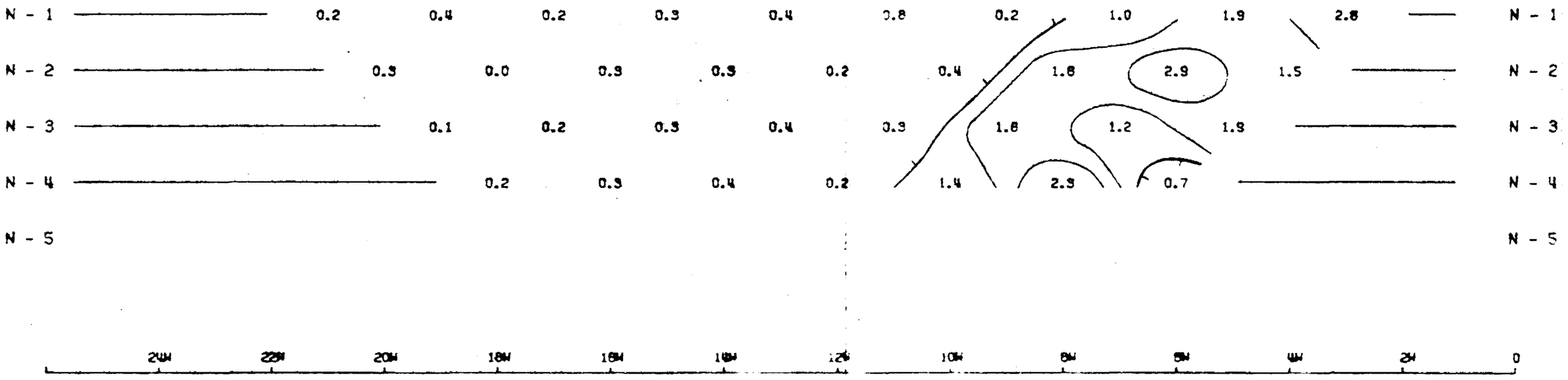
APPROVED:

_____

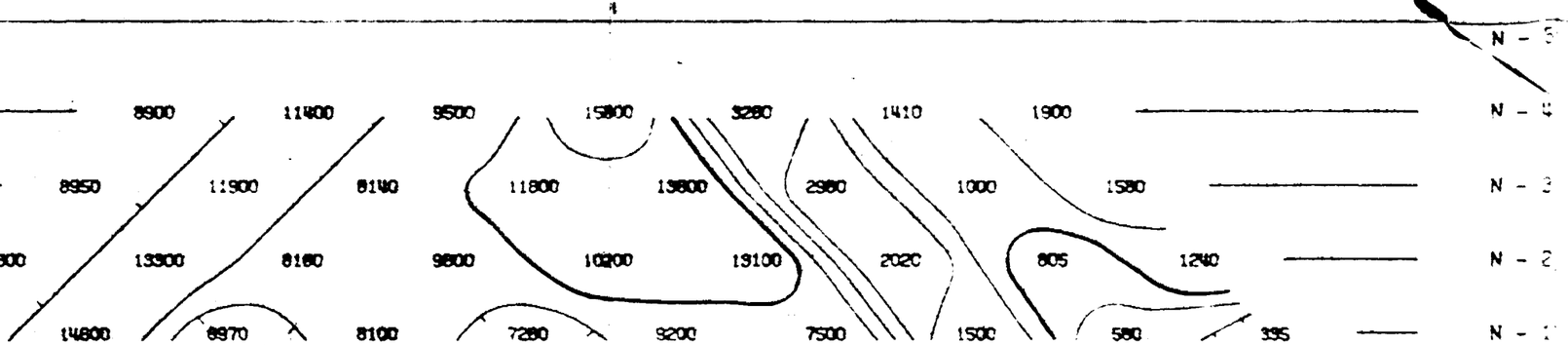
DATE: _____

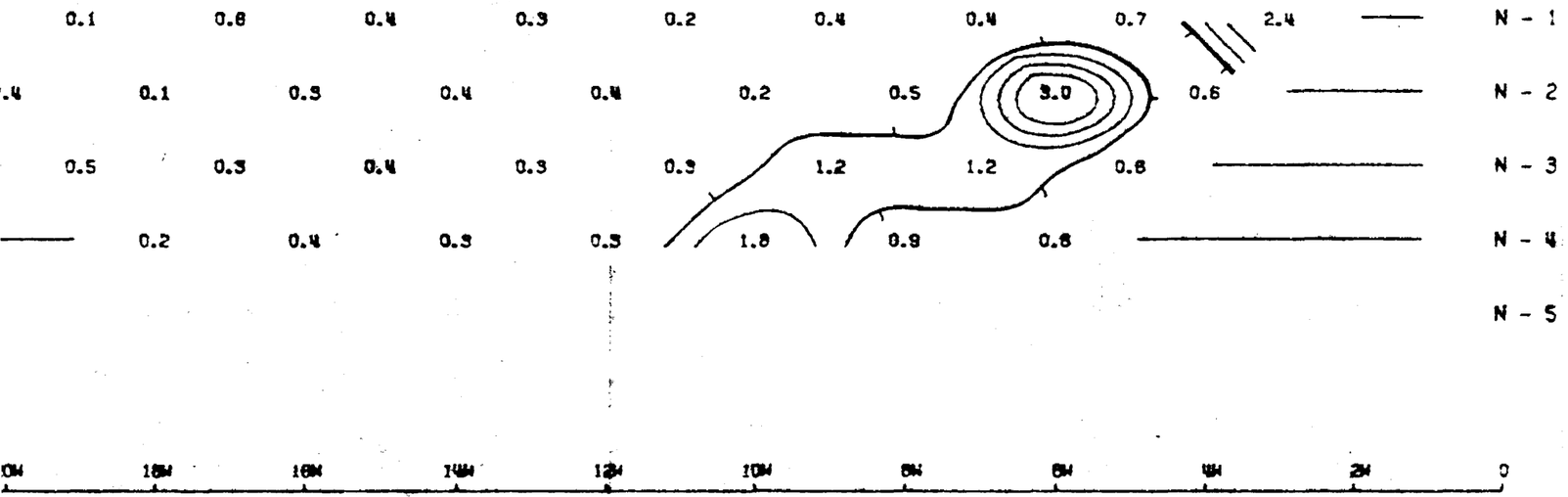
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

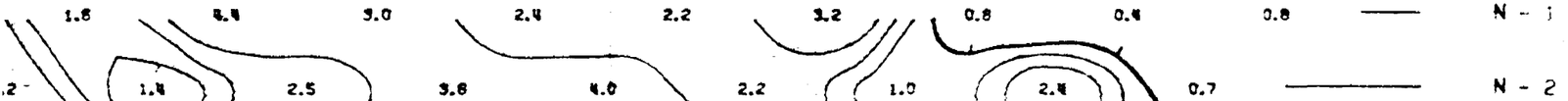

N - 5
N - 4
N - 3
N - 2
N - 1
7700
9400
10400
13400
1920
1050
2130
9220
8450
10500
10500
16300
1280
1330
1500
9800
8000
7400
9850
11800
9850
1500
905
1080
8800
11000
8280
7150
9400
5880
9100
980
532
535
RESISTIVITY (APP.) IN OHM FEET / 2π
RESISTIVITY (APP.) IN OHM FEET / 2π
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0


METAL FACTOR (APP.)
METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5
0.2
0.4
0.2
0.3
0.4
0.8
0.2
1.0
1.9
2.8
0.3
0.0
0.3
0.3
0.2
0.4
1.8
2.9
1.5
0.1
0.2
0.3
0.4
0.3
1.8
1.2
1.9
0.2
0.3
0.4
0.2
1.4
2.3
0.7
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0

FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
N - 3
N - 4
N - 5
1.3
4.5
1.5
2.5
3.8
1.4
1.0
1.0
1.9
2.7
0.4
2.5
2.9
2.9
1.5
1.3
1.8
1.2
1.8
1.4
2.3
0.7
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0







DWG. NO.- I.P.-

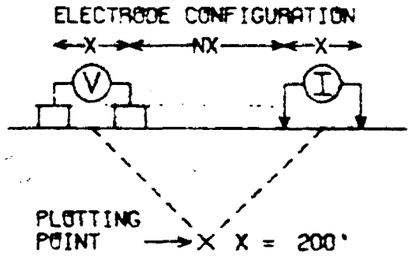
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 6N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

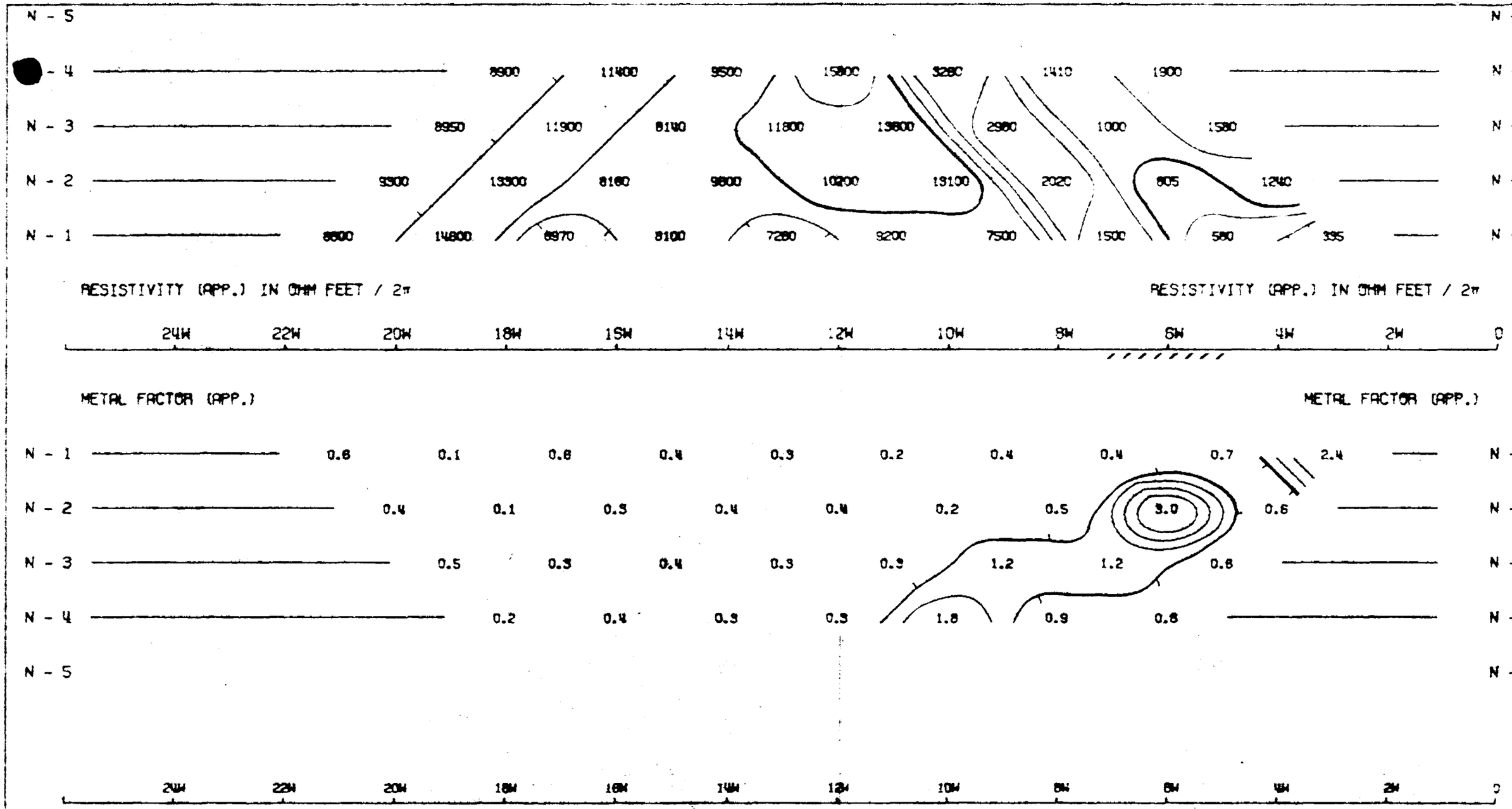
FREQUENCIES: 0.31-5.0 CPS

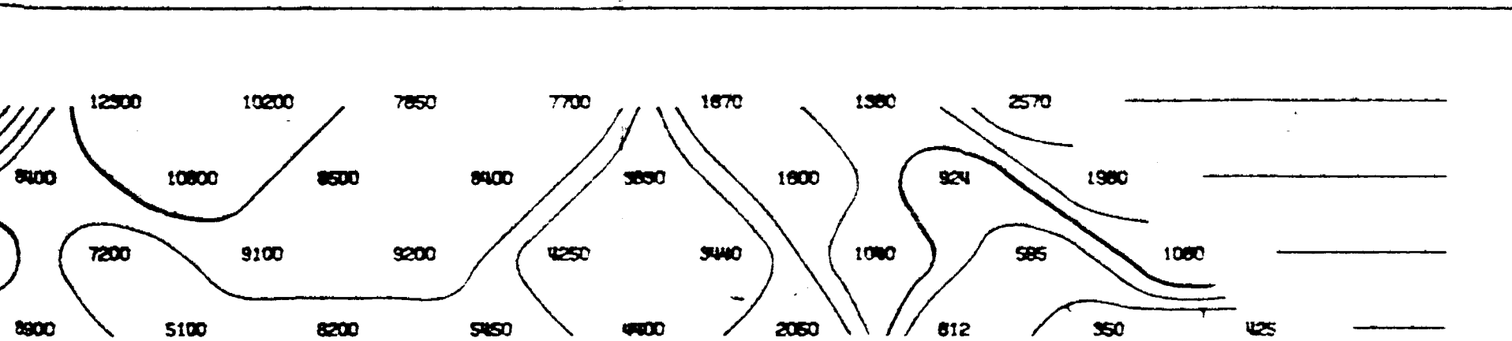
DATE SURVEYED: JAN 1970

APPROVED:

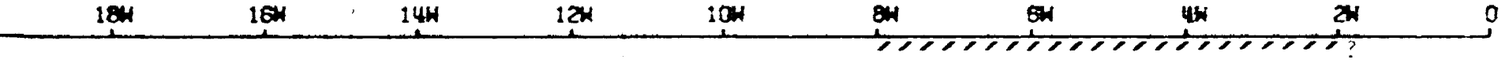
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE:

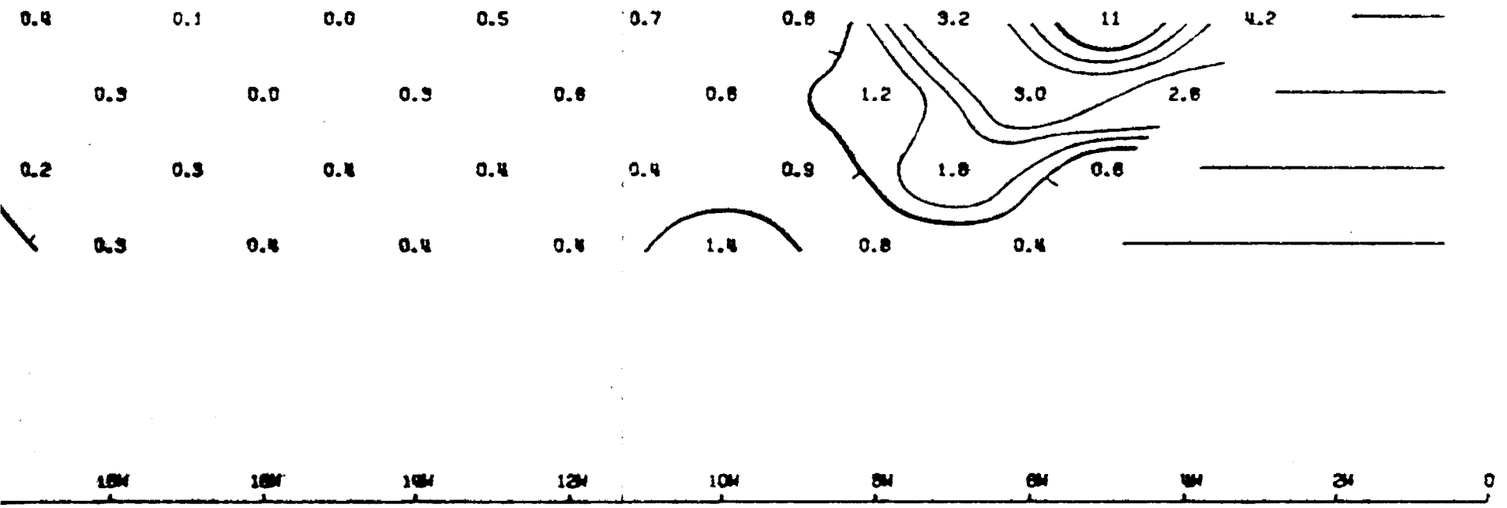

N - 5
N - 4
N - 3
N - 2
N - 1
8900
11400
9500
15800
3280
1410
1900
8950
11900
8140
11800
13800
2980
1000
1580
9300
13300
8160
9800
10200
13100
2020
805
1240
8800
14800
8970
8100
7280
9200
7500
1500
580
395
RESISTIVITY (APP.) IN OHM FEET / 2π
RESISTIVITY (APP.) IN OHM FEET / 2π
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0
METAL FACTOR (APP.)
METAL FACTOR (APP.)
0.6
0.1
0.8
0.4
0.3
0.2
0.4
0.4
0.7
2.4
0.4
0.1
0.3
0.4
0.4
0.2
0.5
3.0
0.6
0.5
0.3
0.4
0.3
0.9
1.2
1.2
0.8
0.2
0.4
0.3
0.3
1.8
0.9
0.8
FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %
5.0
1.8
4.4
3.0
2.4
2.2
3.2
0.8
0.4
0.8
4.2
1.4
2.5
3.8
4.0
2.2
1.0
2.4
0.7



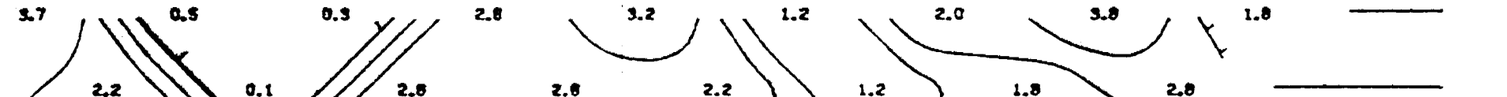
RESISTIVITY (APP.) IN OHM FEET / 2π



METAL FACTOR (APP.)



FREQUENCY EFFECT (APP.) IN %



DWG. NO.- I.P.-_____

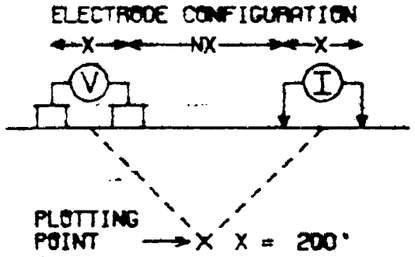
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 8N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

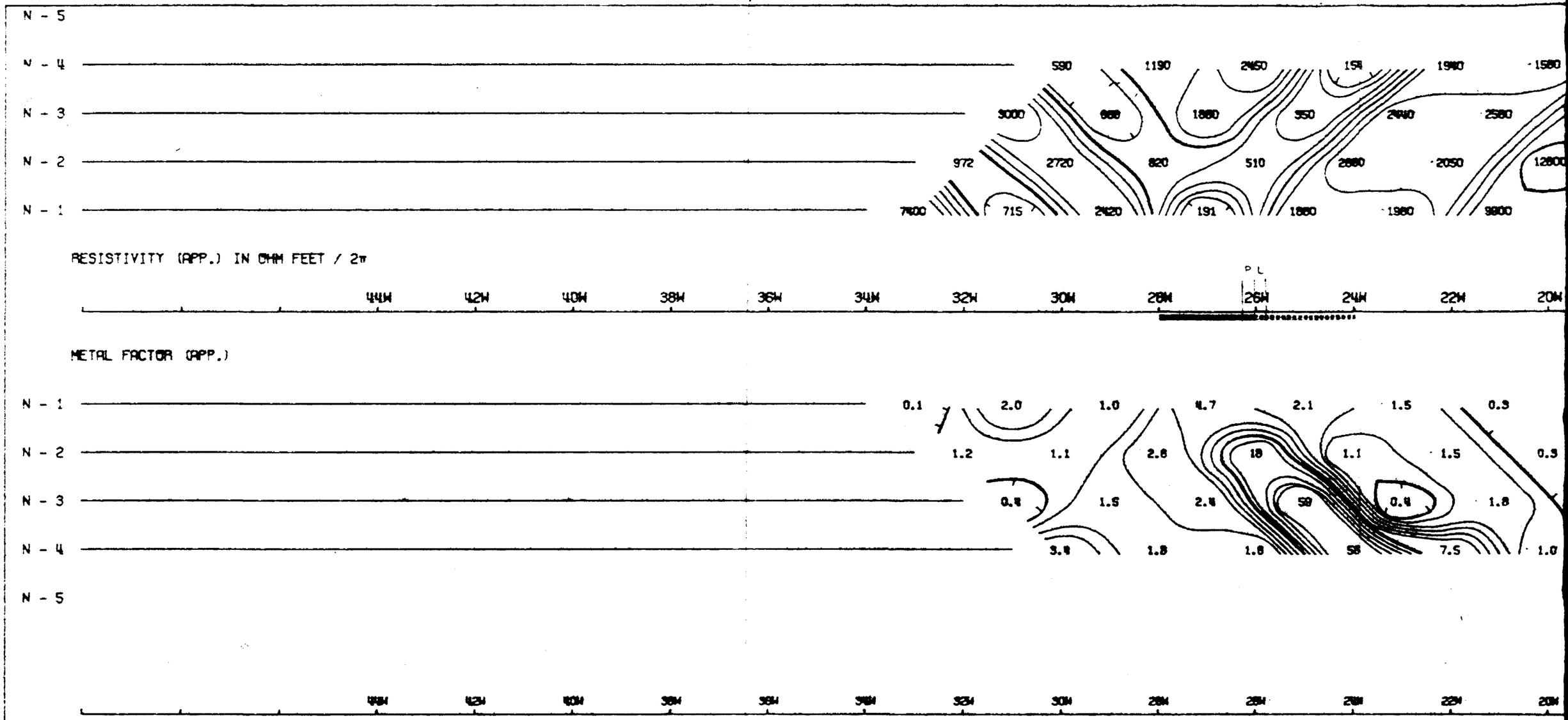
DATE SURVEYED: FEB 1970

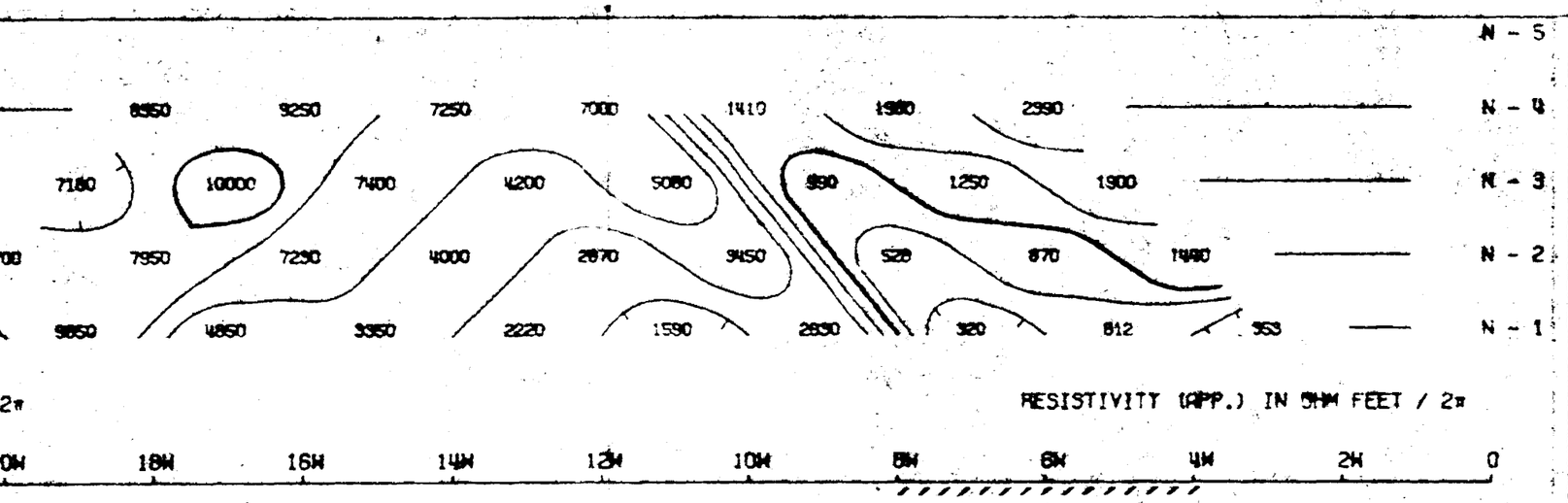
APPROVED:

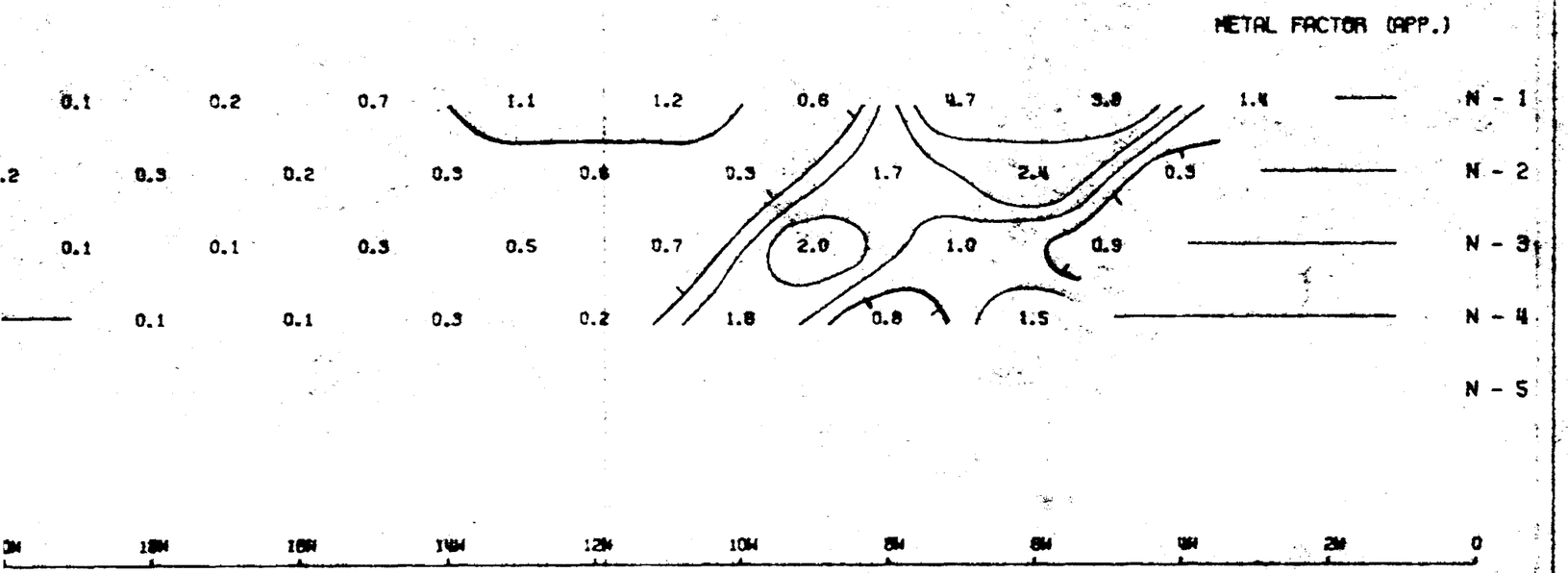
_____

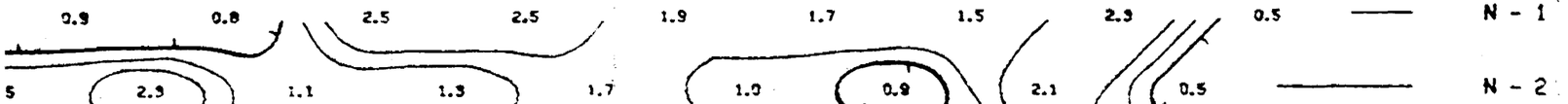
DATE: _____

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


N - 5
N - 4
N - 3
N - 2
N - 1
590
1190
2460
154
1980
1580
3000
888
1880
350
2440
2580
972
2720
820
510
2880
2050
12800
7400
715
2420
191
1880
1980
9800
RESISTIVITY (APP.) IN OHM FEET / 2π
P L
44W
42W
40W
38W
36W
34W
32W
30W
28W
26W
24W
22W
20W
METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5
0.1
2.0
1.0
4.7
2.1
1.5
0.9
1.2
1.1
2.8
18
1.1
1.5
0.9
0.8
1.5
2.8
59
0.8
1.8
3.8
1.8
1.8
58
7.5
1.0
FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
1.0
1.8
2.5
0.9
4.0
2.9
2.8
1.2
2.9
2.1
9.1
3.0
3.1
4.3







DWG. NO.- I.P.-_____

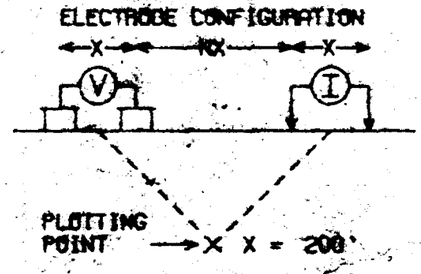
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 10N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: JAN 1970

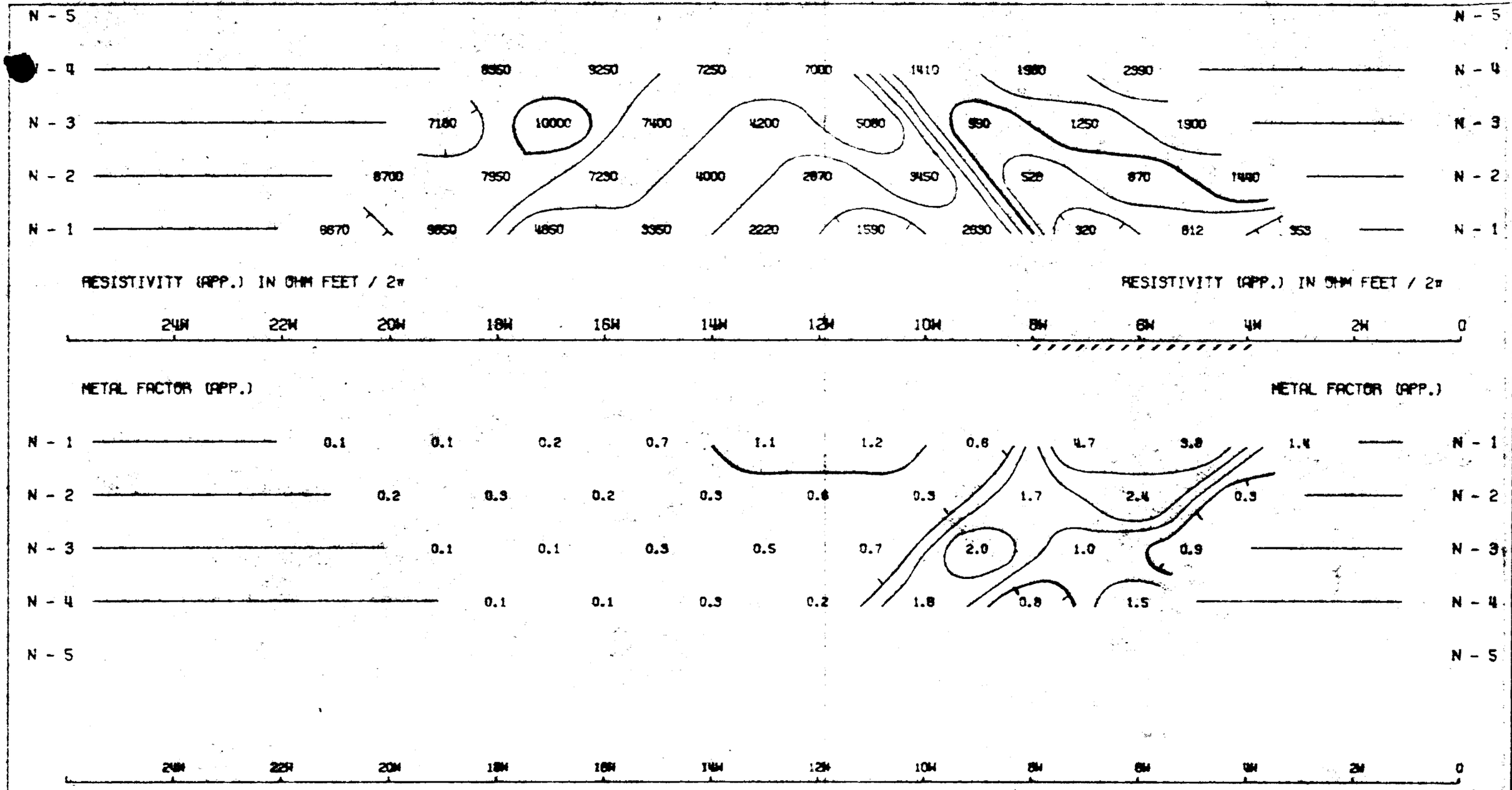
APPROVED:

_____

DATE: _____

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

J. Williams


N - 5
N - 4
N - 3
N - 2
N - 1
8670
8700
7180
8850
9250
10000
9850
7250
7400
7950
7250
4850
7000
4200
4000
3350
1410
5080
2870
2220
1980
990
9450
1590
2990
1250
1900
528
870
1980
320
2630
812
353
RESISTIVITY (APP.) IN OHM FEET / 2π
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0
METAL FACTOR (APP.)
0.1
0.1
0.2
0.7
1.1
1.2
0.6
4.7
3.8
1.4
0.2
0.3
0.2
0.3
0.6
0.3
1.7
2.4
0.3
0.1
0.1
0.3
0.5
0.7
2.0
1.0
0.9
0.1
0.1
0.3
0.2
1.8
0.8
1.5
FREQUENCY EFFECT (APP.) IN %
0.9
0.9
0.8
2.5
2.5
1.9
1.7
1.5
2.9
0.5
1.5
2.3
1.1
1.3
1.7
1.0
0.9
2.1
0.5

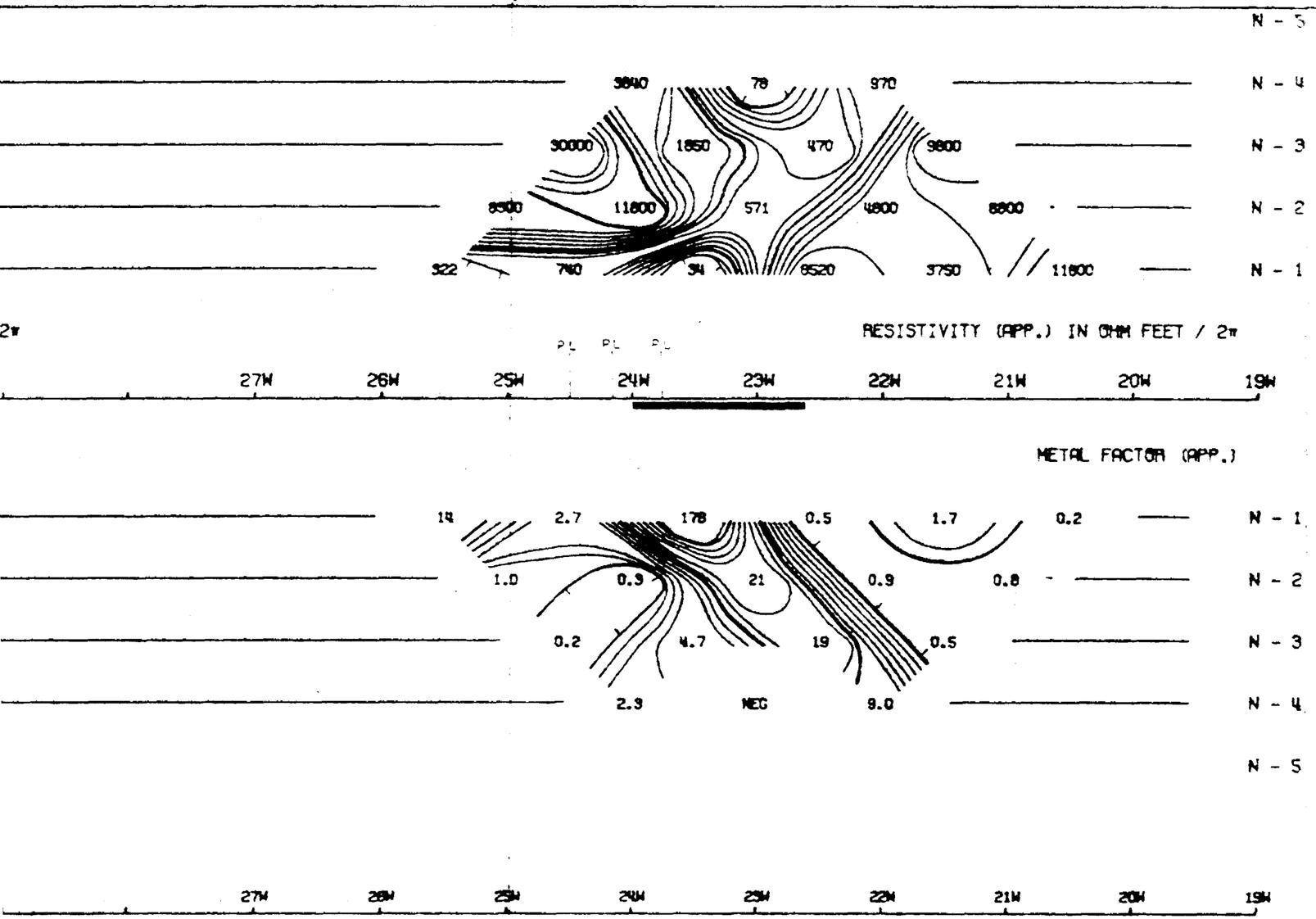
DWG. NO.- I.P.-

METRON EXPLORATION LTD.

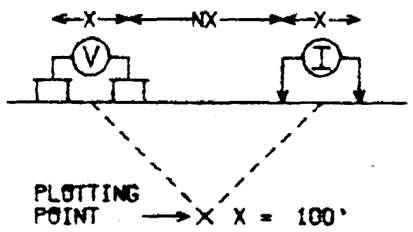
STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 12N



ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

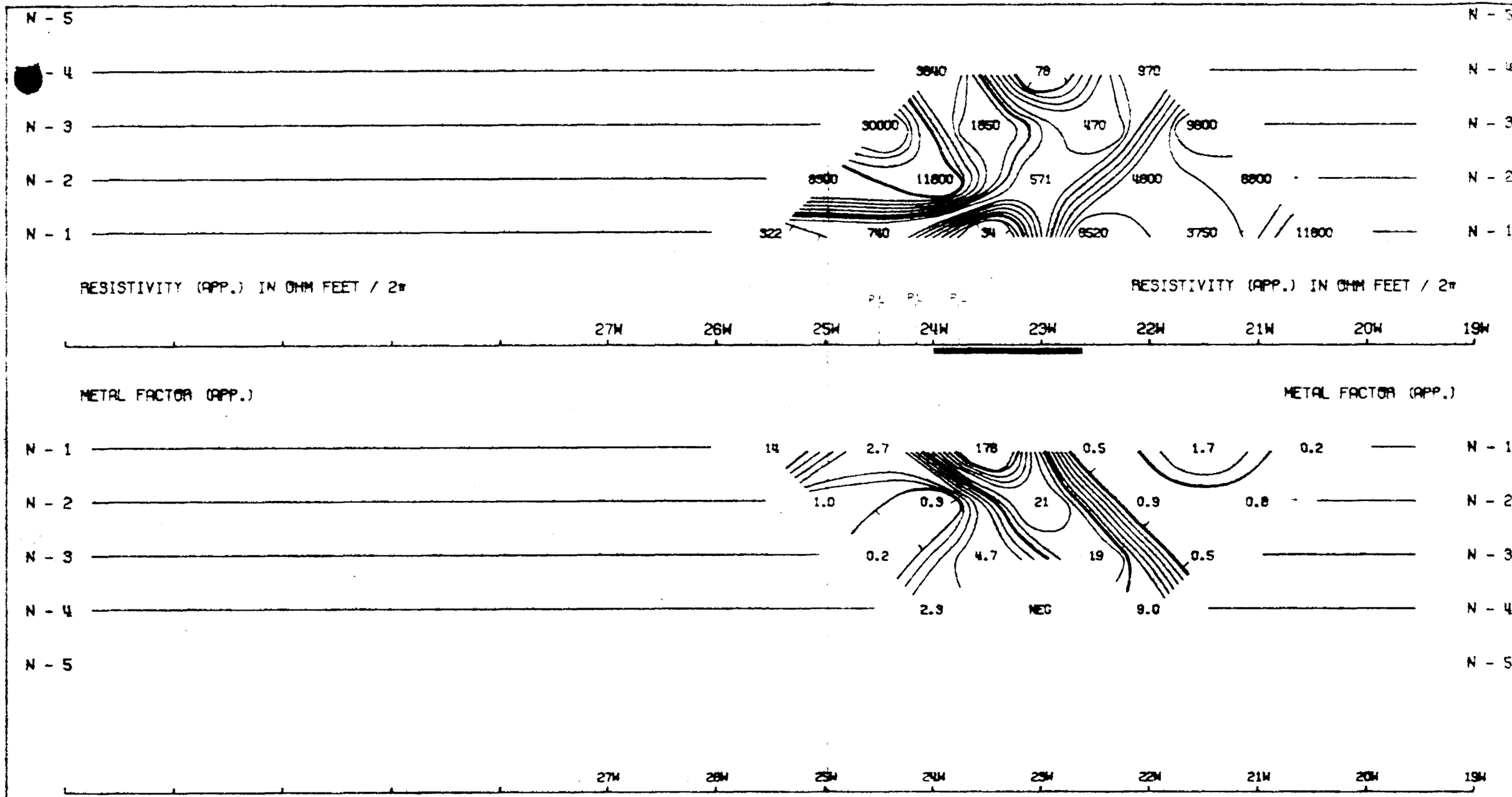
FREQUENCIES: 0.31-5.0 CPS

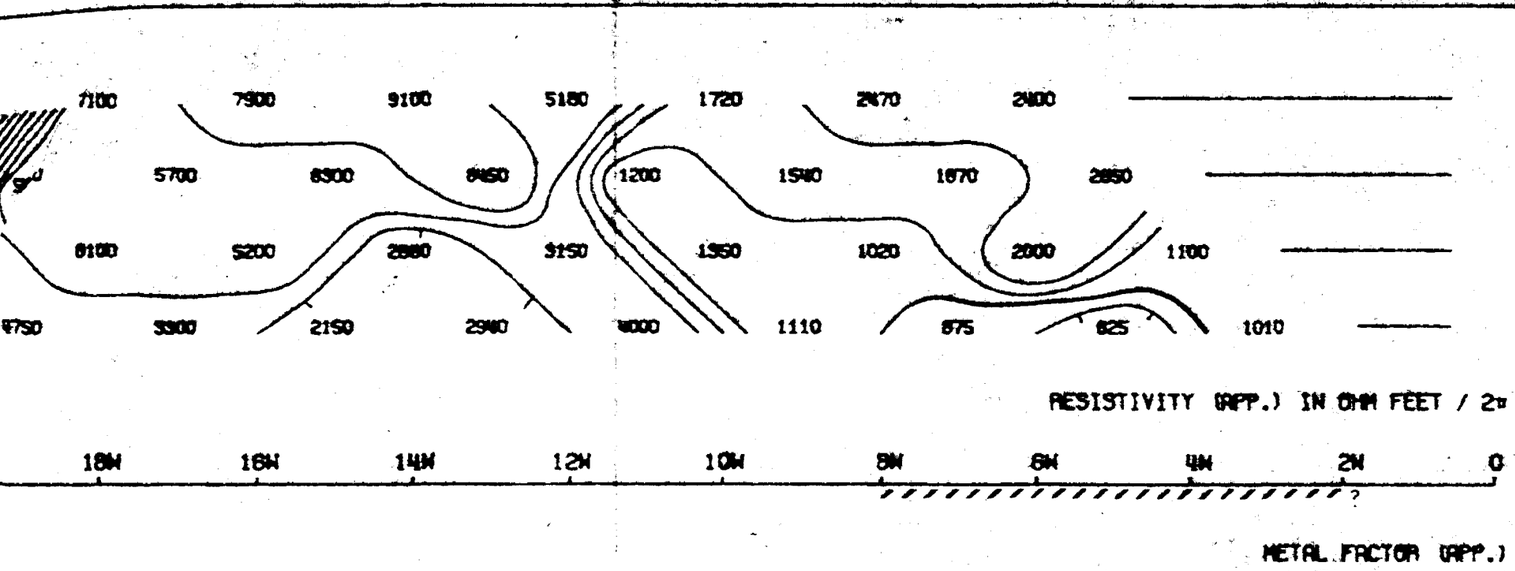
DATE SURVEYED: FEB 1970

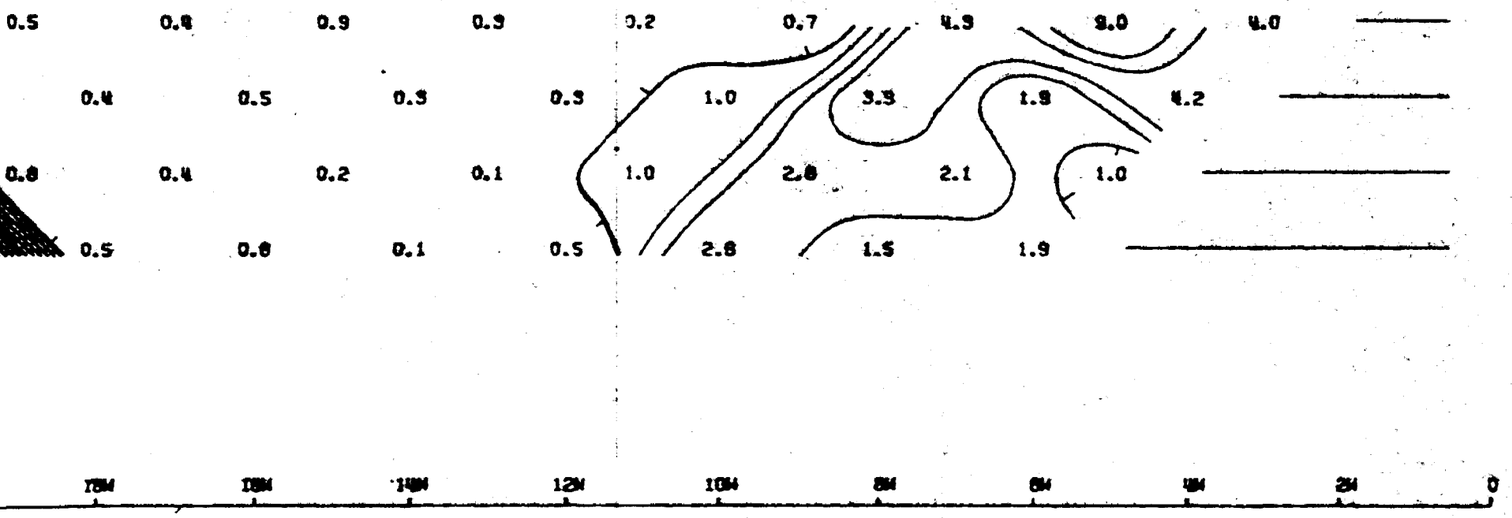
APPROVED:

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

DATE:


N - 5
N - 4
N - 3
N - 2
N - 1
3640
78
970
30000
1850
470
9800
8500
11800
571
4800
8800
322
760
34
8520
3750
11800
RESISTIVITY (APP.) IN OHM FEET / 2π
RESISTIVITY (APP.) IN OHM FEET / 2π
27W
26W
25W
24W
23W
22W
21W
20W
19W
METAL FACTOR (APP.)
METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5
14
2.7
178
0.5
1.7
0.2
1.0
0.9
21
0.9
0.8
0.2
4.7
19
0.5
2.9
NEG
9.0
27W
26W
25W
24W
23W
22W
21W
20W
19W
FREQUENCY EFFECT (APP.) IN %
FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
4.5
2.0
8.0
3.0
8.3
2.4
8.5
3.6
12
4.2
5.8





DWG. NO.- I.P.-

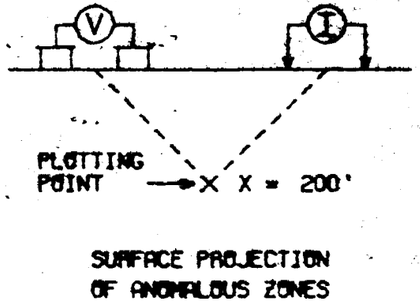
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 12N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ---------

POSSIBLE / / / / /

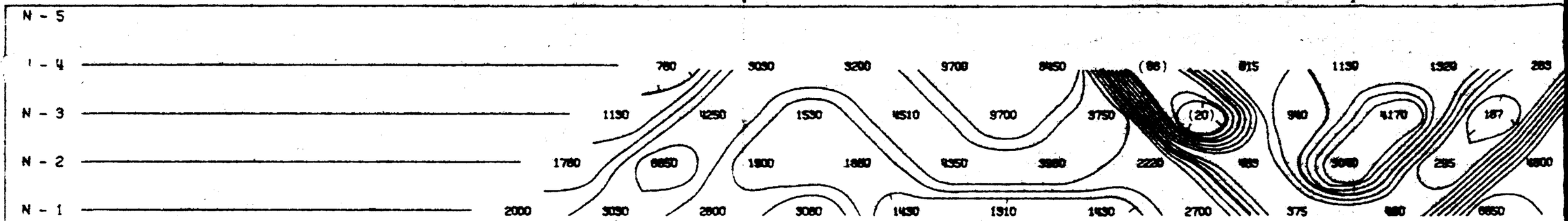
FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: JAN 1970

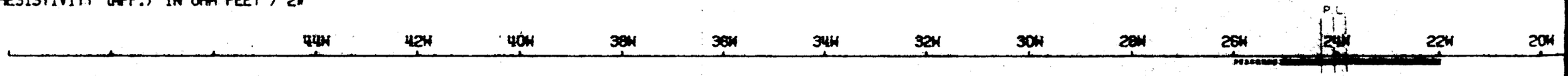
APPROVED:

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

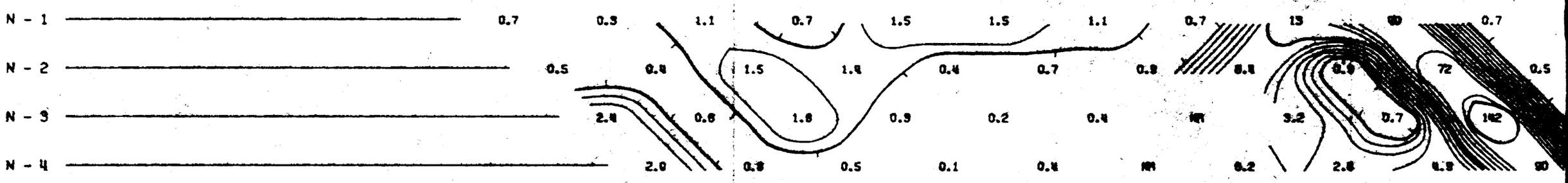
DATE:



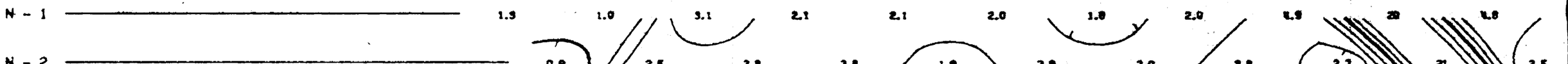
RESISTIVITY (APP.) IN OHM FEET / 2π

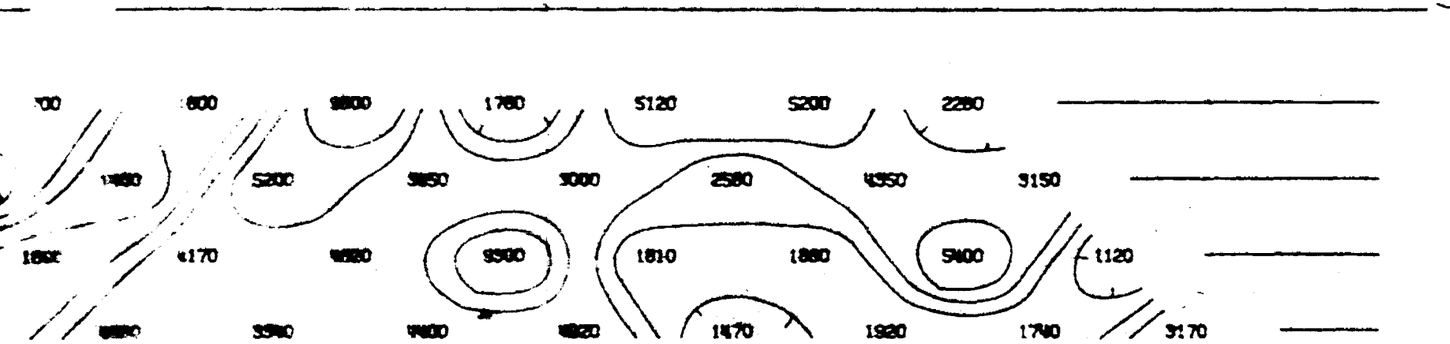


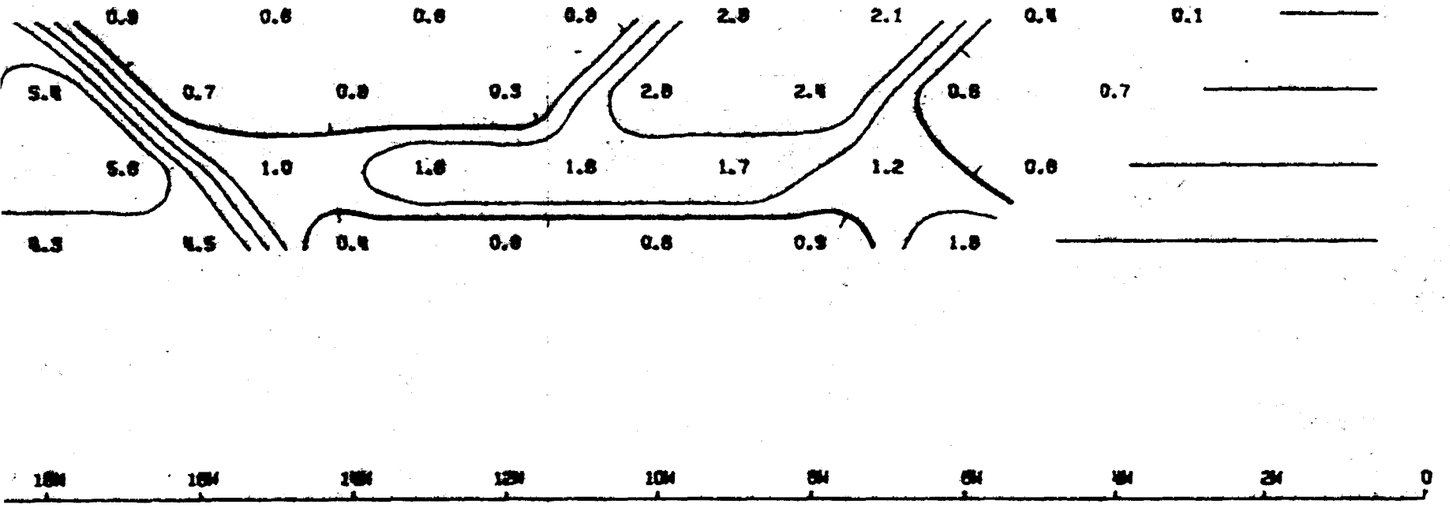
METAL FACTOR (APP.)

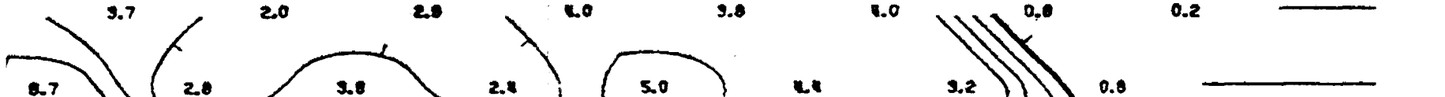


FREQUENCY EFFECT (APP.) IN %









DWG. NO.- I.P.-_____

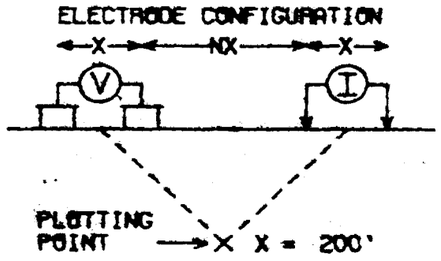
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 16N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE - - - - - - -

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

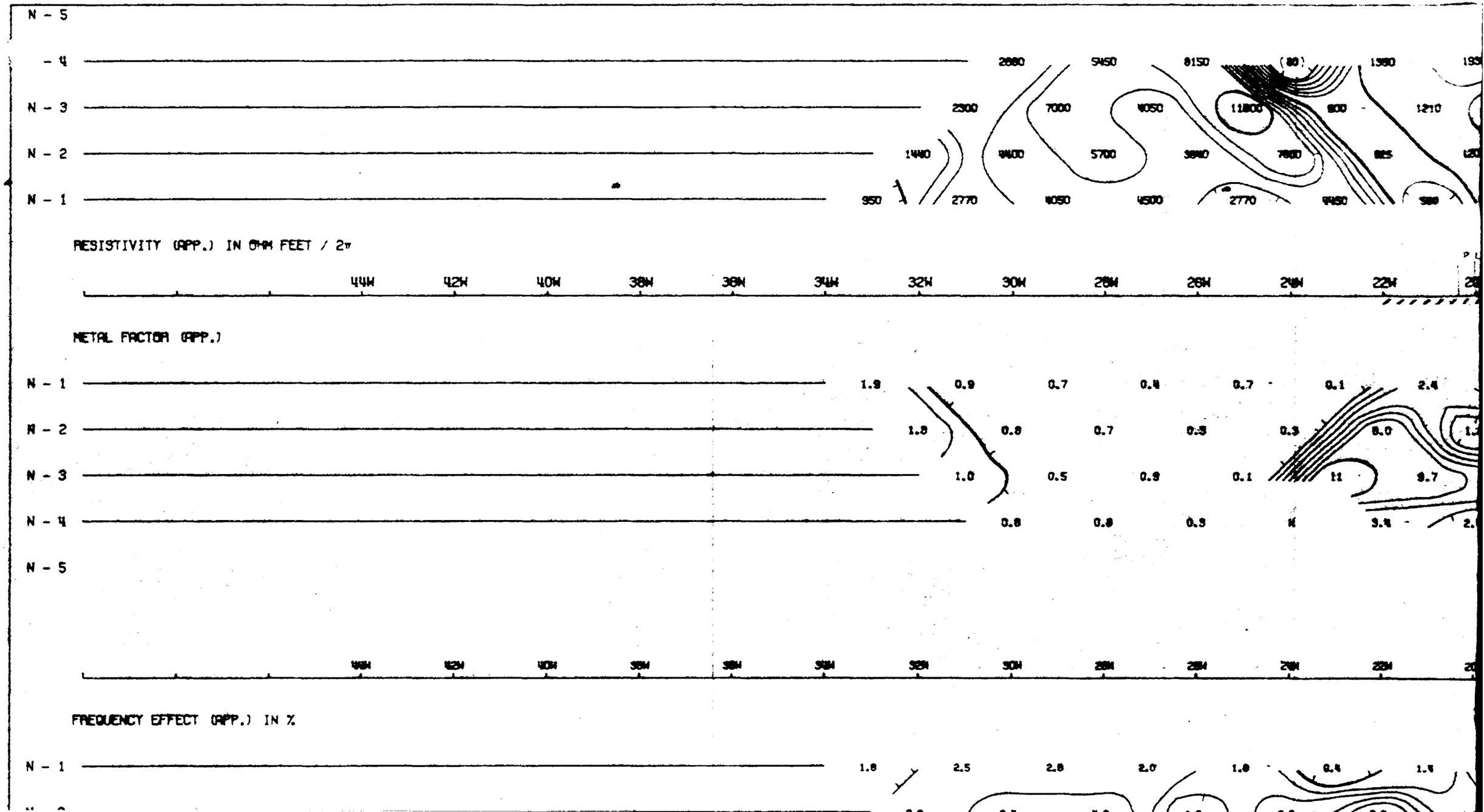
DATE SURVEYED: JAN 1970

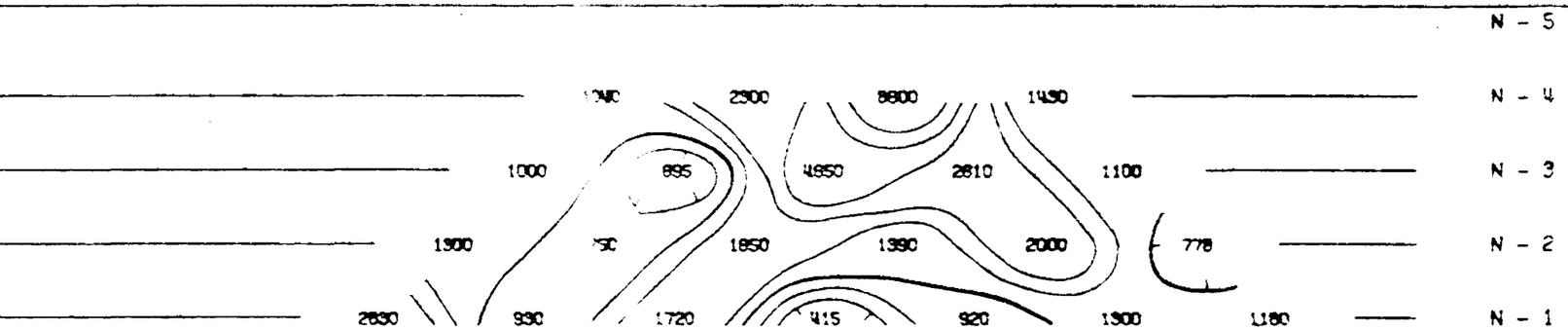
APPROVED:

_____

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

DATE: _____

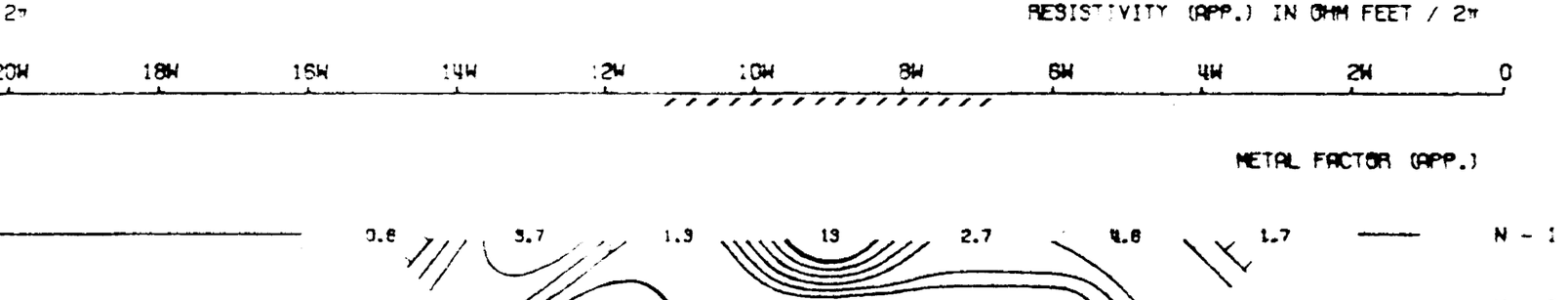

N - 5
- 4
N - 3
N - 2
N - 1
2880
5450
8150
(80)
1380
2500
7000
9050
11800
800
1210
1440
9600
5700
3840
7680
825
950
2770
4050
4500
2770
9450
RESISTIVITY (APP.) IN OHM FEET / 2π
44W
42W
40W
38W
36W
34W
32W
30W
28W
26W
24W
22W
METAL FACTOR (APP.)
N - 1
N - 2
N - 3
N - 4
N - 5
1.9
0.9
0.7
0.4
0.7
0.1
2.4
1.8
0.8
0.7
0.3
0.3
8.0
1.0
0.5
0.9
0.1
11
8.7
0.8
0.8
0.3
K
3.4
FREQUENCY EFFECT (APP.) IN %
N - 1
N - 2
1.8
2.5
2.8
2.0
1.0
0.4
1.6



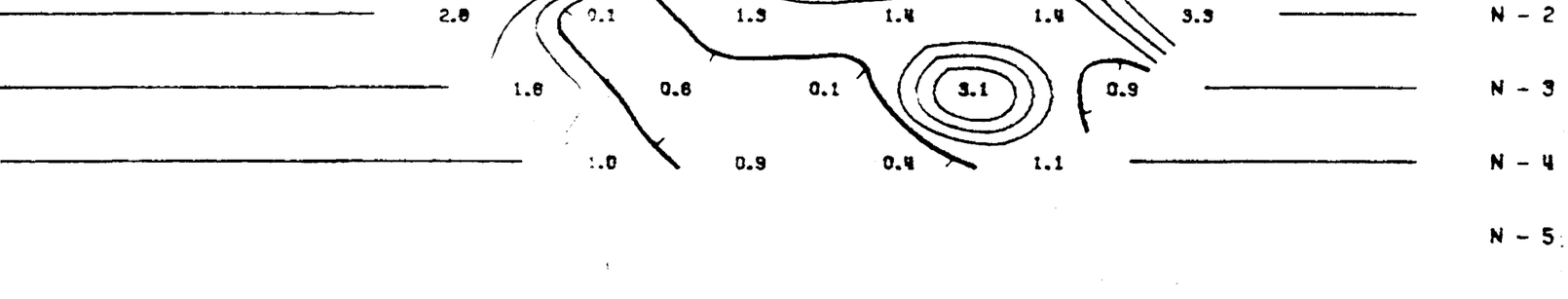
2π

RESISTIVITY (APP.) IN OHM FEET / 2π

20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0



20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0



DWG. NO.- I.P.-_____

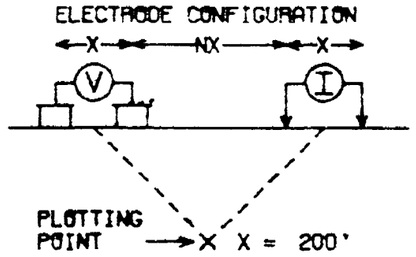
METRON EXPLORATION LTD.

STULL TWP., SUDBURY M.D., ONTARIO

GRID 2

LINE NO.- 20N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ▪▪▪▪▪▪▪▪▪▪▪▪

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

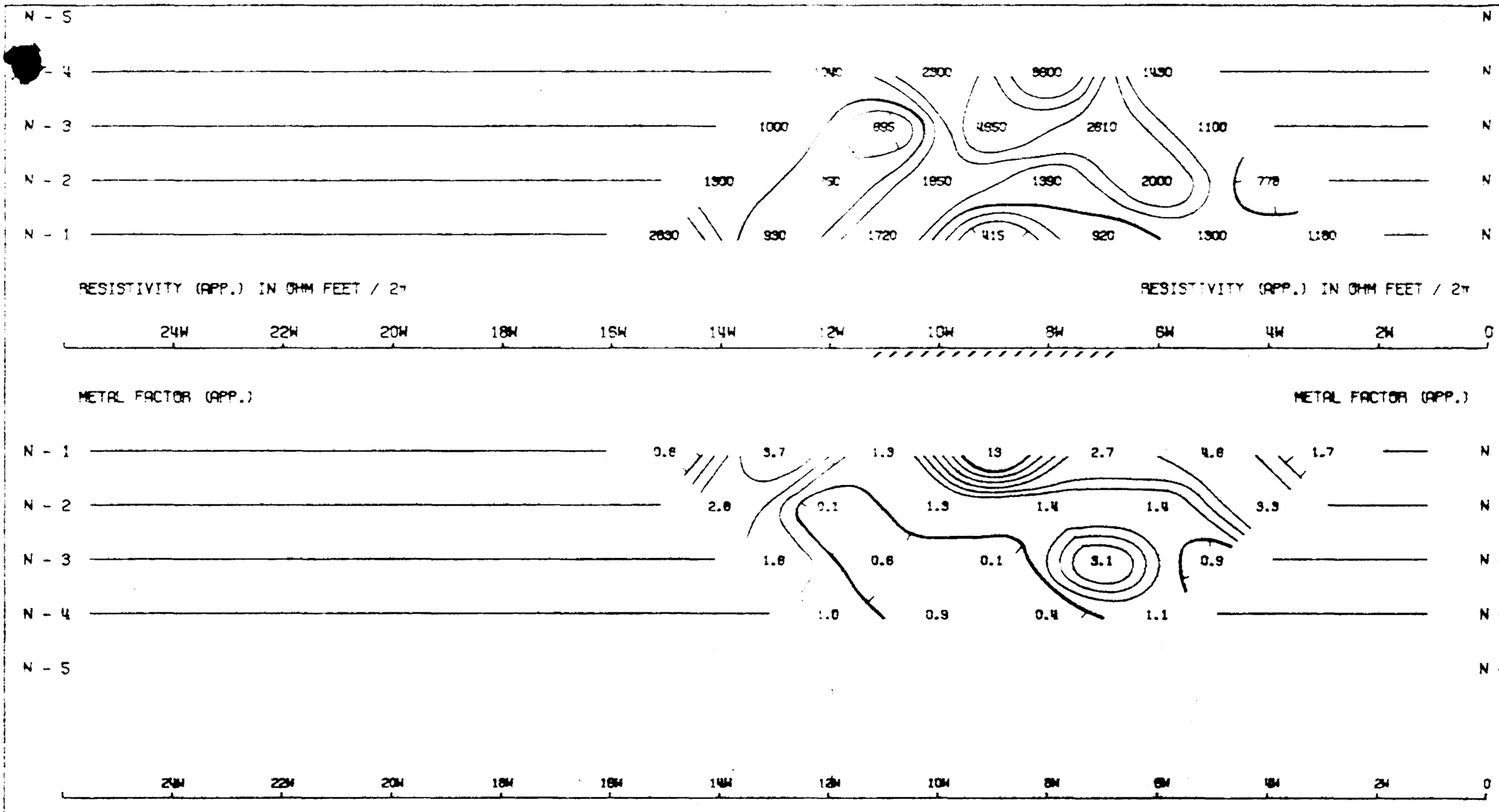
DATE SURVEYED: FEB 1970

APPROVED:

_____

DATE: _____

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


N - 5
N - 4
N - 3
N - 2
N - 1
2630
930
1500
1000
1720
1650
2300
895
1390
9800
4650
4150
1450
2810
920
2000
1100
1300
778
1180
RESISTIVITY (APP.) IN OHM FEET / 2π
24W
22W
20W
18W
16W
14W
12W
10W
8W
6W
4W
2W
0
METAL FACTOR (APP.)
0.8
3.7
1.9
2.8
0.1
1.8
0.6
1.0
0.9
13
0.1
0.4
2.7
3.1
1.4
1.1
4.8
0.9
1.4
1.7
3.9
FREQUENCY EFFECT (APP.) IN %
1.7
3.4
2.2
3.8
0.1
2.2
5.5
2.0
2.5
8.0
2.8
2.0

REPORT ON VLF - EM SURVEY

METRON EXPLORATION LIMITED
Stull Twp.
Onta:

020

INTRODUCTION

A detailed VLF - EM survey was conducted on two small grid systems on claims which form part of a larger group held by Metron Exploration Limited of Toronto, Ont., in Stull Twp., Sudbury Mining Division, Ontario. Access to the property is by forty miles of good bush road south from Highway No. 560 at a point approximately five miles east of Shiningtree, Ont. This survey was conducted by the writer during February, 1970.

METHOD OF SURVEY

The North Grid system was cut on claims 220501 & 2 and 213821 & 2. A 3000' base line was established in a N 43° W direction and a total of 3 miles of picket lines were cut at 400' intervals. Readings were taken at 100' stations along these lines.

The South Grid system was cut on claims 213745 - 9 incl., 213754, 213724 and 213733. A base line 2800' long was established in a N 21° W direction. Picket lines totalling approximately 4 miles at 400' intervals were read at 100' stations.

In both cases a Ronka E M 16 instrument was used, employing Cutler, Maine as the transmitting station. Both of the grid systems were originally cut to accomodate an I.P. Survey, the report of which was written separately by McPhar Geophysics Ltd.

RESULTS OF THE SURVEY

On the North Grid no significant conductors were detected during the VLF - EM survey. A small one line conductor is noted in overburdened ground at 540' E on L 26 N. On strike to the east overburden appears to vaguely produce conductivity. South west of the base line at the Wanapetei River, there appears to be a fall off from a conductor which could be the river or a fault which is topographically expressed by the river.

On the South Grid system and adjacent to the base line, a good conductor trending N 30° W was detected. It lies in a swampy, lineal depression and very likely is caused by the Wanapetei Fault. Another weak, east-west trending conductor lies in a swampy lineal depression in the west end of the grid system and is probably caused by a minor fault or fracture. These observations correspond with the lineal pattern of the aerial photographs of this area.

THEORY OF THE EM SURVEY METHOD

A Ronka EM 16 instrument is simply a sensative receiver unit which detects radio signals from VLF transmitting stations operating for communications with submarines. There are several of these stations in the world and the selection of the one to use depends upon its orientation. The direction to the station that is most closely aligned to the general trend of the country rocks is usually the factor considered. The stations have vertical antenna and as a result transmit a concentric field around them. Any conductive body lying in this field will create a secondary field.

The receiver unit contains a crystal of the same frequency as the transmitting station and a means of measuring the vertical field components. It has two inputs with two receiving coils built into the instrument. One coil has a normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the coil. The tilt-angle is calibrated in percentages. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90°. The axis of this coil is at right angles to the axis of the first coil. This coil is kept normally parallel to the primary field.

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measurement of the vertical real-component and the compensation $\pi/2$ - signal from the horizontal coil is a measurement of the quadrature vertical signal.

SUMMARY AND CONCLUSIONS

A valid conductor occurring on lines 0, 4 and 8 just west of the base line of the South Grid and phasing out to the north and south, lies in a north south trending swampy lineal assumed to be the Wanapetei Fault. Whereas chalcopyrite mineralization is known in the adjacent areas, this conductor is a drill target. The conductor in the west part of the grid has no known closely associated metallic mineralization and so is not at present considered a drill target.

On the North Grid significant results were not obtained from the survey.

Respectfully submitted,

J.G.Willars B.A.Sc., P.Eng.

May 28,1970.
New Liskeard, Ont.

ELECTROMAGNETIC DATA

To accompany VLF surveys of Stull Twp.
property of Metron Exploration Limited.

Station used : Cutler, Maine - readings
taken facing north.

Dip profile : 1/60" is 1 % ——— · ——— · ———

Quadrature profile : 1/60" is 1 % - - - · - - - · - - -

Dip values recorded to the left.

Quadrature values recorded to the right.

Negative values plotted to the left.

Positive values plotted to the right.

Conductor axis - - ——— - -

North

True

direction of Cutler station

BUSH ROAD

ROAD

Pond

Pond

BASE LINE

L 20 N

L 16 N

L 12 N

L 10 N

L 8 N

L 6 N

L 4 N

L 2 N

L-0

4 S

L 8 S

CONDUCTOR AXIS

Chalcopyrite

Wanapitei R.

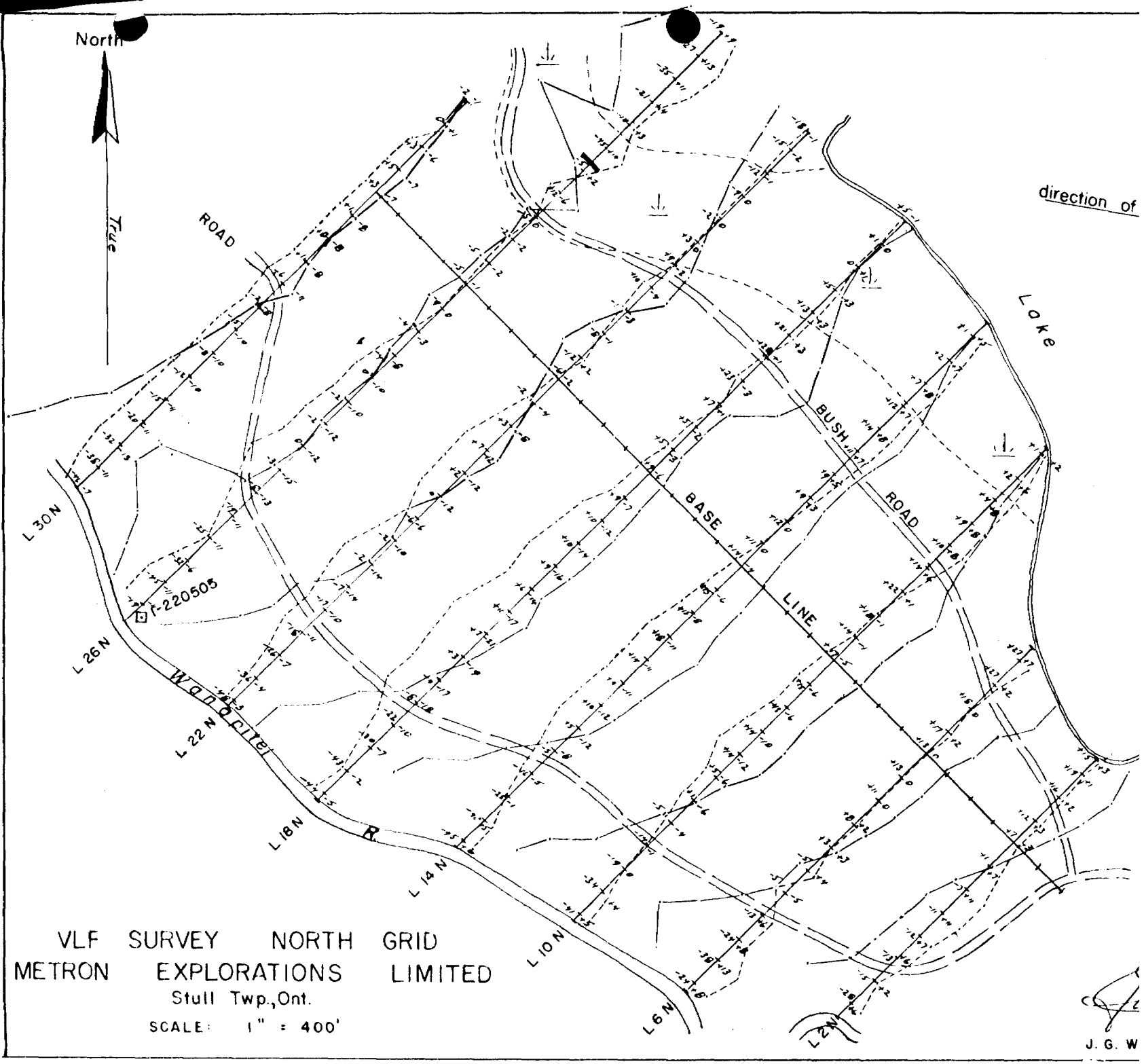
HYDRO POWER LINE

ROAD

VLF SURVEY SOUTH GRID
METRON EXPLORATIONS LIMITED
Stull Twp., Ont.

SCALE: 1" = 400'

L.G. WILLARS FEB 1970



VLF SURVEY NORTH GRID
METRON EXPLORATIONS LIMITED
Stull Twp., Ont.
SCALE: 1" = 400'

J. G. W

REPORT ON GEOLOGY SURVEY

METRON EXPLORATION LIMITED
Stull Twp. Property

INTRODUCTION

During the latter part of 1969 a recconnaissance geology survey and prospecting was carried out on a group of 161 contiguous unpatented mining claims located in Stull Twp., Sudbury Mining Division, Ontario. These claims are held by Metron Exploration Limited of Toronto,Ont., and access to the property is by forty miles of good bush road south from Highway No. 560 at a point approximately five miles east of Shiningtree,Ont.

In early 1970, I.P. and VLF - EM surveys were carried out on two grid systems; one located in the north end of the property and one located in the south end. The North Grid covers claims 220501 & 2 and 213821 & 2. The South Grid covers claims 213765 - 9 incl., 213754,213724 and 213733. The geology in the grid areas was subsequently done in detail by the writer. Dr. N.B.Gillies and Dr. C.E.Michener. The drafting was done by Marjorie J.Evans, Toronto,Ont., who is a geological draftswoman.

GENERAL GEOLOGY

The claims group covers an area along the Wanapetei River in Stull Twp. The eastern boundary is bounded by a high escarpment lying east of the claims and consisting of flat lying lorrain quartzite rocks. The escarpment is an expression of the Wanapetei Fault of which the rocks to the east are down faulted in relation to the rocks of the west. For the most part sparse outcrops occurr in a gravel and sand overburden of the claims area. Rocks observed on the claims are diabase, gabbro, meta sediments and granophyre.

The Wanapetei Fault trends N 20° W. This is the predominant structural feature in the area. From aerial photographs other similar, weaker and parallel structures are observed. An associated fracture system appears to be at 60° to these trends in an east west direction.

ECONOMIC GEOLOGY

Chalcopyrite mineralization was first located on the South Grid in granophyre boulder rocks. This was later discovered in place. The rocks appear to be a series of layered rocks which trend N 75°W and dip steeply to the north. These rocks grade from a gabbro at the top to a granophyre mineralized with chalcopyrite and pyrite to a finer grained granophyric phase containing magnetite and into gabbro again. To the east these rocks are truncated by the Wanapetei Fault and Lorrain quartzite. The chalcopyrite occurrs as dessiminated material in the granophyre rocks.

On the North Grid the same rocks occurr as those of the South Grid. The attitude is different with the trend N 30° W and the dip -60° E. The granophyre rocks are not developed as well as those of the South Grid. Nor is the metallic mineralization as heavy. Presumably the degree of mineralization is directly associated with the degree of development of the granophyre.

SUMMARY AND CONCLUSIONS

These two grid areas warrant further investigation. The balance of the property has not been thoroughly investigated and warrants further work.

Respectfully submitted,

J.G.Willars B.A.Sc., P.Eng.

May 28,1970.
New Liskeard, Ont.

MEMORANDUM TO: Dr. C. Michener - Metron Exploration Ltd.

FROM: Philip G. Hallof - McPhar Geophysics Limited

DATE: May 1, 1970

SUBJECT: IP Data from Stull Township Property

At your request, I have reviewed the IP data from the survey recently completed in Stull Township, Ontario. In particular, I have examined the characteristics of the anomaly zone that correlates with the powerline on Grid 2. These anomalies are centred at Line 8N, 26+00W; Line 12N, 24+00W; Line 16N, 20+00W.

Unlike the electromagnetic methods, the induced polarization method is not influenced by non-grounded conductors, such as fences on wooden posts or powerlines. Electronic filtering in the potential circuits also effectively eliminates extraneous noise from the currents flowing in powerlines.

However, many powerlines have a lightning arrestor strung along the top of the poles. This conductor is grounded at intervals along the length of the powerline. If an IP measurement is made at a point at which one of the electrodes lies near one of the grounded conductors, there will be extraneous IP effects expected.

I have attached to this Memo two sets of scale modelling data which demonstrate the difficulties. In the examples, the IP line crosses the grounded conductor at 45°. The conductor is grounded at points two

electrode intervals apart. On page 72, one grounding point lies at station 13; the resulting IP anomaly is large in magnitude, and not unlike that measured on Line 12N.

When the IP line crosses between grounding points for the conductor (page 74), with the electrodes not at the conductor, the IP effects measured are much lower in magnitude. These results are similar to the data measured on Line 16N.

Therefore, it must be concluded that the IP anomaly on Grid 2 could be caused by the powerline, if a grounded lightning arrestor is present. This should be checked in the field, and the location of any grounded points should be noted. The true source of the IP effects measured can be determined by disconnecting the grounding wires for a distance of about 2,000 feet, and repeating the IP measurements.

TOWNSHIP OF [illegible]

DISTRICT OF SUDBURY

Scale: 40 Chains to One Inch.

NOTE

400' Surface Rights Reservation around all lakes & rivers.

DUFFERIN.

UNWIN.

McLEOD.

[illegible]

Run by O.L.S. H. J. Beatty. 1909.

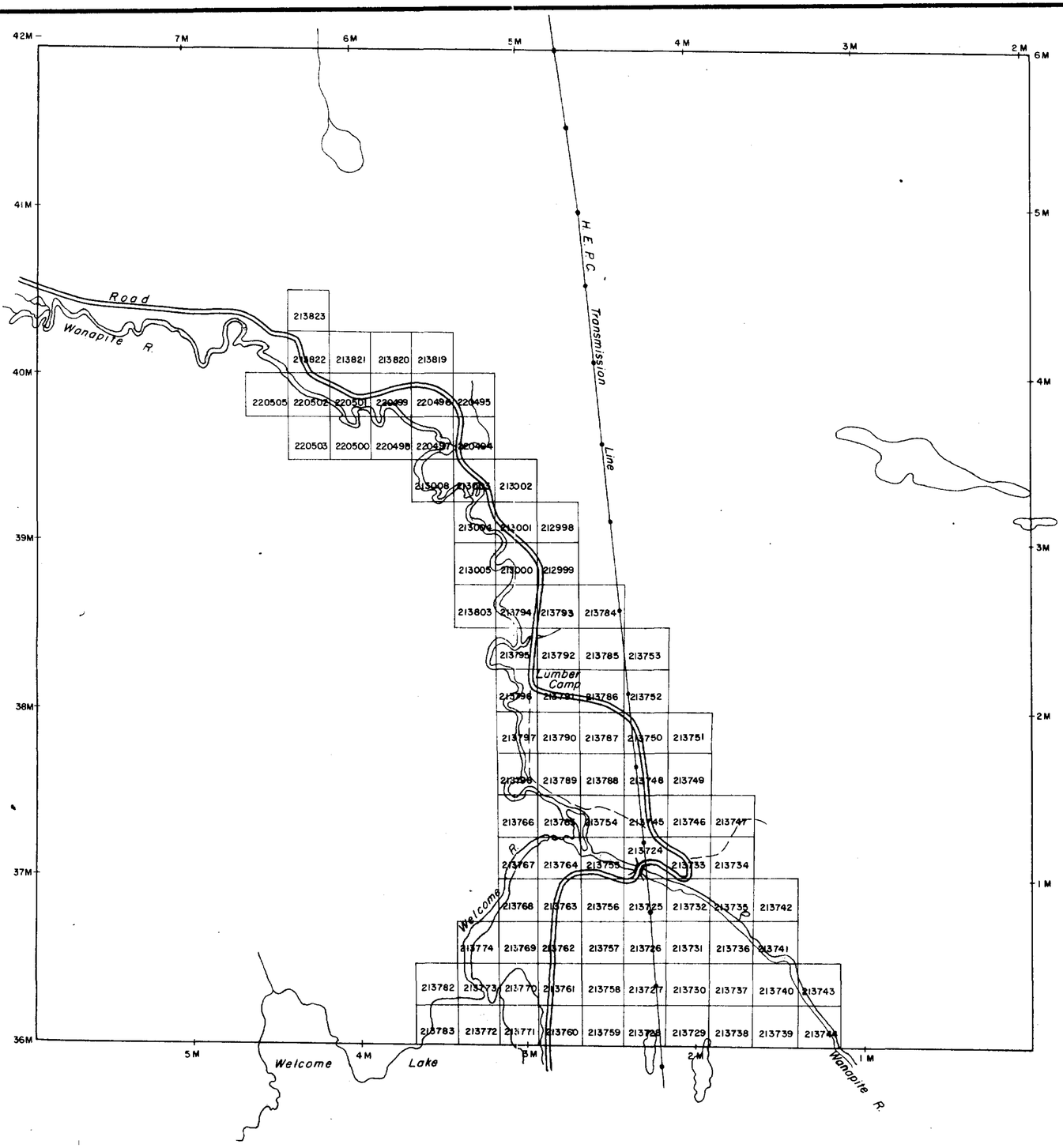
Run by O.L.S. James Hutcheon. 1909.

Run by O.L.S. Welcome Lake.

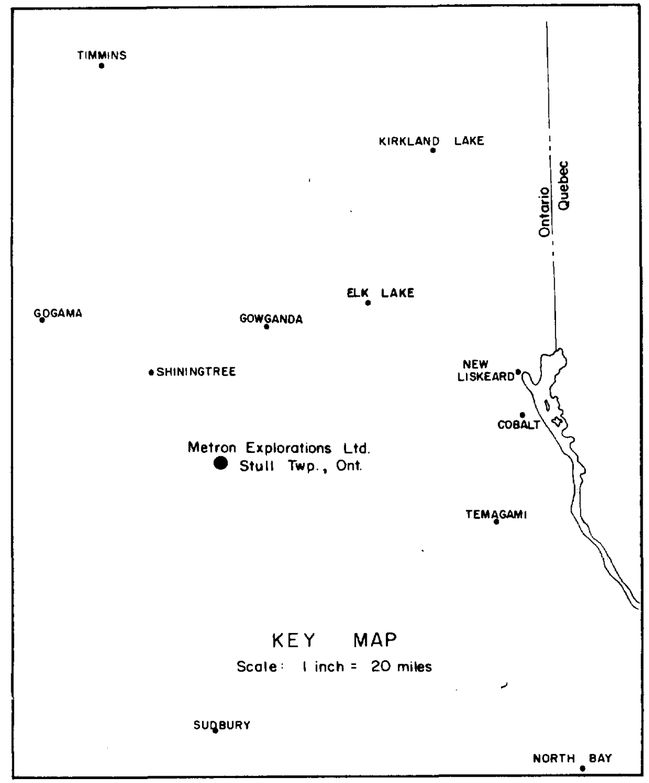
DATE OF ISSUE

JAN 15 1971

ONT. DEPT. OF MINES AND NORTHERN AFFAIRS



NORTH MAGNETIC NORTH 8°W



METRON EXPLORATION LTD.

STULL TWP.
INDEX MAP

SCALE: 1 inch = 40 chains

J. G. Willars B.A.Sc., P.Eng.

213832 213833 212994

213829 213828 213827

213824 213825 213826

213821 213820 213819

220501 220499 220496 220495

220500 220498 220497 220494

213014 213009 213008 213003 213002

213013 213010 213007 213004 212998

213001

13012 213011 213006 213005 213000 212999

3814 213813 213804 213803 213794 213793 213784

3815 213812 213805 213802 213795 213792 213785 213753

Lake

River

Sylvester Creek

Haul Road

n

True

Northfield

METRON EXPLORATION LTD.

STULL TWP. ~ DISTRICT OF SUDBURY ~ ONTARIO.

GEOLOGICAL SURVEY

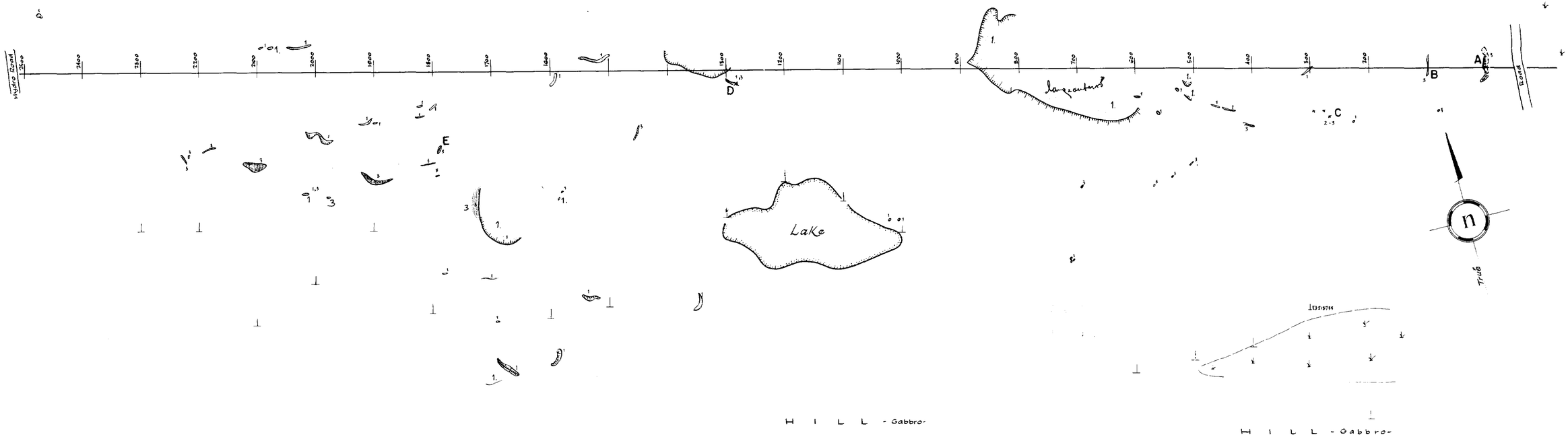
- STULL TWP. CLAIMS -

400 0 400 800 1200 1600

FEET

J. Robillard

63.2853



~Legend~

- × PIT
- □ CLAIM POST
- OUTCROP
- TRENCH
- ⊥ END of CROSS LINE
- OVERBURDEN SAND & GRAVEL
- 1. GABBRO
- 2 META SEDIMENTS (Mainly quartzite)
- 3 GRANOPHYRE (Mineralized)

METRON EXPLORATION LTD.

STULL TWP. ~ DISTRICT OF SUDBURY ~ ONTARIO

DETAIL GEOLOGY

100 0 100 200 300 400

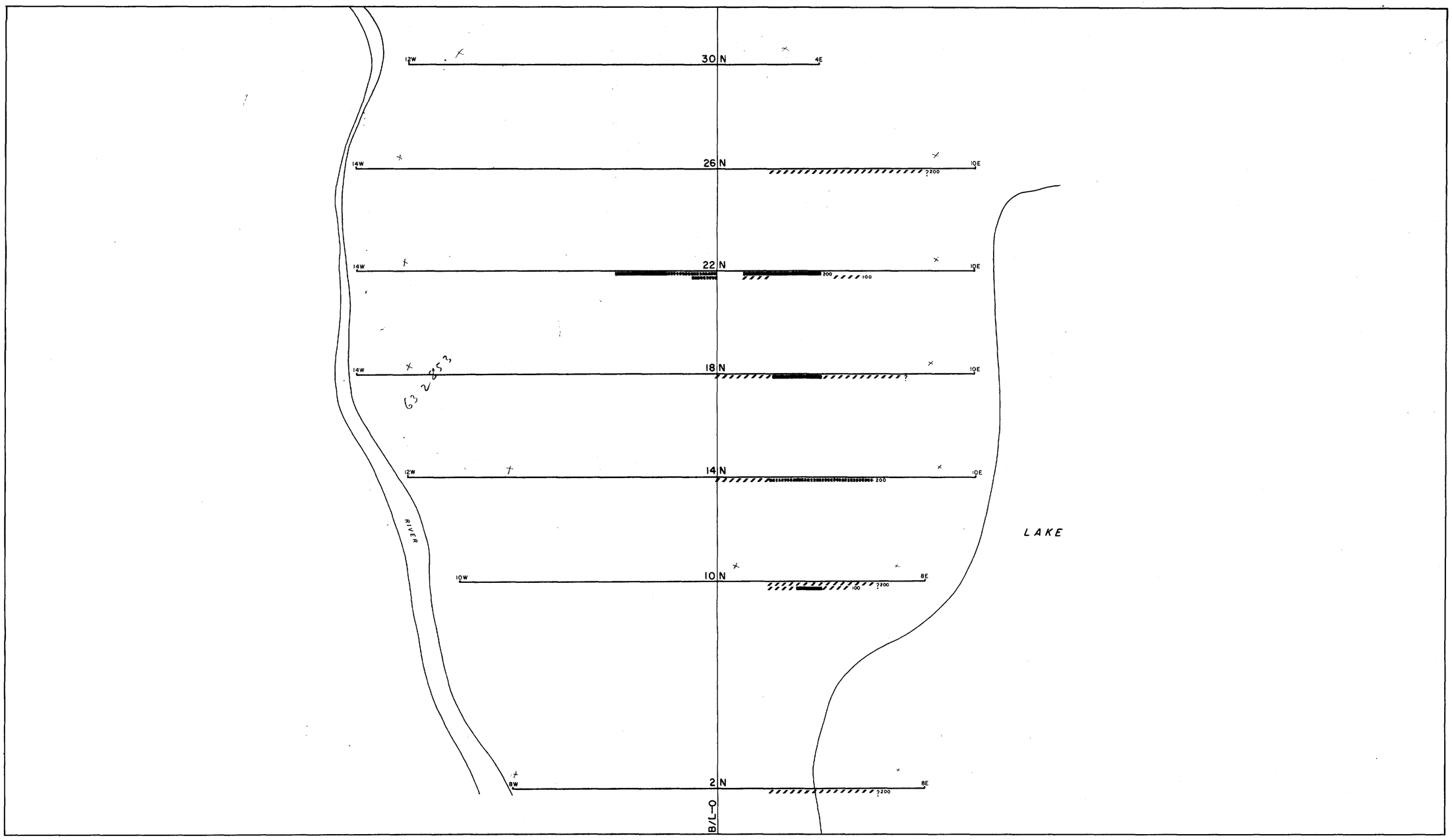
FEET

63.2853

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ||||||||||||||||||

POSSIBLE \ \ \ \ \ \ \ \ \ \

Number at the end of anomaly indicates spread used.

METRON EXPLORATION LIMITED

GRID I

STULL TWP., SUDBURY M.D., ONTARIO

SCALE.

ONE INCH EQUALS TWO HUNDRED FEET

DRAWN: P.C.

DATE: MAR. 1970

APPROVED:

DATE: Dec 15/70

DWG.

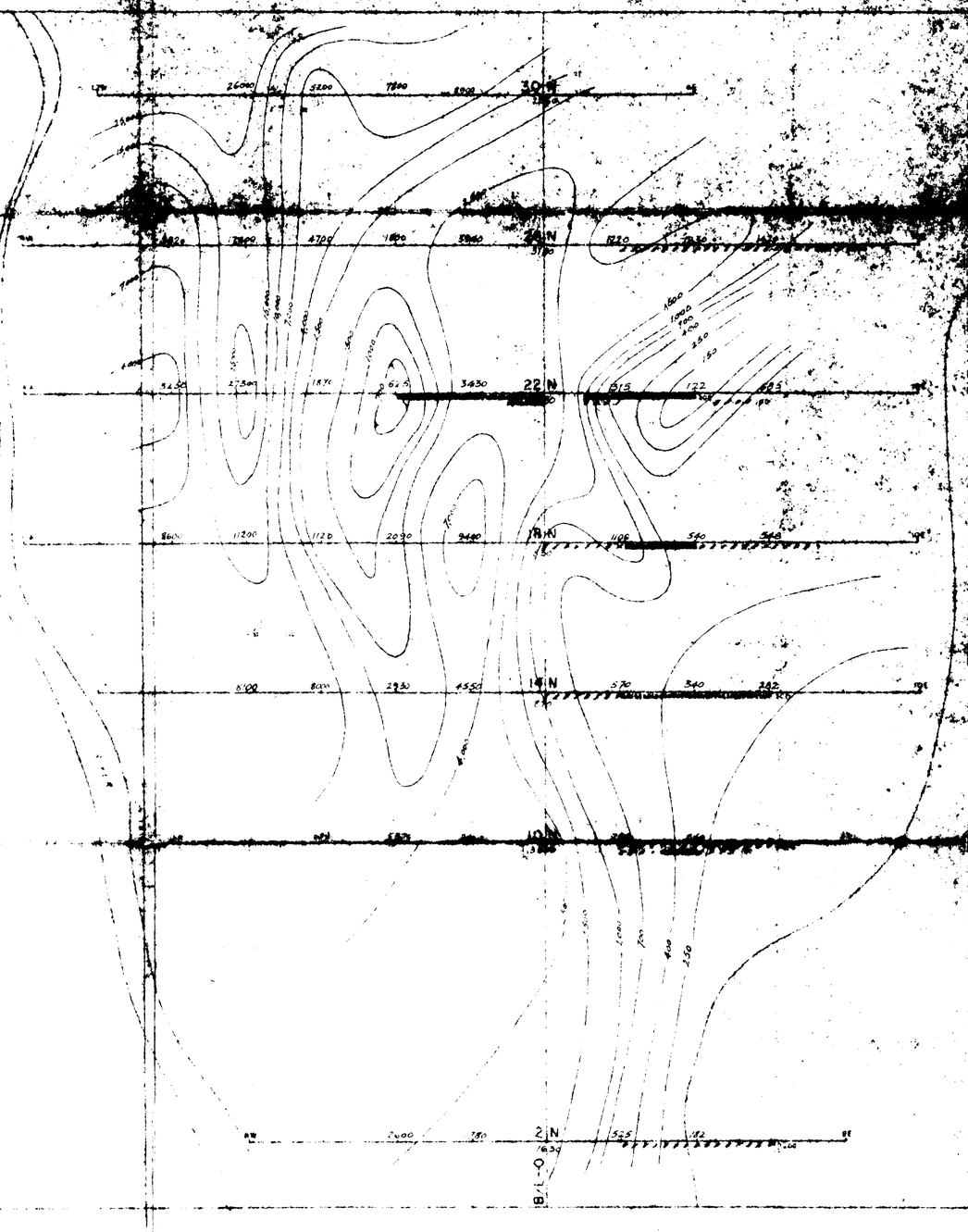
41P06SE0014 63.2853 STULL

240

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



RESISTIVITY

METRON EXPLORATION LIMITED

STULL TWP., SUDBURY M.D., ONTARIO

SCALE

ONE INCH EQUALS TWO HUNDRED FEET

DIPOLE - DIPOLE CONFIGURATION

ELECTRODE SPACING 200'

LEVEL N-2

CONTOUR INTERVALS 150,250,400,700,1000,1500,2500,4000,7000 ots. OHM Ft.

Dec 15/70

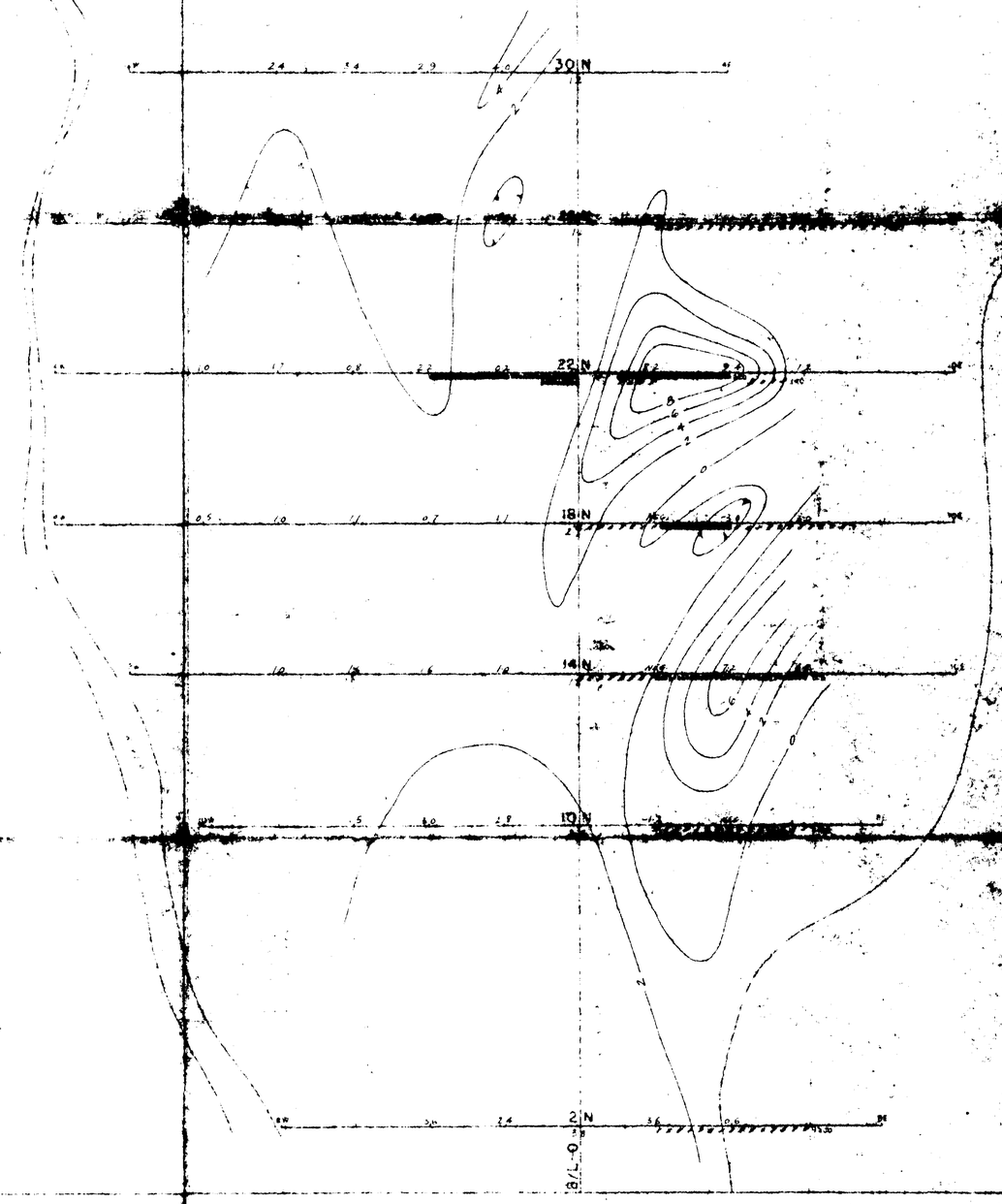
SURFACE PROJECTION OF ANOMALOUS ZONE

250

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



LAKE

FREQUENCY EFFECT

METRON EXPLORATION LIMITED

STULL TWP. SUDBURY M.D. ONTARIO

SCALE

ONE INCH EQUALS TWO HUNDRED FEET

DIPOLE-DIPOLE CONFIGURATION

ELECTRODE SPACING 200'

LEVEL N-2

CONTOUR INTERVALS 2,4,6,8,10,12,14,16 etc.

Drawn by

Date Mar 1970

Approved

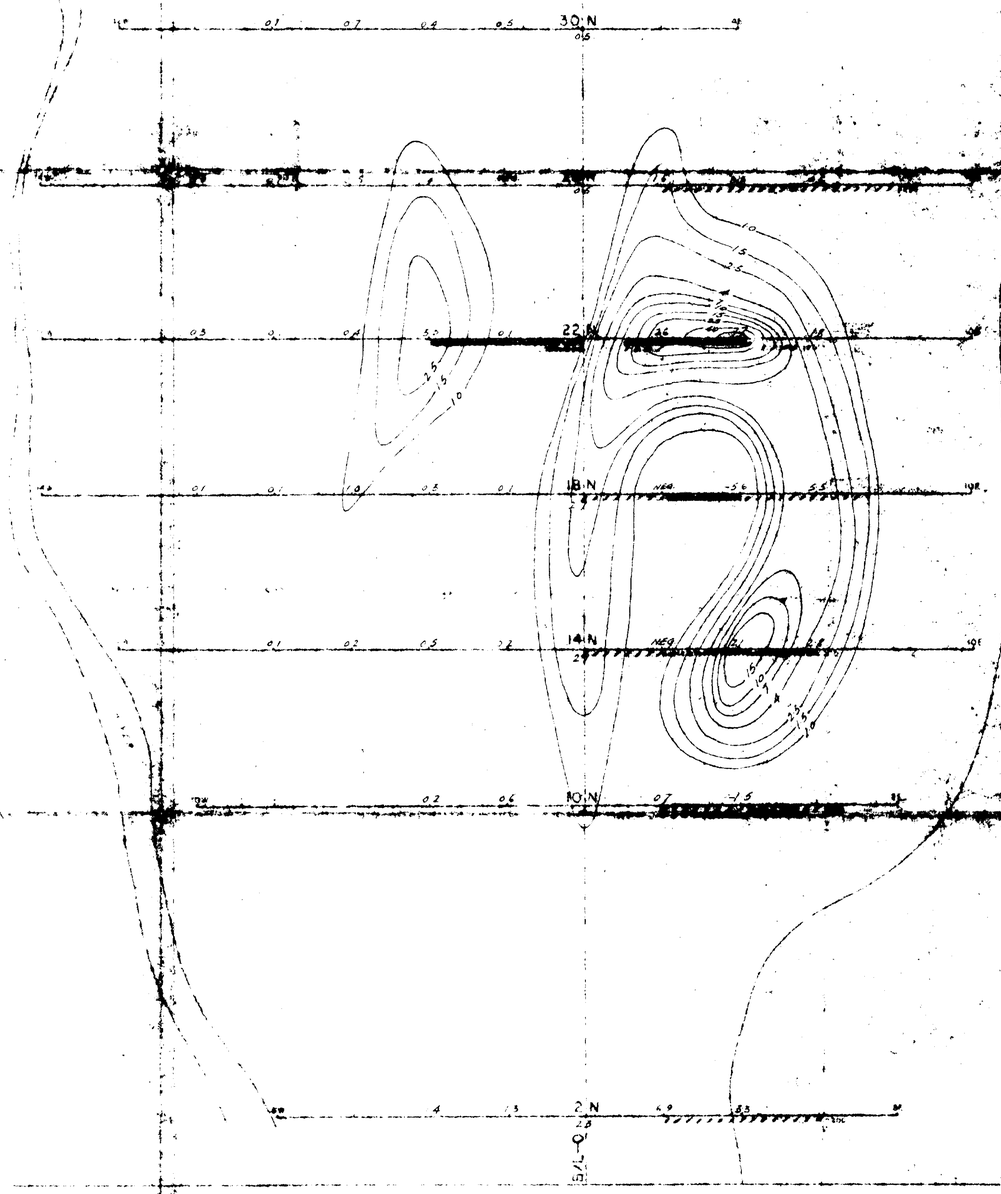
Date Dec 15/70

260

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



METAL FACTOR

METRON EXPLORATION LIMITED

STULL TWP. SUDBURY M.D. ONTARIO

SCALE

ONE INCH EQUALS TWO HUNDRED FEET

DIPOLE-DIPOLE CONFIGURATION

ELECTRODE SPACING 200'

LEVEL N-2

CONTOUR INTERVALS 1, 1.5, 2.5, 4.0, 7.0, 10.0, 15.0 etc

DRAWN

DATE MAR 1970

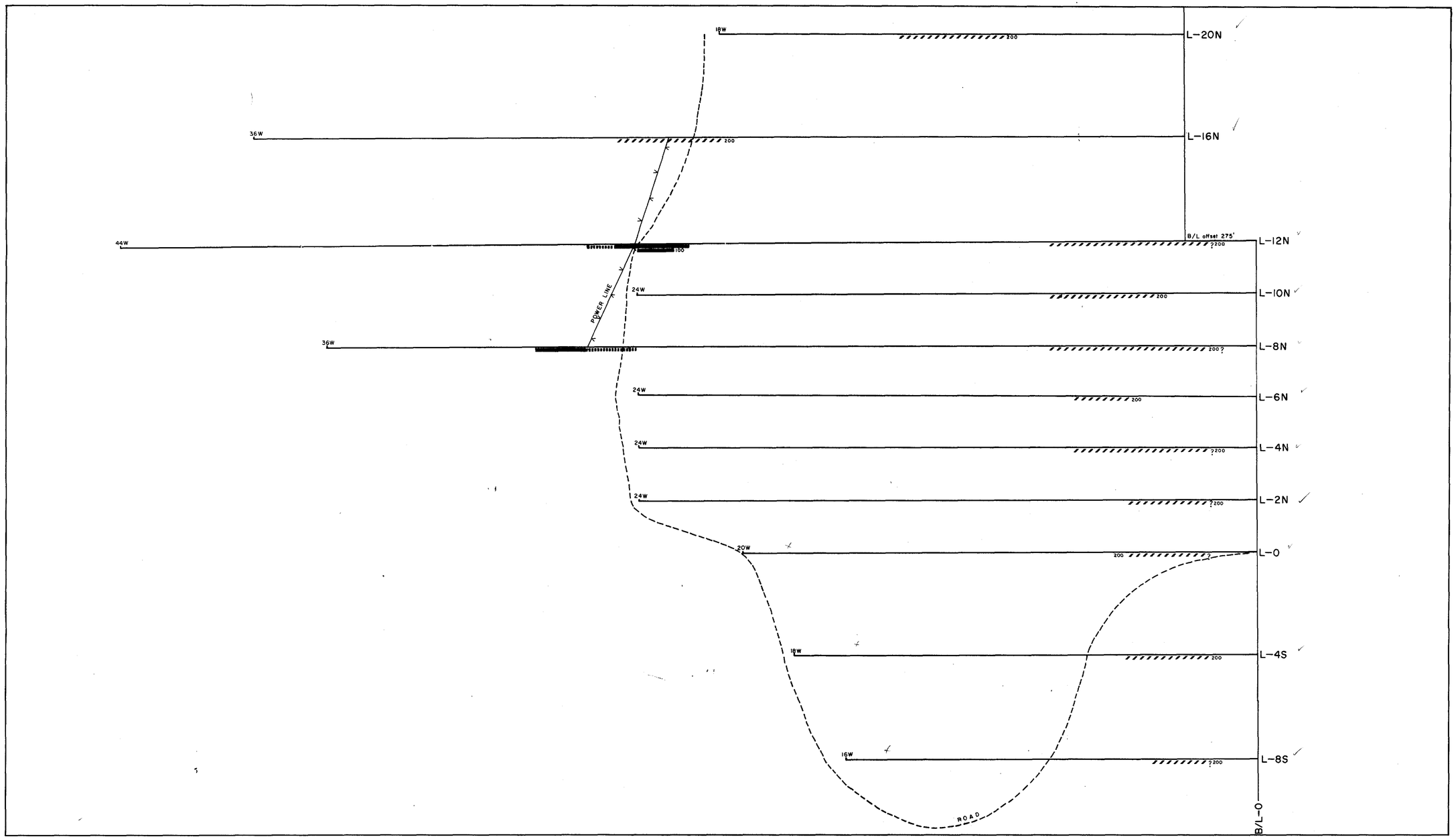
APPROVED

DATE Dec 15/70

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



N

True

SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ||||||||||||||||||||

POSSIBLE \ \ \ \ \ \ \ \ \

Number at the end of anomaly indicates spread used.

METRON EXPLORATION LIMITED

GRID 2

STULL TWP, SUDBURY M.D., ONTARIO

SCALE

ONE INCH EQUALS TWO HUNDRED FEET

DRAWN: P.C.
DATE: MAR. 1970
APPROVED:

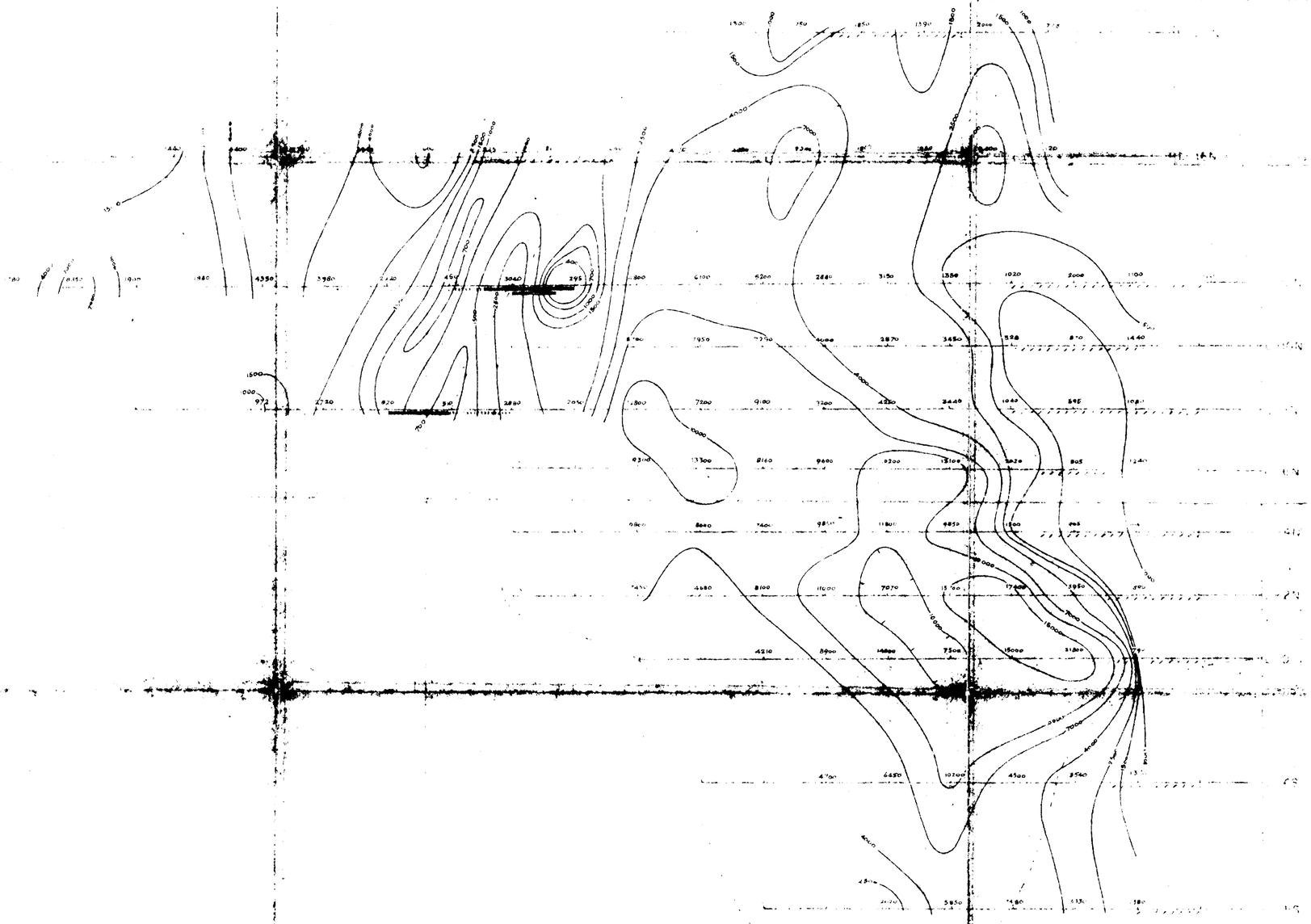
DATE: Dec 15/70

DWG

41P05SE014 63.2853 STULL

280

McPHAR GEOPHYSICS



RESISTIVITY

METRON EXPLORATION LIMITED

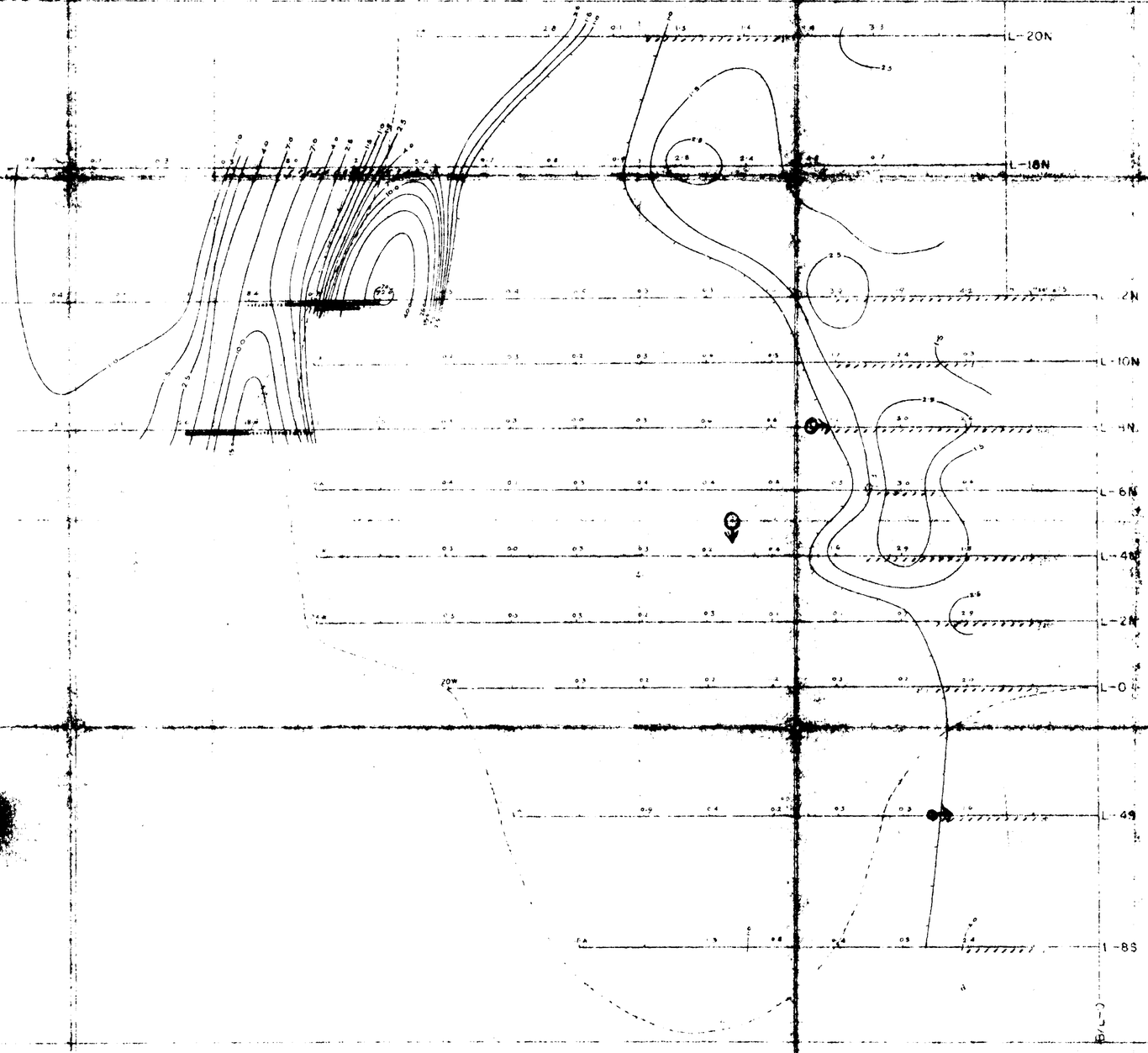
DIPOLE-DIPOLE CONFIGURATION
ELECTRODE SPACING, 200'
LEVEL N = 2
CONTOUR INTERVALS 400, 700, 1000, 1500, 2500, 4000, 7000 etc. OHM FT

Dec 15/70.

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



METAL FACTOR

METRON EXPLORATION LIMITED

[illegible] SUDBURY M.D. ONTARIO

SCALE

ONE INCH EQUALS TWO HUNDRED FEET

DIPOLE-DIPOLE CONFIGURATION

ELECTRODE SPACING 200'

LEVEL n = 2

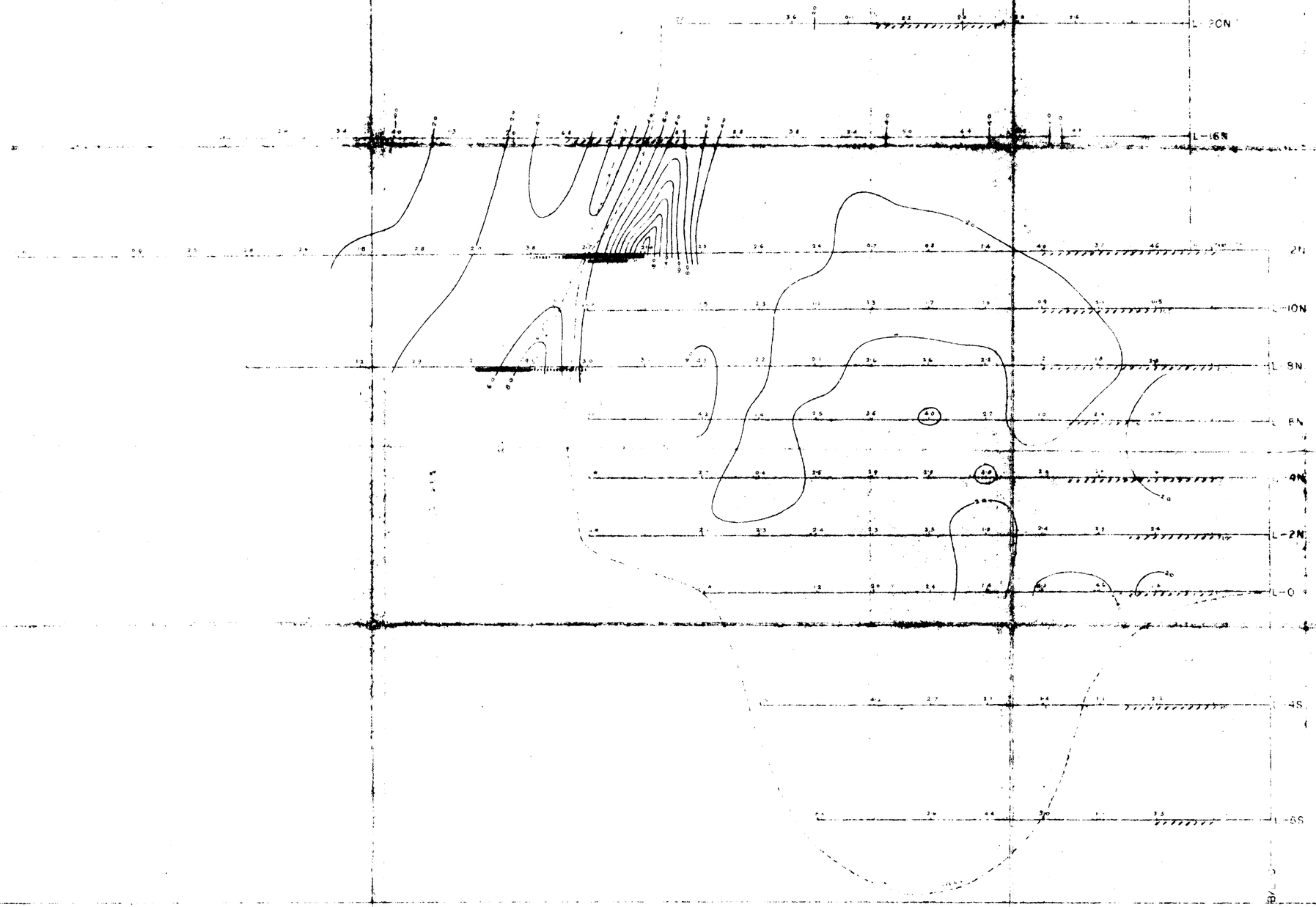
CONTOUR INTERVALS 1.5, 2.5, 4.0, 7.0, 10.0 15.0 etc.

Dec. 15/70

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



FREQUENCY EFFECT

METRON EXPLORATION LIMITED

STULL TWP. SUDBURY M.D. ONTARIO

SCALE

1 INCH EQUALS 400 HORIZONTAL FEET

DIPOLE DIPOLE CONFIGURATION
ELECTRODE SPACING 200'
LEVEL D 2
CONTOUR INTERVALS 2, 4, 6, 8, 10, 12 etc

Dec 15/70.

3803 213794 213793 213784

Drift Sand Ridge Sand Flat Sed Quartzite Hill

02 213795 213792 213785 213753

Lumber Mill

)1 213796 213791 213786 213752

) 213797 213790 213787 213750 213751

213798 213789 213788 213749 213748

Log Jam Lake Base Line for 100 Scale Area Mapped at 100 Scale

213766 213765 Gabbro 213754 213745 213746 213747

213767 213764 213755 213724 Gabbro 213733 213734

Quartzite

Area of Gabbro Outcrops

213768 213763 213756 213725 213732 213735 213742

Lake Warnapitei River

74 213769 213762 213757 213726 213731 213736 213741

773 213770 213761 213758 213727 HYDRO POWER LINE 213730 213737 213740 213743

Creek

213771 213760 213759 213728 213729 213738 213739 213744

S 209695

N

True

South fwd

METRON EXPLORATION LTD.

STULL TWP. ~ DISTRICT OF SUDBURY ~ ONTARIO

GEOLOGICAL SURVEY

- STULL TWP. CLAIMS -

400 0 400 800 1200 1600

FEET

J. H. Williams

63.2853

213831 | 213832 | 213833 | 212994

213830 | 213829 | 213828 | 213827

213823 | 213824 | 213825 | 213826

213822 | 213821 | 213820 | 213819

220508 | 220507 | 220506 | 220505 | 220502 | 220501 | 220499 | 220496

220520 | 220519 | 220512 | 220504 | 220503 | 220500 | 220498 | 220497

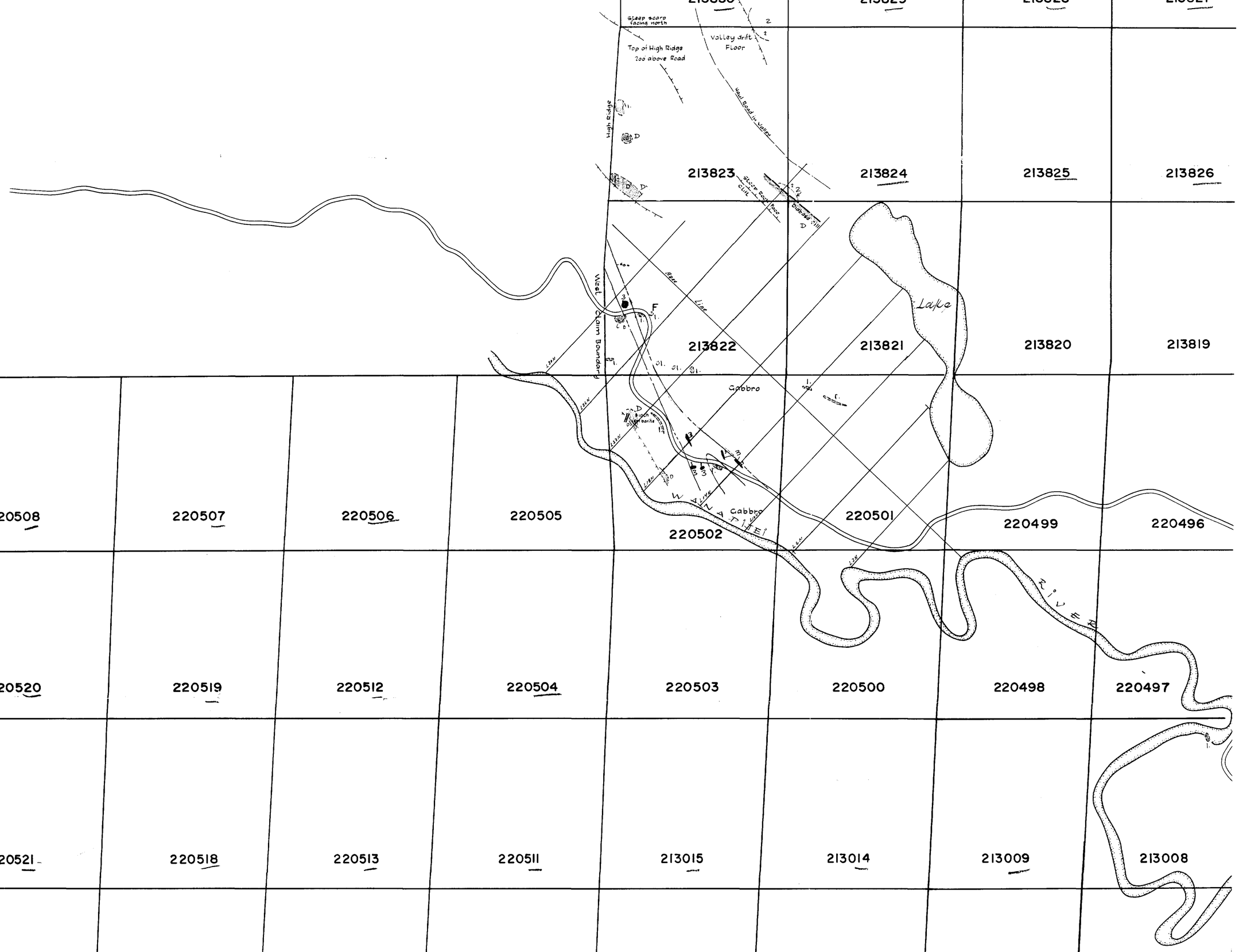
220521 | 220518 | 220513 | 220511 | 213015 | 213014 | 213009 | 213008

220522 | 220517 | 220514 | 220510 | 213016 | 213013 | 213010 | 213007

220523 | 220516 | 220515 | 220509 | 213017 | 213012 | 213011 | 213006

213814 | 213813 | 213804

213815 | 213812 | 213805



North sheet

LEGEND

D DIABASE
1. GABBRO
2. META SEDIMENTS (Mainly Quartzite)
3 GRANOPHYRE (MINERALIZED)

FAULT - defined, assumed
CONTACTS - defined, assumed
OUTCROPS
HIGHWAY
POWER LINE
OVERBURDEN SAND & GRAVEL

41P06SE0014 63.2853 STULL

220

Map by dee.o'shannessy mapping service/c.Lobo

213814 213813 213804 213803 213794 213793 213784

213815 213812 213805 213802 213795 213792 213785 213753

213816 213811 213806 213801 213796 213791 213786 213752

213817 213810 213807 213800 213797 213790 213787 213750

213818 213809 213808 213799 213798 213789 213788 213749

213778 213777 213766 213765 213754 213745

213779 213776 213767 213764 213755 213726

213780 213775 213768 213763 213756 213725

213781 213774 213769 213762 213757 213726

213782 213773 213770 213761 213758 213727

213783 213772 213771 213760 213759 213728

S 209695

Drift

Sand Ridge

Sand Flat

Sed Quartzite Hill

Lumber Mill

Lake

Log Jam

Gabbro

Area of Gabbro Outcrops

Welcome Creek

Welcome Lake

Gate

HYDRO POWER LINE

South sheet

STULL TOWNSHIP
VALIN TOWNSHIP

LEGEND

D D DIABASE
1. 1 GABBRO
2 2 META SEDIMENTS (Mainly Quartzite)
3 3 GRANOPHYRE

FAULT - defined, assumed.
CONTACTS - defined, assumed
OUTCROPS
HIGHWAY
POWER LINE
OVERBURDEN - SAND & GRAVEL
S SULPHIDE BEARING ERRATICS (Granophyre)

map by des o'shannessy mapping service/a.gunther.