DEPARTMENT OF MINES
SOUTH AUSTRALIA

REPORT ON INDUCED POLARIZATION SURVEY OVER SOUTHBANK AND EREMOPHILA NICKEL PROSPECTS

ALBERGA

Kenmore

by

B.J. TAYLOR
SENIOR TECHNICAL OFFICER
EXPLORATION GEOPHYSICS SECTION

CONTENTS

PLANS

Dwg.No.	Title	Scale
71-385	Kenmore Nickel Prospects Location and Geological Plans.	1" reps. 800'
71-563.	Southbank Nickel Prospect	1" reps. 400'
71-586	Eremophila Nickel Prospect Map showing Grid, I.P. anomalies and I.P. zones.	1" reps. 400'
71-564/1 to 71-574/1	Southbank Nickel Prospect: Contours of Apparent Resistivity, Frequency Effect and Metal Factor Lines OON to 6800N	1" reps. 200'
71-575/1 to 71-583/1	Eremophila Nickel Prospect: Contours of Apparent Resistivity, Frequency Effect and Metal Factor. Lines 00 to 4400N.	1" reps. 200'

Rept.Bk.No.71/115
G.S.No.4690
D.M.No.367/71

23rd July, 1971

DEPARTMENT OF MINES
SOUTH AUSTRALIA

Rept.Bk.No.71/115
G.S.No.4690
D.M.No.367/71

REPORT ON INDUCED POLARIZATION SURVEY OVER SOUTHBANK AND EREMOPHILA NICKEL PROSPECTS

ALBERGA

Kenmore

ABSTRACT

Induced polarization surveys were carried out to test two nickel prospects on the Kenmore 1:63,360 sheet.

These prospects, Southbank and Eremophila had been mapped during the geological survey of this area as containing ultra-basic rock.

Both prospects have low resistivity zones, which are related to serpentinite.

One of them, Eremophila, exhibits frequency effects of an order suggesting sulphide material within the low resistivity zone. Diamond drilling is recommended to test this anomalous zone.

INTRODUCTION

The Metallic Minerals Section in March, 1971 requested the Exploration Geophysics Section to carry out an induced polarization survey over two prospects (areas known to contain ultrabasic rock with associated nickel content), found during a geological survey of the Kenmore 1:63,360 sheet area.

The geophysical survey was carried out in April and May, 1971 over the two prospects, Southbank located near the southern bank of the Marryat River and Eremophila three miles southeast of Southbank. (Plan 71-385).

Samples taken from trenches on these prospects had assayed 4000 and 2500 parts per million nickel respectively.

GEOLOGY

For a detailed geological description of the area, reference should be made to the progress reports prepared by Barnes, Pain and Conor, who have mapped the two areas. ("Progress Report Nickel Exploration" in preparation).

Southbank prospect contains two outcrops of ultrabasic rocks some 2400 feet apart as shown in Drawing No. 71-~~358~~ 385. These exhibit silicified cappings over serpentinite. This is considered to have originated as ultrabasic intrusions into the sedimentary sequence with subsequent metamorphism, folding, shearing and serpentinisation. The serpentinites are generally associated with quartzites and amphibolites.

Eremophila prospect situated three miles southeast of the southbank prospect is similar in geological composition to Southbank, but stands out as a ridge approximately one mile long about twenty five feet above the plain and has basic granulite and quartz feldspar outcrops adjacent to the serpentinite (Drawing No. 71-385).

PREVIOUS GEOPHYSICAL WORK

The Kenmore 1:63,360 sheet was included in the aeromagnetic and scintillometric survey by the Bureau of Mineral Resources in 1967. Aeromagnetic maps have been prepared and are in the final drafting stages.

In August - October, 1970 a ground magnetic survey was carried out over the Southbank prospects as part of a larger scale survey over most of the known ultra-basic occurrences in this region.

Results of this survey indicated continuity between the two known serpentinite occurrences and further ultra-basic material was postulated to occur to the south under cover.

During the magnetic survey one magnetometer traverse was made across the Eremophila outcrop. This traverse, which crosses the outcrop at approximately 00W on line 1600W of the induced polarization survey grid indicated a magnetic high across the outcrop and a similar high to the east.

METHOD USED

Lines were traversed with induced polarization equipment using a 200ft. dipole - dipole configuration with dipole separations from n = 2 to n = 5 to give a depth of penetration of down to five hundred feet. Steel stakes were used for both receiver and transmitter electrodes, and frequences of 3.0 Hertz and 0.3 Hertz were employed.

A Geoscience 3 K.V.A. variable frequency square wave generator was used as a transmitter for both areas. A receiver which was designed and constructed in the workshops of the Exploration Geophysics Section was used in the Southbank area and a Geoscience I.P. receiver was used in the Eremophila area as the former receiver became unserviceable at the start of the Eremophila work.

The induced polarization receiver used at Eremophila has greater response to high frequencies and is therefore affected by harmonics of the low frequency square wave generator more than the receiver constructed in the geophysics workshop.

Since inductive coupling is proportional to the frequency raised to the 1½ power, the frequency effects measured with this meter, are somewhat higher than in the receiver employed at Southbank.

Anomalies are still detectable by comparing frequency effects in different areas with similar resistivity values and dipole spacings.

SURVEYING

S.C. Wills of the Survey Section established grids at each of these prospects.

At Southbank the grid was tied to the one used for the magnetic survey its origin being located at 10,000 E. on line 115 of the old grid.

Lines established at 00N, 400N, 800N, 1600N, 2400N, and 3200N were pegged at 200 feet intervals from 1600E to 4000W.

Lines 4000N, 4800N, 5600N, 6400N and 6800N were pegged from 2000E to 2000W. See drawing No. 71-563.

At Eremophila the grid base line was positioned from aerial photographs to follow the line of outcrop.

Lines were then established at 00N, 800N, 1600N, 2400N, 3200N, 4000N and 4400N. These were pegged at 200 feet intervals from 2000E to 2000W. See drawing No. 71-568.

Additional lines were added by field assistants of the Metallic Minerals Section at 1200N and 3600N to increase the Induced Polarization cover.

RESULTS

SOUTHBANK PROSPECT

Plan No. 71-563 shows the survey grid and the original magnetic survey grid in this area.

Marked on this plan are the interpreted ultra-basic zones as determined from the magnetic survey and low resistivity zones, possibly assoicated with ultra-basic rocks, from the Induced Polarization information.

Contours of Apparent Resistivity, Frequency Effect and Metal Factor for lines 00N to 6800N are shown in Plans 71-564/1 to 71-574/1.

Resistivity results from the area north of 3200N and west of 00E show a zone of low apparent resistivity material (less than 20 ohm-metres), which links two known outcrops of ultra-basic material (Drawing 71-563).

The low resitivity is probably due to serpentinite, which is conductive due to extensive hydration.

No consistent frequency effect anomalies are associated with this zone, the highest reading being 1.6% associated with one point only. Frequency effects elsewhere are less than 1%, which suggests that there is little sulphide within this area.

In the area north of 3200N and east of 00E, apparent resistivities below 60 ohm-metres are found, which may be associated with weathered ultra-basic material. On line 5600N and 4800N values less than 20 ohm-metres have been found, which could indicate some serpentinite. No magnetic anomalies of the type associated with ultra-basic rocks were found in this zone, although such anomalies are found north and south of it.

Frequency effects measured less than 2% throughout this low resistivity zone.

On line 3200N between 2W and 8W there is a resistivity low (less than 100 ohm-metres) with a frequency effect of 1.6% associated with it. This lies within the zone interpreted from magnetic reading as ultra-basic, but the resistivity value is higher than that usually associated with serpentinite.

South of line 3200N, west of 1000W two small zones of low resistivity (100 ohm-metres or less) exist in a background of 200 ohm-metre values. These are just outside of the area interpreted magnetically as ultra-basic. The low between 3200N and 2400N could be due to damp conditions beneath fairly deep cover as frequency effects associated with it are particularly small.

The zone between 1600N and 800N appears to be associated with material weathered to greater depth, but frequency effects of 1% near surface decrease with depth of current penetration suggesting there is little associated sulphide.

South of line 2400N east of 400W the values within the low resistivity zone are between 200 and 400 ohm-metres in a background of 1000 ohm-metre material. This area is within the area interpreted from magnetic results as ultra-basic, but the relatively high resistance values are above those usually associated with serpentinite.

Frequency effects of about 1.5% are associated with the low resistivity zone near its edges possibly due to the magnetite content of the

rocks.

Between 600W and 1000E on line 00N there is a frequency effect anomaly increasing from 1.7% near the surface to 2.7% at depth. The high resistivity (greater than 1000 ohm-metres) of the rock material, however, reduces the possibility of any economic level of sulphide.

EREMOPHILA PROSPECT

Plan 71-586 shows the location of the induced polarization anomalies and the low resistivity zones relative to the surveyed grid.

Contours of apparent resistivity, frequency effect, and metal factor for each line traversed, are shown in plans numbered 71-575/1 to 71-583/1.

The low resistivity zone seems to commence near line 00N where values of less than seventy ohm-metres with a minimum of fifty ohm-metres are correlated with values of less than fifteen ohm-metres on the more northerly lines.

Above line 2000N the low resistivity zone has two branches, which persist up to line 3600N.

A third low resistivity zone on line 4000N with a return to two zones displaced to the west on line 4400N suggests the presence of a shear crossing the area between lines 3600N and 4000N.

Some geological evidence of sheared rock was found between lines 3600N and 4000N between approximately 600W to 800W.

The low resistivity is thought to be due to serpentinised ultra-basic rock material extending to less than 300 feet.

Frequency effect anomalies greater than 8% are associated with the western branch of the low resistivity zone on lines 1200N, 1600N and 4000N. Their source appears to be approximately at the base of the low resistivity zone suggesting sulphide at the contact between the serpentinite and unweathered ultra-basic rock.

CONCLUSIONS AND RECOMMENDATIONS

Southbank Prospect

Resistivity measurements have outlined lower resistance zones within the area.

Frequency effects associated with these are small. but there is some possibility of minor sulphide occurrences associated with ultra-basic material.

As deep geochemical sampling was planned, shallow targets were proposed for the rotary drill to give assistance to the interpretation of the geophysical information in the course of the geochemical investigations.

The sites for these holes are listed hereunder in order of priority:-

Hole No.	Position	Anomaly to be investigated
SBM_1	1500W on 5600N	1.4% F.E. an anomaly in less than 20 ohm-metre zone.
SBM_2	1100W on 6800N	Low resistivity zone near pit where sample containing 3% nickel was obtained.
SBM_3	900E on 4800N	1.8% F.E. anomaly in less than 60 ohm-metre zone.
SBM_4	700E on 6400N	2% F.E. anomaly near surface in less than 60 ohm-metre zone.
SBM_5	100E on 800N	Weak F.E. anomaly on edge of resistivity zone (less than 200 ohm-metres).
SBM_6	700W on 00N	1.7% F.E. near surface shear on edge of resistivity zone (less than 200 ohm-metres).
SBM_7	3100W on 800N	Weak F.E. anomaly in resistivity low zone (less than 400 ohm-metres).

SMB_8	900W on 4000N	In less than 20 ohm-metre zone near shear (interpreted from magnetics).
SMB_9	300E on 400N	2% F.E. anomaly in less than 200 ohm-metre zone.
SMB_{10}	OOE to 4800N	Weak F.E. anomaly on edge of 60 ohm-metre zone.

Diamond drilling cannot be recommended on I.P. information alone as frequency effects are small, indicating that sulphide concentration is low, and the low resistivity zones are probably due to serpentinite.

However if high nickel values are assayed in the deep geochemical sampling programme the I.P. information may be of use in selecting a site.

Eremophila Prospect

Resistivity measurements delineate two low resistivity zones, which tend to merge at the southern end of the grid, and are possibly sheared in the northern end.

The resisitivity values in the zones are generally less than 20 ohm-metres and are probably due to the formation of the serpentinite. At the southern end of the grid, the resistivity values are greater than 20 ohm-metres, suggesting that serpentinite is not present.

Three high order frequency effect anomalies are associated with these zones on lines 1200N, 1600N and 4400N. They are all situated at depth, immediately below the serpentinite and suggest that sulphide mineralisation may be present.

A deeper geochemical sampling programme has been initiated to test for nickel mineralisation, to extend geological knowledge and to help to indicate the cause of the I.P. anomalies. The depths of these holes which are to be drilled will not be sufficient to penetrate to the main Induced Polarization anomaly, but the Induced Polarization information has been used in sighting the drill holes.

Hole No.	Position	Anomaly to be investigated
EM1	900W on 3600N	2.7% F.E. near surface, at edge of low resistivity zone, near possible shear.
EM3	300E on 1200N	3.4% F.E. near surface within low resistivity zone.
EM4	500W on 4400N	2.9% F.E. near surface on edge of low resistivity zone.
EM5	900E on 3600N	3.0% F.E. near surface in low resistivity zone.
EM6	100W on 2400N	2.5% F.E. near surface in low resistivity zone.
EM7	1100W on 3600N	Edge of low resistivity zone near assumed shear.

It is recommended that diamond drilling be used to test the source of the high order frequency effect anomalies occurring at depth below the interpreted serpentinite bodies.

The most intense anomaly is positioned below 200E - 400E on line 1200N and it is recommended that this anomaly be tested first.

A suitable site would be at 100W on line 1200N declined at 60°E to a depth of 500 feet.

If mineralization is intersected in this hole, it is recommended that further drilling be carried out to test other anomalies in the area. Possible sites for these would be:-

a. To intersect 8.9% F.E. anomaly below 400W on line 4400N.
   This would test for mineralisation at the northern end of the zone. Sited at 800W on line 4400N declined at 60°E to a depth of 500 feet.

b. To intersect 12.0% F.E. anomaly below 400E on 1600N. This is correlatable with anomaly to be tested in the first hole and 400 feet north of it. To be collared at 100E on 1600N declined at 60°E to a depth of 500 feet.

c. To test a weaker F.E. anomaly on western zone of interpreted serpentinite.

To be collared at 800E on line 3600N declined at 60°W to a depth of 500 feet.

B Taylor

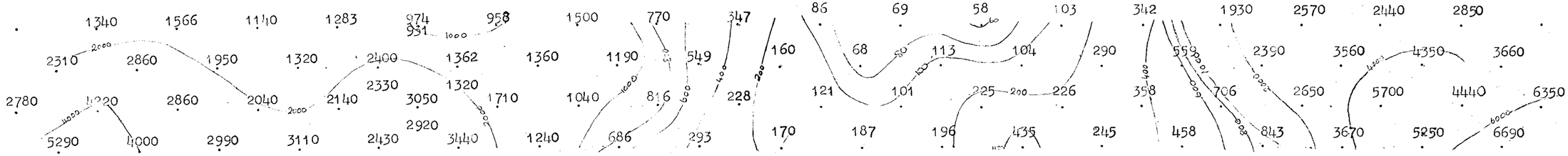
B.J. TAYLOR
SENIOR TECHNICAL OFFICER
EXPLORATION GEOPHYSICS SECTION

BJT:MFV
23rd July, 1971

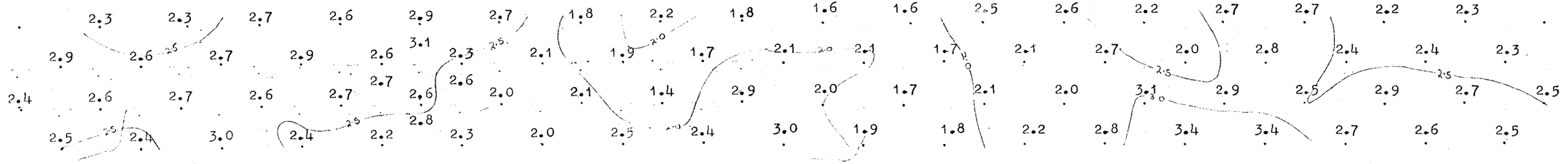
LINE EREMOPHILA OON

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

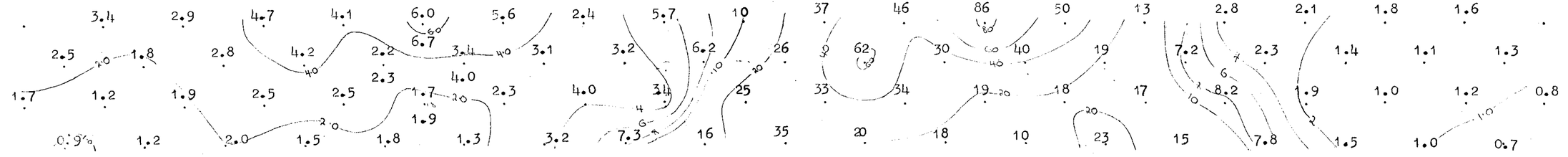
APPARENT RESISTIVITY



FREQUENCY EFFECT



METAL FACTOR



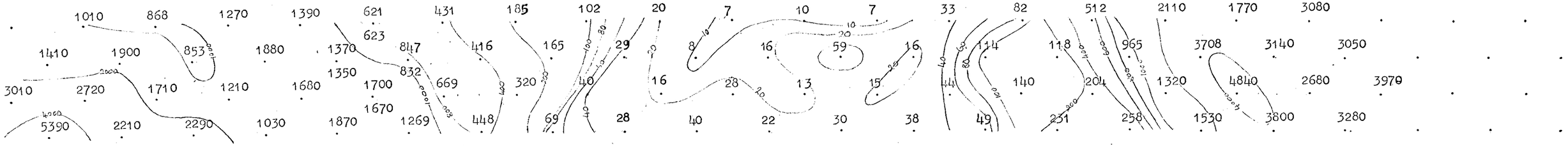
SCALE: 1" rep 200'

LINE

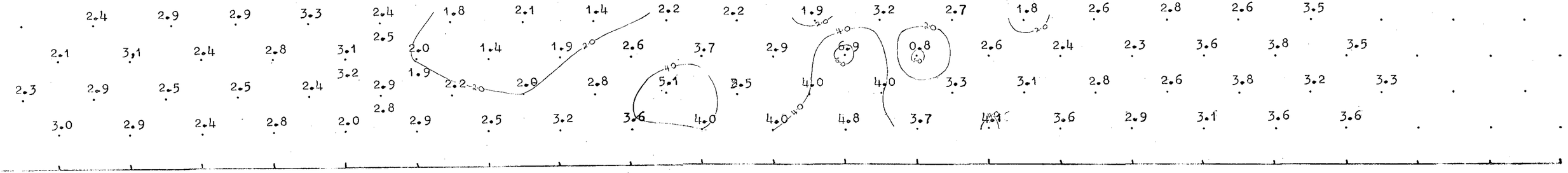
BREMOPHILA
800 N

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

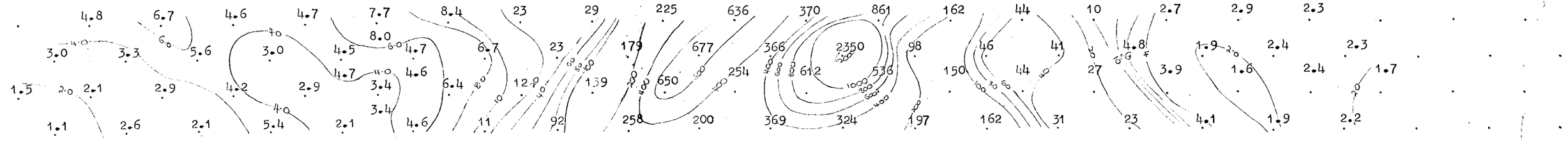
APPARENT RESISTIVITY



FREQUENCY EFFECT



METAL FACTOR

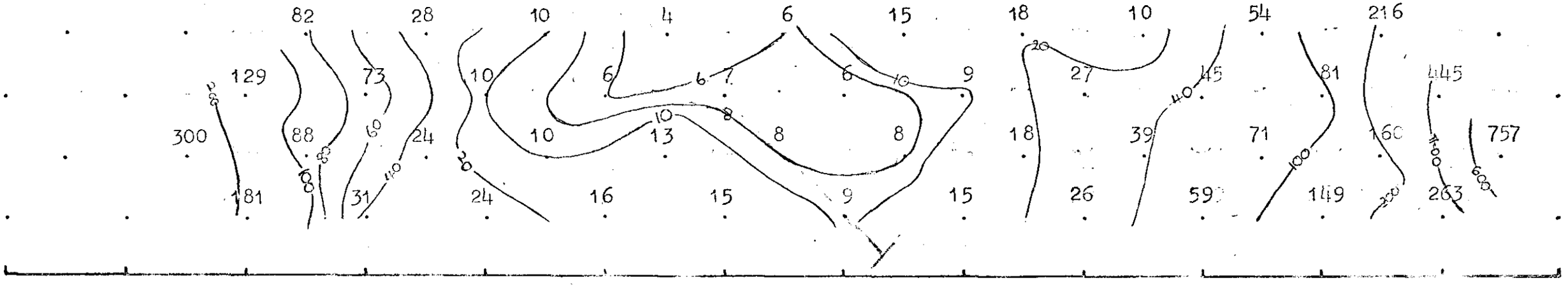


SCALE: 1" rep 200'

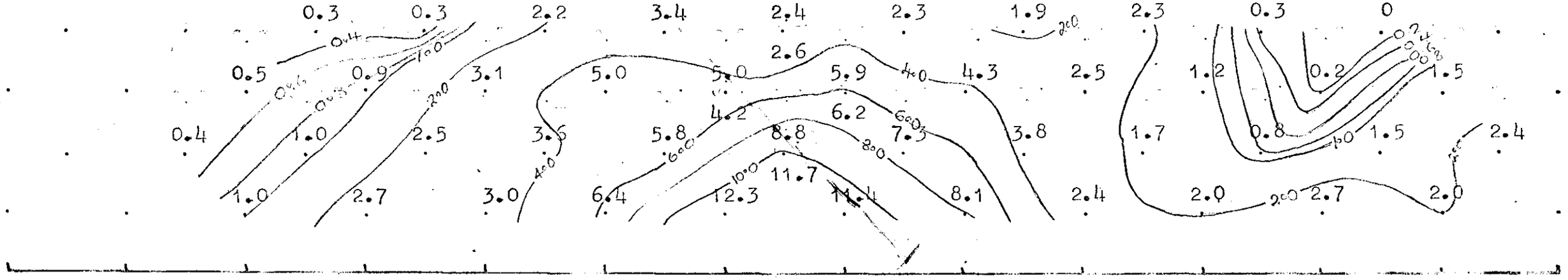
LINE EREMOPHILA 1200 N

10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E 14E 16E

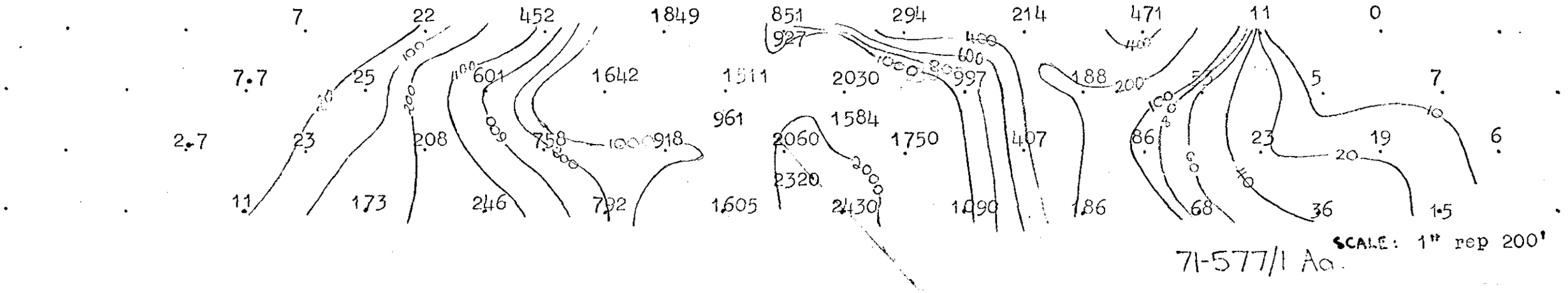
APPARENT RESISTIVITY



FREQUENCY EFFECT



MAG. FACTOR



SCALE: 1" rep 200'

71-577/1 Aa

LINE EREMOPHILA 1600 N

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

Probable hole further W.

APPARENT RESISTIVITY

FREQUENCY EFFECT

METAL FACTOR

71-578/1Aa

SCALE: 1" rep 200'

LINE ERROPHILA 2400 N

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

APPARENT RESISTIVITY

FREQUENCY EFFECT

METAL FACTOR

71-579/1 Aa

SCALE: 1" rep 200'

LINE ERENOPHILA 3200 N

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

APPARENT RESISTIVITY

FREQUENCY EFFECT

METAL FACTOR

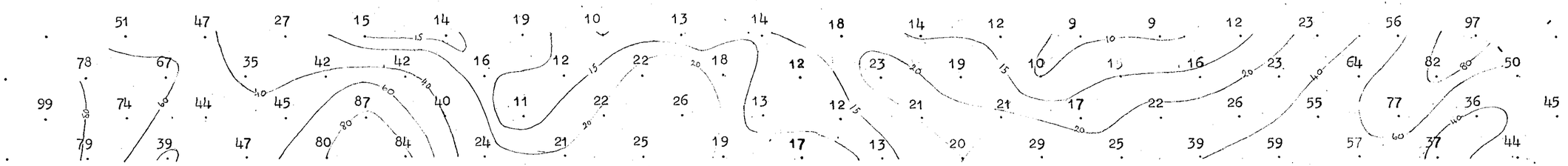
SCALE: 1" rep 200'

71-5504-Ae

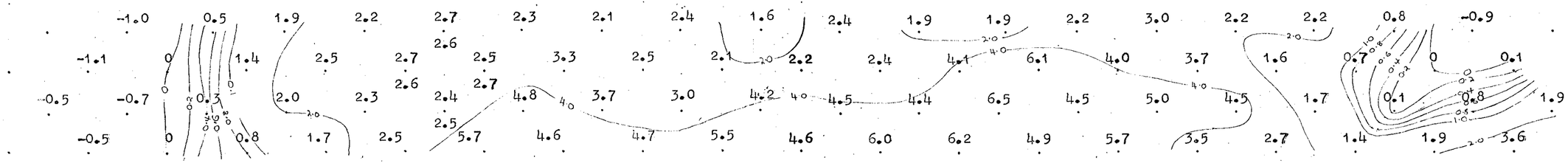
LINE ERSMOPHILA
3600N

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

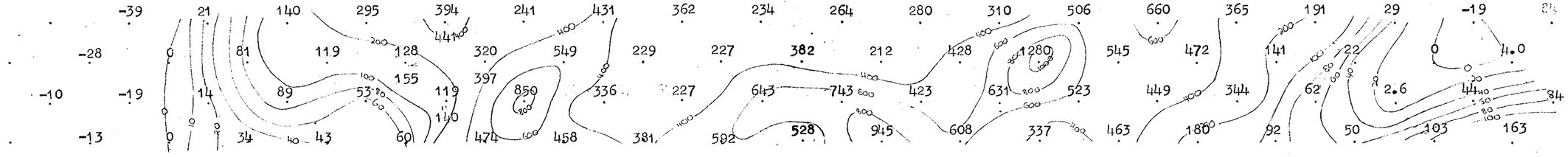
APPARENT RESISTIVITY



FREQUENCY EFFECT



METAL FACTOR



SCALE: 1" rep 200'

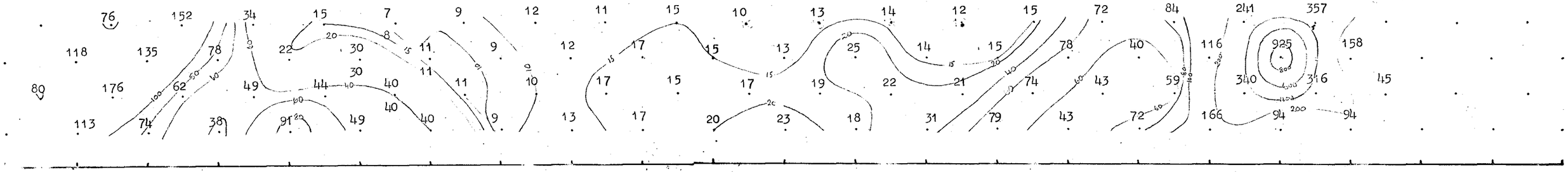
71-581/1 Aa

LINE

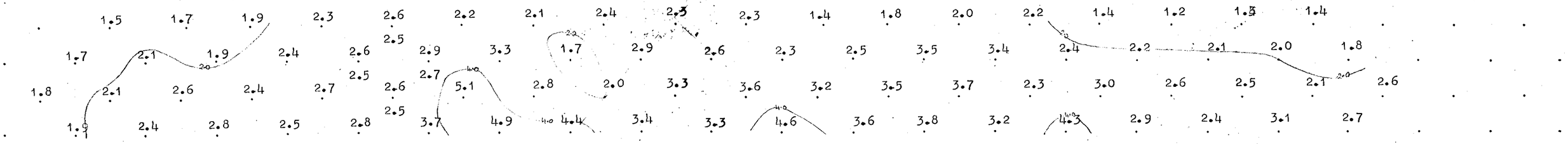
EREMOPHILA
4000 N

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

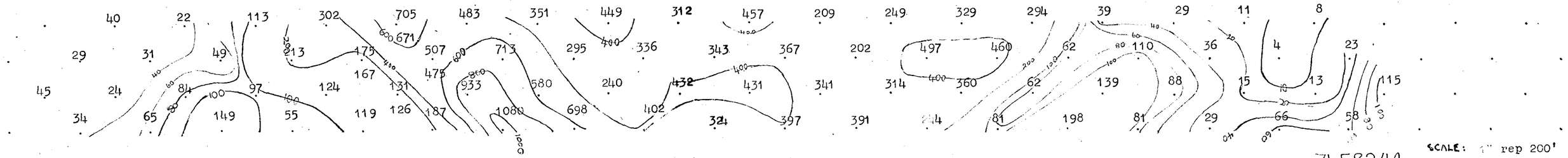
APPARENT RESISTIVITY



FREQUENCY EFFECT



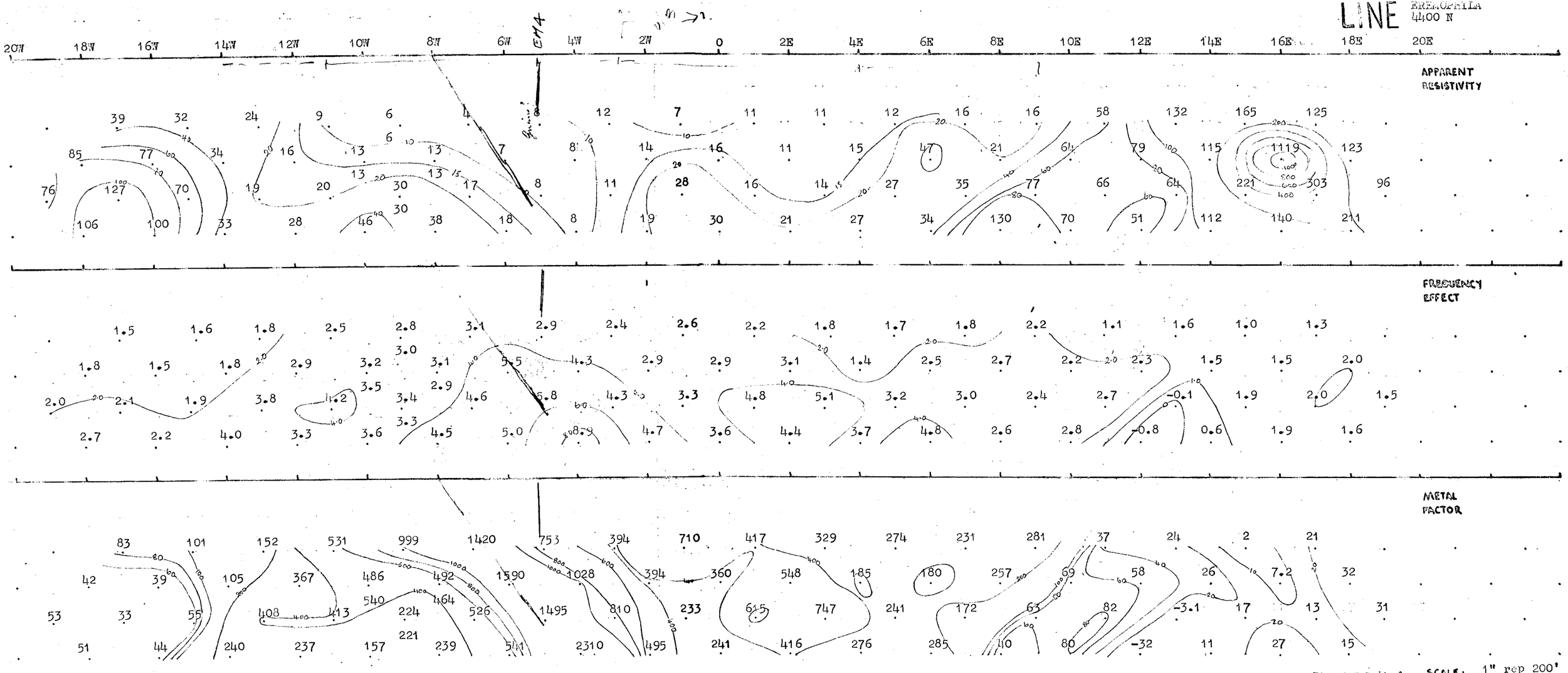
METAL FACTOR



SCALE: 1" rep 200'

71-582/1Aa

LINE EREMOPHILA 4400 N

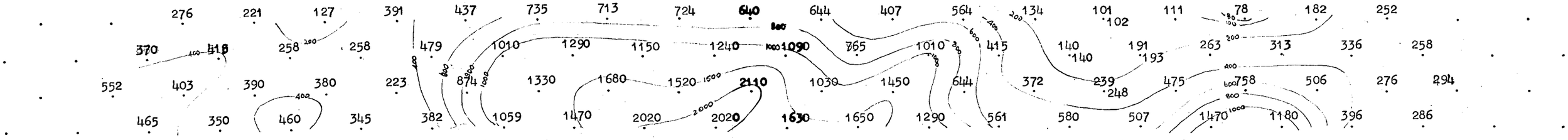


71-583/1 Aa. SCALE: 1" rep 200'

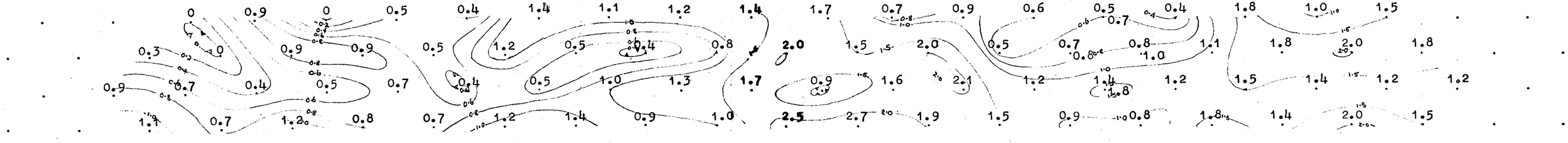
LINE SOUTHBANK OON

28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E

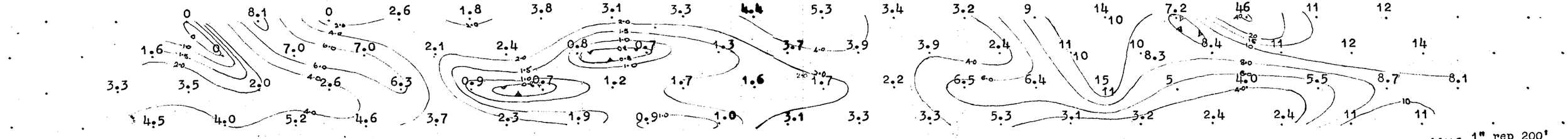
APPARENT RESISTIVITY



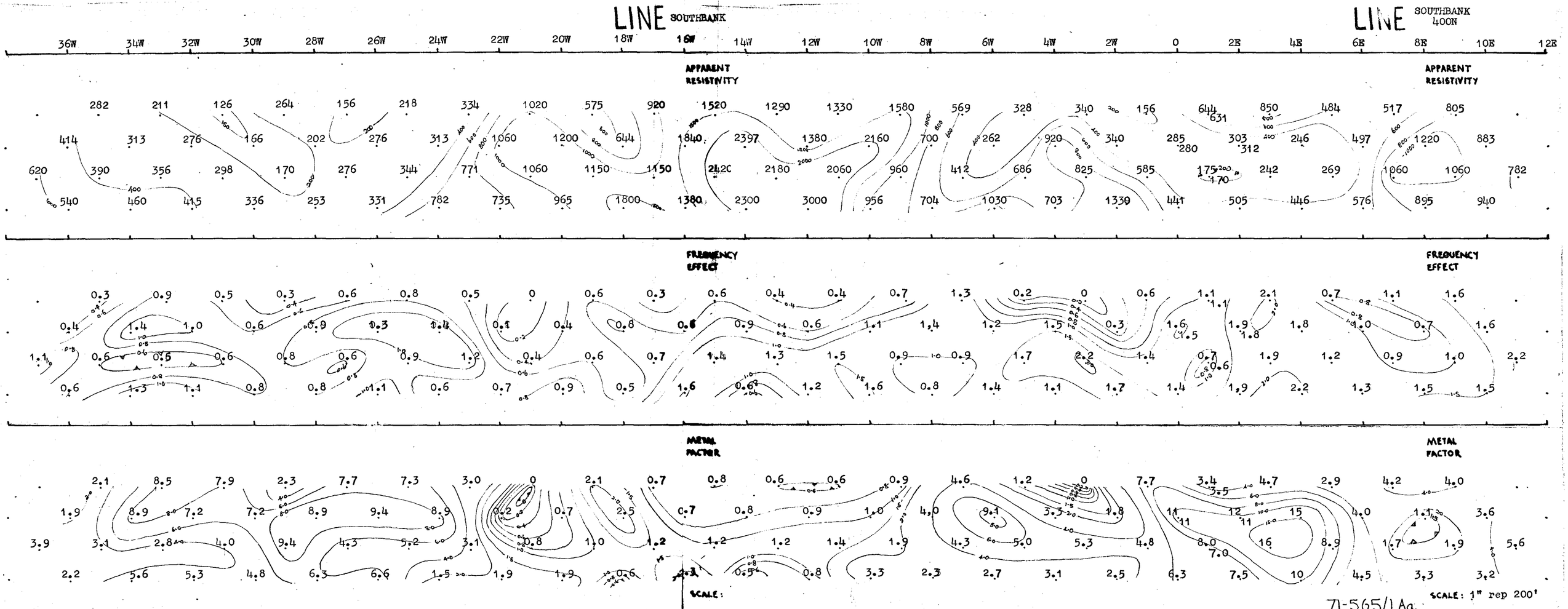
FREQUENCY EFFECT



METAL FACTOR



SCALE: 1" rep 200'


LINE SOUTHBANK
LINE SOUTHBANK 400N
36W 34W 32W 30W 28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E
APPARENT RESISTIVITY
APPARENT RESISTIVITY
FREQUENCY EFFECT
FREQUENCY EFFECT
METAL FACTOR
METAL FACTOR
SCALE:
SCALE: 1" rep 200'

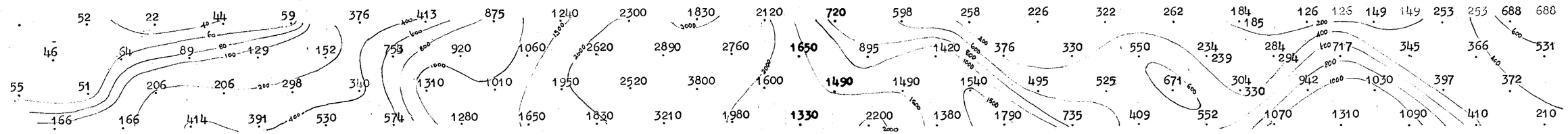
71-565/1Aa

LINE

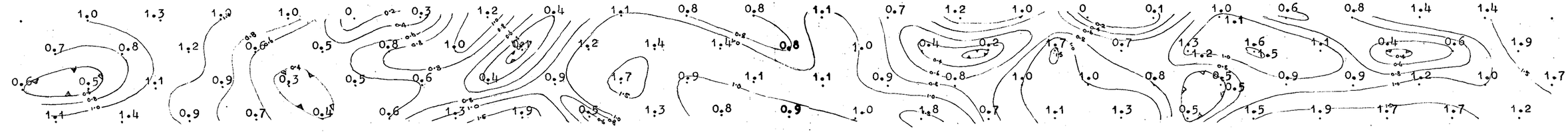
LINE SOUTHBANK 800N

34W 32W 30W 28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E

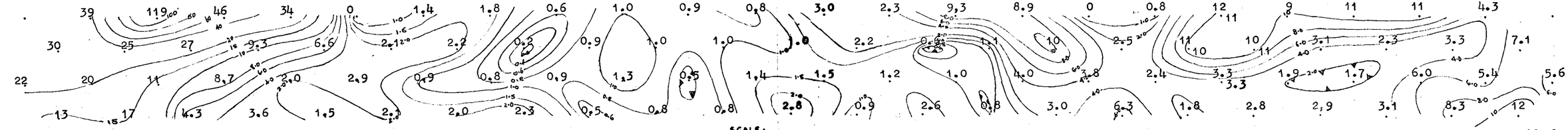
APPARENT RESISTIVITY



FREQUENCY EFFECT



METAL FACTOR



SCALE:

71-566/1 Aa

SCALE: 1" rep 200'

LINE

LINE SOUTHBANK 1600N

38W 36W 34W 32W 30W 28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E

APPARENT RESISTIVITY

APPARENT RESISTIVITY

FREQUENC EFFECT

FREQUENCY EFFECT

METAL FACTOR

METAL FACTOR

SCALE:

SCALE: 1" rep200'

LINE

LINE SOUTH BANK 2400N

38W 36W 34W 32W 30W 28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E

APPARENT RESISTIVITY

APPARENT RESISTIVITY

FREQUENCY EFFECT

FREQUENCY EFFECT

METAL FACTOR

METAL FACTOR

SCALE:

71-568/1Aa

SCALE: 1"rep 200'

LINE

LINE

SOUTHBANK
3200N

38W 36W 34W 32W 30W 28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E 12E

APPARENT RESISTIVITY

APPARENT RESISTIVITY

92 92 138 104 74 58 75 69 85 85 126 103 161 112 44 44 92 209 345 264 506 448 944
345
175 147 145 152 140 152 94 94 127 124 166 152 115 206 64 74 147 136 248 409 841 1420 579 1070
207 364
350 253 198 138 180 207 218 121 144 149 230 153 130 115 91 126 207 186 207 224 1020 1690 1530 736 1050
276
436 288 179 163 242 264 230 184 170 253 207 133 126 55 237 368 253 260 150 575 1860 1590 1750 666

FREQUENCY EFFECT

FREQUENCY EFFECT

0.9 0.7 0.3 0.9 0.7 0 0.1 0 0.2 0.2 0.6 0.7 0.1 1.0 0.8 0.6 0.9 0.9 1.3 0.8 0.3 1.4 0.8
0.9
1.7 1.3 1.6 1.7 1.5 0.7 0.4 0.2 0.6 0.6 0.9 0.8 0.7 0.6 0.6 0.6 1.7 1.7 0.9 1.1 0.7 1.3 0.6 0.9
0.8 0.8
1.3 0.9 0.7 0.4 0.8 0.1 0.2 0.7 0 0 0.4 0.1 0.1 1.3 1.1 1.6 0.8 1.1 1.2 1.2 1.0 0.7 0.8 0.9 1.1
1.0
0.8 0.5 1.0 0.9 0.8 0.1 0.8 0.4 0.4 0 0.7 0.3 0.7 1.1 1.5 0.8 1.8 1.2 1.1 1.3 1.1 1.2 1.3 1.5

METAL FACTOR

METAL FACTOR

20 15 4.3 17 19 0 5.3 0 4.7 4.7 9.4 14 1.2 18 82 69 19 8.6 7.6 6.0 1.2 6.2 1.7
5.2
19 18 22 22 21 9.2 8.5 4.2 9.5 10 11 11 12 4.8 19 16 23 25 7.2 5.4 1.7 1.8 2.0 1.7
7.7 4.4
7.4 7.1 7.0 5.8 8.8 1.8 1.8 1.2 0 0 3.5 1.3 1.5 23 24 25 7 12 12 11 2.0 0.8 1.0 2.4 2.1
8.8
3.7 3.5 11 11 6.6 0.8 6.9 4.3 4.7 0 6.8 4.5 11 40 13 4.3 14 9.2 15 4.6 1.2 1.5 1.5 4.5

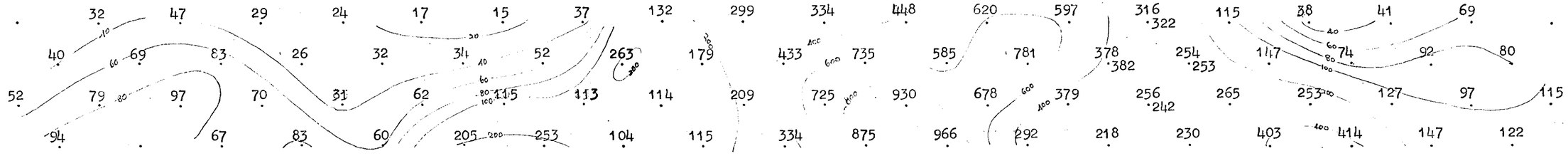
SCALE:

SCALE: 1" rep 200'

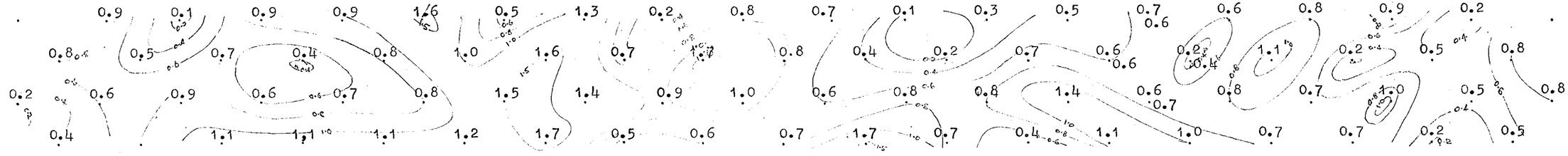
LINE SOUTHBANK 4000N

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

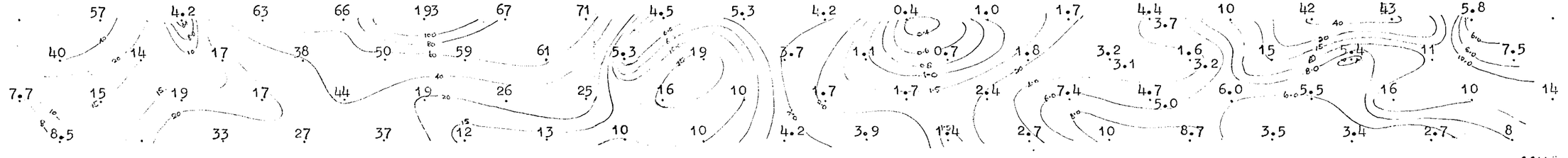
APPARENT RESISTIVITY



FREQUENCY EFFECT



METAL FACTOR



SCALE: 1" rep 200'

71-570/1 Aa

LINE SOUTHBANK 4800N

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

APPARENT RESISTIVITY

FREQUENCY EFFECT

METAL FACTOR

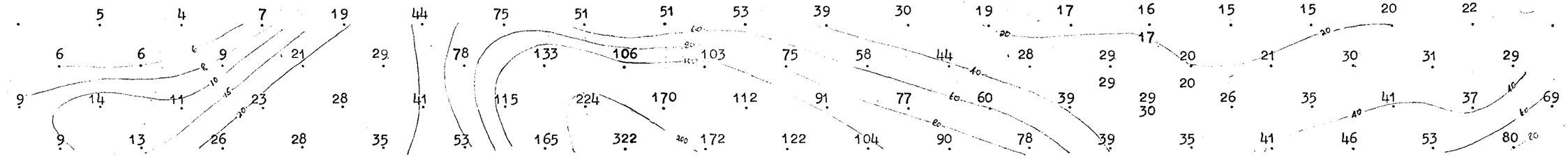
71-571/1Aa

SCALE: 1" rep 200'

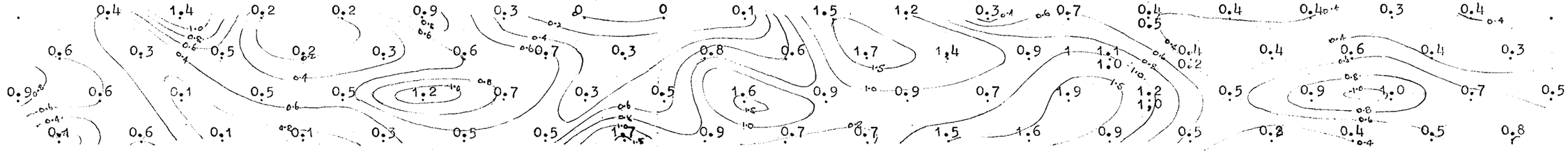
LINE SOUTHBANK 5600N

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

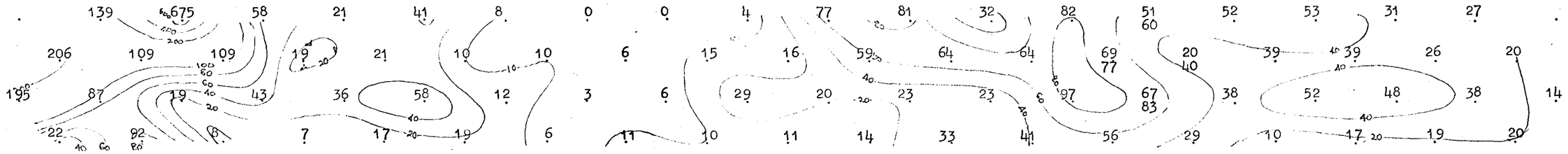
APPARENT RESISTIVITY



FREQUENCY EFFECT



METAL FACTOR



71-572/1Aa

SCALE: 1" rep 200'

LINE SOUTHBANK 6400N

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

APPARENT RESISTIVITY

FREQUENCY EFFECT

METAL FACTOR

71-573/1Aa

SCALE: 1" rep 200'

LINE SOUTHBANK 6800N

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

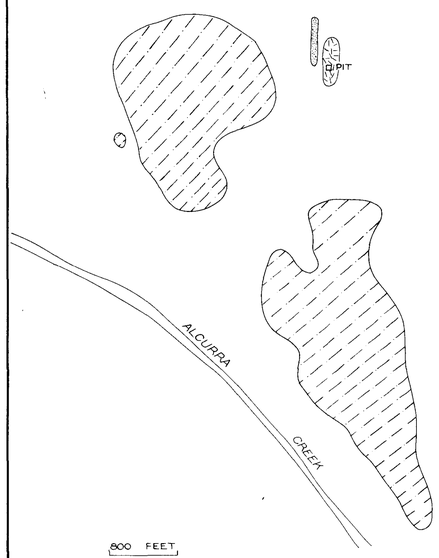
APPARENT RESISTIVITY

FREQUENCY EFFECT

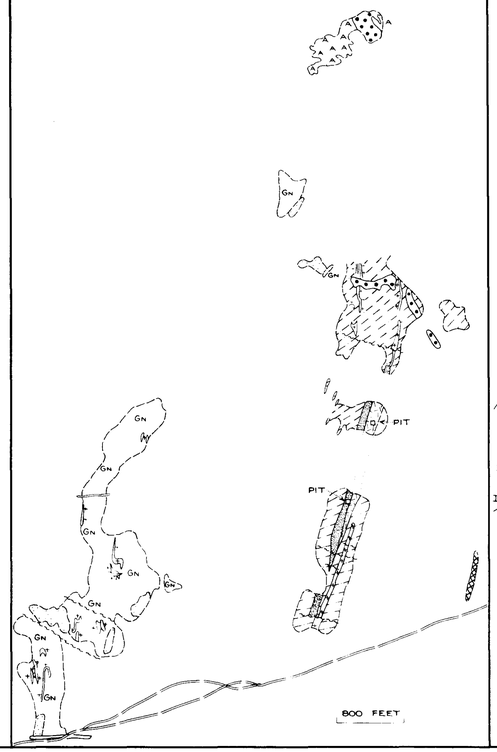
METAL FACTOR

SCALE: 1" rep 200'

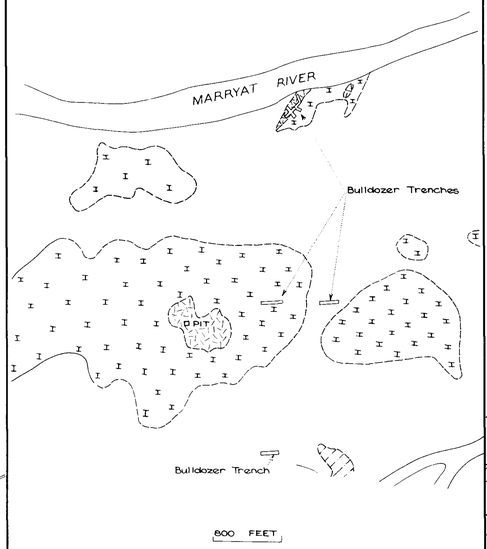
WITJUTI NICKEL PROSPECT



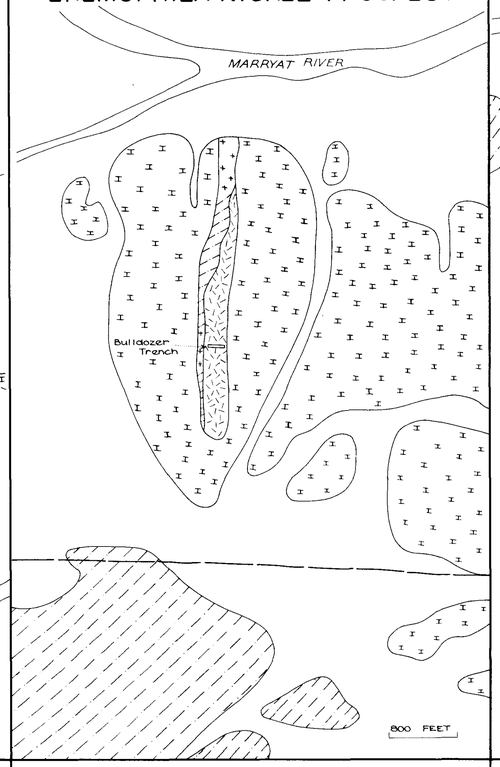
ECHIDNA NICKEL PROSPECT



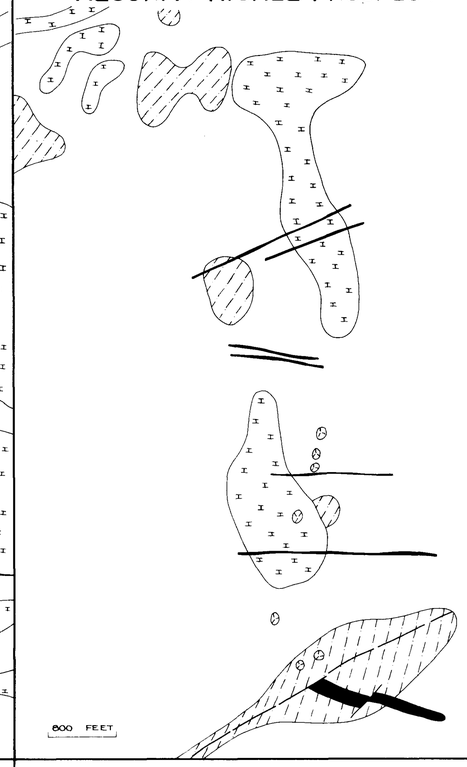
SOUTH BANK NICKEL PROSPECT



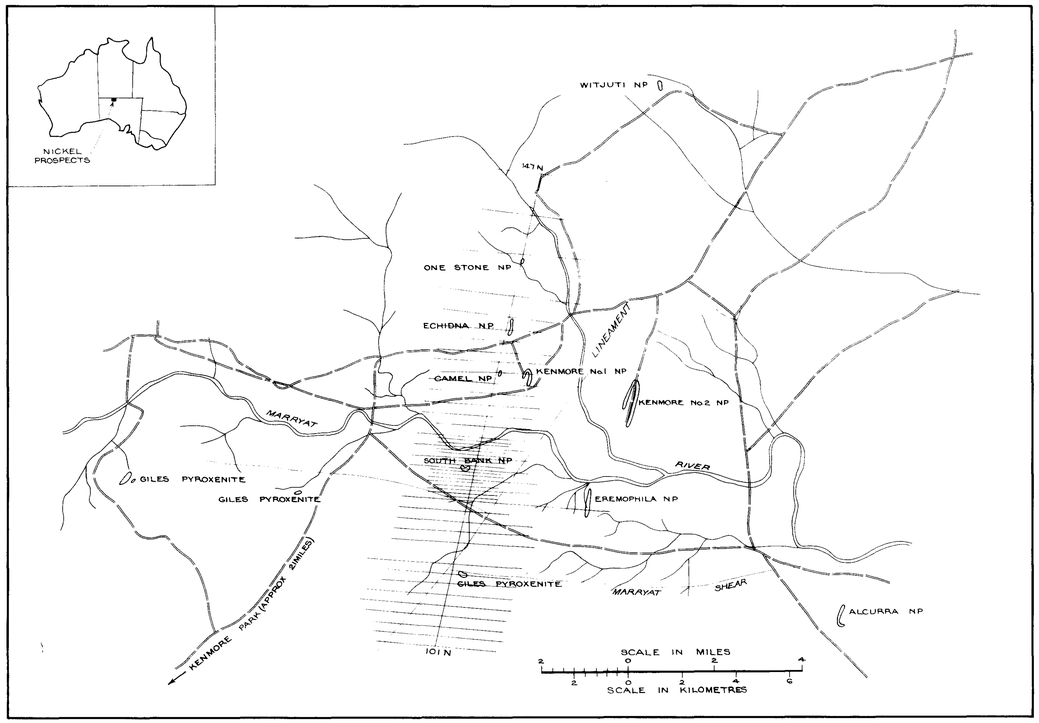
EREMOPHILA NICKEL PROSPECT



ALCURRA NICKEL PROSPECT



LOCALITY PLAN



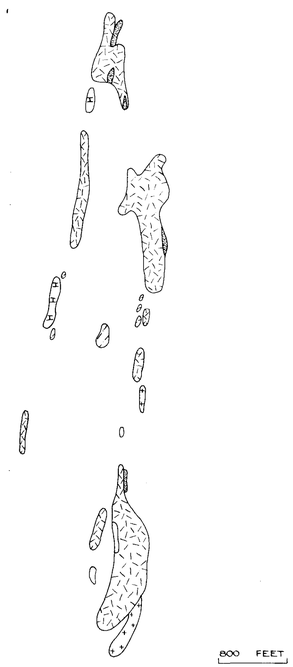
N

LEGEND

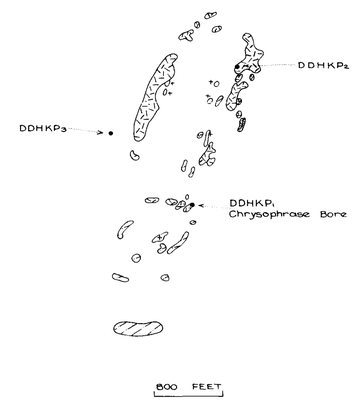
- Superficial limestone
- Dykes
- Serpentinite
- Pegmatite
- Feldspar Porphyry
- Granite
- Gneiss
- Adamellite
- Quartzite
- Basic granulite
- Quartz-feldspar gneiss

(ROCK INFLUENCED BY MARYATT)

KENMORE No. 2 NICKEL PROSPECT



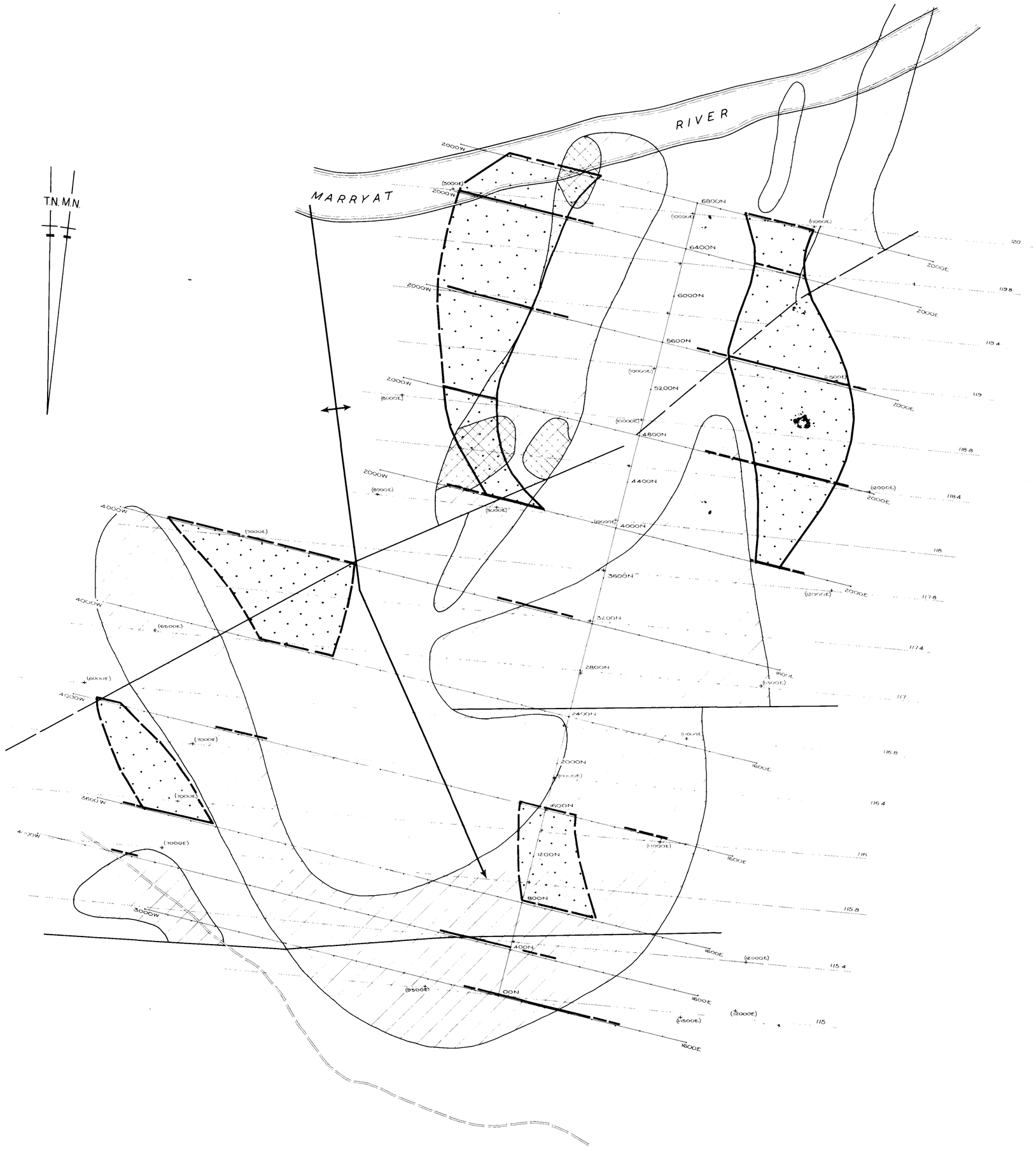
KENMORE No. 1 NICKEL PROSPECT



DEPARTMENT OF MINES — SOUTH AUSTRALIA

KENMORE NICKEL PROSPECTS LOCATION AND GEOLOGICAL PLANS

MINERAL RESOURCES SECTION	GEOLOGIST	Compiled C.CONOR	Scale: 800 ft to 1in.
			Date: 3 May 1971
Director of Mines	SUP. GEOLOGIST	Drn. SLT / Ckd.	Drg. No. 71-385 Aa



LEGEND

- Magnetically interpreted ultrabasic.
- Outcropping ultrabasic.
- Inferred shear (from magnetics).
- I.P. anomaly
- I.P. anomaly (weak)
- I.P. zone.
- Indicated position of existing grid.
- +(1150E) Existing peg with coordinate.
- 3200E New grid.
- Track.

NEW GRID BEARING 13° 03' (T)

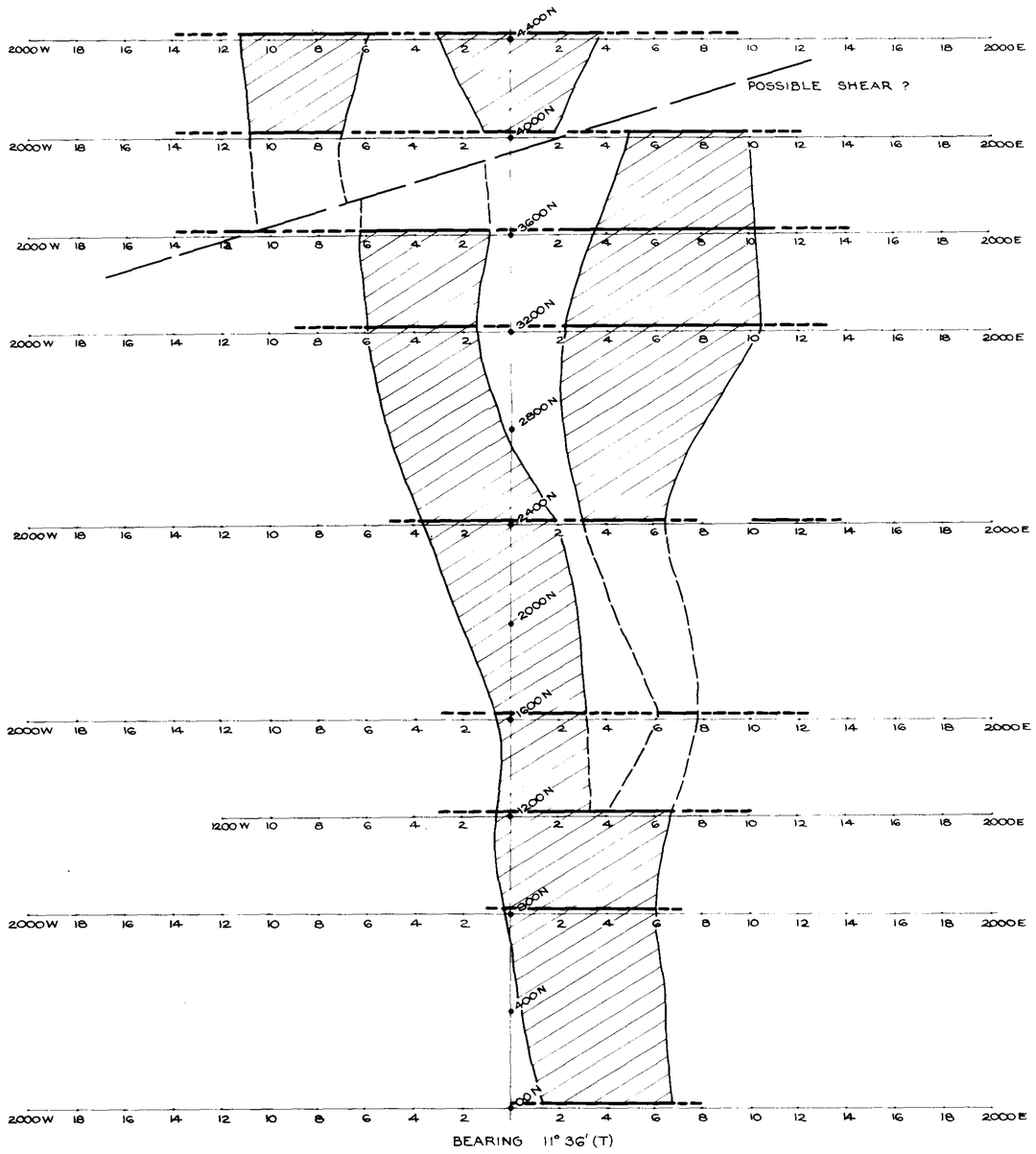
SCALE IN FEET
400 0 400 800 1200 1600 2000

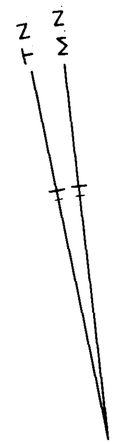
200 0 200 400 600
SCALE IN METRES

DEPARTMENT OF MINES – SOUTH AUSTRALIA

SOUTHBANK NICKEL PROSPECT
KENMORE 1 : 63360
MAGNETICALLY INTERPRETED GEOLOGY
WITH I.P ANOMALIES AND ZONES

		Compiled B Taylor	Scale: As above
			Date: 8th July 1971
Director of Mines		Drn. A.G.R.	Drg. No. 71-563 Aa
		Ckd.	





LEGEND

- 2000W 18 16 14 — Surveyed grid
- I.P. anomaly
- Weak I.P. anomaly
- I.P. zone
- Possible correlation of I.P. zone

SCALE IN FEET

400 0 400 800 1200 1600

200 0 200 400

SCALE IN METRES

DEPARTMENT OF MINES — SOUTH AUSTRALIA

EREMOPHILA NICKEL PROSPECT KENMORE 1:63360 MAP SHOWING GRID, I.P. ANOMALIES AND I.P. ZONES

GEOPHYSICS SECTION		Drn. BT	SCALE: AS SHOWN
	GEOLOGIST	Trd. SLT	71-586 Ag
		Ckd.	
Director of Mines	SEN. GEOLOGIST	Exd.	DATE: 14 JULY 1971