

Fig. II -2-22(2) Chargeability pseudo-sections in Zuha area

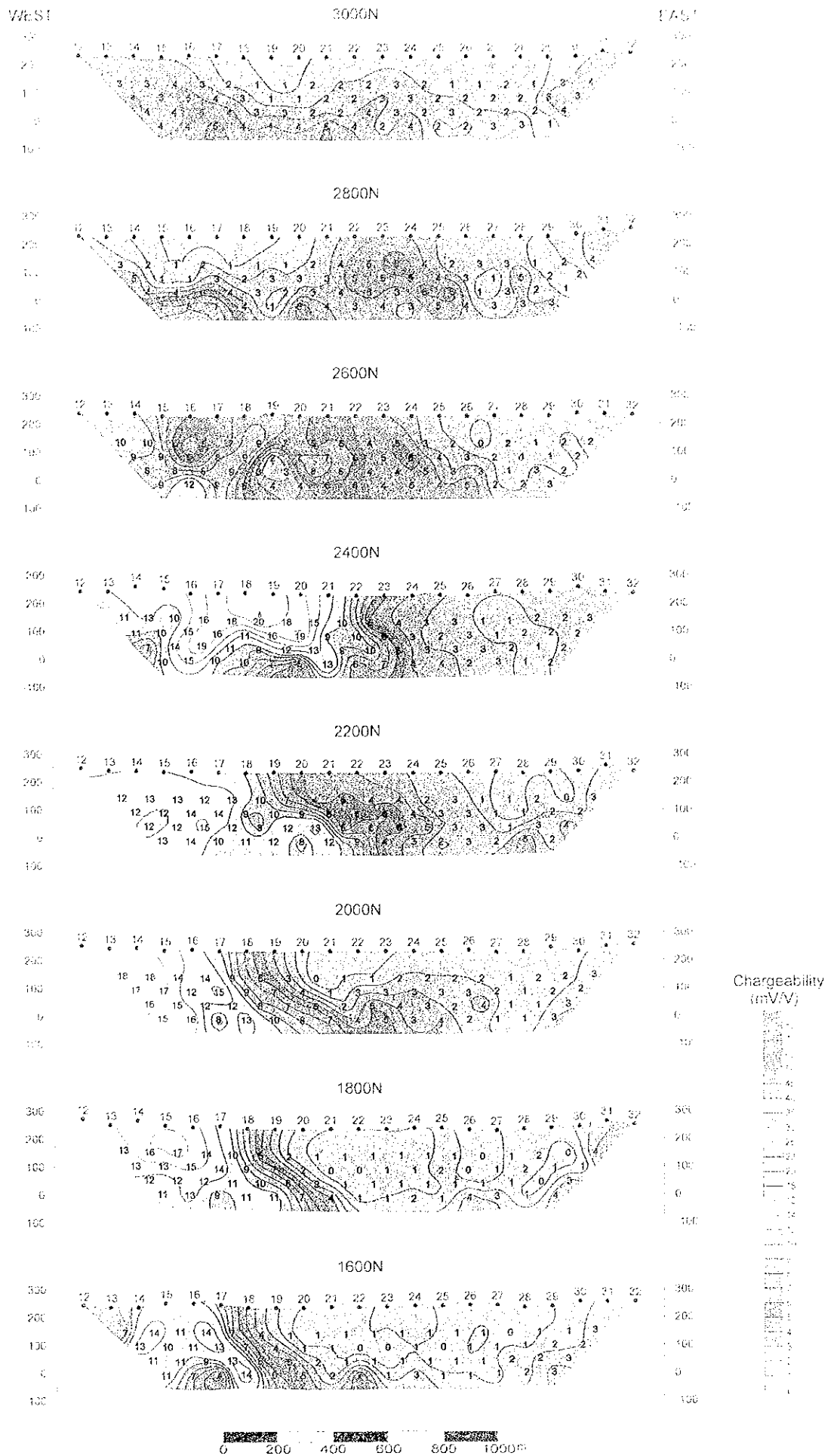


Fig. II-3-22(2) Chargeability pseudo-sections in Zuha area

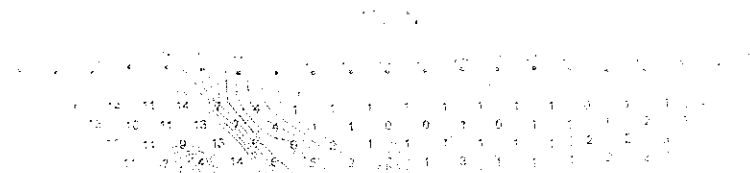
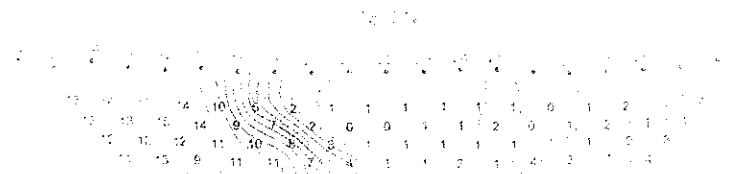
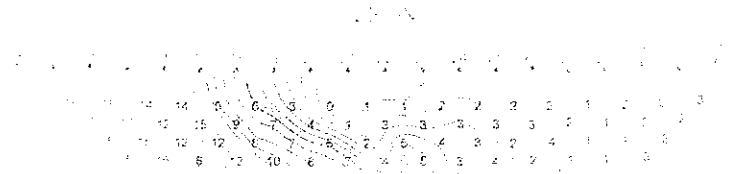
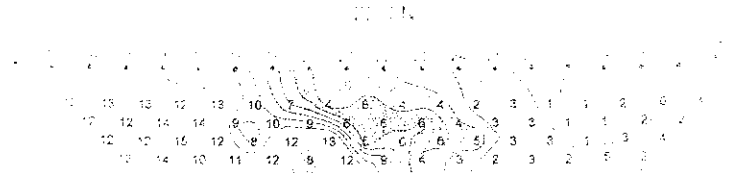
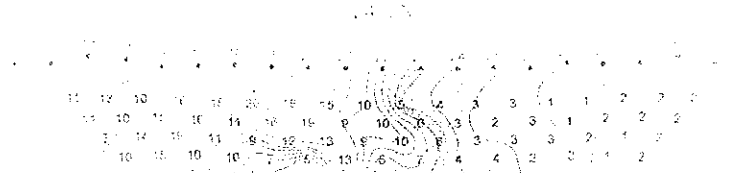
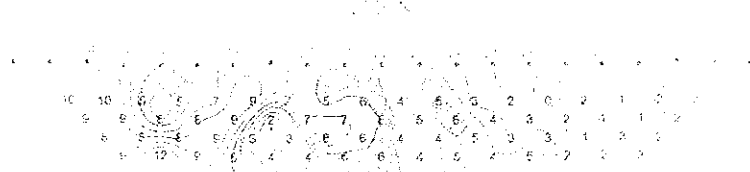
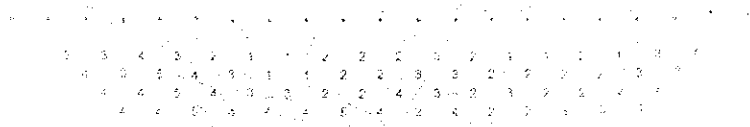
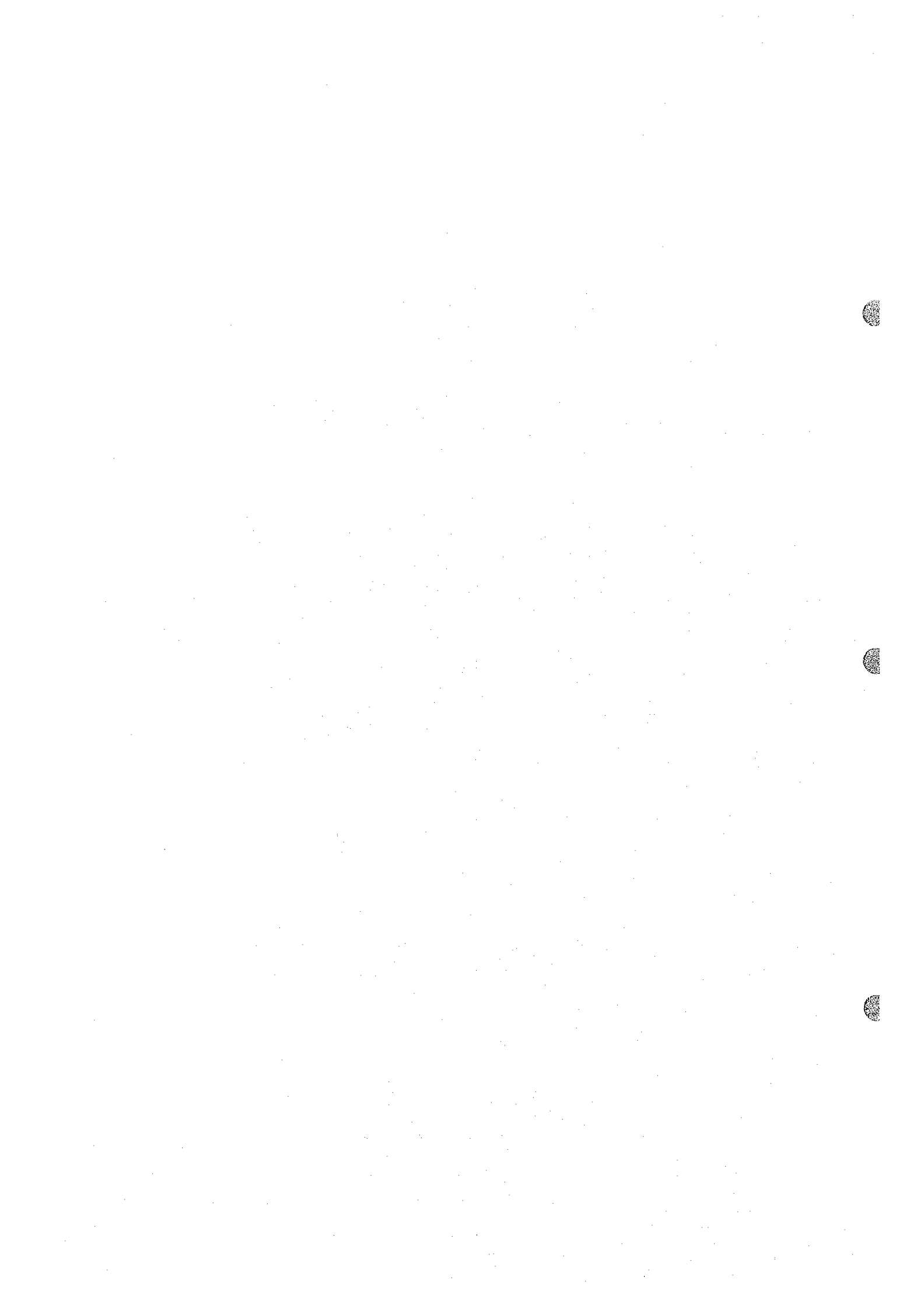


Figure 1 Figure 2 Figure 3

Figure 4 Figure 5 Figure 6 Figure 7 Figure 8



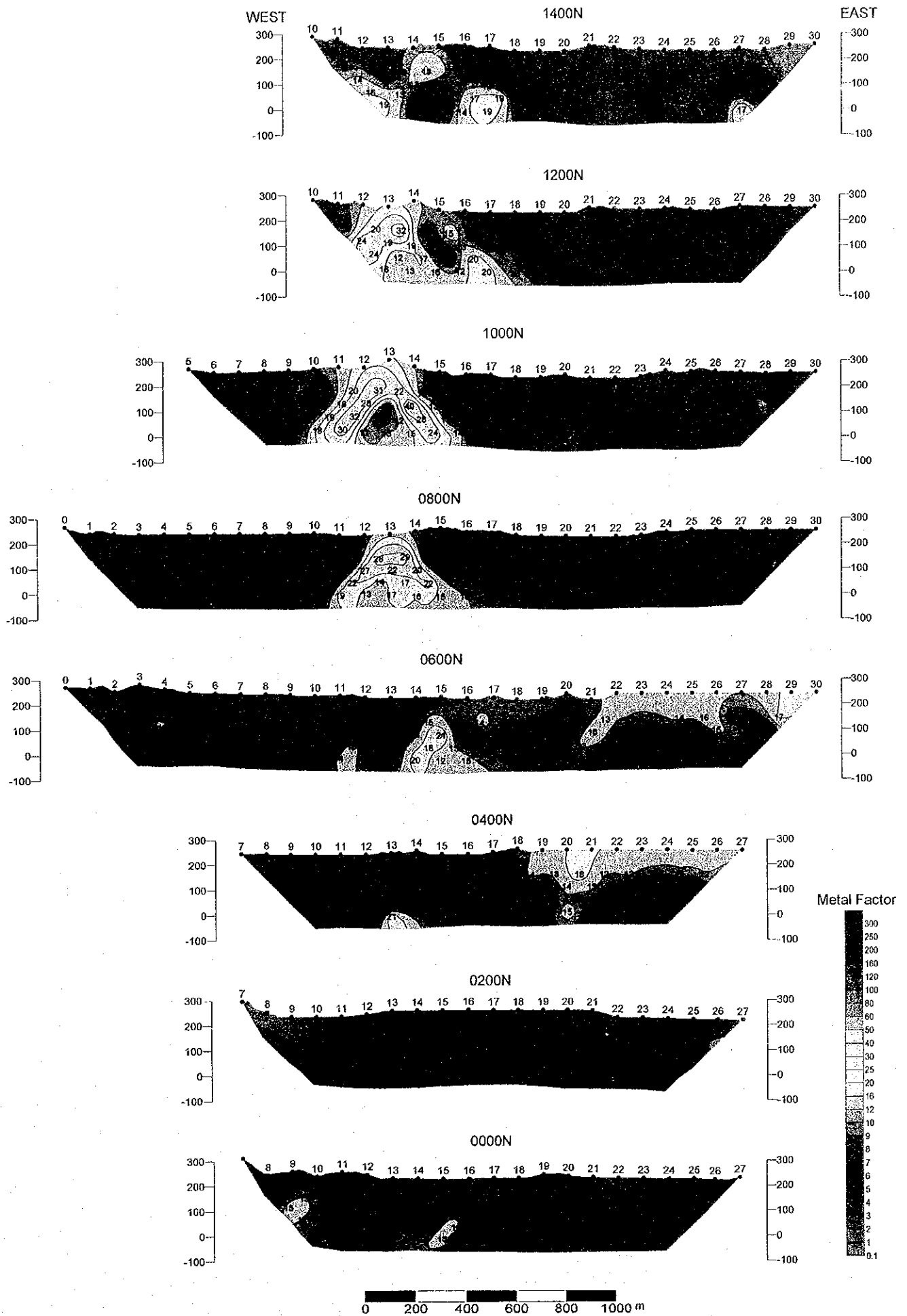


Fig. II -2-23(1) Metal factor pseudo-sections in Zuha area

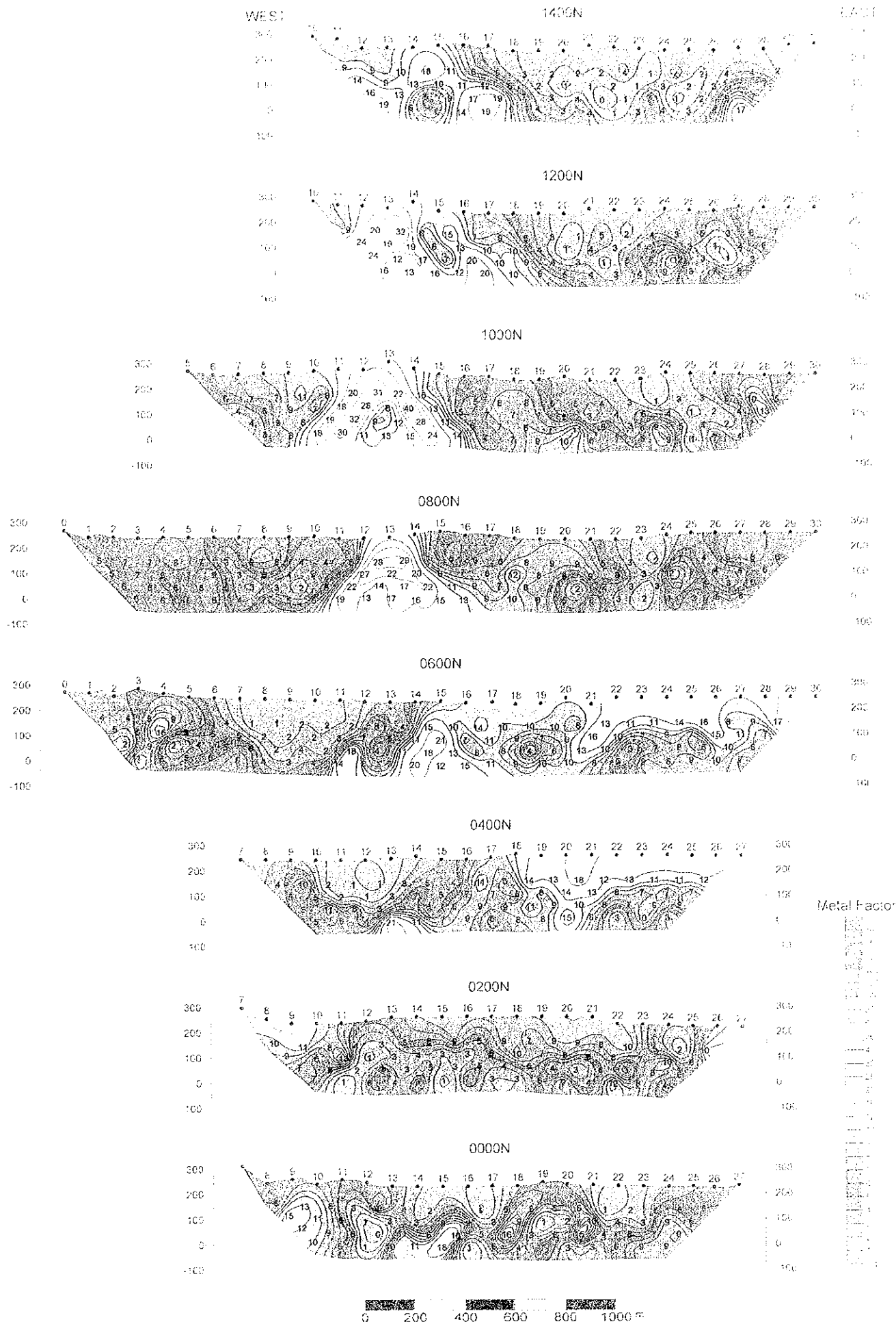


Fig. II-2-23(1) Metal factor pseudo-sections in Zuiha area

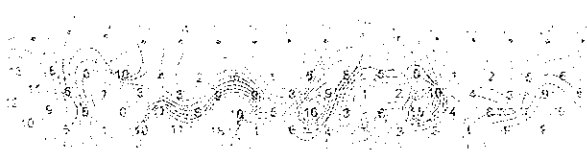
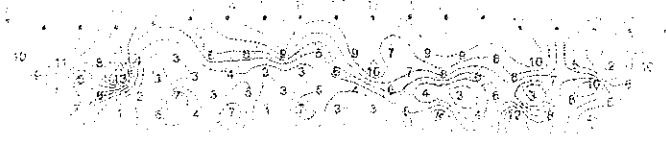
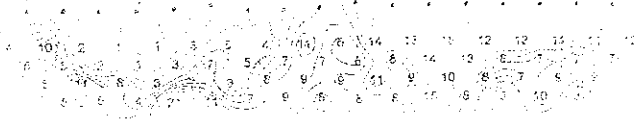
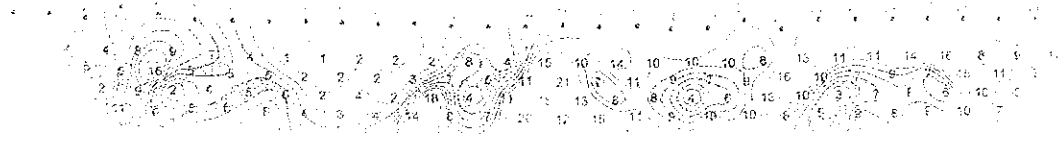
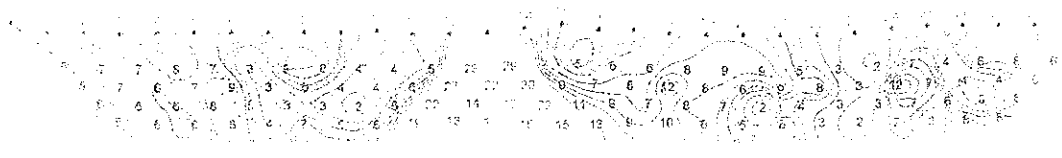
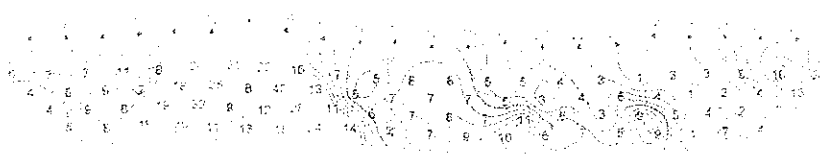
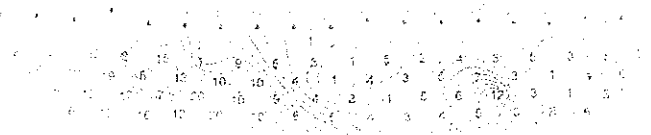
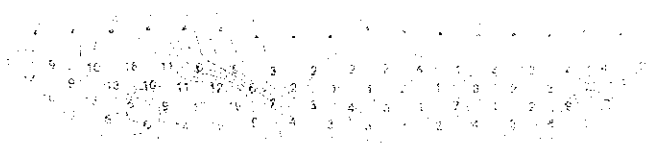
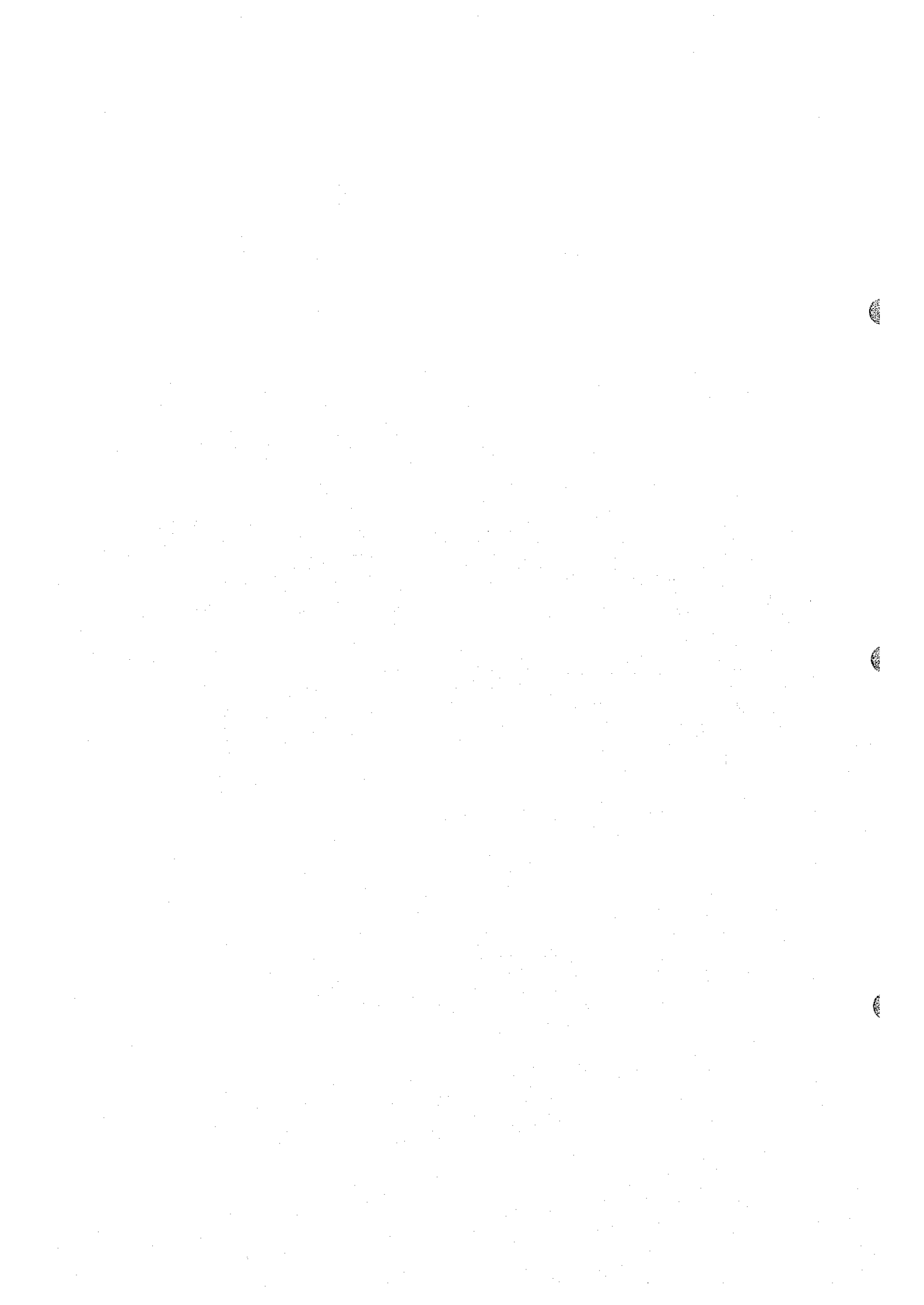


Figure 1 Figure 2 Figure 3

Figure 4 Figure 5 Figure 6 Figure 7 Figure 8





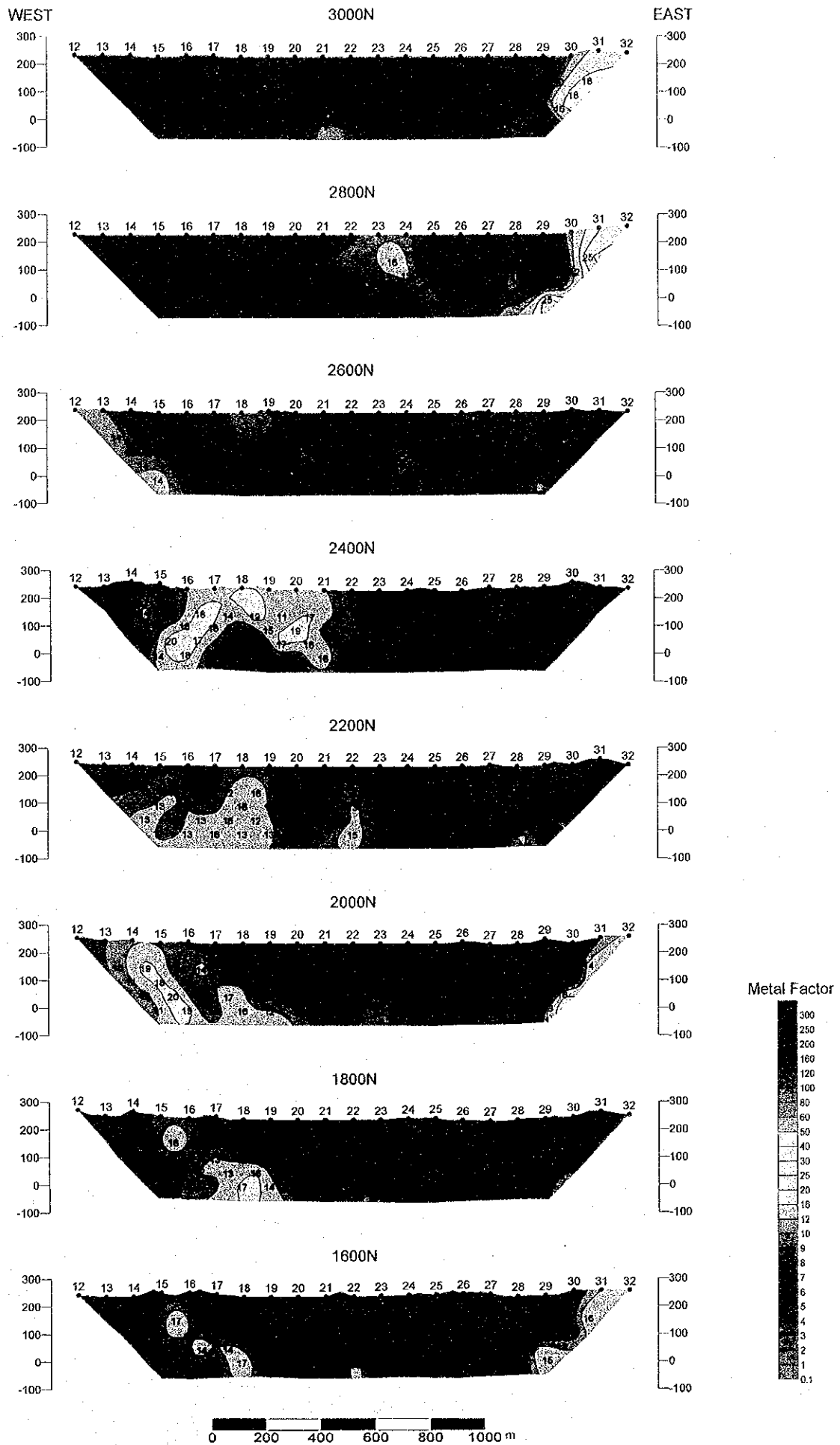


Fig. II -2-23(2) Metal factor pseudo-sections in Zuha area

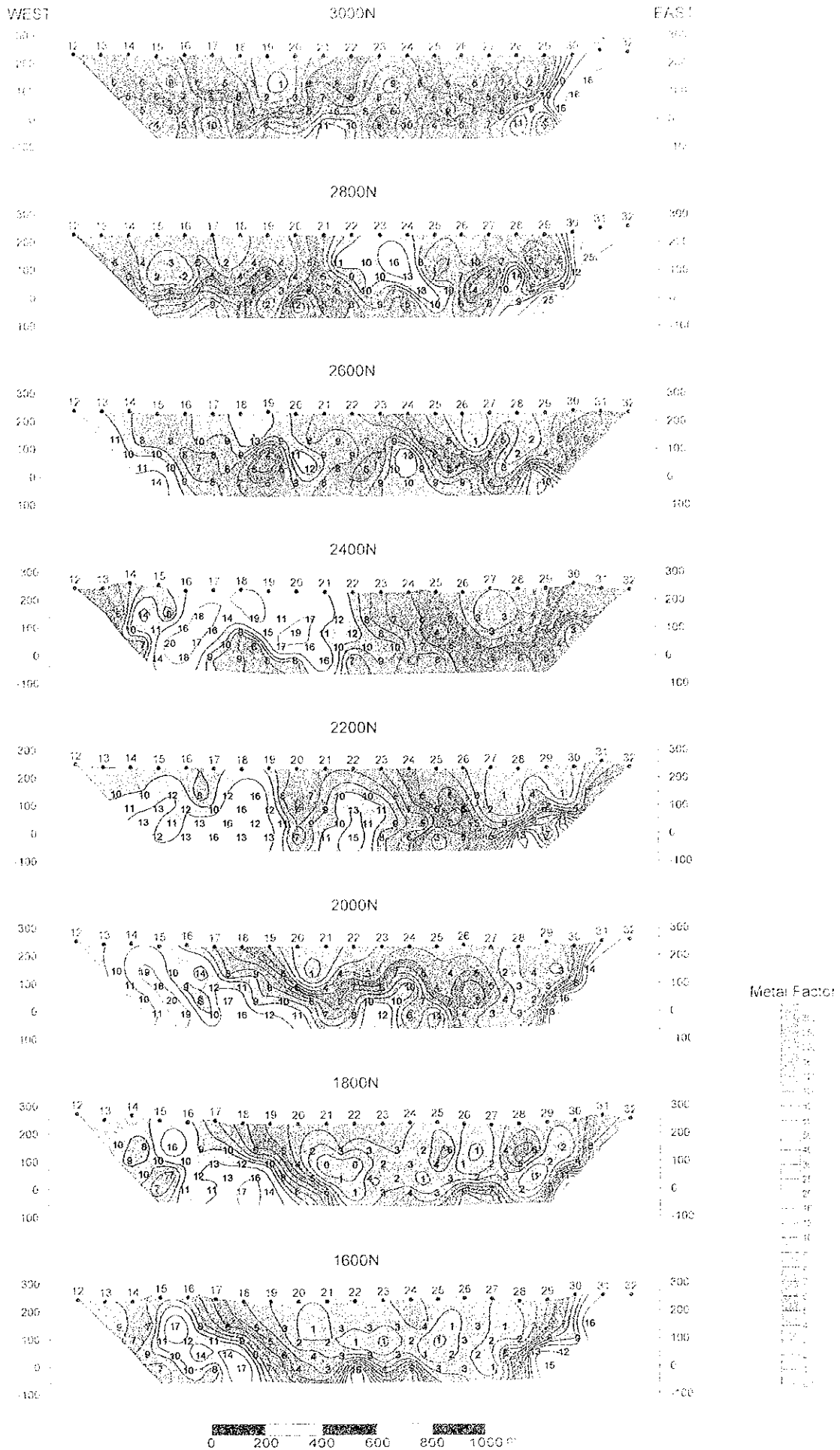
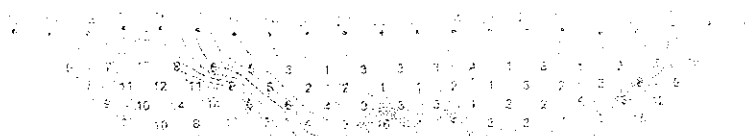
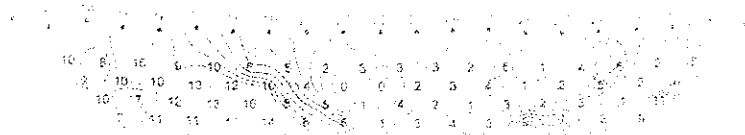
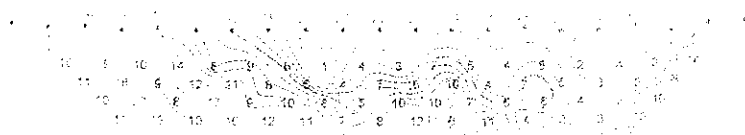
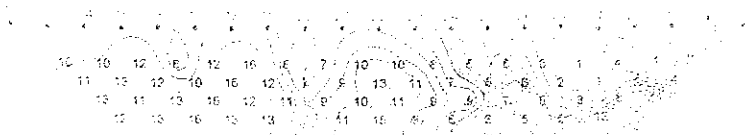
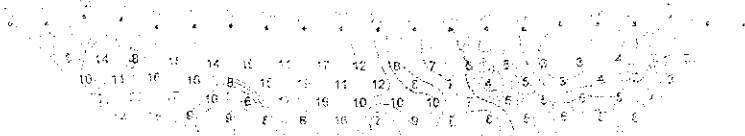
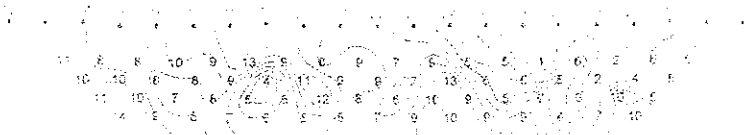
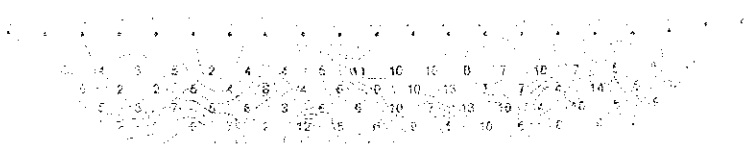
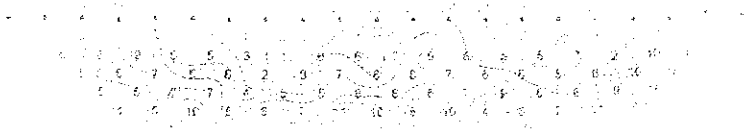


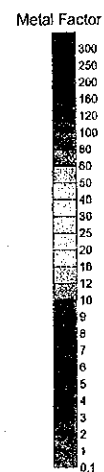
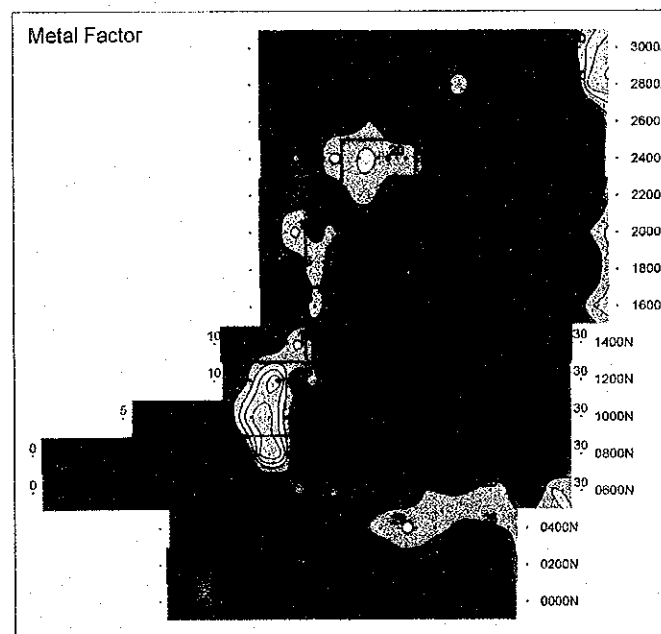
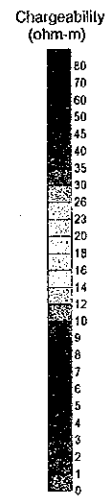
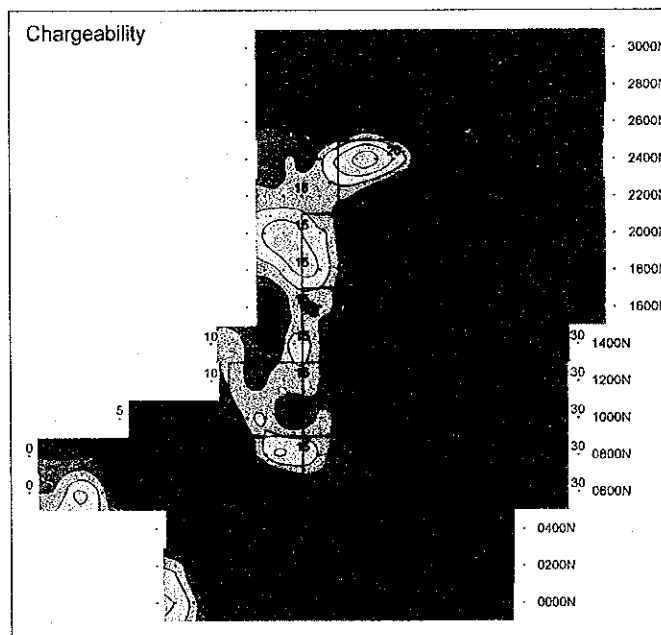
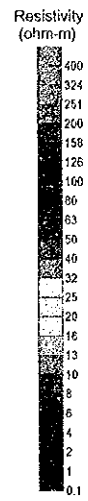
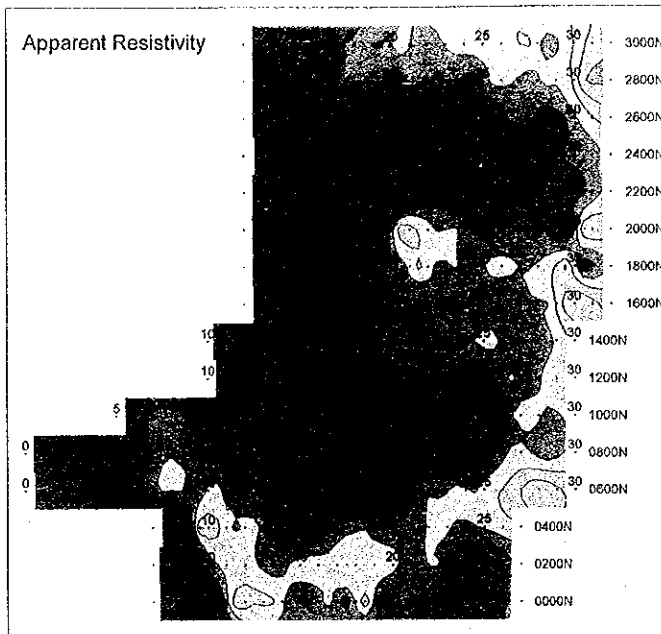
Fig. II-2-23(2) Metal factor pseudo-sections in Zaha area



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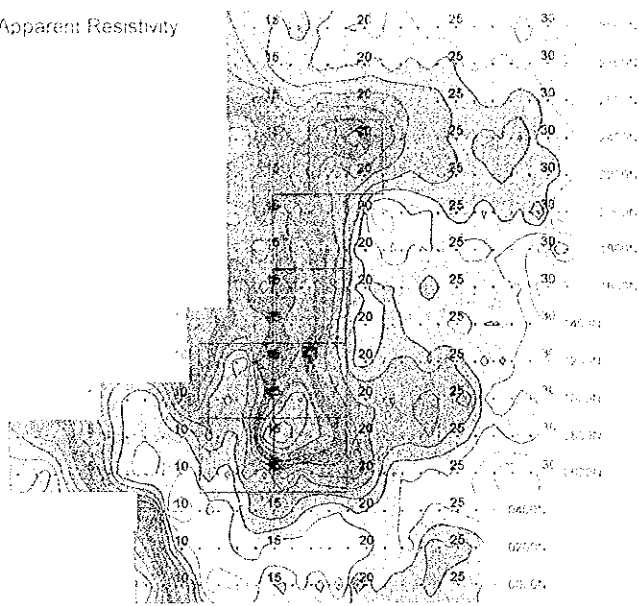


- : Borehole
- : TEM Survey area

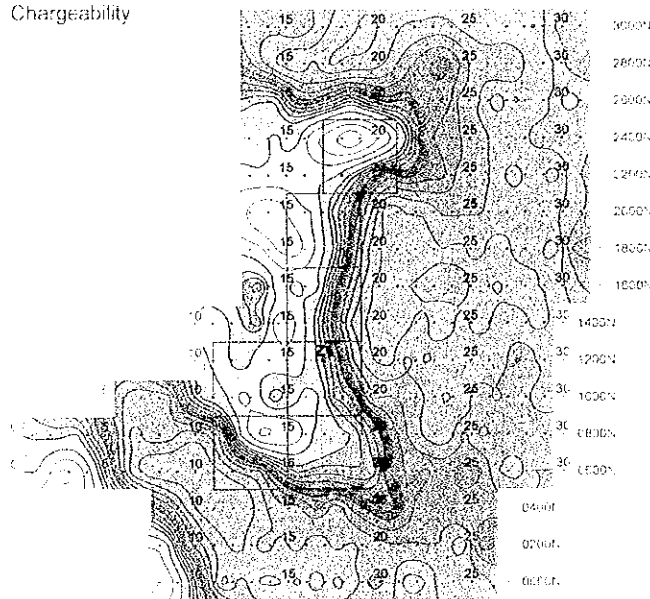


Fig. II -2-24 IP plane map of  $n=1$  in Zuha area

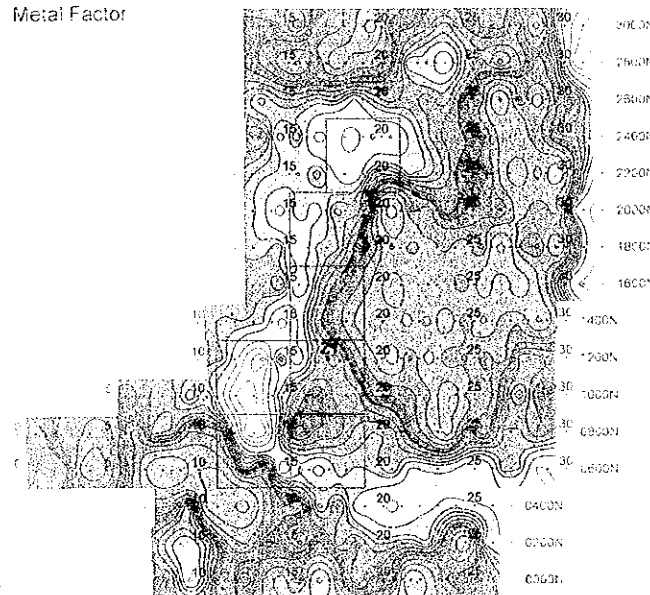
Apparent Resistivity



Chargeability



Metal Factor



◊ Borehole  
 □ TEM Survey area

Fig. II-2-24 IP plane map of  $n=1$  in Zuha area

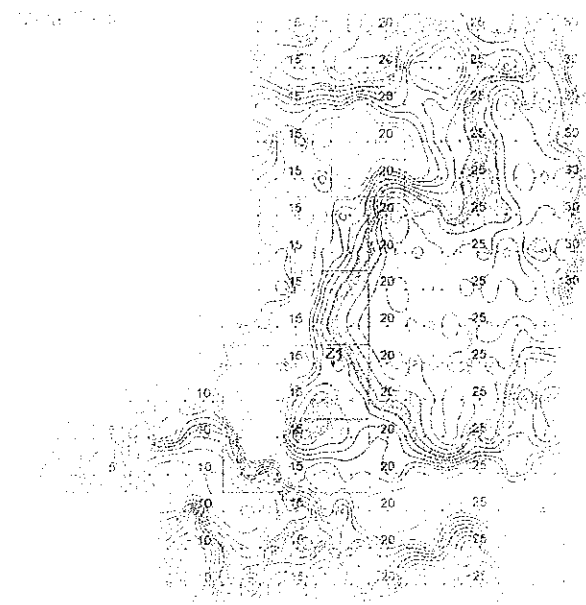
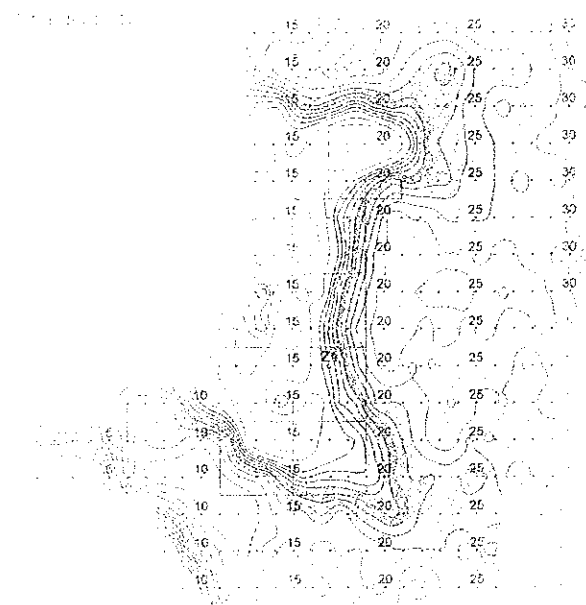
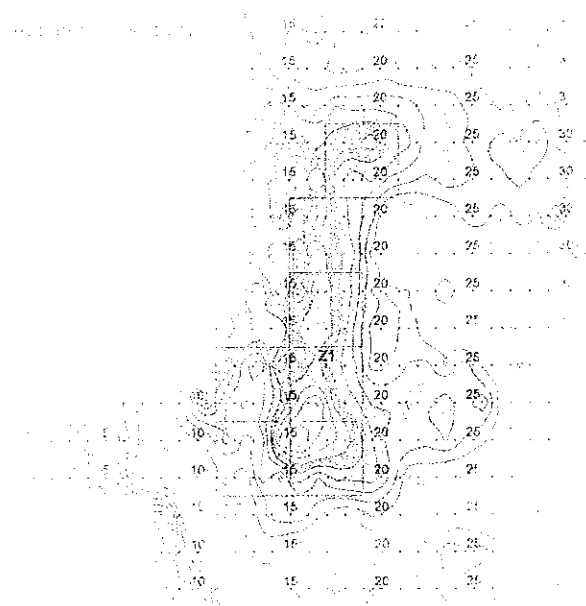
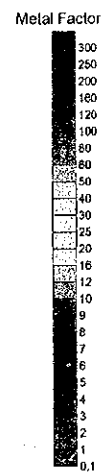
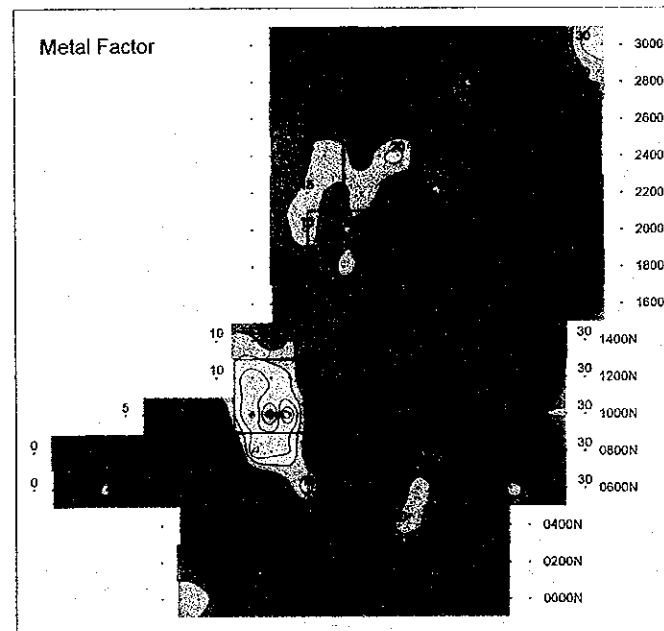
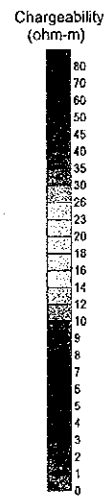
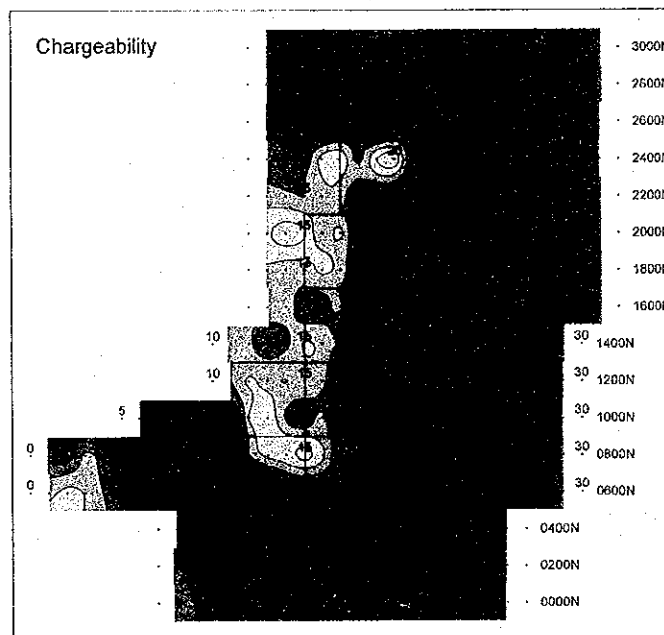
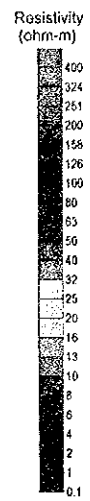
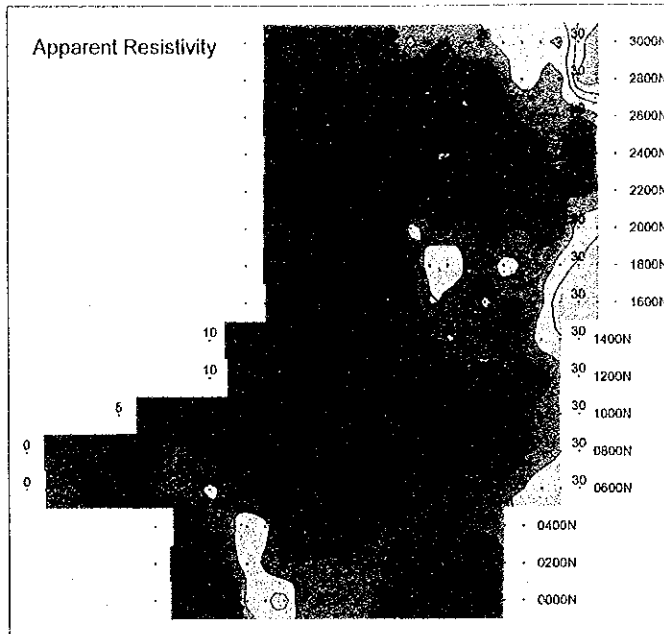


Figure 1: Contour plots of a function with a central peak.







• : Borehole  
□ : TEM Survey area

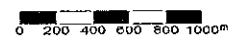


Fig. II -2-25 IP plane map of n=2 in Zuha area

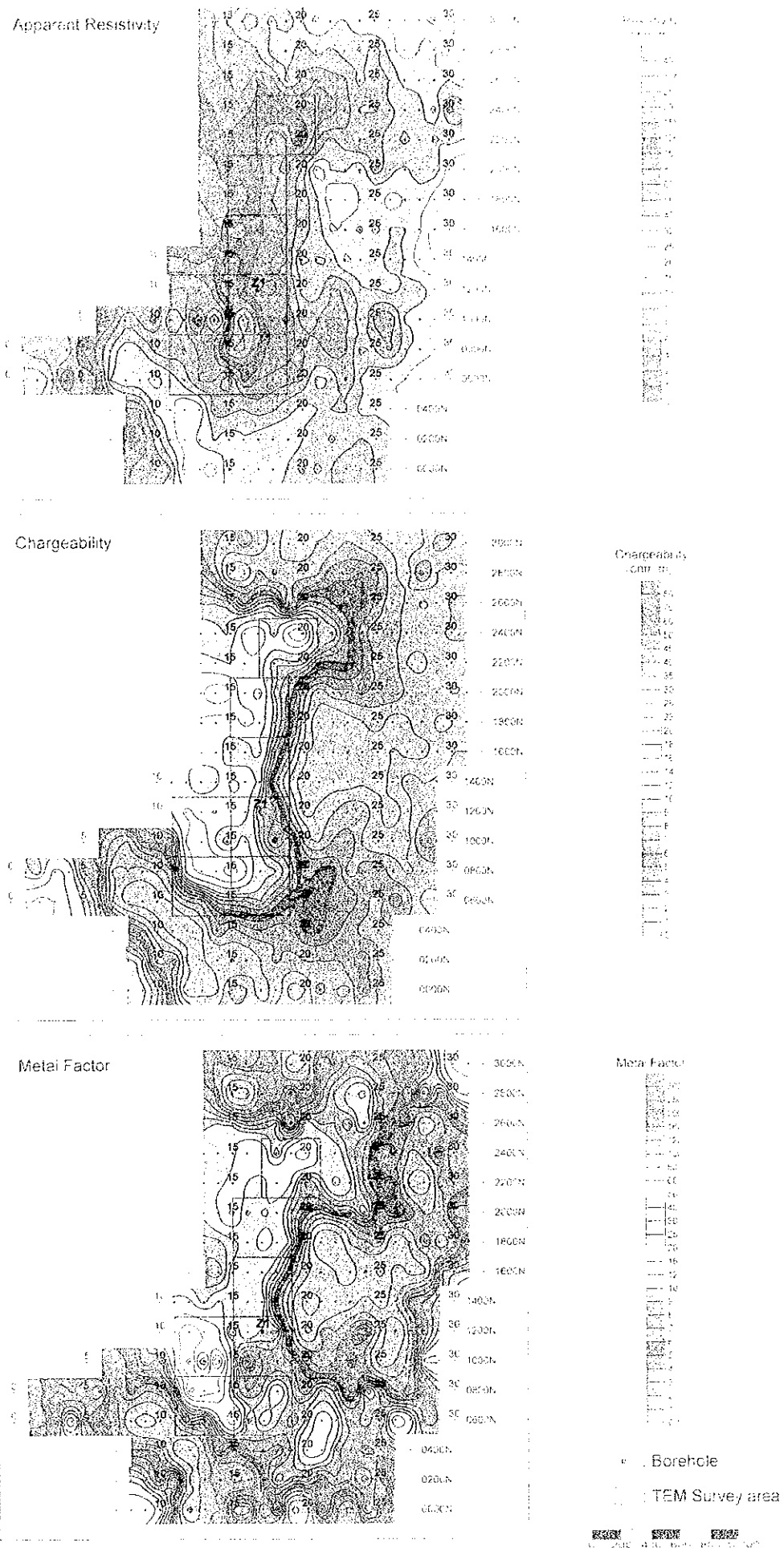


Fig. II -2-25 IP plane map of n=2 in Zuha area

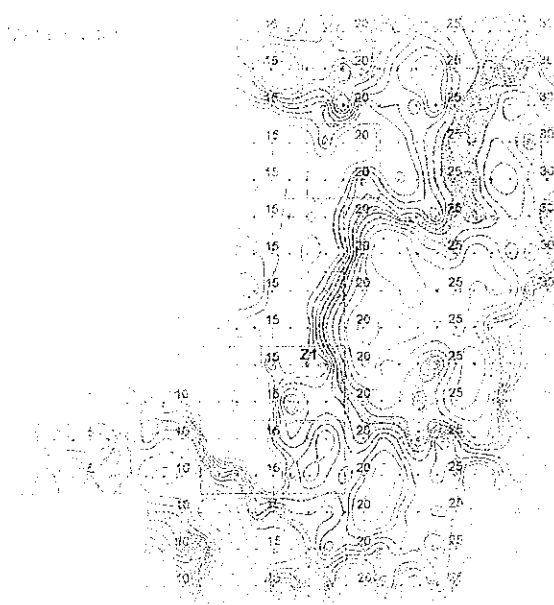
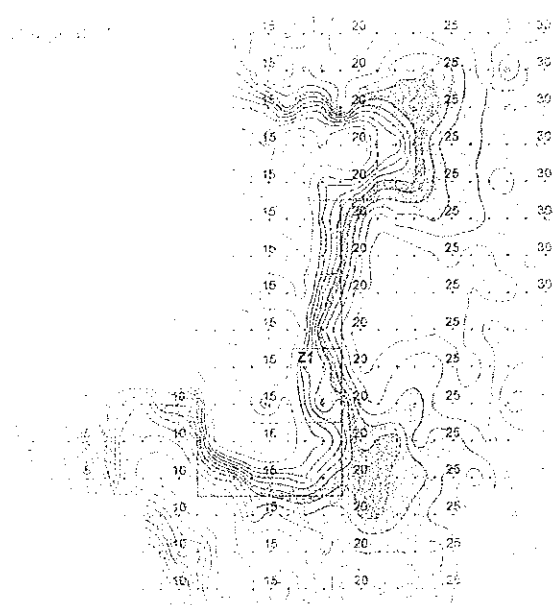
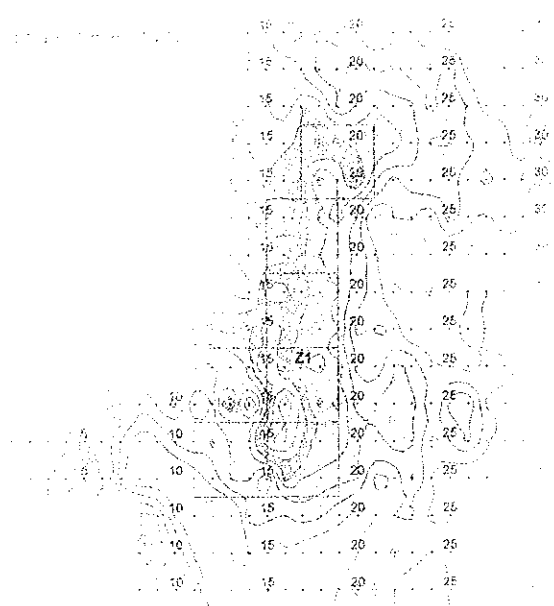
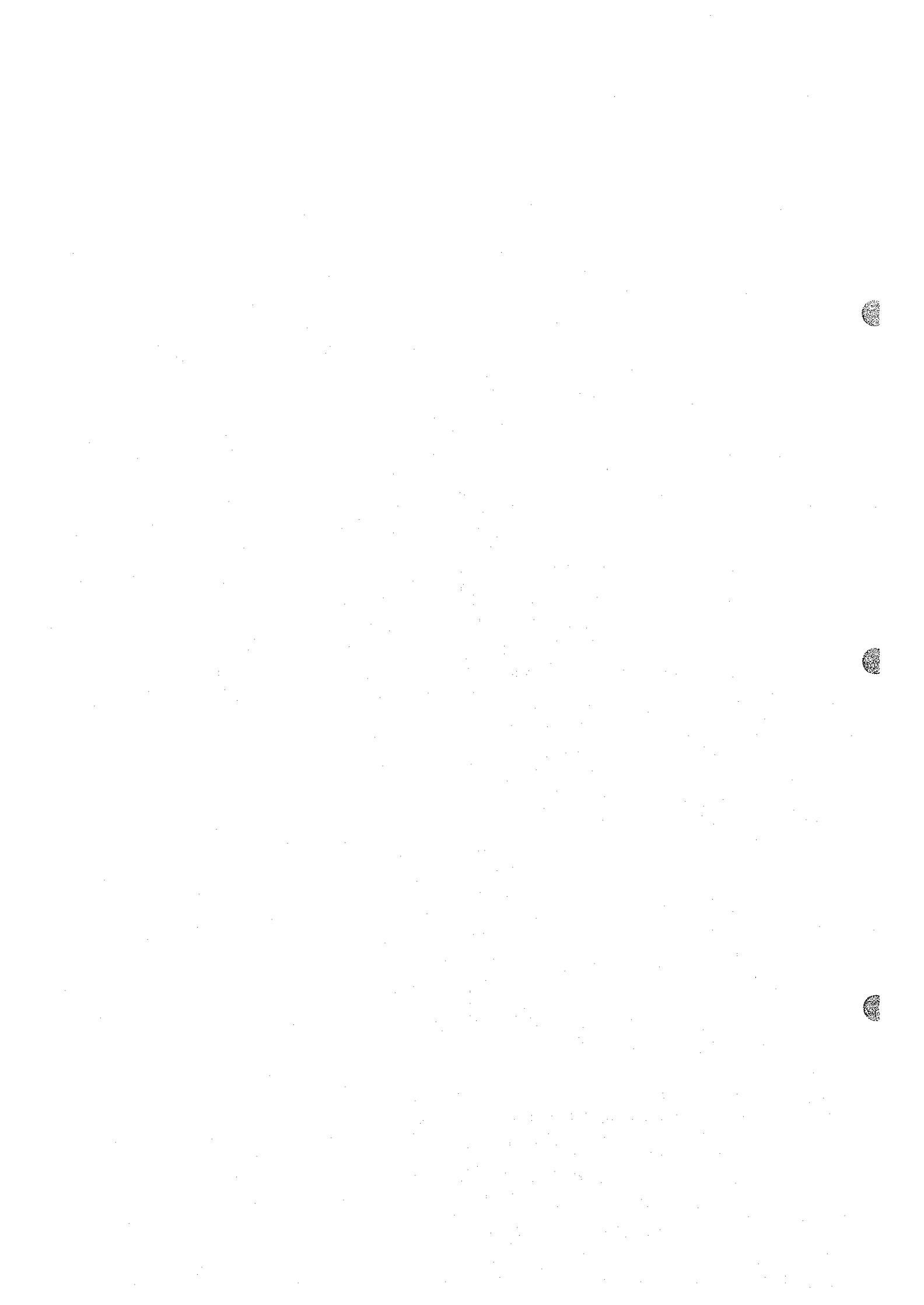


Figure 1.25: Topographic maps for the 2D problem.



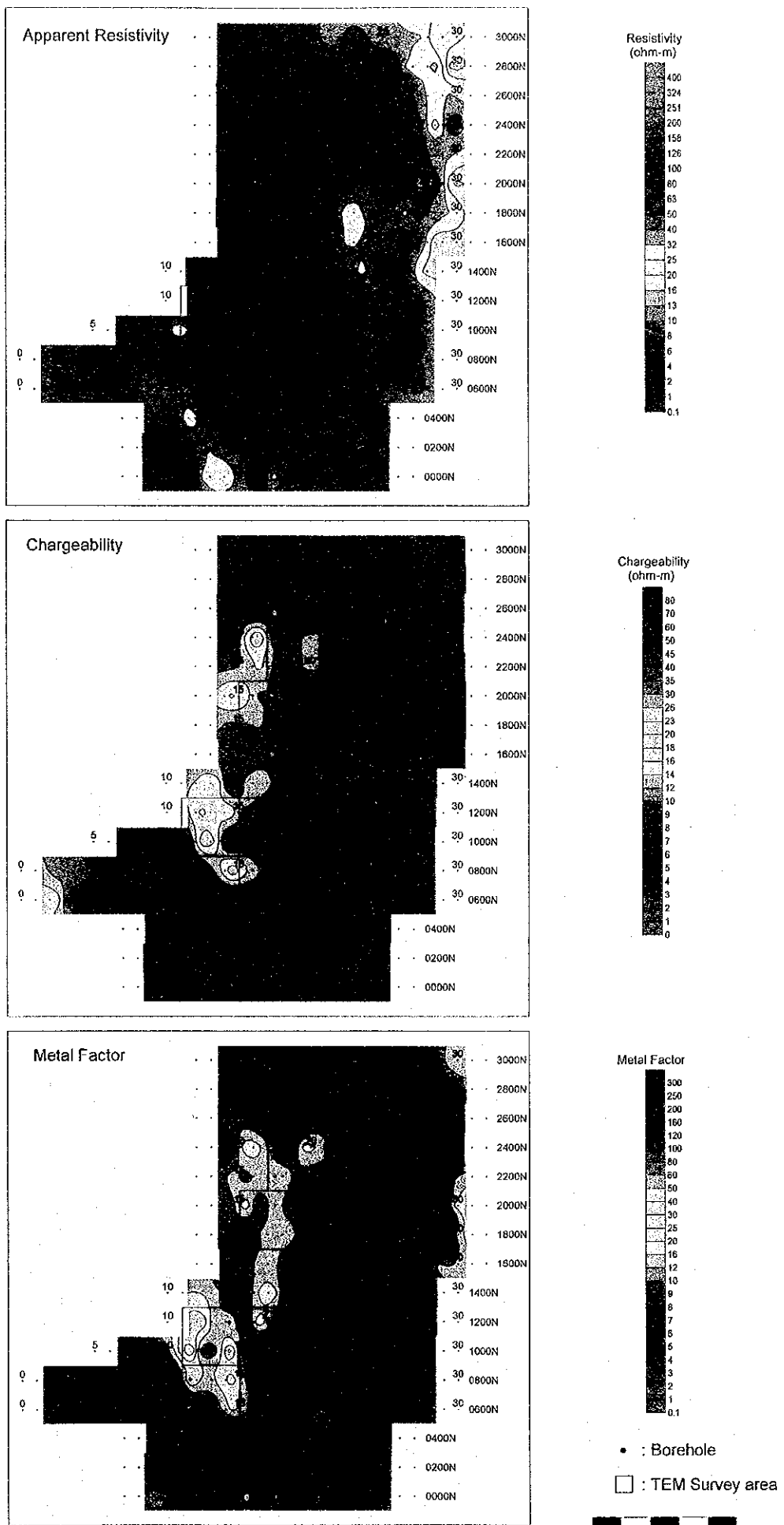


Fig. II-2-26 IP plane map of n=3 in Zuha area

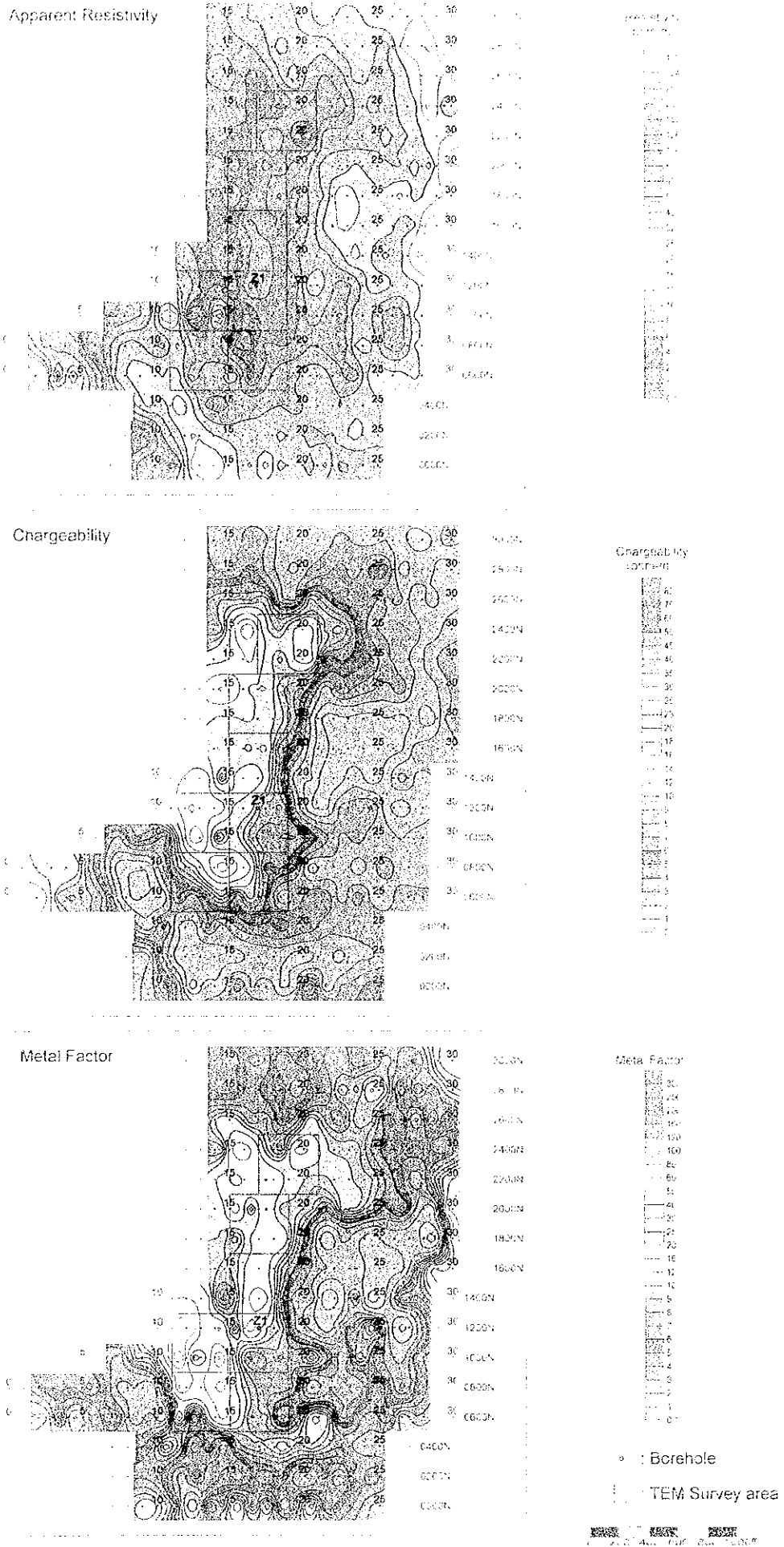


Fig. II-2-26 IP plane map of  $n=3$  in Zuha area

Figure 10: 1000 ft

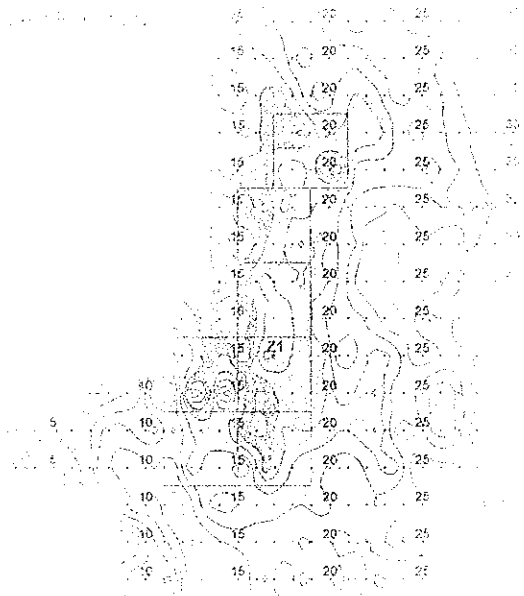


Figure 11: 1000 ft

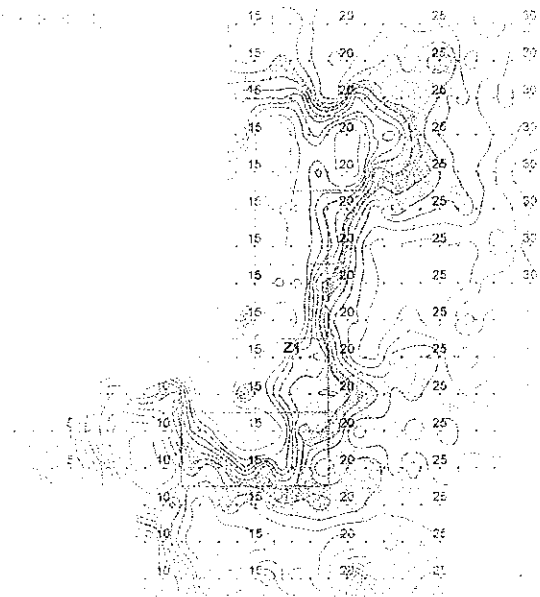
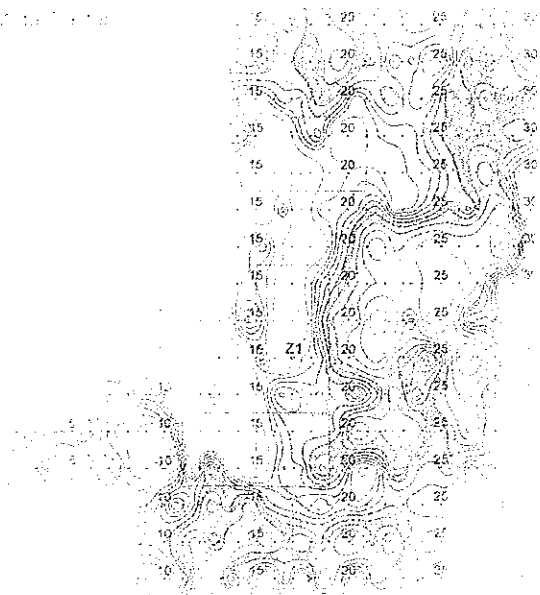
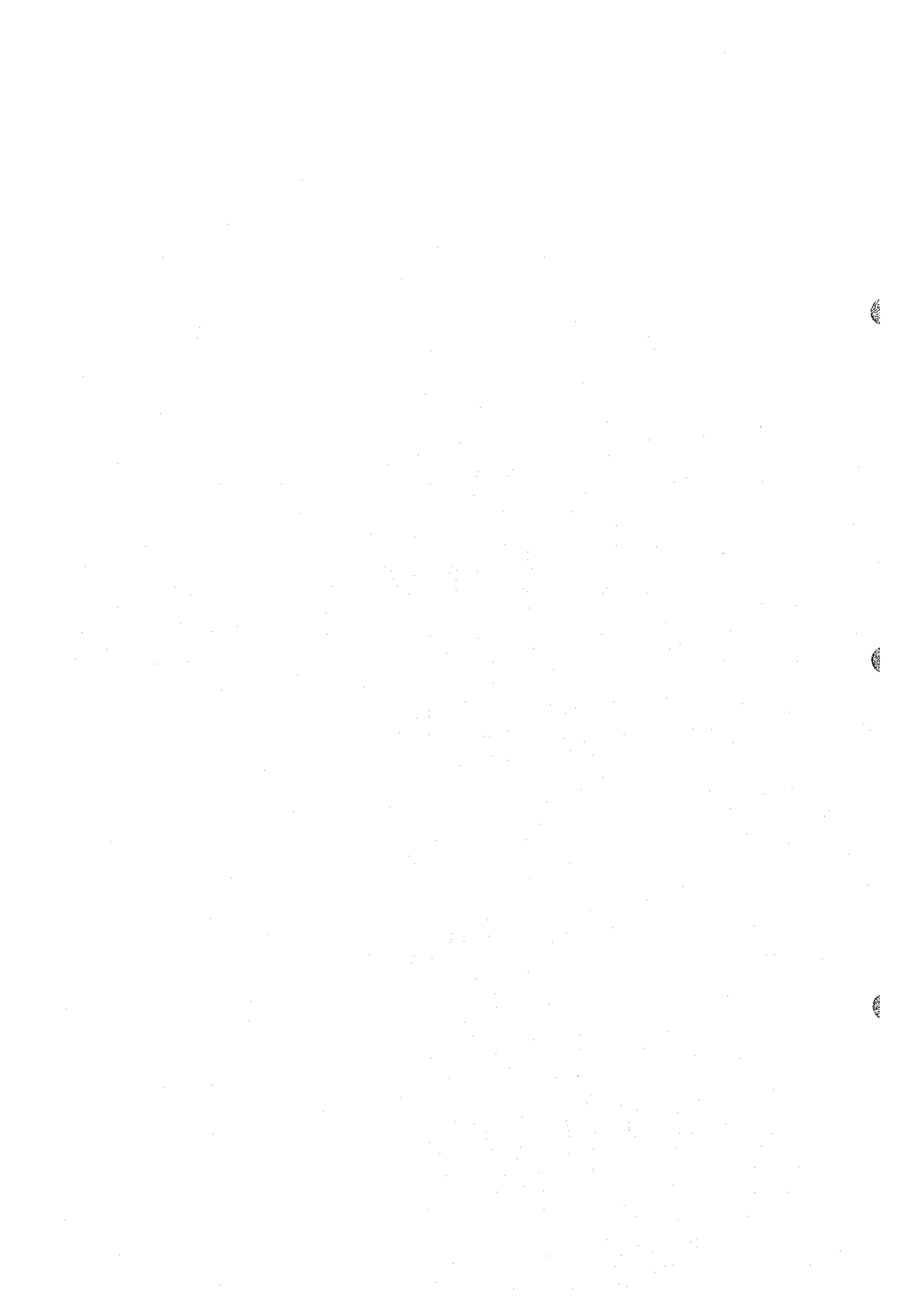
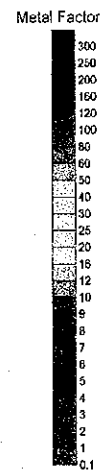
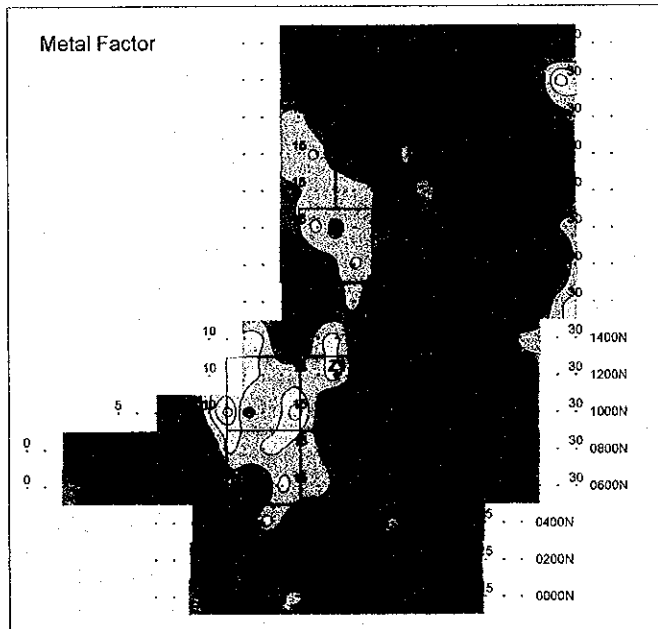
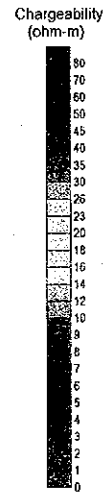
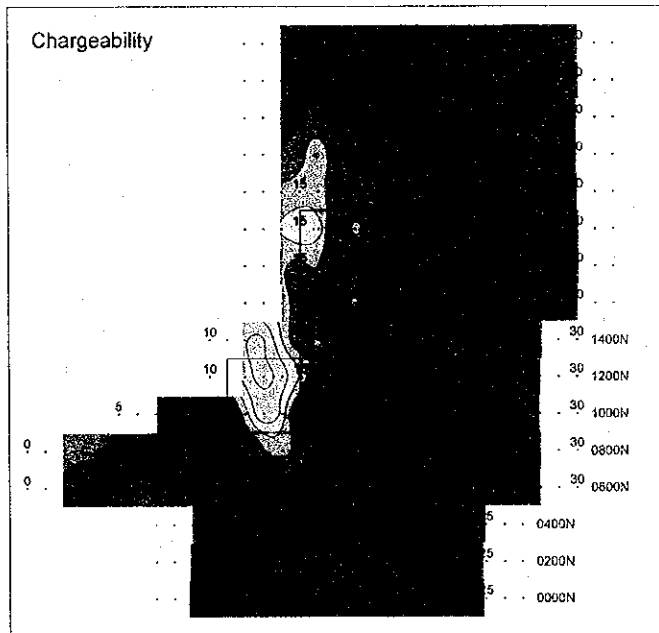
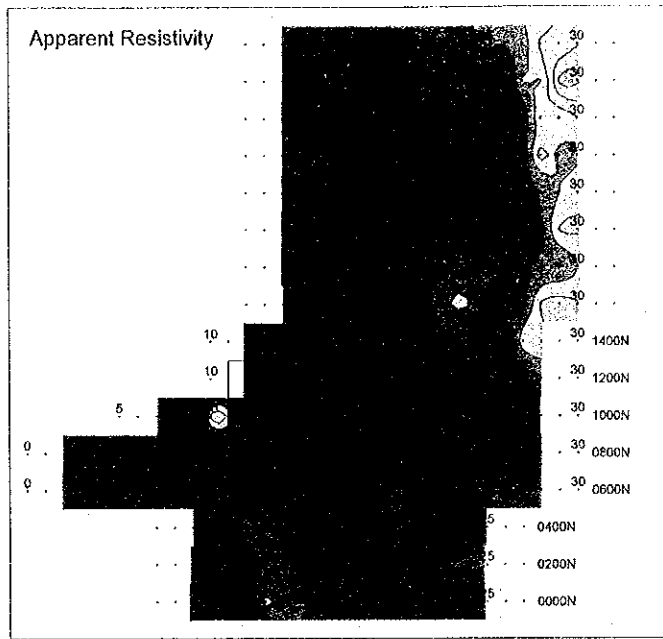


Figure 12: 1000 ft









- : Borehole
- : TEM Survey area

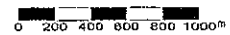
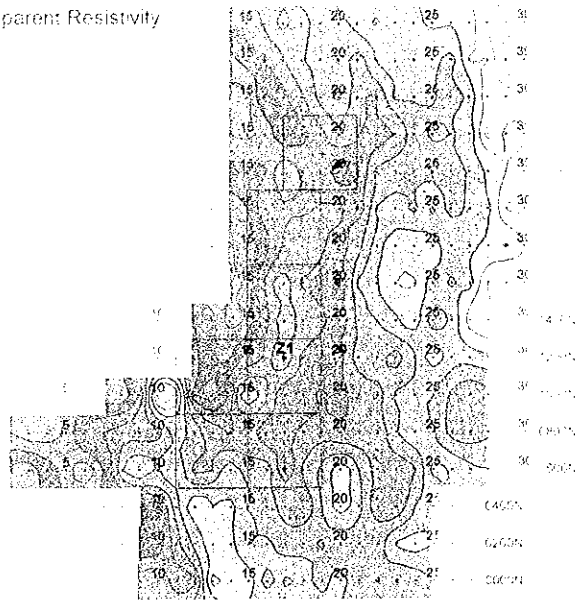
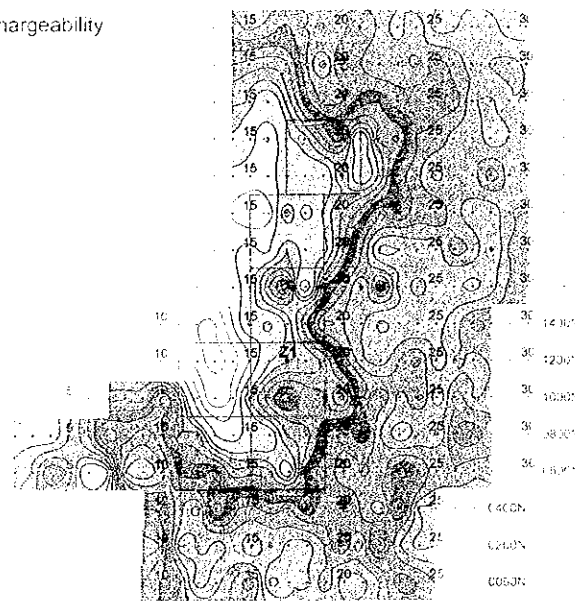


Fig. II -2-27 IP plane map of n=4 in Zuha area

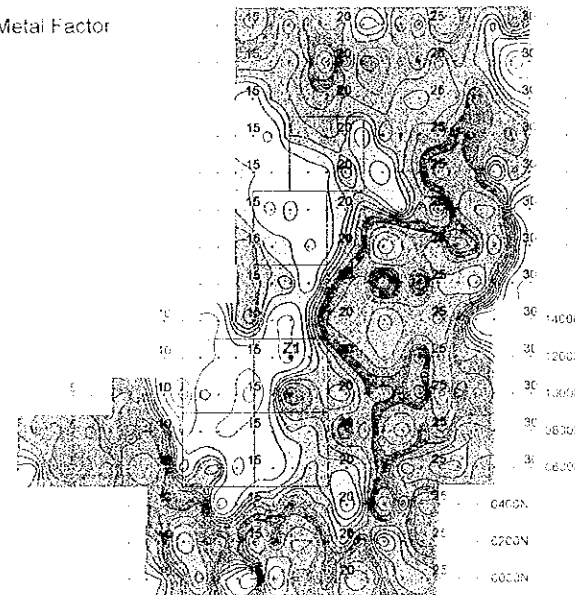
Apparent Resistivity



Chargeability



Metal Factor



• Borehole  
 □ TEM Survey area

Fig. II-2-27 IP plane map of n=4 in Zuha area

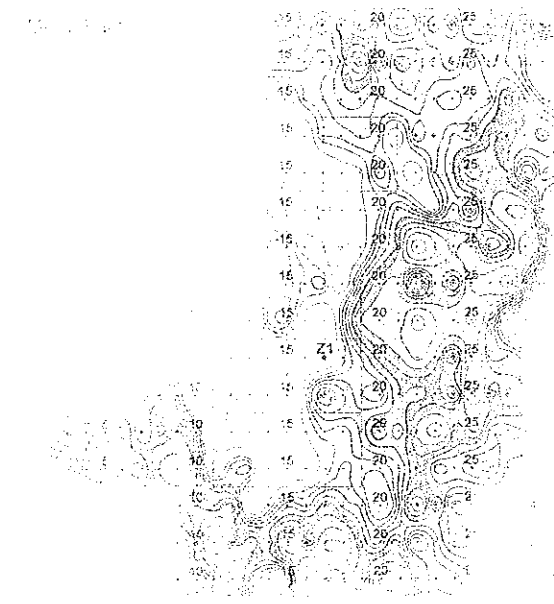
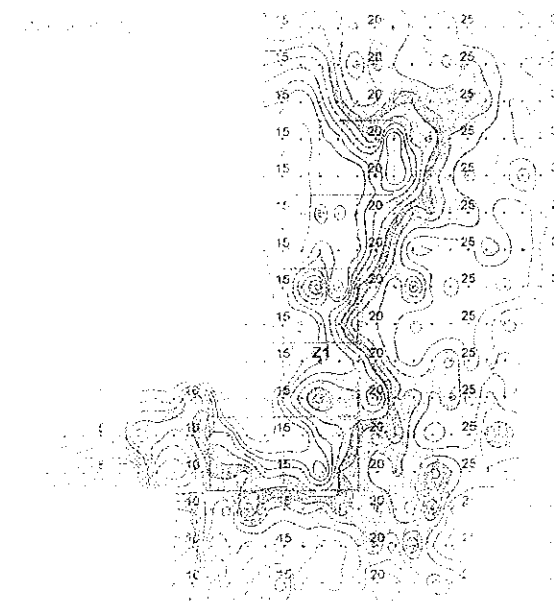
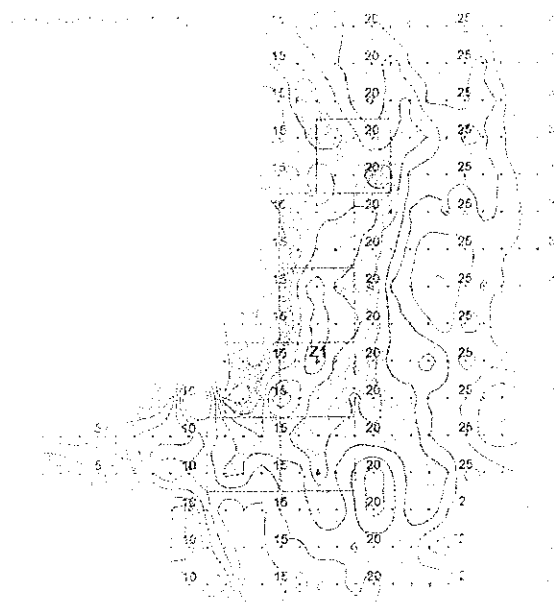
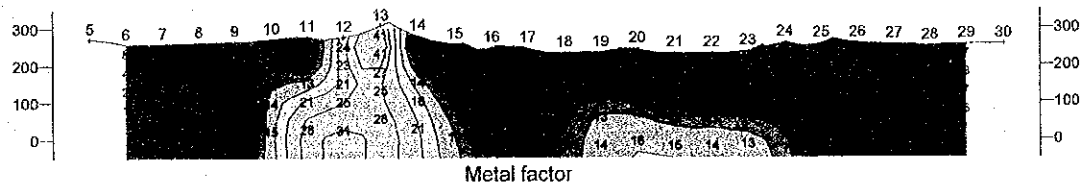
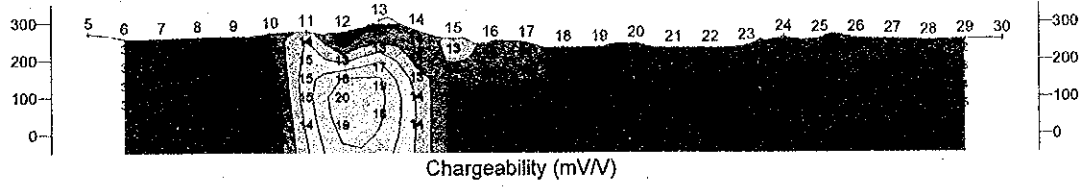
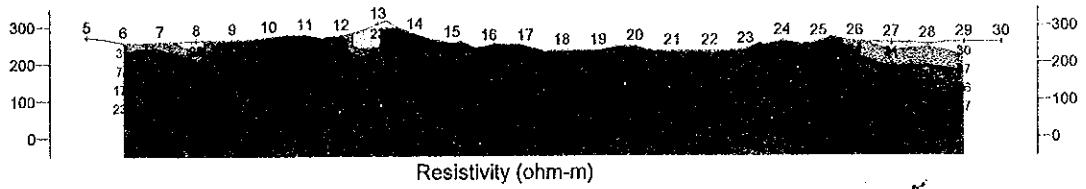


Figure 2.2.2. Topographic map of the Z1 area.

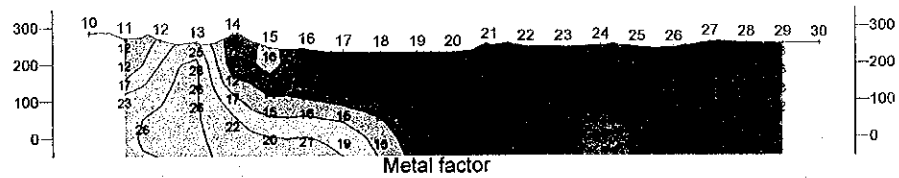
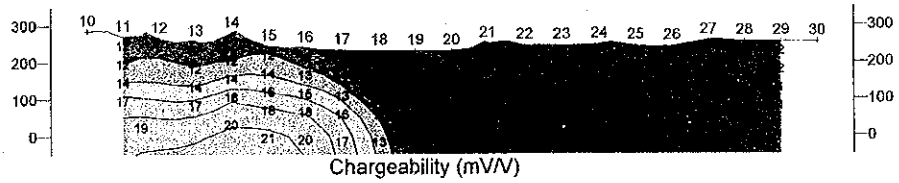
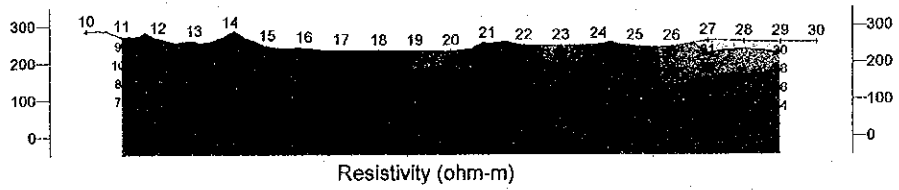


West

East



Line 1000N



Line 1200N

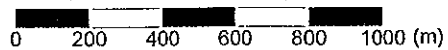
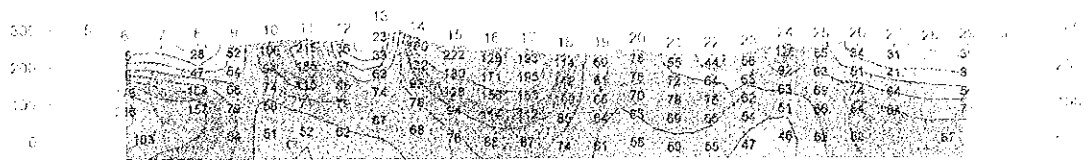


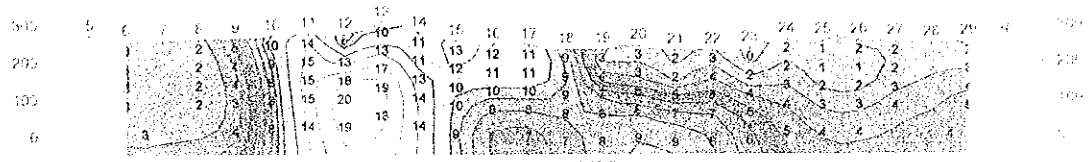
Fig. II-2-28 IP 2D model simulation on lines 1000N and 1200N in Zuha area

West

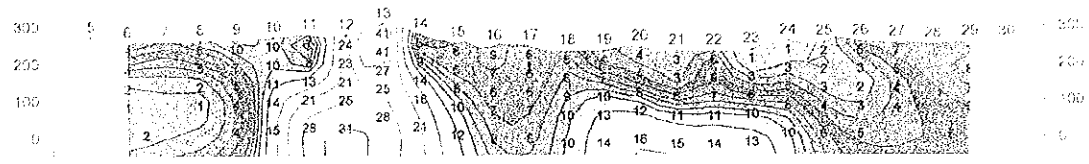
East



Resistivity (ohm-m)

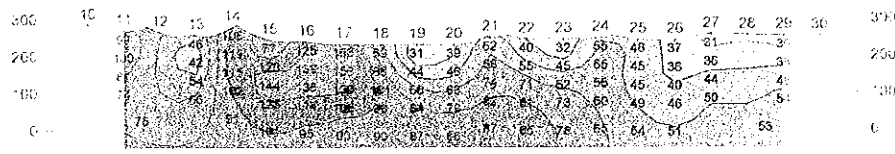


Chargeability (mV/V)

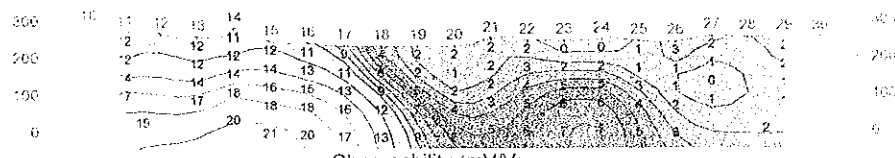


Metal factor

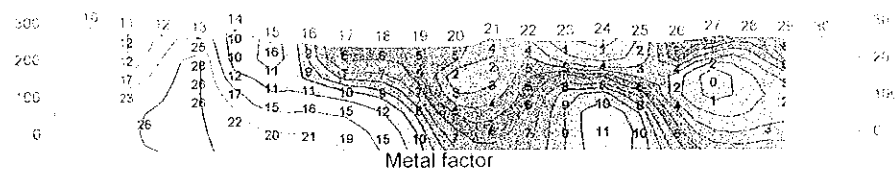
Line1000N



Resistivity (ohm-m)



Chargeability (mV/V)



Metal factor

Line 1200N

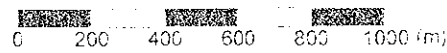
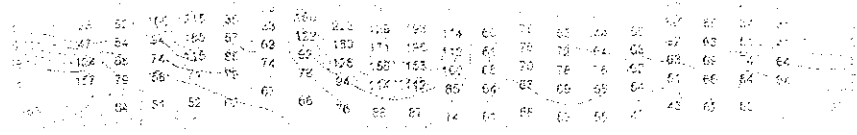
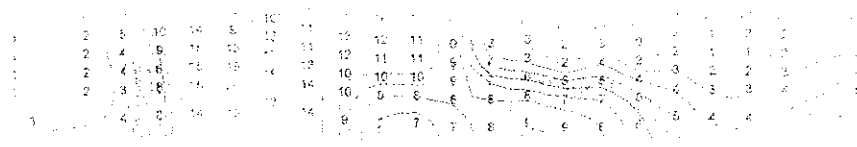


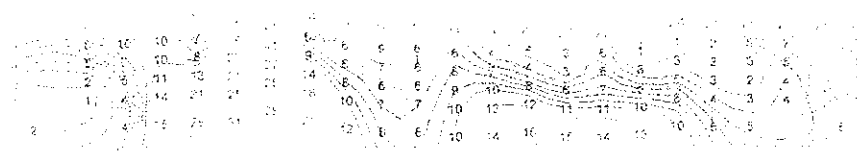
Fig. II-2-28 IP 2D model simulation on lines 1000N and 1200N in Zaha area



Topographic map

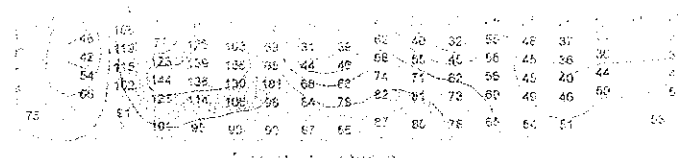


Topographic map

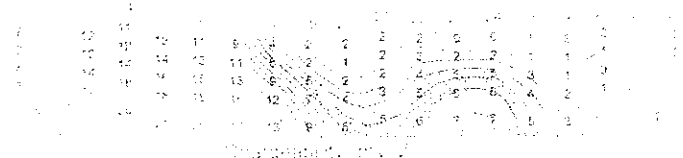


Topographic map

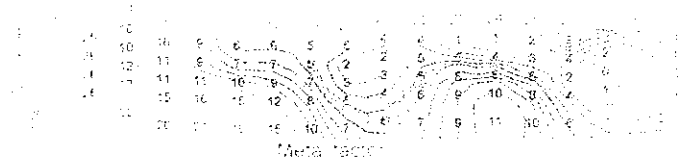
Line 1000N



Topographic map



Topographic map

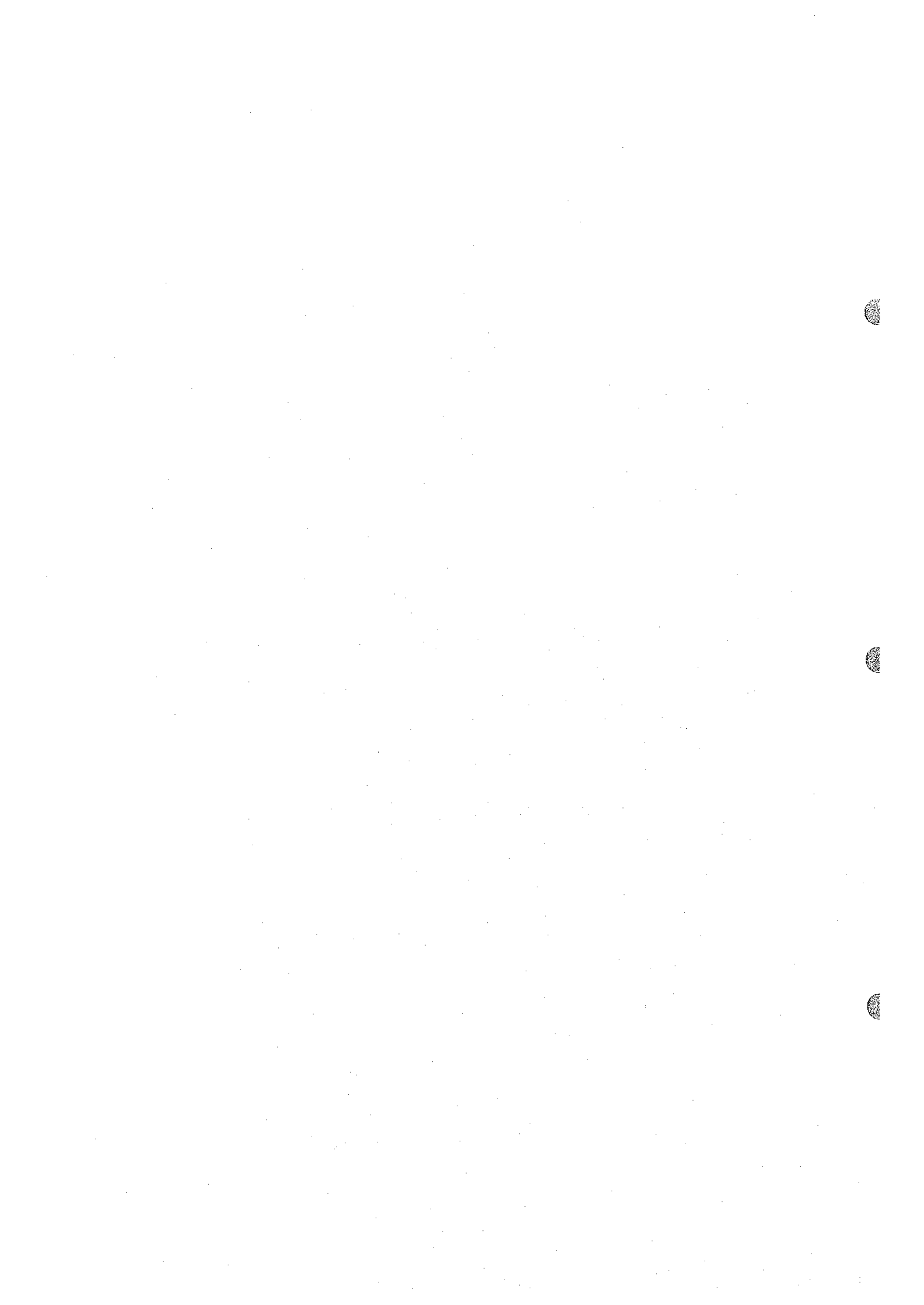


Topographic map

Line 1200N

\*\*\*\*\* \*\*\*\*\* \*\*\*\*\*  
 \*\*\*\*\* \*\*\*\*\* \*\*\*\*\*

Line 1200N - 1200m contour interval, 100m contour interval, 100m contour interval





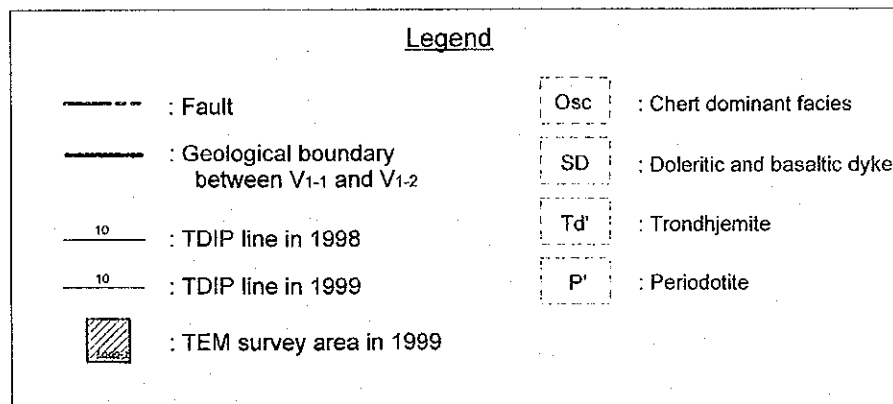
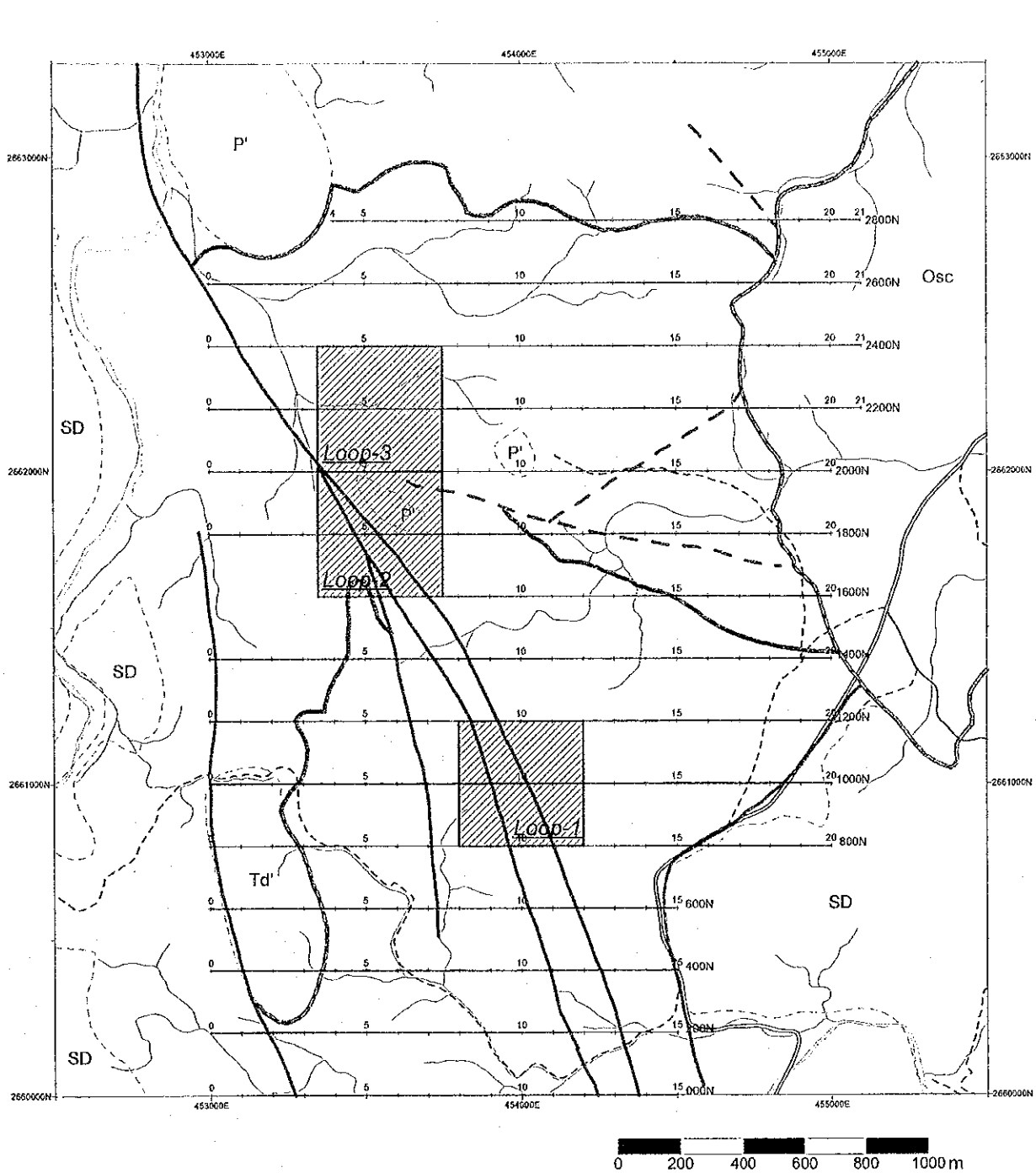


Fig. II -2-29 Geophysical survey location in Maqail area



Pseudo sections of apparent resistivity, chargeability and metal factor values are presented from Fig. II -2-30 to Fig. II -2-32. Compiled contour maps of apparent resistivity, chargeability and metal factor for  $n=1$  to 4 are presented from Fig. II -2-33 to Fig. II -2-36.

In the lines 1800N to 2800N corresponding to the survey carried out this year, the east part of these lines present resistivities lower than  $10 \Omega\text{-m}$  as indicated in Fig. II-2-33.

The chargeability presents almost the same pattern than the resistivity, i.e., low resistivities correspond to low chargeabilities, and high resistivities correspond to high chargeabilities. In the west part of the survey area where V1-1 is distributed, from shallow to deep levels chargeability values of more than several tenths of  $\text{mV/V}$  are seen around the lines 1800N and 2000N.

The metal factor shows high values in the east and west parts of these lines. Especially, the line 1800N around the station No 6 at the depth level of  $n=3$  shows an anomaly with a maximum of 76 and distributed as indicated in Fig. II-2-35.

### (3) 2D analysis

2D analysis was performed for all the lines, but here for matter of convenience, only the sections containing representative anomalies will be described. On these regards, only the 2D results of lines 1800N and 2200N will be briefly described (Fig. II -2-37).

In relation to the line 1800N, in the shallow part of the station No.4 and at the depth of the station No.5 the apparent resistivity is comparatively low and the chargeability higher than  $20\text{mV/V}$ . Therefore, as a result of this analysis, mineralization related to the existence of massive sulphide can be expected in this zone. In the east side the chargeability shows middle value, but the apparent resistivity shows high value.

In relation to the line 2200N, at levels deeper than 100m from the station No.15 to the west, middle chargeability zone (between 10 to  $20\text{mV/V}$ ) distributes in a continuous manner. Within this zone, the apparent resistivity values show only high values.

## 2-5-5 Salahi area

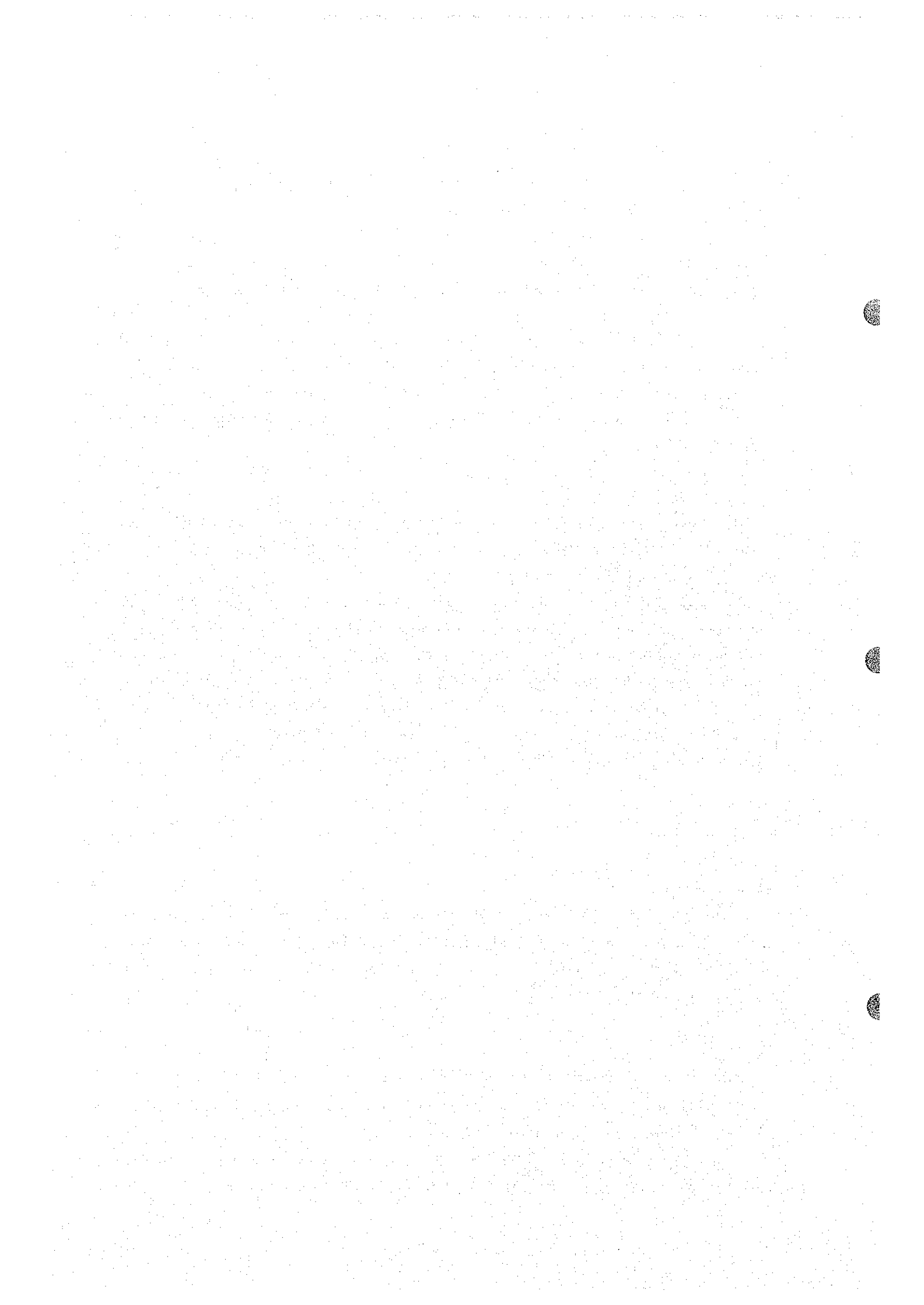
### (1) Lines location

During this field season, a total of 15 lines were set up along  $N90^\circ$  E direction with a line spacing of 200m, as follow: 5 lines (1800N to 2600N) of 1.0km each, 7 lines(200S to 1000N) of 1.5km each, 1 line(1200N) of 1.7km and 2 lines(1400N and 1600N) of 2.2km each. Fig. II -2-38 shows the location of all the IP lines surveyed in Salahi.

### (2) Results

Pseudo sections of apparent resistivity, chargeability and metal factor values are presented from Fig. II -2-39(1) to Fig. II -2-41(2). Compiled contour maps of apparent resistivity, chargeability and metal factor for  $n=1$  to 4 are presented from Fig. II -2-42 to Fig. II -2-45.

High resistivity values are seen in the west, while low resistivity values in the east of the whole survey area. The apparent resistivity results shown in Fig. II-2-42 indicates that around the surroundings of the



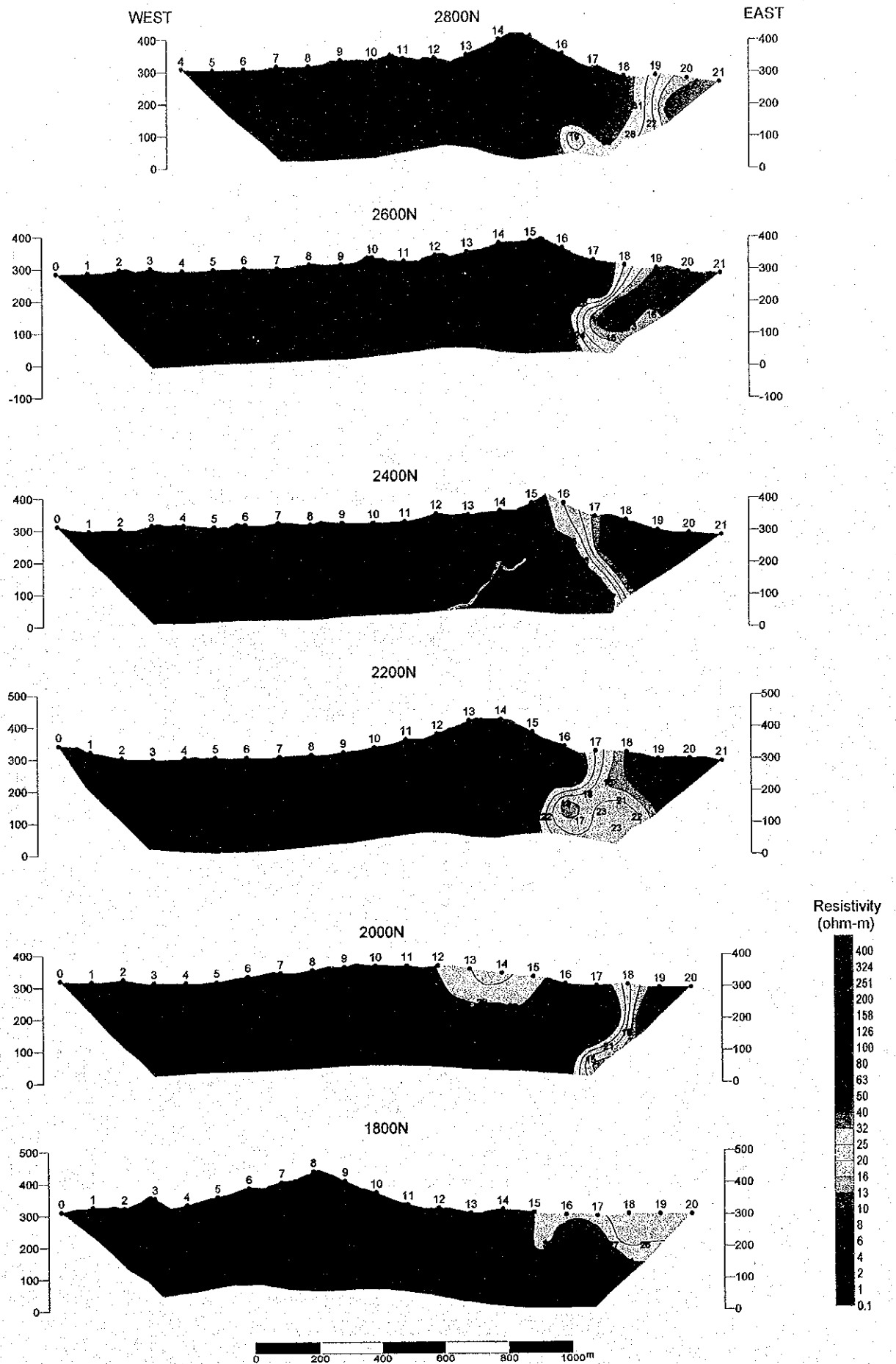


Fig. II-2-30 Apparent resistivity pseudo-sections in Maqail area

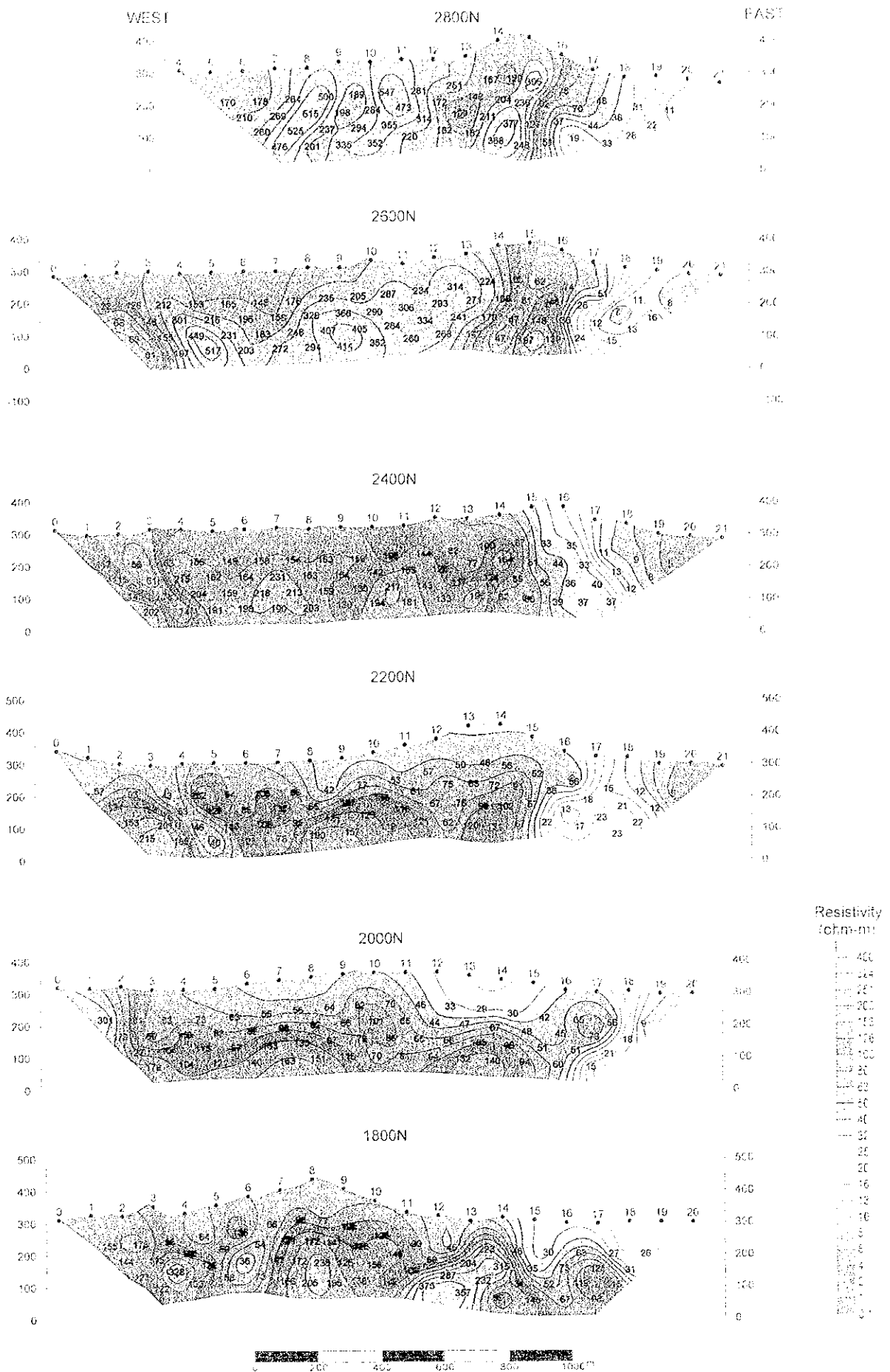


Fig. II-2-30 Apparent resistivity pseudo-sections in Maqail area

175 204 190 247 261 251 167 129 205  
116 202 198 204 172 172 204 236 62 70 41  
251 227 294 355 314 198 211 277 127 37 48 56  
27 29 33 35 230 182 157 205 246 11

212 153 165 149 170 235 205 287 204 314 224 105 62 74  
142 201 215 190 165 328 326 290 306 293 271 181 145 126  
338 418 251 183 248 437 461 264 324 241 178 67 146 156  
147 517 203 272 274 414 307 270 208 142 47 57 129

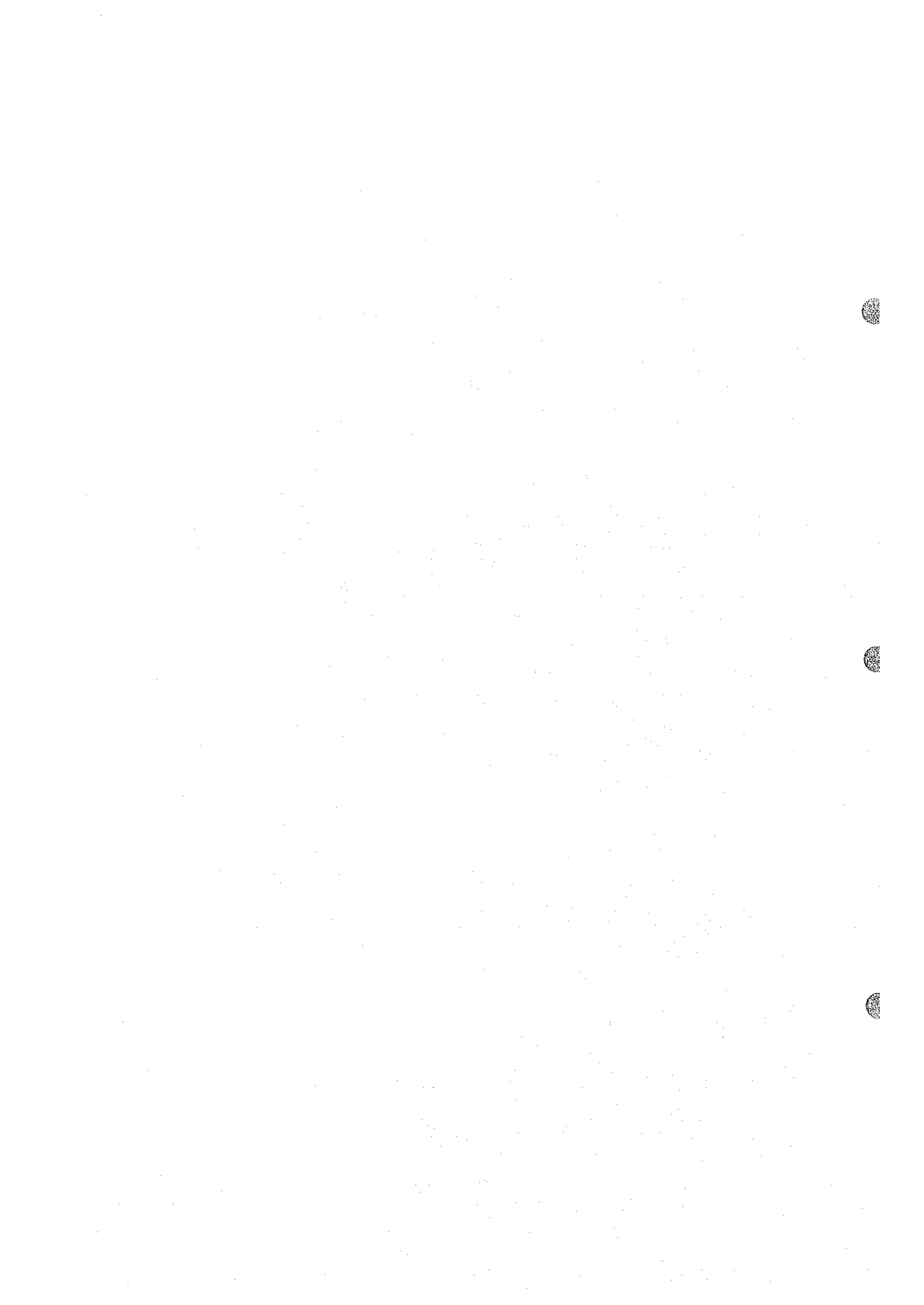
105 149 188 154 163 159 160 124 83 100 87 83 31  
215 162 164 231 165 164 222 108 129 77 104 51 44 30  
204 189 218 213 158 132 217 43 124 85 56 36 46  
71 191 198 132 203 133 194 181 132 106 67 86 28 37 31

52 62 64 105 80 42 77 53 57 50 48 56 52  
101 63 126 55 131 65 107 116 81 75 83 72 81 35 50  
201 69 118 105 95 121 118 118 67 76 38 102 57  
169 40 120 76 190 152 119 12 62 126 111 87

101 63 78 63 56 56 58 62 70 46 30 26 30 42 60 50  
172 60 150 88 98 65 56 101 65 44 27 67 48 45 36  
22 114 415 67 103 135 67 76 86 60 58 206 193 51 51  
146 17 140 153 151 134 70 87 132 140 66 60

66 85 104 126 193 45 223 45 30 65 26  
172 21 225 156 105 105 204 315 36 75 128 26  
172 238 26 75 105 105 373 267 232 34 52 110 113  
25 206 195 105 105 373 267 232 34 52 110 113

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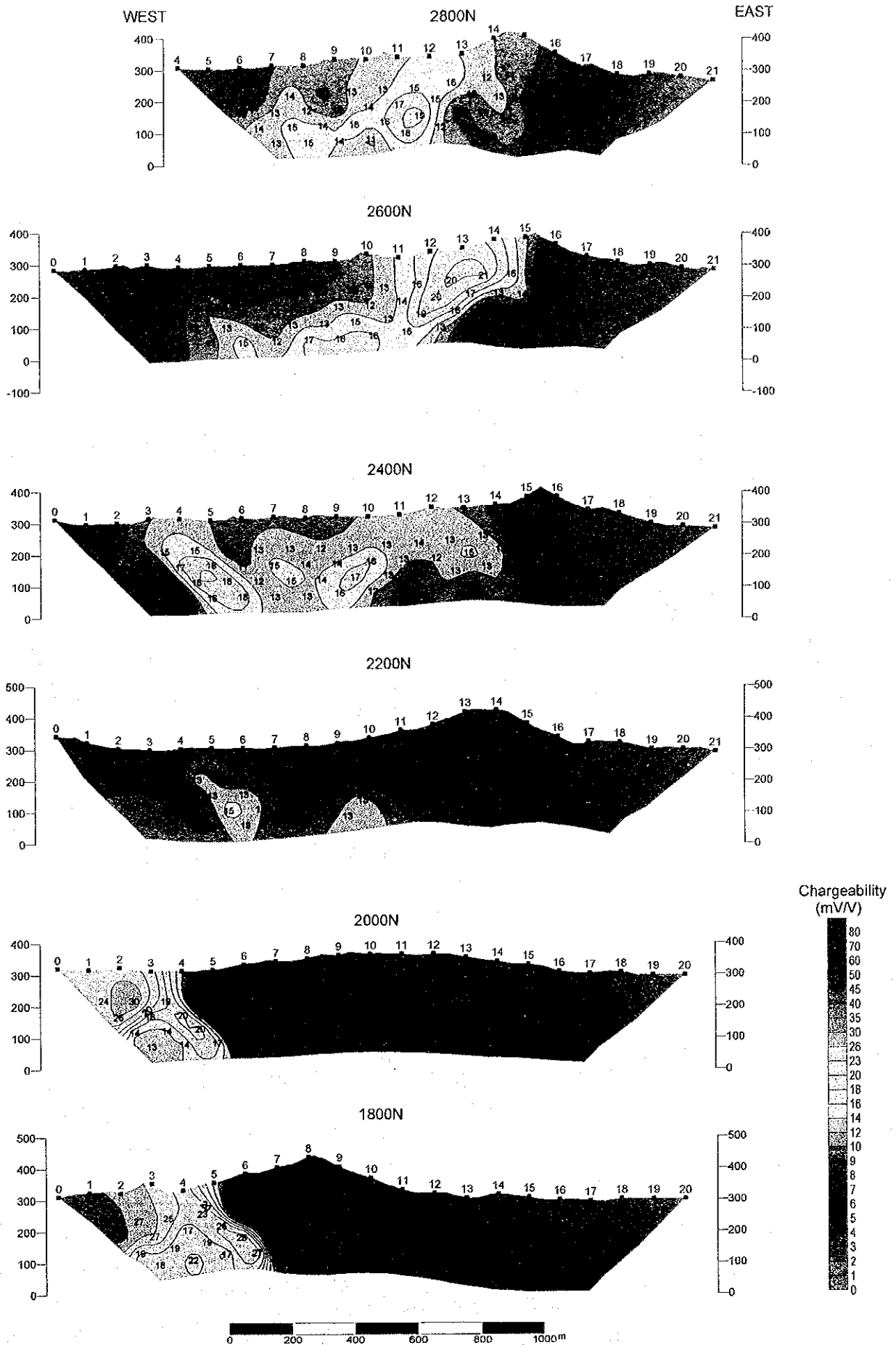


Fig. II -2-31 Chargeability pseudo-sections in Maqail area

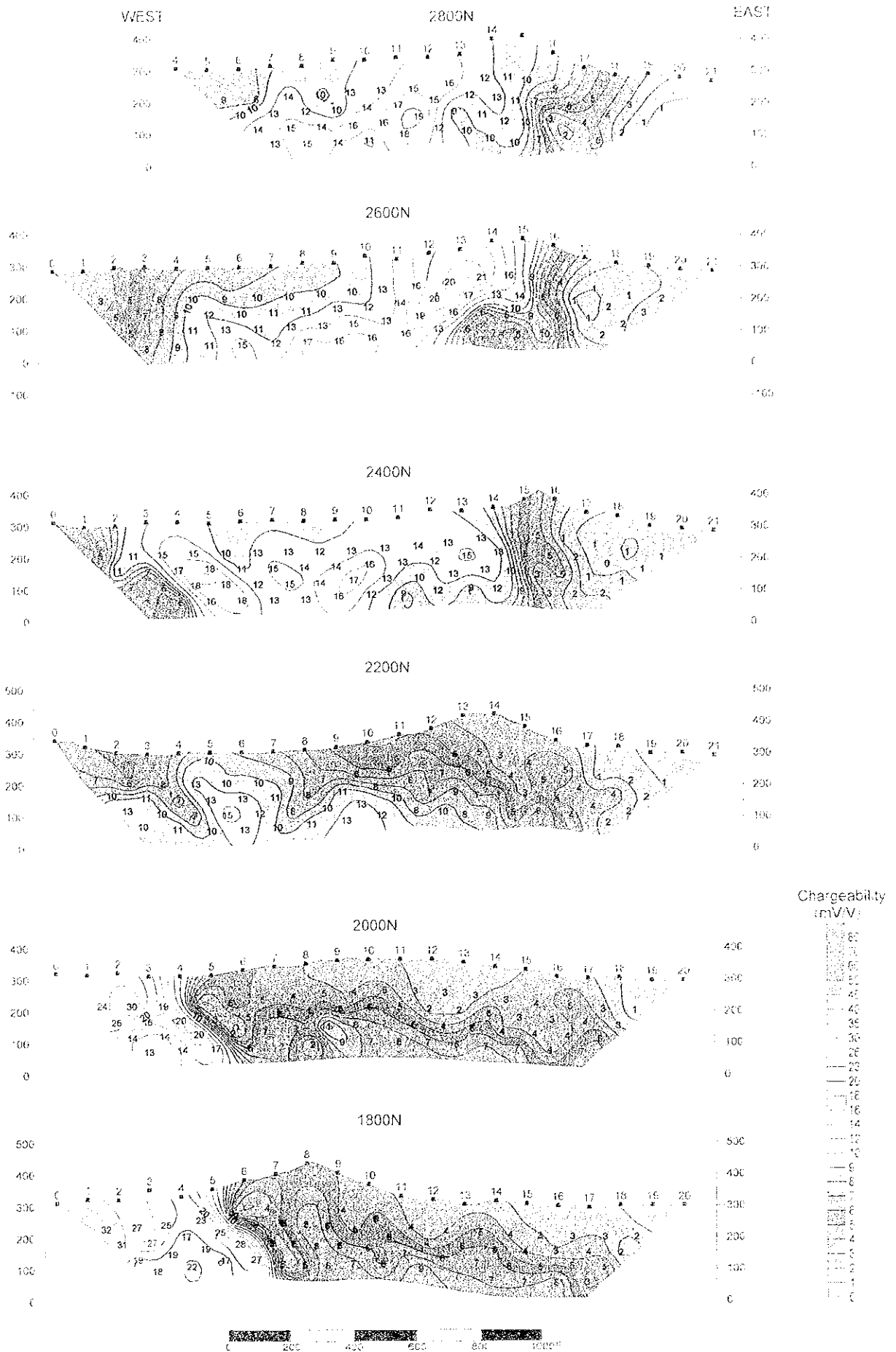
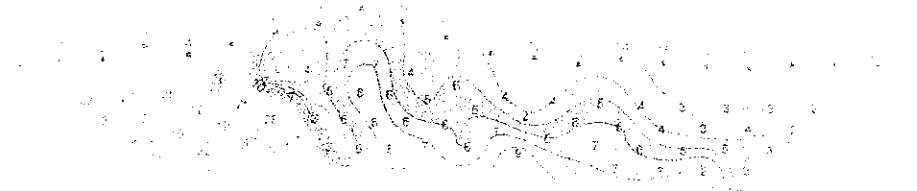
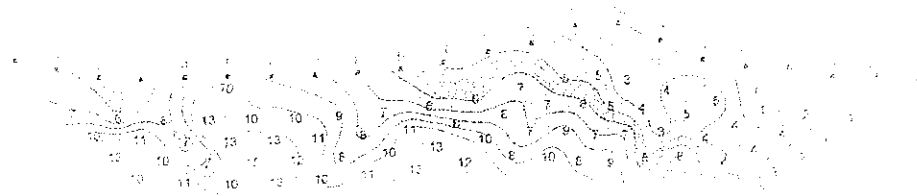
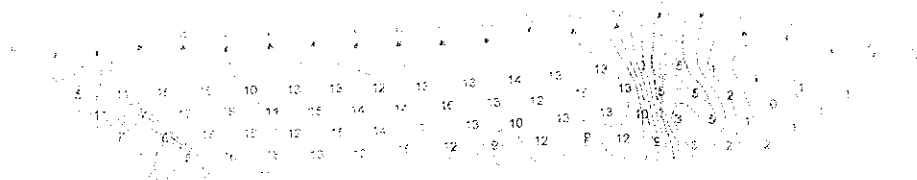


Fig. II-2-31 Chargeability pseudo-sections in Maqail area

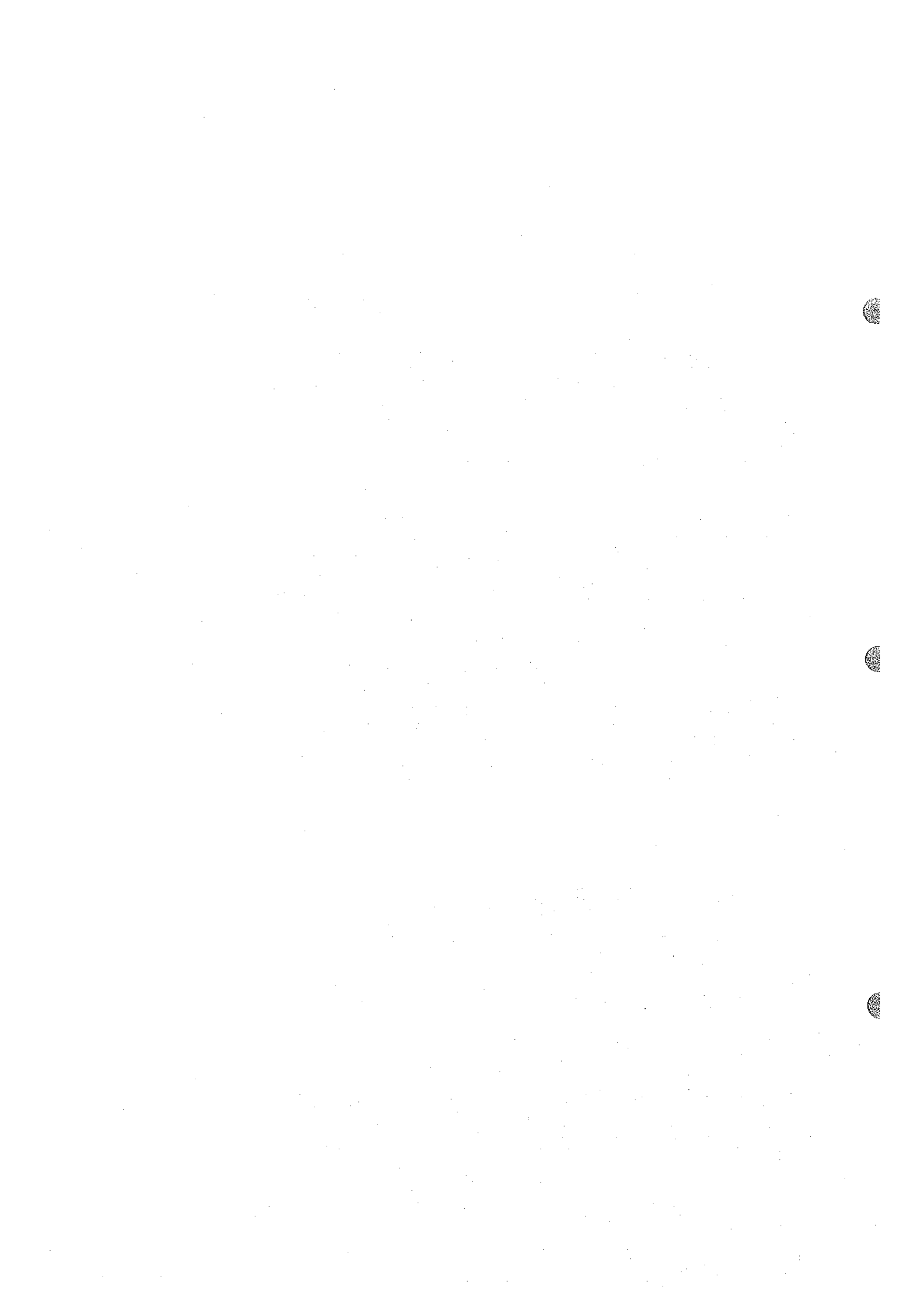


0 10 20 30 40 50 60 70 80 90 100

0 10 20 30 40 50 60 70 80 90 100

0 10 20 30 40 50 60 70 80 90 100

Scale 1:50,000



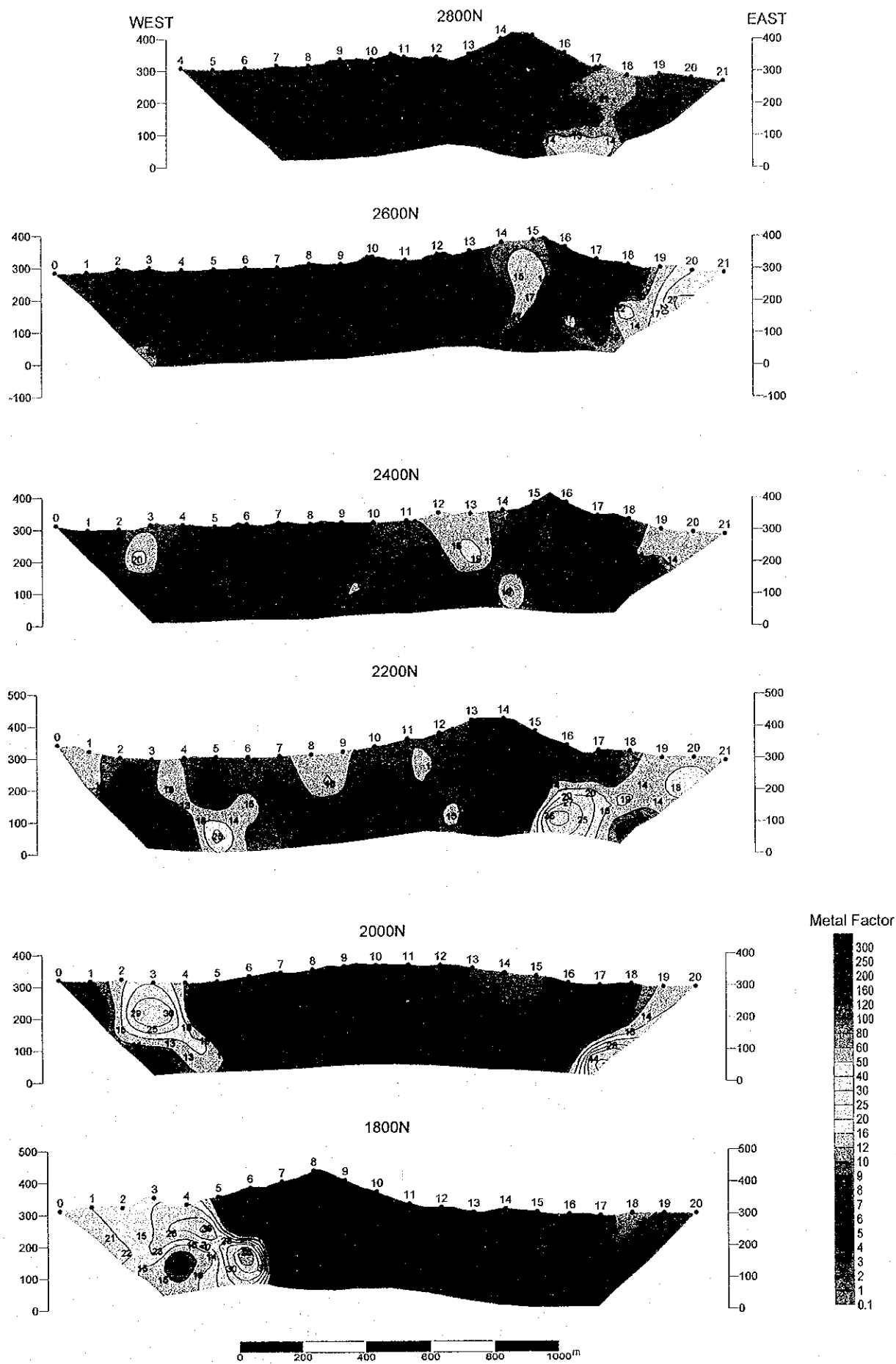


Fig. II -2-32 Metal factor pseudo-sections in Maqail area

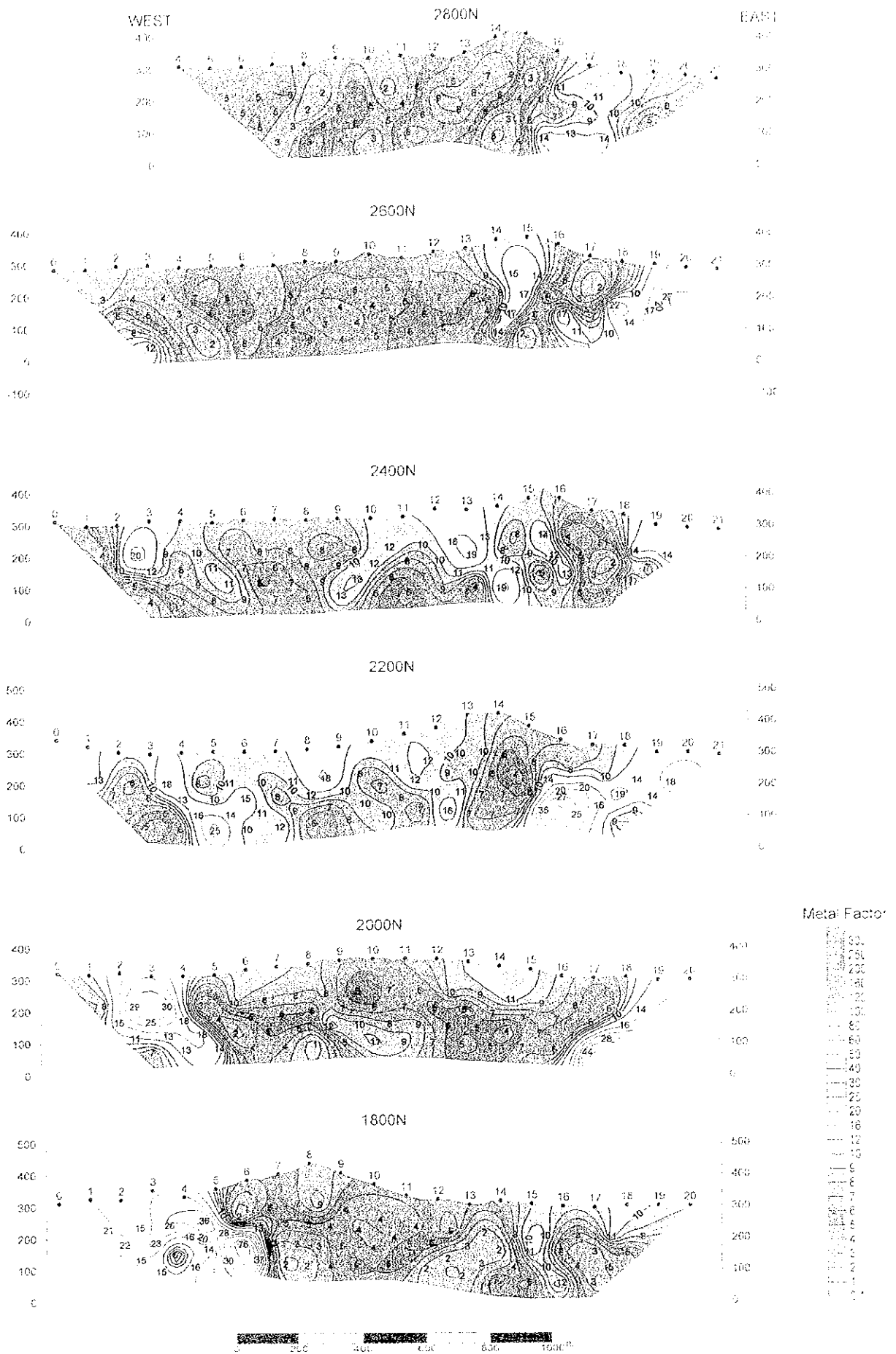


Fig. II-2-32 Metal factor pseudo-sections in Maqail area

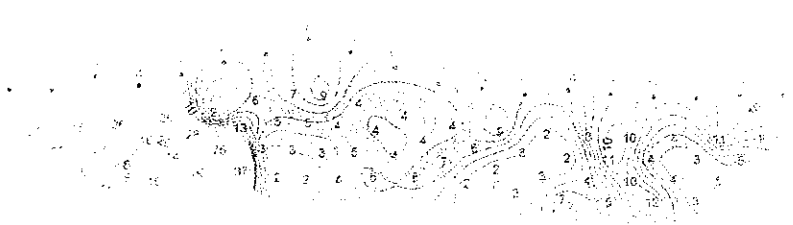
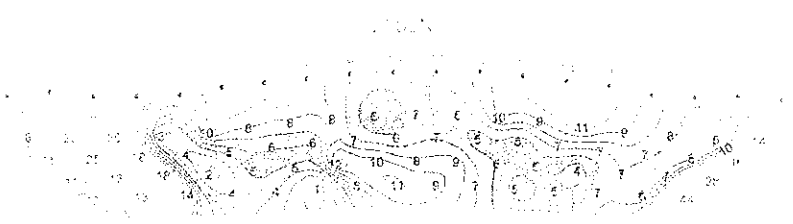
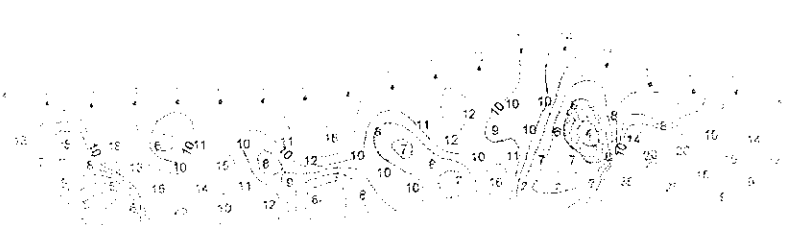
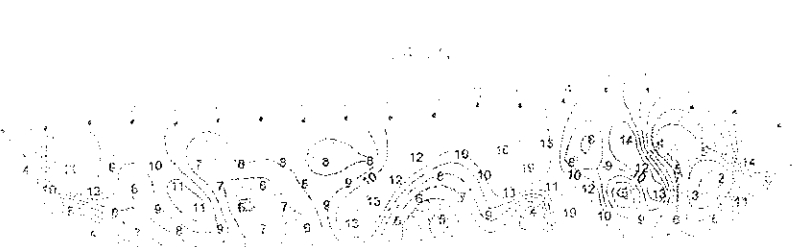
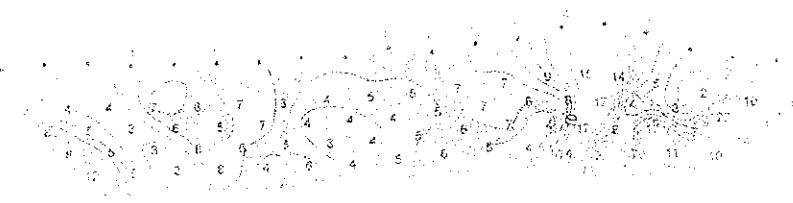
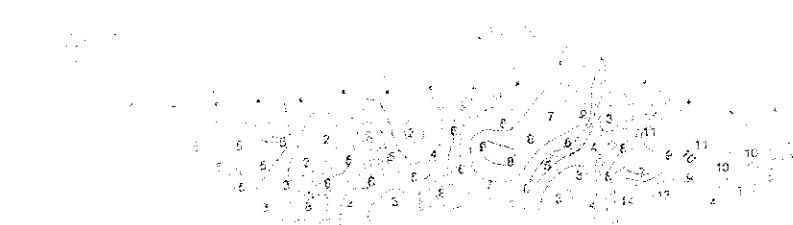


Figure 10.10: Contour plots of the function  $f(x, y) = x^2 + y^2$  at different levels.

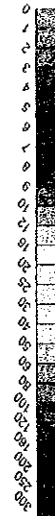
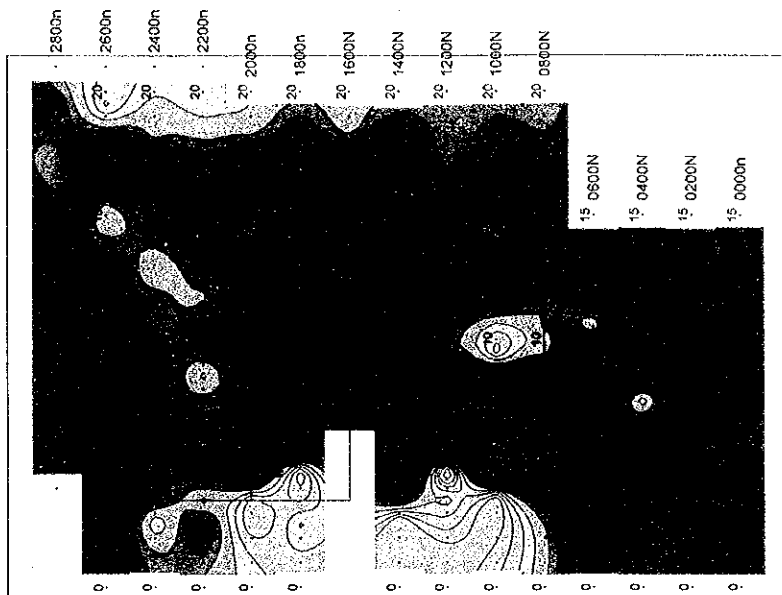
The figure shows five contour plots arranged vertically, each representing a different level of the function  $f(x, y) = x^2 + y^2$ . The contours are concentric circles centered at the origin, with the radius increasing as the level increases. The values shown in the plots are 2, 4, 6, 8, and 10, corresponding to the levels of the function.





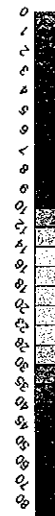
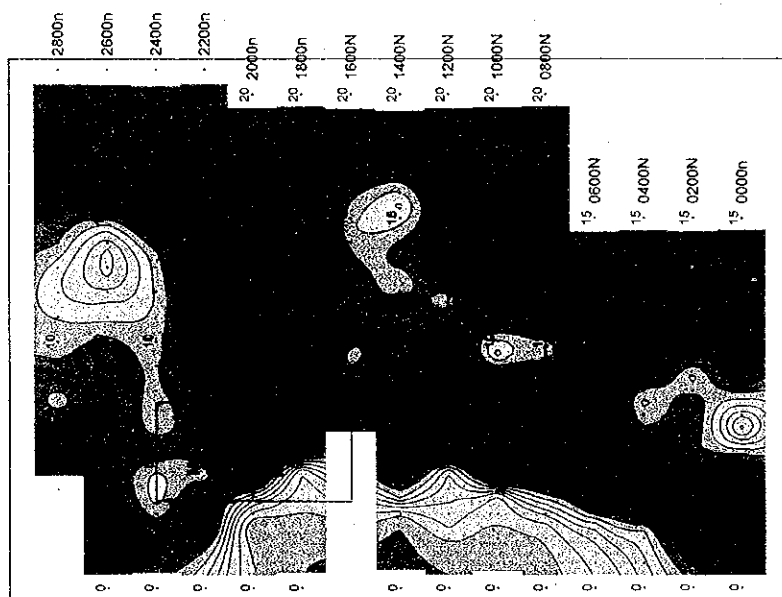


Metal Factor



- : Borehole
- : TEM Survey area

Chargeability



- 0 200 400 600 800 1000(mV/V)

Resistivity

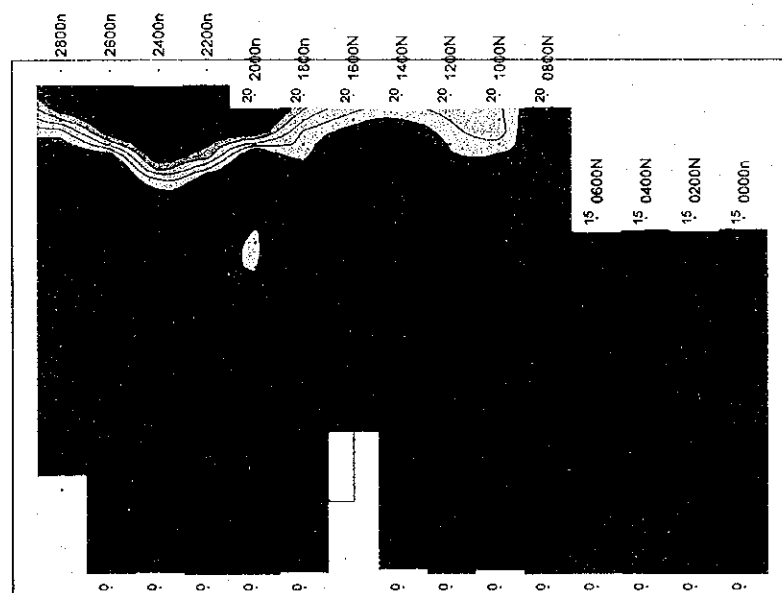
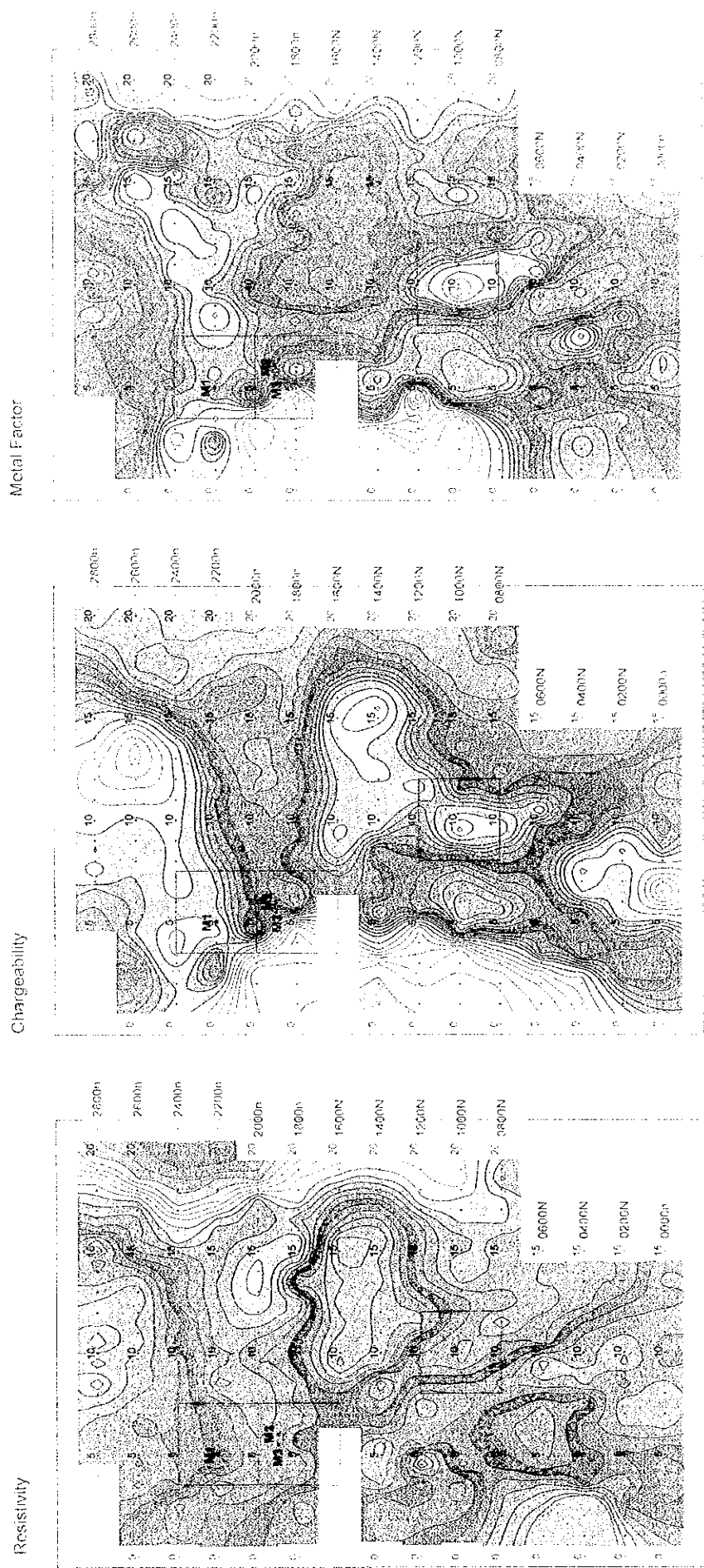


Fig. II-2-33 IP plane map of  $n=1$  in Maqail area



Resistivity

Chargeability

Metal Factor

Fig. II-2-33 IP plane map of n=1 in Maqail area

Figure 1

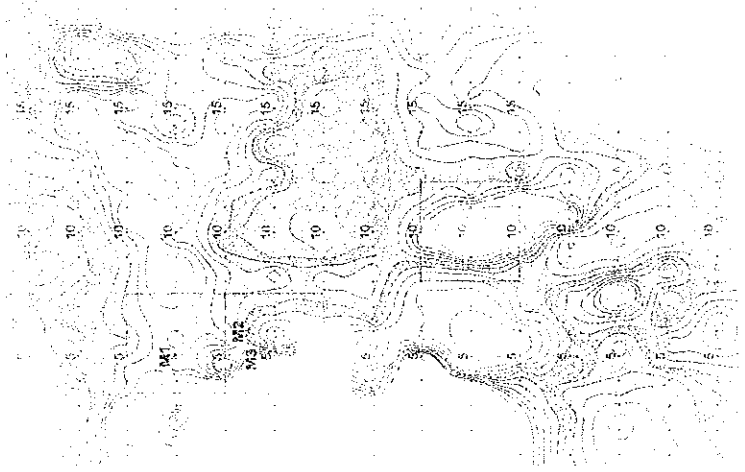


Figure 2



Figure 3

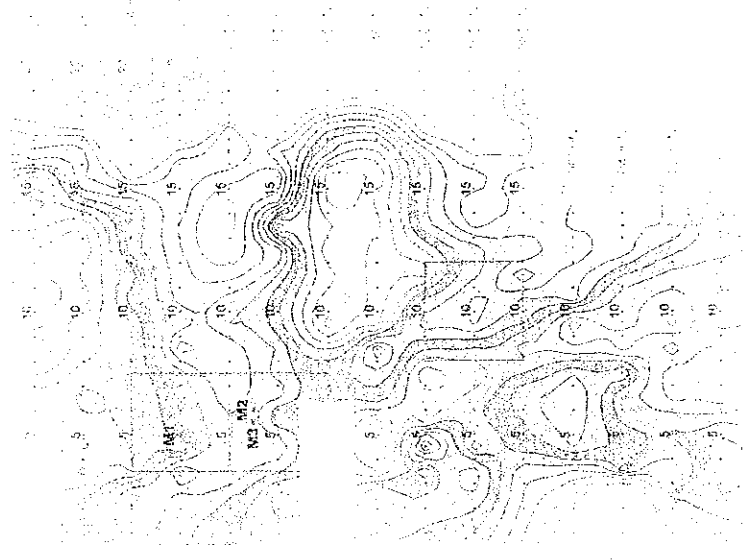
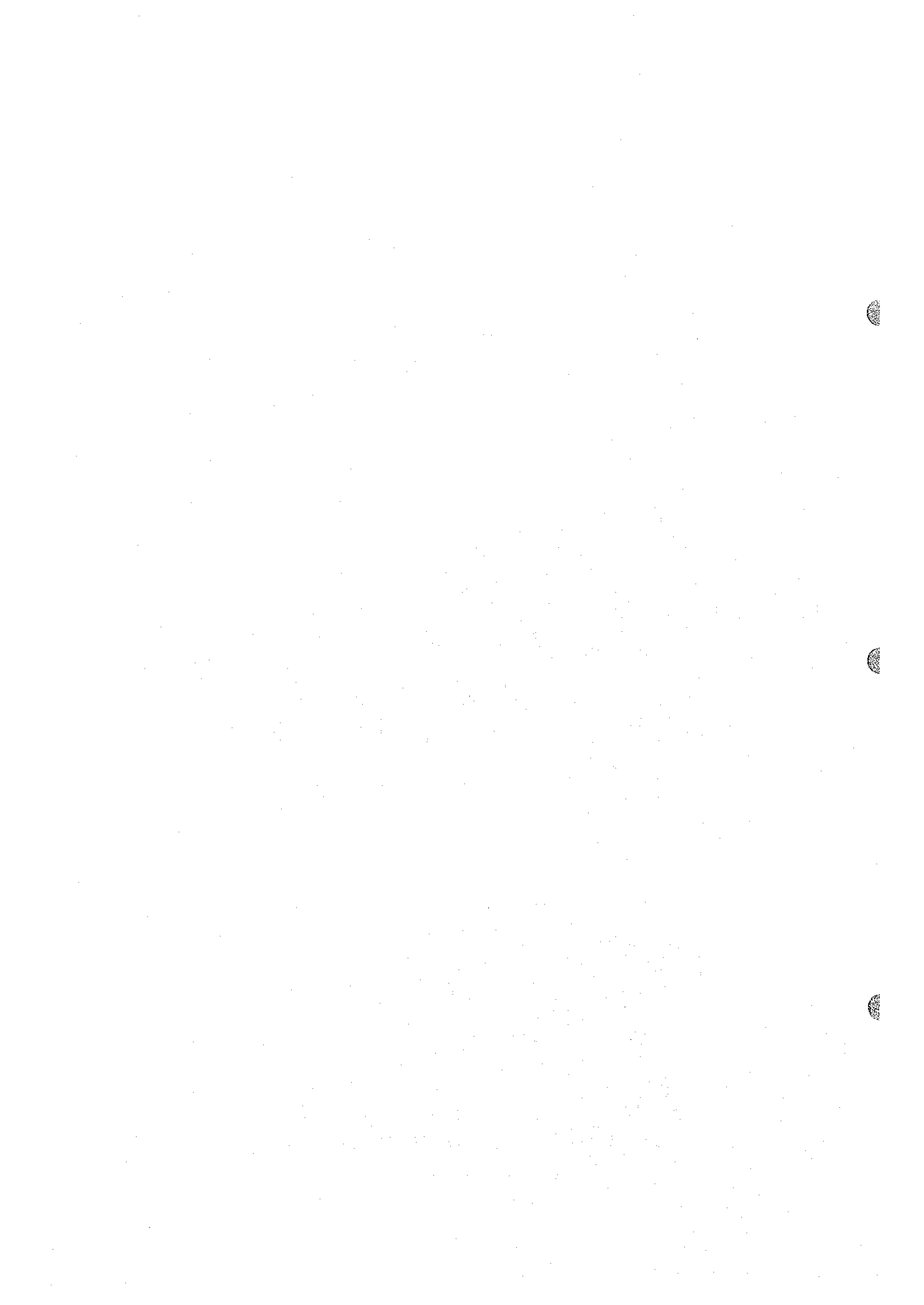
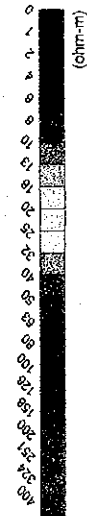
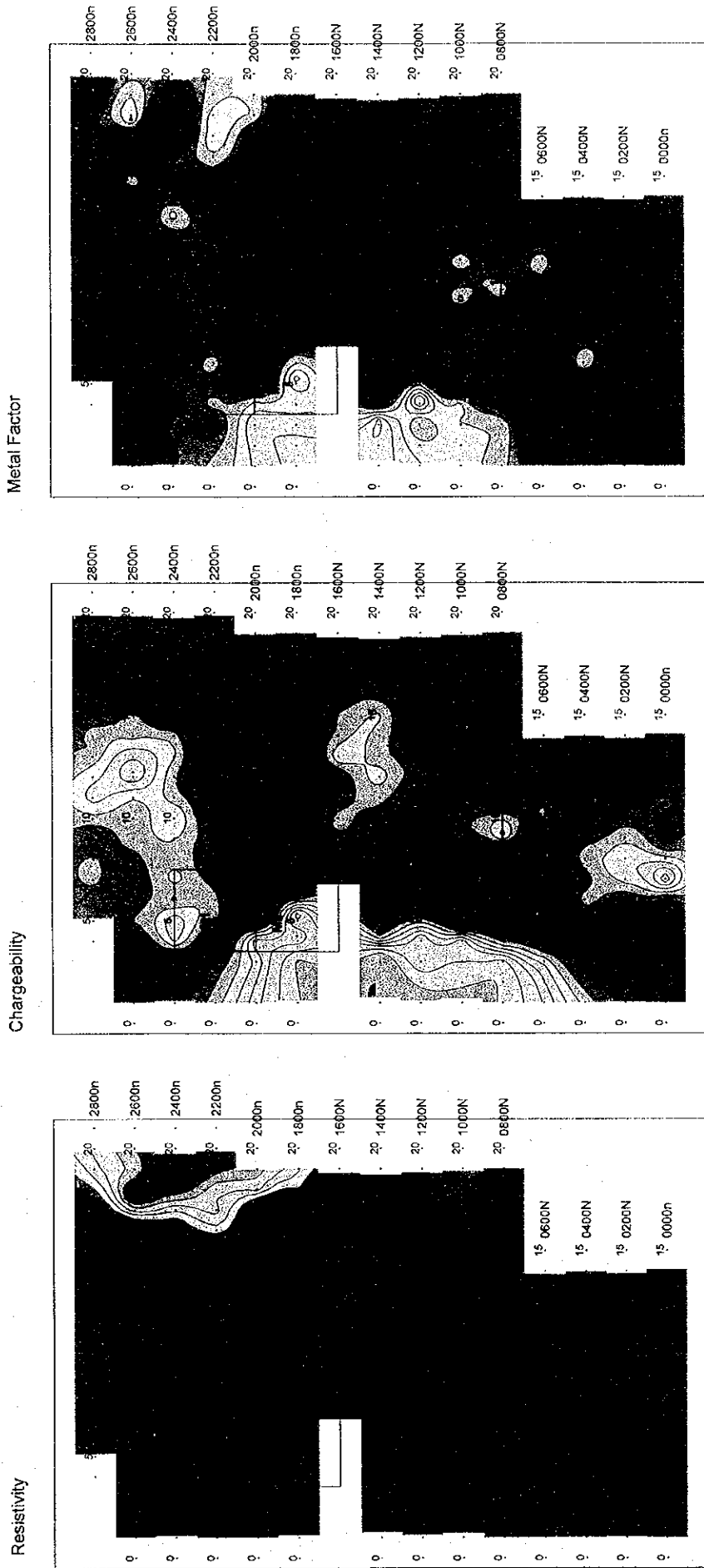


Figure 1 shows the topographic map of the study area. The map displays contour lines and elevation data. The highest elevation is 20, and the lowest is 5. The map is divided into three main regions: M1, M2, and M3. The M1 region is located in the north-central part of the map, M2 is in the central part, and M3 is in the south-central part. The map also shows a grid of latitude and longitude lines.

Figure 2 shows the topographic map of the study area. The map displays contour lines and elevation data. The highest elevation is 20, and the lowest is 5. The map is divided into three main regions: M1, M2, and M3. The M1 region is located in the north-central part of the map, M2 is in the central part, and M3 is in the south-central part. The map also shows a grid of latitude and longitude lines.

Figure 3 shows the topographic map of the study area. The map displays contour lines and elevation data. The highest elevation is 20, and the lowest is 5. The map is divided into three main regions: M1, M2, and M3. The M1 region is located in the north-central part of the map, M2 is in the central part, and M3 is in the south-central part. The map also shows a grid of latitude and longitude lines.





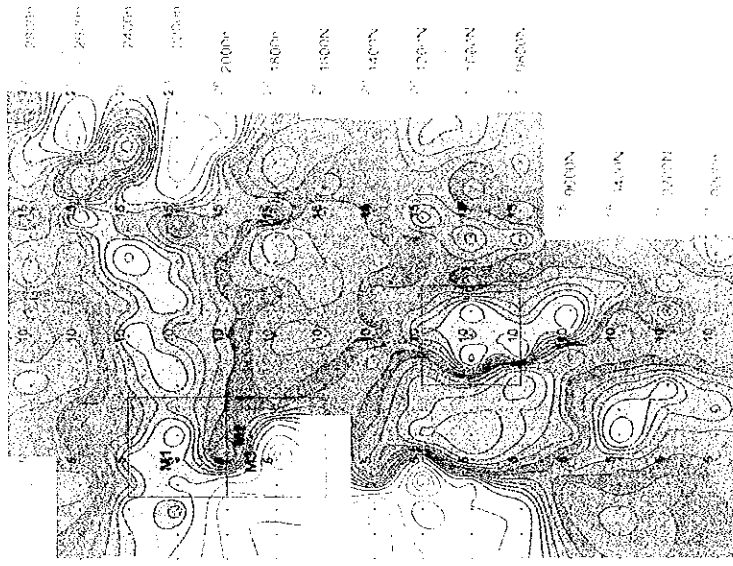
• : Borehole  
□ : TEM Survey area

0 200 400 600 800 1000(m)

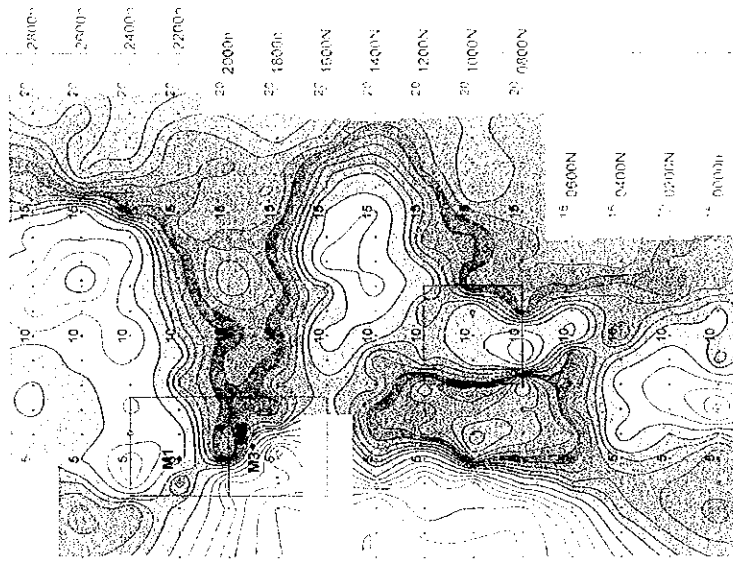
Fig. II -2-34 IP plane map of n=2 in Maqail area



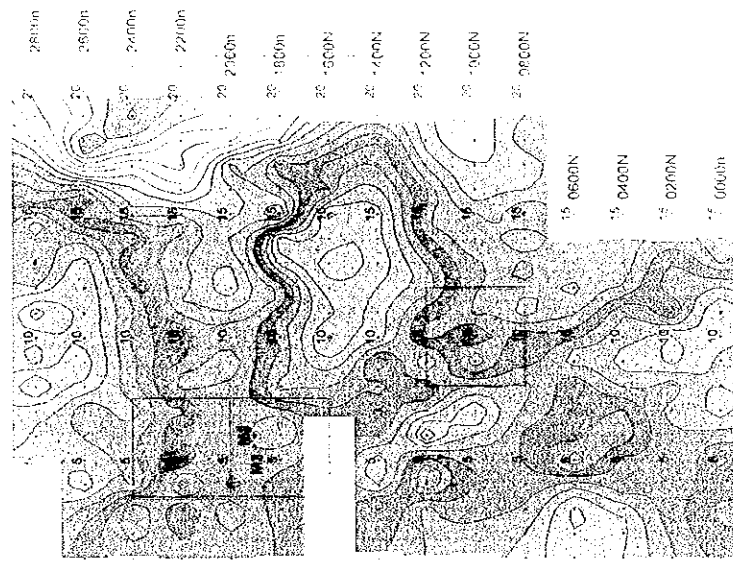
Metal Factor



Chargeability



Resistivity



• Borehole  
TEM Survey area



0 200 400 600 800 1000m

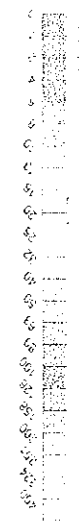


Fig. II -2-34 IP plane map of n=2 in Maqail area

Figure 1

Figure 2

Figure 3

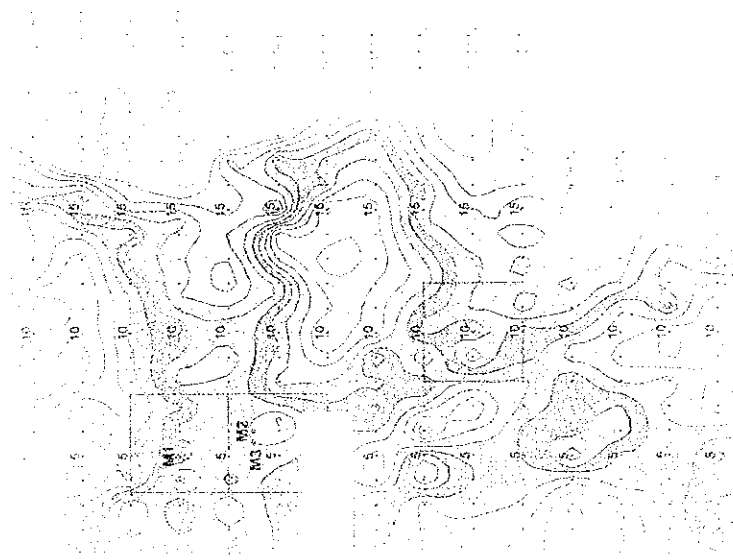
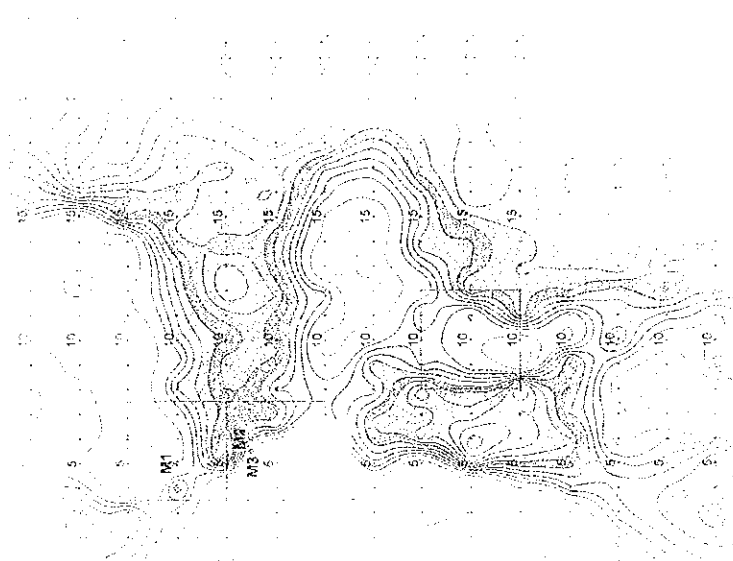
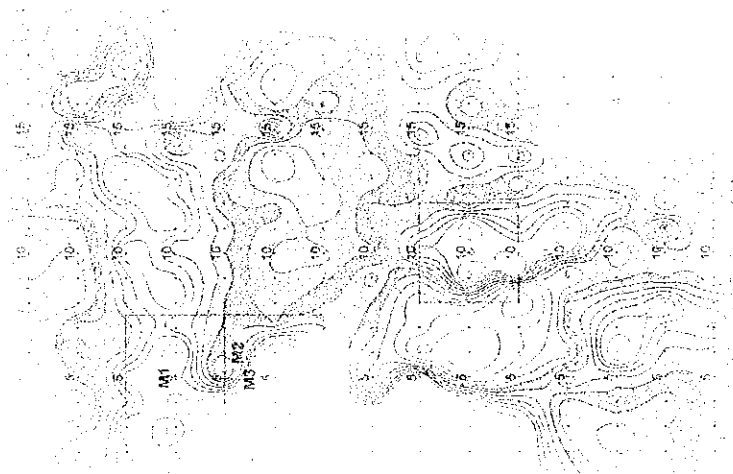


Figure 1: Contour plot of a function with three minima. The plot shows a grid of contour lines with values ranging from 5 to 15. The minima are labeled M1, M2, and M3. A dashed box encloses the region around M2 and M3.

Figure 2: Contour plot of a function with three minima. The plot shows a grid of contour lines with values ranging from 5 to 15. The minima are labeled M1, M2, and M3. A dashed box encloses the region around M2 and M3.

Figure 3: Contour plot of a function with three minima. The plot shows a grid of contour lines with values ranging from 5 to 15. The minima are labeled M1, M2, and M3. A dashed box encloses the region around M2 and M3.

