2-2 Result of Survey

2-2-1 Result of Measurement

Psuedosection of the apparent resistivity and phase difference taking the vertical axis at each survey line as the measurement frequency and using the apparent resistivity and phase difference data obtained by the survey are shown in Fig.II-2-5-1 - Fig.II-2-5-13. Also, the apparent resistivity values that measured at each survey line of 1.024 Hz, 256 Hz, 64 Hz and 16 Hz are shown on the plane figure on the apparent resistivity plane map in Fig.II-2-6-1 - Fig.II-2-6-4.

(a) Psuedosection of Apparent Resistivity

Line A (Fig.II-2-5-1)

Although, comparatively low resistivity zones with 200Ωm or less in the subterranean shallow zone up to 64 Hz between the measurement point 0 and 800, and the measurement points 1900 and 2000 are recognized, on the phase difference psuedosection in the shallow zone there is a big change between the measurement points 100 and 200, accordingly the lateral discontinuous resistivity structure between the measurement points 100 and 200 is assumed. Also, according to the phase cross section are seen at the measurement points 500, and between the measurement points 1800 and 1900, the lateral discontinuous resistivity structure is assumed. A rise of the high resistivity zone is seen at the measurement points 1200 but there is no changes in the phase cross section, which assumed to be the results of the topographical influences, or the influence of the high resistivity zone on the shallow subterranean.

Line B (Fig.II-2-5-2)

At the measurement point 400 the low resistivity zone with 100Ωm or less is seen, and the phase cross section at both sides of the same measurement point is seen a change, for these reasons the lateral discontinuous resistivity structure is assumed in the measurement point 400. Also, the same lateral discontinuous resistivity structures are observed between the measurement points of 0 and 100, neighboring the measurement point 900 and between the measurement points 1700 and 1800.

Line C (Fig.II-2-5-3)

Between the measurement points 100 and 400 the low apparent resistivity zone is observed, while a change is seen on the phase difference cross section around the measurement points 800 and 0, and so the lateral discontinuous resistivity structure is assumed. Although it is not clear enough to recognize that judging from both the resistivity and phase cross section, the lateral discontinuous resistivity structure can be assumed between the measurement points 700 and 800.. The low apparent resistivity zone is seen locally at the measurement point 2000, nevertheless, there seen no change on the phase

cross section, which is assumed to be the influence of the statistic effects.

Line D (Fig.II-2-5-4)

As seen in the line C, both changes of the apparent resistivity and phase difference cross section are observed between the measuring points 0 and 400, for these reasons the lateral discontinuous resistivity structure is also assumed. Likewise, between the measurement points 800 and 900, between 1800 and 1900, some changes in the apparent resistivity and phase difference cross section are seen, accordingly the lateral resistivity structure is assumed.

Line E (Fig.II-2-5-5)

Between the measurement points 300 and 400 some changes in the apparent resistivity and phase difference cross section are seen, for these reasons the lateral discontinuous resistivity structure is presumed. Similarly, between the measurement points 800 and 1000 and between 1700 and 1900, the same changes are seen, thus at both sections the lateral discontinuous resistivity structures are presumed.

Line F (Fig.II-2-5-6)

Changes in the apparent resistivity values and phase difference cross section between the measurement points 0 and 300, in the apparent resistivity zone with 200 Ωm or less are seen, accordingly the lateral discontinuous resistivity structure is assumed. Likewise, between the measurement points 800 and 900, even though it is not extensive, the apparent resistivity value changes are seen, accordingly, changes in the phase difference is recognized and the lateral discontinuous resistivity structure is assumed. At the measurement points 1900 the local low apparent resistivity zone is seen, but there is no changes in the phase cross section, which assumed to be the results of the influence of the low resistivity zone on the shallow subterranean.

Line G (Fig.II-2-5-7)

The same as in the line F, changes in the apparent resistivity values with 200 Ωm or less and phase difference cross section between the measurement points 0 and 300 are seen, accordingly, the lateral discontinuous resistivity structure is assumed. Likewise, between the measurement points 900 and 1000, even though it is not clear, changes in the apparent resistivity and phase difference are recognized and the lateral discontinuous resistivity structure is assumed.

Line H (Fig.II-2-5-8)

The low resistivity zone is distributed between the measurement points 900 and 1000 and changes in the phase difference cross section are observed, for these reasons the lateral resistivity structure is assumed. Although it is not obvious that there are some changes in the apparent resistivity value and

phase difference cross section around the measurement points 400 and 200, the lateral discontinuous resistivity structure is assumed.

Line I (Fig.II-2-5-9)

Changes are seen in the apparent resistivity value and phase difference data between the measurement points 900 and 1000, and the lateral discontinuous resistivity structure is assumed. Between the measurement points 100 and 600 the apparent resistivity zone with 200Ωm or less is distributed but any changes for the phase difference data are not recognized. At the measurement points 1300 the local low apparent resistivity zone is seen, but there is no changes in the phase cross section, which assumed to be the results of the topographical influences.

Line J (Fig.II-2-5-10)

Changes are seen in the apparent resistivity value and phase difference data between the measurement points 500 and 700, and between 1000 and 1100, accordingly the lateral discontinuous resistivity structures are assumed.

Line K (Fig.II-2-5-11)

Changes are seen in the apparent resistivity value and phase difference data between the measurement points 600 and 800, and so the lateral discontinuous resistivity structure is assumed. Although it is not obvious by the apparent resistivity value between the measurement points 900 and 1000, the lateral resistivity structure is assumed judging from the phase cross section. Although, between the measurement points 1400 and 1500, the low apparent resistivity zone is observed, there is no obvious change in the phase cross section, which is regarded to be the influence of the static effects.

Line L (Fig.II-2-5-12)

Changes are seen in the apparent resistivity value and phase difference data between the measurement points 600 and 800, and so the lateral discontinuous resistivity structure is assumed. Although is not obvious, there are some changes are seen in the apparent resistivity value and phase difference data around the measurement points 100, accordingly the lateral discontinuous resistivity structure change is assumed.

Line M (Fig.II-2-5-13)

The same as on the line K, changes in the apparent resistivity value and phase difference data between the measurement points 600 and 800, and so the lateral discontinuous resistivity structure is assumed. Although is not obvious, there are some changes are seen in the apparent resistivity value and phase difference data at the measurement point 100, accordingly the structure change is assumed.

(b) Apparent resistivity plane map

In the apparent resistivity distribution plane map of 1,024 Hz, the low apparent resistivity zone is observed at the east part of the line I at the measurement point 300 connecting the line A at the measurement point 500 in the southeast survey area. Furthermore, this low apparent resistivity zone is shaped which suggests to extend to the direction of the line M the measurement point 1000. Also, line D at the measurement point 1900 in the south east survey area, neighboring the line F at the measurement point 1900 the low apparent resistivity zone is observed. Moreover in the central part of the survey line, neighboring the line D at the measurement point 900, and around the line E at the measurement point 900 the partial low apparent resistivity zone is observed. What's more, the low apparent resistivity zones are scattered locally, but most of them are regarded to be the influence of the static effects. The high apparent resistivity zone is also seen in the area surrounded from on the line K at the measurement point 300 to the line M at the merriment point 500, and the line K at the measurement point 300 and the line M at the measurement point 100.

Also, in the apparent resistivity distribution plane map of 256 Hz, even though a little smaller in scale at neighboring the central part of the survey line, the line D at the measurement point 900, the line E at the measurement point 900, the tendency of the low apparent resistivity zones are observed just as seen in the apparent resistivity distribution plane map of 1,024 Hz. This tendency is seen in the apparent resistivity distribution plane map of 64 Hz.

Although the partial low apparent resistivity zones are remained in the apparent resistivity plane map of 16 Hz, they are mostly resistivity zones with more than 200 Ωm.

The lateral discontinuous resistivity structure that can be judged from the psuedosection of the apparent resistivity and phase difference cross section is assumed in the southeast area neighboring the line A at the measurement point 500 and the line H at the measurement point 300, in the direction NW-SW to NNE-SSW. In the direction from the line I at the measurement point 500 to the line M at the measurement point 700, such extension of the lateral discontinuous resistivity structure is assumed. Also, around the center of the survey area, neighboring the line B at the measurement point 900, which continuously runs to the line K at the measurement point 1000, the lateral discontinuous resistivity structure that runs in the direction NE-SW to NNE-SSW is assumed. In the southwest area, the lateral discontinuous resistivity structure that runs in the direction NE-SW to NNE-SSW neighboring the line A at the measurement point 1800 and the line E the measurement point 1800 is assumed. Another structures starting from the line A at the measurement point 200 to the line C at the measurement point 0, and from the line L at the measurement point 0 to the line M at the measurement point 100 are assumed.

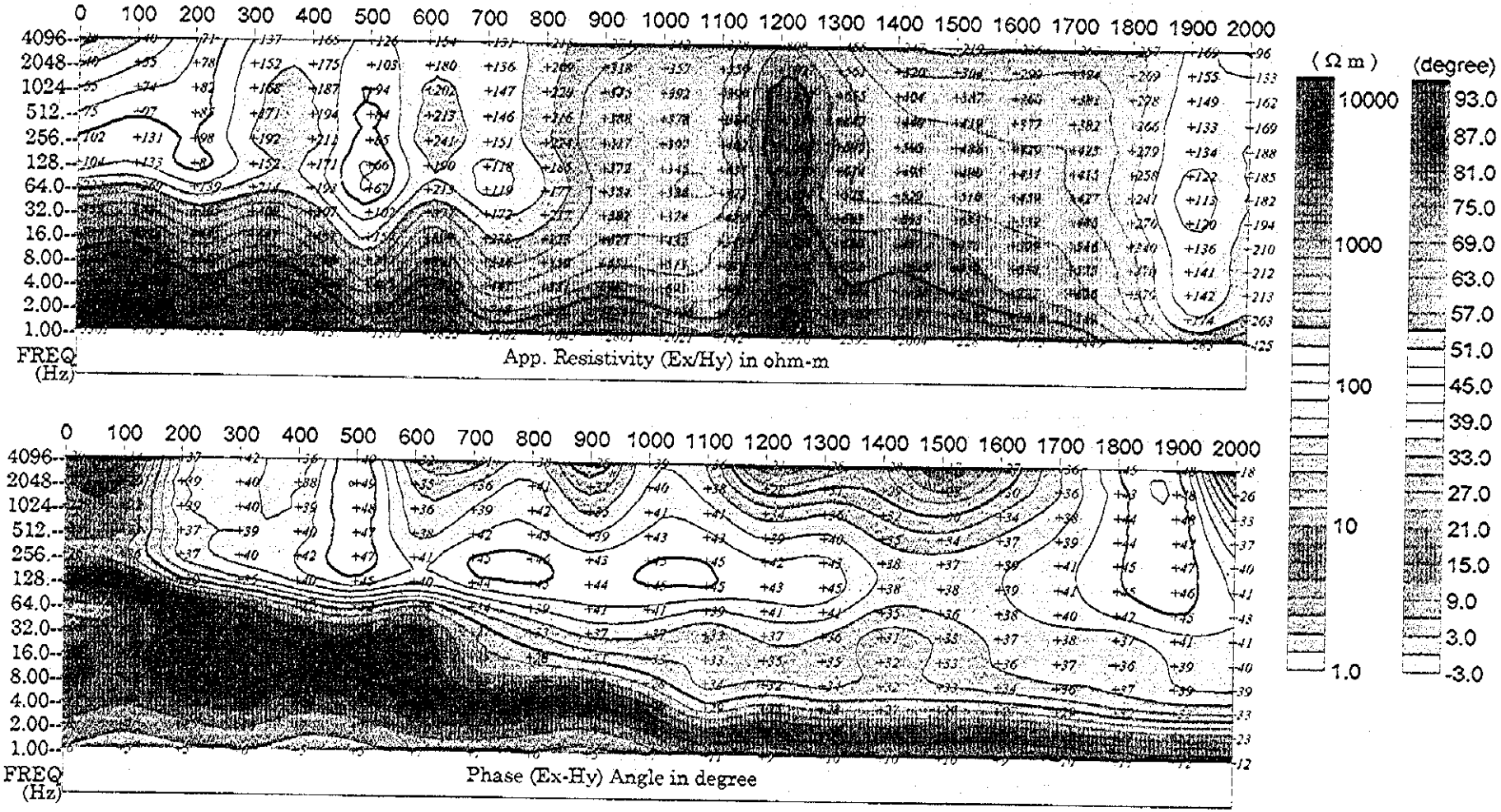


Fig.II-2-5.1 Pseudosection of apparent resistivity and phase difference for A line

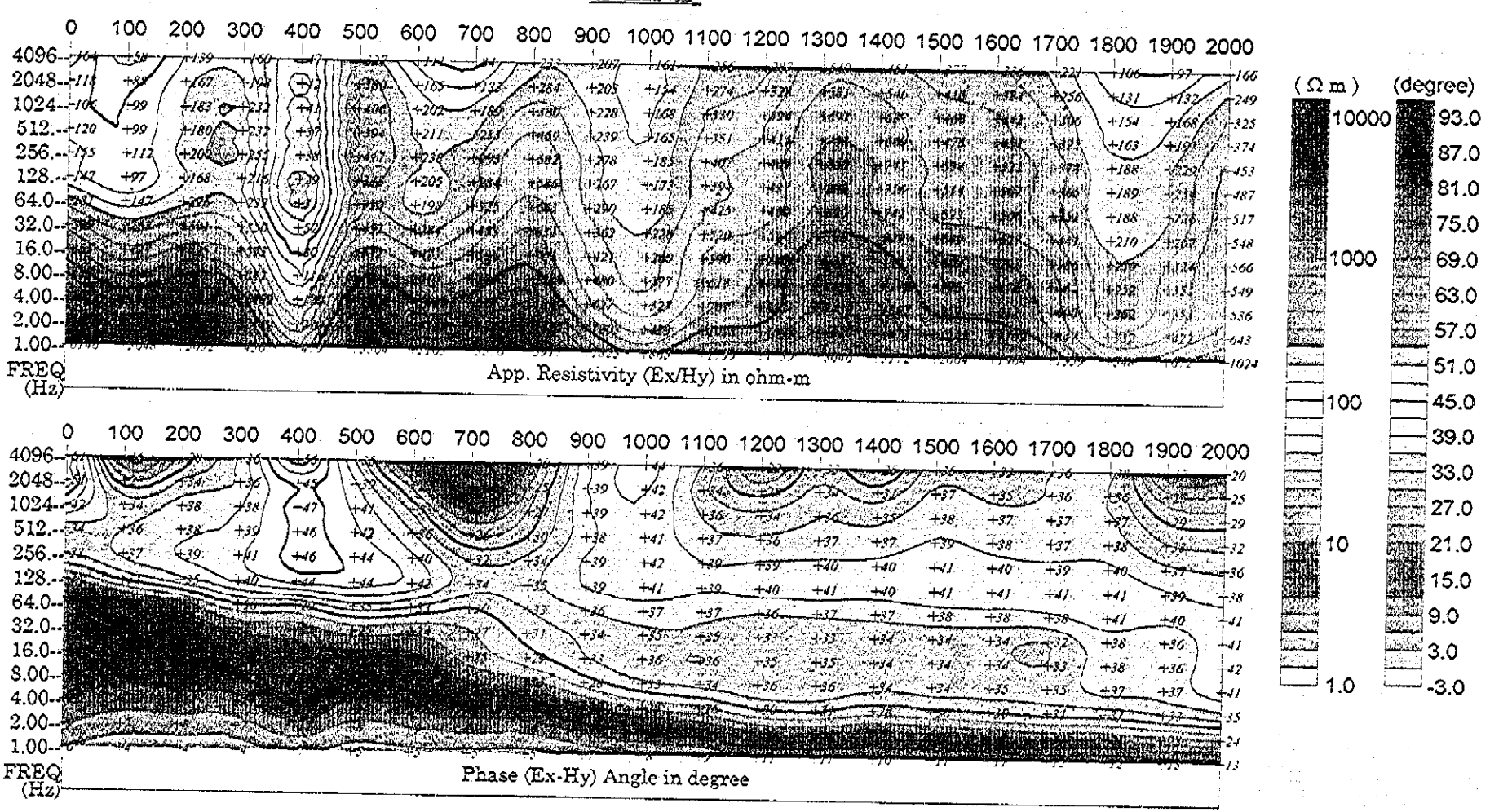


Fig.II-2-5.2 Pseudosection of apparent resistivity and phase difference for B line

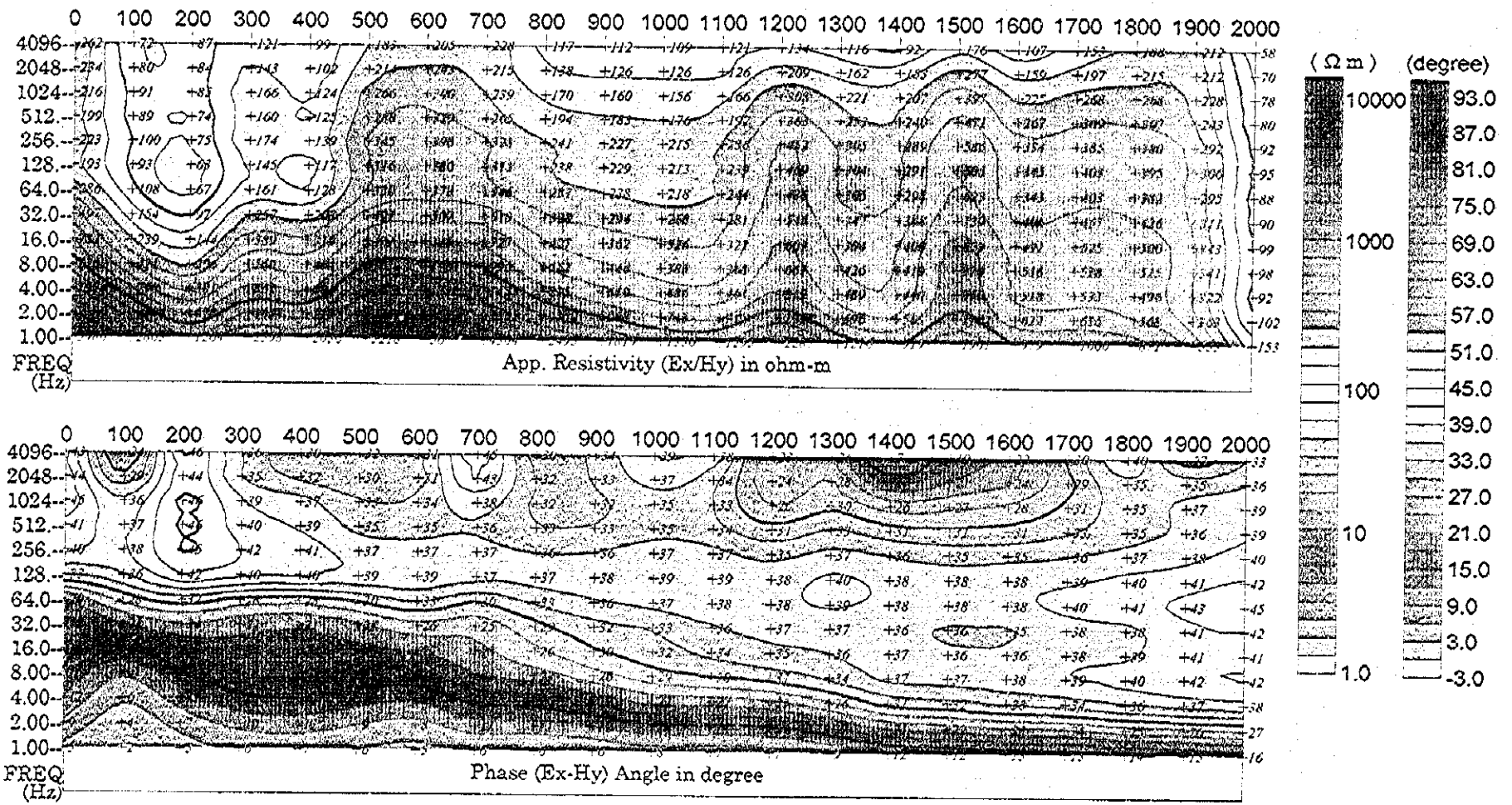


Fig.II-2-5.3 Pseudosection of apparent resistivity and phase difference for C line

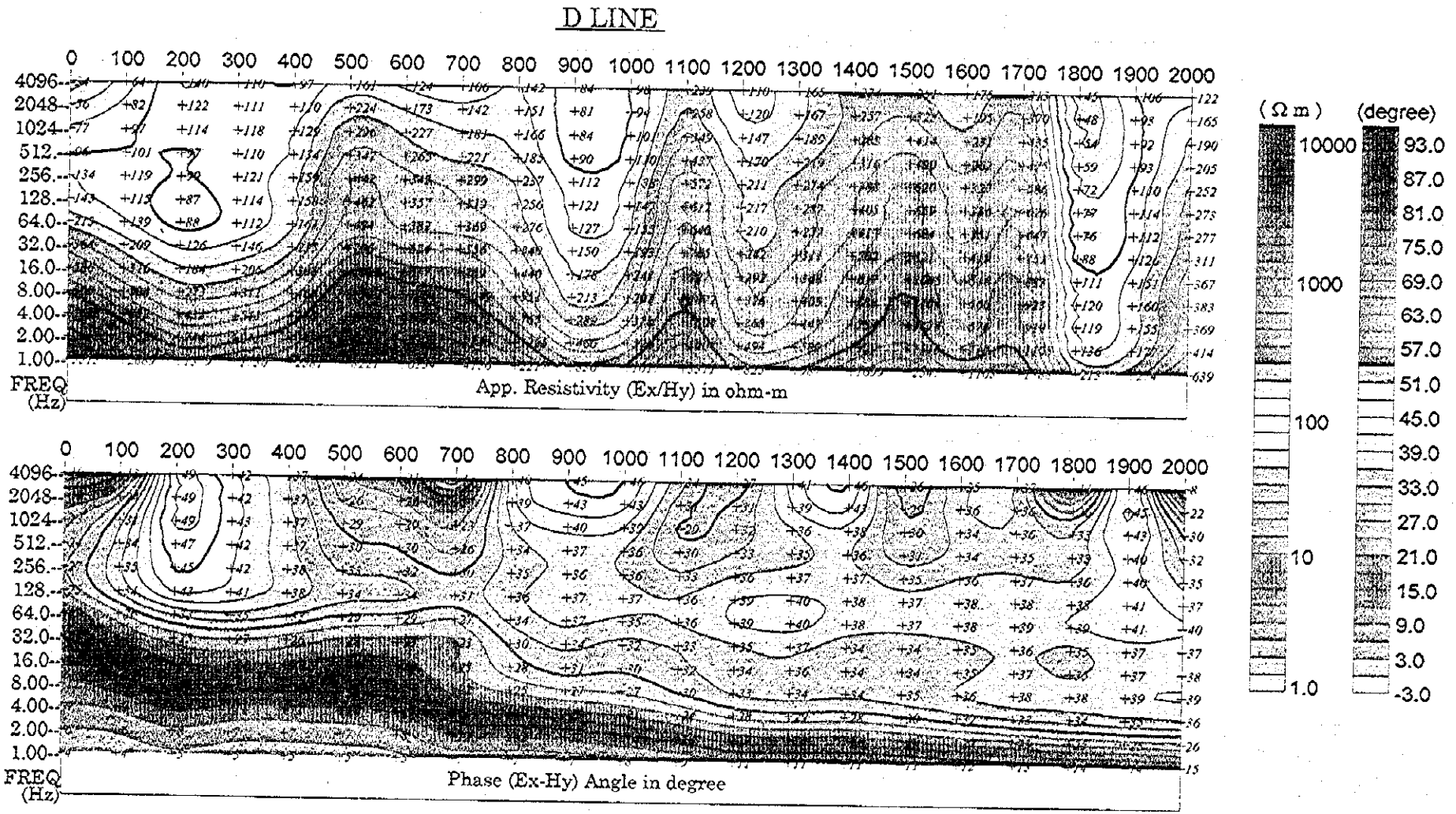


Fig.II-2-5.4 Pseudosection of apparent resistivity and phase difference for D line

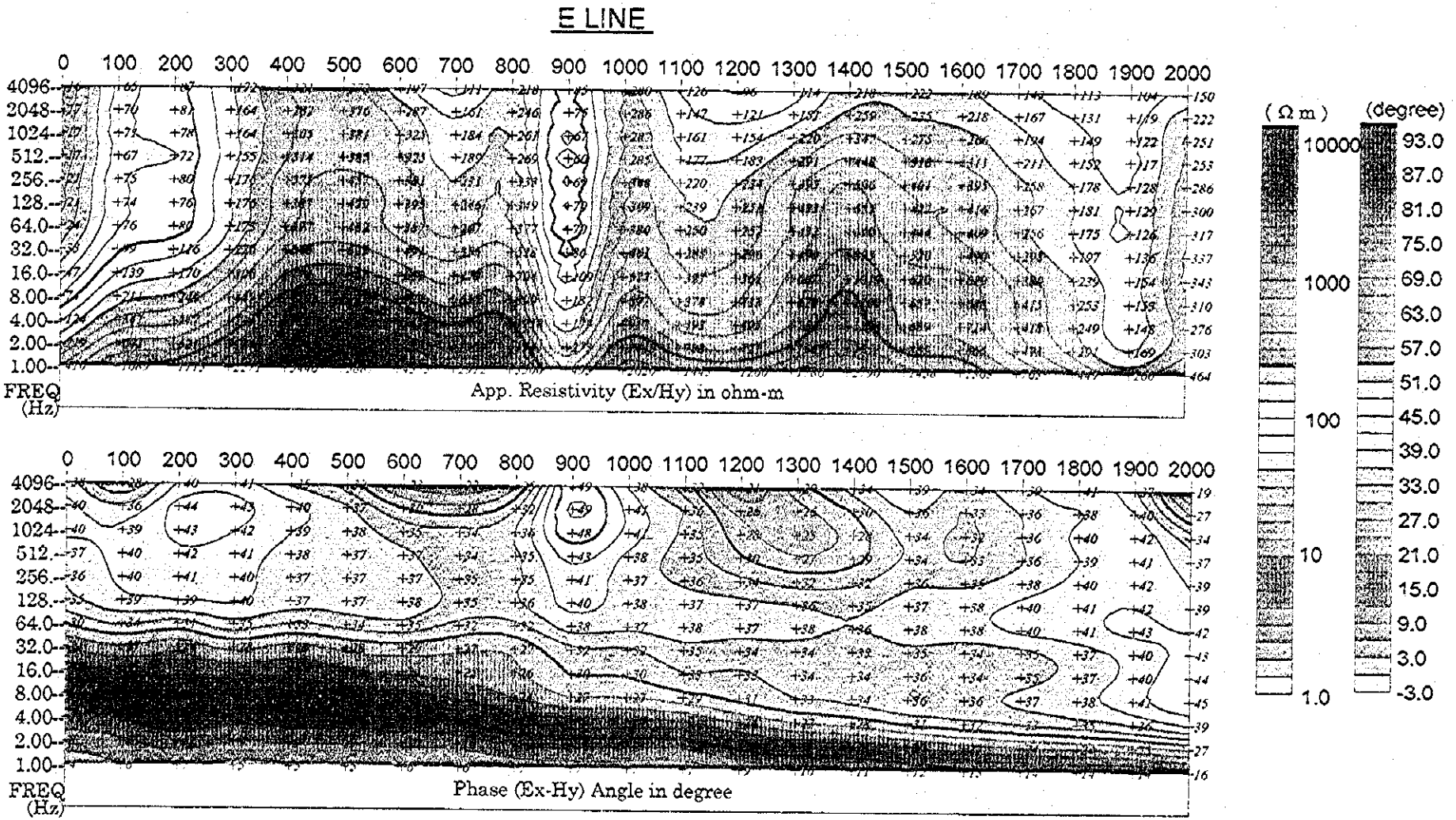


Fig.II-2-5.5 Pseudosection of apparent resistivity and phase difference for E line

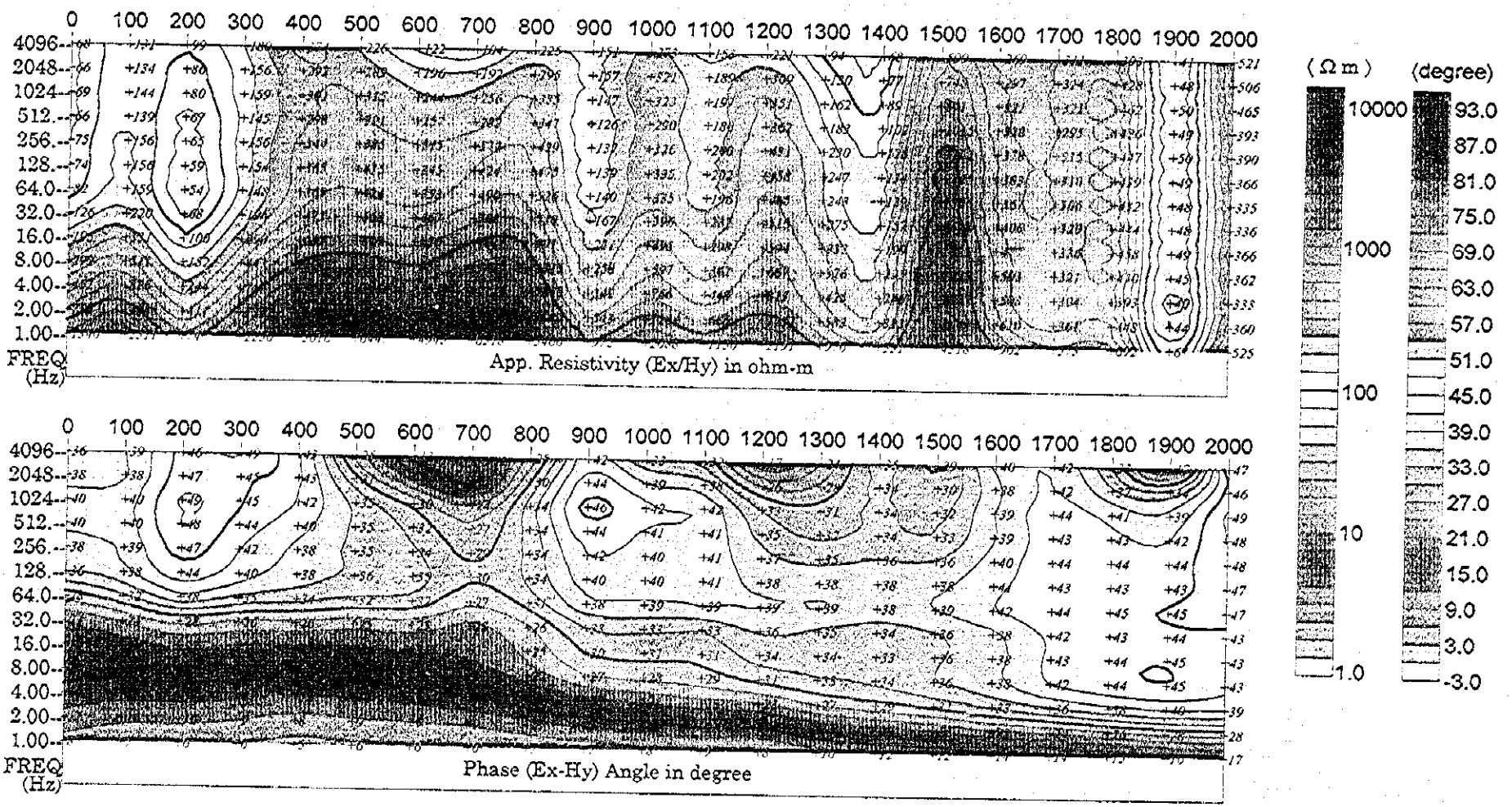


Fig.II-2-5.6 Pseudosection of apparent resistivity and phase difference for F line

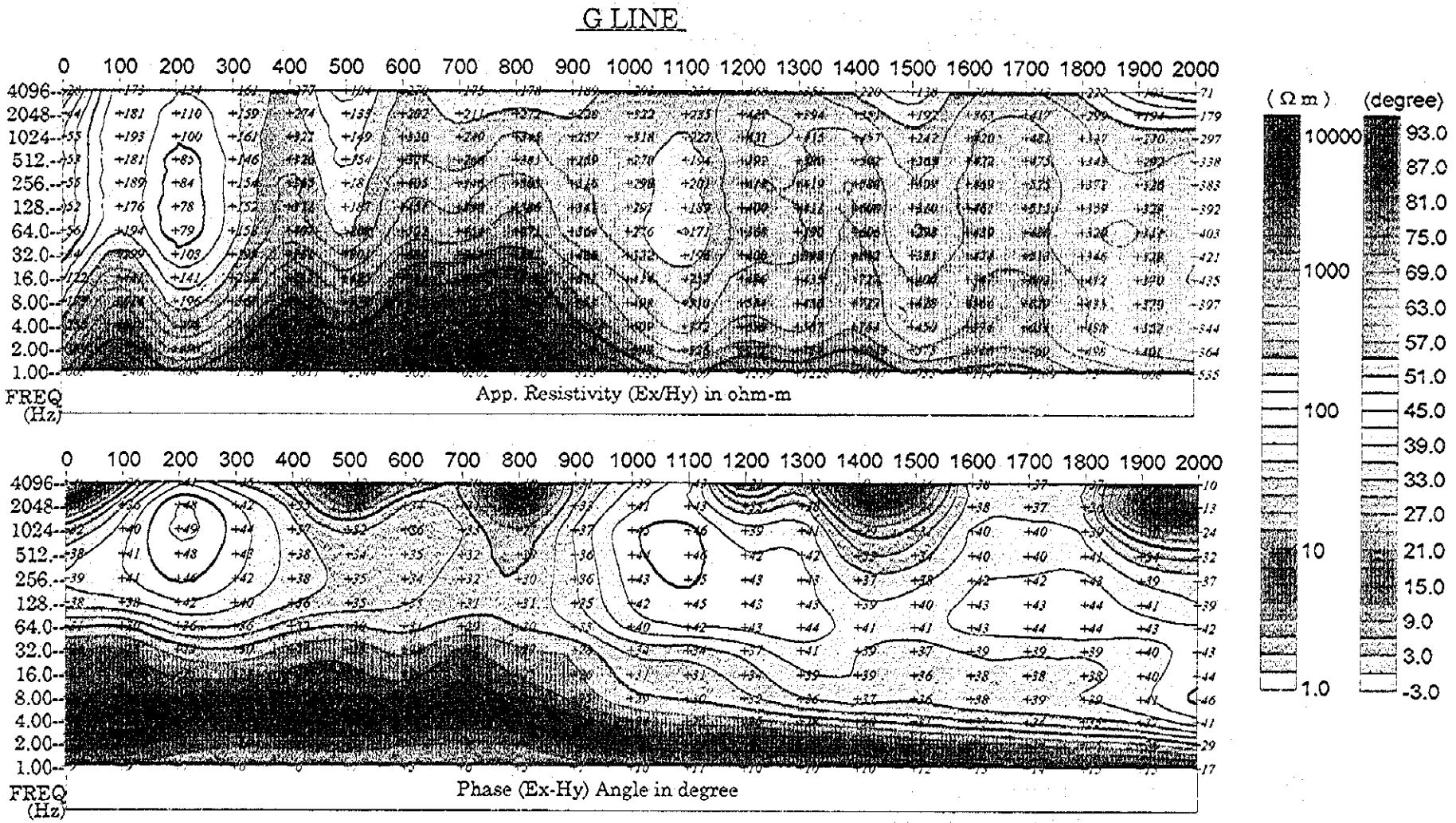


Fig.II-2-5.7 Pseudosection of apparent resistivity and phase difference for G line

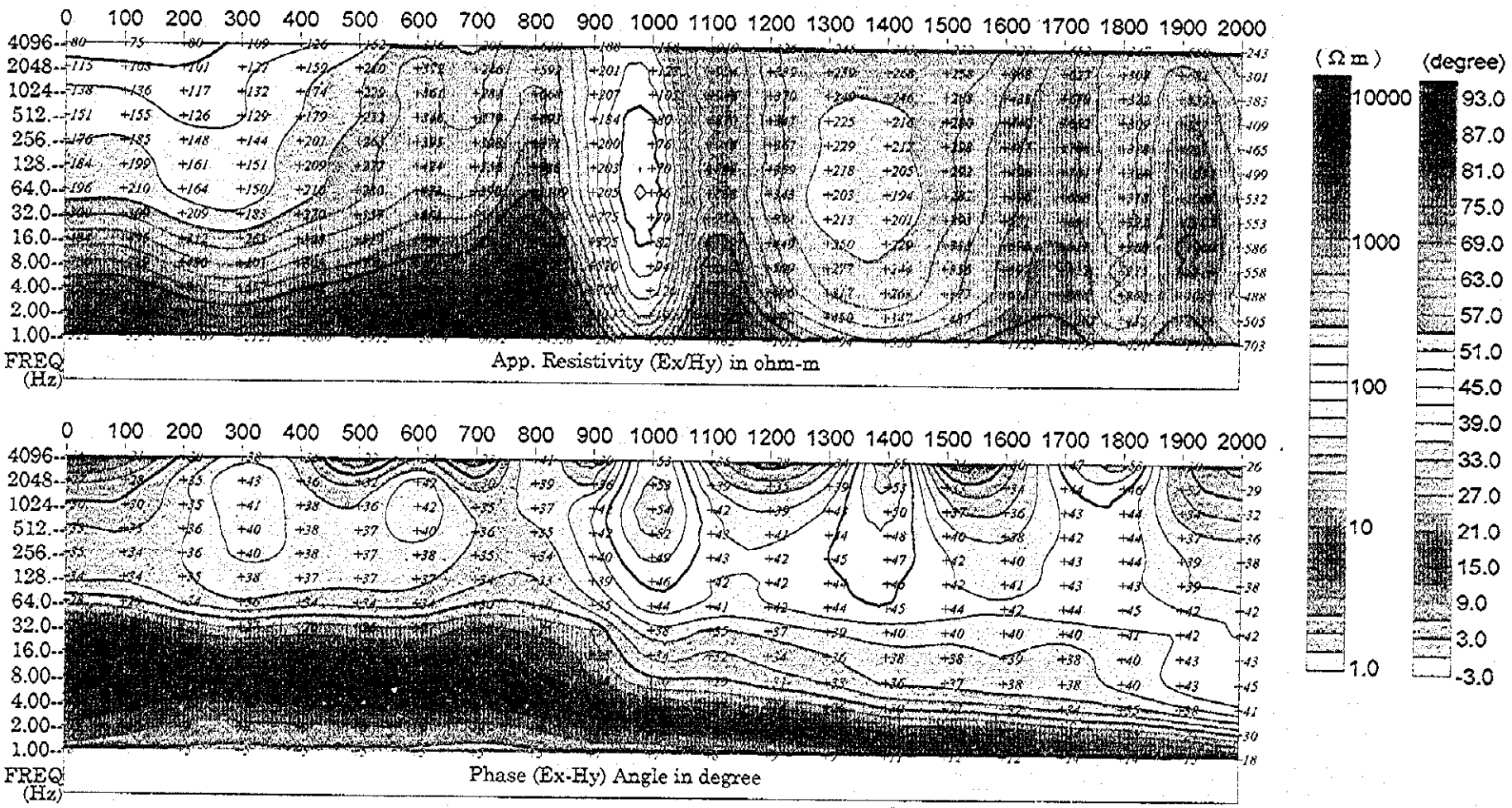


Fig.II-2-5.8 Pseudosection of apparent resistivity and phase difference for H line

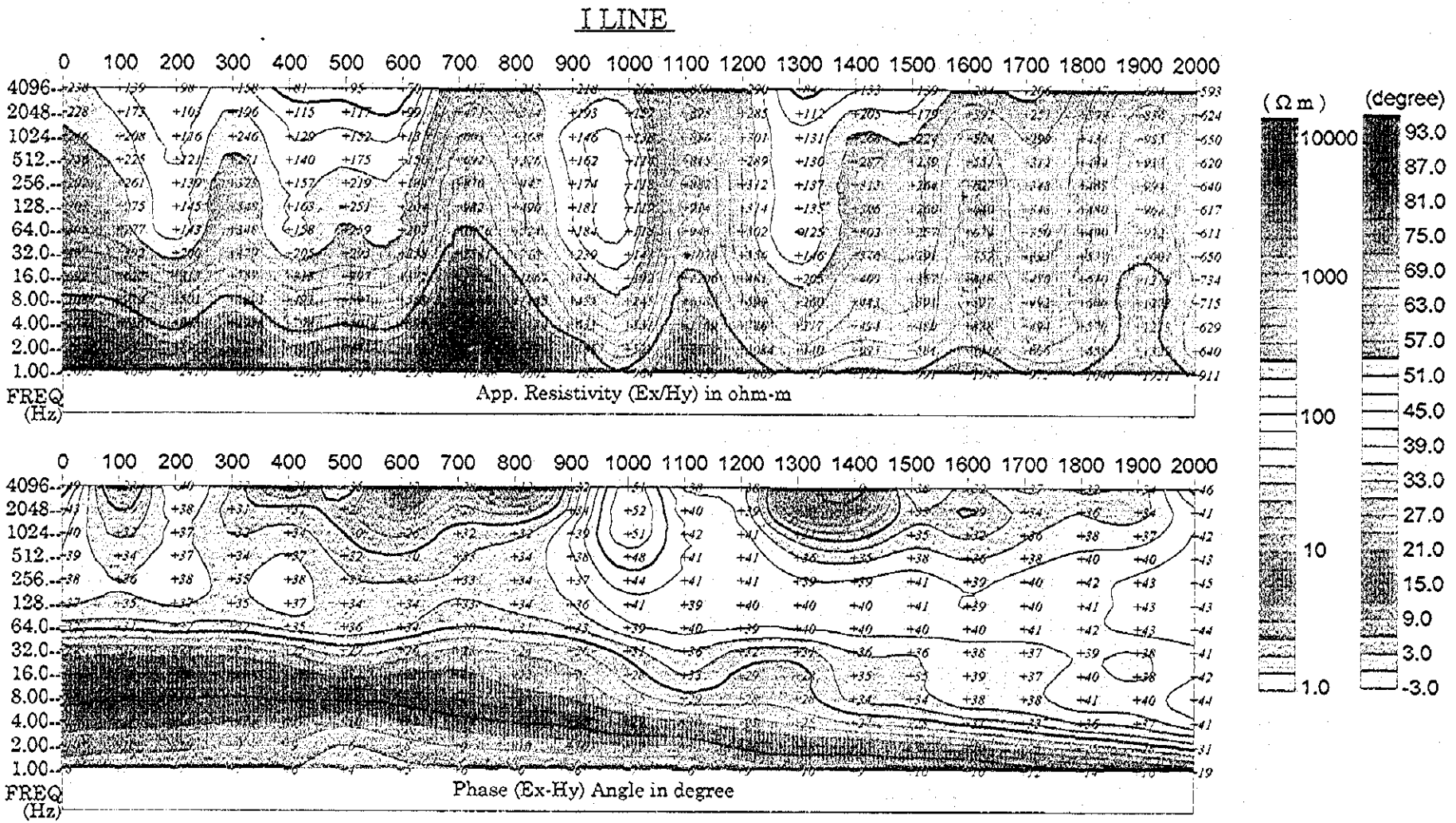


Fig.II-2-5.9 Pseudosection of apparent resistivity and phase difference for I line

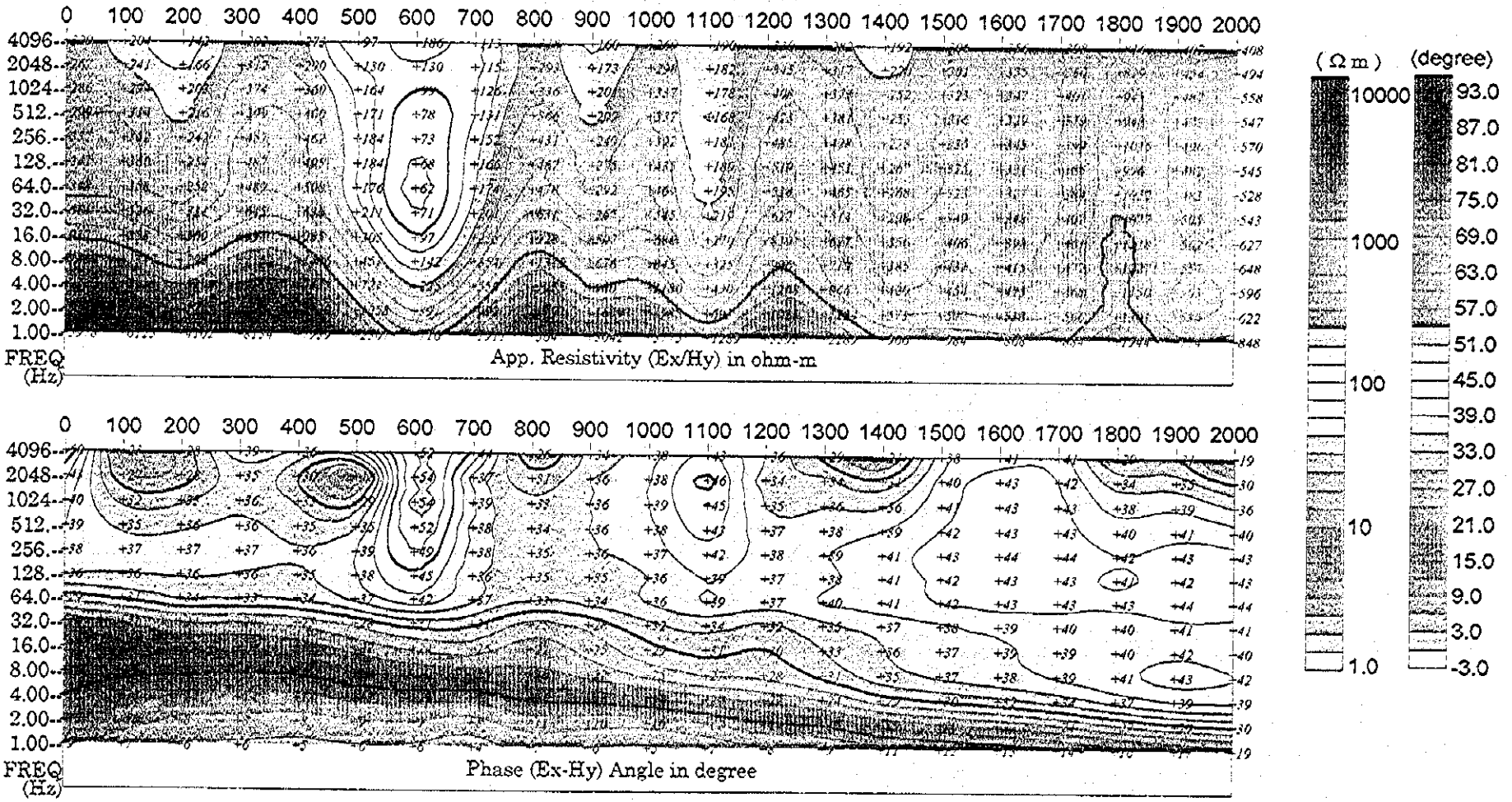


Fig.II-2-5.10 Pseudosection of apparent resistivity and phase difference for J line

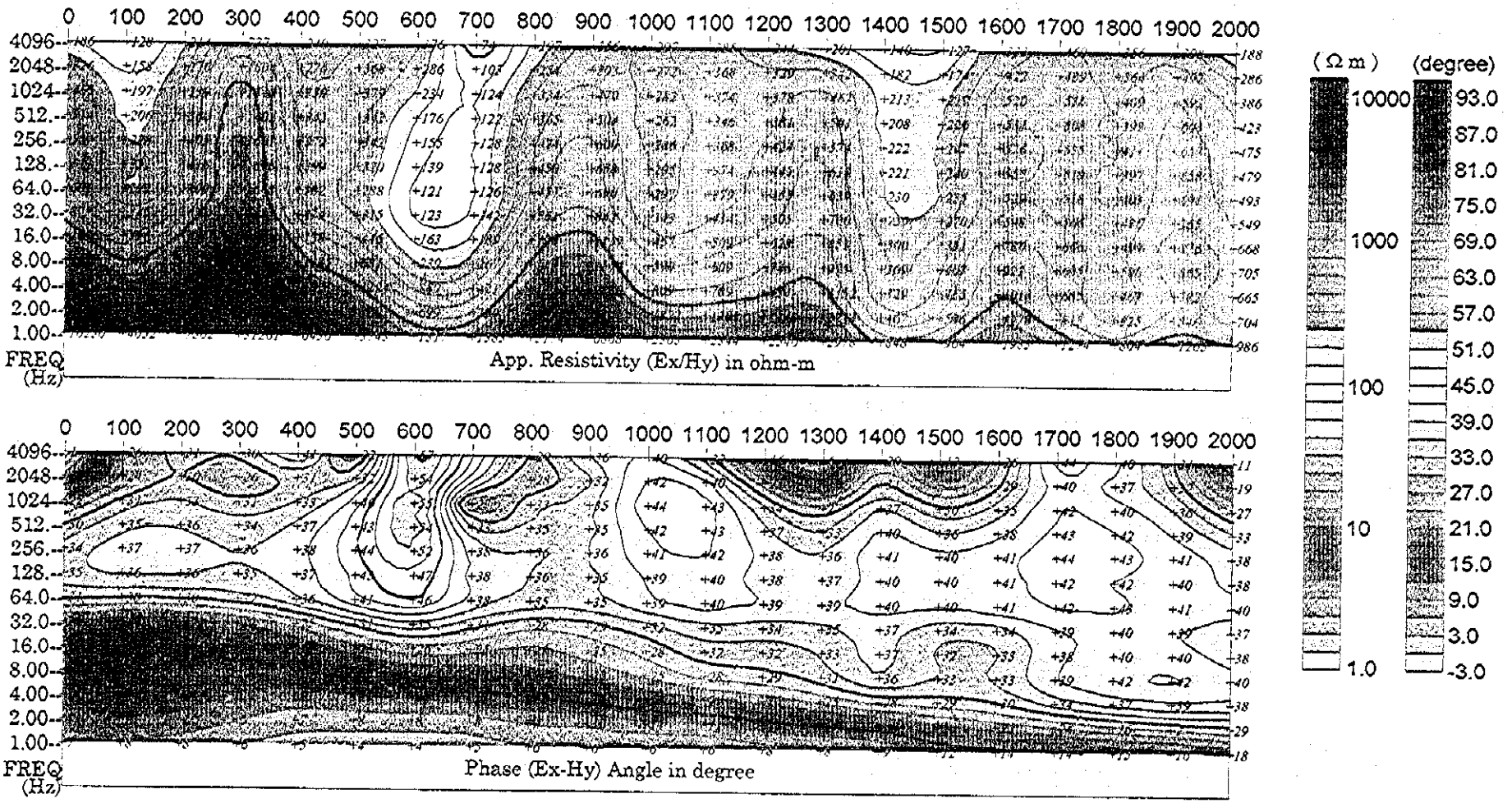


Fig.II-2-5.11 Pseudosection of apparent resistivity and phase difference for K line

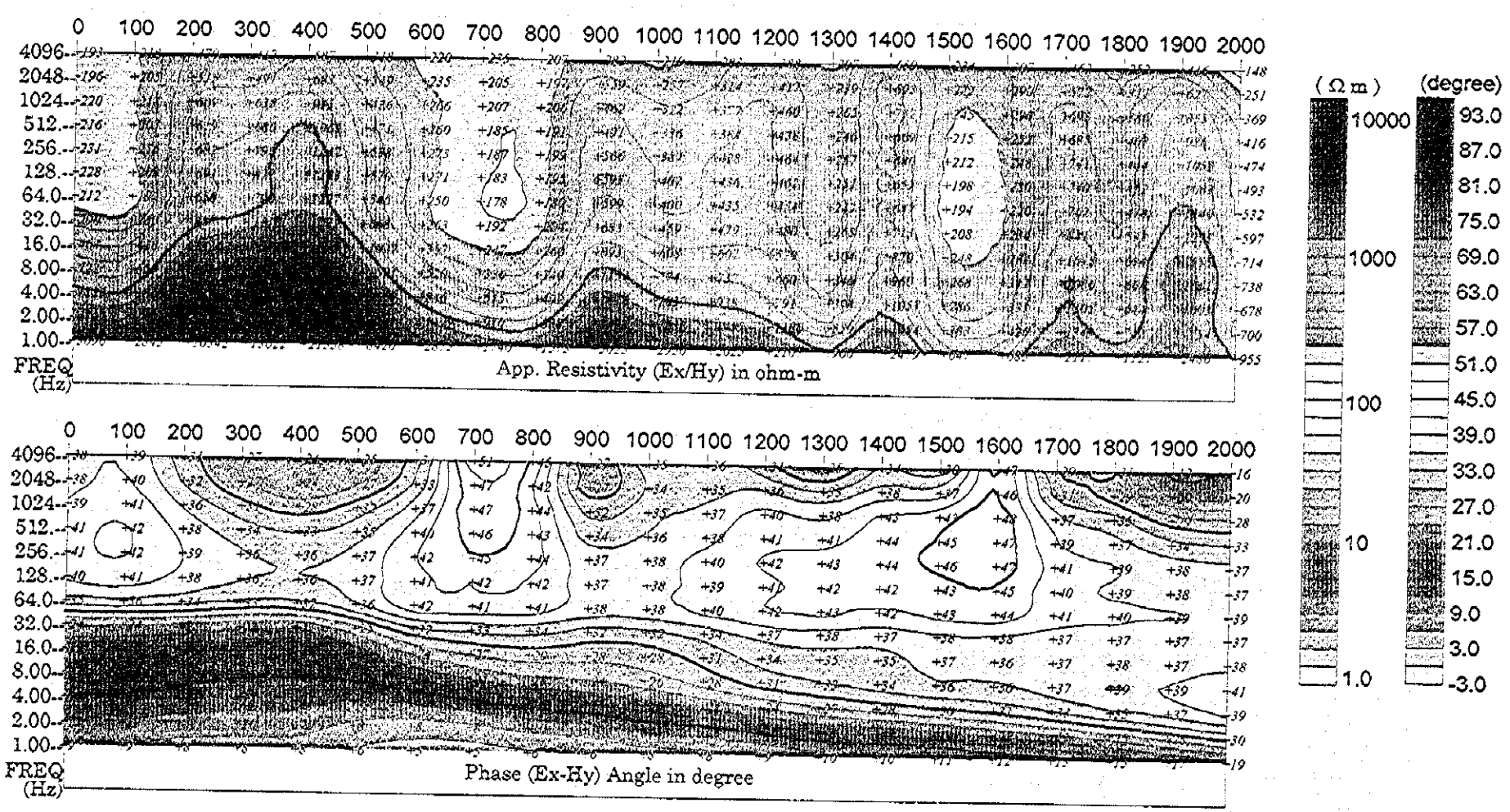


Fig.II-2-5.12 Pseudosection of apparent resistivity and phase difference for L line

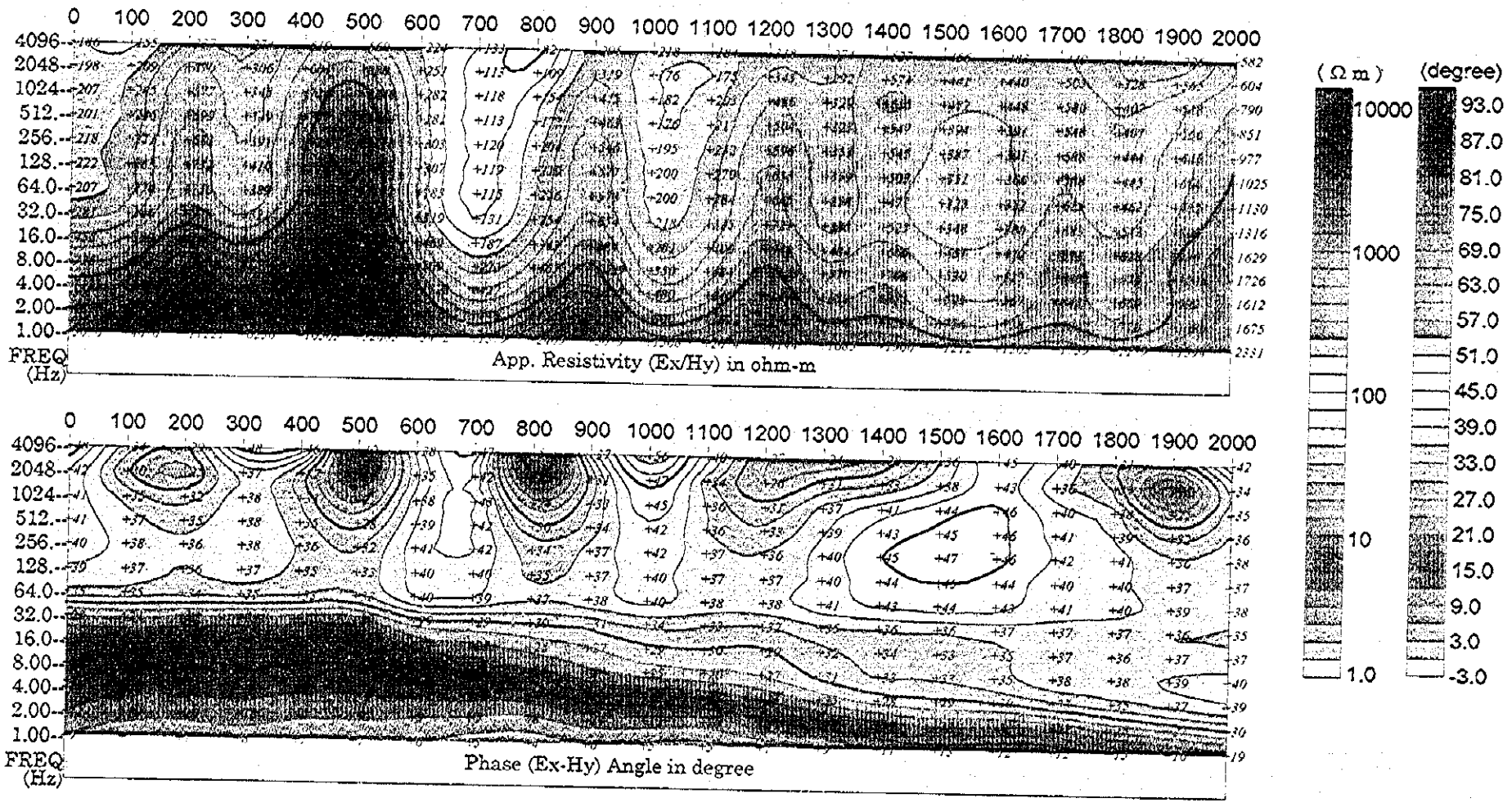
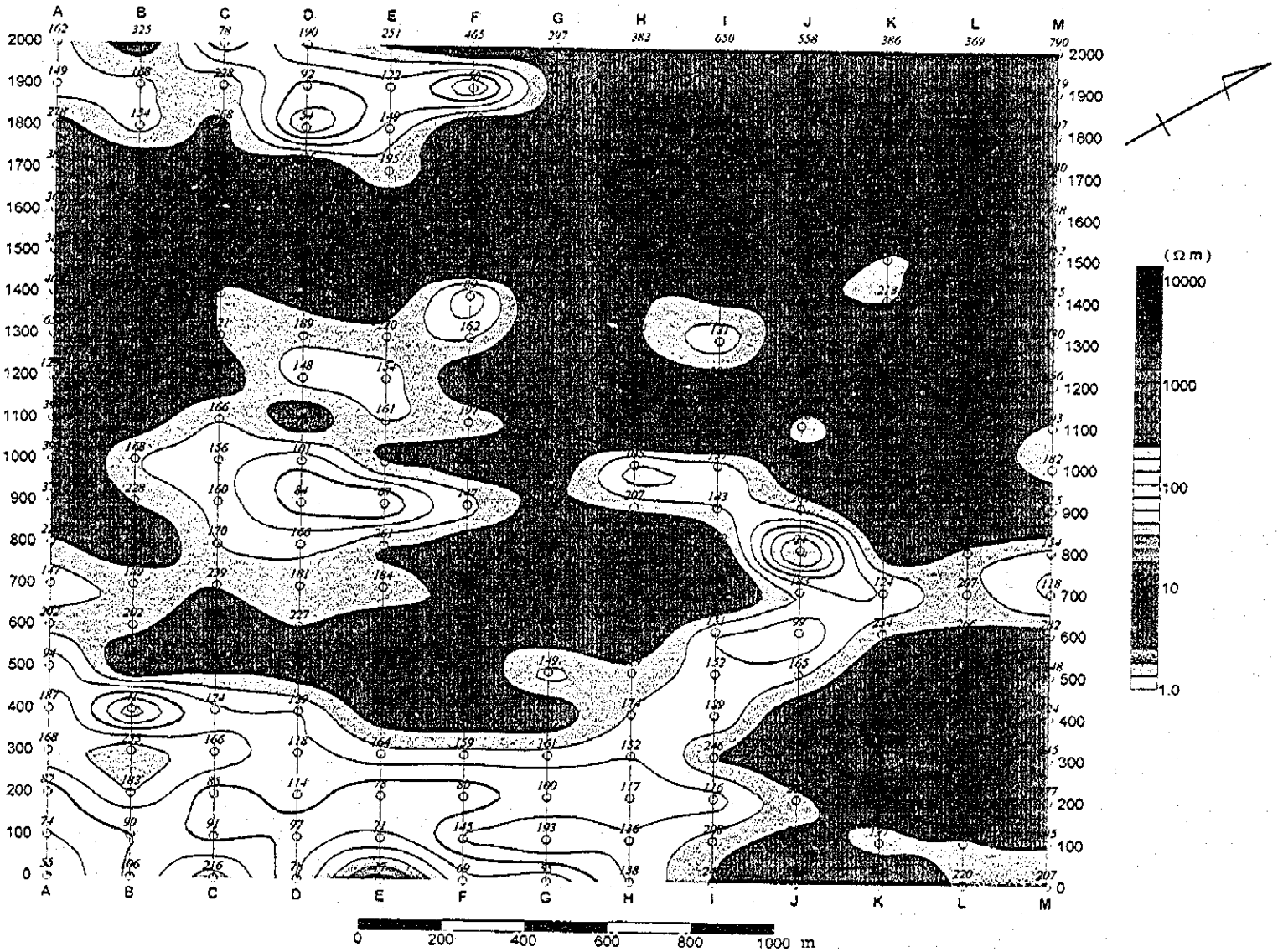


Fig.II-2-5.13 Pseudosection of apparent resistivity and phase difference for M line


A B C D E F G H I J K L M
2000 1900 1800 1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0
(Ω m)
10000
1000
100
10
1.0
0 200 400 600 800 1000 m

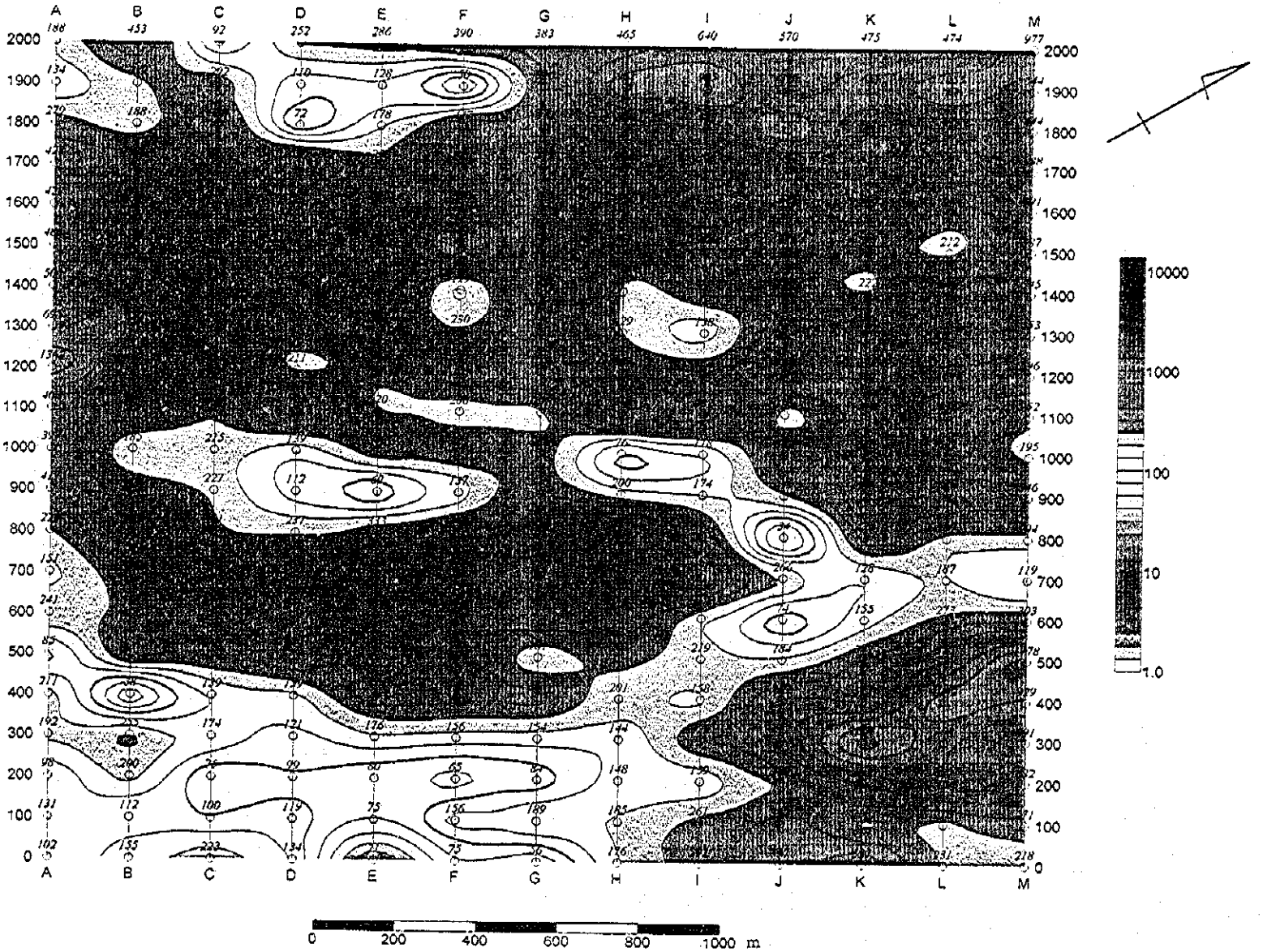
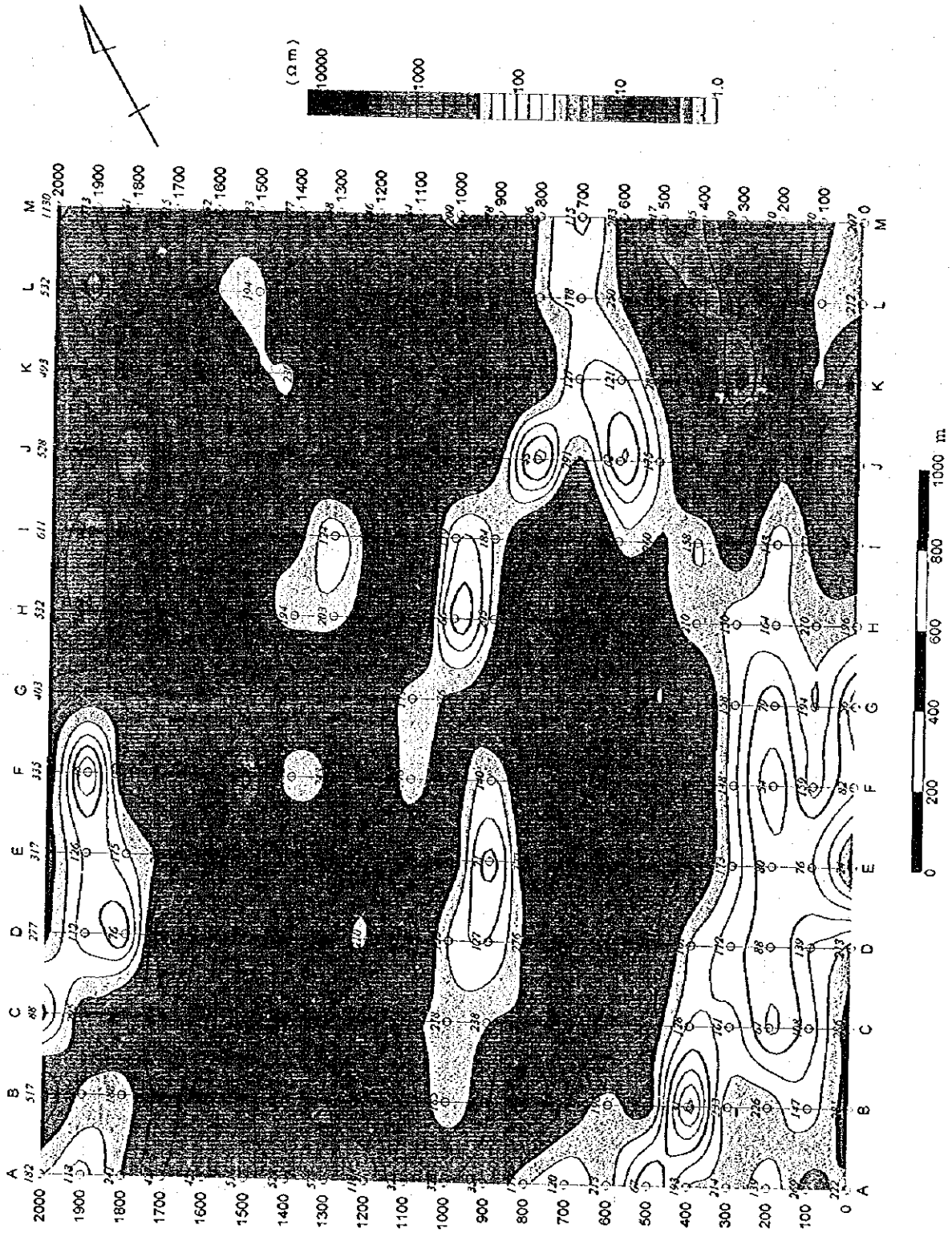


Fig.II-2-6.2 Plan map of apparent resistivity at 256Hz


(Ωm)
10000
1000
100
10
1.0
0
200
400
600
800
1000 m

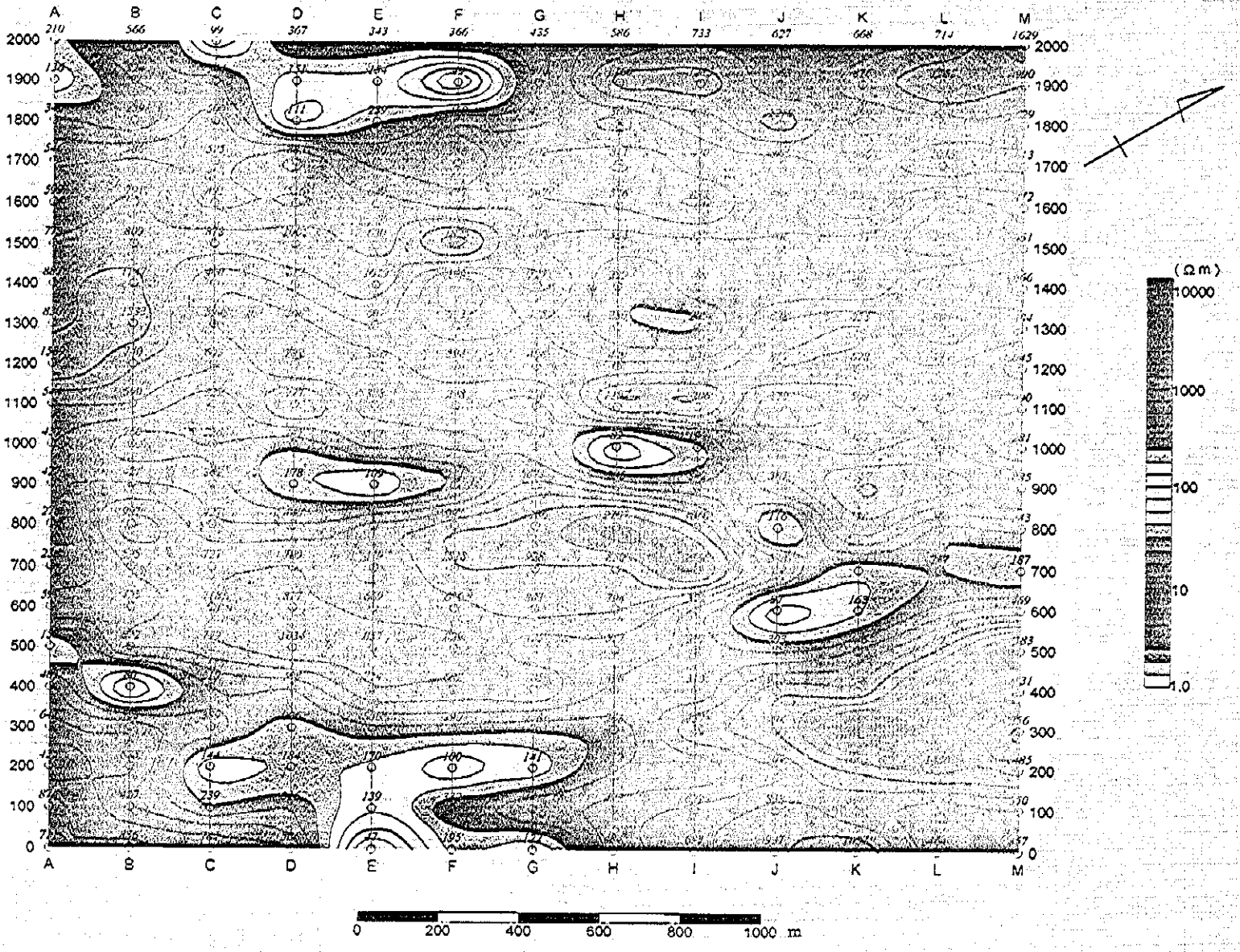


Fig.II-2-6.4 Plan map of apparent resistivity at 16Hz