

Exploration of the underground structure along the line from Hiratsuka to Susono(Part 3)

Toshikazu Tanada[1], Hisatoshi Baba[2]

[1] Hot Springs Res. Inst. of Kanagawa Prefecture, [2] Inst. Research and Development, Tokai Univ.

Investigating the underground structure of the western Kanagawa prefecture, we constructed a seismic exploration profile from the central Kanagawa prefecture to the eastern Shizuoka prefecture.

The length of profile, named the Hiratsuka-Susono profile, is about 50km and its strike is W-E direction. In this profile, there is the Kozu-Matsuda active fault and the Hakone volcano.

We observed a seismic signal from 4 blasts (3 exploration blasts for another exploration purpose and construction blast) for three years for 2000-2002, by using temporal stations and permanent stations of the Hot Springs Research Institute of Kanagawa prefecture.

Analysis of travel time is summarized as follows. Between Hiratsuka shot point and Ooiso hill, a velocity of first layer is 2.5-3.0km/sec and second layer, which is horizontal, is 4.4km/sec. At the Kozu-Matsuda active fault, we observed an offset travel time for SL7 shot of the Hakone exploration and for TD1 shot of the Western Kanagawa exploration. Between SL7 Hakone shot point and Ashigara plain, a velocity of first and second layers is 2.2km/sec and 4.3km/sec, respectively. Around Susono construction blast, we found a velocity of first layer 2.2-2.5km/sec and second layers 4.3km/sec.

In our poster presentation, we introduce observation seismic records and travel time at each station, and report it about an analysis result of underground structure.