

Microtremor survey and Surface velocity structure model in the Ojiya and Kawaguchi region.

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<http://www.j-map.bosai.go.jp>

In the 2004 Niigata-ken Chuetsu earthquake that had occurred on October 23, 2004, the earthquake movement of seven corresponding in the seismic intensity was observed in Ojiya City and the Kawaguchi-cho in the hypocenter neighborhood. Big damage was caused in a Kawaguchi-cho near the hypocenter.

To understand the characteristic of this earthquake movement and the situation of the damage situation in this examination, the microtremor measurement was executed in respect with Ojiya City about 130-places over in the Kawaguchi district.

As a result, the difference was able to be confirmed plainly in Ojiya City at the excellence cycle of the H/V spectrum in the region that corresponded to the alluvium flat and the river terrace.

Moreover, the borehole survey executed it in three places(the vicinity of the K-NET Ojiya observation point(100m), the vicinity of the JMA Ojiya observation point(30m), and the vicinity of the Kawaguchi-cho observation point(30m)).

The investigation executed P-S logging, the density examination, and the analysis of Q value, etc.

The ground amplification characteristic in these regions was clarified by comparing the above-mentioned result and material and the damage distribution.

It executed the presumption of an appropriate earthquake movement at time that an actual earthquake happens. Moreover, These information was collected, the Surface velocity structure model making was executed.