

Heat flow distribution in Hokkaido area

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We investigated on the heat flow distribution in Hokkaido area by the thermal gradients of Hi-net's borehole. National Research Institute for Earth Science and Disaster Prevention (NIED) deploys the high sensitivity seismograph (Hi-net) across the all of Japan, as part of the activities of the Headquarters for Earthquake Research Promotion. NIED constructed about 700 observation sites all over Japan, 112 observation sites in Hokkaido area.

In 2005, we measured geothermal profiles of these sites by the optical fiber. These boreholes sites reached temperature equilibrium state by equal to or more than 5 years' passing after constructed. We got the high quality data of geothermal gradients and heat flow data. The characteristic of the heat flow distribution in Hokkaido area is as follows.

1. In the southern part of Tokachi-area, there is a very low heat flow area of 30-40mW/m².
2. In the Abashiri-area, there is a high heat flow area apart from volcanic front.