P-wave seismic reflection profiling across the northern part of the Kamishiro fault in the ISTL active fault system, central Japan

*Haruo Kimura¹, Yasuhira Aoyagi¹, Yasuhiko Akinaga², Masaki Suehiro²

1. Central Research Institute of Electric Power Industry, 2. Hanshin Consultants Co., Ltd.

We carried out P-wave seismic reflection profiling to reveal the shallow (about 0–1 km) subsurface structure across the northern part of the Kamishiro fault in the Itoigawa–Shizuoka tectonic line active fault system. Obtained migrated depth-converted section has shown subsurface structures of a main thrust unruptured during the M_w =6.2 2014 Nagano earthquake and branching and back thrusts ruptured during the earthquake.

Keywords: Itoigawa–Shizuoka tectonic line active fault system, Kamishiro fault, active fault, 2014 Nagano earthquake, seismic reflection profiling, subsurface structure