

Coseismic discharge of hot spring water due to the 2014 Northern Nagano earthquake

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On November 22, 2014, the Mw6.2 (Mj6.7) earthquake occurred in the northern part of Nagano Prefecture. Next morning, an anomalous discharge of hot spring water and gas was found in 8 km north of the epicenter. As the result of our survey on December 2, the water temperature was 26.4 degree-C, and the flow rate was 75 L/min. The major chemical composition of hot spring water and gas were sodium bicarbonate and methane, respectively.

Keywords: the 2014 Northern Nagano earthquake, hot spring water discharge, coseismic hydrological change