

Liquefied sites during the 2016 Kumamoto Earthquake

*Shigeki Senna¹, Wakamatsu Kazue², Kyoko Ozawa¹, Hiroyuki Fujiwara¹

1. National Research Institute for Earth Science and Disaster Prevention, 2. Kanto Gakuin Univ

This paper summarizes reconnaissance surveys of liquefaction and its damage to structures during the 2016 Kumamoto Earthquake. The principal findings include: 1) Sand boils observed in eight cities and towns in Kumamoto City and the surrounding areas where seismic intensity 6 minor in the Japan Meteorological Agency Scale was observed during the foreshock, main shock or aftershocks; 2) Geomorphologic units of liquefied sites are reclaimed land, natural levee, back marsh, former river channel and delta along the major rivers in the affected areas including Shirakawa, Midorikawa and their tributaries; 3) Repeated liquefaction was observed at Akitsu, Kumamoto City and Syouwa-doujin-machi, Yatsushiro City where liquefaction took place during the 1889 Kumamoto and 1968 Hyuganada earthquakes, respectively.

Keywords: liquefaction, seismic intensity, geomorphologic land classification

