

# Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



MIS036-P176

Room:Convention Hall

Time:May 27 14:15-16:15

## Surface peels of the cross section of sand cones formed soil liquefaction and use as a teaching material

Tomohiro Kasama<sup>1\*</sup>, Saeko Ishihama<sup>1</sup>, Shuichi NIIDA<sup>1</sup>

<sup>1</sup>Kanagawa prefectural museum

The reclaimed land around the Tokyo Bay, for example Urayasu, Chiba, was damaged by soil liquefaction of the 2011 off the Pacific coast of Tohoku Earthquake. Damage of soil liquefaction also occurred on the schoolyard. But the schoolyard is the important evacuation area in every school. There needs measures of soil liquefaction in the future.

Surface peels of cross section of boiling sand cones formed by soil liquefaction were made in the school yard of grade school at Mihama, Chiba on April 1. Almost of the sand cones formed along the fissure like scoria cones along the fissure eruption. The section was made in a right-angled direction to the fissure. The schoolyard was dug down a little, and the section in the boiling sand cone was made. Domestic adhesives of the spraying type, G17 and Z2 by Konishi Co., Ltd, was painted on the section. The cloth was put on the adhesive. The cloth was peeled off. The cross section of sand cone was on the cloth. The widths (or diameters) of the sand cones are several centimeters to tens of centimeters. These heights are several centimeters to about twenty centimeters. These widths (or diameters) of the vent of boiling sand are several centimeters to thirty centimeters. These boiling sand cones are smaller than Ishiga et al. (2001) of Tottori-seibu earthquake. The boiling sand cones are made of medium or fine sand containing shell fragments, and these surface are covered by very fine sand or silt. This fining upward unit is repeated twice or more, showing several boiling event. Some surface peels was donated to the grade school where surface peels was collected. These surface peels will be used as a teaching material of earthquake of sixth grader. We will search for the use method as the teaching material of the sand cone while confirming the children's reactions and report later.

Keywords: surface peel, boiling sand cone, teaching material