

Sediment density analysis of the drilled core near Kakuda-Yahiko Fault, western part of the Niigata City, central Japan

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The Niigata Plain facing the Sea of Japan is situated back-arc side of Honshu Island. The thickness of the alluvium beneath the Niigata Plain reaches of 160m. Kakuda-Yahiko fault group is a major buried fault along the western border of the Niigata Plain. The latest Pleistocene to Holocene sediments can be divided into eight sedimentary facies: meandering river sediments, marsh to lagoon sediments, offshore sediments, shoreface sediments, foreshore sediments, backshore sediments, modern river and dune sediments, in ascending order. We measured the density of the sediments from the drilled core by followed method

- *weight of the 1m core
- *weight of the 7cc cube sample
- *weight of the sample for the soft X ray case
- *gamma density from the MSCL(products of GeoTech Ltd.)
- *digital X ray sensor

Measured density of each method are different by the sediment facies. For example, density from the cube sample is lower than the calculate gamma density in the marsh and offshore sediment. On the other side, higher in the foreshore sediment. We will discuss the correlation of the density from each method.