

Drilling survey across the active faults along the western margin of the Nagano Basin, at Kusama site, Nakano City, central Japan

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We have conducted drilling survey across an up to 6-m-high tectonic bulge located on the active faults along the western margin of the Nagano Basin, at Kusama site, Nakano City, Nagano Prefecture, central Japan, which ruptured during the 1847 Zenkoji earthquake, to reveal late-Holocene deposition process and deformation process related to active reverse faulting and folding. On the backlimb structure constructed by 19 cores, which were obtained by percussion core sampler and handauger, an up to 25-cm-thick peat layer dated at AD1413-1617 is interpreted to have been tilted associated with reverse faulting and then covered by a humified silt layer with an on-lap pattern, probably indicating coseismic folding and growth of the tectonic bulge during the 1847 Zenkoji earthquake.

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