

Result of survey of Yunotake fault (summary)

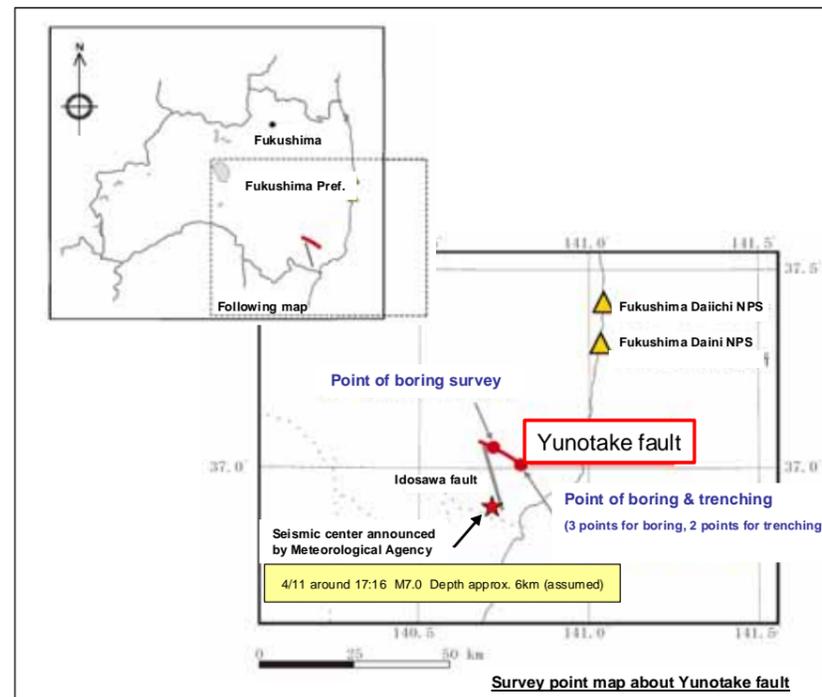
1. Purpose

We confirmed appearance of normal type earthquake fault (appeared to surface due to the earthquake) which was not determined as an active fault taken into consideration for the seismic design along with Yunotake fault due to the earthquake (M7.0) on April 11, in Hamadori, Fukushima prefecture. In light of the above, we conducted boring survey and trench survey around the area to investigate activity of Yunotake fault since late Pleistocene (approx. 120k – 130k yrs old).

2. Location of survey and result

(1) Location of survey

Survey was conducted at the location shown in the map below.



(2) Period of survey

September 29, 2011 to December 23, 2011

(3) Result of survey

With regards to the Yunotake fault, because of the distance from the site (50km and 40km from Fukushima Daiichi and Fukushima Daini respectively) and length of the fault, as it has little affect to the site, no detailed geological survey such as boring was not conducted and based on the geomorphic surface and fault fracture appeared on the surface (fracture of rock bed due to fault activity), it was determined there was no activity since late Pleistocene.

However, in light of the appearance of earthquake fault along with the Yunotake fault due to the earthquake (M7.0) occurred in the surrounding area of Yunotake fault on April 11, detailed geological survey was taken such as boring and trench survey.

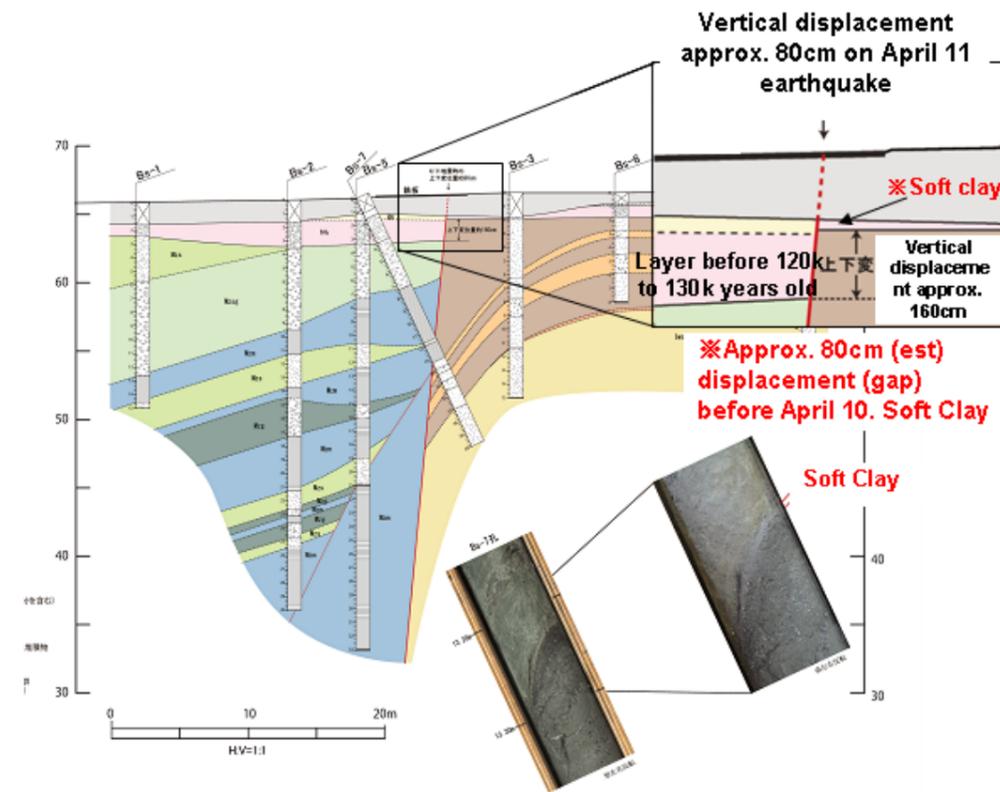
As a result of the survey, for the characteristics of the fracture of fault, through the detailed observation of both new fault plane and fracture, slight amount of soft clay was observed which will be the trace of activity after late Pleistocene. And as a result of detailed observation of couple of boring samples on the fault plane, it was confirmed each samples contained soft clay which will be the trace of activity after late Pleistocene.

For the fault activities before April 11, as, in the various location, displacement (gap) was observed in the basement of layer deposited before 120k to 130k years which was larger than that of the earthquake fault appeared surface on April 11, activities after late Pleistocene was confirmed.

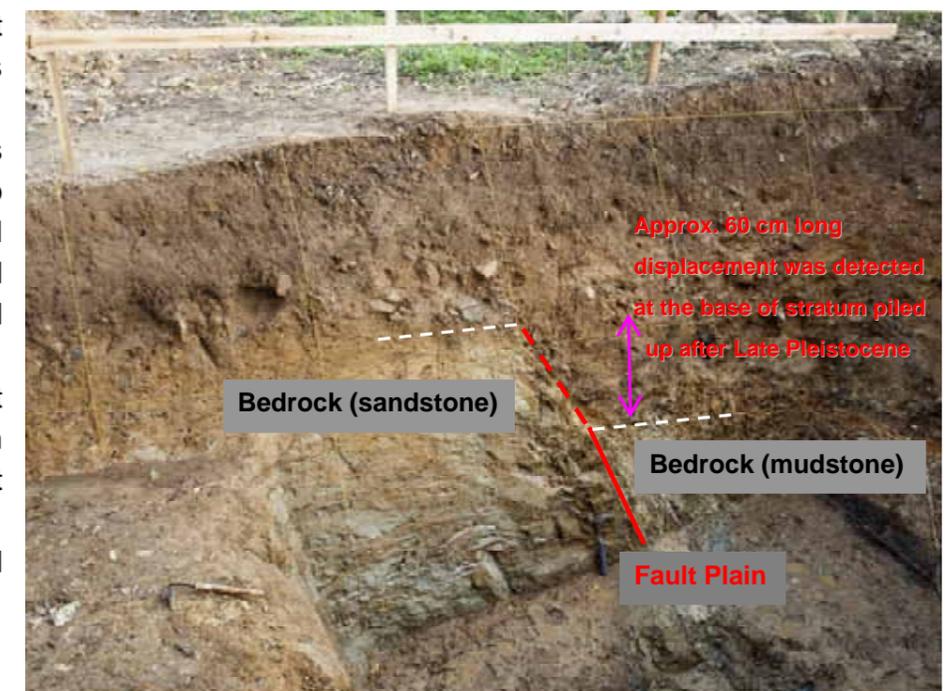
According to the result of the survey above, Yunotake fault is determined as the fault which should be taken into consideration for the seismic design, if the same detailed survey such as boring and trench survey, was conducted before the earthquake, determination could be considered possible.

For the faults which have significant affects to the site, as not only the surface survey but boring survey to confirm underground condition, it is determined that it does not affect the previous result of determination of active fault.

End



Example of Boring Survey Result



Example of Trenching Survey Result