

Thrust structure of the Goryo fault, the Furano Thrust System, Hokkaido.

Sunao Ohtsu[1]; Makoto Tamura[1]; Wataru Hirose[1]; Jun Tajika[1]

[1] Geol.Surv.Hokkaido

The fault structure gives great influence to active fault evaluation. By the process of active fault investigation, I confirmed the fault-bending phenomenon in shallow level. We report it as the example that this structure was discovered with surface of the earth. And I explain that the topographic pattern and gravity abnormality which this structure makes.

The Furano thrust system, northern Japan, run along the topographic boundary of Furano basin. The western marginal faults of Furano basin are mainly composed of low angle reverse faults dipping to west. The geological structure around the seismic line is characterized by Nakafurano-Namakoyama fault and Goryo fault from west to east and fault-related folds.

Nakafurano-Namakoyama fault are thrusts dipping to west, and Goryo is a thrust dipping to east. The seismic reflection profiling suggests that Nakafurano-Namakoyama fault is major and wedge type blind thrust, and that Goryo fault is a branch of Nakafurano-Namakoyama fault (Ohtsu et.al., 2003). It is also presumed that Goryo fault is a back thrust associated with Nakafurano-Namakoyama fault. The basal horizon of growth strata almost corresponds to the top of Tokachi welded tuff dated at about 1.18Ma.

We discovered fault scarp of height 2m. If the scarp correspond the active fault, I have to considerably assume the low angle (0 to 10 degree) thrust in order to explain this topography distribution. The result of drilling and trench shows fault inclination had changed with horizontal to high angle (about 60 degree).