

## Subsurface structure of the Nanshozan faults, northern end of Kitakami lowland fault zone, based on seismic reflection p

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We present seismic reflection data acquired along the Nanshozan09 profile to define the geological structure of the northern end of the Kitakami lowland fault zone. The Nanshozan09 is 6.5 km-long seismic line across the Nanshozan fault and several west-dipping thrust faults parallel to it, which comprise the northern portion of the Kitakami lowland fault zone. These faults deform late Quaternary fluvial terraces and alluvial fans in Kitakami lowland. In seismic lines, the vibrator truck (IVI Minivib T-15000) is used as the seismic source. Source and geophone spacing are 10-m. Seismic reflection data was processed by using the standard CMP stacking method. The seismic profile correlated with surface geologic mapping clearly show the thrust geometries both at ground surface and at shallow depth, and document the detailed process of the active thrusting of the Nanshozan faults.

Keywords: Nanshozan fault group, Kitakami Lowland, seismic reflection profiling, subsurface structure