

# An S-wave Vibratory Seismic Reflection Survey at the Southern Part of Epicentral Area of 2003 Northern Miyagi Earthquake

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We conducted an S-wave seismic reflection survey using a high-power type S-wave vibrator to reveal the subsurface geological structure around the southern part of epicentral area of 2003 Northern Miyagi Earthquake. We set a 4.2-km long survey line along seashore about 3 kilometers south to the Asahiyama flexure. Parameters of the survey are as follows; Seismic source: High-power S-wave Vibrator, Sweep frequency: 10 - 32 Hz, Sweep length: 16sec, Record length: 8sec, Shot point interval: 10 or 20m, Receiver: 8Hz horizontal single geophone, Receiver interval: 10m, Spread: fixed spread, Recording system: DAS-1, number of channel: 144ch, CMP interval: 5m. The field survey was carried out in November 2003 and preliminary data processing was applied to the seismic data. A strong reflector was conducted at 1 sec in two-way time. It unevenly dips eastward and synclinal structure is identified below the reflector. Dips of the synclinal reflection events seem to change near the southern extension part of Asahiyama flexure.