

S84 – 84th Ave SE, Mercer Island, WA – Mercer Island Vibroseis Experiment – 2006

The USGS Earthquake Hazards Program collected P-wave vibroseis data along 84th Ave SE, from approximately SE 57th St to approximately SE 80th St, on Mercer Island, western Washington State, as part of an earthquake hazards study. The profile trended North to South. Light traffic persisted throughout acquisition, along with very light rain.

Data were acquired with a “minivib III” seismic vibrator using a linear sweep of 20-160 Hz over 12 seconds followed by 2 seconds of “listen” time (total record length=14 seconds). The sample interval was 2 milliseconds. Geophones were single, 8-Hz vertical component sensors installed every 5m along the seismic profile. The source point interval was 5m. Number of channels per record was predominantly 152 for field files 1801-2277, 145 channels per record for field files 2278-2303, and 144 for files 2304-2450. Other acquisition parameters are noted in the observer’s log file. Data are unstacked and uncorrelated. Station location information is in the SEG-Y file headers. The coordinates are in UTM Zone 10 N with WGS84 datum.