



Table 1. Descriptions of stratigraphic units mapped in trench.

UNIT NO.	MATRIX TEXTURE	COARSE FRACTION	MATRIX COLOR	ORGANIC MATERIAL	STRUCTURES	OTHER PROPERTIES AND COMMENTS
1a	Loom	60	2.5Y6/5	Lt. yellowish brown	Depositional under Sol Structures	Very dense till, breaks with difficulty using hammer. Interpreted as Vashon Indegument till.
1b	Loom	20-45	2.5Y6/5	Lt. yellowish brown	Subhorizontal to south-dipping, clay fabric.	Shallow fabrics are pronounced to subtle but pervasive throughout unit (best seen in hanging wall of F3). Unit is less dense than unit 1a. Interpreted as Vashon Indegument till.
1c	Silt loam	20-40	10YR6/2	Lt. brownish gray	Interbedded sand and gravel beds	Reverse slip on F3 offset unit about 30 cm; south-dipping orientation.
1d	Silt loam	5	10YR6/2	Lt. brownish gray	Poorly defined laminae (0.5 mm thick average), internally deformed in places.	Reverse slip on F3 and F4 offset unit ~30 cm; south-dipping orientation.
1e	Silt loam		2.5Y6/2	Lt. brownish gray	Thin, anastomosing beds that appear as one layer; appear to fill cracks.	Truncated by F3 and F4.
1bBE	Loom	20-45	10YR5/6 with coating of 2.5Y7/2	Yellowish brown with coating of light gray	Soil - clay matrix, 2-4 cm pl, weakly cemented. Derived from weathering of unit 1b.	Interpreted as a BE horizon developed on the top of unit 1b and offset in post-glacial times on F3 and F4.
2BE	Mudstone	25	2.5Y	10YR4/3	Soil - weak color developed and fine silt material throughout is interpreted as the result of weak E horizon development.	Possibly offset by F3 at ~3m.
2BE ₁					Unit is similar to unit 2BE except that it is cemented in places.	Interpreted as water-bain sands and gravels filling poorly preserved channels eroded into the top of unit 1b, with weakly developed BE horizons. Unit is very loose and lithologically distinct from units 1a and 1b. Interpreted as channel-fill material associated with 2BE but is slightly indurated possibly from post-depositional concentration during soil formation or by imbrication of flow till into channel during deposition.
2Bw	Loamy sand to sandy loam	20	2.5	10YR6/3	Soil - soil is massive and has weak color developed from oxidation and leaching.	Unit is very loose (B ₁ designation based on color). Silt in unit possibly derived from either weathering of unit 1b or loess deposition.
2A					Adhesion material poorly preserved and consists of small pods of organic material associated with areas of large modern rocks. Lack of A horizon is likely anthropogenic.	

¹Units shown on log are designated by number based on stratigraphic position, lithology, and inferred genesis, in order from oldest to youngest. Units are divided into subunits (marked by lowercase letters) using lithology, differences in soil development, and inferred correlation with similar units in other parts of the trench. Labels for subunits with A, B, or E soil horizons include the appropriate soil horizon designation (Soil Survey Staff, 1993; Birkeland, 1999).

²Recent terms follow Soil Survey Staff (1993).

³Estimate of area covered by clasts using size charts. Most clasts were fractured and subrounded to rounded.

⁴Primary color is dominant Munsell color of matrix, taken dry.

⁵Type of organic matter present. Root terms follow Soil Survey Staff (1993).

⁶Terms for soil properties follow Soil Survey Staff (1993) and Birkeland (1999).

THE CATFISH LAKE SCARP, ALLYN, WASHINGTON: PRELIMINARY FIELD DATA AND IMPLICATIONS FOR EARTHQUAKE HAZARDS POSED BY THE TACOMA FAULT

Brian L. Sherrod¹, Alan Nelson², Harvey Kelsey³, Thomas Brocher⁴,
Richard Blakely⁵, Craig Weaver¹, Nancy Rountree⁴, Susan Rhea², and Bernard S. Jackson⁴

¹U.S. Geological Survey, Dept. of Earth and Space Sciences, Box 351310, Univ. Washington, Seattle, WA 98195

²U.S. Geological Survey, MS 966, Box 25046, Denver Federal Center, Denver, CO 80225

³Dept. of Geology, Humboldt State Univ., Arcata, CA 95521

⁴U.S. Geological Survey, 345 Middlefield Road, M/S 977, Menlo Park, CA 94025

⁵U.S. Geological Survey, 345 Middlefield Road, M/S 989, Menlo Park, CA 94025