Glaciomarine soils are deposited in a saline water environment following glaciation. These clays are often associated with pore water chemistry changes that modify their engineering properties. These changes result in a flocculated "card house", metastable clay platelet structure that is susceptible to collapse and significant loss of strength when disturbed by construction or earthquake shaking. These soils typically have a high water content, high porosity (high voids to solids ratio) and low hydraulic conductivity. Figure 2.9 shows two photographs of glaciomarine soil. These soils are often referred to as "quick" clays.


Figure 2.9 Glaciomarine soil from near Kitimat, B.C. Photograph credits: Rod Read (left), Michael Wagner (right).

"Slickensided" describes a pre-sheared plane in a clay deposit. Slickenside planes develop when the clay mass shears sufficiently to allow the clay platelets to orientate in the direction of movement. This reorientation reduces the friction angle to a low or "residual" value. Slickensided planes represent a weak shear plane along which future soil movements are more likely to occur. Figure 2.10 shows a photograph of a slickensided plane in residual soil.

Peat and muskeg are organic deposits characterized by high water content, low mineral soil content and low bearing capacity to support structures and wheeled traffic. The organic thickness may range from less than 300 mm to over 3 m. The fabric of the organics may range from highly fibrous with intact roots and wood pieces, to fully decom-