DESCRIPTION OF MAP UNITS

ARTIFICIAL FILL

af Artificial Fill (Holocene)—Artificially emplaced material along road beds, embankments and in developed areas. Material varies from natural sand, gravel, or till to various artificial waste materials. Thickness varies.

ALLUVIAL DEPOSITS

Ha Alluvium (Holocene)—Silt, sand, and gravel deposited by modern streams. Includes stream channel, bar, and floodplain deposits. Wetland deposits are common within these areas and are not differntiated. Thickness in tributary valleys is typically less than 3 meters, although the depth may be much greater in the valleys of the larger streams.

Haf Alluvial Fan Deposits (Holocene)—Silt, sand, and gravel deposited on terraces above the modern floodplains of streams. They are composed of a variety of channel, bar, and floodplain deposits. May include late Pleistocene alluvial sediment deposited onto freshly-drained glacial lake bottoms before the main stream and its tributaries incised down into the lacustrine deposits. Commonly less than 5 meters thick.

Hat Alluvial Terrace Deposits (Holocene)—Silt, sand, and gravel deposited on terraces above the modern floodplains of streams. They are composed of a variety of channel, bar, and floodplain deposits. May include late Pleistocene alluvial sediment deposited onto freshly-drained glacial lake bottoms before the main stream and its tributaries incised down into the lacustrine deposits. Commonly less than 5 meters thick.

MODERN LACUSTRINE DEPOSITS

Hls Lacustrine Deposits, Shoreline (Holocene)—Well-sorted sand deposits of present-day lakes and ponds. Includes beach and nearshore deposits from backshore out to shoreface and bars, tomobolos, and spits.

Hld Lacustrine Deposits, Delta (Holocene)—Well-sorted sand and gravel deposited in a present-day lake at the mouth of a tributary stream. Includes topset and foreset beds. May also include proximal bottomset beds if exposures permit.

WETLAND DEPOSITS

Hw Wetland Deposits (Holocene)—Accumulations of organic matter and/or clastic sediment in low-lying areas. Includes a wide variety of wetland types. Commonly overlaying other deposits such as alluvium, lacustrine sediment, and/or till.

GLACIOLACUSTRINE DEPOSITS

Plf Lacustrine Deposits, Fine-grained (Pleistocene)—Clay, silt, and very fine to fine sand deposited in deeper waters or in distal lake bottom environment of a glacial lake. Oftentimes laminated.

Pls Lacustrine Deposits, Shoreline (Pleistocene)—Well-sorted fine to coarse sand, pebbly sand, pebble gravel, or cobble gravel deposited in beach or nearshore environments. Includes deposits from backshore out to shoreface, as well as bars, tomobolos, and spits.

Pld Lacustrine Deposits, Delta (Pleistocene)—Well-sorted sand and gravel deposited in a glacial lake at the mouth of a tributary stream. Includes topset and foreset beds. May also include proximal bottomset beds if exposures permit. Although foresets are commonly steep, delta foresets in shoaling lakes may have considerably lower dips.

Pldi Lacustrine Stratified Diamict Deposits (Pleistocene)—Interbedded massive diamict layers and sandy layers fining upwards to silt-clay layers. Dropstones may be common in the stratified layers. Interpreted to represent subaqueous debris flows and turbidity flows deposited in an ice-proximal setting.

Plo Lacustrine Deposits, Suaqueous Outwash (Pleistocene)—Well-sorted sand and gravel deposited as subaqueous fans within glacial lakes at and near esker tunnel mouths. Sediment deposited close to tunnel mouth is coarse-grained, distal sediments finer-grained. As the glacial margin retreats the subaqueous outwash is blanketed with finer-grained lacustrine material.

GLACIOFLUVIAL DEPOSITS

Po Outwash Deposits (Pleistocene)—Glacial meltwater deposits composed of stratified sand and gravel deposited beyond the glacial margin. Includes relatively narrow valley train deposits in confined mountain valleys and broad sheets of outwash deposited in the broad lowlands. Kettle holes may be common in proximal outwash deposits.

ICE-CONTACT DEPOSITS

Pi Ice-Contact Deposits (Pleistocene)—Unsorted to poorly-sorted stratified sand, gravel, and silt deposited in contact with glacial ice. Surface may contain scattered kettle holes formed by melting of buried ice blocks or be a highly complex kame and kettle.

Pie Esker Deposits (Pleistocene)—Elongate ridge of ice-contact stratified sand and gravel deposited by glacial meltwater streams in tunnels within or beneath the glacial ice.

GLACIAL DEPOSITS

Pt Till (Pleistocene)—Very dense to loose, unsorted to very poorly sorted material deposited directly from glacial ice. Contains a wide range of grain sizes, from clay or silt up to large boulders. Matrix commonly dominated by the silt or sand fraction. Surface boulders are generally common. Thickness is highly variable, from less than 3 meters to greater than 30 meters.

Ptm Moraine Deposits (Pleistocene)—Composed primarily of till with variable amounts of stratified sand and gravel, deposited by glacial ice.

WATER

w Water (Holocene)—Large water bodies.