

Vermont Geological Survey Open-File Report VG2018-4

## **Description of Map Units**

- af Artificial Fill. Materials imported for construction projects, e.g. dams, highways.
- Hal Alluvium. Modern stream sediments ranging from boulder gravel to silt. Organics are common. Abandoned channels and scroll bars frequently occur.
- Haf Alluvial Fan. Fan-shaped deposits ranging from boulders to fine sand. Fans may consist of diamict deposited in debris flows. Sediment usually fines from apex to toe of fan.
- Qg Gravel. Undifferentiated, unknown source.
- Hft Fluvial Terrace. Abandoned terrace well above the modern floodplain. "Old" alluvium may be present but is generally <2 m thick and has frequently been removed by human activities revealing the underlying sediment.
- Pdv Lake Vermont Delta. Sand and gravel deposited in topset, foreset, and bottomset beds of deltas built into Glacial Lake Vermont.
- Pdm Lake Mansfield Delta. Sand and gravel deposited in topset, foreset, and bottomset beds of deltas built into Glacial Lake Mansfield.
- Pdw Lake Winooski Delta. Sand and gravel deposited in topset, foreset, and bottomset beds of deltas built into Glacial Lake Winooski.
- Pdhl High Level Delta. Sand and gravel deposited in topset and foreset beds of deltas built into small, short-lived, unnamed glacial lakes.
- Pls Lacustrine Silt/Sand. Lake bottom deposits consisting principally of interlayered silt and fine to very fine sand.
- PIC Lacustrine Silt/Clay. Lake bottom deposits consisting principally of interlayered silt and clay; frequently varved.
- Pic Ice-Contact Deposits. Undifferentiated Coarse sand to boulders generally deposited near the mouth of subglacial tunnels in subaqueous and subaerial fans. Pie - Esker, shown in cross-section only. Ridge of poorlysorted stream sediments ranging from coarse sand to boulders deposited in a subglacial tunnel. Frequently mantled by ablation till near valley sides.

Pm Moraine. Ridge composed of glacial till.

Pt Till. Dense, unsorted sediment generally deposited beneath the ice sheet.

## **Description of Map**



## Surficial Geologic Map of the Bolton Mountain Quadrangle and portions of the Waterbury Quadrangle, Vermont





Alluvial fan deposited on the north shore of Lake Mansfield. Toe of fan extends beneath the lake surface. Large pothole produced by high velocity subglacial water flow, uppermost Miller Brook valley ~1 km east of Nebraska Notch.

Thank you to many volunteers and landowners who allowed access to their property. Additional Bedrock Outcrops derived from the Vermont Geological Survey "Bedrock Outcrops" Layer hosted by Vermont Center For Geographic Information.

This manuscript is submitted for publication with the understanding that the United States Government is authorized to reproduce and distribute reprints for governmental use. This geologic map was supported by the U. S. Geological Survey, National Cooperative Geologic Mapping Program, under assistance Award No. G16AC00178. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government.

