Surficial Geologic Map and Cross-Sections of the Newport 7.5-minute Quadrangle, Vermont

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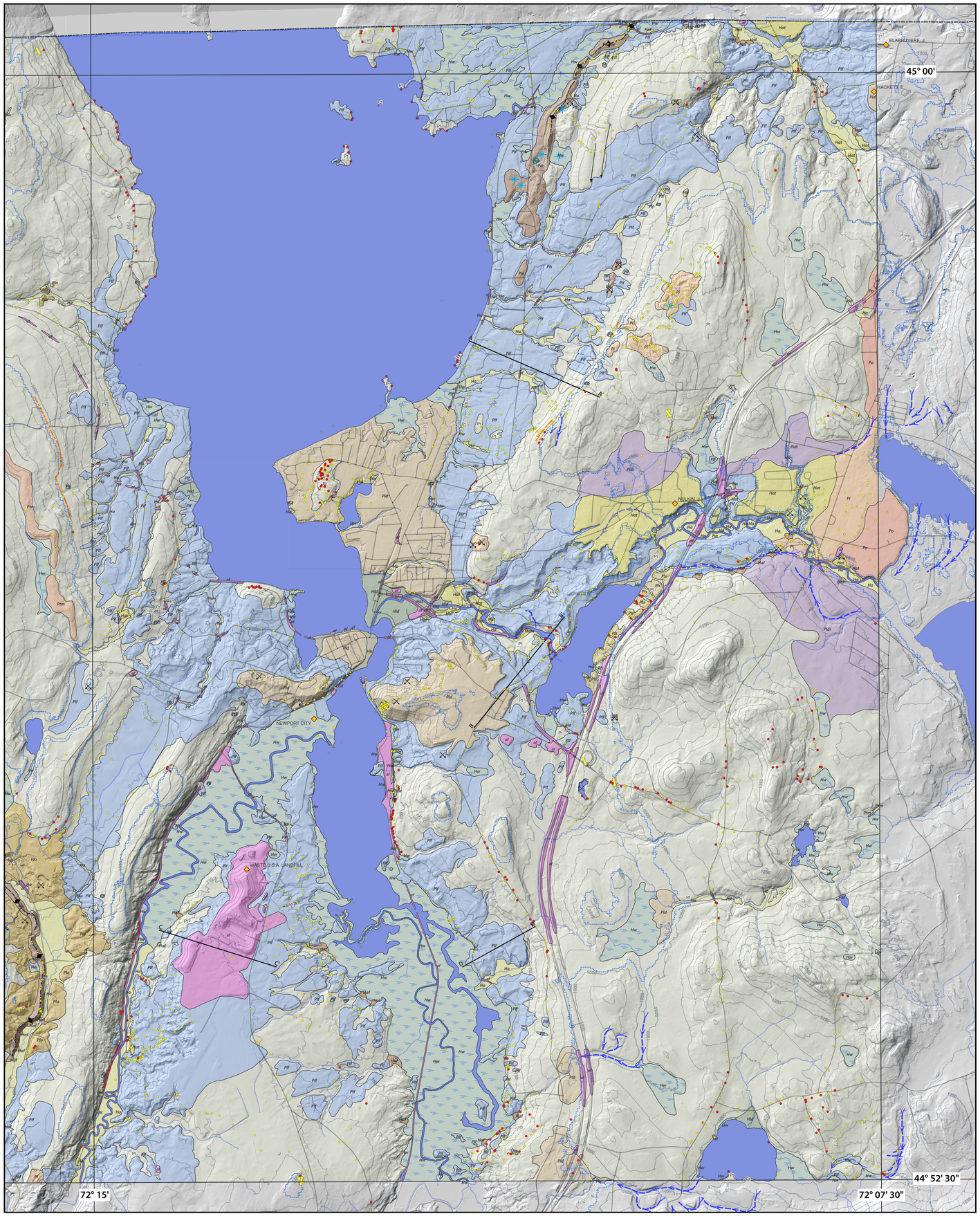


Explanation

af af Artificial Fill: Artificially-emplaced material along road beds, embankments and in developed areas. Material varies from natural sand, gravel, or till to various waste materials, e.g. in landfills. Thickness varies.

Hw Hw Wetlands Sediments: Accumulations of organic matter and/or clastic sediment in low-lying areas. Includes a wide variety of wetland types. Commonly overlies other deposits such as lacustrine sediment or till. May interfinger with alluvium in floodplains and deltas. Larger deposits are shown.

Ha Ha Alluvium: Silt, sand, and gravel deposited by modern streams. Includes stream channel, bar, and flood-plain deposits. Wetland deposits are common within these areas and are not distinguished. Thickness in tributary valleys is typically less than 3 meters, although the depth may be much greater in the valleys of the larger streams.

Hat Hat Alluvial Terrace Deposits: 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 m thick.

Haf Haf Alluvial Fan Deposits: Boulder, cobble, and pebble gravel, pebbly sand, and diamict deposited at sites where steep, stream gradients are sharply reduced. Alluvial fans are common at the mouths of steep tributaries where they meet the main stream.

Hls Hls Modern Lacustrine Shoreline Deposits: Consists of well-sorted sand deposits of present-day lakes and ponds. Includes beach and nearshore deposits from backshore out to shoreface

Hld Hld Modern Lake Delta: Well-sorted sand and gravel deposited in a present-day lake at the mouth of a tributary stream.

Pld Pld Glacial Lake Delta: Well-sorted sand and gravel deposited in a glacial lake at the mouth of a tributary stream. Includes topset, foreset, and proximal bottomset beds. Mapped deltas formed in both high and low stages of Glacial Lake Memphremagog.

Pls Pls Lacustrine Deposits, Shoreline: Well-sorted fine to coarse sand, pebbly sand, pebble gravel, or cobble gravel deposited in beach or nearshore environments. Includes deposits frombackshore out to shoreface.

Plf Plf Lacustrine Sediments, Fine Grained: Clay, silt, and very-fine to fine sand deposited in quiet-water environments of a glacial lake. Commonly laminated.

Plo Plo Subaqueous Outwash: Interbedded well-sorted fine, medium, and coarse sand and gravel deposited as subaqueous fans within glacial lakes at and near esker tunnel mouths. Sediment size diminishes with increasing distance from the tunnel mouth. Subaqueous outwash is frequently blanketed with fine-grained lacustrine sediment (Plf).

Pldi Pldi Lacustrine Stratified Diamict: Interbedded massive diamict layers and sandylayers fining upwards to silt-clay layers. Interpreted to represent subaqueous debris flows and turbidity flows deposited in an ice-proximal setting. Diamict layers may extend above shoreline.

Po Po Outwash Deposits: Glacial meltwater deposits composed of stratified sand and gravel deposited in streams emanating from the glacial margin.

Pi Pi Ice Contact Sediments, Undifferentiated: 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 topography.

Esker Ridge Line

Pie Pie Esker Sediments: Elongate ridge of ice-contact stratified sand and gravel deposited by glacial melt-water streams in tunnels within or beneath the glacial ice.

Ptm Ptm Moraine: Ridge composed primarily of till with variable amounts of stratified sand and gravel. Deposited adjacent to the ice margin.

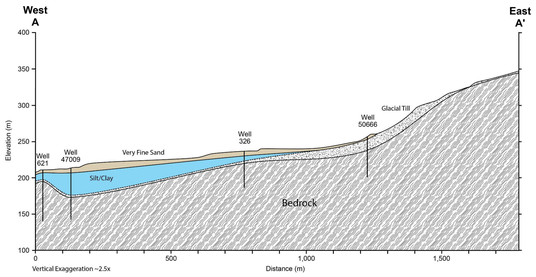
Pt Pt Glacial Till: Very dense to loose, unsorted to very poorly sorted material deposited directly from glacial ice. Contains a wide range of grain sizes, from clay or silt up to large boulders. Matrix commonly dominated by the silt or sand fraction. Surface boulders are generally common. Thickness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

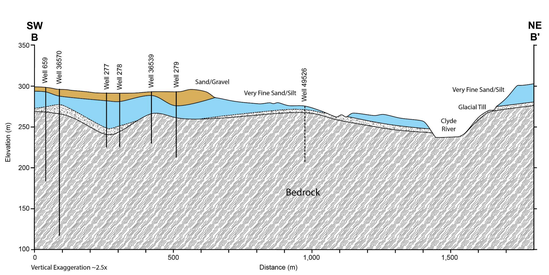
Field Mapping Sites

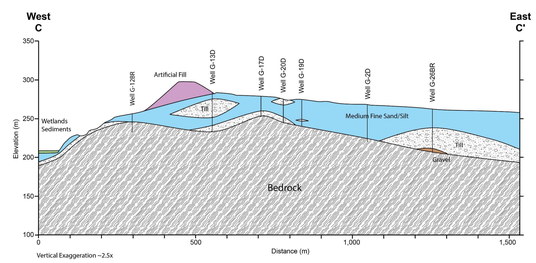
- Surficial Field Sites
- Bedrock Outcrops

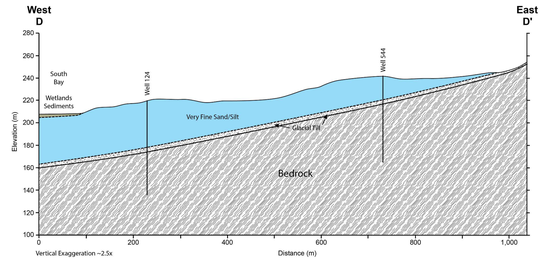
Symbols

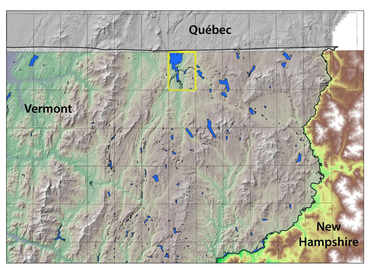
- Glacial Striations/Grooves: Arrow points in ice flow direction.
- Landslide Scarp: Ticks point in direction of down-dropped material.
- Abandoned Channel: Channels, many ice-marginal, eroded as high-level glacial lakes drained to lower-level glacial lakes.
- Wave Cut Bench: Narrow terraces occurring at projected glacial lake shorelines. Frequently eroded into till.
- Projected Shoreline of Glacial Lake Memphemagog (Isostatic Tilt 1.2 m/km to N35W)
- Glacial Kettle
- Grooved Till: Elongate depressions in till aligned parallel to regional ice-flow.
- Geologic Cross Sections
- Gravel Pit: Active and inactive.
- Rock Quarry
- Vermont Road Centerline











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