VERMONT GEOLOGICAL SURVEY

DEPARTMENT OF WATER RESOURCES

SURFICIAL GEOLOGIC MAP OF VERMONT

Compiled and Edited under the Direction of
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Geology by
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Scale 1:250,000
0 5 10 15 Miles
Contour interval 100 feet
Datum is mean sea level

1970

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State of Vermont

EXPLANATION

GLACIAL

TILL

Till mantling the bedrock and reflecting the topography of the underlying bedrock surface. Thicker in the valleys and thinner on the uplands. On many exposed uplands postglacial erosion has left only rubble and scattered boulders on the bedrock.

MORAINE

Ice marginal till accumulations with morainic topography.
m—frontal moraine assumed to be recessional.
tm—terminal moraine.

GLACIOFLUVIAL

KAME GRAVEL

Ice contact outwash gravel.
k—isolated kame.
kt—kame terrace.
km—kame moraine, kame complex with morainic topography.

OUTWASH

Horizontally bedded glaciofluvial gravel. Spillway or valley train gravel in stream valleys. May or may not have a thin veneer of postglacial alluvium.

ESKER

EOLIAN

EOLIAN SAND AND DUNES

GLACIOLACUSTRINE

LITTORAL SEDIMENT PREDOMINANTLY GRAVEL

lg—horizontally bedded gravel deposited in a shoaling lake or topset beds of deltaic gravel where no foreset bedding is exposed.
bg—beach gravel.
dg—delta gravel showing foreset bedding.
d—small deltaic compound of sand and gravel.

LITTORAL SEDIMENT PREDOMINANTLY SAND

ls—well sorted sand, no pebbles or boulders.
gs—pebbly sand.
bs—sand containing ice rafted boulders.
ds—delta sand.

LAKE BOTTOM SEDIMENTS

stc—silt, silty clay, and clay.
vc—varved clay.
bc—silt, silty clay, and/or clay containing ice rafted boulders.

WAVE-WASHED TILL

Till from the top of which the finer materials have been removed by wave action leaving boulder concentrations on the surface.

BEACH RIDGE

SHORELINE

POSTGLACIAL FLUVIAL

FLUVIAL GRAVEL

FLUVIAL SAND

RECENT ALLUVIUM

Fluvial sands and gravels were differentiated in areas where the deposits might have economic significance.

CHAMPLAIN SEA

MARINE BEACH GRAVEL

MARINE SAND

ms—marine sand without pebbles or boulders.
pms—pebbly marine sand.

MARINE CLAY

GRAVEL BAR

SEA CLIFF OR WAVE CUT TERRACE

PLUVIAL

SWAMP, PEAT and/or MUCK

BEDROCK

BEDROCK EXPOSURES

Significant exposures of bedrock with little or no cover that show the thickness of the drift, or where the drift has been removed by erosion. No effort was made to differentiate all outcrops in till areas of the uplands.

SAND OR GRAVEL PIT

SURFICIAL MAPPING

David P. Stewart	1956–1966
Paul MacClintock	1963–1966
William F. Cannon	1964
G. Gordon Connally	1965
Parker E. Calkin	1965
Robert E. Behling	1966
William W. Shilts	1966

NOTE: The mapping by Stewart from 1956 to 1961 was reported jointly by the Vermont Highway Department and the Vermont Geological Survey.

DRIFT SHEETS AND ICE DIRECTIONS

- BURLINGTON DRIFT
- SHELBURNE DRIFT
- BENNINGTON DRIFT
- FABRIC OF SURFACE TILL
- FABRIC OF SUBSURFACE TILL
- STRIATION

Scale 1:500,000
10 0 10 20 30 40 Miles
10 0 10 20 30 40 50 Kilometers

MAXIMUM EXTENT OF GLACIAL AND POST GLACIAL LAKES

- LAKE VERMONT
- CONNECTICUT VALLEY LAKE
- HIGH LEVEL LAKES DAMMED BY BURLINGTON ICE
- HIGH LEVEL LAKES DAMMED BY SHELBURNE ICE
- HIGH LEVEL LAKES PROBABLY DAMMED BY BENNINGTON ICE

SCALE
10 0 10 20 30 40 Miles
10 0 10 20 30 40 50 Kilometers

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