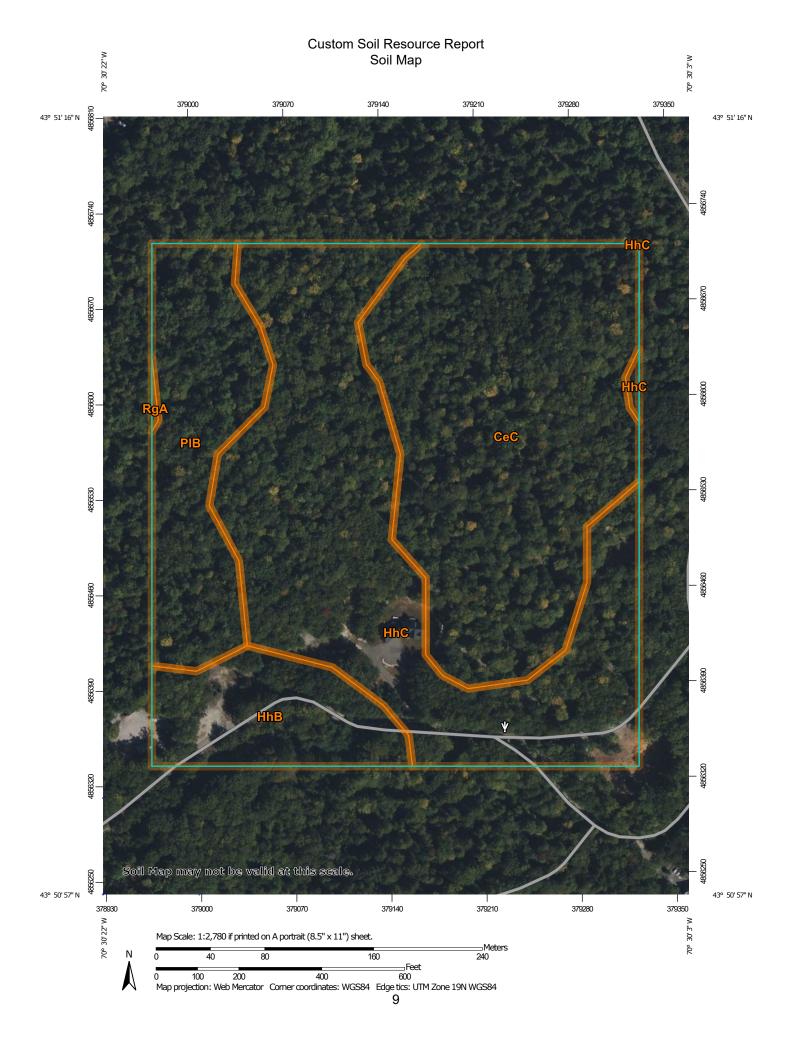


Natural

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine





#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Lines



Soil Map Unit Points

#### **Special Point Features**

Blowout

Borrow Pit

¥ C

Clay Spot

△ Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot
Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### ----

8

Spoil Area Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

#### Water Features

~

Streams and Canals

#### Transportation

+++ Rails

Interstate Highways



Major Roads



Local Roads

#### Background

900

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford

County, Maine

Survey Area Data: Version 19, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

# **MAP LEGEND**

# **MAP INFORMATION**

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CeC	Canaan very rocky sandy loam, 8 to 20 percent slopes	12.6	36.9%
HhB	Hermon sandy loam, 0 to 8 percent slopes, very stony	3.3	9.6%
HhC	Hermon sandy loam, 8 to 15 percent slopes, very stony	13.2	38.8%
PIB	Peru fine sandy loam, 0 to 8 percent slopes, very stony	5.0	14.7%
RgA	Ridgebury very stony fine sandy loam, 0 to 3 percent slopes	0.0	0.1%
Totals for Area of Interest		34.1	100.0%

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# **Cumberland County and Part of Oxford County, Maine**

# CeC—Canaan very rocky sandy loam, 8 to 20 percent slopes

#### **Map Unit Setting**

National map unit symbol: blh1 Elevation: 210 to 1,130 feet

Mean annual precipitation: 49 to 50 inches Mean annual air temperature: 45 degrees F

Frost-free period: 140 to 155 days

Farmland classification: Not prime farmland

# **Map Unit Composition**

Canaan and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Canaan**

#### Setting

Landform: Hills

Landform position (two-dimensional): Shoulder, backslope Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Sandy-skeletal supraglacial meltout till derived from granite and

gneiss

## **Typical profile**

Oe - 0 to 2 inches: moderately decomposed plant material

H1 - 2 to 6 inches: sandy loam H2 - 6 to 17 inches: sandy loam R - 17 to 21 inches: bedrock

#### Properties and qualities

Slope: 8 to 20 percent

Surface area covered with cobbles, stones or boulders: 1.6 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: F144BY701ME - Shallow Till

Hydric soil rating: No

# HhB—Hermon sandy loam, 0 to 8 percent slopes, very stony

#### Map Unit Setting

National map unit symbol: 2w9rc

Elevation: 0 to 980 feet

Mean annual precipitation: 31 to 65 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Hermon, very stony, and similar soils: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hermon, Very Stony**

#### Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainbase, interfluve, base slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Sandy and gravelly supraglacial meltout till derived from granite

and gneiss

#### **Typical profile**

Oa - 0 to 2 inches: highly decomposed plant material

E - 2 to 3 inches: sandy loam Bhs - 3 to 9 inches: sandy loam

Bs1 - 9 to 16 inches: very gravelly sandy loam
Bs2 - 16 to 32 inches: extremely gravelly loamy sand
C - 32 to 65 inches: very gravelly coarse sand

# Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.1 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(1.42 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

# HhC—Hermon sandy loam, 8 to 15 percent slopes, very stony

#### **Map Unit Setting**

National map unit symbol: 2w9rd

Elevation: 0 to 1,080 feet

Mean annual precipitation: 31 to 65 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Hermon, very stony, and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hermon, Very Stony**

#### Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainflank, mountainbase, interfluve,

nose slope, side slope Down-slope shape: Convex Across-slope shape: Convex

Parent material: Sandy and gravelly supraglacial meltout till derived from granite

and gneiss

#### **Typical profile**

Oa - 0 to 2 inches: highly decomposed plant material

E - 2 to 3 inches: sandy loam Bhs - 3 to 9 inches: sandy loam

Bs1 - 9 to 16 inches: very gravelly sandy loam
Bs2 - 16 to 32 inches: extremely gravelly loamy sand

C - 32 to 65 inches: very gravelly coarse sand

# **Properties and qualities**

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.1 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(1.42 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

# PIB—Peru fine sandy loam, 0 to 8 percent slopes, very stony

#### **Map Unit Setting**

National map unit symbol: 2ty62

Elevation: 0 to 590 feet

Mean annual precipitation: 36 to 65 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Peru, very stony, and similar soils: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Peru, Very Stony**

#### Setting

Landform: Hills, mountains

Landform position (two-dimensional): Backslope, footslope Landform position (three-dimensional): Mountainbase, interfluve

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite

#### Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 5 inches: fine sandy loam
E - 5 to 6 inches: fine sandy loam
Bs1 - 6 to 7 inches: fine sandy loam
Bs2 - 7 to 13 inches: fine sandy loam
Bs3 - 13 to 18 inches: fine sandy loam
BC - 18 to 21 inches: fine sandy loam
Cd1 - 21 to 37 inches: fine sandy loam
Cd2 - 37 to 65 inches: fine sandy loam

#### **Properties and qualities**

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.1 percent Depth to restrictive feature: 21 to 43 inches to densic material

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.01 to 1.42 in/hr) Depth to water table: About 17 to 34 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C/D

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)

Hydric soil rating: No

# RgA—Ridgebury very stony fine sandy loam, 0 to 3 percent slopes

#### **Map Unit Setting**

National map unit symbol: bljt Elevation: 10 to 2,500 feet

Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 37 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Ridgebury and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Ridgebury**

#### Setting

Landform: Till plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Coarse-loamy lodgment till derived from mica schist

#### **Typical profile**

Oe - 0 to 2 inches: moderately decomposed plant material

H1 - 2 to 8 inches: fine sandy loam H2 - 8 to 20 inches: fine sandy loam H3 - 20 to 65 inches: fine sandy loam

#### **Properties and qualities**

Slope: 0 to 3 percent

Surface area covered with cobbles, stones or boulders: 1.6 percent Depth to restrictive feature: 10 to 20 inches to densic material

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C/D Ecological site: F144BY305ME - Wet Loamy Flat Hydric soil rating: Yes