SIE43: Tunbridge-Peru-Colonel complex, 15 to 35 percent slopes, very stony

The Peru, very stony component makes up 26 percent of the map unit. Slopes are 15 to 35 percent. This component is on mountains on glaciated uplands, hills on glaciated uplands. The parent material consists of loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite. Depth to a root restrictive layer, densic material, is 21 to 43 inches (depth from the mineral surface is 20 to 39 inches). The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches (depth from the mineral surface is 17 inches) during January, February, March, April, May, October, November, December. Organic matter content in the surface horizon is about 80 percent. Below this thin organic horizon the organic matter content is about 13 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

The Tunbridge, very stony component makes up 29 percent of the map unit. Slopes are 15 to 35 percent. This component is on mountains on glaciated uplands, hills on glaciated uplands. The parent material consists of loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches (depth from the mineral surface is 19 to 33 inches). The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 85 percent. Below this thin organic horizon the organic matter content is about 3 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

The Colonel, very stony component makes up 26 percent of the map unit. Slopes are 15 to 35 percent. This component is on mountains on glaciated uplands, hills on glaciated uplands. The parent material consists of loamy lodgment till derived from mica schist and/or loamy lodgment till derived from granite and/or loamy lodgment till derived from phyllite. Depth to a root restrictive layer, densic material, is 11 to 25 inches (depth from the mineral surface is 10 to 20 inches). The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches (depth from the mineral surface is 8 inches) during January, February, March, April, May, October, November, December. Organic matter content in the surface horizon is about 85 percent. Below this thin organic horizon the organic matter content is about 3 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Important farmland classification: NPSL	Land capability: 7 s	Vermont Agricultural Value Group: 10

Vermont Residential Onsite Waste Disposal Group and Subgroup: IIIf

This unit is marginally suited as a site for soil-based residential wastewater disposal systems, based on a review by the Natural Resources Conservation Service of criteria set forth in the Vermont 2007 Environmental Protection Rules. The depth to the seasonal high water table and the restricted depth to bedrock in some areas are the major limitations. On-site investigations can help avoid areas with limited depth to bedrock. Additional fill material may be needed in some areas in order to meet the separation distance requirement between the bottom of the leachfield and bedrock. A detailed, site-specific analysis with groundwater level monitoring and determination of induced groundwater mounding may be required to establish the suitability of this unit. Mound system construction and other site modifications are often necessary. On sloping sites, curtain drains can help lower the water table to an acceptable level.

	PHYSICAL and CHEMICAL PROPERTIES						EROSION FACTORS		
Soil name	Depth (In)	Typical texture	Clay (Pct)	Soil reaction (pH)	Permeability (In/Hr)	Organic matter (Pct)	Kw	Kf	T
Tunbridge, very stony	0-3	MPM	---	3.5 - 5.5	1-14	35-95	---	---	2
	3-5	HPM	---	3.5 - 5.5	1-14	35-95	---	---	
	5-8	FSL	1-10	3.5 - 6.0	0.1-14	1.4-5.7	.37	.37	
	8-11	FSL	1-10	3.5 - 6.0	0.1-14	3.1-25	.32	.32	
	11-26	FSL	1-10	3.5 - 6.0	0.1-14	2.2-18	.37	.37	
	26-28	FSL	1-10	5.1 - 6.5	0.1-14	1.0-4.2	.43	.43	
	28-38	BR	---	---	0.001-14	---	---	---	
Colonel, very stony	0-1	HPM	---	3.5 - 5.5	1-14	35-95	---	---	2
	1-2	FSL	1-10	3.5 - 6.5	0.1-14	1.0-6.0	.43	.43	
	2-3	FSL	1-10	3.5 - 6.5	0.1-14	4.0-18	.37	.37	
	3-9	FSL	1-10	3.5 - 6.5	0.1-14	2.0-10	.37	.37	
	9-12	FSL	1-10	3.5 - 6.5	0.1-14	2.0-6.0	.37	.37	
	12-18	GR-FSL	1-10	3.5 - 6.5	0.1-14	0.5-2.0	.37	.55	
	18-65	GR-FSL	1-10	4.5 - 7.3	0.001-1	0.0-1.0	.37	.49	

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Soil name	Depth (In)	Typical texture	Clay (Pct)	Soil reaction (pH)	Permeability (In/Hr)	Organic matter (Pct)	Kw	Kf	T
Peru, very stony	0-1	MPM	---	3.5 - 5.5	1-14	35-95	---	---	3
	1-5	FSL	2-10	3.5 - 6.5	0.1-14	5.0-25	.32	.32	
	5-6	FSL	1-10	3.5 - 6.5	0.1-14	1.0-7.0	.43	.43	
	6-7	FSL	1-10	3.5 - 6.5	0.1-14	5.0-10	.32	.32	
	7-13	FSL	1-10	3.5 - 6.5	0.1-14	2.0-6.0	.37	.37	
	13-18	FSL	1-10	3.5 - 6.5	0.1-14	2.0-6.0	.49	.49	
	18-21	FSL	1-10	3.5 - 6.5	0.1-14	0.5-2.0	.55	.55	
	21-37	FSL	1-10	3.5 - 6.5	0.01-1	0.0-1.0	.64	.64	
	37-65	FSL	1-10	3.5 - 6.5	0.01-1	0.0-1.0	.64	.64	

	WATER FEATURES						SOIL FEATURES	
Soil name	Hydrologic group	Depth to seasonal high water table (Feet)	Flooding		Ponding		Hydric soil?	Depth to bedrock (range in inches)
			Frequency	Duration	Frequency	Duration		
Tunbridge, very stony	C	---	None		None		No	20-40

Colonel, very stony	D	0.5-1.5	None	None	No	11-25
Peru, very stony	C/D	1.4-2.8	None	None	No	21-43

LAND USE LIMITATIONS

Soil name	Land use	Rating	Reason **
Peru, very stony	Dwellings with basements:	Very limited	Slope
Tunbridge, very stony	Dwellings with basements:	Very limited	Slope
Colonel, very stony	Dwellings with basements:	Very limited	Slope
Peru, very stony	Pond reservoir areas:	Very limited	Slope
Tunbridge, very stony	Pond reservoir areas:	Very limited	Slope
Colonel, very stony	Pond reservoir areas:	Very limited	Slope

AGRICULTURAL YIELD DATA

Crop name	Yield / acre
Pasture	3.1 AUM

WOODLAND MANAGEMENT

Soil name	Management concern	Rating	Reason	Vermont natural communities
Peru	Harvest equip operability:	Moderately suited	30-60cm to water table	Northern Hardwood Forest, Hemlock-Northern Hardwood Forest, Mesic Red Oak-Northern Hardwood Forest, Beech-Red Maple-Hemlock-Northern Hardwood Forest Variant, Hemlock Forest
Tunbridge	Harvest equip operability:	Moderately suited	Slope	
Colonel	Harvest equip operability:	Poorly suited	<30cm to water table fo	
Peru	Road suitability:	Poorly suited	Slope	
Tunbridge	Road suitability:	Poorly suited	Slope	
Colonel	Road suitability:	Poorly suited	Slope	
Peru	Erosion hazard (off-road):	Moderate	Slope/erodibility	
Tunbridge	Erosion hazard (off-road):	Moderate	Slope/erodibility	
Colonel	Erosion hazard (off-road):	Moderate	Slope/erodibility	