

SIE33: Peru-Colonel complex, 15 to 35 percent slopes, very stony

The Peru, very stony component makes up 56 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 Colonel, very stony component makes up 31 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
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Vermont Residential Onsite Waste Disposal Group and Subgroup: IIIe

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 slopes greater than 20 percent in some areas are the major limitations. A detailed, site-specific analysis is generally required. On-site groundwater level monitoring and determination of induced groundwater mounding is often necessary to establish the suitability of this unit. Curtain drains may help lower the water table to an acceptable level. There may be less-sloping areas within the unit that are suitable for siting a septic system, or, if feasible, cut and fill site modifications may produce an acceptable area within the unit. An erosion prevention and sediment control plan is required by the State for construction on sites over 20 percent slope.

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
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	
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	

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		
Peru, very stony	C/D	1.4-2.8	None		None		No	21-43

Soil Fact Sheet - Continued

Essex County, Vermont

Colonel, very stony	D	0.5-1.5	None	None	No	11-25
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LAND USE LIMITATIONS				AGRICULTURAL YIELD DATA	
Soil name	Land use	Rating	Reason **	Crop name	Yield / acre
Peru, very stony	Dwellings with basements:	Very limited	Slope	Pasture	5.5 AUM
Colonel, very stony	Dwellings with basements:	Very limited	Slope		
Peru, very stony	Pond reservoir areas:	Very limited	Slope		
Colonel, very stony	Pond reservoir areas:	Very limited	Slope		

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, Red Spruce-Northern Hardwood Forest, Hemlock Forest
Colonel	Harvest equip operability:	Poorly suited	<30cm to water table	
Peru	Road suitability:	Poorly suited	Slope	
Colonel	Road suitability:	Poorly suited	Slope	
Peru	Erosion hazard (off-road):	Moderate	Slope/erodibility	
Colonel	Erosion hazard (off-road):	Moderate	Slope/erodibility	