

<b>Soil Type</b>	<b>Characteristics</b>
<b>Alred extremely cobbly loam:</b>	
<b>Landscape Location</b>	Alred soils are on moderately sloping to strongly sloping narrow ridgetops and moderately steep to very steep sideslopes. They formed in cherty hillslope sediments and the underlying clayey residuum. Slopes range from 1 to 60 percent.
<b>Stand Location</b>	Compartment 19: nearly every stand; Compartment 20: all stands; Compartment 21: all stands; Compartment 22: nearly every stand; Compartment 23: Stand Nos. 3, 4, 6 – 17, 19 – 37; Compartment 33: Stand Nos. 1 – 7; 9 – 23; Compartment 34: nearly all stands; Compartment 35: Stand Nos. 1 – 37; Compartment 36: Stand Nos. 1 – 10, 13 – 18; Compartment 37: Stand Nos. 2 – 27, 31 – 35, 39, 40, 44, 45; Compartment 38: nearly every stand; Compartment 39: all stands; Compartment 40: nearly every stand; Compartment 41: Stand Nos. 1 – 4, 6, 7; Compartment 49: 10, 14 – 16; Compartment 50: Stand Nos. 1 – 4, 7; Compartment 52: Stand Nos. 14 – 19, 28
<b>Permeability</b>	Moderate (surface and upper subsurface); slow (lower subsurface)
<b>Water-Holding Capacity</b>	5 ½ - 9 inches
<b>Depth</b>	80 inches
<b>A Horizon Depth</b>	3 – 6 inches
<b>Rock content in surface horizon</b>	15 – 80
<b>Erosion Hazard &amp; Equipment Limitation</b>	Moderate erosion hazard off skid trails and roads; severe hazard on skid trails and roads. Moderately suited to harvesting equipment
<b>Potential for damage to soil by fire</b>	Low
<b>Potential for pond development</b>	Possible limitations due to slope and seepage
<b>Management Considerations</b>	Erosion, high rock content, and shallow A horizon limit productivity

<b>Soil Type</b>	<b>Characteristics</b>
<b>Bendavis gravelly silt loam</b>	
<b>Landscape Location</b>	Backslope of hills formed in gravelly slope alluvium
<b>Stand Location</b>	Compartment 99: Stand Nos. 1, 4 – 17; Compartment 118: Stand Nos. 1 – 7, 18 – 23, 25 – 41, 45, 46
<b>Permeability</b>	Moderate
<b>Water-Holding Capacity</b>	3 – 6 inches

<b>Soil Type</b>	<b>Characteristics</b>
<b>Bendavis gravelly silt loam</b>	
<b>Depth</b>	20 – 40 inches
<b>A Horizon Depth</b>	3 inches
<b>Rock content in surface horizon</b>	10 – 70
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight hazard off skid trails and roads up to 15 percent, moderate over 15 percent. Moderate hazard on skid roads and trails up to 15 percent, severe over 15 percent. Well suited to harvesting equipment up to 15 percent, moderately suited over 15 percent.
<b>Potential for damage to soil by fire</b>	Low
<b>Potential for pond development</b>	Severe limitation
<b>Management Considerations</b>	Water table present at 2 – 3 ½ feet from November thru April

<b>Soil Type</b>	
<b>Bender very cobbly fine sandy loam</b>	
<b>Landscape Location</b>	The Bender series (very cobbly fine sandy loam) consists of moderately deep, somewhat excessively drained soils on uplands formed in residuum from sandstone. These soils are on gently sloping to very steep uplands. Permeability is moderately rapid. Slopes range from 3 to 60 percent.
<b>Stand Location</b>	Compartment 19: Stand No. 1; Compartment 99: Stand Nos. 1, 3 – 7, 9, 10, 12 – 17; Compartment 118: Stand Nos. 1 – 8, 11, 13 – 23, 25 – 36, 38, 39, 45, 46
<b>Permeability</b>	Moderately fast in surface and upper subsurface. Very slow in lower subsurface.
<b>Water-Holding Capacity</b>	Very low (0 – 3 inches)
<b>Total depth</b>	20 – 40 inches
<b>A Horizon Depth</b>	2 – 6 inches
<b>Rock content in the surface horizons</b>	20 – 80 percent

<b>Soil Type</b>	
<b>Bender very cobbly fine sandy loam</b>	
<b>Potential for damage from fire</b>	Low at slopes up to 15 percent. High at slopes over 15 percent due to slope, depth, coarse fragments, and texture
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid trails and roads at slopes up to 15 percent and moderate at slopes over 15 percent. Moderate erosion hazard on skid trails and roads at slopes up to 15 percent and severe at slopes over 15 percent. Well suited to harvesting equipment at 0 – 15 percent and moderately well suited at slopes over 15 percent.
<b>Potential for pond development</b>	Very limited due to depth to bedrock, seepage, and slope
<b>Management Considerations</b>	Low available water holding capacity.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Bloomsdale silt loam</b>	
<b>Landscape Location</b>	Bloomsdale soils are on narrow flood plains. Slopes are 0 to 4 percent. They formed in loamy and clayey alluvium with an increasing coarse fragment content with increasing depth.
<b>Stand Location</b>	Compartment 20: Stand Nos. 6 – 9; Compartment 21: Stand Nos. 3 – 5, 7 – 13, 17, 26 – 29; Compartment 22: Stand Nos. 1 – 7, 17 – 19, 30, 38 – 41; Compartment 35: Stand Nos. 2, 10; Compartment 36: 8 – 10, 14; Compartment 37: Stand Nos. 1 – 3, 11, 16, 17, 21, 22, 25
<b>Permeability</b>	Moderate (surface and lower subsurface); moderately fast (upper subsurface)
<b>Water-Holding Capacity</b>	4 – 11 inches (total)
<b>Total depth</b>	80 + inches
<b>A Horizon Depth</b>	5 – 12 inches thick
<b>Percent rock in the surface horizon</b>	0 – 35 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight hazard of erosion on and off roads and skid trails. Moderately suited for harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Moderate limitation due to seepage
<b>Management Considerations</b>	Flooded for short periods most years.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Cedargap gravelly silt loam</b>	
<b>Landscape Location</b>	Cedargap soils are on flood plains of small streams near active channels. The parent material consists of cherty alluvium. Slopes range from 0 to 3 percent.
<b>Stand Location</b>	Compartment 19: Stand Nos. 5, 10 – 12, 19; Compartment 22: Stand Nos. 28, 29; Compartment 23: Stand Nos. 11 – 13, 21, 25, 26, 28, 29, 32, 34, 36; Compartment 33: Stand Nos. 1, 10, 13, 14, 16, 17, 19, 20; Compartment 34: Stand Nos. 1 – 7, 9 – 12, 15 – 17, 19 – 21, 32 – 38, 43; Compartment 35: Stand Nos. 24 – 28, 30, 37; Compartment 36: Stand Nos. 1, 3, 4, 6; Compartment 37: Stand Nos. 1 – 4, 8, 9, 17 – 22, 32 – 35, 39, 40, 44, 45; Compartment 38: Stand Nos. 9 – 17, 23 – 25, 28, 31, 33, 34, 36 – 40; Compartment 39: Stand Nos. 1, 12, 13, 15, 16, 18, 19, 21, 22, 27; Compartment 40: Stand Nos. 7, 11, 13, 22, 24, 26, 28, 29, 31, 32
<b>Permeability</b>	Moderate (surface and upper subsurface); moderately slow (lower subsurface)
<b>Water- Holding Capacity</b>	6 – 10 inches
<b>Total depth</b>	60 + inches
<b>A Horizon Depth</b>	6 – 24 inches
<b>Percent rock in the surface horizon</b>	3 – 60 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard on or off skid roads and trails. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Moderate limitation due to seepage
<b>Management Considerations</b>	Very brief, frequent to occasional flooding. Water table at 3 ½ - 5 ½ feet during the winter months.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Clarksville</b>	
<b>Landscape Location</b>	Clarksville soils are on steep side slopes and narrow ridgetops. Slopes range from 1 to 70 percent. The soils formed in hillslope sediments and the underlying clayey residuum from cherty dolomite or cherty limestone.
<b>Stand Location</b>	Compartment 20: Stand Nos. 4 – 7; Compartment 35: Stand Nos. 1; Compartment 36: Stand Nos. 2, 15; Compartment 37: Stand Nos. 27 – 32, 34 – 40, 43; Compartment 39: Stand Nos. 25; Compartment 41: Stand Nos. 4 – 9; Compartment 49: Stand Nos. 1 – 14, 18 – 53; Compartment 50: Stand Nos. 1 – 4, 6 – 16, 18 – 30; Compartment 51: Stand Nos. 1 – 10,, 12 – 54; Compartment 52: Stand Nos. 2 – 15, 19; Compartment 53: Stand Nos. 5 – 16; Compartment 57 (all stands); Compartment 58: Stand Nos. 1 – 6; 8 – 46; Compartment 59 (all stands), Compartment 78: Stand Nos. 1 – 8, 10 – 25; Compartments 79, 80, 82, 83, 85 (all stands); Compartment 86: Stand Nos. 1 – 27, 29 – 31; Compartment

<b>Soil Type</b>	<b>Characteristics</b>
	87: Stand Nos. 1 – 12, 14 – 36; Compartment 88: Stand Nos. 1 – 29, 31 – 33; Compartment 89, 90 (all stands); Compartment 91: Stand Nos. 1 – 32; Compartment 92: Stand Nos. 1 – 11; Compartment 99: Stand Nos. 1, 3, 6, 12, 14 – 44; Compartment 100: Stand Nos. 1 – 6, 8 – 51; Compartment 118: Stand Nos. 6 – 15, 18 – 20, 37 – 44
<b>Permeability</b>	Moderately fast (surface and upper subsurface); moderate (lower subsurface)
<b>Water-Holding Capacity</b>	4 – 8 inches
<b>Total Depth</b>	80 + inches
<b>A Horizon Depth</b>	1 – 5 inches
<b>Rock Content in the surface horizons</b>	15 – 80 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight hazard up to 15 percent off skid roads and trails; moderate hazard over 15 percent. Moderate hazard on skid roads and trails up to 15 percent; severe hazard over 15 percent. Well-suited to harvesting equipment up to 15 percent; moderately suited over 15 percent
<b>Potential of damage to soil by fire</b>	Low to moderate
<b>Potential for pond development</b>	Severe limitation due to seepage and slope
<b>Management Considerations</b>	Shallow A horizon, skeletal rock content, severe erosion at steep slopes

<b>Soil Type</b>	<b>Characteristics</b>
<b>Coulstone very gravelly silt loam</b>	
<b>Landscape Location</b>	The Coulstone series consists of very deep, somewhat excessively drained soils of the uplands. Permeability is moderately rapid. These soils formed in colluvium and residuum from acid sandstone with lenses of cherty limestone or cherty dolomite. Slope gradients range from 5 to 60 percent.
<b>Stand Location</b>	Compartment 37: Stand Nos. 27, 29 – 32, 34 – 38, 43; Compartment 49: Stand Nos. 6 – 10, 29 – 32, 36 – 41, 43, 45 – 52; Compartment 50: Stand Nos. 22, 25 – 27; Compartment 51: Stand Nos. 1 – 9, 12 – 16, 18 – 30, 34 – 36, 39 – 42, 44 – 46, 48 – 52, 54; Compartment 52: Stand Nos. 13; Compartment 53: Stand Nos. 5 – 9; Compartment 57: Stand Nos. 1 – 23, 25 – 46, 51, 57, 58, 60; Compartment 58: Stand Nos. 1 – 6, 8, 10 – 12, 14, 16 – 19, 21 – 46; Compartment 59: Stand Nos. 1

	– 6, 9 – 13, 16, 28, 31; Compartment 78: Stand Nos. 2 – 4, 6, 8, 10 – 25; Compartment 79: Stand Nos. 1 – 13, 15, 17; Compartment 82: Stand Nos. 1 – 19, 25, 26, 28, 29, 31 – 33, 42, 43; Compartment 83: Stand Nos. 1 – 7, 12 – 16, 18, 20 – 25, 27, 28, 31, 33, 34, 37 – 39; Compartment 85: Stand Nos. 3 – 5; Compartment 87: Stand Nos. 2; Compartment 88: Stand Nos. 1 – 29, 31 – 33; Compartment 89: Stand Nos. 2, 4 – 6; Compartment 99: Stand Nos. 1, 3 – 7, 9, 10, 12 – 25; Compartment 100: Stand Nos. 19 – 22, 25 – 32; Compartment 118: Stand Nos. 1 – 9, 11, 13 – 23, 25 – 36, 38, 39, 45, 46
<b>Permeability</b>	Moderately fast
<b>Water-Holding Capacity</b>	The available water holding capacity is low (three to six inches).
<b>Total depth</b>	60+ inches
<b>A Horizon Depth</b>	The A (surface) horizon, where most of the nutrients are located, is shallow (one to four inches).
<b>Percent rock in the surface horizons</b>	35 – 75 percent
<b>Potential of damage from fire</b>	Moderate due to slope, surface depth, coarse fragments, texture.
<b>Erosion Hazard &amp; Equipment Suitability</b>	Moderate hazard off skid roads and roads and severe hazard on skid roads and roads (limitations due to slope and erodability). Moderately suited to harvesting equipment (limitations due to slope and rock fragment).
<b>Potential for pond development</b>	Limitation due to excess seepage.
<b>Management Considerations</b>	Low available water holding capacity, high rock content and shallow A horizon.

<b>Doniphan very gravelly silt loam</b>	(previously mapped with Baxter soils in Missouri)
<b>Landscape Location</b>	Doniphan soils are on side slopes and narrow ridgetops. Slopes typically range from 10 to 35 percent, but have an extreme range of 2 to 60 percent. The soils are formed in residuum from clayey shales and cherty dolomite or cherty limestone.
<b>Stand Location</b>	Compartment 39: Stand Nos. 25; Compartment 41: Stand Nos. 4 – 9; Compartment 49: Stand Nos. 2 – 10, 12 – 14, 18 – 40, 43 – 53; Compartment 50: Stand Nos. 1, 29; Compartment 51: Stand Nos. 1 – 10, 12 – 14, 17, 29, 30, 32 – 35, 38, 48, 53; Compartment 58: Stand Nos. 16 – 18, 20, 21, 26, 28 – 41, 43 – 45; Compartment 59: Stand Nos. 3 – 27, 31, 32
<b>Permeability</b>	Moderately fast (surface); moderate (subsurface)
<b>Water-Holding Capacity</b>	5 - 7 inches
<b>Total depth</b>	60+ inches
<b>A Horizon</b>	1 - 6 inches thick

<b>Depth</b>	
<b>Percent rock in the surface horizon</b>	25 - 75 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Moderate to severe erosion hazard off skid trails and roads (severe over 35 percent); severe hazard on skid trails and roads . Moderately to poorly suited to harvesting equipment depending on slope.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Severe limitations due to slope and seepage.
<b>Management Considerations</b>	

<b>Soil Type</b>	<b>Characteristics</b>
<b>Elkins silt loam</b>	Was made inactive in 1979 and may have been mistyped in Missouri.
<b>Landscape Location</b>	Elkins soils are on flood plains. These soils formed in acid alluvium washed from upland soils that formed in shale, sandstone, and siltstone. Slope ranges from 0 to 3 percent.
<b>Stand Location</b>	Compartment 57: Stand No. 59
<b>Permeability</b>	Moderate (surface); slow to moderate (subsurface)
<b>Water-Holding Capacity</b>	8 – 12 inches
<b>Total depth</b>	25 – 50 depth to solum, 60+ depth to bedrock
<b>A Horizon Depth</b>	6 – 10 inches
<b>Percent rock in the surface horizon</b>	0 – 5
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Low to moderate
<b>Potential for pond development</b>	Moderate seepage hazard.
<b>Management Considerations</b>	High water table possible November thru June. Occasional to frequent brief flooding possible November thru May/June.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Fourche silt loam</b>	
<b>Landscape Location</b>	Fourche soils are on upland side slopes with even or slightly concave surfaces and point ridgetops. Slope gradients commonly are 5 to 9 percent but range from 2 to

<b>Soil Type</b>	<b>Characteristics</b>
<b>Fourche silt loam</b>	
	15 percent. The soils formed in loess and the underlying residuum from dolomite or limestone. The bedrock in some places is glauconitic or interbedded with shale.
<b>Stand Location</b>	Compartment 23: Stand Nos. 23; Compartment 33: Stand Nos. 4 – 6, 9, 10, 25; Compartment 34: Stand Nos.1 – 4, 19 - 21
<b>Permeability</b>	Moderately (surface); moderately slow (subsurface)
<b>Water-Holding Capacity</b>	14 – 17 inches
<b>Total depth</b>	60 – 100 inches
<b>A Horizon Depth</b>	5 – 10 inches thick
<b>Percent rock in the surface horizon</b>	0 – 5
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid trails and roads. Moderate hazard on skid trails and roads. Moderately well suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Moderate up to 9 percent slope. Severe over 9 percent slope.
<b>Management Considerations</b>	There is a perched water table 1.5 to 3 feet below the surface at sometime from November to May in most years.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Gepp very gravelly silt loam</b>	
<b>Landscape Location</b>	Gepp soils are on nearly level to steep uplands. Slopes range from 1 to 40 percent. The soil formed in clayey residuum, and in places, colluviums over cherty dolomite and limestone bedrock.
<b>Stand Location</b>	Compartment 118: Stand Nos. 10 - 13
<b>Permeability</b>	Moderate
<b>Water-Holding Capacity</b>	5 – 9 inches
<b>Total depth</b>	60 – 90 +
<b>A Horizon Depth</b>	4 – 8 inches thick
<b>Percent rock in the surface horizon</b>	10 – 75 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard on skid roads and trails. Moderate erosion hazard on skid roads and trails. Well suited to harvesting equipment.
<b>Potential of damage to soil</b>	Low

<b>from fire</b>	
<b>Potential for pond development</b>	Severe limitation at steeper slopes
<b>Management Considerations</b>	

<b>Soil Type</b>	<b>Characteristics</b>
<b>Gladden loam</b>	
<b>Landscape Location</b>	Gladden soils are on flood plains along tributary streams in narrow upland valleys. The slope gradients range from 0 to 3 percent. The soils formed in loamy alluvium.
<b>Stand Location</b>	Compartment 53: Stand Nos. 9; Compartment 79: Stand Nos. 3, 4, 8; Compartment 85: Stand Nos. 64, 65
<b>Permeability</b>	Moderate (surface, upper subsoil); moderately fast (lower subsoil)
<b>Water-Holding Capacity</b>	5 – 7 inches
<b>Total depth</b>	30 – 60 inches
<b>A Horizon Depth</b>	3 – 10 inches
<b>Percent rock in the surface horizon</b>	0 – 35 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Hazard of excess seepage
<b>Management Considerations</b>	

<b>Soil Type</b>	<b>Characteristics</b>
<b>Goss gravelly silt loam</b>	
<b>Landscape Location</b>	Goss soils are on uplands and formed in colluvium and the underlying residuum weathered from cherty limestone or cherty dolomite and some interbedded shale. Slope ranges from 1 to 70 percent.
<b>Stand Location</b>	Compartment 19 (nearly all stands), Compartment 20 (nearly all stands), Compartment 21 (nearly all stands), Compartment 22 (nearly all stands), Compartment 23: Stand Nos. 1, 56; Compartment 33: Stand Nos. 7, 11, 12, 14 – 16, 18, 20 – 23; Compartment 34: Stand Nos. 6, 18 – 22, 25, 26, 28 – 31, 35 – 38, 40 – 42; Compartment 35: nearly all stands; Compartment 36: all stands, Compartment 37: Stand Nos. 2 – 23, 25 – 27, 31 – 33, 39, 40, 42, 43, 45; Compartment 38: Stand Nos. 1 – 10, 12, 13, 17 – 37, 41 – 43; Compartment 39: all stands; Compartment 40: Stand Nos. 1 – 5, 9 -15, 22 – 29, 33; Compartment 41: Stand Nos. 1- 4, 6, 7; Compartment 49: Stand Nos. 16, 17; Compartment 50: Stand Nos. 1 – 4, 6, 7, 21; Compartment 52: Stand Nos. 14 – 19, 28
<b>Permeability</b>	Moderately fast (surface, upper subsurface); moderate (lower subsurface)

<b>Soil Type</b>	<b>Characteristics</b>
<b>Goss gravelly silt loam</b>	
<b>Water-Holding Capacity</b>	3 ½ - 8 inches
<b>Total depth</b>	80 + inches
<b>A Horizon Depth</b>	2 – 8 inches thick
<b>Percent rock in the surface horizon</b>	5 – 75 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight to severe hazard of erosion depending on slope. Not well suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	High
<b>Potential for pond development</b>	Severe limitations due to slope
<b>Management Considerations</b>	None

<b>Soil Type</b>	<b>Characteristics</b>
<b>Gravois silt loam</b>	
<b>Landscape Location</b>	The Gravois soils are on convex ridgetops and sideslopes. Slopes range from 3 to 35 percent. These soils formed in a thin mantle of loess and pedisidiment, and the underlying loamy and clayey residuum from dolomite. The contact of the contrasting material is marked by a gravelly erosional surface.
<b>Stand Location</b>	Compartment 19: nearly all stands; Compartment 20: nearly all stands; Compartment 21: Stand Nos. 1 – 9, 11, 13 – 15, 17 – 24, 26, 27, 29; Compartment 22: nearly all stands; Compartment 23: Stand Nos. 1, 5, 6; Compartment 33: Stand Nos. 1 – 8, 11, 12, 14 – 16, 18, 20 – 24; Compartment 34: Stand Nos. 6, 18, 22, 25, 26, 28 – 31, 35 – 38, 40 – 42; Compartment 35: nearly all stands; Compartment 36: all stands; Compartment 37: Stand Nos. 2, 4 – 23, 25 – 27, 31 – 33, 39, 40, 42, 43, 45; Compartment 38: Stand Nos. 1 – 10, 12, 13, 17 – 43; Compartment 39: nearly all stands; Compartment 40: Stand Nos. 1 – 5, 7, 9 – 28, 33; Compartment 41: 1 – 4, 6, 7; Compartment 49: Stand Nos. 16, 17; Compartment 50: Stand Nos. 1 – 4, 6, 7, 21; Compartment 52: Stand Nos. 14 – 19, 28
<b>Permeability</b>	Moderate (surface); moderately slow (upper subsurface), slow (middle subsurface), moderately slow (lower subsurface)
<b>Water-Holding Capacity</b>	7 – 11 inches
<b>Total depth</b>	60 + inches
<b>A Horizon Depth</b>	3 – 7 inches thick
<b>Percent rock in the surface horizon</b>	0 – 10 percent
<b>Erosion Hazard &amp;</b>	Slight erosion hazard off skid roads and trails; moderate erosion hazard on skid roads and trails. Moderately suited to harvesting equipment.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Gravois silt loam</b>	
<b>Equipment Limitation</b>	
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	
<b>Management Considerations</b>	A perched water table is present at 1.5 to 3.0 feet from winter to early spring in most years.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Hildebrecht silt loam</b>	
<b>Landscape Location</b>	Hildebrecht soils are on convex upland ridgetops, point ridges, heads of drains and side slopes. Slopes range from 1 to 15 percent. The soils formed in loess over residuum from dolomite.
<b>Stand Location</b>	Compartment 23: Stand Nos. 7, 15 – 19, 27 – 31, 35, 37
<b>Permeability</b>	Moderate (surface); moderately slow (subsurface above fragipan); slow (fragipan); moderately slow (below fragipan)
<b>Water-Holding Capacity</b>	7 – 10 inches, 4 – 6 inches above fragipan
<b>Total depth</b>	60 – 100 inches (solum); 10 feet or more (bedrock) 24 – 36 inches (depth to fragipan)
<b>A Horizon Depth</b>	2 – 7 inches
<b>Percent rock in the surface horizon</b>	0 - 5
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid trails and roads, moderate on skid trails and roads; Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Moderate limitation up to 9 percent. Severe limitation over 9 percent
<b>Management Considerations</b>	Fragipan and perched water table during November thru May

<b>Soil Type</b>	<b>Characteristics</b>
<b>Hobson</b>	
<b>Landscape Location</b>	The Hobson soils typically are on gently sloping ridgetop and upper side slope positions. Some areas are on structural benches. Slopes are dominantly 3 to 6 percent with extreme ranges of 2 to 14 percent. They formed in residuum from mixed sandstone and cherty limestone or cherty dolomite. There is sometimes a thin silty mantle, probably loess, ranging in maximum thickness to about 10

<b>Soil Type</b>	<b>Characteristics</b>
<b>Hobson</b>	
	inches.
<b>Stand Location</b>	Compartment 37: Stand Nos. 29, 36, 37, 41; Compartment 49: Stand Nos. 39 – 41, 43, 48, 49; Compartment 50: Stand Nos. 9 – 12, 14, 15; Compartment 51: Stand Nos. 47; Compartment 52: Stand Nos. 1 – 8; Compartment 58: Stand Nos. 4, 5, 9, 10, 16, 18, 20; Compartment 59: Stand Nos. 3, 4, 8, 9, 31; Compartment 78: Stand Nos. 5, 8, 13; Compartment 85: Stand Nos. 6, 7, 10, 11; Compartment 88: Stand Nos. 8 – 10; Compartment 89: Stand Nos. 5, 6
<b>Permeability</b>	Moderate (surface); moderately slow (subsurface above fragipan and below fragipan); slow in fragipan; very slow below 60 inches
<b>Water-Holding Capacity</b>	4 – 6 inches above fragipan; 6 – 9 inches (total)
<b>Total depth</b>	60 +; 18 – 27 inches to fragipan
<b>A Horizon Depth</b>	1 – 8 inches
<b>Percent rock in the surface horizon</b>	0 – 10 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Moderate erosion hazard off skid roads and trails, severe on skid roads and trails. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Moderate hazard of excess seepage.
<b>Management Considerations</b>	Fragipan and perched water table from November thru May

<b>Soil Type</b>	<b>Characteristics</b>
<b>Hogcreek silt loam</b>	
<b>Landscape Location</b>	Hogcreek soils are on gently to moderately sloping ridgetops. These soils formed in hillslope sediments mixed with a component of loess and in the underlying pedisegment. Slopes range from 1 to 8 percent.
<b>Stand Location</b>	Compartment 99: Stand Nos. 6 – 14; Compartment 118: Stand Nos. 1, 22 – 31, 33 - 41
<b>Permeability</b>	Moderately fast (surface and upper subsurface); moderate (middle subsurface above fragipan); very slow (fragipan)
<b>Water-Holding Capacity</b>	2 – 4 inches above fragipan; 3 – 6 inches total
<b>Total depth</b>	20 – 40 inches total, 14 – 32 inches to fragipan
<b>A Horizon Depth</b>	3 – 6 inches
<b>Percent rock in the surface horizon</b>	0 – 35 percent
<b>Erosion Hazard &amp; Equipment</b>	Slight erosion hazard off skid roads and trails, moderate hazard on skid roads and trails. Moderately suited to harvesting equipment.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Hogcreek silt loam</b>	
<b>Limitation</b>	
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	
<b>Management Considerations</b>	Fragipan and perched water table during winter and early spring months.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Lebanon silt loam</b>	
<b>Landscape Location</b>	The Lebanon soils occupy gently to moderately sloping upland positions with gradients of 2 to 14 percent but gradients commonly are 2 to 6 percent. The regolith consists of approximately 18 to 26 inches of loess underlain by cherty limestone residuum. The contact of the contrasting material is marked by a cherty old erosional surface in which the fragipan has developed.
<b>Stand Location</b>	Compartment 20: Stand No. 6; Compartment 36: Stand Nos. 12, 15; Compartment 37: Stand Nos. 29, 36, 37, 41; Compartment 41: Stand Nos. 7, 8; Compartment 49: 39 – 41, 43, 48, 49; Compartment 50: Stand Nos. 9 – 12, 14, 15; Compartment 51: Stand Nos. 47; Compartment 52: Stand Nos. 1 – 14, Compartment 57: Stand Nos. 24, 50, 57 – 59; Compartment 58: Stand Nos. 4, 5, 10, 16, 18, 20; Compartment 59: Stand Nos. 3, 4, 8, 9, 31; Compartment 78: Stand Nos. 5, 8, 9, 13; Compartment 80: Stand Nos. 14, 15, 21; Compartment 82: Stand Nos. 5, 13, 21; Compartment 83: Stand Nos. 29 - 32; Compartment 85: Stand Nos. 6, 7, 10 – 18, 20 – 25, 31 – 34, 38 – 40, 47, 58, 68, 69; Compartment 86: Stand Nos. 11, 14 – 18, Compartment 87: Stand Nos. 25, 27 – 30, 35; Compartment 88: Stand Nos.8 – 10; Compartment 89: Stand Nos. 5, 6; Compartment 91: Stand Nos. 1, 4, 10 – 12, 16; Compartment 92: Stand Nos. 6 – 10; Compartment 99: Stand Nos. 21, 22, 25; Compartment 100: Stand Nos. 22 - 25
<b>Permeability</b>	Moderate above the fragipan, very slow in fragipan, slow below fragipan
<b>Water-Holding Capacity</b>	3 – 5 inches above fragipan; 4 – 7 inches total
<b>Total depth</b>	60 + inches; 18 – 26 inch depth to fragipan
<b>A Horizon Depth</b>	3 – 9 inches
<b>Percent rock in the surface horizon</b>	0 – 25
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails up to 9 percent slope; moderate erosion hazard over 9 percent. Moderate erosion hazard on skid roads and trails up to 9 percent, severe hazard over 9 percent. Moderately suited to harvesting equipment in dry weather and soil conditions; poorly suited in wet soil conditions.
<b>Potential of damage to soil from fire</b>	Low to moderate
<b>Potential for pond development</b>	Moderate to high hazard due to seepage.
<b>Management</b>	Fragipan in the profile; perched water table above fragipan possible from

<b>Soil Type</b>	<b>Characteristics</b>
<b>Lebanon silt loam</b>	
<b>Considerations</b>	December thru March.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Lecoma silt loam</b>	
<b>Landscape Location</b>	Lecoma soils are on gently sloping to strongly sloping stream terraces and foot slopes. Slopes range from 1 to 15 percent. The soil formed in alluvium and colluvium derived predominantly from sandstone.
<b>Stand Location</b>	Compartment 118: Stand Nos. 26, 27
<b>Permeability</b>	Moderate
<b>Water-Holding Capacity</b>	10 – 13 inches
<b>Total depth</b>	60 + inches
<b>A Horizon Depth</b>	3 – 12 inches
<b>Percent rock in the surface horizon</b>	0 - 10
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails; moderate hazard on skid roads and trails. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Moderately limited due to seepage and slope
<b>Management Considerations</b>	None

<b>Soil Type</b>	<b>Characteristics</b>
<b>Midco cherty loam</b>	
<b>Landscape Location</b>	Midco soils occupy narrow strips of first bottoms along streams. Slope gradients range from 1 to 4 percent. They formed in recent alluvium derived largely from upland soils underlain by cherty dolomite and sandstone.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Midco cherty loam</b>	
<b>Stand Location</b>	Compartment 20: Stand Nos. 6 – 9; Compartment 37: Stand Nos. 29, 32, 34; Compartment 41: Stand Nos. 7, 9; Compartment 49: Stand Nos. 5, 6, 18 – 22, 24; Compartment 50: Stand Nos. 1, 8 – 13, 18 – 23, 26, 28, 29; Compartment 51: Stand Nos. 10, 16 – 19, 21, 22, 25 – 33, 35 – 37, 42, 44, 46, 49 – 53; Compartment 52: Stand Nos. 3, 13; Compartment 53: Stand Nos. 8, 9, 12; Compartment 57: Stand Nos. 15 – 17, 19, 21, 29 – 32, 36 – 39, 42, 44, 47, 48, 51 – 54, 56 – 60; Compartment 58: Stand Nos. 1, 2, 4, 6, 8 – 10, 12, 15 – 17, 19, 22, 24, 25, 31, 35, 42, 45; Compartment 59: Stand Nos. 5, 13, 15, 18, 23, 24; Compartment 78: Stand Nos. 2, 5 – 7, 21; Compartment 79: Stand Nos. 1, 2, 10 – 12, 14, 15, 17, 19, 22, 30, 32 – 34; Compartment 80: Stand Nos. 8 – 10, 13, 14, 16, 18 – 20, 22 – 25, 27, 33; Compartment 82: Stand Nos. 2, 8, 15, 16, 19, 29 – 32, 35 – 37; Compartment 83: Stand Nos. 8 – 11, 16, 17, 20, 25, 41, 48 – 51; Compartment 85: Stand Nos. 5, 6, 9, 12 – 15, 17 – 21, 24, 26 – 35, 37 – 46, 48 – 52, 54 – 57, 61, 64 – 69; Compartment 86: Stand Nos. 4, 8 – 10, 12, 13, 19, 20, 22 – 27, 29; Compartment 87: Stand Nos. 5, 7, 12, 24, 26, 27, 30, 31, 35; Compartment 88: Stand Nos. 2 – m5, 8 – 10, 13, 15, 16, 21 – 23, 28, 29, 31, 32; Compartment 89: Stand No. 1; Compartment 90: Stand Nos. 1 – 4, 6, 8 – 18, 21, 22, 24 – 29, 33, 38 – 40; Compartment 91: Stand Nos. 1 – 3, 6 – 10, 12 – 14, 16, 18 – 20, 22 – 26, 28, 30, 33; Compartment 99: Stand Nos. 2, 3, 18, 25 – 35, 38, 39, 41 – 43; Compartment 100: Stand Nos. 2, 4 – 17, 19, 20, 25, 26, 28, 30, 34, 35, 38, 41 – 43, 45, 46, 48 – 51; Compartment 118: Stand Nos. 10, 11
<b>Permeability</b>	Moderate to moderately rapid
<b>Water-Holding Capacity</b>	1 – 3 inches
<b>Total depth</b>	Solum depth: 1 – 10 inches; depth to bedrock: 60+ inches
<b>A Horizon Depth</b>	1 – 10 inches thick
<b>Percent rock in the surface horizon</b>	20 - 80
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails, moderate hazard on skid roads and trails. Well suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	High hazard due to seepage
<b>Management Considerations</b>	Very brief, occasional floodings

<b>Miscellaneous water</b>	
<b>Stand Location</b>	Compartment 78: Stand Nos. 1, 2, 5, 9; Compartment 89: Stand Nos. 1; Compartment 90: Stand Nos. 6, 22, 24 – 26, 40

<b>Soil Type</b>	<b>Characteristics</b>
<b>Moniteau silt loam</b>	
<b>Landscape Location</b>	Moniteau soils are on flood plains and formed in alluvium. Slope commonly ranges from 0 to 3 percent, but may range to 5 percent.
<b>Stand Location</b>	Compartment 51: Stand Nos. 27, 50; Compartment 88: Stand Nos. 20, 21
<b>Permeability</b>	Moderately slow (surface); slow (subsurface)
<b>Water-Holding Capacity</b>	10 – 12 inches
<b>Total depth</b>	40 – 60 inches
<b>A Horizon Depth</b>	7 inches
<b>Percent rock in the surface horizon</b>	0 - 5
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails, moderate hazard on skid roads and trails. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Slight hazard of excess seepage.
<b>Management Considerations</b>	In undisturbed areas there is an apparent water table that has an upper limit of 0 to 1 foot during November to May in most years.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Nixa very gravelly silt loam</b>	
<b>Landscape Location</b>	Nixa soils are on ridgetops and sideslopes of uplands. Slope gradients range from 1 to 35 percent. The soil formed in loamy residuum weathered from cherty limestone.
<b>Stand Location</b>	Compartment 41: Stand Nos.7; Compartment 49: Stand Nos. 1 – 4, 7, 9 – 14, 24 – 30, 32 – 35, 37 – 45, 48 – 50; Compartment 51: Stand Nos. 3, 4, 10, 16, 19, 20, 30 – 32, 34, 39 -45, 50; Compartment 53: Stand Nos. 10; Compartment 57: Stand Nos. 4, 5, 9, 16, 24, 36, 47, 48; Compartment 58: Stand Nos. 1, 9, 10, 12, 14 – 16, 19 – 21, 23, 33, 34, 36, 40, 44; Compartment 59: Stand Nos. 9, 31; Compartment 78: Stand Nos. 1 – 4, 6, 8, 11; Compartment 79: Stand Nos. 12, 13; Compartment 82: Stand Nos. 3, 21, 23, 26, 27, 33, 34, 41, 42; Compartment 83: Stand Nos. 4 – 6, 24, 25, 28, 32, 33, 37, 40, 43 – 50; Compartment 85: Stand Nos. 1 – 6, 60; Compartment 87: Stand Nos. 2; Compartment 88: Stand Nos. 1, 2, 7, 8, 13 – 16, 18 – 23, 25, 31 – 33; Compartment 89: Stand Nos. 2, 5; Compartment 99: Stand Nos. 14 – 16, 20, 21; Compartment 100: Stand Nos. 25, 27 – 29, 30, 36 - 38
<b>Permeability</b>	Moderately slow above the fragipan, very slow in the fragipan
<b>Water-Holding Capacity</b>	4 – 7 inches total; 2 – 5 inches above fragipan
<b>Total depth</b>	Depth to fragipan: 14 – 27 inches, 60 – 80 inches total
<b>A Horizon Depth</b>	0 – 3 inches

<b>Soil Type</b>	<b>Characteristics</b>
<b>Nixa very gravelly silt loam</b>	
<b>Percent rock in the surface horizon</b>	15 - 60
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails up to 15 percent, moderate over 15 percent. Moderate erosion hazard on skid roads and trails up to 9 percent, severe over 9 percent. Moderately suited to harvesting equipment in dry soil conditions, poorly suited in wet soil conditions
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Moderate to high limitation due to seepage.
<b>Management Considerations</b>	Fragipan in the profile, very shallow A horizon

<b>Soil Type</b>	<b>Characteristics</b>
<b>Poynor gravelly silt loam</b>	
<b>Landscape Location</b>	Poynor soils are on narrow ridgetops and steep side slopes. These soils formed in gravelly colluvium weathered from dolostone or limestone and the underlying clayey residuum weathered from shale. Slopes range from 1 to 60 percent.
<b>Stand Location</b>	Compartment 99: Stand Nos. 1, 4 – 17; Compartment 118: Stand Nos. 1 – 7, 12 – 14, 18 – 23, 25 – 41, 45, 46
<b>Permeability</b>	Moderate (surface); moderately slow (subsurface)
<b>Water-Holding Capacity</b>	4 – 7 inches
<b>Total depth</b>	60+ inches
<b>A Horizon Depth</b>	1 – 7 inches thick
<b>Percent rock in the surface horizon</b>	15 - 25
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid trails and roads; moderate on skid trails and roads up to 8 percent, severe over 8 percent. Well suited to harvesting equipment up to 15 percent.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Moderate to severe limitations due to seepage and slope (at higher grades)
<b>Management Considerations</b>	

<b>Soil Type</b>	<b>Characteristics</b>
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Soil Type	Characteristics
<b>Relfe very gravelly sandy loam</b>	
<b>Landscape Position</b>	Relfe soils are on nearly level to gently sloping flood plains. Slope gradients range from 0 to 3 percent. They formed in gravelly alluvium.
<b>Stand Location</b>	Compartment 36: Stand Nos. 9, 10, 13; Compartment 99: Stand Nos. 1, 3 – 7, 11, 15 – 17; Compartment 118: Stand Nos. 4, 5, 10 – 22, 25 – 27, 29 – 32, 34, 35, 39 - 46
<b>Permeability</b>	Moderate (surface), moderately rapid to rapid (subsurface)
<b>Water-Holding Capacity</b>	1 – 2 inches
<b>Total depth</b>	60+ inches
<b>A Horizon Depth</b>	6 – 9 inches
<b>Percent rock in the surface horizon</b>	35 – 75
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Very limited (seepage)
<b>Management Considerations</b>	Very low available water holding capacity. Very brief occasional to frequent floods.

Soil Type	Characteristics
<b>Riverwash</b>	
<b>Landscape Location</b>	Made up of alluvial materials deposited on flood plains along streams and rivers. Materials consist of large stones, cherty gravel, and sand that are well graded in some areas and mixed in others.
<b>Stand Location</b>	Compartment 53: Stand Nos. 8, 9; Compartment 59: Stand Nos. 21 – 24; Compartment 89: Stand Nos. 1, 29
<b>Permeability</b>	Moderately rapid to rapid
<b>Water-Holding Capacity</b>	1 – 2 inches
<b>Total depth</b>	60+ inches
<b>Management Considerations</b>	Long, frequent floods and water tables with an upper limit of 0 – 2 feet and lower limit of > 6.0 feet from October to July

Soil Type	Characteristics
<b>Rockland</b>	
<b>Landscape Position</b>	Occurs in areas where ledges, bouldersized float rock, and outcrops of bedrock cover more than 25 percent of the surface. The outcrops and ledges are dolomite, and the large float rocks are mainly sandstone. Slopes are usually > 9 percent and on south slopes. Between the bedrock, ledges, or float rock, soil material is present

	but variable.
<b>Stand Location</b>	Compartment 50: Stand Nos. 22, 23, 26; Compartment 51: Stand Nos. 37, 41, 42, 53; Compartment 57: Stand Nos. 8, 9, 15 – 18, 20 – 23, 25, 26, 28, 51; Compartment 86: Stand Nos. 4, 29

<b>Soil Type</b>	<b>Characteristics</b>
<b>Rueter very gravelly silt loam</b>	
<b>Landscape Location</b>	Rueter soils are on steep side slopes and narrow ridgetops. Slope gradients range from 3 to 70 percent, but are dominantly 15 to 50 percent. These soils formed in residuum and colluvium from cherty limestone or interbedded sandstone and cherty dolomite.
<b>Stand Location</b>	Compartment 19: nearly every stand; Compartment 20: all stands; Compartment 21: all stands; Compartment 22: nearly every stand; Compartment 23: Stand Nos. 3, 4, 6 – 17, 19 – 37; Compartment 33: Stand Nos. 1 – 7; 9 – 23; Compartment 34: nearly all stands; Compartment 35: Stand Nos. 1 – 37; Compartment 36: Stand Nos. 1 – 10, 13 – 18; Compartment 37: Stand Nos. 2 – 27, 31 – 35, 39, 40, 44, 45; Compartment 38: nearly every stand; Compartment 39: Stand Nos. 1 – 14, 18 – 25; Compartment 40: Stand Nos. 1 – 5, 7 – 11, 16 – 30, 33; Compartment 41: Stand Nos. 1 – 4, 6, 7; Compartment 49: 10, 14 – 16; Compartment 50: Stand Nos. 1 – 4, 6, 7, 21; Compartment 52: Stand Nos. 14 – 19, 28; Compartment 118: Stand Nos. 10 - 13
<b>Permeability</b>	Moderate (surface and upper subsurface); moderately slow (lower subsurface)
<b>Water-Holding Capacity</b>	4 – 9 inches
<b>Total Depth</b>	80+
<b>A Horizon Depth</b>	2 – 6 inches
<b>Percent rock in the surface horizons</b>	15 - 80
<b>Erosion Hazard &amp; Equipment Limitation</b>	Moderate erosion hazard off skid roads and trails; severe hazard on skid roads and trails. Moderately suited to harvesting equipment.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond construction</b>	Severe limitation due to seepage and slope
<b>Management Considerations</b>	None

<b>Soil Type</b>	<b>Characteristics</b>
<b>Scholten</b>	
<b>Landscape Location</b>	The Scholten soils are on slopes and ridges on a rolling to gently rolling landscape at the heads of drains. These soils formed in colluvium or hillslopes sediments and the underlying residuum weathered from cherty limestone. Slopes are 1 to 45 percent.
<b>Stand</b>	Compartment 99: Stand Nos. 1, 4 – 17; Compartment 118: Stand Nos. 1 – 7, 10,

<b>Soil Type</b>	<b>Characteristics</b>
<b>Location</b>	12 – 14, 18 – 23, 25 – 46
<b>Permeability</b>	Moderate (surface); moderately slow (subsurface above and below fragipan), slow to very slow in fragipan
<b>Water-Holding Capacity</b>	1 – 3 inches above fragipan; 3 – 7 inches total
<b>Total depth</b>	80+ inches 14 – 36 inches to fragipan
<b>A Horizon Depth</b>	6 inches
<b>Percent rock in the surface horizon</b>	5 - 65
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails; moderate on skid roads and trails. Well suited to harvesting equipment in dry soil conditions, poorly suited in moist soil conditions.
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond development</b>	Severe limitation due to seepage
<b>Management Considerations</b>	Fragipan in profile. Perched water table at 1 ½ - 3 feet from November thru April

<b>Soil Type</b>	<b>Characteristics</b>
<b>Sharon silt loam</b>	
<b>Landscape Location</b>	Sharon soils are on nearly level to gently undulating flood plains. Slope gradients commonly are less than 2 percent but range from 0 to 4 percent. Sharon soils formed in silty, acid alluvium.
<b>Stand Location</b>	Compartment 85: Stand No. 65 Compartment 91: Stand Nos. 6, 13, 16, 19, 23
<b>Permeability</b>	Moderate
<b>Water-Holding Capacity</b>	14 – 16 inches
<b>Total depth</b>	60+
<b>A Horizon Depth</b>	15 – 32 inches
<b>Percent rock in the surface horizon</b>	0 – 5
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard; moderately suited to harvesting equipment
<b>Potential of damage to soil from fire</b>	Moderate
<b>Potential for pond</b>	High limitation due to excess seepage.

Soil Type	Characteristics
development	
Management Considerations	Possible high water table 3 – 6 feet March thru June

Soil Type	Characteristics
Sonsac very cobbly silt loam	
Landscape Location	Sonsac soils are on moderately sloping to steep upland side slopes. They have formed hillslope sediments and the underlying residuum derived from limestone that has a high chert content and is primarily Ordovician or Mississippian in age. Slopes range from 5 to 70 percent.
Stand Location	Compartment 23: Stand Nos. 19 – 21, 24, 26, 28 – 30, 32 – 36; Compartment 33: Stand Nos. 19 – 22; Compartment 34: Stand Nos. 3, 5 – 16, 25 – 29, 31 – 34; Compartment 38: Stand Nos. 6 – 10, 12 – 19, 22 – 24, 32, 33, 36, 37; Compartment 39: Stand Nos. 1, 4, 6, 12 – 19, 21 – 27; Compartment 40: Stand Nos. 2 – 4, 7 – 17, 19 – 21, 28, 29, 31, 32; Compartment 41: Stand Nos. 1, 3, 4
Permeability	Moderate (surface and upper subsurface); moderately slow (lower subsurface)
Water-Holding Capacity	2 ½ - 5 inches
Total depth	20 - 40
A Horizon Depth	1 – 5 inches
Percent rock in the surface horizon	2 – 70
Erosion Hazard & Equipment Limitation	Slight erosion hazard off skid roads and trails and moderate on skid roads and trails at slopes up to 15 percent. Moderate erosion hazard off skid roads and trails and severe hazard on skid roads and trails at slopes > 15 percent. Moderately suited to harvesting equipment.
Potential of damage to soil from fire	Low
Potential for pond development	Limited due to seepage, depth to bedrock, and slope at steeper grades
Management Considerations	Low available water holding capacity

Soil Type	Characteristics
Tonti silt loam	
Landscape Location	Tonti soils are nearly level to moderately sloping upland ridges of the Ozark Highlands and other areas with cherty limestone bedrock. Slopes range from 1 to 12 percent, but dominantly are less than 8 percent.
Stand Location	Compartment 99: Stand Nos. 7 – 14; Compartment 118: Stand Nos. 1, 22 – 31, 33 - 41
Permeability	Moderate above the fragipan, very slow in the fragipan, and slow below the fragipan.
Water-Holding Capacity	2 – 4 inches above the fragipan, 5 – 10 inches total
Total depth	60 + inches; 15 – 31 inches to fragipan

<b>Soil Type</b>	<b>Characteristics</b>
<b>Tonti silt loam</b>	
<b>A Horizon Depth</b>	3 – 9 inches
<b>Percent rock in the surface horizon</b>	0 – 35 percent
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails; moderate on skid roads and trails. Moderately well suited to harvesting equipment in dry soil conditions.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond development</b>	Moderate limitation due to seepage and slope at higher slopes.
<b>Management Considerations</b>	Fragipan and perched water table at 1 ½ to 3 feet depth in the profile from December thru April.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Viraton silt loam</b>	
<b>Landscape Location</b>	Viraton soils are on gently sloping and moderately sloping broad ridgetops, foot slopes and strath terraces. Slope gradients are typically less than 5 percent but range from 1 to 20 percent. They formed loamy sediments and the underlying residuum or colluvium from cherty limestone.
<b>Stand Location</b>	Compartment 50: Stand Nos. 20, 22, 23, 26; Compartment 51: Stand Nos. 53; Compartment 59: Stand Nos. 22, 23; Compartment 82: Stand Nos. 9; Compartment 85: Stand Nos. 18 – 22, 48, 61; Compartment 89: Stand Nos. 1; Compartment 90: Stand Nos. 16, 35; Compartment 91: Stand Nos. 14, 16, 23 – 26, 28, 30, 31, 33; Compartment 100: Stand Nos. 5, 6, 10 – 12, 40 – 43, 50, 51; Compartment 118: Stand Nos. 9 - 12
<b>Permeability</b>	Moderate above the fragipan, very slow in the fragipan and moderately slow below the fragipan.
<b>Water-Holding Capacity</b>	3 – 4 inches above fragipan, 5 – 7 ½ inches total
<b>Total depth</b>	60 + inches, fragipan depth at 18 – 33 inches
<b>A Horizon Depth</b>	3 – 8 inches thick
<b>Percent rock in the surface horizon</b>	0 - 25
<b>Erosion Hazard &amp; Equipment Limitation</b>	Slight erosion hazard off skid roads and trails; moderate on skid roads and trails; moderately suited to harvesting equipment in periods of dry soil conditions.
<b>Potential of damage to soil from fire</b>	Low
<b>Potential for pond</b>	Limitations due to fragipan

<b>Soil Type</b>	<b>Characteristics</b>
<b>development</b>	
<b>Management Considerations</b>	High water table possible November thru June. Presence of fragipan from 1 ½ - 2 ½ feet below surface.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Westerville silt loam</b>	
Landscape Position	Westerville soils are on low terraces. The slope gradient is 0 to 3 percent. The soils formed in alluvium.
Stand Location	Compartment 85: Stand Nos. 9, 29, 30, 63, 65, 66
Permeability	Moderate
Water-Holding Capacity	10 – 12 inches
Total depth	Solum depth: 6 – 24 inches; depth to bedrock:
A Horizon Depth	6 – 14 inches thick
Percent rock in the surface horizon	0 - 10
Erosion Hazard & Equipment Limitation	Slight hazard of erosion. Moderately suited to harvesting equipment.
Potential of damage to soil from fire	Moderate
Potential for pond development	Moderate hazard of excess seepage.
Management Considerations	Brief, occasional flooding. High water table possible at 1 – 3 feet from November thru May.

<b>Soil Type</b>	<b>Characteristics</b>
<b>Wideman fine sand</b>	
Landscape Location	Wideman soils are on flood plains and natural levees along streams in the Ozark Highlands of Arkansas and Missouri. The flood plains are often dissected by old channels, now inactive. Slopes are usually less than 3 percent but range from 0 to 5 percent. Wideman soils formed in sandy alluvium with thin strata of finer texture.
Stand Location	Compartment 53: Stand Nos. 8, 9; Compartment 59: Stand Nos. 21 – 24; Compartment 89: Stand Nos. 1; Compartment 90: Stand Nos. 29
Permeability	Moderately rapid to rapid
Water-Holding Capacity	4 – 12 inches
Total depth	80+ inches
A Horizon Depth	2 – 9 inches
Percent rock in the surface	0 - 10

Soil Type	Characteristics
<b>Wideman fine sand</b>	
horizon	
Erosion Hazard & Equipment Limitation	Slight hazard of erosion. Well suited to harvesting equipment.
Potential of damage to soil from fire	High due to texture and coarse fragments
Potential for pond development	High limitation
Management Considerations	Very brief occasional to frequent flooding.