

015CS—Clime-Sogn complex, 3 to 15 percent slopes**Map Unit Composition**

Clime: 67 percent
 Sogn: 30 percent
 Minor components: 3 percent

Component Descriptions**Clime**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Limy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 9 inches; silty clay
 H2—9 to 33 inches; silty clay
 Cr—33 to 37 inches; unweathered bedrock

Sogn

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Loamy residuum weathered from limestone, unspecified
Slope: 3 to 15 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 1.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium

Ecological site: Shallow Limy (pe30-36)

Typical Profile:

H1—0 to 7 inches; silty clay loam
 R—7 to 11 inches; unweathered bedrock

Minor Components**Rock outcrop**

Composition: About 3 percent

015LA—Labette silty clay loam, 1 to 3 percent slopes**Map Unit Composition**

Labette: 90 percent
 Minor components: 10 percent

Component Descriptions**Labette**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; silty clay loam
 H2—13 to 38 inches; silty clay
 R—38 to 42 inches; unweathered bedrock

Minor Components**Dwight**

Composition: About 5 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

Irwin

Composition: About 5 percent
Geomorphic Position: hillside on upland

Slope: 0 to 1 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe25-34)

015LD—Labette-Dwight complex, 1 to 3 percent slopes

Map Unit Composition

Labette: 50 percent
 Dwight: 40 percent
 Minor components: 10 percent

Component Descriptions

Labette

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; silty clay loam
 H2—13 to 38 inches; silty clay
 R—38 to 42 inches; unweathered bedrock

Dwight

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from limestone, cherty
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Low (About 4.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Clay Pan (pe30-36)

Typical Profile:

H1—0 to 5 inches; silt loam
 H2—5 to 33 inches; silty clay
 R—33 to 37 inches; unweathered bedrock

Minor Components

Irwin

Composition: About 5 percent
Geomorphic Position: hillside on upland
Slope: 0 to 1 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe25-34)

Ladysmith

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Clay Upland (pe25-34)

015LS—Ladysmith silty clay loam, 0 to 2 percent slopes

Map Unit Composition

Ladysmith: 90 percent
 Minor components: 10 percent

Component Descriptions

Ladysmith

MLRA: 76 - Bluestem Hills
Landform: Paleoterrace on upland
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Clay Upland (pe25-34)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; silty clay loam
 H2—8 to 38 inches; silty clay
 H3—38 to 66 inches; silty clay

Minor Components**Irwin**

Composition: About 5 percent
Geomorphic Position: hillside on upland
Slope: 0 to 1 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe25-34)

Dwight

Composition: About 5 percent
Slope: 1 to 2 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

035FA—Florence Cherty silt loam, 5 to 15 percent slopes

Map Unit Composition

Florence: 85 percent
 Minor components: 15 percent

Component Descriptions

Florence

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope, summit
Parent material: Clayey residuum weathered from clayey shale and/or clayey residuum weathered from cherty limestone
Slope: 5 to 15 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.3 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 14 inches; gravelly silt loam
 H2—14 to 17 inches; very gravelly silty clay loam
 H3—17 to 45 inches; extremely cobbly clay
 R—45 to 49 inches; unweathered bedrock

Minor Components**Martin**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-36)

Dwight

Composition: About 5 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

Labette

Composition: About 5 percent
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

035SD—Sogn silty clay loam, 0 to 10 percent slopes

Map Unit Composition

Sogn: 90 percent
 Minor components: 10 percent

Component Descriptions

Sogn

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Loamy residuum weathered from limestone, unspecified
Slope: 0 to 10 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Limy (pe30-36)
Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 10 inches; silty clay loam
R—10 to 14 inches; unweathered bedrock

Minor Components**Clime**

Composition: About 5 percent
Slope: 7 to 15 percent
Depth to restrictive feature: 20 to 40 inches
to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Labette

Composition: About 5 percent
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches
to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

**073CA—Chase silty clay loam,
occasionally flooded****Map Unit Composition**

Chase: 90 percent
Minor components: 10 percent

Component Descriptions**Chase**

MLRA: 76 - Bluestem Hills
Landform: Flood plain on river valley
Parent material: Silty and clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.9
inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 24 to
48 inches
Runoff class: Medium
Ecological site: Loamy Lowland (pe30-36)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 14 inches; silty clay loam
H2—14 to 45 inches; silty clay
H3—45 to 60 inches; silty clay loam

Minor Components**Ivan**

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-36)

Reading

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-36)

**073EB—Eram silty clay loam, 1 to
4 percent slopes****Map Unit Composition**

Eram: 85 percent
Minor components: 15 percent

Component Descriptions**Eram**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit, backslope
Parent material: Silty and clayey residuum
weathered from shale, unspecified
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to
bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to
18 inches
Runoff class: High
Ecological site: Clay Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; silty clay loam
H2—10 to 33 inches; silty clay
Cr—33 to 37 inches; weathered bedrock

Minor Components**Unnamed Soil**

Composition: About 10 percent
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches
to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe24-32)

Dwight

Composition: About 5 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

073RE—Reading silt loam, 0 to 2 percent slopes, rarely flooded

Map Unit Composition

Reading: 90 percent
 Minor components: 10 percent

Component Descriptions

Reading

MLRA: 76 - Bluestem Hills
Landform: Terrace on river valley
Parent material: Fine-silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Lowland (pe35-42)
Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 15 inches; silt loam
 H2—15 to 41 inches; silty clay loam
 H3—41 to 60 inches; silty clay

Minor Components

Wabash

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Chase

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe35-42)

125BF—Bates-Collinsville complex, 1 to 4 percent slopes

Map Unit Composition

Bates: 50 percent
 Collinsville: 40 percent

Component Descriptions

Bates

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Sandy and silty residuum weathered from sandstone, unspecified over sandy and silty residuum weathered from sandstone-shale
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 6.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 15 inches; loam
 H2—15 to 27 inches; clay loam
 H3—27 to 31 inches; gravelly clay loam
 Cr—31 to 35 inches; unweathered bedrock

Collinsville

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope, summit
Parent material: Sandstone residuum
Slope: 1 to 4 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low

Ecological site: Shallow Sandstone (pe35-42)
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 11 inches; fine sandy loam
 H2—11 to 17 inches; fine sandy loam
 R—17 to 21 inches; unweathered bedrock

125ET—Eram-Talihina silty clay loams, 6 to 20 percent slopes

Map Unit Composition

Eram: 50 percent
 Talihina: 35 percent
 Minor components: 15 percent

Component Descriptions

Eram

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 6 to 8 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to 18 inches
Runoff class: Very high
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 11 inches; silty clay loam
 H2—11 to 32 inches; silty clay
 Cr—32 to 36 inches; weathered bedrock

Talihina

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Residuum weathered from shale
Slope: 6 to 20 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Very low (About 2.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 6 to 24 inches

Runoff class: Very high

Ecological site: Clay Upland (pe35-42)

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 17 inches; silty clay loam
 Cr—17 to 21 inches; weathered bedrock

Minor Components

Bates

Composition: About 5 percent
Slope: 3 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

Collinsville

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Sandstone (pe35-42)

Dennis

Composition: About 5 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

125OS—Osage silty clay, occasionally flooded

Map Unit Composition

Osage: 90 percent
 Minor components: 10 percent

Component Descriptions

Osage

MLRA: 112 - Cherokee Prairies
Landform: Flood plain on river valley
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Poorly drained

Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 6.4 inches)
Shrink-swell potential: Very high (About 17.0 LEP)
Flooding hazard: Occasional
Ponding hazard: Occasional
Depth to seasonal water saturation: About 0 to 12 inches
Runoff class: Very high
Ecological site: Clay Lowland (pe35-42)
Land capability (nonirrigated): 3w

Typical Profile:
 H1—0 to 17 inches; silty clay
 H2—17 to 60 inches; clay

Minor Components

Verdigris

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe35-42)

Lanton

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe35-42)

205BA—Bates loam, 1 to 4 percent slopes

Map Unit Composition

Bates: 99 percent

Component Descriptions

Bates

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Sandy and silty residuum weathered from sandstone, unspecified over sandy and silty residuum weathered from sandstone-shale
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 6.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 2e

Typical Profile:
 H1—0 to 16 inches; loam
 H2—16 to 23 inches; clay loam
 H3—23 to 33 inches; gravelly clay loam
 Cr—33 to 37 inches; unweathered bedrock

205EB—Eram silt loam, 1 to 3 percent slopes

Map Unit Composition

Eram: 90 percent
 Minor components: 10 percent

Component Descriptions

Eram

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Summit, backslope
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to 18 inches
Runoff class: Very high
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; silt loam
 H2—9 to 32 inches; silty clay
 Cr—32 to 36 inches; weathered bedrock

Minor Components

Bates

Composition: About 5 percent
Slope: 3 to 7 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

Ringo

Composition: About 5 percent
Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe35-42)

205ND—Niotaze-Darnell complex, 4 to 30 percent slopes

Map Unit Composition

Niotaze: 50 percent
 Darnell: 35 percent
 Minor components: 15 percent

Component Descriptions

Niotaze

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Parent material: Clayey residuum weathered from sandstone and shale
Slope: 4 to 30 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 24 inches
Runoff class: Very high
Ecological site: Savannah (pe35-38)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 9 inches; cobbly fine sandy loam
 H2—9 to 36 inches; silty clay
 Cr—36 to 40 inches; unweathered bedrock

Darnell

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Loamy residuum weathered from sandstone
Slope: 4 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Savannah (pe35-38)
Land capability (nonirrigated): 6

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 17 inches; fine sandy loam
 Cr—17 to 21 inches; weathered bedrock

Minor Components

Stephenville

Composition: About 10 percent
Slope: 6 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Savannah (pe35-38)

Rock outcrop

Composition: About 5 percent
Drainage class: Well drained

205PE—Prue loam, 2 to 5 percent slopes

Map Unit Composition

Prue: 90 percent
 Minor components: 10 percent

Component Descriptions

Prue

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Footslope
Parent material: Fine-loamy residuum weathered from sandstone and shale
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; loam
 H2—11 to 17 inches; clay loam
 H3—17 to 38 inches; clay loam
 H4—38 to 60 inches; silty clay

Minor Components

Dwight

Composition: About 5 percent
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe35-42)

Stephenville

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Savannah (pe35-38)

**205SC—Shidler-Catoosa complex,
1 to 8 percent slopes**

Map Unit Composition

Shidler: 70 percent
 Catoosa: 15 percent
 Minor components: 8 percent

Component Descriptions

Shidler

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Residuum weathered from limestone
Slope: 1 to 8 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium

Ecological site: Shallow Limy (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 10 inches; silty clay loam
 R—10 to 14 inches; unweathered bedrock

Catoosa

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Residuum weathered from limestone
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 5.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 2

Typical Profile:

H1—0 to 10 inches; silt loam
 H2—10 to 30 inches; silty clay loam
 R—30 to 34 inches; unweathered bedrock

Minor Components

Apperson

Composition: About 2 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Girard

Composition: About 2 percent
Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe35-42)

Ringo

Composition: About 2 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe35-42)

Rock outcrop

Composition: About 2 percent
Drainage class: Well drained

Ecological site: Shallow Sandstone (pe35-42)

205SF—Steedman gravelly silt loam, 4 to 25 percent slopes, stony

Map Unit Composition

Steedman: 90 percent
 Minor components: 10 percent

Component Descriptions

Steedman

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Parent material: Clayey residuum weathered from clayey shale
Slope: 4 to 25 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 24 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe35-38)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; stony silt loam
 H2—8 to 32 inches; silty clay
 Cr—32 to 36 inches; weathered bedrock

Minor Components

Bates

Composition: About 5 percent
Slope: 4 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

Collinsville

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Well drained

205SM—Stephenville-Darnell fine sandy loams, 2 to 6 percent slopes

Map Unit Composition

Stephenville: 60 percent
 Darnell: 30 percent
 Minor components: 10 percent

Component Descriptions

Stephenville

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Parent material: Fine-loamy residuum weathered from sandstone
Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 3.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Savannah (pe35-38)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 17 inches; fine sandy loam
 H2—17 to 27 inches; sandy clay loam
 Cr—27 to 31 inches; weathered bedrock

Darnell

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Shoulder, summit
Parent material: Loamy residuum weathered from sandstone
Slope: 2 to 6 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow Savannah (pe35-38)

Land capability (nonirrigated): 4

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 17 inches; fine sandy loam

Cr—17 to 21 inches; weathered bedrock

Minor Components

Niotaze

Composition: About 5 percent

Slope: 4 to 30 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Somewhat poorly drained

Ecological site: Savannah (pe35-38)

Prue

Composition: About 5 percent

Slope: 2 to 5 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe35-42)

205WO—Woodson silt loam, 0 to 1 percent slopes

Map Unit Composition

Woodson: 90 percent

Minor components: 10 percent

Component Descriptions

Woodson

MLRA: 112 - Cherokee Prairies

Landform: Divide on upland

Parent material: Silty and clayey alluvium over silty and clayey residuum weathered from shale,

clayey

Slope: 0 to 1 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.7 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 6 to 24 inches

Runoff class: High

Ecological site: Clay Upland (pe35-42)

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 8 inches; silt loam

H2—8 to 28 inches; silty clay

H3—28 to 60 inches; silty clay

Minor Components

Zaar

Composition: About 10 percent

Geomorphic Position: hillslope on upland

Slope: 0 to 1 percent

Drainage class: Somewhat poorly drained

Ecological site: Clay Upland (pe35-42)

AED—Arents, Earthen Dam

Map Unit Composition

Arents, Earthen Dam: 100 percent

Component Descriptions

Arents, Earthen Dam

MLRA: 112 - Cherokee Prairies

Depth to seasonal water saturation: More than 6 feet

Land capability (nonirrigated): 8

Ba—Bates fine sandy loam, 1 to 4 percent slopes

Map Unit Composition

Bates: 90 percent

Minor components: 10 percent

Component Descriptions

Bates

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from sandstone, unspecified over sandy and

silty residuum weathered from sandstone-shale

Slope: 1 to 4 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 5.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 2e

Typical Profile:
 H1—0 to 10 inches; fine sandy loam
 H2—10 to 14 inches; loam
 H3—14 to 32 inches; clay loam
 Cr—32 to 36 inches; unweathered bedrock

Minor Components

Eram

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-36)

Bb—Bates loam, 4 to 7 percent slopes

Map Unit Composition

Bates: 90 percent
 Minor components: 10 percent

Component Descriptions

Bates

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Sandy and silty residuum weathered from sandstone, unspecified over sandy and silty residuum weathered from sandstone-shale
Slope: 4 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 5.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; loam
 H2—10 to 14 inches; clay loam
 H3—14 to 30 inches; gravelly clay loam
 Cr—30 to 34 inches; unweathered bedrock

Minor Components

Eram

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-36)

Bf—Benfield Cherty silt loam, 4 to 10 percent slopes

Map Unit Composition

Benfield: 85 percent
 Minor components: 15 percent

Component Descriptions

Benfield

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Calcareous clayey shale
Slope: 4 to 10 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 10 inches; gravelly silt loam
 H2—10 to 30 inches; silty clay loam
 H3—30 to 36 inches; gravelly silty clay loam
 Cr—36 to 40 inches; unweathered bedrock

Minor Components

Clime

Composition: About 8 percent
Geomorphic Position: hillslope on upland

Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Labette

Composition: About 7 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

Cd—Catoosa silt loam, 0 to 2 percent slopes**Map Unit Composition**

Catoosa: 90 percent
 Minor components: 10 percent

Component Descriptions**Catoosa**

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Residuum weathered from limestone
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 10 inches; silt loam
 H2—10 to 34 inches; silty clay loam
 R—34 to 38 inches; unweathered bedrock

Minor Components**Sogn**

Composition: About 10 percent

Geomorphic Position: hillslope on upland
Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Cf—Catoosa-Sogn complex, 0 to 8 percent slopes**Map Unit Composition**

Catoosa: 55 percent
 Sogn: 35 percent
 Minor components: 10 percent

Component Descriptions**Catoosa**

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Residuum weathered from limestone
Slope: 0 to 8 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 5.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 9 inches; silt loam
 H2—9 to 26 inches; silty clay loam
 R—26 to 30 inches; unweathered bedrock

Sogn

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Loamy residuum weathered from limestone, unspecified
Slope: 0 to 8 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Shallow Limy (pe30-36)
Land capability (nonirrigated): 7s

Typical Profile:
 H1—0 to 8 inches; silty clay loam
 R—8 to 12 inches; unweathered bedrock

Minor Components

Eram

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-36)

Clime

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Ck—Clime stony silty clay loam, 20 to 30 percent slopes

Map Unit Composition

Clime: 100 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 20 to 30 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 5.3 inches)

Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Limy Upland (pe30-36)
Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 2 inches; stony silty clay loam
 H2—2 to 10 inches; silty clay loam
 H3—10 to 27 inches; silty clay
 H4—27 to 33 inches; silty clay
 Cr—33 to 37 inches; unweathered bedrock

Cm—Clime silty clay, 3 to 7 percent slopes

Map Unit Composition

Clime: 90 percent
 Minor components: 10 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit, backslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.3 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Limy Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; silty clay
 H2—10 to 24 inches; silty clay
 H3—24 to 31 inches; silty clay
 Cr—31 to 35 inches; unweathered bedrock

Minor Components

Martin

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 4 to 7 percent

Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-36)

Cs—Clime-Sogn complex, 5 to 20 percent slopes

Map Unit Composition

Clime: 65 percent
 Sogn: 20 percent
 Minor components: 15 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.3 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Limy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 10 inches; silty clay
 H2—10 to 24 inches; silty clay
 H3—24 to 31 inches; silty clay
 Cr—31 to 35 inches; unweathered bedrock

Sogn

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Loamy residuum weathered from limestone, unspecified
Slope: 5 to 10 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 1.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Limy (pe30-36)
Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 8 inches; silty clay loam
 R—8 to 12 inches; unweathered bedrock

Minor Components

Eram

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-36)

Martin

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 4 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-36)

Rock outcrop

Composition: About 3 percent
Geomorphic Position: hillslope on upland

Dwight

Composition: About 3 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

Labette

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

Cv—Collinsville-Bates fine sandy loams, 2 to 8 percent slopes

Map Unit Composition

Collinsville: 55 percent
 Bates: 35 percent
 Minor components: 10 percent

Component Descriptions

Collinsville

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Hillslope position: Summit, backslope

Parent material: Sandstone residuum

Slope: 2 to 8 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Very low (About 1.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow Sandstone (pe35-38)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; fine sandy loam

H2—8 to 14 inches; fine sandy loam

R—14 to 18 inches; unweathered bedrock

Bates

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from sandstone, unspecified over sandy and

silty residuum weathered from sandstone-shale

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 4.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; fine sandy loam

H2—8 to 14 inches; clay loam

H3—14 to 28 inches; gravelly clay loam

Cr—28 to 32 inches; unweathered bedrock

Minor Components

Steedman

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 5 to 20 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe24-32)

Rock outcrop

Composition: About 5 percent

Geomorphic Position: hillslope on upland

De—Dennis silt loam, 1 to 4 percent slopes

Map Unit Composition

Dennis: 100 percent

Component Descriptions

Dennis

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Hillslope position: Backslope, summit

Parent material: Silty and clayey residuum weathered from shale, unspecified

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 18 inches

Runoff class: High

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 20 inches; silty clay loam

H3—20 to 60 inches; silty clay

Df—Dennis silt loam, 4 to 7 percent slopes

Map Unit Composition

Dennis: 100 percent

Component Descriptions

Dennis

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Hillslope position: Backslope, footslope

Parent material: Silty and clayey residuum weathered from shale, unspecified

Slope: 4 to 7 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.5 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 18 inches

Runoff class: Very high

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; silt loam

H2—13 to 20 inches; silty clay loam

H3—20 to 60 inches; silty clay

Dg—Dennis silty clay loam, 3 to 7 percent slopes, eroded

Map Unit Composition

Dennis: 100 percent

Component Descriptions

Dennis

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Hillslope position: Backslope, footslope

Parent material: Silty and clayey residuum weathered from shale, unspecified

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 18 inches

Runoff class: High

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; silty clay loam

H2—7 to 13 inches; silty clay loam

H3—13 to 60 inches; silty clay

Dw—Dwight silt loam, 0 to 2 percent slopes

Map Unit Composition

Dwight: 90 percent

Minor components: 10 percent

Component Descriptions

Dwight

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from limestone, cherty

Slope: 0 to 2 percent

Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Low (About 5.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clay Pan (pe30-36)

Land capability (nonirrigated): 4s

Typical Profile:

H1—0 to 4 inches; silt loam

H2—4 to 27 inches; silty clay

H3—27 to 42 inches; silty clay

R—42 to 46 inches; unweathered bedrock

Minor Components

Labette

Composition: About 10 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Em—Eram silt loam, 1 to 4 percent slopes**Map Unit Composition**

Eram: 90 percent
Minor components: 10 percent

Component Descriptions**Eram**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope, summit
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 5.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to 18 inches
Runoff class: High
Ecological site: Clay Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; silt loam
H2—10 to 33 inches; silty clay
Cr—33 to 37 inches; weathered bedrock

Minor Components**Bates**

Composition: About 5 percent
Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe24-32)

Dwight

Composition: About 5 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

En—Eram silty clay loam, 4 to 7 percent slopes**Map Unit Composition**

Eram: 90 percent
Minor components: 10 percent

Component Descriptions**Eram**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 4 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to 18 inches
Runoff class: Very high
Ecological site: Clay Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; silty clay loam
H2—10 to 33 inches; silty clay
Cr—33 to 37 inches; weathered bedrock

Minor Components**Unnamed Soil**

Composition: About 10 percent
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe24-32)

Eo—Eram silty clay loam, 3 to 7 percent slopes, eroded**Map Unit Composition**

Eram: 90 percent
Minor components: 10 percent

Component Descriptions**Eram**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope

Parent material: Silty and clayey residuum weathered from shale, unspecified

Slope: 3 to 7 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 4.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 6 to 18 inches

Runoff class: High

Ecological site: Clay Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 31 inches; silty clay

Cr—31 to 35 inches; weathered bedrock

Minor Components

Bates

Composition: About 10 percent

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Ecological site: Loamy Upland (pe24-32)

Es—Eram-Dwight silt loams, 1 to 4 percent slopes

Map Unit Composition

Eram: 70 percent

Dwight: 30 percent

Component Descriptions

Eram

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Hillslope position: Summit, footslope

Parent material: Silty and clayey residuum weathered from shale, unspecified

Slope: 1 to 4 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 4.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 6 to 18 inches

Runoff class: High

Ecological site: Loamy Upland (pe30-36)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; silt loam

H2—10 to 30 inches; silty clay

Cr—30 to 34 inches; weathered bedrock

Dwight

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from limestone, cherty

Slope: 1 to 3 percent

Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Low (About 5.3 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clay Pan (pe30-36)

Land capability (nonirrigated): 4s

Typical Profile:

H1—0 to 4 inches; silt loam

H2—4 to 41 inches; silty clay

R—41 to 45 inches; unweathered bedrock

Fe—Fiat silty clay loam, 1 to 3 percent slopes

Map Unit Composition

Fiat: 90 percent

Minor components: 10 percent

Component Descriptions

Fiat

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Hillslope position: Summit, backslope

Parent material: Clayey material weathered from limestone and shale

Slope: 1 to 3 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)

Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to 12 inches
Runoff class: High
Ecological site: Clay Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; silty clay loam
 H2—11 to 30 inches; silty clay
 R—30 to 34 inches; unweathered bedrock

Minor Components

Sogn

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Fm—Florence-Martin complex, 2 to 12 percent slopes

Map Unit Composition

Florence: 60 percent
 Martin: 30 percent
 Minor components: 10 percent

Component Descriptions

Florence

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope, summit
Parent material: Limestone, cherty
Slope: 2 to 12 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.2 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High

Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; gravelly silt loam
 H2—6 to 12 inches; gravelly silt loam
 H3—12 to 32 inches; extremely gravelly silty clay
 H4—32 to 49 inches; extremely cobbly clay
 R—49 to 53 inches; unweathered bedrock

Martin

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey colluvium derived from limestone and shale over silty and clayey residuum weathered from limestone and shale
Slope: 2 to 11 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 9 inches; silty clay loam
 H2—9 to 60 inches; silty clay

Minor Components

Clime

Composition: About 5 percent
Geomorphic Position: hillside on upland
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Dwight

Composition: About 5 percent
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

Iv—Ivan silt loam, channeled**Map Unit Composition**

Ivan: 85 percent
 Minor components: 15 percent

Component Descriptions**Ivan**

MLRA: 76 - Bluestem Hills
Landform: Flood plain on river valley
Parent material: Calcareous silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 13.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe30-36)
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 33 inches; silt loam
 H2—33 to 60 inches; silt loam

Minor Components**Dennis**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe24-32)

Martin

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 4 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-36)

Osage

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe35-38)

Iw—Ivan silt loam, occasionally flooded**Map Unit Composition**

Ivan: 90 percent
 Minor components: 10 percent

Component Descriptions**Ivan**

MLRA: 76 - Bluestem Hills
Landform: Flood plain on river valley
Parent material: Calcareous silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 13.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe30-36)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 33 inches; silt loam
 H2—33 to 60 inches; silt loam

Minor Components**Lanton**

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe35-38)

Kd—Kenoma silt loam, 1 to 3 percent slopes**Map Unit Composition**

Kenoma: 90 percent
 Minor components: 10 percent

Component Descriptions**Kenoma**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit

Parent material: Loess over ancient clayey alluvium and/or residuum weathered from limestone and shale
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: High (About 9.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 72 to 72 inches
Runoff class: Very high
Ecological site: Clay Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:
 H1—0 to 8 inches; silt loam
 H2—8 to 50 inches; silty clay
 H3—50 to 60 inches; silty clay loam

Minor Components

Eram

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-36)

Catoosa

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

La—Labette silty clay loam, 1 to 4 percent slopes

Map Unit Composition

Labette: 90 percent
 Minor components: 10 percent

Component Descriptions

Labette

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit, backslope

Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 5.1 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 9 inches; silty clay loam
 H2—9 to 30 inches; silty clay
 R—30 to 34 inches; unweathered bedrock

Minor Components

Sogn

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Ld—Labette-Dwight complex, 0 to 3 percent slopes

Map Unit Composition

Labette: 65 percent
 Dwight: 35 percent

Component Descriptions

Labette

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 5.1 inches)

Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; silty clay loam
 H2—9 to 30 inches; silty clay loam
 R—30 to 34 inches; unweathered bedrock

Dwight

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from limestone, cherty
Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Low (About 5.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Clay Pan (pe30-36)
Land capability (nonirrigated): 4s

Typical Profile:

H1—0 to 4 inches; silt loam
 H2—4 to 27 inches; silty clay
 H3—27 to 42 inches; silty clay
 R—42 to 46 inches; unweathered bedrock

**Lg—Labette-Sogn silty clay loams,
0 to 8 percent slopes**

Map Unit Composition

Labette: 55 percent
 Sogn: 35 percent
 Minor components: 10 percent

Component Descriptions

Labette

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Summit, backslope

Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 0 to 4 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 9 inches; silty clay loam
 H2—9 to 26 inches; silty clay
 R—26 to 30 inches; unweathered bedrock

Sogn

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Shoulder
Parent material: Loamy residuum weathered from limestone, unspecified
Slope: 0 to 8 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 1.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Shallow Limy (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; silty clay loam
 R—8 to 12 inches; unweathered bedrock

Minor Components

Clime

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Rock outcrop

Composition: About 5 percent
Geomorphic Position: hillslope on upland

Ln—Lanton silty clay loam, occasionally flooded

Map Unit Composition

Lanton: 100 percent

Component Descriptions

Lanton

MLRA: 84A - Cross Timbers
Landform: Flood plain on river valley
Parent material: Silty and clayey alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 10.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 12 to 24 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe35-38)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 7 inches; silty clay loam
 H2—7 to 36 inches; silty clay loam
 H3—36 to 60 inches; silty clay

Parent material: Silty and clayey colluvium derived from limestone and shale over silty and clayey residuum weathered from limestone and shale

Slope: 1 to 4 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 24 to 36 inches
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; silty clay loam
 H2—12 to 18 inches; silty clay loam
 H3—18 to 54 inches; silty clay
 Cr—54 to 58 inches; unweathered bedrock

Minor Components

Osage

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe35-38)

Dwight

Composition: About 5 percent
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Ecological site: Claypan (pe35-38)

M-W—Miscellaneous Water

Mb—Martin silty clay loam, 1 to 4 percent slopes

Map Unit Composition

Martin: 85 percent
 Minor components: 15 percent

Component Descriptions

Martin

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland

Mc—Martin silty clay loam, 4 to 7 percent slopes

Map Unit Composition

Martin: 90 percent
 Minor components: 10 percent

Component Descriptions

Martin

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey colluvium derived from limestone-shale over silty and clayey residuum weathered from limestone-shale
Slope: 4 to 7 percent

Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:
 H1—0 to 9 inches; silty clay loam
 H2—9 to 60 inches; silty clay

Minor Components

Clime

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Me—Martin silty clay, 3 to 7 percent slopes, eroded

Map Unit Composition

Martin: 90 percent
 Minor components: 10 percent

Component Descriptions

Martin

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope, footslope
Parent material: Silty and clayey colluvium derived from limestone-shale over silty and clayey residuum weathered from limestone-shale
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; silty clay
 H2—7 to 60 inches; silty clay

Minor Components

Clime

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe30-36)

Mn—Mason silt loam, rarely flooded

Map Unit Composition

Mason: 90 percent
 Minor components: 10 percent

Component Descriptions

Mason

MLRA: 112 - Cherokee Prairies
Landform: Stream terrace on river valley
Parent material: Silty alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Lowland (pe30-36)
Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 14 inches; silt loam
 H2—14 to 60 inches; silty clay loam

Minor Components

Lanton

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe35-38)

Nc—Newtonia silt loam, 1 to 3 percent slopes

Map Unit Composition

Newtonia: 100 percent

Component Descriptions

Newtonia

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Hillslope position: Summit

Parent material: Silty and clayey residuum weathered from limestone and shale

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 10.4 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 18 inches; silty clay loam

H3—18 to 26 inches; silty clay loam

H4—26 to 60 inches; silty clay

Slope: 6 to 35 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Somewhat poorly drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 4.1 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 24 inches

Runoff class: Very high

Ecological site: Savannah (pe35-38)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; cobbly fine sandy loam

H2—7 to 30 inches; silty clay

Cr—30 to 34 inches; unweathered bedrock

Darnell

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Hillslope position: Backslope, summit

Parent material: Loamy material weathered from sandstone

Slope: 6 to 20 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Very low (About 1.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Shallow Savannah (pe35-38)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 4 inches; fine sandy loam

H2—4 to 12 inches; gravelly fine sandy loam

Cr—12 to 16 inches; weathered bedrock

Nd—Niotaze-Darnell complex, 6 to 35 percent slopes

Map Unit Composition

Niotaze: 75 percent

Darnell: 15 percent

Minor components: 10 percent

Component Descriptions

Niotaze

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Hillslope position: Backslope, summit

Parent material: Clayey residuum weathered from sandstone and shale

Minor Components

Stephenville

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Ecological site: Savannah (pe35-38)

Prue

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe24-32)

NDD—Niotaze-Darnell complex, 8 to 20 percent slopes

Map Unit Composition

Niotaze: 55 percent
 Darnell: 35 percent
 Minor components: 10 percent

Component Descriptions

Niotaze

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Residuum weathered from sandstone over residuum weathered from shale
Slope: 8 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 24 inches
Runoff class: Very high
Ecological site: Savannah (pe35-38)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 11 inches; cobbly fine sandy loam
 H2—11 to 32 inches; silty clay
 Cr—32 to 36 inches; weathered bedrock

Darnell

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Residuum weathered from sandstone
Slope: 8 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.3 inches)

Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Shallow Savannah (pe35-38)
Land capability (nonirrigated): 6

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 16 inches; fine sandy loam
 Cr—16 to 20 inches; weathered bedrock

Minor Components

Dennis

Composition: About 5 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Rock outcrop

Composition: About 5 percent
Drainage class: Well drained

Os—Osage silty clay loam, occasionally flooded

Map Unit Composition

Osage: 100 percent

Component Descriptions

Osage

MLRA: 112 - Cherokee Prairies
Landform: Flood plain on river valley
Parent material: Clayey alluvium
Slope: 0 to 1 percent
Drainage class: Poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.2 inches)
Shrink-swell potential: Very high (About 17.0 LEP)
Flooding hazard: Occasional
Ponding hazard: Occasional
Depth to seasonal water saturation: About 0 to 12 inches
Runoff class: High
Ecological site: Clay Lowland (pe35-38)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 11 inches; silty clay loam
H2—11 to 60 inches; silty clay

Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; fine sandy loam
H2—11 to 48 inches; clay loam
H3—48 to 60 inches; silty clay loam

Po—Pits, Quarries

Map Unit Composition

Pits, Quarries: 100 percent

Component Descriptions

Pits, Quarries

MLRA: 76 - Bluestem Hills

Depth to seasonal water saturation: More than 6 feet

General Considerations: Pits are open excavations from which soil and commonly underlying material have been removed, exposing either rock or other material. Kinds include Pits, mine; Pits, gravel; and Pits, quarry. Commonly, pits are closely associated with Dumps.

Pr—Prue fine sandy loam, 2 to 6 percent slopes

Map Unit Composition

Prue: 100 percent

Component Descriptions

Prue

MLRA: 84A - Cross Timbers

Landform: Hillslope on upland

Hillslope position: Footslope

Parent material: Fine-loamy residuum weathered from sandstone and shale

Slope: 2 to 6 percent

Drainage class: Moderately well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Sh—Sogn silty clay loam, 0 to 3 percent slopes

Map Unit Composition

Sogn: 85 percent

Minor components: 15 percent

Component Descriptions

Sogn

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Hillslope position: Summit

Parent material: Loamy residuum weathered from limestone, unspecified

Slope: 0 to 3 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.6 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Shallow Limy (pe30-36)

Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 8 inches; silty clay loam
R—8 to 12 inches; unweathered bedrock

Minor Components

Clime

Composition: About 10 percent

Geomorphic Position: hillslope on upland

Slope: 3 to 7 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Moderately well drained

Ecological site: Limy Upland (pe30-36)

Catoosa

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches
 to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

St—Steedman stony loam, 5 to 20 percent slopes

Map Unit Composition

Steedman: 85 percent
 Minor components: 15 percent

Component Descriptions

Steedman

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Clayey residuum weathered
 from clayey shale
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to
 bedrock (paralithic)
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to
 24 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; stony loam
 H2—7 to 36 inches; silty clay
 Cr—36 to 40 inches; weathered bedrock

Minor Components

Rock outcrop

Composition: About 5 percent
Geomorphic Position: hillslope on upland

Collinsville

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 8 percent
Depth to restrictive feature: 4 to 20 inches to
 bedrock (lithic)
Drainage class: Well drained
Ecological site: Shallow Sandstone (pe35-38)

Bates

Composition: About 5 percent
Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches
 to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe24-32)

Sv—Stephenville fine sandy loam, 1 to 4 percent slopes

Map Unit Composition

Stephenville: 95 percent
 Minor components: 5 percent

Component Descriptions

Stephenville

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Fine-loamy material weathered
 from sandstone
Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 40 inches to
 bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60
 in/hr)
Available water capacity: Low (About 4.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6
 feet
Runoff class: Low
Ecological site: Savannah (pe35-38)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 11 inches; fine sandy loam
 H2—11 to 32 inches; sandy clay loam
 Cr—32 to 36 inches; weathered bedrock

Minor Components

Darnell

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 6 percent
Depth to restrictive feature: 10 to 20 inches
 to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Shallow Savannah (pe35-38)

Sw—Stephenville-Darnell fine sandy loams, 1 to 6 percent slopes

Map Unit Composition

Stephenville: 50 percent
Darnell: 40 percent
Minor components: 10 percent

Component Descriptions

Stephenville

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Fine-loamy material weathered from sandstone
Slope: 1 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Savannah (pe35-38)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 11 inches; fine sandy loam
H2—11 to 32 inches; sandy clay loam
Cr—32 to 36 inches; weathered bedrock

Darnell

MLRA: 84A - Cross Timbers
Landform: Hillslope on upland
Hillslope position: Shoulder, backslope
Parent material: Loamy material weathered from sandstone
Slope: 1 to 6 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow Savannah (pe35-38)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 4 inches; fine sandy loam
H2—4 to 12 inches; gravelly fine sandy loam
Cr—12 to 16 inches; weathered bedrock

Minor Components

Niotaze

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 35 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat poorly drained
Ecological site: Savannah (pe35-38)

Rock outcrop

Composition: About 5 percent
Geomorphic Position: hillslope on upland

SXX—Stephenville-Darnell fine sandy loams, 1 to 5 percent slopes

Map Unit Composition

Stephenville: 50 percent
Darnell: 40 percent
Minor components: 10 percent

Component Descriptions

Stephenville

MLRA: 84A - Cross Timbers
Landform: Ridge on upland
Hillslope position: Shoulder
Parent material: Residuum weathered from sandstone
Slope: 1 to 5 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Savannah (pe35-38)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 17 inches; fine sandy loam
 H2—17 to 30 inches; sandy clay loam
 Cr—30 to 34 inches; weathered bedrock

Darnell

MLRA: 84A - Cross Timbers
Landform: Ridge on upland
Hillslope position: Shoulder
Parent material: Residuum weathered from sandstone
Slope: 1 to 5 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Shallow Savannah (pe35-38)
Land capability (nonirrigated): 4

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 16 inches; fine sandy loam
 Cr—16 to 20 inches; weathered bedrock

Minor Components**Dennis**

Composition: About 5 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Niotaze

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 8 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat poorly drained
Ecological site: Savannah (pe35-38)

Vd—Verdigris silt loam, channeled**Map Unit Composition**

Verdigris: 85 percent
 Minor components: 15 percent

Component Descriptions**Verdigris**

MLRA: 76 - Bluestem Hills
Landform: Flood plain on river valley
Parent material: Silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Lowland (pe35-38)
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 27 inches; silt loam
 H2—27 to 60 inches; silt loam

Minor Components**Martin**

Composition: About 8 percent
Geomorphic Position: hillslope on upland
Slope: 4 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-36)

Dennis

Composition: About 7 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe24-32)

Vf—Verdigris silt loam, occasionally flooded**Map Unit Composition**

Verdigris: 100 percent

Component Descriptions**Verdigris**

MLRA: 84A - Cross Timbers
Landform: Flood plain on river valley
Parent material: Silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very high (About 12.4 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Lowland (pe35-38)

Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 27 inches; silt loam

H2—27 to 60 inches; silt loam

Parent material: Silty and clayey alluvium over silty and clayey residuum weathered from clayey

shale

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.7 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 6 to 24 inches

Runoff class: High

Ecological site: Clay Upland (pe35-42)

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 8 inches; silt loam

H2—8 to 29 inches; silty clay

H3—29 to 75 inches; silty clay

W—Water

Wo—Woodson silt loam, 0 to 2 percent slopes

Map Unit Composition

Woodson: 90 percent

Minor components: 10 percent

Component Descriptions

Woodson

MLRA: 76 - Bluestem Hills

Landform: Divide on upland

Minor Components

Summit

Composition: About 5 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe35-42)

Kenoma

Composition: About 5 percent

Slope: 1 to 2 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe35-42)