

017IN—Irwin silty clay loam, 1 to 3 percent slopes, eroded**Map Unit Composition**

Irwin: 95 percent
 Minor components: 5 percent

Component Descriptions**Irwin**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from clayey shale
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.6 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 Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 4 inches; silty clay loam
 H2—4 to 53 inches; silty clay
 H3—53 to 60 inches; silty clay

Minor Components**Dwight**

Composition: About 5 percent
Slope: 1 to 3 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe30-36)

017IR—Irwin silty clay loam, 3 to 5 percent slopes**Map Unit Composition**

Irwin: 90 percent
 Minor components: 10 percent

Component Descriptions**Irwin**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from clayey shale
Slope: 3 to 5 percent
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.3 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 Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 11 inches; silty clay loam
 H2—11 to 53 inches; silty clay
 H3—53 to 60 inches; silty clay

Minor Components**Tully**

Composition: About 10 percent
Slope: 3 to 7 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

017IS—Irwin silty clay loam, 3 to 5 percent slopes, eroded**Map Unit Composition**

Irwin: 90 percent
 Minor components: 10 percent

Component Descriptions**Irwin**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from clayey shale
Slope: 3 to 5 percent
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.6 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 Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 4 inches; silty clay loam
 H2—4 to 53 inches; silty clay
 H3—53 to 60 inches; silty clay

Minor Components

Tully

Composition: About 10 percent
Slope: 3 to 7 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

031CS—Clareson-Shidler silty clay loams, 1 to 8 percent slopes

Map Unit Composition

Clareson: 50 percent
 Shidler: 30 percent
 Minor components: 20 percent

Component Descriptions

Clareson

MLRA: 112 - Cherokee Prairies
Landform: Ridge on upland
Parent material: Silty and clayey residuum weathered from limestone, unspecified
Slope: 1 to 8 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 3.5 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: Shallow Flats (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; silty clay loam
 H2—12 to 18 inches; silty clay loam
 H3—18 to 24 inches; very flaggy silty clay
 R—24 to 28 inches; unweathered bedrock

Shidler

MLRA: 112 - Cherokee Prairies
Landform: Rim 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 2.4 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 (pe35-42)
Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 12 inches; silty clay loam
 R—12 to 16 inches; unweathered bedrock

Minor Components

Eram

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 12 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe35-42)

Summit

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

031DE—Dennis silty clay loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Dennis: 85 percent
 Minor components: 15 percent

Component Descriptions

Dennis

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 2 to 5 percent

Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 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 12 to 18 inches
Runoff class: High
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:
 H1—0 to 6 inches; silty clay loam
 H2—6 to 60 inches; silty clay

Minor Components

Bates

Composition: About 8 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)

Olpe

Composition: About 7 percent
Slope: 4 to 15 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

031ES—Eram-Shidler silty clay loams, 4 to 15 percent slopes

Map Unit Composition

Eram: 60 percent
 Shidler: 25 percent
 Minor components: 15 percent

Component Descriptions

Eram

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope, summit
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 4 to 15 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 4.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: About 6 to 18 inches
Runoff class: Very high
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 8 inches; silty clay loam
 H2—8 to 26 inches; silty clay
 Cr—26 to 30 inches; weathered bedrock

Shidler

MLRA: 112 - Cherokee Prairies
Landform: Rim on upland
Parent material: Residuum weathered from limestone
Slope: 4 to 15 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 2.4 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 (pe35-42)
Land capability (nonirrigated): 7s

Typical Profile:
 H1—0 to 12 inches; silty clay loam
 R—12 to 16 inches; unweathered bedrock

Minor Components

Olpe

Composition: About 15 percent
Slope: 4 to 15 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

031LU—Lula silt loam, 0 to 2 percent slopes

Map Unit Composition

Lula: 90 percent
 Minor components: 10 percent

Component Descriptions

Lula

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Fine-silty residuum weathered from limestone
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.3 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): 2e

Typical Profile:

H1—0 to 9 inches; silt loam
H2—9 to 18 inches; silty clay loam
H3—18 to 57 inches; silty clay loam
R—57 to 65 inches; unweathered bedrock

Minor Components

Clareson

Composition: About 5 percent
Slope: 1 to 8 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Shallow Flats (pe35-42)

Kenoma

Composition: About 5 percent
Slope: 1 to 2 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe35-42)

031SA—Summit silty clay loam, 1 to 4 percent slopes

Map Unit Composition

Summit: 100 percent

Component Descriptions

Summit

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland

Hillslope position: Footslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.6 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 (pe35-42)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 9 inches; silty clay loam
H2—9 to 14 inches; silty clay loam
H3—14 to 60 inches; silty clay

031SC—Summit silty clay loam, 4 to 7 percent slopes

Map Unit Composition

Summit: 95 percent
Minor components: 5 percent

Component Descriptions

Summit

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 4 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 24 to 36 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; silty clay loam
H2—9 to 14 inches; silty clay loam
H3—14 to 60 inches; silty clay

Minor Components**Lula**

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 3 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

Shidler

Composition: About 2 percent
Slope: 4 to 8 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Shallow Limy (pe35-42)

073DN—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: Footslope, backslope
Parent material: Silty and clayey residuum weathered from shale
Slope: 4 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.4 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 (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silt loam
H2—12 to 17 inches; silty clay loam
H3—17 to 60 inches; silty clay

073DS—Dennis silty clay loam, 2 to 6 percent slopes, eroded**Map Unit Composition**

Dennis: 100 percent

Component Descriptions**Dennis**

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Footslope, backslope
Parent material: Silty and clayey residuum weathered from shale
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.3 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 (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; silty clay loam
H2—6 to 16 inches; silty clay loam
H3—16 to 60 inches; silty clay

073EC—Eram silty clay loam, 4 to 7 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: 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)

127IN—Irwin Soils, 1 to 3 percent slopes, eroded

Map Unit Composition

Irwin: 85 percent
 Minor components: 15 percent

Component Descriptions

Irwin

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Clayey residuum weathered from shale
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.1 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 Upland (pe25-34)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 5 inches; silty clay
 H2—5 to 60 inches; silty clay

Minor Components

Dwight

Composition: About 5 percent
Slope: 1 to 3 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: 2 to 5 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

Ladysmith

Composition: About 4 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Clay Upland (pe25-34)

Unnamed Hydric Soil (saturation)

Composition: About 1 percent
Slope: 1 to 3 percent
Drainage class: Poorly drained

127SN—Smolan silty clay loam, 2 to 6 percent slopes, eroded

Map Unit Composition

Smolan: 90 percent
 Minor components: 10 percent

Component Descriptions

Smolan

MLRA: 76 - Bluestem Hills
Landform: Paleoterrace on upland
Parent material: Silty and clayey loess
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.2 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 (pe25-34)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 7 inches; silty clay loam
 H2—7 to 30 inches; silty clay loam

H3—30 to 60 inches; silty clay

Minor Components

Irwin

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

Tully

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

139EN—Eram silty clay loam, 3 to 7 percent slopes

Map Unit Composition

Eram: 85 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
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: About 9 to 14 inches
Runoff class: High
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 Bt—9 to 28 inches; silty clay, silty clay loam
 Cr—28 to 40 inches; weathered bedrock

Minor Components

Clareson

Composition: About 7 percent
Slope: 3 to 15 percent

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

Drainage class: Well drained
Ecological site: Shallow Flats (pe35-42)

Dennis

Composition: About 5 percent
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Elmont

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

139LS—Lebo-Summit silty clay loams, 7 to 12 percent slopes

Map Unit Composition

Lebo: 55 percent
 Summit: 35 percent
 Minor components: 10 percent

Component Descriptions

Lebo

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Residuum weathered from clayey shale
Slope: 8 to 12 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 4.8 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: Loamy Upland (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
 Bw—6 to 22 inches; silty clay loam

C—22 to 30 inches; very channery clay loam
Cr—30 to 34 inches; weathered bedrock

Summit

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from calcareous shale
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: High
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

A—0 to 8 inches; silty clay loam
AB—8 to 13 inches; silty clay loam
Bt—13 to 60 inches; silty clay

Minor Components

Clareson

Composition: About 5 percent
Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Shallow Flats (pe35-42)

Rock outcrop

Composition: About 5 percent

139LU—Lula silt loam, 1 to 3 percent slopes

Map Unit Composition

Lula: 85 percent
Minor components: 15 percent

Component Descriptions

Lula

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Residuum weathered from limestone
Slope: 1 to 3 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 7.9 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe35-42)

Land capability (nonirrigated): 2e

Typical Profile:

A—0 to 8 inches; silt loam
AB—8 to 14 inches; silty clay loam
Bt—14 to 44 inches; silty clay loam
R—44 to 52 inches; unweathered bedrock

Minor Components

Eram

Composition: About 5 percent
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe35-42)

Kenoma

Composition: About 5 percent
Slope: 1 to 4 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe35-42)

Dwight

Composition: About 5 percent
Slope: 0 to 3 percent
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe35-42)

139SN—Summit silty clay loam, 1 to 3 percent slopes

Map Unit Composition

Summit: 100 percent

Component Descriptions

Summit

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: High
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 2e

Typical Profile:

A—0 to 8 inches; silty clay loam
 AB—8 to 13 inches; silty clay loam
 Bt—13 to 60 inches; silty clay

139SO—Summit silty clay loam, 3 to 7 percent slopes

Map Unit Composition

Summit: 90 percent
 Minor components: 10 percent

Component Descriptions

Summit

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from calcareous shale
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: High
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

A—0 to 8 inches; silty clay loam
 AB—8 to 13 inches; silty clay loam
 Bt—13 to 60 inches; silty clay

Minor Components

Clareson

Composition: About 5 percent
Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Shallow Flats (pe35-42)

Lebo

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 8 to 12 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

Lula

Composition: About 2 percent
Slope: 3 to 5 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe35-42)

197CM—Clime silty clay loam, 3 to 7 percent slopes

Map Unit Composition

Clime: 85 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 calcareous shale
Slope: 3 to 7 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 4.7 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 5 inches; silty clay loam
 H2—5 to 18 inches; silty clay
 H3—18 to 32 inches; silty clay
 Cr—32 to 36 inches; weathered bedrock

Minor Components**Sogn**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 20 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Wamego

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: Well drained
Ecological site: Loamy Upland (pe30-37)

Martin

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

197EO—Elmont silt loam, 3 to 7 percent slopes**Map Unit Composition**

Elmont: 80 percent
 Minor components: 20 percent

Component Descriptions**Elmont**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Silty and clayey residuum weathered from shale and siltstone
Slope: 3 to 7 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 11.6 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: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 19 inches; silt loam
 H2—19 to 57 inches; silty clay loam
 Cr—57 to 61 inches; weathered 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 (pe35-42)

Clime

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: Well drained
Ecological site: Limy Upland (pe30-36)

Wamego

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: Well drained
Ecological site: Loamy Upland (pe30-37)

Rock outcrop

Composition: About 5 percent
Geomorphic Position: hillslope on upland

197ID—Irwin silty clay loam, 3 to 7 percent slopes**Map Unit Composition**

Irwin: 85 percent
 Minor components: 15 percent

Component Descriptions**Irwin**

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Hillslope position: Backslope

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

shale

Slope: 3 to 7 percent

Drainage class: Moderately well drained

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

Available water capacity: Moderate (About 8.7 inches)

Shrink-swell potential: High (About 8.9 LEP)

Flooding hazard: None

Ponding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clay Upland (pe30-36)

Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 6 inches; silty clay loam

BA—6 to 13 inches; silty clay loam

Bt1—13 to 30 inches; silty clay

Btk—30 to 41 inches; silty clay

2Bt2—41 to 72 inches; silty clay

Minor Components

Konza

Composition: About 10 percent

Geomorphic Position: ridge on upland

Slope: 1 to 3 percent

Drainage class: Moderately well drained

Ecological site: Clay Pan (pe30-36)

Florence

Composition: About 2 percent

Geomorphic Position: hillslope on upland

Slope: 5 to 10 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Clime

Composition: About 2 percent

Slope: 3 to 8 percent

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

Drainage class: Well drained

Ecological site: Limy Upland (pe30-36)

Unnamed Hydric Soil (saturation)

Composition: About 1 percent

Slope: 0 to 2 percent

Drainage class: Poorly drained

197IX—Ivan silty clay loam, channeled

Map Unit Composition

Ivan: 80 percent

Minor components: 20 percent

Component Descriptions

Ivan

MLRA: 76 - Bluestem Hills

Landform: Flood plain on valley

Parent material: Calcareous fine-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 12.8 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 (pe30-36)

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 40 inches; silty clay loam

H2—40 to 60 inches; silt loam

Minor Components

Martin

Composition: About 10 percent

Geomorphic Position: hillslope on upland

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-36)

Reading

Composition: About 10 percent

Slope: 0 to 1 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-36)

Unnamed Hydric Soil

Slope: 0 to 2 percent

Drainage class: Poorly drained

197LA—Labette silty clay loam, 2 to 5 percent slopes

Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Map Unit Composition

Labette: 75 percent
 Minor components: 25 percent

Component Descriptions**Labette**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Shoulder
Parent material: Silty and clayey residuum weathered from limestone and shale
Slope: 2 to 5 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 6.2 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): 3e

Typical Profile:

H1—0 to 8 inches; silty clay loam
 H2—8 to 37 inches; silty clay
 R—37 to 41 inches; unweathered bedrock

Minor Components**Irwin**

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-36)

Florence

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 15 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

Sogn

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 20 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

197WE—Wamego silty clay loam, 3 to 7 percent slopes**Map Unit Composition**

Wamego: 75 percent
 Minor components: 25 percent

Component Descriptions**Wamego**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale
Slope: 3 to 7 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 5.0 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 (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; silt loam
 H2—10 to 27 inches; silty clay loam
 Cr—27 to 31 inches; weathered bedrock

Minor Components**Clime**

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Elmont

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Martin

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Rock outcrop

Composition: About 5 percent

197WF—Wamego silty clay loam, 7 to 15 percent slopes

Map Unit Composition

Wamego: 75 percent
 Minor components: 25 percent

Component Descriptions

Wamego

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale
Slope: 7 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: Very high
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 11 inches; silty clay loam
 H2—11 to 25 inches; silty clay loam
 Cr—25 to 29 inches; weathered bedrock

Minor Components**Sogn**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 20 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Elmont

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 7 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

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)

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: Well drained
Ecological site: Limy Upland (pe30-36)

Rock outcrop

Composition: About 5 percent
Geomorphic Position: hillslope on upland

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 loam, 3 to 6 percent slopes

Map Unit Composition

Bates: 100 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: 3 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: Moderate (About 7.3 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: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:
 H1—0 to 17 inches; loam
 H2—17 to 34 inches; clay loam
 H3—34 to 38 inches; gravelly sandy clay loam
 H4—38 to 59 inches; unweathered bedrock

Bb—Bates loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Bates: 100 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: 3 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: Moderate (About 7.3 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: Loamy Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:
 H1—0 to 17 inches; loam
 H2—17 to 34 inches; clay loam
 H3—34 to 38 inches; gravelly sandy clay loam
 H4—38 to 59 inches; unweathered bedrock

Bc—Bates-Collinsville complex, 3 to 15 percent slopes

Map Unit Composition

Bates: 65 percent
 Collinsville: 35 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: 3 to 8 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 6.7 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 (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:
 H1—0 to 17 inches; loam
 H2—17 to 31 inches; clay loam
 H3—31 to 35 inches; gravelly sandy clay loam
 Cr—35 to 59 inches; unweathered bedrock

Collinsville

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Loamy residuum weathered from sandstone
Slope: 3 to 15 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 1.4 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: Shallow Sandstone (pe35-42)
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 7 inches; fine sandy loam
H2—7 to 11 inches; gravelly fine sandy loam
R—11 to 11 inches; unweathered bedrock

Ca—Chase silty clay loam, occasionally flooded

Map Unit Composition

Chase: 100 percent

Component Descriptions

Chase

MLRA: 112 - Cherokee Prairies
Landform: Flood plain on river valley
Parent material: Silty and clayey alluvium
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 10.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 24 to 48 inches
Runoff class: High
Ecological site: Loamy Lowland (pe35-42)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 17 inches; silty clay loam
H2—17 to 46 inches; silty clay loam

H3—46 to 60 inches; silty clay loam

Minor Components **Osage**

Cb—Clime silty clay, 3 to 7 percent slopes

Map Unit Composition

Clime: 100 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
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 4.5 inches)
Shrink-swell potential: Moderate (About 4.5 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 8 inches; silty clay
H2—8 to 19 inches; silty clay
H3—19 to 34 inches; silty clay
H4—34 to 59 inches; unweathered bedrock

Cc—Clime silty clay, 3 to 7 percent slopes, eroded

Map Unit Composition

Clime: 100 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

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 4.5 inches)

Shrink-swell potential: Moderate (About 4.5 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 8 inches; silty clay

H2—8 to 19 inches; silty clay

H3—19 to 34 inches; silty clay

H4—34 to 59 inches; unweathered bedrock

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

Map Unit Composition

Clime: 75 percent

Sogn: 25 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

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: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 4.5 inches)

Shrink-swell potential: Moderate (About 4.5 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 8 inches; silty clay

H2—8 to 19 inches; silty clay

H3—19 to 34 inches; silty clay

Cr—34 to 59 inches; unweathered bedrock

Sogn

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Loamy residuum weathered from limestone, unspecified

Slope: 0 to 9 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 1.8 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): 6s

Typical Profile:

H1—0 to 9 inches; silty clay loam

R—9 to 9 inches; unweathered bedrock

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: Summit, backslope

Parent material: Silty and clayey residuum weathered from shale

Slope: 1 to 4 percent

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.4 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 (pe30-36)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 17 inches; silty clay loam

H3—17 to 60 inches; silty clay

Ea—Elmont silt loam, 1 to 4 percent slopes

Map Unit Composition

Elmont: 100 percent

Component Descriptions

Elmont

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from shale-siltstone

Slope: 1 to 4 percent

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

Drainage class: Well drained

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

Available water capacity: High (About 9.3 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: Loamy Upland (pe35-42)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 32 inches; silty clay loam

H3—32 to 48 inches; silty clay loam

Cr—48 to 59 inches; unweathered bedrock

Eb—Elmont silt loam, 4 to 7 percent slopes

Map Unit Composition

Elmont: 100 percent

Component Descriptions

Elmont

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from shale-siltstone

Slope: 4 to 7 percent

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

Drainage class: Well drained

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

Available water capacity: High (About 9.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe35-42)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 32 inches; silty clay loam

H3—32 to 48 inches; silty clay loam

H4—48 to 59 inches; unweathered bedrock

Ec—Elmont silty clay loam, 3 to 7 percent slopes, eroded

Map Unit Composition

Elmont: 100 percent

Component Descriptions

Elmont

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from shale-siltstone

Slope: 3 to 7 percent

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

Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 7.3 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: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; silty clay loam
 H2—6 to 12 inches; silty clay loam
 H3—12 to 41 inches; silty clay loam
 H4—41 to 59 inches; unweathered bedrock

Ed—Eram silt loam, 3 to 6 percent slopes

Map Unit Composition

Eram: 100 percent

Component Descriptions

Eram

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 3 to 6 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 5.1 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 (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 9 inches; silt loam
 H2—9 to 34 inches; silty clay
 H3—34 to 59 inches; weathered bedrock

Ee—Eram silty clay loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Eram: 100 percent

Component Descriptions

Eram

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from shale, unspecified
Slope: 3 to 6 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 3.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 6 to 18 inches
Runoff class: High
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; silty clay loam
 H2—6 to 25 inches; silty clay
 Cr—25 to 59 inches; weathered bedrock

Ef—Eram And Bates Soils, 6 to 15 percent slopes

Map Unit Composition

Eram: 60 percent
 Bates: 40 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 15 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 6 to 18 inches
Runoff class: Very high
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; silt loam
 H2—7 to 27 inches; silty clay
 Cr—27 to 59 inches; weathered bedrock

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: 6 to 8 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: Medium
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 7 inches; loam
 H2—7 to 31 inches; clay loam
 H3—31 to 35 inches; gravelly sandy clay loam
 H4—35 to 35 inches; unweathered bedrock

Fa—Florence-Labette complex, 2 to 12 percent slopes

Map Unit Composition

Florence: 60 percent

Labette: 40 percent

Component Descriptions

Florence

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Clayey residuum weathered from cherty limestone
Slope: 6 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 4.3 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 13 inches; gravelly silt loam
 H2—13 to 18 inches; gravelly silty clay loam
 H3—18 to 46 inches; extremely gravelly clay
 R—46 to 50 inches; unweathered bedrock

Labette

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 2 to 6 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 6.5 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): 3e

Typical Profile:

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

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

Ivan: 100 percent

Component Descriptions**Ivan**

MLRA: 76 - Bluestem Hills

Landform: Flood plain on valley

Parent material: Calcareous fine-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: Low

Ecological site: Loamy Lowland (pe35-42)

Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 35 inches; silt loam

H2—35 to 60 inches; loam

Minor Components**Unnamed Hydric Soils**

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: Low

Ecological site: Loamy Lowland (pe35-42)

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 35 inches; silt loam

H2—35 to 60 inches; loam

INT—Aquolls**Map Unit Composition**

Aquolls: 100 percent

Component Descriptions**Aquolls**

MLRA: 112 - Cherokee Prairies

Landform: Depression on terrace on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Very poorly drained

Flooding hazard: None

Ponding hazard: Occasional

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 72 inches; variable

General Considerations: This map unit was formerly labeled as an Intermittent Water spot symbol. These depressional areas contain soils that are occasionally ponded for long duration.

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

Ivan: 100 percent

Component Descriptions**Ivan**

MLRA: 76 - Bluestem Hills

Landform: Flood plain on valley

Parent material: Calcareous fine-silty alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

IR—Irwin silty clay loam, 1 to 3 percent slopes**Map Unit Composition**

Irwin: 85 percent

Minor components: 15 percent

Component Descriptions

Irwin

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Clayey residuum weathered from shale

Slope: 1 to 3 percent

Drainage class: Moderately well drained

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

Available water capacity: Moderate (About 8.1 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 Upland (pe25-34)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; silty clay loam

H2—10 to 60 inches; silty clay

Minor Components

Labette

Composition: About 5 percent

Slope: 2 to 5 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Dwight

Composition: About 5 percent

Slope: 1 to 3 percent

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

Drainage class: Moderately well drained

Ecological site: Clay Pan (pe30-36)

Ladysmith

Composition: About 4 percent

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Ecological site: Clay Upland (pe25-34)

Unnamed Hydric Soil (saturation)

Composition: About 1 percent

Slope: 1 to 3 percent

Drainage class: Poorly drained

Ka—Kenoma silt loam, 1 to 3 percent slopes

Map Unit Composition

Kenoma: 90 percent

Minor components: 10 percent

Component Descriptions

Kenoma

MLRA: 112 - Cherokee Prairies

Landform: Terrace on river valley, divide on upland

Parent material: Loess over ancient clayey alluvium and/or residuum weathered from limestone and shale

Slope: 1 to 3 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 10.1 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 8 inches; silt loam

H2—8 to 32 inches; silty clay

H3—32 to 60 inches; silty clay

Minor Components

Zaar

Composition: About 5 percent

Slope: 3 to 7 percent

Drainage class: Somewhat poorly drained

Ecological site: Clay Upland (pe35-42)

Catoosa

Composition: About 5 percent

Slope: 0 to 2 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe35-42)

Kb—Kenoma silty clay loam, 1 to 3 percent slopes, eroded

Map Unit Composition

Kenoma: 100 percent

Component Descriptions

Kenoma

MLRA: 112 - Cherokee Prairies

Landform: Divide on upland, terrace on river valley

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

Slope: 1 to 3 percent

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 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 6 to 18 inches

Runoff class: Very high

Ecological site: Clay Upland (pe35-42)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 38 inches; silty clay

H3—38 to 60 inches; silty clay

Kc—Kenoma silt loam, 3 to 6 percent slopes

Map Unit Composition

Kenoma: 100 percent

Component Descriptions

Kenoma

MLRA: 112 - Cherokee Prairies

Landform: Terrace on river valley, divide on upland

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

Slope: 3 to 6 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 9.8 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): 4e

Typical Profile:

H1—0 to 10 inches; silt loam

H2—10 to 40 inches; silty clay

H3—40 to 60 inches; silty clay

Kd—Kenoma silty clay loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Kenoma: 100 percent

Component Descriptions

Kenoma

MLRA: 112 - Cherokee Prairies

Landform: Divide on upland

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

Slope: 3 to 6 percent

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 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 6 to 18 inches

Runoff class: Very high

Ecological site: Clay Upland (pe35-42)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 38 inches; silty clay

H3—38 to 60 inches; silty clay

La—Labette silty clay loam, 1 to 3 percent slopes

Map Unit Composition

Labette: 100 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 6.4 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 8 inches; silty clay loam

H2—8 to 38 inches; silty clay

R—38 to 38 inches; unweathered bedrock

Lb—Labette silty clay loam, 3 to 6 percent slopes

Map Unit Composition

Labette: 100 percent

Component Descriptions

Labette

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

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

Slope: 3 to 6 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 6.4 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 8 inches; silty clay loam

H2—8 to 38 inches; silty clay

R—38 to 38 inches; unweathered bedrock

Lc—Labette silty clay loam, 2 to 6 percent slopes, eroded

Map Unit Composition

Labette: 100 percent

Component Descriptions

Labette

MLRA: 76 - Bluestem Hills

Landform: -- error in exists on --

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

Slope: 2 to 6 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 6.4 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 8 inches; silty clay loam

H2—8 to 38 inches; silty clay

R—38 to 38 inches; unweathered bedrock

Ld—Labette-Dwight complex, 0 to 2 percent slopes

Map Unit Composition

Labette: 60 percent
Dwight: 40 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 2 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 6.4 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 8 inches; silty clay loam
H2—8 to 38 inches; silty clay
R—38 to 38 inches; unweathered bedrock

Dwight

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland, divide 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: 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: Very high
Ecological site: Clay Pan (pe25-34)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 4 inches; silt loam
H2—4 to 20 inches; silty clay
H3—20 to 49 inches; silty clay
R—49 to 49 inches; unweathered bedrock

Le—Ladysmith silty clay loam, 0 to 2 percent slopes

Map Unit Composition

Ladysmith: 90 percent

Component Descriptions

Ladysmith

MLRA: 76 - Bluestem Hills
Landform: Ridge on upland
Hillslope position: Summit, shoulder
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Impermeable (About 0.00 in/hr)
Available water capacity: Moderate (About 8.7 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Ponding hazard: None
Depth to seasonal water saturation: About 0 to 0 inches
Runoff class: High
Ecological site: Clay Upland (pe30-36)
Land capability (nonirrigated): 2s

Typical Profile:

A—0 to 7 inches; silty clay loam
Bt1—7 to 15 inches; silty clay
Bt2—15 to 30 inches; clay
BCk—30 to 38 inches; clay
C—38 to 60 inches; silty clay

M-W—Miscellaneous Water

Ma—Martin silty clay loam, 1 to 4 percent slopes**Map Unit Composition**

Martin: 85 percent
 Minor components: 15 percent

Component Descriptions**Martin**

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

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)

Mb—Martin silty clay loam, 4 to 7 percent slopes**Map Unit Composition**

Martin: 100 percent

Component Descriptions**Martin**

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

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 9.7 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 24 to 36 inches

Runoff class: Very high

Ecological site: Loamy Upland (pe35-42)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silty clay loam

H2—12 to 60 inches; silty clay

Mc—Martin silty clay, 3 to 7 percent slopes, eroded**Map Unit Composition**

Martin: 100 percent

Component Descriptions**Martin**

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

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: About 24 to 36 inches
Runoff class: High
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:
 H1—0 to 12 inches; silty clay
 H2—12 to 60 inches; silty clay

MS—Mason silt loam, rarely flooded

Map Unit Composition

Mason: 85 percent
 Minor components: 15 percent

Component Descriptions

Mason

MLRA: 112 - Cherokee Prairies
Landform: Stream terrace on valley
Parent material: 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 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: Medium
Ecological site: Loamy Lowland (pe35-42)
Land capability (nonirrigated): 1

Typical Profile:
 Ap—0 to 7 inches; silt loam
 A—7 to 15 inches; silty clay loam
 Bt—15 to 42 inches; silty clay loam
 BC—42 to 60 inches; silty clay loam

Minor Components

Osage

Composition: About 10 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained

Ecological site: Clay Lowland (pe35-42)

Dennis

Composition: About 5 percent
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Oa—Olpe-Kenoma complex, 3 to 15 percent slopes

Map Unit Composition

Olpe: 70 percent
 Kenoma: 30 percent

Component Descriptions

Olpe

MLRA: 112 - Cherokee Prairies
Landform: Paleoterrace on upland
Parent material: Clayey alluvium
Slope: 3 to 15 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Very low (About 1.7 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 15 inches; gravelly silt loam
 H2—15 to 25 inches; very gravelly silty clay loam
 H3—25 to 60 inches; extremely gravelly silty clay

Kenoma

MLRA: 112 - Cherokee Prairies
Landform: Divide on upland
Parent material: Silty and clayey residuum weathered from limestone-shale
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 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: About 6 to 18 inches
Runoff class: Very high
Ecological site: Clay Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; silt loam
 H2—10 to 38 inches; silty clay
 H3—38 to 60 inches; silty clay

Ob—Orthents, Clayey

Map Unit Composition

Orthents: 100 percent

Component Descriptions

Orthents

MLRA: 112 - Cherokee Prairies
Parent material: Alluvium
Slope: 0 to 8 percent
Drainage class: Moderately well drained
Slowest permeability: Impermeable (About 0.00 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: Very high
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 60 inches; silty clay

Oc—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 1 percent
Drainage class: Poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 6.5 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: Negligible
Ecological site: Clay Lowland (pe30-36)
Land capability (nonirrigated): 3w

Typical Profile:

H1—0 to 21 inches; silty clay
 H2—21 to 60 inches; silty clay

Minor Components

Chase

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-36)

Solomon

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

QUA—Quarries

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

Map Unit Composition

Reading: 100 percent

Component Descriptions

Reading

MLRA: 76 - Bluestem Hills
Landform: Stream terrace on valley
Parent material: 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 11.6 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 17 inches; silt loam
 H2—17 to 45 inches; silty clay loam
 H3—45 to 60 inches; silty clay loam

Ta—Tully silty clay loam, 2 to 7 percent slopes

Map Unit Composition

Tully: 100 percent

Component Descriptions

Tully

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Clayey colluvium
Slope: 2 to 7 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 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: Loamy Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 17 inches; silty clay loam
 H2—17 to 48 inches; silty clay
 H3—48 to 60 inches; silty clay

Tb—Tully silty clay loam, 3 to 7 percent slopes, eroded

Map Unit Composition

Tully: 100 percent

Component Descriptions

Tully

MLRA: 76 - Bluestem Hills
Landform: Upland on hillslope
Parent material: Clayey colluvium
Slope: 3 to 7 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 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: Loamy Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 17 inches; silty clay loam
 H2—17 to 48 inches; silty clay
 H3—48 to 60 inches; silty clay

Tc—Tully-Clime complex, 7 to 15 percent slopes

Map Unit Composition

Tully: 80 percent
 Clime: 20 percent

Component Descriptions

Tully

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Clayey colluvium
Slope: 7 to 15 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 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: Very high
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 17 inches; silty clay loam
 H2—17 to 48 inches; silty clay
 H3—48 to 60 inches; silty clay

Climate

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Parent material: Silty and clayey residuum weathered from shale, calcareous
Slope: 7 to 15 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 4.5 inches)
Shrink-swell potential: Moderate (About 4.5 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): 6

Typical Profile:

H1—0 to 8 inches; silty clay
 H2—8 to 19 inches; silty clay
 H3—19 to 34 inches; silty clay
 Cr—34 to 34 inches; unweathered bedrock

Va—Vinland loam, 4 to 10 percent slopes

Map Unit Composition

Vinland: 100 percent

Component Descriptions

Vinland

MLRA: 112 - Cherokee Prairies
Landform: Hillslope on upland
Parent material: Sandy and silty residuum weathered from shale, unspecified
Slope: 4 to 10 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.1 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: Loamy Upland (pe35-42)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; loam
 H2—12 to 19 inches; loam
 Cr—19 to 59 inches; weathered bedrock

VB—Verdigris silt loam, occasionally flooded

Map Unit Composition

Verdigris: 90 percent
 Minor components: 10 percent

Component Descriptions

Verdigris

MLRA: 112 - Cherokee Prairies
Landform: Flood plain on 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 12.1 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 (pe35-42)
Land capability (nonirrigated): 2w

Typical Profile:

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

Minor Components
Osage

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe35-42)

Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe35-42)

VC—Verdigris silt loam, channeled

Map Unit Composition

Verdigris: 88 percent
 Minor components: 12 percent

Component Descriptions

Verdigris

MLRA: 112 - Cherokee Prairies
Landform: Flood plain on 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: High (About 12.0 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 (pe35-42)
Land capability (nonirrigated): 5w

Typical Profile:

A—0 to 7 inches; silt loam
 Bw—7 to 60 inches; silt loam

Minor Components

Bates

Composition: About 3 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)

Eram

Composition: About 3 percent
Geomorphic Position: hillside 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: Clay Upland (pe35-42)

Osage

Composition: About 3 percent

Rock outcrop

Composition: About 3 percent
Slope: 20 to 40 percent
Depth to restrictive feature: 0 inches to bedrock (lithic)

W—Water

Map Unit Composition

Water: 100 percent

Component Descriptions

Water

MLRA: 112 - Cherokee Prairies
Depth to seasonal water saturation: More than 6 feet

WO—Woodson silt loam, 0 to 2 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 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

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)

Za—Zaar silty clay, 2 to 5 percent slopes

Map Unit Composition

Zaar: 100 percent

Component Descriptions

Zaar

MLRA: 112 - Cherokee Prairies

Landform: Hillslope on upland

Hillslope position: Backslope

Parent material: Ancient alluvium and/or clayey colluvium and/or residuum weathered from shale

Slope: 2 to 5 percent

Drainage class: Moderately well drained

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

Available water capacity: Moderate (About 8.4 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: Clay Upland (pe35-42)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 14 inches; silty clay

H2—14 to 40 inches; silty clay

H3—40 to 60 inches; silty clay