

## 001CB—Catoosa-Rock outcrop complex, 1 to 8 percent slopes

### Map Unit Composition

Catoosa: 60 percent  
Rock outcrop: 30 percent  
Minor components: 10 percent

### Component Descriptions

#### Catoosa

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Ridge on upland  
*Hillslope position:* Summit  
*Parent material:* Residuum weathered from limestone  
*Slope:* 1 to 8 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)  
*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* Low (About 5.4 inches)  
*Shrink-swell potential:* High (About 6.0 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):* 6s

*Typical Profile:*  
H1—0 to 11 inches; silty clay loam  
H2—11 to 27 inches; silty clay loam  
R—27 to 31 inches; unweathered bedrock

#### Rock outcrop

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Depth to seasonal water saturation:* More than 6 feet  
*Land capability (nonirrigated):* 8

### Minor Components

#### Eram

*Composition:* About 10 percent  
*Geomorphic Position:* drainageway on upland ridge on upland  
*Slope:* 4 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)

## 001CC—Collinsville-Bates complex, 2 to 15 percent slopes

### Map Unit Composition

Collinsville: 50 percent  
Bates: 40 percent  
Minor components: 10 percent

### Component Descriptions

#### Collinsville

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Residuum weathered from sandstone  
*Slope:* 2 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 2.0 inches)  
*Shrink-swell potential:* Low (About 1.8 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):* 6e

*Typical Profile:*  
H1—0 to 7 inches; fine sandy loam  
H2—7 to 15 inches; gravelly fine sandy loam  
R—15 to 17 inches; unweathered bedrock

#### Bates

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Sandy and silty residuum weathered from sandstone  
*Slope:* 2 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 5.2 inches)  
*Shrink-swell potential:* Low (About 2.8 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 8 inches; loam  
 H2—8 to 11 inches; loam  
 H3—11 to 32 inches; gravelly clay loam  
 Cr—32 to 34 inches; weathered bedrock

**Minor Components**

**Catoosa**

*Composition:* About 4 percent  
*Geomorphic Position:* ridge on upland  
*Slope:* 1 to 8 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe35-42)

**Eram**

*Composition:* About 3 percent  
*Geomorphic Position:* drainageway on upland  
 ridge on upland  
*Slope:* 4 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)

**Dennis**

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

**037MD—Kanima silty clay loam, 3 to 50 percent slopes**

**Map Unit Composition**

Kanima: 100 percent

**Component Descriptions**

**Kanima**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Residuum  
*Slope:* 3 to 50 percent

*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* Low (About 4.5 inches)  
*Shrink-swell potential:* Moderate (About 4.3 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* High  
*Land capability (nonirrigated):* 7s

*Typical Profile:*

H1—0 to 6 inches; channery silty clay loam  
 H2—6 to 60 inches; very channery silty clay loam

**107CM—Clareson-Rock outcrop complex, 2 to 15 percent slopes**

**Map Unit Composition**

Clareson: 60 percent  
 Rock outcrop: 20 percent  
 Minor components: 20 percent

**Component Descriptions**

**Clareson**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on ridge on upland  
*Hillslope position:* Summit  
*Parent material:* Silty and clayey residuum weathered from limestone, unspecified  
*Slope:* 7 to 15 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)  
*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* Low (About 3.9 inches)  
*Shrink-swell potential:* High (About 6.2 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* High  
*Ecological site:* Shallow Flats (pe35-42)  
*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 11 inches; silty clay loam  
 H2—11 to 16 inches; flaggy silty clay loam  
 H3—16 to 33 inches; very flaggy silty clay  
 R—33 to 37 inches; unweathered bedrock

**Rock outcrop***MLRA:* 112 - Cherokee Prairies*Landform:* Ridge on upland*Hillslope position:* Shoulder*Drainage class:* Well drained*Depth to seasonal water saturation:* More than 6 feet*Land capability (nonirrigated):* 8**Minor Components****Catoosa***Composition:* About 5 percent*Geomorphic Position:* hillslope on ridge on upland*Slope:* 1 to 3 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)*Drainage class:* Well drained*Ecological site:* Loamy Upland (pe35-42)**Eram***Composition:* About 5 percent*Geomorphic Position:* hillslope on ridge on upland*Slope:* 4 to 8 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Moderately well drained*Ecological site:* Clay Upland (pe35-42)**Lebo***Composition:* About 5 percent*Geomorphic Position:* hillslope on upland*Slope:* 15 to 30 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Well drained*Ecological site:* Loamy Upland (pe35-42)**Summit***Composition:* About 5 percent*Geomorphic Position:* hillslope on upland*Slope:* 4 to 8 percent*Drainage class:* Moderately well drained*Ecological site:* Clay Upland (pe35-42)**107EF—Eram-Lebo silty clay loams, 5 to 20 percent slopes****Map Unit Composition**

Eram: 50 percent

Lebo: 30 percent

Minor components: 20 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:* 5 to 12 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Moderately well drained*Slowest permeability:* Moderately slow (About 0.20 in/hr)*Available water capacity:* Low (About 4.1 inches)*Shrink-swell potential:* High (About 6.4 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* About 24 to 36 inches*Runoff class:* High*Ecological site:* Clay Upland (pe35-42)*Land capability (nonirrigated):* 6e*Typical Profile:*

H1—0 to 8 inches; silty clay loam

H2—8 to 27 inches; silty clay

Cr—27 to 31 inches; weathered bedrock

**Lebo***MLRA:* 112 - Cherokee Prairies*Landform:* Hillslope on upland*Hillslope position:* Backslope*Parent material:* Residuum weathered from shale-sandstone*Slope:* 8 to 20 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Impermeable (About 0.00 in/hr)*Available water capacity:* Moderate (About 6.3 inches)*Shrink-swell potential:* Very high (About 9.4 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):* 6e*Typical Profile:*

H1—0 to 12 inches; silty clay

H2—12 to 28 inches; silty clay

H3—28 to 38 inches; extremely channery silty clay loam

Cr—38 to 42 inches; weathered bedrock

**Minor Components****Clareson**

*Composition:* About 10 percent  
*Geomorphic Position:* hillslope on ridge on upland  
*Slope:* 7 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 10 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe35-42)

**107SN—Summit silty clay loam, 1 to 4 percent slopes****Map Unit Composition**

Summit: 85 percent  
 Minor components: 15 percent

**Component Descriptions****Summit**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Footslope  
*Parent material:* Silty and clayey colluvium and/or silty and clayey residuum weathered from calcareous shale  
*Slope:* 1 to 4 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* Moderate (About 8.1 inches)  
*Shrink-swell potential:* High (About 8.2 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 24 to 36 inches  
*Runoff class:* Medium  
*Ecological site:* Clay Upland (pe35-42)  
*Land capability (nonirrigated):* 2e

*Typical Profile:*

H1—0 to 11 inches; silty clay loam  
 H2—11 to 24 inches; silty clay  
 H3—24 to 33 inches; silty clay  
 H4—33 to 60 inches; silty clay

**Minor Components****Catoosa**

*Composition:* About 15 percent  
*Geomorphic Position:* hillslope on ridge on upland  
*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe35-42)

**107SO—Summit silty clay loam, 4 to 8 percent slopes****Map Unit Composition**

Summit: 85 percent  
 Minor components: 15 percent

**Component Descriptions****Summit**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Footslope  
*Parent material:* Silty and clayey colluvium and/or silty and clayey residuum weathered from calcareous shale  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* Moderate (About 8.0 inches)  
*Shrink-swell potential:* High (About 8.2 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 24 to 36 inches  
*Runoff class:* Medium  
*Ecological site:* Clay Upland (pe35-42)  
*Land capability (nonirrigated):* 3e

*Typical Profile:*

H1—0 to 9 inches; silty clay loam  
 H2—9 to 22 inches; silty clay  
 H3—22 to 31 inches; silty clay  
 H4—31 to 60 inches; silty clay

**Minor Components****Catoosa**

*Composition:* About 10 percent  
*Geomorphic Position:* hillslope on ridge on upland  
*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)

*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe35-42)

*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe35-42)

#### **Dennis**

*Composition:* About 5 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe35-42)

### **133EC—Eram silty clay loam, 3 to 7 percent slopes**

#### **Map Unit Composition**

Eram: 90 percent  
 Minor components: 10 percent

### **107VC—Verdigris silt loam, frequently flooded**

#### **Map Unit Composition**

Verdigris: 85 percent  
 Minor components: 15 percent

#### **Component Descriptions**

##### **Verdigris**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Flood plain on river valley  
*Parent material:* Silty alluvium  
*Slope:* 0 to 2 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* High (About 11.9 inches)  
*Shrink-swell potential:* Low (About 2.2 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 9 inches; silt loam  
 H2—9 to 32 inches; silt loam  
 H3—32 to 52 inches; silt loam  
 H4—52 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)

##### **Summit**

*Composition:* About 5 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 1 to 4 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:* 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:* High (About 8.3 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 6 to 31 inches  
*Runoff class:* High  
*Ecological site:* Clay Upland (pe35-42)  
*Land capability (nonirrigated):* 4e

##### *Typical Profile:*

H1—0 to 10 inches; silty clay  
 H2—10 to 29 inches; silty clay  
 Cr—29 to 31 inches; weathered bedrock

#### **Minor Components**

##### **Lebo**

*Composition:* About 5 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 8 to 15 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe35-42)

##### **Bates**

*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 (pe35-42)

### **133SC—Shidler-Catoosa silt loams, 1 to 8 percent slopes**

#### **Map Unit Composition**

Shidler: 50 percent  
Catoosa: 40 percent  
Minor components: 10 percent

#### **Component Descriptions**

##### **Shidler**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Drainageway on upland  
*Parent material:* Residuum weathered from limestone  
*Slope:* 3 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:* Low (About 1.7 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 12 inches; silt loam  
R—12 to 14 inches; unweathered bedrock

##### **Catoosa**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Ridge on upland  
*Hillslope position:* Backslope  
*Parent material:* Residuum weathered from limestone  
*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)  
*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* Low (About 5.3 inches)  
*Shrink-swell potential:* Very high (About 9.3 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 10 inches; silt loam  
H2—10 to 31 inches; silty clay loam  
R—31 to 33 inches; unweathered bedrock

#### **Minor Components**

##### **Lebo**

*Composition:* About 5 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 8 to 15 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe35-42)

##### **Rock outcrop**

*Composition:* About 5 percent  
*Drainage class:* Well drained

### **AED—Arents, Earthen Dam**

### **Ba—Bates 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:* Moderate (About 6.4 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:* Loamy Upland (pe35-42)

*Land capability (nonirrigated):* 2e

*Typical Profile:*

H1—0 to 12 inches; loam

H2—12 to 20 inches; loam

H3—20 to 28 inches; sandy clay loam

H4—28 to 35 inches; sandy loam

Cr—35 to 37 inches; weathered bedrock

### Minor Components

#### Kenoma

*Composition:* About 10 percent

*Slope:* 1 to 3 percent

*Drainage class:* Moderately well drained

*Ecological site:* Clay Upland (pe35-42)

### Bc—Bates loam, 4 to 7 percent slopes

#### Map Unit Composition

Bates: 85 percent

Minor components: 15 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 5.0 inches)

*Shrink-swell potential:* Low (About 1.5 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 10 inches; loam

H2—10 to 16 inches; loam

H3—16 to 24 inches; sandy clay loam

H4—24 to 28 inches; sandy loam

Cr—28 to 30 inches; unweathered bedrock

### Minor Components

#### Dennis

*Composition:* About 10 percent

*Slope:* 3 to 6 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe35-42)

#### Kenoma

*Composition:* About 5 percent

*Slope:* 1 to 3 percent

*Drainage class:* Moderately well drained

*Ecological site:* Clay Upland (pe35-42)

### Bd—Bates loam, 4 to 7 percent slopes, eroded

#### Map Unit Composition

Bates: 85 percent

Minor components: 15 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 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:* High

*Ecological site:* Loamy Upland (pe35-42)

*Land capability (nonirrigated):* 4e

*Typical Profile:*

H1—0 to 5 inches; loam  
 H2—5 to 23 inches; sandy clay loam  
 Cr—23 to 25 inches; unweathered bedrock

**Minor Components****Dennis**

*Composition:* About 10 percent  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe35-42)

**Kenoma**

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

**Bh—Bolivar-Hector fine sandy loams, 5 to 15 percent slopes****Map Unit Composition**

Bolivar: 65 percent  
 Hector: 20 percent  
 Minor components: 15 percent

**Component Descriptions****Bolivar**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Residuum weathered from sandstone  
*Slope:* 5 to 15 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 5.5 inches)  
*Shrink-swell potential:* Moderate (About 5.0 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* High  
*Ecological site:* Savannah (pe35-42)  
*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 12 inches; fine sandy loam  
 H2—12 to 17 inches; loam  
 H3—17 to 26 inches; sandy clay loam

H4—26 to 34 inches; loam  
 Cr—34 to 36 inches; weathered bedrock

**Hector**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Ridge on upland  
*Hillslope position:* Summit  
*Parent material:* Residuum weathered from sandstone  
*Slope:* 5 to 15 percent  
*Depth to restrictive feature:* 10 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 1.1 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* Medium  
*Ecological site:* Shallow Savannah (pe35-42)  
*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 3 inches; fine sandy loam  
 H2—3 to 7 inches; fine sandy loam  
 H3—7 to 12 inches; fine sandy loam  
 R—12 to 14 inches; unweathered bedrock

**Minor Components****Dennis**

*Composition:* About 10 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe35-42)

**Kenoma**

*Composition:* About 5 percent  
*Geomorphic Position:* divide on upland terrace on river valley  
*Slope:* 1 to 3 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe35-42)

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

Catoosa: 85 percent  
 Minor components: 15 percent



### Component Descriptions

#### Catoosa

*MLRA:* 112 - Cherokee Prairies

*Landform:* Ridge, 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:* Moderately slow (About 0.20 in/hr)

*Available water capacity:* Low (About 4.6 inches)

*Shrink-swell potential:* High (About 7.4 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 11 inches; silt loam

H2—11 to 16 inches; silty clay loam

H3—16 to 27 inches; silty clay loam

R—27 to 35 inches; unweathered bedrock

### Minor Components

#### Clareson

*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:* Shallow Flats (pe35-42)

#### Kenoma

*Composition:* About 5 percent

*Geomorphic Position:* ridge on paleoterrace on upland

*Slope:* 1 to 3 percent

*Drainage class:* Moderately well drained

*Ecological site:* Clay Upland (pe35-42)

### Cs—Clareson stony silty clay loam, 1 to 4 percent slopes

### Map Unit Composition

Clareson: 90 percent

Minor components: 10 percent

### Component Descriptions

#### Clareson

*MLRA:* 112 - Cherokee Prairies

*Landform:* Hillslope on upland

*Parent material:* Silty and clayey residuum weathered from limestone, unspecified

*Slope:* 1 to 4 percent

*Surface fragments:* About 0 to 3 percent subangular stones

*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 3.1 inches)

*Shrink-swell potential:* Very high (About 11.0 LEP)

*Flooding hazard:* None

*Depth to seasonal water saturation:* More than 6 feet

*Runoff class:* High

*Ecological site:* Shallow Flats (pe35-42)

*Land capability (nonirrigated):* 6s

#### Typical Profile:

H1—0 to 10 inches; stony silty clay loam

H2—10 to 15 inches; very flaggy silty clay loam

H3—15 to 32 inches; extremely flaggy silty clay

R—32 to 34 inches; unweathered bedrock

### Minor Components

#### Ringo

*Composition:* About 10 percent

*Slope:* 9 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)

### De—Dennis silt loam, 1 to 3 percent slopes

### 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:* 1 to 3 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:* Very high (About 9.0 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 12 to 18 inches  
*Runoff class:* Medium  
*Ecological site:* Loamy Upland (pe35-42)  
*Land capability (nonirrigated):* 2e

*Typical Profile:*

H1—0 to 15 inches; silt loam  
 H2—15 to 22 inches; silty clay loam  
 H3—22 to 48 inches; silty clay  
 H4—48 to 60 inches; silty clay loam

**Minor Components**

**Eram**

*Composition:* About 10 percent  
*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)

**Verdigris**

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

*Available water capacity:* High (About 10.6 inches)  
*Shrink-swell potential:* Very high (About 9.0 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 15 inches; silt loam  
 H2—15 to 22 inches; silty clay loam  
 H3—22 to 55 inches; silty clay  
 H4—55 to 60 inches; silty clay loam

**Minor Components**

**Bates**

*Composition:* About 10 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)

**Verdigris**

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

**Ec—Eram-Collinsville complex, 5 to 12 percent slopes**

**Df—Dennis silt loam, 3 to 6 percent slopes**

**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:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)

**Map Unit Composition**

Eram: 75 percent  
 Collinsville: 15 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:* 5 to 12 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 8.3 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 10 inches; silty clay loam  
 H2—10 to 30 inches; silty clay  
 Cr—30 to 32 inches; weathered bedrock

**Collinsville**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Ridge on upland  
*Hillslope position:* Shoulder  
*Parent material:* Sandstone residuum  
*Slope:* 5 to 12 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 1.7 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:* Shallow Sandstone (pe35-42)  
*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 14 inches; fine sandy loam  
 R—14 to 16 inches; unweathered bedrock

**Minor Components**

**Bates**

*Composition:* About 6 percent  
*Geomorphic Position:* hillslope on upland  
*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)

**Dennis**

*Composition:* About 4 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe35-42)

**Ke—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:* Ridge 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 9.0 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):* 3e

*Typical Profile:*

H1—0 to 8 inches; silt loam  
 H2—8 to 24 inches; silty clay  
 H3—24 to 50 inches; silty clay  
 H4—50 to 60 inches; silty clay loam

**Minor Components**

**Parsons**

*Composition:* About 10 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Clay Upland (pe35-42)

**La—Lanton silty clay loam, occasionally flooded**

**Map Unit Composition**

Lanton: 85 percent  
 Minor components: 15 percent

### Component Descriptions

#### Lanton

*MLRA:* 112 - Cherokee Prairies

*Landform:* Flood plain on river valley

*Parent material:* Silty and clayey alluvium

*Slope:* 0 to 1 percent

*Drainage class:* Somewhat poorly drained

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

*Available water capacity:* High (About 10.6 inches)

*Shrink-swell potential:* Moderate (About 4.5 LEP)

*Flooding hazard:* Occasional

*Depth to seasonal water saturation:* About 12 to 24 inches

*Runoff class:* Medium

*Ecological site:* Loamy Lowland (pe35-42)

*Land capability (nonirrigated):* 2w

#### Typical Profile:

- H1—0 to 8 inches; silty clay loam
- H2—8 to 36 inches; silty clay loam
- H3—36 to 48 inches; silty clay
- H4—48 to 60 inches; silty clay

#### Minor Components

##### Mason

*Composition:* About 10 percent

*Slope:* 0 to 1 percent

*Drainage class:* Well drained

*Ecological site:* Loamy Lowland (pe35-42)

##### Osage

*Composition:* About 5 percent

*Slope:* 0 to 2 percent

*Drainage class:* Poorly drained

*Ecological site:* Clay Lowland (pe35-42)

### Le—Leanna silt loam, occasionally flooded

#### Map Unit Composition

Leanna: 85 percent

Minor components: 15 percent

### Component Descriptions

#### Leanna

*MLRA:* 112 - Cherokee Prairies

*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 10.1 inches)

*Shrink-swell potential:* Very high (About 10.7 LEP)

*Flooding hazard:* Occasional

*Depth to seasonal water saturation:* About 6 to 24 inches

*Runoff class:* Medium

*Ecological site:* Clay Lowland (pe35-42)

*Land capability (nonirrigated):* 2w

#### Typical Profile:

- H1—0 to 6 inches; silt loam
- H2—6 to 13 inches; silt loam
- H3—13 to 38 inches; silty clay
- H4—38 to 60 inches; silty clay loam

#### Minor Components

##### Mason

*Composition:* About 15 percent

*Slope:* 0 to 1 percent

*Drainage class:* Well drained

*Ecological site:* Loamy Lowland (pe35-42)

### Ma—Mason silt loam, rarely flooded

#### Map Unit Composition

Mason: 90 percent

Minor components: 10 percent

### Component Descriptions

#### Mason

*MLRA:* 112 - Cherokee Prairies

*Landform:* Flood plain 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:* Medium

*Ecological site:* Loamy Lowland (pe35-42)

*Land capability (nonirrigated):* 1

*Typical Profile:*

H1—0 to 17 inches; silt loam  
H2—17 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 (pe35-42)

**No—Nowata silt loam, 3 to 5 percent slopes****Map Unit Composition**

Nowata: 85 percent  
Minor components: 15 percent

**Component Descriptions****Nowata**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Ridge on upland  
*Parent material:* Residuum weathered from limestone  
*Slope:* 3 to 5 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (lithic)  
*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* Low (About 4.9 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):* 4e

*Typical Profile:*

H1—0 to 15 inches; silt loam  
H2—15 to 36 inches; extremely gravelly silty clay loam  
R—36 to 38 inches; unweathered bedrock

**Minor Components****Kenoma**

*Composition:* About 15 percent  
*Slope:* 1 to 3 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe35-42)

**Or—Orthents, Hilly****Map Unit Composition**

Orthents: 100 percent

**Component Descriptions****Orthents**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Parent material:* Mine spoil or earthy fill  
*Slope:* 3 to 50 percent  
*Drainage class:* Excessively 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:* High  
*Land capability (nonirrigated):* 6s

*Typical Profile:*

H1—0 to 6 inches; extremely channery silty clay loam  
H2—6 to 72 inches; extremely channery silty clay loam

**Os—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 6.3 inches)

*Shrink-swell potential:* Very high (About 13.0 LEP)

*Flooding hazard:* Occasional

*Ponding hazard:* Occasional

*Depth to seasonal water saturation:* About 0 to 12 inches

*Runoff class:* High

*Ecological site:* Clay Lowland (pe35-42)

*Land capability (nonirrigated):* 3w

*Typical Profile:*

H1—0 to 13 inches; silty clay

H2—13 to 60 inches; silty clay

### Minor Components

#### Lanton

*Composition:* About 10 percent

*Slope:* 0 to 1 percent

*Drainage class:* Somewhat poorly drained

*Ecological site:* Loamy Lowland (pe35-42)

*Typical Profile:*

H1—0 to 7 inches; silt loam

H2—7 to 15 inches; silt loam

H3—15 to 40 inches; silty clay

H4—40 to 60 inches; silty clay

### Minor Components

#### Bates

*Composition:* About 6 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 (pe35-42)

#### Catoosa

*Composition:* About 4 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)

## Pa—Parsons silt loam, 0 to 2 percent slopes

### Map Unit Composition

Parsons: 90 percent

Minor components: 10 percent

### Component Descriptions

#### Parsons

*MLRA:* 112 - Cherokee Prairies

*Landform:* Paleoterrace on upland, ridge on upland

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

*Slope:* 0 to 2 percent

*Drainage class:* Somewhat poorly drained

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

*Available water capacity:* High (About 9.8 inches)

*Shrink-swell potential:* Very high (About 11.0 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):* 2s

## Pt—Pits, Quarries

*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.

## Rc—Ringo-Clareson complex, 9 to 15 percent slopes

### Map Unit Composition

Ringo: 70 percent

Clareson: 15 percent

Minor components: 15 percent

### Component Descriptions

#### Ringo

*MLRA:* 112 - Cherokee Prairies

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Residuum weathered from limestone

*Slope:* 9 to 15 percent

*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Very slow (About 0.00 in/hr)  
*Available water capacity:* Low (About 5.0 inches)  
*Shrink-swell potential:* High (About 7.8 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* Very high  
*Ecological site:* Clay Upland (pe35-42)  
*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 10 inches; silty clay  
 H2—10 to 30 inches; silty clay  
 Cr—30 to 31 inches; weathered bedrock

**Clareson**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Ridge on upland  
*Hillslope position:* Summit  
*Parent material:* Silty and clayey residuum weathered from limestone  
*Slope:* 1 to 4 percent  
*Surface fragments:* About 1 to 3 percent rounded stones  
*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 3.1 inches)  
*Shrink-swell potential:* High (About 6.2 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* High  
*Ecological site:* Shallow Flats (pe35-42)  
*Land capability (nonirrigated):* 6s

*Typical Profile:*

H1—0 to 10 inches; stony silty clay loam  
 H2—10 to 15 inches; very flaggy silty clay loam  
 H3—15 to 32 inches; extremely flaggy silty clay  
 R—32 to 34 inches; unweathered bedrock

**Minor Components**

**Catoosa**

*Composition:* About 8 percent  
*Geomorphic Position:* ridge 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 (pe35-42)

**Zaar**

*Composition:* About 7 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 2 to 6 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Clay Upland (pe35-42)

**Ta—Tamaha silt loam, 1 to 5 percent slopes**

**Map Unit Composition**

Tamaha: 85 percent  
 Minor components: 15 percent

**Component Descriptions**

**Tamaha**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Parent material:* Loamy colluvium and/or residuum weathered from shale  
*Slope:* 1 to 5 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Very slow (About 0.00 in/hr)  
*Available water capacity:* High (About 10.7 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 (pe35-42)  
*Land capability (nonirrigated):* 3e

*Typical Profile:*

H1—0 to 7 inches; silt loam  
 H2—7 to 12 inches; silty clay loam  
 H3—12 to 40 inches; silty clay  
 H4—40 to 60 inches; silty clay loam

**Minor Components**

**Kenoma**

*Composition:* About 10 percent  
*Slope:* 1 to 3 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe35-42)

**Osage**

*Composition:* About 5 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Poorly drained  
*Ecological site:* Clay Lowland (pe35-42)

## **Ve—Verdigris silt loam, occasionally flooded**

### **Map Unit Composition**

Verdigris: 95 percent  
Minor components: 5 percent

### **Component Descriptions**

#### **Verdigris**

*MLRA:* 112 - Cherokee Prairies  
*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 12.3 inches)  
*Shrink-swell potential:* Low (About 2.0 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 22 inches; silt loam  
H2—22 to 60 inches; silt loam

#### **Minor Components**

##### **Osage**

*Composition:* About 5 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Poorly drained  
*Ecological site:* Clay Lowland (pe35-42)

## **Vf—Verdigris silt loam, channeled**

### **Map Unit Composition**

Verdigris: 90 percent  
Minor components: 10 percent

### **Component Descriptions**

#### **Verdigris**

*MLRA:* 112 - Cherokee Prairies

*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 12.3 inches)  
*Shrink-swell potential:* Low (About 2.2 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 22 inches; silt loam  
H2—22 to 60 inches; silt loam

#### **Minor Components**

##### **Dennis**

*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)

## **W—Water**

## **Za—Zaar silty clay, 0 to 2 percent slopes**

### **Map Unit Composition**

Zaar: 90 percent  
Minor components: 10 percent

### **Component Descriptions**

#### **Zaar**

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Footslope  
*Parent material:* Ancient alluvium and/or clayey colluvium and/or residuum weathered from 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 8.4 inches)  
*Shrink-swell potential:* Very high (About 11.5 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):* 3w

*Typical Profile:*  
 H1—0 to 15 inches; silty clay  
 H2—15 to 48 inches; silty clay  
 H3—48 to 60 inches; silty clay

#### Minor Components

##### Kenoma

*Composition:* About 10 percent  
*Geomorphic Position:* terrace on river valley divide on upland  
*Slope:* 1 to 3 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe35-42)

### ZAA—Zaar silty clay, 1 to 3 percent slopes

#### Map Unit Composition

Zaar: 96 percent  
 Minor components: 4 percent

#### Component Descriptions

##### Zaar

*MLRA:* 112 - Cherokee Prairies  
*Landform:* Hillslope on upland  
*Hillslope position:* Footslope  
*Parent material:* Ancient alluvium and/or clayey colluvium and/or residuum weathered from shale  
*Slope:* 1 to 3 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* Moderate (About 8.5 inches)  
*Shrink-swell potential:* Very high (About 11.5 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 14 to 22 inches  
*Runoff class:* High  
*Ecological site:* Clay Upland (pe35-42)

*Land capability (nonirrigated):* 3e

#### Typical Profile:

H1—0 to 16 inches; silty clay  
 H2—16 to 38 inches; silty clay  
 H3—38 to 53 inches; silty clay  
 H4—53 to 60 inches; silty clay

#### Minor Components

##### Dennis

*Composition:* About 1 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 1 to 4 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe35-42)

##### Parsons

*Composition:* About 1 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 1 to 3 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Clay Upland (pe35-42)

##### Lula

*Composition:* About 1 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)

##### Ringo

*Composition:* About 1 percent  
*Geomorphic Position:* hillslope on upland  
*Slope:* 3 to 9 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe35-42)

### Zb—Zaar silty clay, 2 to 6 percent slopes

#### Map Unit Composition

Zaar: 90 percent  
 Minor components: 10 percent

## Component Descriptions

### Zaar

*MLRA:* 112 - Cherokee Prairies

*Landform:* Hillslope on upland

*Hillslope position:* Footslope

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

*Slope:* 2 to 6 percent

*Drainage class:* Somewhat poorly drained

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

*Available water capacity:* Moderate (About 8.4 inches)

*Shrink-swell potential:* Very high (About 11.5 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 15 inches; silty clay

H2—15 to 48 inches; silty clay

H3—48 to 60 inches; silty clay

## Minor Components

### Clareson

*Composition:* About 6 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:* Shallow Flats (pe35-42)

### Ringo

*Composition:* About 4 percent

*Geomorphic Position:* hillslope on upland

*Slope:* 9 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)