

## 013AD—Aksarben silty clay loam, 2 to 5 percent slopes

### Map Unit Composition

Aksarben: 87 percent  
Minor components: 13 percent

### Component Descriptions

#### Aksarben

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Interfluvium on upland

*Parent material:* Loess

*Slope:* 2 to 5 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.7 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):* 2e

#### Typical Profile:

Ap—0 to 6 inches; silty clay loam  
A—6 to 12 inches; silty clay loam  
Bt1—12 to 18 inches; silty clay loam  
Bt2—18 to 26 inches; silty clay loam  
Bt3—26 to 34 inches; silty clay loam  
Bt4—34 to 42 inches; silty clay loam  
BC—42 to 60 inches; silty clay loam  
C—60 to 80 inches; silt loam

#### Minor Components

##### Marshall

*Composition:* About 4 percent

*Landform:* interfluvium on upland

*Slope:* 2 to 5 percent

*Drainage class:* Well drained

*Ecological site:* Loamy Upland (pe30-37)

##### Wymore

*Composition:* About 4 percent

*Landform:* interfluvium on upland

*Slope:* 2 to 5 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Lowland (pe30-37)

##### Kennebec

*Composition:* About 3 percent

*Slope:* 0 to 2 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Lowland (pe30-37)

#### Judson

*Composition:* About 2 percent

*Landform:* fan remnant on upland

*Slope:* 2 to 6 percent

*Drainage class:* Well drained

*Ecological site:* Loamy Lowland (pe30-37)

## 013AE—Aksarben silty clay loam, 5 to 11 percent slopes

### Map Unit Composition

Aksarben: 85 percent  
Minor components: 15 percent

### Component Descriptions

#### Aksarben

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Loess

*Slope:* 5 to 11 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.7 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 (pe30-37)

*Land capability (nonirrigated):* 3e

#### Typical Profile:

Ap—0 to 6 inches; silty clay loam  
A—6 to 12 inches; silty clay loam  
Bt1—12 to 18 inches; silty clay loam  
Bt2—18 to 26 inches; silty clay loam  
Bt3—26 to 34 inches; silty clay loam  
Bt4—34 to 42 inches; silty clay loam  
BC—42 to 60 inches; silty clay loam  
C—60 to 80 inches; silt loam

#### Minor Components

##### Judson

*Composition:* About 3 percent

*Landform:* fan remnant on upland

*Slope:* 2 to 6 percent

*Drainage class:* Well drained  
*Ecological site:* Loamy Lowland (pe30-37)

**Kennebec**

*Composition:* About 3 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Lowland (pe30-37)

**Morrill**

*Composition:* About 3 percent  
*Slope:* 6 to 12 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Lowland (pe30-37)

**Wymore**

*Composition:* About 3 percent  
*Landform:* hillslope on upland  
*Slope:* 5 to 9 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Lowland (pe30-37)

**Marshall**

*Composition:* About 3 percent  
*Slope:* 5 to 11 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

*Runoff class:* High  
*Ecological site:* Loamy Upland (pe30-37)  
*Land capability (nonirrigated):* 3e

*Typical Profile:*

Ap—0 to 9 inches; clay loam  
 A—9 to 13 inches; clay loam  
 Bt—13 to 19 inches; clay loam  
 Btk—19 to 29 inches; clay loam  
 BCk—29 to 37 inches; clay loam  
 C—37 to 60 inches; clay loam

**Minor Components****Pawnee**

*Composition:* About 10 percent  
*Landform:* hillslope on upland  
*Slope:* 6 to 12 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

**Steinauer**

*Composition:* About 5 percent  
*Landform:* hillslope on upland  
*Slope:* 6 to 12 percent  
*Drainage class:* Well drained  
*Ecological site:* Limy Upland (pe30-37)

**013BS—Burchard clay loam, 6 to 12 percent slopes****Map Unit Composition**

Burchard: 85 percent  
 Minor components: 15 percent

**Component Descriptions****Burchard**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Loamy till, unspecified  
*Slope:* 6 to 12 percent  
*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* High (About 9.5 inches)  
*Shrink-swell potential:* Moderate (About 4.5 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet

**013BX—Burchard-Steinauer clay loams, 12 to 18 percent slopes****Map Unit Composition**

Burchard: 55 percent  
 Steinauer: 40 percent  
 Minor components: 5 percent

**Component Descriptions****Burchard**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Loamy till, unspecified  
*Slope:* 12 to 18 percent  
*Drainage class:* Well drained  
*Slowest permeability:* Moderately slow (About 0.20 in/hr)  
*Available water capacity:* High (About 9.4 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 (pe30-37)

*Land capability (nonirrigated):* 6e

*Typical Profile:*

Ap—0 to 9 inches; clay loam

Bt—9 to 19 inches; clay loam

Btk—19 to 29 inches; clay loam

BCK—29 to 37 inches; clay loam

C—37 to 60 inches; clay loam

**Steinauer**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Fine-loamy till, unspecified

*Slope:* 12 to 18 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.8 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 (pe30-37)

*Land capability (nonirrigated):* 6e

*Typical Profile:*

A—0 to 6 inches; clay loam

AC—6 to 14 inches; clay loam

C—14 to 80 inches; clay loam

**Minor Components**

**Padonia**

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 9 to 25 percent

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

*Drainage class:* Well drained

*Ecological site:* Clay Upland (pe30-37)

**013KP—Kipson-Sogn silty clay loams, 5 to 30 percent slopes**

**Map Unit Composition**

Kipson: 60 percent

Sogn: 30 percent

Minor components: 10 percent

**Component Descriptions**

**Kipson**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope, shoulder

*Parent material:* Silty residuum weathered from shale, calcareous

*Slope:* 5 to 30 percent

*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)

*Drainage class:* Somewhat excessively drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Low (About 3.5 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 (pe30-37)

*Land capability (nonirrigated):* 6e

*Typical Profile:*

A—0 to 8 inches; silty clay loam

C—8 to 19 inches; silty clay loam

Cr—19 to 22 inches; weathered bedrock

**Sogn**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Loamy residuum weathered from limestone, unspecified

*Slope:* 5 to 20 percent

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

*Drainage class:* Somewhat excessively drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Very low (About 2.6 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:* Shallow Limy (pe30-37)

*Land capability (nonirrigated):* 6s

*Typical Profile:*

A—0 to 12 inches; silty clay loam  
R—12 to

### Minor Components

#### Kennebec

*Composition:* About 10 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Lowland (pe30-37)

## 013MD—Martin silty clay loam, 1 to 4 percent slopes

### Map Unit Composition

Martin: 85 percent  
Minor components: 15 percent

### Component Descriptions

#### Martin

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Footslope

*Parent material:* Silty and clayey colluvium derived from limestone-shale over silty and clayey

residuum weathered from limestone-shale

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Slowest permeability:* Slow (About 0.06 in/hr)

*Available water capacity:* High (About 9.5 inches)

*Shrink-swell potential:* High (About 7.5 LEP)

*Flooding hazard:* None

*Depth to seasonal water saturation:* About 22 to 26 inches

*Runoff class:* High

*Ecological site:* Loamy Upland (pe30-37)

*Land capability (nonirrigated):* 2e

#### Typical Profile:

Ap—0 to 6 inches; silty clay loam  
BA—6 to 12 inches; silty clay loam  
Bt—12 to 53 inches; silty clay  
C—53 to 80 inches; silty clay

### Minor Components

#### Chase

*Composition:* About 10 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Loamy Lowland (pe30-37)

#### Pawnee

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 2 to 6 percent

*Drainage class:* Moderately well drained

*Ecological site:* Clay Upland (pe30-37)

## 013MT—Morrill loam, 6 to 12 percent slopes

### Map Unit Composition

Morrill: 87 percent  
Minor components: 13 percent

### Component Descriptions

#### Morrill

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Glacial drift

*Slope:* 6 to 12 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 9.2 inches)

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

*Flooding hazard:* None

*Ponding hazard:* None

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

*Runoff class:* High

*Ecological site:* Loamy Lowland (pe30-37)

*Land capability (nonirrigated):* 4e

#### Typical Profile:

Ap—0 to 6 inches; loam  
BA—6 to 12 inches; loam  
Bt—12 to 43 inches; sandy clay loam, loam  
BC—43 to 52 inches; fine sandy loam  
C—52 to 80 inches; sand, loamy fine sand, fine sandy loam

### Minor Components

#### Kennebec

*Composition:* About 5 percent

*Slope:* 0 to 2 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Lowland (pe30-37)

#### Pawnee

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 6 to 12 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

**Olmitz**

*Composition:* About 3 percent  
*Landform:* fan terrace on upland  
*Slope:* 2 to 5 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe30-37)

## **013PD—Padonia-Martin silty clay loams, 5 to 9 percent slopes**

### **Map Unit Composition**

Padonia: 50 percent  
 Martin: 40 percent  
 Minor components: 10 percent

### **Component Descriptions**

**Padonia**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Residuum weathered from shale, calcareous

*Slope:* 5 to 9 percent

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

*Drainage class:* Well drained

*Slowest permeability:* Slow (About 0.06 in/hr)

*Available water capacity:* Moderate (About 6.5 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:* Clay Upland (pe30-37)

*Land capability (nonirrigated):* 4e

*Typical Profile:*

A—0 to 11 inches; silty clay loam  
 Bt—11 to 22 inches; silty clay  
 Btk—22 to 32 inches; silty clay  
 Bck—32 to 37 inches; silty clay loam  
 Cr—37 to 40 inches; weathered bedrock

**Martin**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Footslope, backslope

*Parent material:* Silty and clayey colluvium derived from limestone-shale over silty and clayey

residuum weathered from limestone-shale

*Slope:* 4 to 12 percent

*Drainage class:* Moderately well drained

*Slowest permeability:* Slow (About 0.06 in/hr)

*Available water capacity:* High (About 9.5 inches)

*Shrink-swell potential:* High (About 7.5 LEP)

*Flooding hazard:* None

*Depth to seasonal water saturation:* About 22 to 26 inches

*Runoff class:* Very high

*Ecological site:* Loamy Upland (pe30-37)

*Land capability (nonirrigated):* 4e

*Typical Profile:*

Ap—0 to 6 inches; silty clay loam  
 BA—6 to 12 inches; silty clay loam  
 Bt—12 to 53 inches; silty clay  
 C—53 to 80 inches; silty clay

**Minor Components****Kipson**

*Composition:* About 10 percent

*Landform:* hillslope on upland

*Slope:* 5 to 30 percent

*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)

*Drainage class:* Somewhat excessively drained

*Ecological site:* Limy Upland (pe30-37)

## **013RE—Reading silt loam, moderately Wet, rarely flooded**

### **Map Unit Composition**

Reading: 90 percent

Minor components: 10 percent

### **Component Descriptions**

**Reading**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Flood plain on 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 11.8 inches)

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

*Flooding hazard:* Rare  
*Depth to seasonal water saturation:* About 40 to 44 inches  
*Runoff class:* Medium  
*Ecological site:* Loamy Lowland (pe30-37)  
*Land capability (nonirrigated):* 1

*Typical Profile:*

A—0 to 18 inches; silt loam  
 Bt—18 to 48 inches; silty clay loam  
 BC—48 to 54 inches; silty clay loam  
 C—54 to 80 inches; silty clay loam

**Minor Components**

**Zook**

*Composition:* About 5 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Poorly drained  
*Ecological site:* Clay Lowland (pe30-37)

**Chase**

*Composition:* About 5 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Loamy Lowland (pe30-37)

**085CB—Clime-Sogn complex, 5 to 20 percent slopes**

**Map Unit Composition**

Clime: 50 percent  
 Sogn: 35 percent  
 Minor components: 15 percent

**Component Descriptions**

**Clime**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Parent material:* Silty and clayey residuum weathered from calcareous shale  
*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 4.7 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:* Limy Upland (pe30-37)  
*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 9 inches; silty clay  
 H2—9 to 22 inches; silty clay  
 H3—22 to 35 inches; silty clay  
 Cr—35 to 39 inches; unweathered bedrock

**Sogn**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Loamy residuum weathered from limestone

*Slope:* 5 to 15 percent

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

*Drainage class:* Somewhat excessively drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Very low (About 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 (pe30-37)

*Land capability (nonirrigated):* 6e

*Typical Profile:*

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

**Minor Components**

**Martin**

*Composition:* About 5 percent  
*Slope:* 3 to 8 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Pawnee**

*Composition:* About 5 percent  
*Slope:* 3 to 7 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

**Rock outcrop**

*Composition:* About 5 percent  
*Slope:* 20 to 40 percent  
*Depth to restrictive feature:* 0 inches to bedrock (lithic)

## 149CS—Clime-Sogn silty clay loams, 5 to 20 percent slopes

### Map Unit Composition

Clime: 70 percent  
Sogn: 15 percent  
Minor components: 15 percent

### Component Descriptions

#### Clime

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Parent material:* Silty and clayey residuum weathered from calcareous shale  
*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 4.4 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 loam  
H2—8 to 26 inches; silty clay loam  
Cr—26 to 30 inches; unweathered bedrock

#### Sogn

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Parent material:* Loamy residuum weathered from limestone  
*Slope:* 5 to 20 percent  
*Depth to restrictive feature:* 4 to 20 inches to bedrock (lithic)  
*Drainage class:* Somewhat excessively drained  
*Slowest permeability:* Moderate (About 0.60 in/hr)  
*Available water capacity:* Very low (About 2.8 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):* 6e

#### Typical Profile:

H1—0 to 14 inches; silty clay loam  
R—14 to 18 inches; unweathered bedrock

### Minor Components

#### Rock outcrop

*Composition:* About 4 percent

#### Kennebec

*Composition:* About 3 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Lowland (pe35-42)

#### Pawnee

*Composition:* About 3 percent  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

#### Tully

*Composition:* About 3 percent  
*Landform:* hillslope on upland  
*Slope:* 3 to 8 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-36)

#### Unnamed Hydric Soils

*Composition:* About 1 percent  
*Drainage class:* Poorly drained

#### Unnamed Hydric Soil

*Composition:* About 1 percent  
*Drainage class:* Poorly drained

## 149WD—Wamego silt loam, 3 to 7 percent slopes

### Map Unit Composition

Wamego: 85 percent  
Minor components: 15 percent

### Component Descriptions

#### Wamego

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland

*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 (pe30-36)  
*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**

**Pawnee**

*Composition:* About 5 percent  
*Slope:* 3 to 6 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

**Wymore**

*Composition:* About 5 percent  
*Landform:* hillslope on upland  
*Slope:* 4 to 7 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

**Elmont**

*Composition:* About 5 percent  
*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)

**149WE—Wamego silt loam, 7 to 20 percent slopes**

**Map Unit Composition**

Wamego: 85 percent  
 Minor components: 15 percent

**Component Descriptions**

**Wamego**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Sandy and silty residuum weathered from shale

*Slope:* 7 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 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 (pe30-36)

*Land capability (nonirrigated):* 6e

*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 5 percent  
*Slope:* 20 to 40 percent  
*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)  
*Drainage class:* Well drained  
*Ecological site:* Limy Upland (pe30-36)

**Elmont**

*Composition:* About 5 percent  
*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)

**Sogn**

*Composition:* About 4 percent  
*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)

**Rock outcrop**

*Composition:* About 1 percent

**AED—Arents, Earthen Dam**

**Bf—Benfield silty clay loam, 5 to 9 percent slopes****Map Unit Composition**

Benfield: 90 percent  
 Minor components: 10 percent

**Component Descriptions****Benfield**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Clayey residuum weathered from calcareous shale

*Slope:* 5 to 9 percent

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

*Drainage class:* Well drained

*Slowest permeability:* Slow (About 0.06 in/hr)

*Available water capacity:* Moderate (About 6.3 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:* Loamy Upland (pe30-37)

*Land capability (nonirrigated):* 4e

**Typical Profile:**

H1—0 to 6 inches; silty clay loam

H2—6 to 19 inches; silty clay

H3—19 to 37 inches; silty clay

Cr—37 to 41 inches; weathered bedrock

**Minor Components****Kipson**

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 5 to 25 percent

*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)

*Drainage class:* Somewhat excessively drained

*Ecological site:* Limy Upland (pe30-37)

**Rock outcrop**

*Composition:* About 5 percent

**Bs—Burchard-Steinauer clay loams, 6 to 12 percent slopes****Map Unit Composition**

Burchard: 63 percent  
 Steinauer: 27 percent  
 Minor components: 10 percent

**Component Descriptions****Burchard**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Fine-loamy drift

*Slope:* 5 to 11 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 9.2 inches)

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

*Flooding hazard:* None

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

*Runoff class:* High

*Ecological site:* Loamy Upland (pe30-37)

*Land capability (nonirrigated):* 3e

**Typical Profile:**

H1—0 to 10 inches; clay loam

H2—10 to 17 inches; clay loam

H3—17 to 60 inches; clay loam

**Steinauer**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Calcareous fine-loamy drift

*Slope:* 8 to 12 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.1 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 (pe30-37)

*Land capability (nonirrigated):* 4e

*Typical Profile:*

H1—0 to 6 inches; clay loam  
H2—6 to 60 inches; clay loam

**Minor Components****Kipson**

*Composition:* About 4 percent  
*Landform:* hillslope on upland  
*Slope:* 5 to 25 percent  
*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)  
*Drainage class:* Somewhat excessively drained  
*Ecological site:* Limy Upland (pe30-37)

**Pawnee**

*Composition:* About 3 percent  
*Landform:* hillslope on upland  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Wymore**

*Composition:* About 3 percent  
*Landform:* hillslope on upland  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

**Cc—Calco silty clay loam, frequently flooded****Map Unit Composition**

Calco: 90 percent  
Minor components: 10 percent

**Component Descriptions****Calco**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Flood plain on river valley  
*Parent material:* Calcareous fine-silty alluvium  
*Slope:* 0 to 1 percent  
*Drainage class:* Poorly drained  
*Slowest permeability:* Moderate (About 0.60 in/hr)  
*Available water capacity:* High (About 11.7 inches)  
*Shrink-swell potential:* High (About 7.5 LEP)  
*Flooding hazard:* Frequent  
*Depth to seasonal water saturation:* About 0 to 36 inches  
*Runoff class:* Negligible

*Ecological site:* Loamy Lowland

*Land capability (nonirrigated):* 5w

*Typical Profile:*

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

**Minor Components****Kennebec**

*Composition:* About 10 percent  
*Slope:* 0 to 1 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Lowland (pe30-37)

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

Chase: 89 percent  
Minor components: 11 percent

**Component Descriptions****Chase**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Flood plain on river valley  
*Parent material:* Silty and clayey alluvium  
*Slope:* 0 to 1 percent  
*Drainage class:* Somewhat poorly drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* High (About 10.0 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 (pe30-37)  
*Land capability (nonirrigated):* 2w

*Typical Profile:*

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

**Minor Components****Kennebec**

*Composition:* About 10 percent  
*Slope:* 0 to 2 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Lowland (pe30-37)

**Unnamed Hydric Soil**

*Composition:* About 1 percent  
*Drainage class:* Poorly drained

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

Elmont: 85 percent  
 Minor components: 15 percent

**Component Descriptions****Elmont**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*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:* Moderate (About 8.9 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 (pe30-37)

*Land capability (nonirrigated):* 3e

*Typical Profile:*

H1—0 to 9 inches; silt loam

H2—9 to 45 inches; silty clay loam

Cr—45 to 49 inches; weathered bedrock

**Minor Components****Pawnee**

*Composition:* About 8 percent

*Landform:* hillslope on upland

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe30-37)

**Vinland Variant**

*Composition:* About 7 percent

*Landform:* hillslope on upland

*Slope:* 5 to 25 percent

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

*Drainage class:* Somewhat excessively drained

*Ecological site:* Loamy Upland (pe30-37)

**Ke—Kennebec silt loam, occasionally flooded****Map Unit Composition**

Kennebec: 95 percent  
 Minor components: 5 percent

**Component Descriptions****Kennebec**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Flood plain on valley

*Parent material:* Fine-silty alluvium

*Slope:* 0 to 2 percent

*Drainage class:* Moderately well drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Very high (About 13.4 inches)

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

*Flooding hazard:* Occasional

*Depth to seasonal water saturation:* About 40 to 44 inches

*Runoff class:* Low

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

*Land capability (nonirrigated):* 2w

*Typical Profile:*

H1—0 to 48 inches; silt loam

H2—48 to 60 inches; silt loam

**Minor Components****Wabash**

*Composition:* About 4 percent

*Slope:* 0 to 1 percent

*Drainage class:* Poorly drained

*Ecological site:* Clay Lowland (pe30-37)

**Unnamed Hydric Soil**

*Composition:* About 1 percent

*Slope:* 0 to 2 percent

*Drainage class:* Poorly drained

**Kn—Kennebec silt loam, channeled****Map Unit Composition**

Kennebec: 90 percent  
 Minor components: 10 percent

### Component Descriptions

#### Kennebec

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Flood plain on river valley

*Parent material:* Silty alluvium

*Slope:* 0 to 1 percent

*Drainage class:* Moderately well drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Very high (About 13.2 inches)

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

*Flooding hazard:* Frequent

*Depth to seasonal water saturation:* About 36 to 60 inches

*Runoff class:* Low

*Ecological site:* Loamy Lowland (pe30-37)

*Land capability (nonirrigated):* 5w

#### Typical Profile:

H1—0 to 41 inches; silt loam

H2—41 to 60 inches; silty clay loam

#### Minor Components

##### Kipson

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 5 to 25 percent

*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)

*Drainage class:* Somewhat excessively drained

*Ecological site:* Limy Upland (pe30-37)

##### Pawnee

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe30-37)

### Kp—Kipson silty clay loam, 5 to 25 percent slopes

### Map Unit Composition

Kipson: 85 percent

Minor components: 15 percent

### Component Descriptions

#### Kipson

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Calcareous loamy residuum weathered from shale

*Slope:* 5 to 25 percent

*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)

*Drainage class:* Somewhat excessively drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Low (About 3.5 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:* Limy Upland (pe30-37)

*Land capability (nonirrigated):* 6e

#### Typical Profile:

H1—0 to 9 inches; silty clay loam

H2—9 to 19 inches; silty clay loam

Cr—19 to 23 inches; weathered bedrock

#### Minor Components

##### Benfield

*Composition:* About 5 percent

*Slope:* 5 to 9 percent

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

*Drainage class:* Well drained

*Ecological site:* Loamy Upland (pe30-37)

##### Pawnee

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe30-37)

##### Steinauer

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 12 to 25 percent

*Drainage class:* Well drained

*Ecological site:* Limy Upland (pe30-37)

### M-W—Miscellaneous Water

## **Mb—Morrill loam, 4 to 8 percent slopes**

### **Map Unit Composition**

Morrill: 90 percent  
Minor components: 10 percent

### **Component Descriptions**

#### **Morrill**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Fine-loamy till

*Slope:* 4 to 8 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.1 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 (pe30-37)

*Land capability (nonirrigated):* 3e

#### *Typical Profile:*

H1—0 to 10 inches; loam

H2—10 to 60 inches; clay loam

#### **Minor Components**

##### **Pawnee**

*Composition:* About 10 percent

*Landform:* hillslope on upland

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe30-37)

## **Me—Morrill clay loam, 4 to 8 percent slopes, eroded**

### **Map Unit Composition**

Morrill: 90 percent  
Minor components: 10 percent

### **Component Descriptions**

#### **Morrill**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Fine-loamy till

*Slope:* 4 to 8 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.1 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 (pe30-37)

*Land capability (nonirrigated):* 3e

#### *Typical Profile:*

H1—0 to 6 inches; clay loam

H2—6 to 60 inches; clay loam

#### **Minor Components**

##### **Pawnee**

*Composition:* About 10 percent

*Landform:* hillslope on upland

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe30-37)

## **Om—Olmitz loam, 1 to 5 percent slopes**

### **Map Unit Composition**

Olmitz: 91 percent  
Minor components: 9 percent

### **Component Descriptions**

#### **Olmitz**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Fan terrace on upland

*Hillslope position:* Footslope

*Parent material:* Fine-loamy colluvium

*Slope:* 1 to 5 percent

*Drainage class:* Moderately well drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* High (About 11.8 inches)

*Shrink-swell potential:* Moderate (About 4.5 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* More than 6 feet  
*Runoff class:* Low  
*Ecological site:* Loamy Upland (pe30-37)  
*Land capability (nonirrigated):* 2e

*Typical Profile:*  
 H1—0 to 25 inches; loam  
 H2—25 to 60 inches; clay loam

### Minor Components

#### Chase

*Composition:* About 3 percent  
*Slope:* 0 to 1 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Loamy Lowland (pe30-37)

#### Pawnee

*Composition:* About 3 percent  
*Landform:* hillslope on upland  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe30-37)

#### Wymore

*Composition:* About 3 percent  
*Landform:* hillslope on upland  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Clay Upland (pe30-37)

## Pa—Pawnee clay loam, 1 to 4 percent slopes

### Map Unit Composition

Pawnee: 90 percent  
 Minor components: 10 percent

### Component Descriptions

#### Pawnee

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Clayey drift  
*Slope:* 1 to 4 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* Moderate (About 7.5 inches)

*Shrink-swell potential:* High (About 7.5 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 12 to 36 inches  
*Runoff class:* High  
*Ecological site:* Loamy Upland (pe30-37)  
*Land capability (nonirrigated):* 2e

*Typical Profile:*  
 H1—0 to 15 inches; clay loam  
 H2—15 to 51 inches; clay  
 H3—51 to 60 inches; clay loam

### Minor Components

#### Burchard

*Composition:* About 5 percent  
*Slope:* 5 to 11 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

#### Morrill

*Composition:* About 5 percent  
*Slope:* 4 to 8 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

## Pb—Pawnee clay loam, 4 to 8 percent slopes

### Map Unit Composition

Pawnee: 90 percent  
 Minor components: 10 percent

### Component Descriptions

#### Pawnee

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Clayey drift  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* Moderate (About 7.5 inches)  
*Shrink-swell potential:* High (About 7.5 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 12 to 36 inches  
*Runoff class:* Very high  
*Ecological site:* Loamy Upland (pe30-37)  
*Land capability (nonirrigated):* 3e

*Typical Profile:*

H1—0 to 15 inches; clay loam  
 H2—15 to 51 inches; clay  
 H3—51 to 60 inches; clay loam

**Minor Components****Burchard**

*Composition:* About 5 percent  
*Slope:* 5 to 11 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Morrill**

*Composition:* About 5 percent  
*Slope:* 4 to 8 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Pe—Pawnee clay, 4 to 8 percent slopes, eroded****Map Unit Composition**

Pawnee: 85 percent  
 Minor components: 15 percent

**Component Descriptions****Pawnee**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Clayey drift  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Slowest permeability:* Slow (About 0.06 in/hr)  
*Available water capacity:* Moderate (About 6.9 inches)  
*Shrink-swell potential:* High (About 7.5 LEP)  
*Flooding hazard:* None  
*Depth to seasonal water saturation:* About 12 to 36 inches  
*Runoff class:* Very high  
*Ecological site:* Loamy Upland (pe30-37)  
*Land capability (nonirrigated):* 4e

*Typical Profile:*

H1—0 to 6 inches; clay  
 H2—6 to 40 inches; clay  
 H3—40 to 60 inches; clay loam

**Minor Components****Burchard**

*Composition:* About 8 percent  
*Slope:* 5 to 11 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Kipson**

*Composition:* About 7 percent  
*Landform:* hillslope on upland  
*Slope:* 5 to 25 percent  
*Depth to restrictive feature:* 7 to 20 inches to bedrock (paralithic)  
*Drainage class:* Somewhat excessively drained  
*Ecological site:* Limy Upland (pe30-37)

**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.

**Re—Reading silt loam, 0 to 2 percent slopes, rarely flooded****Map Unit Composition**

Reading: 90 percent  
 Minor components: 10 percent

**Component Descriptions****Reading**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

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

*Land capability (nonirrigated):* 1

*Typical Profile:*

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

**Minor Components**

**Wabash**

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

**Chase**

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

**Sb—Sibleyville loam, 4 to 8 percent slopes**

**Map Unit Composition**

Sibleyville: 90 percent  
Minor components: 10 percent

**Component Descriptions**

**Sibleyville**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Parent material:* Sandy and silty residuum weathered from sandstone and shale

*Slope:* 4 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 6.3 inches)

*Shrink-swell potential:* Low (About 1.5 LEP)

*Flooding hazard:* None

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

*Runoff class:* Medium

*Ecological site:* Loamy Upland (pe30-37)

*Land capability (nonirrigated):* 3e

*Typical Profile:*

H1—0 to 9 inches; loam  
H2—9 to 23 inches; loam

H3—23 to 37 inches; channery loam  
Cr—37 to 41 inches; weathered bedrock

**Minor Components**

**Pawnee**

*Composition:* About 5 percent  
*Landform:* hillslope on upland  
*Slope:* 1 to 4 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Morrill**

*Composition:* About 5 percent  
*Slope:* 4 to 8 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

**St—Steinauer clay loam, 12 to 25 percent slopes**

**Map Unit Composition**

Steinauer: 90 percent  
Minor components: 10 percent

**Component Descriptions**

**Steinauer**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Calcareous fine-loamy till

*Slope:* 12 to 25 percent

*Drainage class:* Well drained

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

*Available water capacity:* High (About 10.1 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 (pe30-37)

*Land capability (nonirrigated):* 6e

*Typical Profile:*

H1—0 to 6 inches; clay loam  
H2—6 to 60 inches; clay loam

**Minor Components**

**Pawnee**

*Composition:* About 5 percent

*Landform:* hillslope on upland  
*Slope:* 4 to 8 percent  
*Drainage class:* Moderately well drained  
*Ecological site:* Loamy Upland (pe30-37)

*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)

**Rock outcrop**

*Composition:* About 5 percent

**Vv—Vinland Variant loam, 5 to 25 percent slopes****Map Unit Composition**

Vinland Variant: 90 percent  
 Minor components: 10 percent

**Component Descriptions****Vinland Variant**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Hillslope on upland

*Hillslope position:* Backslope

*Parent material:* Coarse-silty residuum weathered from sandstone and shale

*Slope:* 5 to 25 percent

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

*Drainage class:* Somewhat excessively drained

*Slowest permeability:* Moderate (About 0.60 in/hr)

*Available water capacity:* Low (About 5.2 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 (pe30-37)

*Land capability (nonirrigated):* 6e

**Typical Profile:**

H1—0 to 8 inches; loam

H2—8 to 29 inches; loam

Cr—29 to 33 inches; weathered bedrock

**Minor Components****Pawnee**

*Composition:* About 5 percent

*Landform:* hillslope on upland

*Slope:* 1 to 4 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Upland (pe30-37)

**Elmont**

*Composition:* About 5 percent

*Slope:* 3 to 7 percent

**W—Water****Wa—Wabash silty clay loam, occasionally flooded****Map Unit Composition**

Wabash: 88 percent  
 Minor components: 12 percent

**Component Descriptions****Wabash**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills

*Landform:* Terrace 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 8.0 inches)

*Shrink-swell potential:* Very high (About 17.0 LEP)

*Flooding hazard:* Occasional

*Depth to seasonal water saturation:* About 2 to 9 inches

*Runoff class:* Very high

*Ecological site:* Clay Lowland (pe30-37)

*Land capability (nonirrigated):* 3w

**Typical Profile:**

H1—0 to 16 inches; silty clay loam

H2—16 to 70 inches; silty clay

**Minor Components****Kennebec**

*Composition:* About 3 percent

*Slope:* 0 to 2 percent

*Drainage class:* Moderately well drained

*Ecological site:* Loamy Lowland (pe30-37)

**Reading**

*Composition:* About 3 percent

*Slope:* 0 to 2 percent

*Drainage class:* Well drained

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

**Wabash**

*Composition:* About 3 percent  
*Slope:* 0 to 1 percent  
*Drainage class:* Poorly drained  
*Ecological site:* Clay Lowland (pe30-37)

**Leanna**

*Composition:* About 3 percent  
*Landform:* flood plain on valley  
*Slope:* 0 to 2 percent  
*Drainage class:* Somewhat poorly drained  
*Ecological site:* Clay Lowland (pe35-42)

**Wb—Wymore silty clay loam, 1 to 4 percent slopes****Map Unit Composition**

Wymore: 100 percent

**Component Descriptions****Wymore**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Ridge on upland  
*Hillslope position:* Shoulder, summit  
*Parent material:* Silty and clayey loess  
*Slope:* 1 to 4 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 36 inches  
*Runoff class:* High  
*Ecological site:* Clay Upland (pe30-37)  
*Land capability (nonirrigated):* 2e

*Typical Profile:*

H1—0 to 6 inches; silty clay loam  
 H2—6 to 41 inches; silty clay  
 H3—41 to 60 inches; silty clay loam

**Wc—Wymore silty clay loam, 4 to 8 percent slopes****Map Unit Composition**

Wymore: 85 percent  
 Minor components: 15 percent

**Component Descriptions****Wymore**

*MLRA:* 106 - Nebraska and Kansas Loess-Drift Hills  
*Landform:* Hillslope on upland  
*Hillslope position:* Backslope  
*Parent material:* Silty and clayey loess  
*Slope:* 4 to 8 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 36 inches  
*Runoff class:* Very high  
*Ecological site:* Clay Upland (pe30-37)  
*Land capability (nonirrigated):* 3e

*Typical Profile:*

H1—0 to 6 inches; silty clay loam  
 H2—6 to 41 inches; silty clay  
 H3—41 to 60 inches; silty clay loam

**Minor Components****Burchard**

*Composition:* About 15 percent  
*Slope:* 5 to 11 percent  
*Drainage class:* Well drained  
*Ecological site:* Loamy Upland (pe30-37)