

005PD—Pawnee clay, 3 to 7 percent slopes, eroded**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

Parent material: Clayey drift

Slope: 3 to 7 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 9 to 14 inches

Runoff class: High

Ecological site: Clay Upland (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 5 inches; clay

H2—5 to 38 inches; clay

H3—38 to 60 inches; clay loam

Minor Components**Kennebec**

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe30-37)

Shelby

Phase: Eroded

Composition: About 5 percent

Slope: 7 to 15 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

005SS—Shelby-Steinauer loams, 12 to 25 percent slopes**Map Unit Composition**

Shelby: 55 percent

Steinauer: 35 percent

Minor components: 10 percent

Component Descriptions**Shelby**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy drift

Slope: 12 to 25 percent

Drainage class: Well drained

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

Available water capacity: High (About 10.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; loam

H2—6 to 47 inches; clay loam

H3—47 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: 12 to 25 percent

Drainage class: Well drained

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

Available water capacity: High (About 10.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Limy Upland (pe30-37)

Typical Profile:

H1—0 to 6 inches; loam

H2—6 to 60 inches; clay loam

Minor Components**Kennebec**

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe30-37)

Vinland

Composition: About 5 percent
Slope: 10 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Loamy Upland (pe30-37)

005VS—Vinland silty clay loam, 4 to 15 percent slopes

Map Unit Composition

Vinland: 85 percent
 Minor components: 15 percent

Component Descriptions

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Sandy and silty residuum weathered from shale
Slope: 4 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 3.9 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): 6e

Typical Profile:

A—0 to 8 inches; silty clay loam
 Bw—8 to 12 inches; silty clay loam
 C—12 to 19 inches; channery silty clay loam
 Cr—19 to 23 inches; weathered bedrock

Minor Components

Rock outcrop

Composition: About 9 percent
Slope: 15 to 40 percent
Depth to restrictive feature: 0 inches to bedrock (lithic)

Martin

Composition: About 3 percent
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Pawnee

Composition: About 3 percent
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Clay 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
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

Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Steinauer

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

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
Geomorphic Position: 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)

013MF—Martin silty clay loam, 4 to 12 percent slopes

Map Unit Composition

Martin: 90 percent
 Minor components: 10 percent

Component Descriptions

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

Padonia

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 9 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Vinland

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Savannah (pe30-37)

013MY—Muscotah silty clay loam, occasionally flooded

Map Unit Composition

Muscotah: 87 percent
 Minor components: 13 percent

Component Descriptions

Muscotah

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Impermeable (About 0.00 in/hr)

Available water capacity: High (About 10.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: Medium
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 A1—9 to 16 inches; silty clay loam
 A2—16 to 23 inches; silty clay loam
 Bw1—23 to 35 inches; silty clay loam
 Bw2—35 to 44 inches; silty clay
 Bw3—44 to 60 inches; silty clay
 Bw4—60 to 70 inches; silty clay
 Bg—70 to 80 inches; silty clay

Minor Components

Kennebec

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

Wabash

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

Chase

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

013PN—Pawnee clay loam, 6 to 12 percent slopes

Map Unit Composition

Pawnee: 83 percent
 Minor components: 17 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Shoulder, summit
Parent material: Till, unspecified
Slope: 6 to 12 percent

Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 7 inches; clay loam
 BA—7 to 12 inches; clay loam
 Bt—12 to 48 inches; clay
 C—48 to 80 inches; clay loam

Minor Components

Morrill

Composition: About 8 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 6 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

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

013PO—Pawnee clay, 6 to 12 percent slopes, moderately eroded

Map Unit Composition

Pawnee: 84 percent
 Minor components: 16 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Till, unspecified
Slope: 6 to 12 percent

Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 5 inches; clay
 Bt—5 to 45 inches; clay
 C—45 to 80 inches; clay loam

Minor Components

Mayberry

Composition: About 7 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 6 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

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

013WE—Wamego silty clay loam, 3 to 7 percent slopes

Map Unit Composition

Wamego: 90 percent
 Minor components: 10 percent

Component Descriptions

Wamego

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale, unspecified

Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.6 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: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 Bt—9 to 20 inches; silty clay loam
 BC—20 to 25 inches; silty clay loam
 Cr—25 to 36 inches; weathered bedrock

Minor Components

Olmitz

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

Pawnee

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

013WG—Wamego-Vinland silty clay loams, 3 to 15 percent slopes

Map Unit Composition

Wamego: 50 percent
 Vinland: 40 percent
 Minor components: 10 percent

Component Descriptions

Wamego

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale, unspecified
Slope: 3 to 15 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.6 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: Clay Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 Bt—9 to 20 inches; silty clay loam
 BC—20 to 25 inches; silty clay loam
 Cr—25 to 36 inches; weathered bedrock

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale, unspecified
Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 3.9 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 Savannah (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 8 inches; silty clay loam
 Bw—8 to 12 inches; silty clay loam
 C—12 to 19 inches; channery silty clay loam
 Cr—19 to 23 inches; weathered bedrock

Minor Components

Pawnee

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

013WN—Wymore silty clay loam, 5 to 9 percent slopes

Map Unit Composition

Wymore: 82 percent
Minor components: 18 percent

Component Descriptions

Wymore

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Hillslope position: Backslope

Parent material: Loess

Slope: 5 to 9 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 9 to 14 inches

Runoff class: Very high

Ecological site: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 10 inches; silty clay loam
Bt1—10 to 18 inches; silty clay
Bt2—18 to 32 inches; silty clay
BC—32 to 43 inches; silty clay loam
C—43 to 80 inches; silty clay loam

Minor Components

Pawnee

Composition: About 8 percent

Geomorphic Position: hillslope on upland

Slope: 6 to 9 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Mayberry

Composition: About 7 percent

Geomorphic Position: hillslope on upland

Slope: 2 to 6 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

087MO—Martin-Oska silty clay loams, 3 to 6 percent slopes

Map Unit Composition

Martin: 40 percent
Oska: 30 percent
Minor components: 30 percent

Component Descriptions

Martin

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

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

clayey residuum weathered from limestone and shale

Slope: 3 to 6 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.7 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 22 to 26 inches

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silty clay loam
H2—12 to 71 inches; silty clay

Oska

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

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

Slope: 3 to 6 percent

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

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 6.4 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; silty clay loam
 H2—11 to 38 inches; silty clay
 R—38 to 42 inches; unweathered bedrock

Minor Components

Martin

Phase: Moderately Deep
Composition: About 25 percent
Slope: 3 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Sogn

Composition: About 3 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 (pe30-37)

Vinland

Composition: About 2 percent
Slope: 5 to 20 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Loamy Upland (pe30-37)

087SS—Sibleyville complex, 3 to 7 percent slopes

Map Unit Composition

Sibleyville: 60 percent
 Minor components: 40 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: 3 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: Medium

Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; loam
 H2—10 to 18 inches; loam
 H3—18 to 29 inches; channery loam
 Cr—29 to 33 inches; weathered bedrock

Minor Components

Sibleyville-Like

Phase: Shallow
Composition: About 20 percent
Slope: 3 to 7 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Sibleyville-Like

Phase: Deep
Composition: About 10 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)

Martin

Composition: About 2 percent
Slope: 3 to 8 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Vinland

Composition: About 2 percent
Slope: 7 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Gymer

Composition: About 2 percent
Slope: 3 to 7 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Shelby

Composition: About 2 percent
Slope: 3 to 8 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 2 percent
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

087SW—Sogn-Vinland complex, 5 to 20 percent slopes

Map Unit Composition

Sogn: 55 percent
 Vinland: 30 percent
 Minor components: 15 percent

Component Descriptions

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 2.6 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Limy (pe30-37)

Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 13 inches; silty clay loam
 R—13 to 17 inches;

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from shale

Slope: 5 to 20 percent

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

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

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

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 12 inches; silty clay loam
 H2—12 to 16 inches; silty clay loam
 Cr—16 to 20 inches; weathered bedrock

Minor Components**Martin**

Composition: About 5 percent

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Oska

Composition: About 5 percent

Slope: 2 to 6 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Sibleyville

Composition: About 5 percent

Slope: 7 to 12 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

087VC—Vinland complex, 3 to 7 percent slopes

Map Unit Composition

Vinland: 50 percent

Minor components: 50 percent

Component Descriptions

Vinland

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: 10 to 20 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

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

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; silty clay loam

H2—12 to 16 inches; silty clay loam

Cr—16 to 20 inches; weathered bedrock

Minor Components

Vinland

Composition: About 30 percent

Slope: 3 to 7 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Martin

Composition: About 10 percent

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Sibleyville

Composition: About 2 percent

Slope: 3 to 7 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe35-42)

Shelby

Composition: About 2 percent

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 2 percent

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Sogn

Composition: About 2 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 (pe30-37)

Oska

Composition: About 2 percent

Slope: 2 to 6 percent

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

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

087VO—Vinland complex, 7 to 15 percent slopes

Map Unit Composition

Vinland: 55 percent

Minor components: 45 percent

Component Descriptions

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from shale

Slope: 7 to 15 percent

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

Drainage class: Moderately well 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: Loamy Upland (pe30-37)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; silty clay loam

H2—12 to 16 inches; silty clay loam
Cr—16 to 20 inches; weathered bedrock

Minor Components

Vinland

Phase: Moderately Deep
Composition: About 30 percent
Slope: 7 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Sogn

Composition: About 5 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 (pe30-37)

Martin

Composition: About 2 percent
Slope: 3 to 8 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 2 percent
Slope: 8 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Gymer

Composition: About 2 percent
Slope: 3 to 7 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Shelby

Composition: About 2 percent
Slope: 8 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Sibleyville

Composition: About 2 percent
Slope: 7 to 12 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

131BS—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
Geomorphic Position: 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
Geomorphic Position: hillslope on upland
Slope: 4 to 8 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Wymore

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

131OM—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
Geomorphic Position: hillslope on upland
Slope: 4 to 8 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Wymore

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

131ST—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

Geomorphic Position: hillslope on upland

Slope: 4 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Rock outcrop

Composition: About 5 percent

149CE—Chase silty clay loam, rarely flooded

Map Unit Composition

Chase: 85 percent

Minor components: 15 percent

Component Descriptions

Chase

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Terrace on river valley

Parent material: Silty and clayey alluvium

Slope: 0 to 1 percent

Drainage class: 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: Rare

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 16 inches; silty clay loam

H2—16 to 48 inches; silty clay

H3—48 to 60 inches; silty clay loam

Minor Components

Wabash

Composition: About 5 percent

Slope: 0 to 1 percent

Drainage class: Poorly drained

Ecological site: Clay Lowland (pe30-37)

Kennebec

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe35-42)

Reading

Composition: About 5 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe30-36)

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

Geomorphic Position: 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

149MO—Morrill loam, 3 to 7 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 glaciofluvial deposits

Slope: 3 to 7 percent

Drainage class: Well drained

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

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; loam

H2—13 to 34 inches; clay loam

H3—34 to 60 inches; clay loam

Minor Components

Ortello

Composition: About 5 percent

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Sandy (pe30-36)

Pawnee

Composition: About 5 percent

Slope: 1 to 3 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

177EL—Elmont silt loam, 4 to 7 percent slopes**Map Unit Composition**

Elmont: 90 percent
 Minor components: 10 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: High (About 9.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Limy Upland (pe35-42)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 7 inches; silt loam
 H2—7 to 22 inches; silty clay loam
 H3—22 to 50 inches; silty clay loam
 Cr—50 to 54 inches; unweathered bedrock

Minor Components**Sibleyville**

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)

Martin

Composition: About 5 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe35-42)

177KS—Kipson-Sogn complex, 3 to 25 percent slopes**Map Unit Composition**

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

Component Descriptions**Kipson**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Calcareous loamy residuum weathered from shale

Slope: 3 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 3.1 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: Limy Upland (pe30-37)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; silty clay loam
 H2—8 to 17 inches; silty clay loam
 Cr—17 to 21 inches; weathered bedrock

Sogn

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Loamy residuum weathered from limestone

Slope: 0 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 2.0 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Limy (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

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

Minor Components

Martin

Composition: About 5 percent
Slope: 7 to 11 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe35-42)

Elmont

Composition: About 5 percent
Slope: 7 to 12 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe35-42)

Labette

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

Flooding hazard: None

Depth to seasonal water saturation: About 22 to 26 inches

Runoff class: Very high

Ecological site: Clay Upland (pe35-42)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; silty clay loam
 H2—10 to 48 inches; silty clay
 H3—48 to 60 inches; silty clay

Minor Components

Martin

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

Labette

Composition: About 5 percent
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe35-42)

Pawnee

Composition: About 5 percent
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

177LM—Ladysmith silty clay loam, 1 to 3 percent slopes

Map Unit Composition

Ladysmith: 85 percent
 Minor components: 15 percent

Component Descriptions

Ladysmith

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Paleoterrace on upland
Parent material: Clayey alluvium
Slope: 1 to 3 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Impermeable (About 0.00 in/hr)
Available water capacity: Moderate (About 8.8 inches)
Shrink-swell potential: High (About 7.5 LEP)

177MF—Martin silty clay loam, 7 to 11 percent slopes

Map Unit Composition

Martin: 90 percent
 Minor components: 10 percent

Component Descriptions

Martin

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Silty and clayey colluvium derived from limestone and shale over silty and clayey residuum weathered from limestone and shale
Slope: 7 to 11 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 4e

Typical Profile:

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

Minor Components

Elmont

Composition: About 5 percent
Slope: 7 to 11 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe35-42)

Martin

Composition: About 5 percent
Slope: 7 to 11 percent
Drainage class: Moderately well drained
Ecological site: Limy Upland (pe35-42)

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 17 inches; clay loam
 H2—17 to 32 inches; clay loam
 H3—32 to 60 inches; sandy clay loam

Minor Components

Gymer

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

Pawnee

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

Shelby

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

177MM—Morrill clay loam, 3 to 8 percent slopes

Map Unit Composition

Morrill: 91 percent
 Minor components: 9 percent

Component Descriptions

Morrill

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Fine-loamy glaciofluvial deposits
Slope: 3 to 8 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None

177SK—Shelby clay loam, 1 to 3 percent slopes

Map Unit Composition

Shelby: 95 percent
 Minor components: 5 percent

Component Descriptions

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Fine-loamy drift
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 17 inches; clay loam

H2—17 to 44 inches; clay loam

H3—44 to 60 inches; clay loam

Minor Components

Pawnee

Composition: About 5 percent

Slope: 0 to 3 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Minor Components

Vinland

Composition: About 5 percent

Slope: 4 to 10 percent

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

Drainage class: Somewhat excessively drained

Ecological site: Limy Upland (pe35-42)

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: Limy Upland (pe35-42)

177ST—Sibleyville loam, 3 to 7 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: 3 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: Moderate (About 7.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe35-42)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 14 inches; loam

H2—14 to 38 inches; sandy clay loam

Cr—38 to 42 inches; weathered bedrock

177SV—Sogn-Vinland complex, 3 to 25 percent slopes

Map Unit Composition

Sogn: 55 percent

Vinland: 25 percent

Minor components: 20 percent

Component Descriptions

Sogn

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Loamy residuum weathered from limestone

Slope: 3 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 2.0 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Limy (pe35-42)

Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 10 inches; silty clay loam

R—10 to 14 inches; unweathered bedrock

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from shale

Slope: 3 to 25 percent

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

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.1 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: Limy Upland (pe35-42)

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 15 inches; channery silty clay loam

Cr—15 to 19 inches; weathered bedrock

Minor Components

Elmont

Composition: About 5 percent

Slope: 7 to 12 percent

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

Drainage class: Well drained

Ecological site: Limy Upland (pe35-42)

Martin

Composition: About 5 percent

Slope: 7 to 11 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe35-42)

Rock outcrop

Composition: About 5 percent

Labette

Composition: About 5 percent

Slope: 3 to 6 percent

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

Drainage class: Well drained

Ecological site: Limy Upland (pe35-42)

AED—Arents, Earthen Dam

Ba—Burchard-Shelby clay loams, 7 to 12 percent slopes

Map Unit Composition

Burchard: 45 percent

Shelby: 40 percent

Minor components: 15 percent

Component Descriptions

Burchard

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 7 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

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 14 inches; clay loam

H2—14 to 31 inches; clay loam

H3—31 to 60 inches; clay loam

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 7 to 12 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 10.0 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 15 inches; clay loam
 H2—15 to 43 inches; clay loam
 H3—43 to 60 inches; clay loam

Minor Components

Pawnee

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

Kennebec

Composition: About 5 percent
Slope: 0 to 3 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 5 percent
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Bb—Burchard-Shelby clay loams, 7 to 12 percent slopes, eroded Map Unit Composition

Burchard: 45 percent
 Shelby: 40 percent
 Minor components: 15 percent

Component Descriptions

Burchard

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland
Parent material: Fine-loamy till
Slope: 7 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
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 5 inches; clay loam
 H2—5 to 24 inches; clay loam
 H3—24 to 60 inches; clay loam

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland
Parent material: Fine-loamy till
Slope: 7 to 12 percent
Drainage class: Moderately well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.0 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 6 inches; clay loam
 H2—6 to 31 inches; clay loam
 H3—31 to 60 inches; clay loam

Minor Components

Pawnee

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

Kennebec

Composition: About 5 percent
Slope: 0 to 3 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 5 percent
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Bc—Burchard-Shelby clay loams, 12 to 25 percent slopes

Map Unit Composition

Burchard: 40 percent
Shelby: 35 percent
Minor components: 25 percent

Component Descriptions

Burchard

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 12 to 17 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

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 14 inches; clay loam

H2—14 to 31 inches; clay loam

H3—31 to 60 inches; clay loam

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 12 to 25 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 10.0 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): 4e

Typical Profile:

H1—0 to 15 inches; clay loam

H2—15 to 43 inches; clay loam

H3—43 to 60 inches; clay loam

Minor Components

Kennebec

Composition: About 5 percent

Slope: 0 to 3 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Pawnee

Composition: About 5 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Martin

Composition: About 5 percent

Slope: 7 to 11 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe35-42)

Olmitz

Composition: About 5 percent

Slope: 2 to 5 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Rock outcrop

Composition: About 5 percent

Slope: 20 to 40 percent

Depth to restrictive feature: 0 inches to bedrock (lithic)

Ca—Chase silty clay loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Chase: 88 percent

Minor components: 12 percent

Component Descriptions

Chase

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Terrace on valley

Parent material: Silty and clayey alluvium

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: About 22 to 26 inches
Runoff class: High
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 10 inches; silty clay loam
 H2—10 to 45 inches; silty clay
 H3—45 to 60 inches; silty clay

Minor Components

Olmitz

Composition: About 3 percent
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 3 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 (pe30-37)

Martin

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

Cb—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)

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)

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

Rock outcrop

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

Kb—Kennebec Soils, 0 to 3 percent slopes, occasionally flooded**Ka—Kennebec silt loam, 0 to 3 percent slopes, occasionally flooded****Map Unit Composition**

Kennebec: 86 percent
 Minor components: 14 percent

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: Fine-silty alluvium

Slope: 0 to 3 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 (pe30-37)

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 5 percent

Slope: 0 to 1 percent

Drainage class: Poorly drained

Ecological site: Clay Lowland (pe30-37)

Zook

Composition: About 5 percent

Component Descriptions**Kennebec**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on river valley

Parent material: Fine-silty alluvium

Slope: 0 to 3 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 (pe30-37)

Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 48 inches; silt loam

H2—48 to 60 inches; silt loam

Minor Components**Burchard**

Composition: About 3 percent

Slope: 12 to 17 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Shelby

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 12 to 25 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Chase

Composition: About 3 percent

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

Kennebec

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

Wabash

Composition: About 1 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Zook

Composition: About 1 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Kc—Kennebec Soils, channeled**Map Unit Composition**

Kennebec: 88 percent
 Minor components: 12 percent

Component Descriptions**Kennebec**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on river 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: Frequent
Depth to seasonal water saturation: About 40 to 44 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 5w

Typical Profile:

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

Minor Components**Chase**

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

Martin

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

Pawnee

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

Zook

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

KD—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 valley
Parent material: 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: Frequent
Depth to seasonal water saturation: About 40 to 44 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 48 inches; silt loam
H2—48 to 80 inches; silty clay loam

Minor Components**Wabash**

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Ma—Martin silty clay loam, 3 to 8 percent slopes**Map Unit Composition**

Martin: 90 percent
Minor components: 10 percent

Component Descriptions**Martin**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

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

clayey residuum weathered from limestone and shale

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 22 to 26 inches

Runoff class: Very high

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

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

Minor Components**Clime**

Composition: About 3 percent
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained

Ecological site: Limy Upland (pe30-37)

Pawnee

Composition: About 3 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Sogn

Composition: About 2 percent

Slope: 5 to 15 percent

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

Drainage class: Somewhat excessively drained

Ecological site: Shallow Limy (pe30-37)

Vinland

Composition: About 2 percent

Slope: 5 to 20 percent

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

Drainage class: Somewhat excessively drained

Ecological site: Loamy Upland (pe30-37)

MAA—Martin silty clay loam, 1 to 3 percent slopes**Map Unit Composition**

Martin: 90 percent
Minor components: 10 percent

Component Descriptions**Martin**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

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

clayey residuum weathered from limestone and shale

Slope: 1 to 3 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 21 to 26 inches

Runoff class: High

Ecological site: Loamy Upland (pe35-42)
Land capability (nonirrigated): 2e

Typical Profile:

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

Minor Components

Labette

Composition: About 5 percent
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (lithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe35-42)

Ladysmith

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

Mb—Martin silty clay loam, 3 to 7 percent slopes, eroded

Map Unit Composition

Martin: 88 percent
 Minor components: 12 percent

Component Descriptions

Martin

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

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

clayey residuum weathered from limestone and shale

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.0 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: 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:

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

Minor Components

Clime

Composition: About 3 percent
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe30-37)

Sogn

Composition: About 3 percent
Slope: 5 to 15 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-37)

Vinland

Composition: About 3 percent
Slope: 6 to 14 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

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

Mc—Martin-Vinland silty clay loams, 5 to 10 percent slopes

Map Unit Composition

Martin: 48 percent
 Vinland: 40 percent
 Minor components: 12 percent

Component Descriptions

Martin

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

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

clayey residuum weathered from limestone and shale

Slope: 5 to 10 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: 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:

H1—0 to 11 inches; silty clay loam

H2—11 to 17 inches; silty clay loam

H3—17 to 60 inches; silty clay

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from shale

Slope: 5 to 10 percent

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

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.7 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)

Typical Profile:

H1—0 to 11 inches; silty clay loam

H2—11 to 17 inches; silty clay loam

Cr—17 to 21 inches; weathered bedrock

Minor Components

Sogn

Composition: About 3 percent

Slope: 5 to 15 percent

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

Drainage class: Somewhat excessively drained

Ecological site: Shallow Limy (pe30-37)

Pawnee

Composition: About 3 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Clime

Composition: About 3 percent

Slope: 5 to 20 percent

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

Drainage class: Well drained

Ecological site: Limy Upland (pe30-37)

Rock outcrop

Composition: About 3 percent

Slope: 20 to 40 percent

Depth to restrictive feature: 0 inches to bedrock (lithic)

Oa—Olmitz clay loam, 2 to 5 percent slopes

Map Unit Composition

Olmitz: 85 percent

Minor components: 15 percent

Component Descriptions

Olmitz

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Fan terrace on upland

Parent material: Fine-loamy colluvium

Slope: 2 to 5 percent

Drainage class: Moderately well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 11.4 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 32 inches; clay loam

H2—32 to 48 inches; clay loam

H3—48 to 60 inches; clay loam

Minor Components

Burchard

Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Chase

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly 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 (pe30-37)

Shelby

Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Kennebec

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

Typical Profile:

H1—0 to 16 inches; clay loam
 H2—16 to 52 inches; clay
 H3—52 to 60 inches; clay loam

Minor Components**Burchard**

Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Shelby

Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Martin

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

Wymore

Composition: About 3 percent
Slope: 1 to 3 percent
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Pa—Pawnee clay loam, 1 to 3 percent slopes**Map Unit Composition**

Pawnee: 88 percent
 Minor components: 12 percent

Component Descriptions**Pawnee**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Clayey drift
Slope: 1 to 3 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 36 inches
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 2e

Pb—Pawnee clay loam, 3 to 7 percent slopes**Map Unit Composition**

Pawnee: 88 percent
 Minor components: 12 percent

Component Descriptions**Pawnee**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Clayey drift
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 36 inches

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

Typical Profile:

H1—0 to 16 inches; clay loam
 H2—16 to 52 inches; clay
 H3—52 to 60 inches; clay loam

Minor Components

Burchard

Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Shelby

Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Martin

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

Wymore

Composition: About 3 percent
Slope: 1 to 3 percent
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Pc—Pawnee clay loam, 3 to 7 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

Parent material: Clayey drift

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 7.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: High

Ecological site: Clay Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 16 inches; clay loam
 H2—16 to 52 inches; clay
 H3—52 to 60 inches; clay loam

Minor Components

Burchard

Phase: Eroded
Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Shelby

Phase: Eroded
Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Martin

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

Wymore

Phase: Eroded
Composition: About 3 percent
Slope: 2 to 5 percent
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Pawnee

Phase: Sev Er
Composition: About 3 percent
Slope: 3 to 7 percent
Drainage class: Moderately well drained
Ecological site: Clay 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.

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

Map Unit Composition

Reading: 85 percent
Minor components: 15 percent

Component Descriptions

Reading

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Terrace on 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: Medium

Ecological site: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 8 inches; silt loam

H2—8 to 60 inches; silty clay loam

Minor Components

Wabash

Composition: About 3 percent

Slope: 0 to 1 percent

Drainage class: Poorly drained

Ecological site: Clay Lowland (pe30-37)

Zook

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Poorly drained

Ecological site: Clay Lowland (pe30-37)

Chase

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 3 percent

Slope: 0 to 3 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 3 percent

Slope: 2 to 5 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

RE—Reading silty clay loam, 0 to 2 percent slopes, rarely flooded

Map Unit Composition

Reading: 85 percent
Minor components: 15 percent

Component Descriptions

Reading

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Stream terrace on valley

Parent material: Silty alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

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

Available water capacity: High (About 11.6 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 14 inches; silty clay loam

H2—14 to 56 inches; silty clay loam

H3—56 to 70 inches; silty clay loam

Minor Components

Wabash

Composition: About 5 percent

Slope: 0 to 1 percent

Drainage class: Poorly drained

Ecological site: Clay Lowland (pe30-37)

Kennebec

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Muir

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

Sa—Shelby clay loam, 4 to 8 percent slopes

Map Unit Composition

Shelby: 88 percent
 Minor components: 12 percent

Component Descriptions

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 4 to 8 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 10.0 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 15 inches; clay loam

H2—15 to 43 inches; clay loam

H3—43 to 60 inches; clay loam

Minor Components**Burchard**

Composition: About 3 percent

Slope: 7 to 12 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 3 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 2 percent

Slope: 0 to 3 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 2 percent

Slope: 2 to 5 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Wymore

Composition: About 2 percent

Slope: 1 to 3 percent

Drainage class: Well drained

Ecological site: Clay Upland (pe30-37)

Sb—Shelby clay loam, 4 to 8 percent slopes, eroded

Map Unit Composition

Shelby: 85 percent
 Minor components: 15 percent

Component Descriptions

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 4 to 8 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 10.0 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 15 inches; clay loam

H2—15 to 43 inches; clay loam

H3—43 to 60 inches; clay loam

Minor Components**Burchard**

Phase: Eroded
Composition: About 3 percent
Slope: 7 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Olmitz

Composition: About 3 percent
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

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

Kennebec

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

Wymore

Phase: Eroded
Composition: About 2 percent
Slope: 2 to 5 percent
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Shelby

Phase: Sev Er
Composition: About 2 percent
Slope: 4 to 8 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Va—Vinland silty clay loam, 6 to 14 percent slopes**Map Unit Composition**

Vinland: 80 percent
 Minor components: 20 percent

Component Descriptions**Vinland**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Sandy and silty residuum weathered from shale

Slope: 6 to 14 percent

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

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.7 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): 6e

Typical Profile:

H1—0 to 11 inches; silty clay loam

H2—11 to 17 inches; silty clay loam

Cr—17 to 21 inches; weathered bedrock

Minor Components**Clime**

Composition: About 5 percent

Slope: 5 to 20 percent

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

Drainage class: Well drained

Ecological site: Limy Upland (pe30-37)

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)

Sogn

Composition: About 5 percent

Slope: 5 to 15 percent

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

Drainage class: Somewhat excessively drained

Ecological site: Shallow Limy (pe30-37)

Vb—Vinland-Rock outcrop complex, 20 to 40 percent slopes**Map Unit Composition**

Vinland: 35 percent
 Rock outcrop: 30 percent
 Minor components: 35 percent

Component Descriptions

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from shale

Slope: 20 to 30 percent

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

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 11 inches; silty clay loam

H2—11 to 17 inches; silty clay loam

Cr—17 to 21 inches; weathered bedrock

Rock outcrop

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Residuum weathered from limestone and dolomite

Drainage class: Somewhat excessively drained

Depth to seasonal water saturation: More than 6 feet

Land capability (nonirrigated): 8

Minor Components

Sogn

Composition: About 15 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 (pe30-37)

Clime

Composition: About 10 percent

Slope: 5 to 20 percent

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

Drainage class: Well drained

Ecological site: Limy Upland (pe30-37)

Martin

Composition: About 10 percent

Slope: 5 to 10 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Vc—Vinland-Sogn complex, 5 to 20 percent slopes

Map Unit Composition

Vinland: 45 percent

Sogn: 40 percent

Minor components: 15 percent

Component Descriptions

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Sandy and silty residuum weathered from shale

Slope: 5 to 20 percent

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

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.7 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): 6e

Typical Profile:

H1—0 to 11 inches; silty clay loam

H2—11 to 17 inches; silty clay loam

Cr—17 to 21 inches; weathered 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 2.4 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)

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

Minor Components

Rock outcrop

Composition: About 6 percent
Slope: 20 to 40 percent
Depth to restrictive feature: 0 inches to bedrock (lithic)

Clime

Composition: About 3 percent
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe30-37)

Martin

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

Pawnee

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

W—Water

Wa—Wabash silty clay, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Wabash: 90 percent
 Minor components: 10 percent

Component Descriptions

Wabash

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Silty and clayey alluvium
Slope: 0 to 1 percent
Drainage class: Poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 6.6 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 24 inches; silty clay
 H2—24 to 60 inches; silty clay

Minor Components

Chase

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

Kennebec

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

Olmitz

Composition: About 2 percent
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Reading

Composition: About 2 percent
Slope: 0 to 2 percent

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

WAA—Wabash silty clay loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Wabash: 85 percent
 Minor components: 15 percent

Component Descriptions

Wabash

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on 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 6.9 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 8 inches; silty clay loam
 H2—8 to 60 inches; silty clay

Minor Components

Chase

Composition: About 8 percent

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 7 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe30-37)

Wb—Wymore silty clay loam, 1 to 3 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

Parent material: Silty and clayey loess

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 9 to 14 inches

Runoff class: High

Ecological site: Clay Upland (pe30-37)

Land capability (irrigated): 2e

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 10 inches; silty clay loam
 H2—10 to 32 inches; silty clay
 H3—32 to 60 inches; silty clay loam

Minor Components

Shelby

Composition: About 5 percent

Slope: 4 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)

Martin

Composition: About 5 percent

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Wc—Wymore silty clay loam, 2 to 5 percent slopes, eroded**Map Unit Composition**

Wymore: 88 percent
 Minor components: 12 percent

Component Descriptions**Wymore**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Silty and clayey loess

Slope: 2 to 5 percent

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 9 to 14 inches

Runoff class: High

Ecological site: Clay Upland (pe30-37)

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; silty clay loam

H2—10 to 32 inches; silty clay

H3—32 to 60 inches; silty clay loam

Minor Components**Shelby**

Phase: Eroded

Composition: About 4 percent

Slope: 4 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Pawnee

Phase: Eroded

Composition: About 4 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Martin

Phase: Eroded

Composition: About 4 percent

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Za—Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded**Map Unit Composition**

Zook: 90 percent
 Minor components: 10 percent

Component Descriptions**Zook**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on river valley

Parent material: Silty and clayey alluvium

Slope: 0 to 2 percent

Drainage class: Poorly drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 2 to 9 inches

Runoff class: High

Ecological site: Clay Lowland (pe30-37)

Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 18 inches; silty clay loam

H2—18 to 60 inches; silty clay loam

Minor Components**Kennebec**

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Chase

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Ecological site: Loamy Lowland (pe30-37)

Reading

Phase: Rare

Composition: About 2 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 2 percent

Slope: 2 to 5 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)