

007AE—Albion and Shellabarger soils, 4 to 15 percent slopes

Map Unit Composition

Albion: 55 percent
Shellabarger: 45 percent

Component Descriptions

Albion

MLRA: 79 - Great Bend Sand Plains
Landform: Paleoterrace on river valley
Parent material: Loamy alluvium
Slope: 4 to 15 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 5.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy (pe20-25)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; sandy loam
H2—8 to 16 inches; sandy loam
H3—16 to 27 inches; loamy sand
H4—27 to 60 inches; sand

Shellabarger

MLRA: 79 - Great Bend Sand Plains
Landform: Paleoterrace on river valley
Parent material: Loamy alluvium
Slope: 4 to 15 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy (pe20-25)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 14 inches; sandy loam

H2—14 to 48 inches; sandy clay loam
H3—48 to 60 inches; coarse sandy loam

Minor Components

Unnamed Wet Soils

Phase: Sandy, Drainageway

007AS—Clairemont Soils, Saline, channeled

Map Unit Composition

Clairemont: 100 percent

Component Descriptions

Clairemont

MLRA: 80A - Central Rolling Red Prairies
Landform: Flood plain
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 7.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Saline Lowland (pe20-25)
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 8 inches; silt loam
H2—8 to 60 inches; loam

Minor Components

Unnamed Wet Soils

Phase: Sandy, Depression

Unnamed Wet Soils

Phase: Sandy, Drainageway

007FU—Farnum clay loam, 1 to 3 percent slopes, eroded**Map Unit Composition**

Farnum: 100 percent

Component Descriptions**Farnum**

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Alluvium

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.4 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 (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; clay loam

H2—9 to 60 inches; clay loam

Available water capacity: Low (About 4.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Frequent

Depth to seasonal water saturation: About 0 to 36 inches

Runoff class: Negligible

Ecological site: Subirrigated (pe24-32)

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 7 inches; loamy fine sand

H2—7 to 48 inches; loamy fine sand

095AD—Albion sandy loam, 6 to 15 percent slopes**Map Unit Composition**

Albion: 100 percent

Component Descriptions**Albion**

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 6 to 15 percent

Drainage class: Well drained

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

Available water capacity: Low (About 5.8 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: Sandy (pe24-32)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; sandy loam

H2—8 to 16 inches; sandy loam

H3—16 to 26 inches; coarse sandy loam

H4—26 to 60 inches; gravelly sand

007KA—Kanza Soils, frequently flooded**Map Unit Composition**

Kanza: 100 percent

Component Descriptions**Kanza**

MLRA: 79 - Great Bend Sand Plains

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Poorly drained

Slowest permeability: Rapid (About 5.95 in/hr)

095DA—Dillwyn-Plevna complex, occasionally flooded

Map Unit Composition

Dillwyn: 60 percent
Plevna: 40 percent

Component Descriptions

Dillwyn

MLRA: 79 - Great Bend Sand Plains
Landform: Dune on paleoterrace on river valley,
interdune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 12 to
36 inches
Runoff class: Negligible
Ecological site: Subirrigated (pe24-32)
Land capability (nonirrigated): 4w

Typical Profile:

H1—0 to 8 inches; loamy fine sand
H2—8 to 60 inches; loamy fine sand

Plevna

MLRA: 79 - Great Bend Sand Plains
Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Poorly drained
Slowest permeability: Moderately rapid (About
2.00 in/hr)
Available water capacity: Moderate (About 6.5
inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: About 0 to
24 inches
Runoff class: Negligible
Ecological site: Subirrigated (pe24-32)
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 11 inches; fine sandy loam
H2—11 to 36 inches; fine sandy loam
H3—36 to 60 inches; sand

Minor Components Unnamed Wet Soils

Phase: Sandy, Depression

095LA—Lincoln loamy sand, occasionally flooded

Map Unit Composition

Lincoln: 100 percent

Component Descriptions

Lincoln

MLRA: 80A - Central Rolling Red Prairies
Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 3.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 60 to
72 inches
Runoff class: Negligible
Ecological site: Sandy Lowland (pe24-32)
Land capability (nonirrigated): 6w

Typical Profile:

H1—0 to 10 inches; loamy fine sand
H2—10 to 60 inches; stratified fine sand to
clay loam

Minor Components Unnamed Wet Soils

Phase: Sandy, Drainageway

095NB—Nashville-Quinlan complex, 5 to 15 percent slopes

Map Unit Composition

Nashville: 60 percent
Quinlan: 40 percent

Component Descriptions

Nashville

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 5 to 12 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 6.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 28 inches; silt loam

Cr—28 to 28 inches; weathered bedrock

Quinlan

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 5 to 15 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 2.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Shallow Prairie (pe24-32)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 13 inches; loam

Cr—13 to 13 inches; weathered bedrock

Minor Components

Unnamed Wet Soils

Phase: Loamy, Depression

Unnamed Wet Soils

Phase: Loamy, Drainageway

095SA—Shellabarger loamy sand, 0 to 3 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; loamy sand

H2—12 to 38 inches; sandy clay loam

H3—38 to 60 inches; fine sandy loam

095SC—Shellabarger sandy loam, 3 to 6 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

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

095SD—Shellabarger sandy loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains
Landform: Paleoterrace on river valley
Parent material: Loamy alluvium
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

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

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway

095ZA—Zenda clay loam, occasionally flooded

Map Unit Composition

Zenda: 100 percent

Component Descriptions

Zenda

MLRA: 80A - Central Rolling Red Prairies
Landform: Dune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 24 to 48 inches
Runoff class: Very low
Ecological site: Subirrigated (pe24-32)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 13 inches; clay loam
 H2—13 to 60 inches; clay loam

Minor Components

Unnamed Wet Soils

Phase: Loamy, Depression

191EA—Elandco silty clay loam, rarely flooded

Map Unit Composition

Elandco: 100 percent

Component Descriptions

Elandco

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe24-32)
Land capability (nonirrigated): 2w

Typical Profile:
 H1—0 to 40 inches; silty clay loam
 H2—40 to 62 inches; silty clay loam

Minor Components
Unnamed Wet Soils
Phase: Clayey, Drainageway

Unnamed Wet Soils
Phase: Clayey, Depression

191EC—Elandco silt loam, frequently flooded

Map Unit Composition

Elandco: 100 percent

Component Descriptions

Elandco
MLRA: 80A - Central Rolling Red Prairies
Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Frequent

Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe24-32)
Land capability (nonirrigated): 5w

Typical Profile:
 H1—0 to 40 inches; silt loam
 H2—40 to 62 inches; silty clay loam

Minor Components
Unnamed Wet Soils
Phase: Clayey, Drainageway

Unnamed Wet Soils
Phase: Clayey, Depression

191LS—Lincoln Soils, frequently flooded

Map Unit Composition

Lincoln: 100 percent

Component Descriptions

Lincoln
MLRA: 80A - Central Rolling Red Prairies
Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 3.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: About 60 to 72 inches
Runoff class: Negligible
Ecological site: Sandy Lowland (pe24-32)
Land capability (nonirrigated): 6w

Typical Profile:
 H1—0 to 11 inches; loamy fine sand
 H2—11 to 60 inches; stratified fine sand to clay loam

Minor Components
Unnamed Wet Soils
Phase: Sandy, Drainageway

191OP—Wellsford-Elandco complex, 0 to 25 percent slopes

Map Unit Composition

Wellsford: 65 percent
Elandco: 35 percent

Component Descriptions

Wellsford

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 2 to 25 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Very low (About 1.7 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Red Clay Prairie (pe24-32)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; clay loam
H2—5 to 17 inches; clay
H3—17 to 21 inches; weathered bedrock

Elandco

MLRA: 80A - Central Rolling Red Prairies
Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible

Ecological site: Loamy Lowland (pe24-32)
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 40 inches; silt loam
H2—40 to 62 inches; silty clay loam

191PD—Pond Creek silty clay loam, 2 to 6 percent slopes, eroded

Map Unit Composition

Pond Creek: 100 percent

Component Descriptions

Pond Creek

MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace
Parent material: Alluvium
Slope: 2 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silty clay loam
H2—12 to 68 inches; silty clay loam

191RA—Renfrow-Grainola complex, 1 to 3 percent slopes

Map Unit Composition

Renfrow: 70 percent
Grainola: 30 percent

Component Descriptions

Renfrow

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 1 to 3 percent

Drainage class: Well drained

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

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Clay Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; clay loam

H2—9 to 13 inches; silty clay loam

H3—13 to 75 inches; silty clay loam

Grainola

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 1 to 3 percent

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

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 5.5 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Clay Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; silt loam

H2—8 to 28 inches; silty clay

H3—28 to 36 inches; clay

H4—36 to 42 inches; weathered bedrock

191TA—Tabler silty clay loam, 0 to 1 percent slopes

Map Unit Composition

Tabler: 100 percent

Component Descriptions

Tabler

MLRA: 80A - Central Rolling Red Prairies

Landform: Paleoterrace on river valley

Parent material: Clayey alluvium

Slope: 0 to 1 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 9.8 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 30 to 42 inches

Runoff class: Negligible

Ecological site: Clay Upland (pe24-32)

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 10 inches; silty clay loam

H2—10 to 30 inches; silty clay

H3—30 to 60 inches; silty clay

191US—Ustifluvents, channeled

Minor Components

Unnamed Wet Soils

Phase: Sandy, Drainageway

1439—Crisfield sandy loam, rarely flooded

Map Unit Composition

Crisfield: 100 percent

Component Descriptions

Crisfield

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace on river valley

Parent material: Alluvium

Slope: 0 to 2 percent

Drainage class: Moderately well drained

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

Available water capacity: Low (About 4.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: About 40 to 73 inches

Runoff class: Negligible

Ecological site: Sandy Terrace (pe24-32)

Land capability (nonirrigated): 3s

Typical Profile:

H1—0 to 12 inches; sandy loam

H2—12 to 24 inches; sandy loam

H3—24 to 80 inches; coarse sand

Minor Components

Unnamed Wet Soils

Phase: Loamy, Depression

An—Kaski loam, frequently flooded

Map Unit Composition

Kaski: 100 percent

Component Descriptions

Kaski

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.5 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Frequent

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Loamy Lowland (pe24-32)

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 26 inches; loam

H2—26 to 40 inches; clay loam

H3—40 to 60 inches; sandy loam

Minor Components

Unnamed Wet Soils

Phase: Sandy, Drainageway

At—Attica fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Attica: 100 percent

Component Descriptions

Attica

MLRA: 79 - Great Bend Sand Plains

Landform: Dune on paleoterrace on river valley

Parent material: Eolian deposits

Slope: 1 to 3 percent

Drainage class: Well drained

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

Available water capacity: Moderate (About 8.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 10 inches; fine sandy loam

H2—10 to 39 inches; fine sandy loam

H3—39 to 60 inches; fine sandy loam

Be—Bethany silt loam, 0 to 1 percent slopes**Map Unit Composition**

Bethany: 100 percent

Component Descriptions**Bethany**

MLRA: 80A - Central Rolling Red Prairies

Landform: Paleoterrace on upland

Parent material: Alluvium and/or loess over shale

Slope: 0 to 1 percent

Drainage class: 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: More than 6 feet

Runoff class: Very low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 13 inches; silt loam

H2—13 to 17 inches; silty clay loam

H3—17 to 60 inches; silty clay loam

Minor Components**Unnamed Wet Soils**

Phase: Clayey, Depression

Bh—Bethany silt loam, 1 to 3 percent slopes**Map Unit Composition**

Bethany: 100 percent

Component Descriptions**Bethany**

MLRA: 80A - Central Rolling Red Prairies

Landform: Paleoterrace on upland

Parent material: Alluvium and/or loess over shale

Slope: 1 to 3 percent

Drainage class: 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: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; silt loam

H2—13 to 17 inches; silty clay loam

H3—17 to 60 inches; silty clay loam

Bm—Lincoln loamy fine sand, occasionally flooded**Map Unit Composition**

Lincoln: 100 percent

Component Descriptions**Lincoln**

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 60 to 72 inches

Runoff class: Negligible

Ecological site: Sands (pe24-32)

Land capability (nonirrigated): 4s

Typical Profile:

H1—0 to 21 inches; loamy fine sand

H2—21 to 60 inches; stratified fine sand to clay loam

Minor Components
Unnamed Wet Soils
Phase: Sandy, Drainageway

Bo—Gerlane Variant loamy fine sand, occasionally flooded

Map Unit Composition

Gerlane: 100 percent

Component Descriptions

Gerlane
MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.3 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 48 to 72 inches
Runoff class: Negligible
Ecological site: Sands (pe24-32)
Land capability (nonirrigated): 5w

Typical Profile:
 H1—0 to 4 inches; loamy fine sand
 H2—4 to 30 inches; stratified loamy sand to fine sandy loam
 H3—30 to 60 inches; clay

Bp—Woodward-Port complex, 0 to 20 percent slopes

Map Unit Composition

Woodward: 65 percent
 Port: 35 percent

Component Descriptions

Woodward
MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 24 inches; silt loam
 Cr—24 to 24 inches; weathered bedrock

Port
MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace on river valley
Parent material: Alluvium
Slope: 0 to 3 percent
Drainage class: 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: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Lowland (pe24-32)
Land capability (nonirrigated): 5w

Typical Profile:
 H1—0 to 27 inches; silt loam
 H2—27 to 60 inches; silty clay loam

Minor Components
Unnamed Wet Soils
Phase: Sandy, Depression

Unnamed Wet Soils
Phase: Sandy, Drainageway

Br—Fluents, Frequently flooded**Map Unit Composition**

Fluents: 100 percent

Component Descriptions**Fluents**

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 30 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 11.9 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Frequent

Runoff class: High

Land capability (nonirrigated): 6w

Typical Profile:

H1—0 to 6 inches; silt loam

H2—6 to 60 inches; silt loam

Ca—Carwile fine sandy loam, 0 to 1 percent slopes**Map Unit Composition**

Carwile: 100 percent

Component Descriptions**Carwile**

MLRA: 80A - Central Rolling Red Prairies

Landform: Depression on paleoterrace on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.4 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 14 inches; fine sandy loam

H2—14 to 20 inches; sandy clay loam

H3—20 to 60 inches; clay

Minor Components**Unnamed Wet Soils**

Phase: Loamy, Depression

Cc—Case-Clark complex, 2 to 6 percent slopes**Map Unit Composition**

Case: 70 percent

Clark: 30 percent

Component Descriptions**Case**

MLRA: 80A - Central Rolling Red Prairies

Landform: Paleoterrace on river valley

Parent material: Alluvium

Slope: 2 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Limy Upland (pe24-32)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; clay loam

H2—7 to 60 inches; clay loam

Clark

MLRA: 80A - Central Rolling Red Prairies

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium
Slope: 2 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.3 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Limy Upland (pe24-32)
Land capability (nonirrigated): 4e

Typical Profile:
 H1—0 to 8 inches; loam
 H2—8 to 60 inches; clay loam

Ce—Corbin silt loam, 0 to 1 percent slopes

Map Unit Composition

Corbin: 100 percent

Component Descriptions

Corbin
MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: 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: More than 6 feet
Runoff class: Very low
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 1

Typical Profile:
 H1—0 to 16 inches; silt loam
 H2—16 to 30 inches; silty clay loam
 H3—30 to 55 inches; clay
 H4—55 to 60 inches; silty clay loam

Cf—Corbin silt loam, 1 to 3 percent slopes

Map Unit Composition

Corbin: 100 percent

Component Descriptions

Corbin
MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Alluvium
Slope: 1 to 3 percent
Drainage class: 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: More than 6 feet
Runoff class: Low
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 2e

Typical Profile:
 H1—0 to 16 inches; silt loam
 H2—16 to 30 inches; silty clay loam
 H3—30 to 55 inches; clay
 H4—55 to 60 inches; silty clay loam

Fa—Farnum clay loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Farnum: 100 percent

Component Descriptions

Farnum
MLRA: 79 - Great Bend Sand Plains
Landform: Paleoterrace on river valley
Parent material: Alluvium
Slope: 3 to 6 percent

Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 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 (pe24-32)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; clay loam
 H2—7 to 41 inches; clay loam
 H3—41 to 60 inches; clay loam

Fm—Farnum loam, 0 to 1 percent slopes

Map Unit Composition

Farnum: 100 percent

Component Descriptions

Farnum

MLRA: 79 - Great Bend Sand Plains
Landform: Paleoterrace on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 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: Very low
Ecological site: Loamy Upland (pe24-32)
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:

H1—0 to 11 inches; loam
 H2—11 to 41 inches; clay loam

H3—41 to 60 inches; clay loam

Minor Components

Unnamed Wet Soils

Phase: Loamy, Depression

Fn—Farnum loam, 1 to 3 percent slopes

Map Unit Composition

Farnum: 100 percent

Component Descriptions

Farnum

MLRA: 79 - Great Bend Sand Plains
Landform: Paleoterrace on river valley
Parent material: Alluvium
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 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: Low
Ecological site: Loamy Upland (pe24-32)
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 11 inches; loam
 H2—11 to 41 inches; clay loam
 H3—41 to 60 inches; clay loam

Fu—Farnum loam, 3 to 6 percent slopes

Map Unit Composition

Farnum: 100 percent

Component Descriptions

Farnum

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Alluvium

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.1 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; loam

H2—11 to 41 inches; clay loam

H3—41 to 60 inches; clay loam

Ge—Gerlane fine sandy loam, occasionally flooded

Map Unit Composition

Gerlane: 100 percent

Component Descriptions

Gerlane

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Moderately well drained

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

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 24 to 72 inches

Runoff class: Very low

Ecological site: Subirrigated (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 17 inches; fine sandy loam

H2—17 to 40 inches; fine sandy loam

H3—40 to 48 inches; loamy sand

H4—48 to 60 inches; clay loam

Minor Components

Unnamed Wet Soils

Phase: Sandy, Drainageway

Gn—Grant silt loam, 0 to 1 percent slopes

Map Unit Composition

Grant: 100 percent

Component Descriptions

Grant

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace on upland

Parent material: Residuum

Slope: 0 to 1 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.57 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 11 inches; silt loam

H2—11 to 33 inches; silty clay loam

H3—33 to 50 inches; silt loam

Cr—50 to 50 inches; weathered bedrock

Gr—Grant silt loam, 1 to 3 percent slopes

Map Unit Composition

Grant: 100 percent

Component Descriptions

Grant

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace on upland

Parent material: Residuum

Slope: 1 to 3 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.57 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 11 inches; silt loam

H2—11 to 33 inches; silty clay loam

H3—33 to 50 inches; silt loam

Cr—50 to 50 inches; weathered bedrock

Landform: Terrace on upland

Parent material: Residuum

Slope: 3 to 6 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.57 in/hr)

Available water capacity: High (About 9.2 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 (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; silt loam

H2—11 to 33 inches; silty clay loam

H3—33 to 50 inches; silt loam

Cr—50 to 60 inches; weathered bedrock

INT—Aquolls

Ka—Kanza loamy fine sand, frequently flooded

Map Unit Composition

Kanza: 100 percent

Component Descriptions

Kanza

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Poorly drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Frequent

Depth to seasonal water saturation: About 0 to 36 inches

Runoff class: Negligible

GRP—Gravel Pits

Gs—Grant silt loam, 3 to 6 percent slopes

Map Unit Composition

Grant: 100 percent

Component Descriptions

Grant

MLRA: 80A - Central Rolling Red Prairies

Ecological site: Subirrigated (pe24-32)
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 8 inches; loamy fine sand
 H2—8 to 60 inches; loamy fine sand

Minor Components

Unnamed Wet Soils

Phase: Sandy, Drainageway

Kk—Kaski loam, occasionally flooded

Map Unit Composition

Kaski: 100 percent

Component Descriptions

Kaski

MLRA: 80A - Central Rolling Red Prairies
Landform: Flood plain on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe24-32)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 19 inches; loam
 H2—19 to 40 inches; loam
 H3—40 to 60 inches; sandy loam

Minor Components

Wet Alluvial Land

Km—Kirkland silt loam, 0 to 1 percent slopes

Map Unit Composition

Kirkland: 100 percent

Component Descriptions

Kirkland

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Clay Upland (pe24-32)
Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 12 inches; silt loam
 H2—12 to 34 inches; silty clay
 H3—34 to 60 inches; clay

Kr—Kirkland-Renfrow clay loams, 1 to 3 percent slopes

Map Unit Composition

Kirkland: 70 percent

Renfrow: 30 percent

Component Descriptions

Kirkland

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 3 percent
Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Clay Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; clay loam
 H2—12 to 34 inches; silty clay
 H3—34 to 60 inches; clay

Renfrow

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Clay Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; clay loam
 H2—9 to 13 inches; clay loam
 H3—13 to 60 inches; clay

Kw—Kirkland-Renfrow Soils, 1 to 3 percent slopes, eroded

Map Unit Composition

Kirkland: 70 percent
 Renfrow: 30 percent

Component Descriptions

Kirkland

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Clay Upland (pe24-32)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; clay loam
 H2—6 to 34 inches; silty clay
 H3—34 to 60 inches; clay

Renfrow

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Clay Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

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

Mc—Minco silt loam, 0 to 1 percent slopes

Map Unit Composition

Minco: 100 percent

Component Descriptions

Minco

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Eolian deposits

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 11.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 42 inches; silt loam

H2—42 to 60 inches; silt loam

Available water capacity: High (About 11.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 42 inches; silt loam

H2—42 to 60 inches; silt loam

Mo—Minco silt loam, 3 to 6 percent slopes

Map Unit Composition

Minco: 100 percent

Component Descriptions

Minco

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Eolian deposits

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 11.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 42 inches; silt loam

H2—42 to 60 inches; silt loam

Mn—Minco silt loam, 1 to 3 percent slopes

Map Unit Composition

Minco: 100 percent

Component Descriptions

Minco

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Eolian deposits

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Na—Nashville silt loam, 0 to 1 percent slopes

Map Unit Composition

Nashville: 100 percent

Component Descriptions

Nashville

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 0 to 1 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 6.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 30 inches; silt loam

Cr—30 to 30 inches; weathered bedrock

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 6.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; silt loam

H2—12 to 30 inches; silt loam

Cr—30 to 30 inches; weathered bedrock

Nh—Nashville silt loam, 3 to 6 percent slopes

Map Unit Composition

Nashville: 100 percent

Component Descriptions

Nashville

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 3 to 6 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 6.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silt loam

Ne—Nashville silt loam, 1 to 3 percent slopes

Map Unit Composition

Nashville: 100 percent

Component Descriptions

Nashville

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 1 to 3 percent

H2—12 to 30 inches; silt loam
H3—30 to 60 inches; weathered bedrock

Nn—Nashville silt loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Nashville: 100 percent

Component Descriptions

Nashville

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 3 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; silt loam
H2—7 to 30 inches; silt loam
Cr—30 to 30 inches; weathered bedrock

No—Milan loam, 1 to 3 percent slopes

Map Unit Composition

Norge: 100 percent

Component Descriptions

Norge

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Alluvium
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.9 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 (pe24-32)
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 10 inches; loam
H2—10 to 60 inches; clay loam

Pc—Pond Creek silt loam, 0 to 1 percent slopes

Map Unit Composition

Pond Creek: 100 percent

Component Descriptions

Pond Creek

MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible

Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 13 inches; silt loam
 H2—13 to 60 inches; silty clay loam

Pd—Pond Creek silt loam, 1 to 3 percent slopes

Map Unit Composition

Pond Creek: 100 percent

Component Descriptions

Pond Creek

MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace
Parent material: Alluvium
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 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 (pe24-32)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; silt loam
 H2—13 to 60 inches; silty clay loam

Pe—Pond Creek silt loam, 3 to 6 percent slopes

Map Unit Composition

Pond Creek: 100 percent

Component Descriptions

Pond Creek

MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace
Parent material: Alluvium
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; silt loam
 H2—13 to 60 inches; silty clay loam

Pg—Pond Creek silt loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Pond Creek: 100 percent

Component Descriptions

Pond Creek

MLRA: 80A - Central Rolling Red Prairies
Landform: Terrace
Parent material: Alluvium
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; silt loam

H2—8 to 60 inches; silty clay loam

Ph—Dale silt loam, rarely flooded

Map Unit Composition

Dale: 100 percent

Component Descriptions

Dale

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: 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: Rare

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Loamy Terrace (pe24-32)

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 22 inches; silt loam

H2—22 to 60 inches; silt loam

Minor Components

Unnamed Wet Soils

Phase: Loamy, Depression

Unnamed Wet Soils

Phase: Loamy, Drainageway

Pk—Buttermilk silt loam, rarely flooded

Map Unit Composition

Port: 100 percent

Component Descriptions

Port

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: About 54 to 72 inches

Runoff class: Negligible

Ecological site: Saline Lowland (pe24-32)

Land capability (nonirrigated): 3s

Typical Profile:

H1—0 to 22 inches; silt loam

H2—22 to 44 inches; silt loam

H3—44 to 60 inches; silty clay loam

Minor Components

Slickspots

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Ecological site: Saline Lowland (pe24-32)

Unnamed Wet Soils

Phase: Loamy, Depression

Unnamed Wet Soils

Phase: Loamy, Drainageway

Pm—Pratt loamy fine sand, 3 to 8 percent slopes

Map Unit Composition

Pratt: 100 percent

Component Descriptions

Pratt

MLRA: 79 - Great Bend Sand Plains

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 3 to 8 percent

Drainage class: Well drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Moderate (About 6.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sands (pe24-32)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 12 inches; loamy fine sand

H2—12 to 36 inches; loamy fine sand

H3—36 to 60 inches; fine sand

Minor Components

Carwile

Unnamed Wet Soils

Phase: Sandy, Depression

Pn—Pratt loamy fine sand, siltstone substratum, 3 to 8 percent slopes

Map Unit Composition

Pratt: 100 percent

Component Descriptions

Pratt

MLRA: 79 - Great Bend Sand Plains

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 3 to 8 percent

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

Drainage class: Well drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sands (pe24-32)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 12 inches; loamy fine sand

H2—12 to 37 inches; loamy fine sand

Cr—37 to 37 inches; weathered bedrock

Minor Components

Carwile

Unnamed Wet Soils

Phase: Sandy, Depression

Po—Pratt-Carwile complex, 0 to 8 percent slopes

Map Unit Composition

Pratt: 65 percent

Carwile: 35 percent

Component Descriptions

Pratt

MLRA: 79 - Great Bend Sand Plains

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 3 to 8 percent

Drainage class: Well drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Moderate (About 6.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 24 inches
Runoff class: Low
Ecological site: Sands (pe24-32)
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 12 inches; loamy fine sand
 H2—12 to 36 inches; loamy fine sand
 H3—36 to 60 inches; fine sand

Carwile

MLRA: 79 - Great Bend Sand Plains
Landform: Depression on paleoterrace on river valley
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 0 to 0 inches
Runoff class: Negligible
Ecological site: Sandy (pe24-32)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 14 inches; fine sandy loam
 H2—14 to 20 inches; sandy clay loam
 H3—20 to 42 inches; clay
 H4—42 to 60 inches; sandy clay loam

Minor Components

Unnamed Wet Soils

Phase: Sandy, Depression

**Pt—Pratt-Tivoli loamy fine sands,
8 to 15 percent slopes**

Map Unit Composition

Pratt: 50 percent
 Tivoli: 50 percent

Component Descriptions

Pratt

MLRA: 79 - Great Bend Sand Plains
Landform: Dune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 8 to 15 percent
Drainage class: Well drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Moderate (About 6.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sands (pe24-32)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; loamy fine sand
 H2—12 to 20 inches; loamy fine sand
 H3—20 to 60 inches; fine sand

Tivoli

MLRA: 79 - Great Bend Sand Plains
Landform: Dune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 8 to 15 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 3.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sands (pe24-32)
Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 5 inches; loamy fine sand
 H2—5 to 60 inches; fine sand

Minor Components

Carwile

Unnamed Wet Soils

Phase: Sandy, Depression

Qa—Quinlan loam, 0 to 1 percent slopes

Map Unit Composition

Quinlan: 100 percent

Component Descriptions

Quinlan

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 0 to 1 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow Prairie (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; loam

Cr—9 to 9 inches; weathered bedrock

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Shallow Prairie (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; loam

Cr—9 to 9 inches; weathered bedrock

Qu—Quinlan loam, 3 to 6 percent slopes

Map Unit Composition

Quinlan: 100 percent

Component Descriptions

Quinlan

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 3 to 6 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Prairie (pe24-32)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 9 inches; loam

Cr—9 to 9 inches; weathered bedrock

Qn—Quinlan loam, 1 to 3 percent slopes

Map Unit Composition

Quinlan: 100 percent

Component Descriptions

Quinlan

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 1 to 3 percent

Rc—Renfrow-Vernon clay loams, 1 to 3 percent slopes

Map Unit Composition

Renfrow: 65 percent
Vernon: 35 percent

Component Descriptions

Renfrow

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Clay Upland (pe24-32)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; clay loam
H2—9 to 13 inches; clay loam
H3—13 to 60 inches; clay

Vernon

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Residuum
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Low (About 3.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Red Clay Prairie (pe24-32)
Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; clay loam
H2—7 to 24 inches; silty clay
H3—24 to 28 inches;
H4—28 to 80 inches; weathered bedrock

Re—Ruella loam, 0 to 1 percent slopes

Map Unit Composition

Ruella: 100 percent

Component Descriptions

Ruella

MLRA: 80A - Central Rolling Red Prairies
Landform: Hillslope on upland
Parent material: Alluvium
Slope: 0 to 1 percent
Depth to restrictive feature: 8 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 1.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Loamy Upland (pe24-32)
Land capability (nonirrigated): 2c

Typical Profile:

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

Rh—Ruella loam, 1 to 3 percent slopes

Map Unit Composition

Ruella: 100 percent

Component Descriptions

Ruella

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Alluvium

Slope: 1 to 3 percent

Depth to restrictive feature: 8 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 9 inches; loam

H2—9 to 60 inches; loam

Ru—Ruella loam, 3 to 6 percent slopes

Map Unit Composition

Ruella: 100 percent

Component Descriptions

Ruella

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Alluvium

Slope: 3 to 6 percent

Depth to restrictive feature: 8 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 9 inches; loam

H2—9 to 60 inches; loam

Sa—Lesho clay loam, saline, occasionally flooded

Map Unit Composition

Lesho: 100 percent

Component Descriptions

Lesho

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Somewhat poorly drained

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

Available water capacity: Moderate (About 7.4 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 24 to 48 inches

Runoff class: Negligible

Ecological site: Saline Subirrigated (pe24-32)

Land capability (irrigated): 4s

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 18 inches; clay loam

H2—18 to 36 inches; loam

H3—36 to 60 inches; coarse sand

Minor Components

Unnamed Wet Soils

Phase: Sandy, Depression

Sb—Shellabarger fine sandy loam, 0 to 1 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; fine sandy loam

H2—13 to 38 inches; sandy clay loam

H3—38 to 60 inches; coarse sandy loam

Se—Shellabarger fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; fine sandy loam

H2—13 to 38 inches; fine sandy loam

H3—38 to 60 inches; coarse sandy loam

Sf—Shellabarger fine sandy loam, 3 to 6 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; fine sandy loam

H2—13 to 38 inches; sandy clay loam

H3—38 to 60 inches; coarse sandy loam

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway

Sg—Shellabarger fine sandy loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; fine sandy loam

H2—13 to 38 inches; sandy clay loam

H3—38 to 60 inches; coarse sandy loam

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway

Parent material: Loamy alluvium over residuum weathered from permian shale

Slope: 1 to 3 percent

Depth to restrictive feature: 20 to 39 inches to bedrock (paralithic)

Drainage class: Well drained

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

Available water capacity: Low (About 4.9 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe21-28)

Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 8 inches; sandy loam

Bt1—8 to 18 inches; sandy clay loam

Bt2—18 to 26 inches; sandy clay loam

2C—26 to 32 inches; loam

Cr—32 to 80 inches; weathered bedrock

Component note: This soil was formerly mapped as Shellabarger, shale substratum. Included with this soil are small areas with a sandy clay loam surface texture.

SHH—Shellabarger sandy loam, 1 to 3 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Sh—Zellmont sandy loam, 1 to 3 percent slopes

Map Unit Composition

Zellmont: 100 percent

Component Descriptions

Zellmont

MLRA: 80A - Central Rolling Red Prairies

Landform: Strath terrace on river valley

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 10 inches; sandy loam

H2—10 to 45 inches; sandy clay loam

H3—45 to 60 inches; coarse sandy loam

Sk—Zellmont sandy loam, 3 to 6 percent slopes

Map Unit Composition

Zellmont: 100 percent

Component Descriptions

Zellmont

MLRA: 80A - Central Rolling Red Prairies

Landform: Strath terrace on river valley

Parent material: Loamy alluvium over residuum weathered from permian shale

Slope: 3 to 6 percent

Depth to restrictive feature: 20 to 39 inches to bedrock (paralithic)

Drainage class: Well drained

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

Available water capacity: Low (About 4.9 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe21-28)

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 8 inches; sandy loam

Bt1—8 to 18 inches; sandy clay loam

Bt2—18 to 26 inches; sandy clay loam

2C—26 to 32 inches; loam

Cr—32 to 80 inches; weathered bedrock

Component note: This soil was formerly mapped as Shellabarger, shale substratum. Included with this soil are small areas with a sandy clay loam surface texture.

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway

Sm—Zellmont sandy loam, 3 to 6 percent slopes, eroded

Map Unit Composition

Zellmont: 100 percent

Component Descriptions

Zellmont

MLRA: 80A - Central Rolling Red Prairies

Landform: Strath terrace on river valley

Parent material: Loamy alluvium over residuum weathered from permian shale

Slope: 3 to 6 percent

Depth to restrictive feature: 20 to 39 inches to bedrock (paralithic)

Drainage class: Well drained

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

Available water capacity: Low (About 4.9 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe21-28)

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 8 inches; sandy loam

Bt1—8 to 18 inches; sandy clay loam

Bt2—18 to 26 inches; sandy clay loam

2C—26 to 32 inches; loam

Cr—32 to 80 inches; weathered bedrock

Component note: This soil was formerly mapped as Shellabarger, shale substratum. Included with this soil are small areas with a sandy clay loam surface texture.

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway

Sn—Shellabarger loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Shellabarger: 100 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sands (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; loamy fine sand

H2—13 to 38 inches; sandy clay loam

H3—38 to 60 inches; coarse sandy loam

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 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: Sandy (pe24-32)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 13 inches; fine sandy loam

H2—13 to 38 inches; sandy clay loam

H3—38 to 60 inches; coarse sandy loam

Albion

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 7 to 15 percent

Drainage class: Well drained

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

Available water capacity: Low (About 5.8 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: Sandy (pe24-32)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; sandy loam

H2—6 to 21 inches; sandy loam

H3—21 to 60 inches; loamy sand

So—Shellabarger and Albion soils, 7 to 15 percent slopes

Map Unit Composition

Shellabarger: 70 percent

Albion: 30 percent

Component Descriptions

Shellabarger

MLRA: 79 - Great Bend Sand Plains

Landform: Paleoterrace on river valley

Parent material: Loamy alluvium

Slope: 7 to 15 percent

Drainage class: Well drained

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway

Sp—Drummond loam, 0 to 2 percent slopes

Map Unit Composition

Drummond: 100 percent

Component Descriptions

Drummond

MLRA: 80A - Central Rolling Red Prairies

Landform: Terrace on river valley

Parent material: Clayey and/or loamy alluvium

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

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

Available water capacity: Very low (About 2.8 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 24 to 48 inches

Runoff class: Low

Ecological site: Saline Lowland (pe24-32)

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 8 inches; loam

H2—8 to 30 inches; clay loam

H3—30 to 60 inches; variable

Minor Components

Unnamed Wet Soils

Phase: Clayey, Depression

Ta—Tabler clay loam, 0 to 1 percent slopes

Map Unit Composition

Tabler: 100 percent

Component Descriptions

Tabler

MLRA: 80A - Central Rolling Red Prairies

Landform: Paleoterrace on river valley

Parent material: Clayey alluvium

Slope: 0 to 1 percent

Drainage class: Moderately well drained

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

Available water capacity: High (About 9.8 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 30 to 42 inches

Runoff class: Very low

Ecological site: Clay Upland (pe24-32)

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 10 inches; clay loam

H2—10 to 33 inches; silty clay

H3—33 to 60 inches; silty clay

Minor Components

Unnamed Wet Soils

Phase: Clayey, Depression

Th—Tivoli fine sand, 8 to 15 percent slopes

Map Unit Composition

Tivoli: 100 percent

Component Descriptions

Tivoli

MLRA: 80A - Central Rolling Red Prairies

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 8 to 15 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Very low (About 3.0 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Choppy Sands (pe24-32)

Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 5 inches; fine sand

H2—5 to 60 inches; fine sand

Vr—Vernon-Renfrow complex, 2 to 6 percent slopes, eroded*Typical Profile:*

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

Map Unit Composition

Vernon: 60 percent
Renfrow: 40 percent

Component Descriptions**Vernon**

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 2 to 6 percent

Drainage class: Well drained

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

Available water capacity: Low (About 3.4 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Red Clay Prairie (pe24-32)

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 7 inches; clay loam
H2—7 to 24 inches; clay
H3—24 to 28 inches;

Renfrow

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 2 to 5 percent

Drainage class: Well drained

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

Available water capacity: Moderate (About 8.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Clay Upland (pe24-32)

Land capability (nonirrigated): 4e

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

Kingman: 100 percent

Component Descriptions**Kingman**

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Poorly drained

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

Available water capacity: High (About 9.8 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 0 to 24 inches

Runoff class: Negligible

Ecological site: Subirrigated (pe24-32)

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 10 inches; clay loam
H2—10 to 60 inches; sandy loam

Wd—Woodward-Quinlan loams, 0 to 1 percent slopes**Map Unit Composition**

Woodward: 50 percent
Quinlan: 50 percent

Component Descriptions**Woodward***MLRA:* 80A - Central Rolling Red Prairies*Landform:* Hillslope on upland*Parent material:* Residuum*Slope:* 1 to 2 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderate (About 0.60 in/hr)*Available water capacity:* Low (About 4.1 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Loamy Upland (pe24-32)*Land capability (nonirrigated):* 2e*Typical Profile:*

H1—0 to 24 inches; loam

Cr—24 to 24 inches; weathered bedrock

Quinlan*MLRA:* 80A - Central Rolling Red Prairies*Landform:* Hillslope on upland*Parent material:* Residuum*Slope:* 0 to 1 percent*Depth to restrictive feature:* 10 to 20 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderate (About 0.60 in/hr)*Available water capacity:* Very low (About 1.7 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Shallow Prairie (pe24-32)*Land capability (nonirrigated):* 3e*Typical Profile:*

H1—0 to 9 inches; loam

Cr—9 to 9 inches; weathered bedrock

We—Woodward-Quinlan loams, 1 to 3 percent slopes**Map Unit Composition**

Woodward: 50 percent

Quinlan: 50 percent

Component Descriptions**Woodward***MLRA:* 80A - Central Rolling Red Prairies*Landform:* Hillslope on upland*Parent material:* Residuum*Slope:* 1 to 3 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderate (About 0.60 in/hr)*Available water capacity:* Low (About 4.1 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Loamy Upland (pe24-32)*Land capability (nonirrigated):* 2e*Typical Profile:*

H1—0 to 24 inches; loam

Cr—24 to 24 inches; weathered bedrock

Quinlan*MLRA:* 80A - Central Rolling Red Prairies*Landform:* Hillslope on upland*Parent material:* Residuum*Slope:* 1 to 3 percent*Depth to restrictive feature:* 10 to 20 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderate (About 0.60 in/hr)*Available water capacity:* Very low (About 1.7 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Shallow Prairie (pe24-32)*Land capability (nonirrigated):* 3e

Typical Profile:

H1—0 to 9 inches; loam
Cr—9 to 9 inches; weathered bedrock

Minor Components**Unnamed Wet Soils**

Phase: Loamy, Drainageway

Ww—Woodward-Quinlan loams, 3 to 6 percent slopes

Map Unit Composition

Woodward: 50 percent
Quinlan: 50 percent

Component Descriptions

Woodward

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 3 to 6 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 4.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe24-32)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 24 inches; loam
Cr—24 to 24 inches; weathered bedrock

Quinlan

MLRA: 80A - Central Rolling Red Prairies

Landform: Hillslope on upland

Parent material: Residuum

Slope: 3 to 6 percent

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

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Prairie (pe24-32)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 9 inches; loam
Cr—9 to 9 inches; weathered bedrock

Minor Components**Unnamed Wet Soils**

Phase: Loamy, Drainageway

Za—Canadian fine sandy loam, rarely flooded

Map Unit Composition

Canadian: 100 percent

Component Descriptions

Canadian

MLRA: 80A - Central Rolling Red Prairies

Landform: Flood plain

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy Lowland (pe24-32)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 21 inches; fine sandy loam
H2—21 to 37 inches; fine sandy loam
H3—37 to 60 inches; loamy fine sand

Minor Components
Unnamed Wet Soils

Phase: Loamy, Drainageway

**Zf—Zenda fine sandy loam,
occasionally flooded**

Map Unit Composition

Zenda: 100 percent

Component Descriptions

Zenda

MLRA: 80A - Central Rolling Red Prairies

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 0 to 1 percent

Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60
in/hr)

Available water capacity: High (About 10.0
inches)

Shrink-swell potential: Moderate (About 4.5
LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 24 to
48 inches

Runoff class: Negligible

Ecological site: Subirrigated (pe24-32)

Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 15 inches; fine sandy loam

H2—15 to 60 inches; clay loam

Minor Components

Unnamed Wet Soils

Phase: Loamy, Drainageway