

Weld County, Colorado, Southern Part

46—Olney fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 362t

Elevation: 4,600 to 5,200 feet

Mean annual precipitation: 11 to 15 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 125 to 175 days

Farmland classification: Prime farmland if irrigated and the product of
I (soil erodibility) x C (climate factor) does not exceed 60

Map Unit Composition

Olney and similar soils: 85 percent

Minor components: 15 percent

*Estimates are based on observations, descriptions, and transects of
the mapunit.*

Description of Olney

Setting

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Mixed deposit outwash

Typical profile

H1 - 0 to 10 inches: fine sandy loam

H2 - 10 to 20 inches: sandy clay loam

H3 - 20 to 25 inches: sandy clay loam

H4 - 25 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.57 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0
to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: B

Ecological site: Sandy Plains (R067BY024CO)

Hydric soil rating: No

Minor Components

Zigweid

Percent of map unit: 8 percent

Hydric soil rating: No

Vona

Percent of map unit: 7 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 16, Oct 10, 2017

Weld County, Colorado, Southern Part

47—Olney fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 362v

Elevation: 4,600 to 5,200 feet

Mean annual precipitation: 11 to 15 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 125 to 175 days

Farmland classification: Prime farmland if irrigated and the product of
I (soil erodibility) x C (climate factor) does not exceed 60

Map Unit Composition

Olney and similar soils: 85 percent

Minor components: 15 percent

*Estimates are based on observations, descriptions, and transects of
the mapunit.*

Description of Olney

Setting

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Mixed deposit outwash

Typical profile

H1 - 0 to 10 inches: fine sandy loam

H2 - 10 to 20 inches: sandy clay loam

H3 - 20 to 25 inches: sandy clay loam

H4 - 25 to 60 inches: fine sandy loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.57 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0
to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: B

Ecological site: Sandy Plains (R067BY024CO)
Hydric soil rating: No

Minor Components

Zigweid

Percent of map unit: 10 percent
Hydric soil rating: No

Vona

Percent of map unit: 5 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part
Survey Area Data: Version 16, Oct 10, 2017

Weld County, Colorado, Southern Part

56—Renohill clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 3635

Elevation: 4,850 to 5,200 feet

Mean annual precipitation: 11 to 16 inches

Mean annual air temperature: 46 to 48 degrees F

Frost-free period: 100 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Renohill and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Renohill

Setting

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Residuum weathered from shale

Typical profile

H1 - 0 to 9 inches: clay loam

H2 - 9 to 32 inches: clay loam

H3 - 32 to 36 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 3 percent

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

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: D

Ecological site: Clayey Plains (R067BY042CO)

Hydric soil rating: No

Minor Components

Ulm

Percent of map unit: 10 percent

Hydric soil rating: No

Shingle

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 16, Oct 10, 2017

Weld County, Colorado, Southern Part

75—Vona sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 363v

Elevation: 4,650 to 4,950 feet

Mean annual precipitation: 13 to 15 inches

Mean annual air temperature: 48 to 55 degrees F

Frost-free period: 130 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Vona and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vona

Setting

Landform: Terraces

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

H1 - 0 to 6 inches: sandy loam

H2 - 6 to 28 inches: fine sandy loam

H3 - 28 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High
(1.98 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0
mmhos/cm)

Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Hydrologic Soil Group: A

Ecological site: Sandy Plains (R067BY024CO)

Hydric soil rating: No

Minor Components

Remmit

Percent of map unit: 11 percent

Hydric soil rating: No

Olney

Percent of map unit: 4 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 16, Oct 10, 2017



Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/ac</i>	<i>Lb/ac</i>	<i>Lb/ac</i>		<i>Pct</i>
46—Olney fine sandy loam, 0 to 1 percent slopes						
Olney	Sandy Plains	1,500	1,100	600	Sideoats grama	20
					Thickspike wheatgrass	10
					Sand dropseed	10
					Prairie sandreed	5
					Blue grama	—
47—Olney fine sandy loam, 1 to 3 percent slopes						
Olney	Sandy Plains	1,500	1,100	600	Sideoats grama	20
					Thickspike wheatgrass	10
					Sand dropseed	10
					Prairie sandreed	5
					Blue grama	—
56—Renohill clay loam, 0 to 3 percent slopes						
Renohill	Clayey Plains	1,600	1,000	600	Western wheatgrass	30
					Miscellaneous perennial grasses	5
					Blue grama	—
					Alkali sacaton	—
75—Vona sandy loam, 0 to 1 percent slopes						
Vona	Sandy Plains	2,000	1,700	1,200	Prairie sandreed	20
					Sand bluestem	10
					Switchgrass	10
					Little bluestem	5
					Sand sagebrush	5
					Sideoats grama	5
					Needleandthread	5
					Western wheatgrass	5
					Blue grama	—