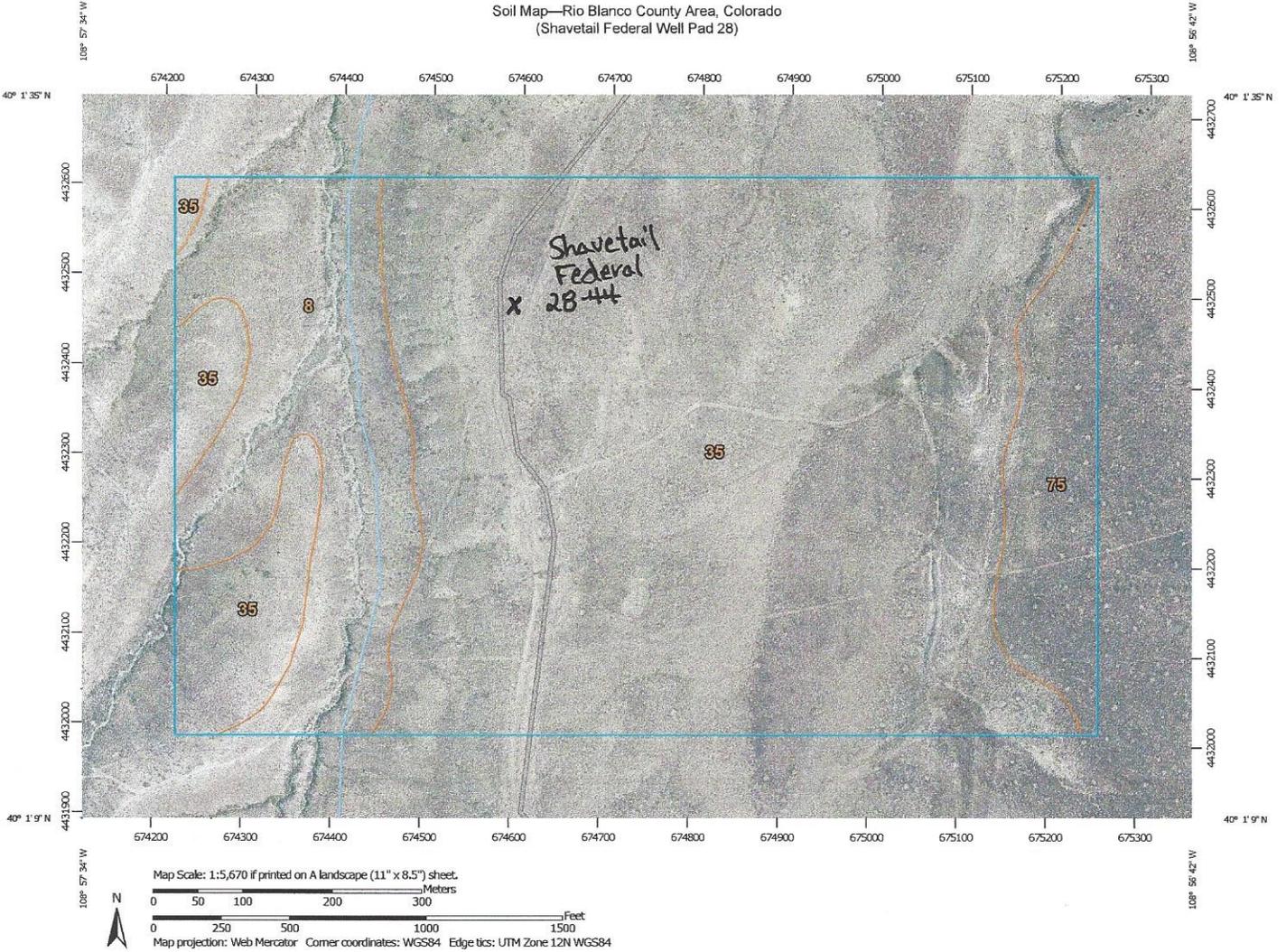


Soil Map—Rio Blanco County Area, Colorado
(Shavetail Federal Well Pad 28)



Soil Map—Rio Blanco County Area, Colorado
(Shavetail Federal Well Pad 28)

MAP LEGEND

Area of Interest (AOI)	 Area of Interest (AOI)	 Spoil Area
Soils	 Soil Map Unit Polygons	 Stony Spot
	 Soil Map Unit Lines	 Very Stony Spot
	 Soil Map Unit Points	 Wet Spot
Special Point Features		 Other
 Blowout		 Special Line Features
 Borrow Pit	Water Features	 Streams and Canals
 Clay Spot	Transportation	 Rails
 Closed Depression	 Interstate Highways	 US Routes
 Gravel Pit	 Major Roads	 Local Roads
 Gravelly Spot	Background	 Aerial Photography
 Landfill		
 Lava Flow		
 Marsh or swamp		
 Mine or Quarry		
 Miscellaneous Water		
 Perennial Water		
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rio Blanco County Area, Colorado
Survey Area Data: Version 10, Sep 22, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 27, 2010—Jun 28, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Rio Blanco County Area, Colorado (CO685)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
8	Billings-Torrifluvents complex, gullied, 0 to 5 percent slopes	27.2	17.1%
35	Gaynor-Midway silty clay loams, dry, 2 to 25 percent slopes	119.7	75.3%
75	Rentsac-Piceance complex, 2 to 30 percent slopes	12.0	7.6%
Totals for Area of Interest		158.8	100.0%

Custom Soil Resource Report

Landform position (three-dimensional): Dip, rise, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous, mixed alluvium derived from shale

Typical profile

H1 - 0 to 5 inches: loam
H2 - 5 to 60 inches: stratified sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 5 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): Moderately high to high
(0.20 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (4.0 to 8.0 mmhos/cm)
Available water storage in profile: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A

35—Gaynor-Midway silty clay loams, dry, 2 to 25 percent slopes

Map Unit Setting

National map unit symbol: jp4s
Elevation: 5,200 to 5,800 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 105 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Gaynor and similar soils: 50 percent
Midway and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gaynor

Setting

Landform: Ridges, hills, knolls
Landform position (three-dimensional): Base slope, side slope, nose slope, head slope

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous residuum weathered from shale

Typical profile

H1 - 0 to 2 inches: silty clay loam
H2 - 2 to 29 inches: silty clay loam, silty clay, clay
H2 - 2 to 29 inches: weathered bedrock
H2 - 2 to 29 inches:
H3 - 29 to 33 inches:

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: High
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: 10 percent
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: Silty salted desert (R034XY410CO)

Description of Midway

Setting

Landform: Hills
Landform position (three-dimensional): Head slope, nose slope, side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous residuum weathered from shale

Typical profile

H1 - 0 to 4 inches: silty clay loam
H2 - 4 to 13 inches: clay, clay loam, silty clay loam
H2 - 4 to 13 inches: weathered bedrock
H2 - 4 to 13 inches:
H3 - 13 to 17 inches:

Properties and qualities

Slope: 2 to 25 percent
Depth to restrictive feature: 6 to 20 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Gypsum, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to slightly saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 15.0
Available water storage in profile: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D

75—Rentsac-Piceance complex, 2 to 30 percent slopes

Map Unit Setting

National map unit symbol: jp66
Elevation: 6,000 to 7,600 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 42 to 45 degrees F
Frost-free period: 80 to 105 days
Farmland classification: Not prime farmland

Map Unit Composition

Rentsac and similar soils: 60 percent
Piceance and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rentsac

Setting

Landform: Ridges
Landform position (three-dimensional): Upper third of mountainflank
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from sandstone

Typical profile

H1 - 0 to 5 inches: channery loam
H2 - 5 to 16 inches: extremely channery loam, extremely gravelly sandy loam, very flaggy loam
H2 - 5 to 16 inches: unweathered bedrock
H2 - 5 to 16 inches:
H3 - 16 to 20 inches:

Properties and qualities

Slope: 8 to 30 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Very high