

# Producer Farm Data Report

Crop Year : 2025

Date: 7/10/25 9:29 AM CST  
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## Producer Name and Address

THOMAS, ROY, ZEB (Deceased)  
301 E 3RD ST  
SEDALIA, MO 65301-4335  
Telephone: (660) 347-5902

## Recording County Office Name

PETTIS, MISSOURI

Number of Farms	Number of Tracts	Farmland	Cropland	DCP Cropland	CRP Cropland	Eff DCP Cropland	Total Base Acres
1	3	485.68	341.62	341.62	0	341.62	265.16

Admin State & County	ARC/PLC Elig	Farm	Tract / Physical Location	Relationship to Farm / Tract	Producer	Farmland	Cropland	DCP Cropland	CRP Cropland	Eff DCP Cropland	Total Base Acres	HEL Code	Wetland Code
PETTIS, MO	EG	7882	3396 PETTIS, MO	Operator	ROBERTSON, JAMES, STEPHEN	152.18	90.94	90.94	0.00	90.94	85.30	02	NC
				Owner	THOMAS, ROY, ZEB (Deceased)								
				Other Tenant	BIRDWELL, BRENT								
				Other Tenant	JAMES S ROBERTSON - OSCAR 10 FARMS								
		10894 PETTIS, MO		Operator	ROBERTSON, JAMES, STEPHEN	132.10	102.38	102.38	0.00	102.38	67.00	02	NC
				Owner	THOMAS, ROY, ZEB (Deceased)								
				Other Tenant	BIRDWELL, BRENT								
				Other Tenant	MCCOLLESTER, ANDREW								
		12845 PETTIS, MO		Operator	ROBERTSON, JAMES, STEPHEN	201.40	148.30	148.30	0.00	148.30	112.86	02	NC
				Owner	THOMAS, ROY, ZEB (Deceased)								
				Other Tenant	BIRDWELL, BRENT								

## HEL Codes:

01 = HEL determinations not completed for all fields on the tract  
02 = HEL field on tract. Conservation system being actively applied  
03 = HEL field on tract. Conservation system is not required - no agricultural commodity  
04 = HEL field on tract. 2 years to implement conservation system on former CRP land  
05 = HEL field on tract. Conservation system not being actively applied  
06 = NH: No agricultural commodity planted on undetermined fields

## Wetland Codes:

NC = Wetland determinations not complete  
TN = Tract does not contain a wetland  
TY = Tract contains a wetland or farmed wetland  
CW = Converted wetland  
PCW = Planted converted wetland

## ARC/PLC Elig Codes:

CG = Ineligible - Complete G/I/F History  
EG = Eligible  
IG = Partial or Missing G/I/F History



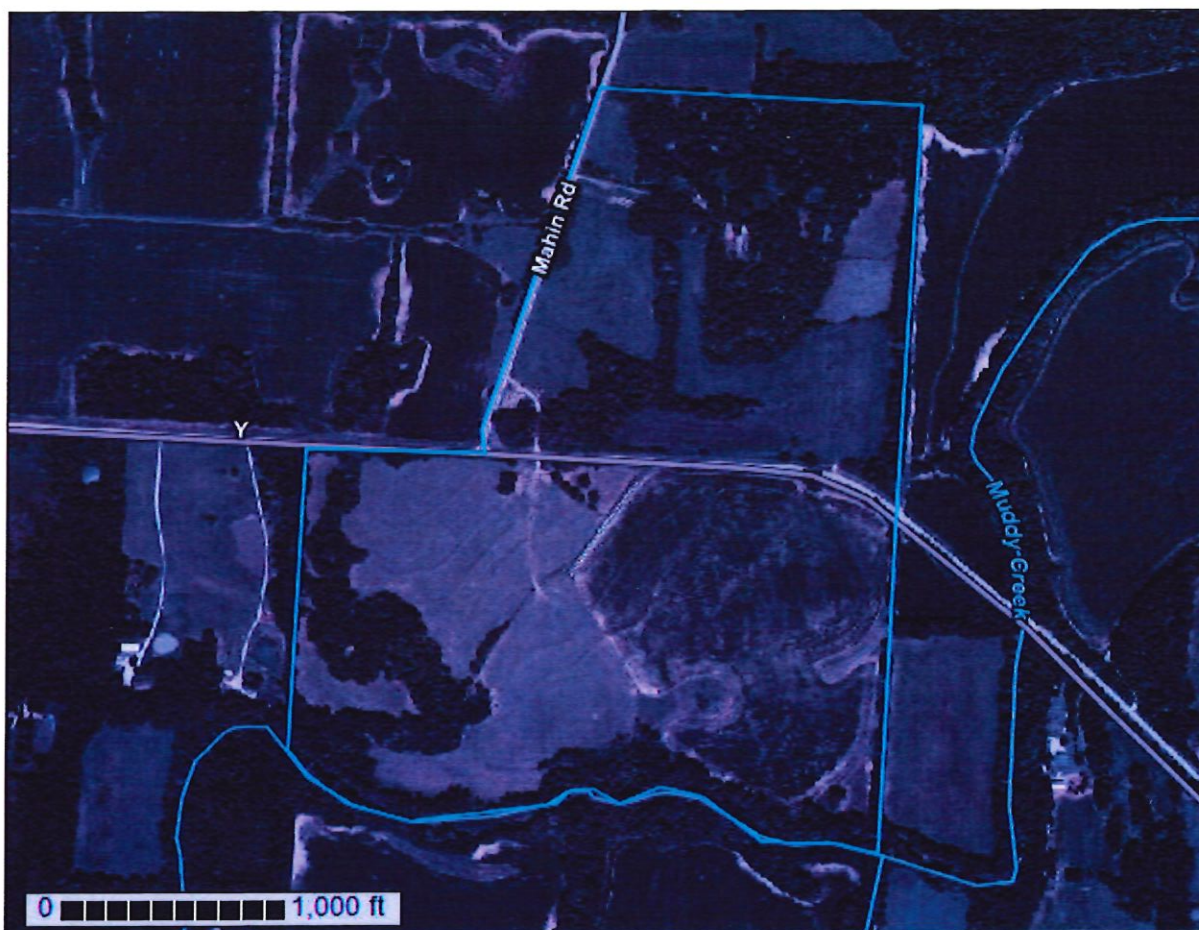
United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Pettis County, Missouri**



July 10, 2025

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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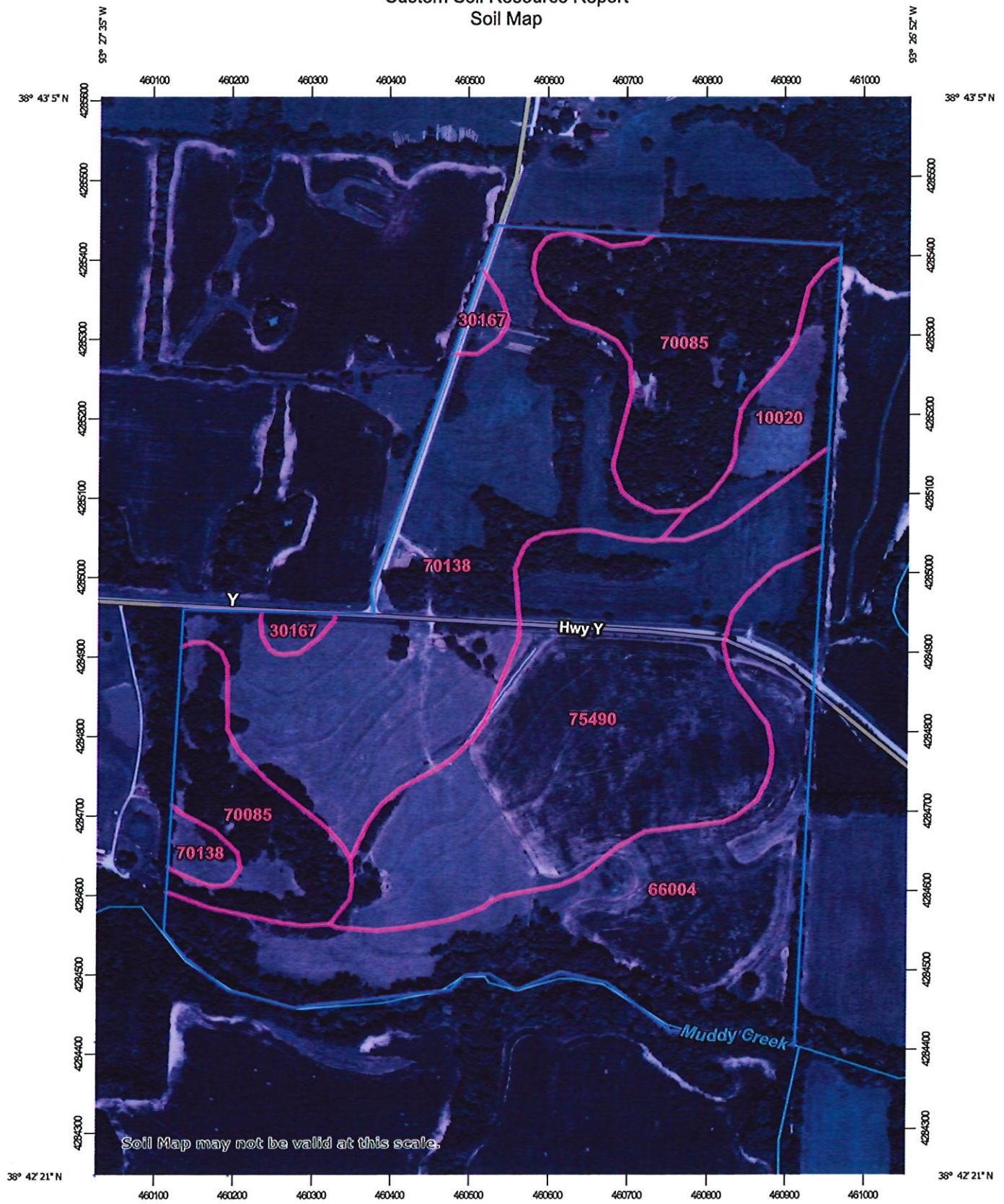


# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.








































Map Scale: 1:6,620 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 300 600 1200 1800 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

## MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
 Special Point Features	 Special Line Features
 Blowout	 Water Features
 Borrow Pit	 Streams and Canals
 Clay Spot	 Transportation
 Closed Depression	 Rails
 Gravel Pit	 Interstate Highways
 Gravelly Spot	 US Routes
 Landfill	 Major Roads
 Lava Flow	 Local Roads
 Marsh or swamp	 Background
 Mine or Quarry	 Aerial Photography
 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:  
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: Pettis County, Missouri  
Survey Area Data: Version 28, Aug 27, 2024

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

Date(s) aerial images were photographed: Jul 14, 2022—Sep 12, 2022

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

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10020	Greenton silt loam, bedrock substratum, 5 to 9 percent slopes, eroded	6.3	4.0%
30167	Pershing silt loam, 2 to 5 percent slopes	1.9	1.2%
66004	Dockery silt loam, 0 to 2 percent slopes, frequently flooded	35.5	22.6%
70085	Eldon gravelly silt loam, 8 to 15 percent slopes	28.4	18.1%
70138	Paintbrush silt loam, 5 to 9 percent slopes	43.1	27.4%
75490	Lamine silt loam, 0 to 2 percent slopes, occasionally flooded	41.9	26.6%
<b>Totals for Area of Interest</b>		<b>157.1</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor

## Custom Soil Resource Report

components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Pettis County, Missouri

### 10020—Greenton silt loam, bedrock substratum, 5 to 9 percent slopes, eroded

#### Map Unit Setting

*National map unit symbol:* 2qky0  
*Elevation:* 600 to 1,100 feet  
*Mean annual precipitation:* 33 to 41 inches  
*Mean annual air temperature:* 50 to 55 degrees F  
*Frost-free period:* 177 to 220 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Greenton, bedrock substratum, and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Greenton, Bedrock Substratum

##### Setting

*Landform:* Hillslopes  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Concave, convex  
*Parent material:* Loess over residuum weathered from limestone and shale

##### Typical profile

*Ap - 0 to 8 inches:* silt loam  
*Bt - 8 to 37 inches:* silty clay loam  
*2C - 37 to 49 inches:* silty clay  
*2Cr - 49 to 80 inches:* bedrock

##### Properties and qualities

*Slope:* 5 to 9 percent  
*Depth to restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)  
*Depth to water table:* About 12 to 30 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Moderate (about 8.5 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* D  
*Ecological site:* R109XY002MO - Loess Upland Prairie  
*Hydric soil rating:* No

## Custom Soil Resource Report

### Minor Components

#### Sampsel

*Percent of map unit:* 5 percent  
*Landform:* Hillslopes  
*Landform position (two-dimensional):* Shoulder, backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex, concave  
*Across-slope shape:* Convex, concave  
*Ecological site:* R109XY010MO - Interbedded Sedimentary Upland Savanna  
*Hydric soil rating:* Yes

### 30167—Pershing silt loam, 2 to 5 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2vcvt  
*Elevation:* 700 to 1,400 feet  
*Mean annual precipitation:* 34 to 39 inches  
*Mean annual air temperature:* 48 to 54 degrees F  
*Frost-free period:* 175 to 200 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Pershing and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Pershing

##### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit, shoulder  
*Landform position (three-dimensional):* Interfluve, side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Loess

##### Typical profile

*Ap - 0 to 7 inches:* silt loam  
*BE - 7 to 12 inches:* silty clay loam  
*Bt - 12 to 55 inches:* silty clay  
*BC - 55 to 79 inches:* silty clay loam

##### Properties and qualities

*Slope:* 2 to 5 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.01 in/hr)



## Custom Soil Resource Report

*Depth to water table:* About 11 to 20 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* High (about 11.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* D  
*Ecological site:* R109XY002MO - Loess Upland Prairie  
*Hydric soil rating:* No

### Minor Components

#### Belinda

*Percent of map unit:* 5 percent  
*Landform:* Interfluves  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Ecological site:* R109XY001MO - Claypan Summit Prairie  
*Hydric soil rating:* Yes

#### Pershing, moderately eroded

*Percent of map unit:* 5 percent  
*Landform:* Hillslopes  
*Landform position (two-dimensional):* Summit, shoulder  
*Landform position (three-dimensional):* Interfluve, side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* R109XY002MO - Loess Upland Prairie  
*Hydric soil rating:* No

## 66004—Dockery silt loam, 0 to 2 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* 2qp85  
*Elevation:* 350 to 900 feet  
*Mean annual precipitation:* 37 to 47 inches  
*Mean annual air temperature:* 52 to 57 degrees F  
*Frost-free period:* 184 to 228 days  
*Farmland classification:* Prime farmland if protected from flooding or not frequently flooded during the growing season

### Map Unit Composition

*Dockery and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Custom Soil Resource Report

### Description of Dockery

#### Setting

*Landform:* Flood plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

#### Typical profile

*Ap - 0 to 10 inches:* silt loam  
*C - 10 to 60 inches:* silt loam

#### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* About 18 to 30 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very high (about 12.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* F109XY030MO - Loamy Floodplain Forest  
*Hydric soil rating:* No

### Minor Components

#### Raccoon

*Percent of map unit:* 5 percent  
*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F116AY035MO - Wet Terrace Forest  
*Hydric soil rating:* Yes

#### Dockery

*Percent of map unit:* 5 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F109XY030MO - Loamy Floodplain Forest  
*Hydric soil rating:* Yes

## **70085—Eldon gravelly silt loam, 8 to 15 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2qpcz  
*Elevation:* 500 to 1,200 feet  
*Mean annual precipitation:* 41 to 45 inches  
*Mean annual air temperature:* 55 to 57 degrees F  
*Frost-free period:* 194 to 221 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Eldon and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Eldon**

#### **Setting**

*Landform:* Hillslopes  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Concave, convex  
*Parent material:* Slope alluvium over residuum weathered from limestone

#### **Typical profile**

*Ap - 0 to 7 inches:* gravelly silt loam  
*BE - 7 to 22 inches:* very gravelly silty clay loam  
*2Bt1 - 22 to 28 inches:* very gravelly silty clay  
*2Bt2 - 28 to 79 inches:* silty clay

#### **Properties and qualities**

*Slope:* 8 to 15 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Moderate (about 6.8 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* C  
*Ecological site:* R116AY063MO - Chert Upland Savanna  
*Hydric soil rating:* No

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### Minor Components

#### Mcgirk

*Percent of map unit:* 5 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* F116AY033MO - Wet Footslope Forest  
*Hydric soil rating:* Yes

### 70138—Paintbrush silt loam, 5 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2qpd1  
*Elevation:* 800 to 1,100 feet  
*Mean annual precipitation:* 37 to 51 inches  
*Mean annual air temperature:* 48 to 69 degrees F  
*Frost-free period:* 172 to 250 days  
*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Paintbrush and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Paintbrush

##### Setting

*Landform:* Hillslopes  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loess over residuum weathered from limestone

##### Typical profile

*Ap - 0 to 9 inches:* silt loam  
*Bt1 - 9 to 21 inches:* silty clay loam  
*2Btx - 21 to 43 inches:* very cobbly clay loam  
*3Bt2 - 43 to 79 inches:* clay

##### Properties and qualities

*Slope:* 5 to 9 percent  
*Depth to restrictive feature:* 12 to 29 inches to fragipan  
*Drainage class:* Moderately well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 11 to 26 inches



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*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Low (about 3.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* D  
*Ecological site:* R116AY006MO - Loamy Upland Prairie  
*Hydric soil rating:* No

### Minor Components

#### Eldon

*Percent of map unit:* 5 percent  
*Landform:* Hills  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluvium  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* R116AY063MO - Chert Upland Savanna  
*Hydric soil rating:* No

#### Maplewood

*Percent of map unit:* 5 percent  
*Landform:* Hillslopes  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Ecological site:* R116AY006MO - Loamy Upland Prairie  
*Hydric soil rating:* No

## 75490—Lamine silt loam, 0 to 2 percent slopes, occasionally flooded

### Map Unit Setting

*National map unit symbol:* 2qq04  
*Elevation:* 600 to 920 feet  
*Mean annual precipitation:* 39 to 49 inches  
*Mean annual air temperature:* 54 to 59 degrees F  
*Frost-free period:* 172 to 232 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Lamine and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Custom Soil Resource Report

### Description of Lamine

#### Setting

*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

#### Typical profile

*A - 0 to 10 inches:* silt loam  
*E - 10 to 14 inches:* silty clay loam  
*Btg - 14 to 80 inches:* silty clay

#### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 12 to 30 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Moderate (about 8.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* D  
*Ecological site:* R112XY122OK - Wet Terrace  
*Hydric soil rating:* No

### Minor Components

#### Colo

*Percent of map unit:* 5 percent  
*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* R109XY031MO - Wet Floodplain Prairie  
*Hydric soil rating:* Yes



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Pettis County, Missouri**



July 10, 2025

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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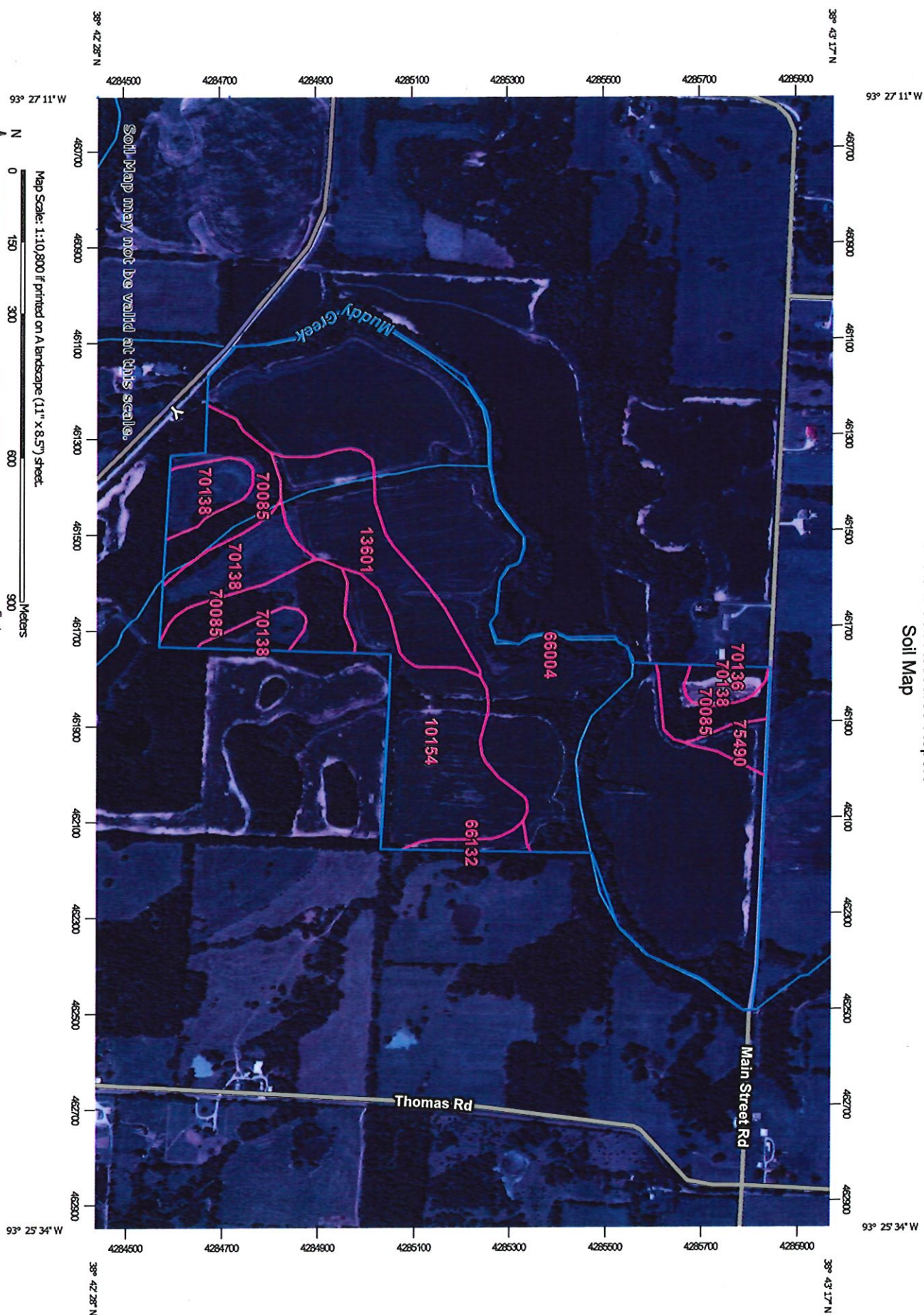
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# Soil Map

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














The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map





## MAP LEGEND

	Area of Interest (AOI)		Spoil Area
	Area of Interest (AOI)		Stony Spot
	Soils		Very Stony Spot
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
	Special Point Features		Water Features
	Blowout		Streams and Canals
	Borrow Pit		Transportation
	Clay Spot		Rails
	Closed Depression		Interstate Highways
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow		Background
	Marsh or swamp		Aerial Photography
	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:  
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: Pettis County, Missouri  
Survey Area Data: Version 28, Aug 27, 2024

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

Date(s) aerial images were photographed: Jul 14, 2022—Sep 12, 2022

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

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10154	Greenton silt loam, foot slopes, 2 to 5 percent slopes	24.5	11.8%
13601	Shannondale silt loam, 0 to 2 percent slopes, occasionally flooded	18.1	8.8%
66004	Dockery silt loam, 0 to 2 percent slopes, frequently flooded	118.9	57.5%
66132	Dockery silt loam, 1 to 3 percent slopes, frequently flooded	1.7	0.8%
70085	Eldon gravelly silt loam, 8 to 15 percent slopes	22.2	10.7%
70136	Paintbrush silt loam, 2 to 5 percent slopes	0.0	0.0%
70138	Paintbrush silt loam, 5 to 9 percent slopes	18.8	9.1%
75490	Lamine silt loam, 0 to 2 percent slopes, occasionally flooded	2.5	1.2%
<b>Totals for Area of Interest</b>		<b>206.9</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They

## Custom Soil Resource Report

generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Pettis County, Missouri

### 10154—Greenton silt loam, foot slopes, 2 to 5 percent slopes

#### Map Unit Setting

*National map unit symbol:* yrzh  
*Elevation:* 500 to 1,400 feet  
*Mean annual precipitation:* 33 to 41 inches  
*Mean annual air temperature:* 50 to 55 degrees F  
*Frost-free period:* 177 to 220 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Greenton, foot slopes, and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Greenton, Foot Slopes

##### Setting

*Landform:* Hillslopes  
*Landform position (two-dimensional):* Footslope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loess over residuum weathered from limestone and shale

##### Typical profile

*Ap - 0 to 6 inches:* silt loam  
*Bt - 6 to 24 inches:* silty clay loam  
*2C - 24 to 80 inches:* silty clay

##### Properties and qualities

*Slope:* 2 to 5 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly 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:* About 12 to 30 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Low (about 4.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* D  
*Ecological site:* R109XY002MO - Loess Upland Prairie  
*Hydric soil rating:* No

#### Minor Components

##### Colo

*Percent of map unit:* 5 percent

## Custom Soil Resource Report

*Landform:* Flood plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* R107XB019MO - Wet Floodplain Prairie  
*Hydric soil rating:* Yes

### **13601—Shannondale silt loam, 0 to 2 percent slopes, occasionally flooded**

#### **Map Unit Setting**

*National map unit symbol:* yrzw  
*Elevation:* 550 to 1,300 feet  
*Mean annual precipitation:* 33 to 41 inches  
*Mean annual air temperature:* 50 to 55 degrees F  
*Frost-free period:* 177 to 220 days  
*Farmland classification:* All areas are prime farmland

#### **Map Unit Composition**

*Shannondale and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Shannondale**

##### **Setting**

*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

##### **Typical profile**

*A - 0 to 22 inches:* silt loam  
*Btg - 22 to 38 inches:* silty clay loam  
*BCg - 38 to 80 inches:* silty clay loam

##### **Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* About 18 to 30 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very high (about 12.0 inches)

##### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* C

## Custom Soil Resource Report

*Ecological site:* R109XY034MO - Loamy Terrace Savanna  
*Hydric soil rating:* No

### **66004—Dockery silt loam, 0 to 2 percent slopes, frequently flooded**

#### **Map Unit Setting**

*National map unit symbol:* 2qp85  
*Elevation:* 350 to 900 feet  
*Mean annual precipitation:* 37 to 47 inches  
*Mean annual air temperature:* 52 to 57 degrees F  
*Frost-free period:* 184 to 228 days  
*Farmland classification:* Prime farmland if protected from flooding or not frequently flooded during the growing season

#### **Map Unit Composition**

*Dockery and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Dockery**

##### **Setting**

*Landform:* Flood plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

##### **Typical profile**

*Ap - 0 to 10 inches:* silt loam  
*C - 10 to 60 inches:* silt loam

##### **Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* About 18 to 30 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very high (about 12.3 inches)

##### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* F109XY030MO - Loamy Floodplain Forest  
*Hydric soil rating:* No



## Custom Soil Resource Report

### Minor Components

#### Racoon

*Percent of map unit:* 5 percent  
*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F116AY035MO - Wet Terrace Forest  
*Hydric soil rating:* Yes

#### Dockery

*Percent of map unit:* 5 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F109XY030MO - Loamy Floodplain Forest  
*Hydric soil rating:* Yes

### 66132—Dockery silt loam, 1 to 3 percent slopes, frequently flooded

#### Map Unit Setting

*National map unit symbol:* 2qs34  
*Elevation:* 500 to 900 feet  
*Mean annual precipitation:* 37 to 47 inches  
*Mean annual air temperature:* 52 to 57 degrees F  
*Frost-free period:* 184 to 228 days  
*Farmland classification:* Prime farmland if protected from flooding or not frequently flooded during the growing season

#### Map Unit Composition

*Dockery and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Dockery

##### Setting

*Landform:* Drainageways  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

##### Typical profile

*Ap - 0 to 10 inches:* silt loam  
*C - 10 to 60 inches:* silt loam

##### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches

## Custom Soil Resource Report

*Drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)  
*Depth to water table:* About 18 to 30 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Very high (about 12.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* F109XY004MO - Loamy Upland Drainageway Woodland  
*Hydric soil rating:* No

### Minor Components

#### Dockery

*Percent of map unit:* 5 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F109XY004MO - Loamy Upland Drainageway Woodland  
*Hydric soil rating:* Yes

#### Racoon

*Percent of map unit:* 5 percent  
*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F113XY005MO - Wet Upland Drainageway Woodland  
*Hydric soil rating:* Yes

## 70085—Eldon gravelly silt loam, 8 to 15 percent slopes

### Map Unit Setting

*National map unit symbol:* 2qpcz  
*Elevation:* 500 to 1,200 feet  
*Mean annual precipitation:* 41 to 45 inches  
*Mean annual air temperature:* 55 to 57 degrees F  
*Frost-free period:* 194 to 221 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Eldon and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Custom Soil Resource Report

### Description of Eldon

#### Setting

*Landform:* Hillslopes  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Concave, convex  
*Parent material:* Slope alluvium over residuum weathered from limestone

#### Typical profile

*Ap - 0 to 7 inches:* gravelly silt loam  
*BE - 7 to 22 inches:* very gravelly silty clay loam  
*2Bt1 - 22 to 28 inches:* very gravelly silty clay  
*2Bt2 - 28 to 79 inches:* silty clay

#### Properties and qualities

*Slope:* 8 to 15 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Moderate (about 6.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* C  
*Ecological site:* R116AY063MO - Chert Upland Savanna  
*Hydric soil rating:* No

### Minor Components

#### Mcgirk

*Percent of map unit:* 5 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* F116AY033MO - Wet Footslope Forest  
*Hydric soil rating:* Yes

## **70136—Paintbrush silt loam, 2 to 5 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2qpdj  
*Elevation:* 800 to 1,300 feet  
*Mean annual precipitation:* 37 to 51 inches  
*Mean annual air temperature:* 48 to 69 degrees F  
*Frost-free period:* 172 to 250 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Paintbrush and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Paintbrush**

#### **Setting**

*Landform:* Interfluves  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Crest  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loess over residuum weathered from limestone

#### **Typical profile**

*Ap - 0 to 9 inches:* silt loam  
*Bt1 - 9 to 21 inches:* silty clay loam  
*2Btx - 21 to 43 inches:* very gravelly clay loam  
*3Bt2 - 43 to 79 inches:* clay

#### **Properties and qualities**

*Slope:* 2 to 5 percent  
*Depth to restrictive feature:* 12 to 26 inches to fragipan  
*Drainage class:* Moderately well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 11 to 24 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Low (about 3.4 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* D  
*Ecological site:* R116AY006MO - Loamy Upland Prairie  
*Hydric soil rating:* No

## Custom Soil Resource Report

### Minor Components

#### Eldon

*Percent of map unit:* 5 percent  
*Landform:* Hills  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* R116AY063MO - Chert Upland Savanna  
*Hydric soil rating:* No

#### Maplewood

*Percent of map unit:* 5 percent  
*Landform:* Hillslopes  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Ecological site:* R116AY006MO - Loamy Upland Prairie  
*Hydric soil rating:* No

### 70138—Paintbrush silt loam, 5 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2qpd1  
*Elevation:* 800 to 1,100 feet  
*Mean annual precipitation:* 37 to 51 inches  
*Mean annual air temperature:* 48 to 69 degrees F  
*Frost-free period:* 172 to 250 days  
*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Paintbrush and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Paintbrush

##### Setting

*Landform:* Hillslopes  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loess over residuum weathered from limestone

##### Typical profile

*Ap - 0 to 9 inches:* silt loam  
*Bt1 - 9 to 21 inches:* silty clay loam

## Custom Soil Resource Report

2Btx - 21 to 43 inches: very cobbly clay loam

3Bt2 - 43 to 79 inches: clay

### Properties and qualities

*Slope:* 5 to 9 percent

*Depth to restrictive feature:* 12 to 29 inches to fragipan

*Drainage class:* Moderately well drained

*Runoff class:* High

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* About 11 to 26 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water supply, 0 to 60 inches:* Low (about 3.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* D

*Ecological site:* R116AY006MO - Loamy Upland Prairie

*Hydric soil rating:* No

### Minor Components

#### Eldon

*Percent of map unit:* 5 percent

*Landform:* Hills

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Interfluvium

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Ecological site:* R116AY063MO - Chert Upland Savanna

*Hydric soil rating:* No

#### Maplewood

*Percent of map unit:* 5 percent

*Landform:* Hillslopes

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Ecological site:* R116AY006MO - Loamy Upland Prairie

*Hydric soil rating:* No

## 75490—Lamine silt loam, 0 to 2 percent slopes, occasionally flooded

### Map Unit Setting

*National map unit symbol:* 2qq04

*Elevation:* 600 to 920 feet

*Mean annual precipitation:* 39 to 49 inches



## Custom Soil Resource Report

*Mean annual air temperature:* 54 to 59 degrees F  
*Frost-free period:* 172 to 232 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Lamine and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Lamine

#### Setting

*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium

#### Typical profile

*A - 0 to 10 inches:* silt loam  
*E - 10 to 14 inches:* silty clay loam  
*Btg - 14 to 80 inches:* silty clay

#### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 12 to 30 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water supply, 0 to 60 inches:* Moderate (about 8.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* D  
*Ecological site:* R112XY122OK - Wet Terrace  
*Hydric soil rating:* No

### Minor Components

#### Colo

*Percent of map unit:* 5 percent  
*Landform:* Flood-plain steps  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* R109XY031MO - Wet Floodplain Prairie  
*Hydric soil rating:* Yes



All Measurements are  
For FSA Programs Only

#### Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

#### Pettis Co. FSA

ALF=mixfg-agm-fg CLOVR=clovr-red-fg  
SB, SOY=Soybn-com-gr  
C, CORN=corn-yel-gr  
SRW=wheat-srw-gr HRW=wheat-hrw-gr  
P, GZ, PAST=grass-fta-graze 01-01-2000  
H, FG, Hay=grass-fta-forage 01-01-2000  
LS= left Standing grass CC=Cover crop  
MILO, SORG=sorg-grs-gr  
\*Unless notated on Map

1:4,900

Program Year: 2025

Created: 10/11/2024

Flown: 2022-6-28

clu  
crp  
plss

Farm 7882  
Tract 3396







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H, FG, Hay=grass-fla-forage 01-01-2000  
LS= left Standing grass CC=Cover crop  
MILO, SORG=sorg-grs-gr  
\*Unless notated on Map

1:6,520

Program Year: 2025

Created: 10/11/2024

Flown: 2022-6-28

clu  
crp  
plss

Farm 7882  
Tract 10894





All Measurements are  
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### Pettis Co. FSA

1:7,880

Program Year: 2025

Created: 10/11/2024

Flown: 2022-6-28

### Wetland Determination Identifiers

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- ▽ Limited Restrictions
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P, GZ, PAST=grass-fta-graze 01-01-2000  
H, FG, Hay=grass-fta-forage 01-01-2000  
LS= left Standing grass CC=Cover crop  
MILO, SORG=sorg-grs-gr  
\*Unless notated on Map

clu  
crp  
plss

Farm 7882  
Tract 12845

