



United States
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Agriculture



Natural
Resources
Conservation
Service

In cooperation with
Oklahoma Agricultural
Experiment Station
and Oklahoma
Conservation Commission

Soil Survey of Okfuskee County, Oklahoma



How To Use This Soil Survey

This survey includes general information about the survey area, descriptions of the detailed soil map units and soil series in the area, and a description of how the soils formed. Also described is the use and management of the soils and the major soil properties. This data may be updated as further information about soil management becomes available.

The detailed soil map unit descriptions, when used in conjunction with the detailed soil maps, can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the Index to Map Sheets, which precedes the soil maps. Note the number of the map sheet, and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the Index to Map Units in this survey, which lists the map units by symbol and name and shows the page where each map unit is described.

The "Summary of Tables" shows which table has data on a specific land use for each detailed soil map unit. See "Contents" for sections of this publication that may address your specific needs.

This soil survey is a publication 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 agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1995. Soil names and descriptions were approved in 1996. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1996. This survey was made cooperatively by the Natural Resources Conservation Service, the Oklahoma Agricultural Experiment Station, and the Oklahoma Conservation Commission. It is part of the technical assistance furnished to the Okfuskee County Conservation District.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Cover: Landscape in an area of Karma fine sandy loam, 0 to 3 percent slopes, is in the foreground. An area of Hector-Clearview complex, 5 to 12 percent slopes, is in the background.

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Foreword

This soil survey contains information that can be used in land-planning programs in Okfuskee County. It contains predictions of soil behavior for selected land uses. The survey also highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. 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.

These and many other soil properties that affect land use are described in this soil survey. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Ronald L. Hilliard
State Conservationist
Natural Resources Conservation Service

Soil Survey of Okfuskee County, Oklahoma

Fieldwork by John F. Haberer, Jr., Richard T. McCright, Mark A. Townsend,
R.C. Brinlee, Thomas G. Reinsch, and Anderson Watterson, Jr., Natural Resources
Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service,
in cooperation with
Oklahoma Agricultural Experiment Station and Oklahoma Conservation Commission

OKFUSKEE COUNTY is located in east-central Oklahoma (fig. 1). It has an area of about 402,515 acres, or 629 square miles. This soil survey updates the soil survey of Okfuskee County, Oklahoma, published in 1952 (9). It provides additional information and has larger maps, which show the soils in greater detail.

General Nature of the Survey Area

This section gives general information about the survey area. It describes history; industry, transportation, and recreation; physiography and drainage; geology; landscape evolution; and climate.

History

The area of present-day Okfuskee County was claimed by the Osage Indians at the time of the Louisiana Purchase in 1803. It was ceded to the Creek Nation in 1826 by the United States Government in exchange for their lands in Georgia.

A few white settlers engaged in ranching in the survey area as early as 1870, but the land was not formally opened for settlement until after 1903. At that time, the Creek Nation was given individual allotments and were allowed to sell all but 40 acres. This resulted in many small farm operations.

In 1907, Okfuskee County was organized in its present size and shape. The early settlers came principally from Texas, Arkansas, Kansas, and Missouri.

The early agriculture of the Creek Indians consisted mainly of livestock production and the cultivation of small patches of corn along the stream bottoms. The Indians obtained most of their food by hunting and fishing; agriculture was only incidental.

By the early 1870's and 1880's, several cattle ranches were established by white settlers. Large numbers of cattle grazed on the prairies and in forested areas. In the early days, Okemah was surrounded with barbed-wire fencing that protected it from ranging herds of Longhorn steers. The early ranchers grew very few crops; crops were mainly grown for food for a rancher's own use.

By the early 1900's, free range became restricted and livestock production had to be supplemented by farming. Corn, cotton, oats, grain sorghums, cowpeas, and alfalfa were grown after the railroad provided access to outside markets. The Fort Smith and Western Alabama Railroad served the county from 1903 to 1938. Corn and cotton were the principal cash crops.

Soil Survey of Okfuskee County, Oklahoma



Figure 1.—Location of Okfuskee County in Oklahoma.

Today the major crop is peanuts. Grain sorghum, corn, and soybeans are grown as minor crops. Production of bermudagrass hay, native grass hay, and alfalfa hay for on-farm use and as a cash crop is a major agribusiness in Okfuskee County.

The population of Okfuskee County has fluctuated over time. The population was at its highest in the late 1920's, given as 29,016 in the 1930 census. The population steadily declined to a low of 10,683 in 1970. In 2000, the population was 11,242.

Boley and Clearview, two of the all black towns in Oklahoma, were originally settled after the Civil War by Freedmen from the south and/or by the Five Civilized Tribes. These towns were incorporated by and for African Americans. Boley, a National Historic Town, was founded in 1903 on land of the Creek Freedwoman Abigail Barnett. In 1911, Boley had a population of 7,000 and more than 25,000 lived in the surrounding communities. Clearview was established in the early 1900's, and experienced its peak in business commerce and population just before the Great Depression.

Industry, Transportation, and Recreation

The leading industry in Okfuskee County historically has been and continues to be agriculture and the supporting agribusiness. Today, petroleum production provides additional income to supplement agriculture.

Okfuskee County is connected to other areas of the State by Interstate Highway 40, two U.S. Highways, and five State Highways. The southeastern part of the county is served by the Burlington Northern Santa Fe and the Union Pacific Railways.

Several paved farm-to-market roads extend into almost every part of the county. The county road system consists of graded or unimproved roads. Many of the roads on the fine-textured prairie soils are graveled and are passable during wet weather, but some are impassable during protracted rainy spells.

Hunting and fishing have always been popular pastimes of many of the local people. Okfuskee County has extensive areas of good to excellent wildlife habitat for dove, quail, turkey, and deer.

Okemah Lake and the Deep Fork Wildlife Management Area are the main sources of public recreation in the county. Some local towns have golf courses, baseball diamonds, and parks.

Physiography and Drainage

Okfuskee County is in the Osage Plains section of the Central Lowland Physiographic Province. There are four major land resource areas within its

boundaries. The far western edge of the county near the Paden area is in the Central Rolling Red Prairies Major Land Resource Area. The remainder of the western part of the county is in the Northern Cross Timbers Major Land Resource Area. The central portion of the county is in the Cherokee Prairies Major Land Resource Area. The southeastern portion of the county near the Weleetka area is in the Western Arkansas Valley and Ridges Major Land Resource Area.

The major portion of the county is a gently rolling plain that slopes to the southeast. There are some rough stony ridges and low hills in the southeastern part of the county. The plain is interrupted at intervals of several miles, by east-facing escarpments that are 50 to 100 feet high. These escarpments generally follow a southwest-northeast course across the county and are capped by hard sandstone and underlain by shale. These escarpments typically occupy watershed divides between drainage systems of creeks, but in some places streams have dissected the plain above the escarpments. In the western part of the county, the plain is more rolling and more deeply dissected.

Okfuskee County is underlain by interbedded Pennsylvanian sandstones and shales. Many relief irregularities are the result of different rates of geologic erosion of the two types of underlying material. The shale is subject to more rapid erosion and occupies the broad smooth valleys between intervening ridges and escarpments, which are protected by a cap of resistant sandstone. A few thin limestone beds occur in places, especially in the north-central part of the county. Unconsolidated beds of alluvial material occupy the valleys of the larger streams. Some of these are 100 feet or more above the river and as much as 4 or 5 miles from the present river course. These deposits are of Pleistocene age.

The highest elevation in the county, about 1,000 feet above sea level, is about 3.5 miles north of Okemah. The lowest elevation, approximately 660 feet, is where the North Canadian River leaves the county southeast of Weleetka. The greatest localized change in elevation occurs east of Weleetka near the county line, where hills rise about 300 feet above the river.

The Deep Fork and North Canadian Rivers control drainage and have a gradient to the east of about 2 and 3 feet per mile, respectively. These rivers and their tributaries have carved broad, shallow valleys across the county. The Deep Fork River skirts the northern boundary, and the North Canadian River crosses the southern portion of the county and forms part of the southwestern boundary. Local drainage is controlled by small tributaries that flow at right angles to these rivers.

Geology

Kenneth V. Luza, Oklahoma Geological Survey, helped prepare this section.

Rock units in Okfuskee County consist of Middle and Upper Pennsylvanian-age shale and sandstone and a few thin limestone and conglomerate beds (3, 7, 8). The outcropping rocks, which have a total thickness of about 3,850 feet, were deposited on lowlands and in shallow seas that once covered much of eastern Oklahoma. Surficial deposits of Quaternary age, which include flood plain deposits and high terrace sand and gravel deposits, occur along and near the North Canadian and Deep Fork Rivers and their major tributaries.

The oldest geologic unit exposed in Okfuskee County, the Senora Formation (Middle Pennsylvanian in age), crops out in the southeastern corner of the county. The Senora Formation is about 190 feet thick and consists of brown and green-brown shale with interbedded thin, fossiliferous limestones, a few thin sandstone interbeds, and a few coal seams. Sedimentary rocks in the Senora Formation are the parent materials for Hector, Endsaw, and Clearview soils. Endsaw soils are deep, well drained, and slowly permeable and formed in loamy colluvium overlying clayey residuum weathered from shale. Hector soils are shallow, well drained, and moderately rapidly permeable and formed in residuum weathered from sandstone. Clearview soils

Soil Survey of Okfuskee County, Oklahoma

are moderately deep, somewhat poorly drained, and moderately permeable and formed in residuum weathered from sandstone with thin shale interbeds.

The Marmaton Group (Middle Pennsylvanian in age) overlies the Senora Formation and includes, in ascending order from oldest to youngest, the Calvin Sandstone, the Wetumka Shale, the Wewoka Formation, and the Holdenville Shale. These formations dip generally westward and crop out along northeast-southwest trends in the eastern third of the county. The Calvin Sandstone is a medium-grained, thin-bedded to massive sandstone and silty shale. Total thickness is a uniform 245 feet. The Wetumka Shale consists of 150 feet of sandy, silty, laminated shale. The Wewoka Formation is composed of interbedded fine- to medium-grained sandstone and calcareous shale and ranges in thickness from 730 to 780 feet. The Holdenville Shale consists of 210 to 280 feet of yellowish brown to gray-green shale with interbeds of fine-grained, calcareous sandstone and thin limestone. Soils that developed in sedimentary rocks of the Marmaton Group include Hector, Endsaw, Clearview, Okemah, Coweta, and Eram. Okemah soils are very deep, somewhat poorly drained, and slowly permeable and formed in fine textured alluvium overlying residuum weathered from shale. Coweta soils are shallow, well drained or somewhat excessively drained, and moderately permeable and formed in residuum weathered from sandstone with few shale interbeds. Eram soils are moderately deep, moderately well drained, and slowly permeable and developed primarily in residuum weathered from shale with thin sandstone interbeds.

Sedimentary rocks in the Skiatook Group overlie the Marmaton Group and crop out in the central part of the county. Total thickness ranges from 975 to 1,075 feet. The Skiatook Group includes, in ascending order from oldest to youngest, the Seminole Formation, the Checkerboard Limestone, the Coffeyville Formation, the Hogshooter Limestone, the Nellie Bly Formation, and the Dewey Limestone. The Seminole Formation consists of 250 to 330 feet of interbedded chert-pebble conglomerate, shale, and fine-grained sandstone and a few thin coal seams. The Checkerboard Limestone is a fossiliferous, crystalline limestone that ranges in thickness from 2 to 7 feet. The Coffeyville Formation consists mainly of yellowish brown and gray-green shale with yellowish brown, fine- to medium-grained sandstone that is interbedded with chert and limestone conglomerate. The sandstone beds are indurated and erosion-resistant and form long dip slopes on cuestas. Total thickness is about 245 feet. The Hogshooter Limestone is a massive crinoidal limestone that ranges in thickness from 1 to 6 feet. The Nellie Bly Formation is composed of 440 to 460 feet of yellowish-brown shale and numerous fine-grained sandstone interbeds. The Dewey Limestone consists of a lower, maximum 12-foot thick, sandy limestone or calcareous sandstone and an upper, brownish yellow, 25- to 50-foot thick shale. The thin Checkerboard and Hogshooter Limestones pinch out to the south and grade into shale in the central part of the county. Soils that developed in sedimentary rocks of the Skiatook Group include Okemah, Coweta, and Eram soils and Stephenville, Darsil, and Newalla soils near Lake Okemah. Stephenville soils are moderately deep, well drained, and moderately permeable and formed primarily in residuum weathered from sandstone. Darsil soils are shallow, excessively drained, and rapidly permeable and formed in residuum weathered from sandstone. Newalla soils are deep, moderately well drained, and very slowly permeable and formed in sandy sediments overlying residuum weathered from shale.

The Ochelata Group overlies the Skiatook Group, crops out in the central part of the county, and includes, in ascending order from oldest to youngest, the Chanute, Barnsdall, and Tallant Formations. The Chanute Formation consists of a lower, fine- to medium-grained, 3- to 8-foot-thick sandstone and an upper, brownish yellow, 20 to 50-foot-thick shale. The Barnsdall Formation is mostly fine-grained sandstone that is overlain by shale. Maximum total thickness is 80 feet. The Tallant Formation consists of basal sandstone that has a maximum thickness of 25 feet and is overlain by shale of

variable thickness. Stephenville, Darsil, and Newalla soils developed in sedimentary rocks of the Ochelata Group.

The youngest bedrock units, the Upper Pennsylvanian Vamoosa Formation and the Ada Group, crop out in the western part of the county and have a combined total thickness of about 880 feet. These strata consist of a complex sequence of fine- to very fine-grained sandstone and siltstone; red to reddish-brown shale; and conglomerate with thin interbeds of dolomitic limestone. They were primarily deposited in a deltaic environment. The Vamoosa Formation consists of 650 to 690 feet of thin to massive layers of fine- to coarse-grained sandstone and sandy or silty shale. Chert conglomerate occurs in the middle and lower parts of the formation. Soils that developed in sedimentary rocks of the Vamoosa Formation are Stephenville, Darsil, and Newalla. The Ada Group is composed of 125 to 200 feet of orange-brown, fine-grained sandstone and reddish-brown to gray shale. Soils that developed in sedimentary rocks of the Ada Group are Grainola, Chickasha, and Renfrow. Grainola and Renfrow soils are fine textured, moderately deep to very deep, well drained, and very slowly permeable and developed in sediments and residuum weathered from shale. Chickasha soils are deep, well drained, and moderately permeable and formed in sediments and residuum weathered from sandstone.

Pleistocene high terrace deposits in Okfuskee County occur along the Deep Fork and North Canadian Rivers and result from the entrenchment of these river valleys. These older alluvial sediments are topographically higher and generally adjacent to modern flood plains. Stream terrace deposits are composed of lenticular beds of sand, silt, clay, and gravel. Total thickness ranges from a few feet to about 100 feet. Glentosh, Larton, and Karma soils developed in alluvium on Pleistocene stream terraces. Glentosh soils are very deep, excessively drained, and rapidly permeable and formed in sandy alluvium reworked by wind. Larton soils are very deep, well drained, and moderately permeable. They also developed in sandy alluvium reworked by wind and are often associated with Glentosh soils. Karma soils are very deep, well drained, and moderately permeable and formed in loamy alluvium.

Holocene alluvium in Okfuskee County occurs on flood plains of the Deep Fork and North Canadian Rivers and their tributaries and is composed of sand, silt, clay, and lenticular beds of gravel. Thickness ranges from about 30 to 100 feet and averages about 50 feet along the Deep Fork and North Canadian Rivers. Along minor streams, thickness ranges from a few feet to about 50 feet and averages about 25 feet. Grady, Severn, and Yahola soils formed in Holocene alluvium. Grady soils are very deep, poorly drained, and slowly permeable and formed in fine textured alluvium. Severn and Yahola soils are very deep, well drained, and moderately rapidly permeable and formed in silty or loamy alluvium.

The regional structure of Okfuskee County is characterized as a gently dipping homocline in which the strata generally strike north to northeast with a westward dip of 0.5 to 1 degree. Surface faults within the county typically produce an en echelon pattern and occur in belts that trend northwest to southeast. All of these faults appear to show normal displacement. Fault displacements are generally less than 40 feet at the surface and decrease downward. However, several faults extend into deeper, subsurface strata. Twenty-three earthquakes are known to have occurred in Okfuskee County from 1882 to 2000 (6). Two earthquakes with surface sensation were recorded in the county on May 2, 1969, and March 3, 1984. Both earthquakes were centered about 12 kilometers north of Okemah and produced no damage, and the affected areas were probably restricted to a few tens of square kilometers from the epicenter. The remaining earthquakes were instrumentally located and are not known to have surface expression. Small movements of only several millimeters on some of the deep, subsurface faults may be responsible for these earthquakes.

Good-quality ground water is abundant in some of the major Quaternary alluvium and terrace deposits along stream beds and also in the Vamoosa-Ada aquifer. The

aquifer, about 850 feet thick, yields 25 to 150 gallons per minute of water containing 200 to 400 milligrams per liter of total dissolved solids (3, 4, 7). The aquifer is recharged by precipitation and runoff that infiltrate and percolate down through the soil into the porous and permeable sandstone beds of the Vamoosa Formation and the Ada Group.

Oil and gas are the most important mineral resources in the county. Oil has been found in every township of Okfuskee County (8). The principal non-metallic mineral resources are sand and gravel, which are mined from alluvium associated with the North Canadian and Deep Fork Rivers and their major tributaries. Gravel pits are at many locations along the outcrop of the Vamoosa Formation. At least three volcanic ash deposits occur in Okfuskee County (8). The deposits are generally small (less than 100 acres in size), are less than 10 feet thick, and are associated with stream terrace deposits. No record of coal production officially exists for Okfuskee County (5). However, abandoned mine shafts are in Sections 15 and 28, Township 10 N., Range 12 E.

Landscape Evolution

The evolution of the landscape is not static. What we see today is only a brief moment of geologic time. The landscape changes are the product of years of uplift and erosion. Years of erosion and deposition by water and wind change the surface of the land. Over the last million years, many climatic changes associated with ice ages and periods of warming have produced intense periods of erosion and deposition. These periods were interspersed with long periods of stability. The two rivers which cross Okfuskee County have sculpted the landscape, eroding valleys and depositing sediments. Wind later reworked some of the sandier sediments. These processes combined with geologic uplifts and different rates of geologic erosion have produced the landscape of present-day Okfuskee County.

Climate

The table "Temperature and Precipitation" gives data on temperature and precipitation for the survey area as recorded at Okemah, Oklahoma, in the period 1961 to 1990. The table "Freeze Dates in Spring and Fall" shows probable dates of the first freeze in fall and the last freeze in spring. The table "Growing Season" provides data on the length of the growing season.

In winter, the average temperature is 40 degrees F and the average daily minimum temperature is 30 degrees. The lowest temperature on record, which occurred at Okemah on January 18, 1930 is -10 degrees. In summer, the average temperature is 80 degrees and the average daily maximum temperature is 91 degrees. The highest temperature, which occurred at Okemah on August 10, 1936, is 115 degrees.

Growing degree days are shown in the table "Temperature and Precipitation". They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 38.76 inches. Of this, 23.46 inches, or about 61 percent, usually falls in April through September. The growing season for most crops falls within this period. The heaviest one-day rainfall during the period of record was 10.05 inches, recorded at Okemah on April 14, 1945. Thunderstorms occur on about 51 days each year, and most occur in May.

The average seasonal snowfall is 6.6 inches. The greatest snow depth at any one time during the period of record was 15 inches. On an average, 3 days per year have

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at least 1 inch of snow on the ground. The heaviest one-day snowfall on record was 10.5 inches.

The average relative humidity in mid-afternoon is about 53 percent. Humidity is higher at night, and the average at dawn is about 71 percent. The sun shines 78 percent of the time in summer and 54 percent in winter. The prevailing wind is from the south-southeast. Average windspeed is highest, 12.2 miles per hour, in March.

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Temperature and Precipitation

(Recorded in the period 1961-90 at Okemah, Oklahoma)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average number of growing degree days*	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more	Average snow- fall
				Maximum temp. higher than--	Minimum temp. lower than--			Less than--	More than--		
°F	°F	°F	°F	°F	Units	In	In	In	In	In	
January--	48.3	26.8	37.5	74	0	102	1.45	0.46	2.20	2	2.9
February--	53.7	31.3	42.5	79	6	166	1.91	0.87	2.92	3	1.6
March----	63.6	40.3	51.9	86	15	393	3.15	1.28	4.69	5	1.1
April----	73.5	50.3	61.9	90	30	657	3.92	1.93	5.61	5	0.0
May-----	79.9	58.1	69.0	92	41	896	5.30	3.04	7.31	7	0.0
June-----	87.3	66.0	76.6	98	52	1,099	4.19	2.30	5.85	5	0.0
July-----	93.4	70.0	81.7	105	58	1,276	3.16	0.96	5.14	3	0.0
August---	93.0	68.6	80.8	104	56	1,244	2.54	1.11	3.93	4	0.0
September	84.7	62.0	73.3	100	36	992	4.26	1.83	6.34	5	0.0
October--	74.9	51.4	63.1	93	32	717	3.84	1.29	6.17	4	0.0
November--	61.8	40.6	51.2	82	18	354	2.94	0.86	4.61	3	0.1
December--	51.1	30.5	40.8	74	3	141	2.00	0.85	3.09	3	0.9
Yearly: Average	72.1	49.6	60.9	---	---	---	---	---	---	---	---
Extreme	109	-9	---	106	-2	---	---	---	---	---	---
Total--	---	---	---	---	---	8,037	38.76	31.31	45.35	49	6.6

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

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Freeze Dates in Spring and Fall

(Recorded in the period 1961-90 at Okemah, Oklahoma)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Mar. 28	Apr. 2	Apr. 9
2 years in 10 later than--	Mar. 21	Mar. 28	Apr. 5
5 years in 10 later than--	Mar. 7	Mar. 16	Mar. 26
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 9	Nov. 4	Oct. 25
2 years in 10 earlier than--	Nov. 16	Nov. 8	Oct. 29
5 years in 10 earlier than-	Nov. 29	Nov. 18	Nov. 7

Growing Season

(Recorded in the period 1961-90 at Okemah, Oklahoma)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F <u>Days</u>	Higher than 28 °F <u>Days</u>	Higher than 32 °F <u>Days</u>
9 years in 10	231	219	203
8 years in 10	238	225	210
5 years in 10	251	238	223
2 years in 10	264	252	236
1 year in 10	271	258	243

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind or segment of the landscape. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landscape, soil scientists develop a concept, or model, of how the soils were formed. Thus, during mapping, this model enables the soil scientists to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Individual soils on the landscape commonly merge into one another as their characteristics gradually change. To construct an accurate map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted color, texture, size, and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil

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scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

The descriptions, names, and delineations of the soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

Formation of the Soils

This section relates the soils in the survey area to the major factors of soil formation.

Factors of Soil Formation

Soil is produced by the action of soil-forming processes on materials deposited or accumulated by geologic agents. The characteristics of the soil at any given point are determined by the physical and mineralogical composition of the parent material; the climate under which the soil material has accumulated and existed since accumulation; living organisms on and in the soil; topography, or relief; and the length of time that the forces of soil development have acted on the soil material.

Parent Material

Parent material influences the chemical, physical, mineral composition, and color of the soil. Whether the parent material is unconsolidated or consolidated and the degree of consolidation influence the rate of soil formation.

Soils on the uplands in Okfuskee County formed in materials weathered from sandstone, shale, and thin strata of limestone. Soils that formed in the western and central parts of the county, on gently rolling plains, include Bates, Dennis, and Stephenville soils. Soils that formed in the southeastern part of the county, on stony ridges and low hills, include Hector and Clearview soils.

Alluvial sediments are extensive along streams and rivers in the county. The kind of sediments deposited and the kinds of soil that formed in the sediments depend largely on the source of the sediment and the velocity of the streams. Soils that formed in ancient fluvial sediments include Konawa and Stidham soils. Soils that formed in recent fluvial sediments include Roebuck and Yahola soils.

Climate

Okfuskee County has a subtropical humid climate. Because the climate is fairly uniform throughout the county, the differences between soils cannot be attributed to differences in climate based on the present climatic regime. The amount of moisture and warm temperatures have been sufficient to promote the formation of distinct layers in many of the soils. Soil leaching is moderate because the generous amount of precipitation is well distributed. The summers are excellent for rapid and luxuriant plant growth.

Living Organisms

Plants, burrowing animals, insects, and soil micro-organisms have a direct influence on the formation of soils. The native grasses and trees in the county have different effects on the losses and gains of organic matter and plant nutrients and on the soil structure and porosity. Soils that formed under prairie vegetation, such as Okemah

and Bates soils, have a very dark brown surface layer and a moderately high content of organic matter. Soils that formed under trees, such as Niotaze soils, have a grayish brown or brown surface layer and a low content of organic matter.

Topography

Relief influences the formation of the soils mainly through its effect on the movement of water, erosion, soil temperature, and the kind of plant cover. In Okfuskee County, the resistance of underlying formations to weathering and geological erosion determines relief. The topography of the western and central parts of Okfuskee County is a gently rolling plain that slopes to the southeast. The soils in these areas are deep or moderately deep and are more developed. The stony ridges and low hills of the southeastern part of the county are more dissected and have more runoff and erosion. The soils in these areas are residual, are moderately deep to shallow, and are less developed.

Time

As a factor in soil formation, time is difficult to measure strictly in years. The length of time needed for development of genetic horizons depends on the intensity and the interactions of the soil-forming factors in promoting the losses, gains, transfers, or transformations of the constituents necessary in the formation of soil horizons. Soils that have no definite genetic horizons are young or immature. Mature or older soils have approached equilibrium with their environment and tend to have well defined horizons.

Soils in Okfuskee County range from young to very old. Dennis and Okemah soils are examples of old soils. Stephenville and Bates soils are younger soils, but they have well expressed horizons. Darsil and Hector soils are considered young soils because they have had sufficient time to develop well expressed horizons. Because they are sloping, however, geological erosion has taken away soil material almost as fast as it forms. Yahola and Gaddy soils are young soils that formed in recent sediments on flood plains and show little horizon development.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (11, 14). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. The table "Classification of the Soils" shows the classification of each of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in sol. An example is Mollisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udoll (Ud, meaning humid, plus oll, from Mollisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Argiudolls (Argi, meaning argillic horizonation, plus udoll, the suborder of the Mollisols that has an udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group, but do not indicate transitions to any other known kind of soil. Each subgroup is identified by one or more adjectives preceding the name of the great group. An example is Aquic Argiudolls.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are: particle-size class, mineral content, temperature regime, thickness of the root zone, consistence, moisture equivalent, slope, and permanent cracks. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine, mixed, thermic Aquic Argiudolls.

SERIES. The series consists of soils that have similar horizons in their profile. The horizons are similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The texture of the surface layer or of the substratum can differ within a series.

Descriptions of the soils are available in the "Official Series Descriptions," which are online at <http://soils.usda.gov>. Characteristics of the soil and the material in which it formed are identified for each soil series. A pedon, a small three-dimensional area of soil, which is typical of the series is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (13). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (11).

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Classification of the Soils

Soil name	Family or higher taxonomic class
Bates-----	Fine-loamy, siliceous, active, thermic Typic Argiudolls
Boley-----	Fine-silty, mixed, active, nonacid, thermic Aquic Udifluvents
Canadian-----	Coarse-loamy, mixed, superactive, thermic Udic Haplustolls
Chickasha-----	Fine-loamy, mixed, active, thermic Udic Argiustolls
Choteau-----	Fine, mixed, active, thermic Aquic Paleudolls
Clearview-----	Fine-loamy, siliceous, semiactive, thermic Oxyaquic Hapludalfs
Coweta-----	Loamy, siliceous, superactive, thermic, shallow Typic Hapludolls
Darsil-----	Thermic, shallow, coated Ustic Quartzipsamments
Dennis-----	Fine, mixed, active, thermic Aquic Argiudolls
Endsaw-----	Fine, mixed, active, thermic Oxyaquic Hapludalfs
Eram-----	Fine, mixed, active, thermic Aquic Argiudolls
Eufaula-----	Sandy, siliceous, thermic Psammentic Paleustalfs
Gaddy-----	Sandy, mixed, thermic Udic Ustifluvents
Galey-----	Fine-loamy, mixed, active, thermic Ultic Paleustalfs
Glentosh-----	Thermic, coated Typic Quartzipsamments
Grainola-----	Fine, mixed, active, thermic Udertic Haplustalfs
Hector-----	Loamy, siliceous, subactive, thermic Lithic Dystrudepts
Karma-----	Fine-loamy, mixed, active, thermic Typic Hapludalfs
Kiomatia-----	Sandy, mixed, thermic Typic Udifluvents
Konawa-----	Fine-loamy, mixed, active, thermic Ultic Haplustalfs
Larton-----	Loamy, siliceous, active, thermic Arenic Paleudalfs
Lightning-----	Fine, mixed, active, thermic Chromic Vertic Epiaqualfs
Madill-----	Coarse-loamy, mixed, active, nonacid, thermic Typic Udifluvents
Masham-----	Clayey, mixed, active, thermic, shallow Udic Haplustepts
Mason-----	Fine-silty, mixed, active, thermic Pachic Argiudolls
Muldrow-----	Fine, mixed, active, thermic Typic Argiaquolls
Navina-----	Fine-loamy, mixed, active, thermic Udic Argiustolls
Newalla-----	Fine-loamy over clayey, siliceous, superactive, thermic Udic Haplustalfs
Niotaze-----	Fine, smectitic, thermic Albaquic Hapludalfs
Okemah-----	Fine, mixed, active, thermic Aquic Paleudolls
Oklared-----	Coarse-loamy, mixed, active, calcareous, thermic Typic Udifluvents
Parsons-----	Fine, mixed, active, thermic Mollic Albaqualfs
Pharoah-----	Fine, mixed, superactive, thermic Vertic Argiaquolls
Porum-----	Fine, mixed, semiactive, thermic Glossaquic Paleudalfs
Pulaski-----	Coarse-loamy, mixed, superactive, nonacid, thermic Udic Ustifluvents
Radley-----	Fine-silty, mixed, active, thermic Fluventic Hapludolls
Renfrow-----	Fine, mixed, superactive, thermic Udertic Paleustolls
Roebuck-----	Fine, smectitic, thermic Aeric Epiaquerts
Severn-----	Coarse-silty, mixed, superactive, calcareous, thermic Typic Udifluvents
Shermore-----	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudalfs
Stephenville-----	Fine-loamy, siliceous, active, thermic Ultic Haplustalfs
Stidham-----	Loamy, mixed, active, thermic Arenic Haplustalfs
Teller-----	Fine-loamy, mixed, active, thermic Udic Argiustolls
Tribbey-----	Coarse-loamy, mixed, superactive, nonacid, thermic Oxyaquic Udifluvents
Tullahassee-----	Coarse-loamy, mixed, active, nonacid, thermic Aquic Udifluvents
Ustibuck-----	Fine, smectitic, thermic Ustic Epiaquerts
Verdigris-----	Fine-silty, mixed, superactive, thermic Cumulic Hapludolls
Weleetka-----	Loamy, mixed, subactive, thermic Typic Umbraguults
Wynona-----	Fine-silty, mixed, active, thermic Cumulic Epiaquolls
Yahola-----	Coarse-loamy, mixed, superactive, calcareous, thermic Udic Ustifluvents

Detailed Soil Map Units

The map units on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses. More information about each map unit is given in the section “Use and Management of the Soils.”

A map unit delineation on the detailed soil maps represents an area on the landscape and consists of one or more soils or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils or miscellaneous areas. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils and miscellaneous areas 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, are mapped without areas of minor components of other taxonomic classes. Consequently, map units are made up of the soils or miscellaneous areas for which they are named and some areas of included soils that belong to other taxonomic classes.

Most included 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 inclusions. They may or may not be mentioned in the map unit description. Other included soils and miscellaneous areas, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, inclusions. They generally are in small areas and could not be mapped separately because of the scale used. Descriptions of the soils are available in the “Official Series Descriptions,” which are online at <http://soils.usda.gov>. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The included areas of contrasting soils or miscellaneous areas are mentioned in the map unit descriptions. A few included areas 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 included areas 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 segments that have similar use and management requirements. The delineation of such landscape segments on the map provides sufficient information for the development of resource plans, but if intensive use of small areas is planned, 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 the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer or of the underlying layers, 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 or of the underlying layers. They also can differ in slope, stoniness, salinity, wetness, 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, Dennis silt loam, 1 to 3 percent slopes, is a phase of the Dennis series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes 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. Endsaw-Hector complex, 5 to 12 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. Glentosh and Larton soils, 0 to 3 percent slopes, is an undifferentiated group in this survey area.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. The Gullied land part of Konawa-Gullied land complex, 3 to 12 percent slopes, is an example. Miscellaneous areas are shown on the soil maps. Areas that are too small to be shown are identified by a special symbol on the soil maps.

The table "Acreage and Proportionate Extent of the Soils," located at the end of this section, gives the acreage and proportionate extent of each map unit. Other tables (see "Summary of Tables") give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

BctB—Bates loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 980 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Bates and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Hill on upland

Landform position: Summit and shoulder

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 1 to 3 percent

Runoff: Low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

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Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 7.1 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 12 inches; loam

BA—12 to 19 inches; loam

Bt—19 to 33 inches; clay loam

BC—33 to 39 inches; clay loam

Cr—39 to 45 inches; bedrock

Location of representative profile: About 1,200 feet east and 300 feet south of the northwest corner of sec. 11, T. 10 N., R. 11 E.

Additional Components

- Coweta and similar soils: 5 percent
- Dennis and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

BctC—Bates loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 980 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Bates and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 7.0 inches

Depth to the top of the seasonal high water table: More than 6 feet

Soil Survey of Okfuskee County, Oklahoma

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 12 inches; loam

BA—12 to 18 inches; loam

Bt1—18 to 28 inches; sandy clay loam

Bt2—28 to 38 inches; sandy clay loam

Cr—38 to 42 inches; bedrock

Location of representative profile: About 500 feet east and 1,400 feet south of the northwest corner of sec. 23, T. 12 N., R. 11 E.

Additional Components

- Coweta and similar soils: 9 percent
- Dennis and similar soils: 6 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

BctC2—Bates loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 980 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Bates and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 6.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY856OK, Eroded Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 6 inches; loam

BA—6 to 12 inches; loam

Bt—12 to 26 inches; sandy clay loam

BC—26 to 36 inches; gravelly sandy clay loam

Cr—36 to 40 inches; bedrock

Location of representative profile: About 2,200 feet south and 50 feet west of the northeast corner of sec. 23, T. 11 N., R. 11 E.

Additional Components

- Coweta and similar soils: 9 percent
- Dennis and similar soils: 6 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

BoyA—Boley silt loam, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 660 to 850 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Boley and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Backswamp on flood plain in valley

Parent material: Loamy and clayey alluvium

Slope range: 0 to 1 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Poorly drained

Available water capacity: About 11.8 inches

Depth to the top of the seasonal high water table: 1.0 to 4.0 feet

Flooding: Frequent

Ponding: Frequent

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 6 inches; silt loam
C—6 to 42 inches; silt loam
Ab—42 to 48 inches; silt loam
Cb1—48 to 73 inches; silty clay
Cb2—73 to 88 inches; silty clay loam

Location of representative profile: About 2,500 feet west and 1,100 feet south of the southeast corner of sec. 16, T. 10 N., R. 12 E.

Additional Components

- Severn and similar soils: 9 percent
- Oklared and similar soils: 6 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

**CaaA—Canadian fine sandy loam, 0 to 1 percent slopes,
rarely flooded**

Map Unit Setting

Major land resource area: 80A
Elevation range: 850 to 980 feet
Mean annual precipitation: 37 to 39 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 210 to 215 days

Major Component Description

Canadian and similar soils

Extent of component in the map unit: 95 percent
Geomorphic setting: Flood plain in valley
Parent material: Loamy alluvium
Slope range: 0 to 1 percent
Runoff: Negligible
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Moderately rapid
Slowest permeability class within a depth of 60 inches: Moderately rapid
Drainage class: Well drained
Available water capacity: About 8.3 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: Rare
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—1
Ecological site number and name—R080AY050OK, Loamy Bottomland Pe 44-64

Typical profile:

Ap—0 to 8 inches; fine sandy loam
A—8 to 14 inches; fine sandy loam

Bw—14 to 30 inches; fine sandy loam

C—30 to 65 inches; fine sandy loam

Location of representative profile: About 600 feet north and 400 feet west of the southeast corner of sec. 28, T. 10 N., R. 12 E.

Additional Components

- Mason and similar soils: 3 percent
- Severn and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ClrB—Clearview fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 790 to 950 feet

Mean annual precipitation: 38 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Clearview and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Summit and shoulder

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 1 to 3 percent

Runoff: High

Depth to bedrock (lithic): 20 to 40 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Somewhat poorly drained

Available water capacity: About 5.2 inches

Depth to the top of the seasonal high water table: 1.9 to 3.3 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3s

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

Ap—0 to 3 inches; fine sandy loam

E—3 to 8 inches; fine sandy loam

BE—8 to 14 inches; loam

Bt1—14 to 23 inches; clay loam

Bt2—23 to 31 inches; clay loam

R—31 to 40 inches; bedrock

Location of representative profile: About 1,380 feet east and 2,100 feet north of the southwest corner of sec. 1, T. 10 N., R. 12 E.

Additional Components

- Endsaw and similar soils: 5 percent
- Hector and similar soils: 5 percent
- Shermore and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

ClrC—Clearview fine sandy loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 790 to 950 feet

Mean annual precipitation: 38 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Clearview and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: High

Depth to bedrock (lithic): 20 to 40 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Somewhat poorly drained

Available water capacity: About 5.8 inches

Depth to the top of the seasonal high water table: 1.9 to 3.3 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

A—0 to 8 inches; fine sandy loam

E—8 to 13 inches; fine sandy loam

BE—13 to 23 inches; loam

Bt—23 to 35 inches; sandy clay loam

R—35 to 40 inches; bedrock

Location of representative profile: About 1,780 feet east and 1,050 feet south of the northwest corner of sec. 15, T. 12 N., R. 11 E.

Additional Components

- Shermore and similar soils: 8 percent
- Hector and similar soils: 7 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ClrC2—Clearview fine sandy loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 118B

Elevation range: 790 to 950 feet

Mean annual precipitation: 38 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Clearview and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: High

Depth to bedrock (lithic): 20 to 40 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Somewhat poorly drained

Available water capacity: About 5.0 inches

Depth to the top of the seasonal high water table: 1.9 to 3.3 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah

Pe 66-72

Typical profile:

A—0 to 6 inches; fine sandy loam

Bt1—6 to 19 inches; sandy clay loam

Bt2—19 to 26 inches; sandy clay loam

BC—26 to 30 inches; gravelly sandy clay loam

R—30 to 40 inches; bedrock

Location of representative profile: About 2,100 feet south and 200 feet west of the northeast corner of sec. 33, T. 11 N., R. 10 E.

Additional Components

- Hector and similar soils: 5 percent
- Shermore and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

CoBC—Coweta-Bates complex, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 820 to 950 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Coweta and similar soils

Extent of component in the map unit: 60 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Medium

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 3.0 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R112XY087OK, Shallow Prairie Pe 62-80

Typical profile:

A—0 to 11 inches; loam

Bw—11 to 19 inches; gravelly loam

Cr—19 to 25 inches; bedrock

Location of representative profile: About 2,400 feet west and 2,550 feet north of the southeast corner of sec. 14, T. 12 N., R. 11 E.

Bates and similar soils

Extent of component in the map unit: 35 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Loamy residuum weathered from sandstone and shale

Soil Survey of Okfuskee County, Oklahoma

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 4.7 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 11 inches; loam

BA—11 to 14 inches; loam

Bt—14 to 25 inches; loam

Cr—25 to 30 inches; bedrock

Location of representative profile: About 2,400 feet west and 2,300 feet south of the northeast corner of sec. 14, T. 12 N., R. 11 E.

Additional Components

- Dennis and similar soils: 2 percent
- Eram and similar soils: 2 percent
- Rock outcrop: 1 percent

Management

Major uses: Cropland, improved pastureland, and rangeland (fig. 2)

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

CouB—Choteau silt loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 720 to 890 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Choteau and similar soils

Extent of component in the map unit: 100 percent

Geomorphic setting: Terrace on upland

Landform position: Footslope

Parent material: Loamy and clayey alluvium or colluvium derived from shale

Slope range: 1 to 3 percent

Runoff: Medium

Depth to bedrock: More than 60 inches



Figure 2.—An area of the Coweta-Bates complex, 3 to 5 percent slopes.

Slowest permeability class of the soil: Slow
Slowest permeability class within a depth of 60 inches: Slow
Drainage class: Somewhat poorly drained
Available water capacity: About 11.1 inches
Depth to the top of the seasonal high water table: 2.5 to 3.0 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e
Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 9 inches; loam
A—9 to 18 inches; loam
E—18 to 24 inches; loam
BE—24 to 32 inches; silty clay loam
Bt1—32 to 48 inches; silty clay
Bt2—48 to 80 inches; silty clay

Location of representative profile: About 2,100 feet west and 100 feet south of the northeast corner of sec. 12, T. 10 N., R. 11 E.

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

CouC—Choteau silt loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 720 to 890 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Choteau and similar soils

Extent of component in the map unit: 97 percent

Geomorphic setting: Terrace on upland

Landform position: Backslope and footslope

Parent material: Loamy and clayey alluvium or colluvium derived from shale

Slope range: 3 to 5 percent

Runoff: Medium

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 11.0 inches

Depth to the top of the seasonal high water table: 2.5 to 3.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 16 inches; loam

E—16 to 20 inches; loam

BE—20 to 26 inches; silty clay loam

Bt1—26 to 47 inches; silty clay

Bt2—47 to 72 inches; silty clay

Location of representative profile: About 2,200 feet north and 1,250 feet east of the southwest corner of sec. 6, T. 10 N., R. 12 E.

Additional Components

- Bates and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

CskB—Chickasha loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 38 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 215 days

Major Component Description

Chickasha and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone

Slope range: 1 to 3 percent

Runoff: Low

Depth to bedrock (paralithic): 40 to 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 10.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R080AY056OK, Loamy Prairie Pe 44-64

Typical profile:

Ap—0 to 7 inches; loam

BA—7 to 23 inches; loam

Bt1—23 to 37 inches; sandy clay loam

Bt2—37 to 59 inches; sandy clay loam

Cr—59 to 65 inches; bedrock

Location of representative profile: About 400 feet south and 300 feet west of the northeast corner of sec. 30, T. 12 N., R. 7 E.

Additional Components

- Grainola and similar soils: 5 percent
- Masham and similar soils: 5 percent
- Renfrow and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

DAM—Large dam

Map Unit Setting

Major land resource area: 112

Elevation range: 660 to 980 feet

Mean annual precipitation: 37 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 225 days

Major Component Description

Dam

Extent of component in the map unit: 100 percent

Geomorphic setting: Hills on upland

Slope range: 3 to 45 percent

Runoff: Very high

Interpretive groups:

Land capability classification (nonirrigated)—8

Ecological site number and name—none assigned

Location of representative profile: About 725 feet south and 300 feet east of the northeast corner of sec. 12, T. 12 N., R. 9 E.

DenB—Dennis silt loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 920 feet

Mean annual precipitation: 39 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Dennis and similar soils

Extent of component in the map unit: 91 percent

Geomorphic setting: Hill on upland

Landform position: Summit and shoulder

Parent material: Clayey residuum weathered from shale

Slope range: 1 to 3 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.5 inches

Depth to the top of the seasonal high water table: 1.0 to 2.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 8 inches; silt loam

E—8 to 15 inches; silt loam

BE—15 to 22 inches; silty clay loam

Bt—22 to 50 inches; silty clay

BC—50 to 62 inches; silty clay loam

C—62 to 83 inches; silty clay loam

Location of representative profile: About 1,600 feet east and 100 feet north of the southwest corner of sec. 14, T. 11 N., R. 11 E.

Additional Components

- Parsons and similar soils: 9 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

DenC—Dennis silt loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 920 feet

Mean annual precipitation: 39 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Dennis and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Hill on upland

Landform position: Shoulder and backslope

Parent material: Clayey residuum weathered from shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.5 inches

Depth to the top of the seasonal high water table: 1.0 to 2.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 12 inches; silt loam

E—12 to 16 inches; silt loam

BE—16 to 20 inches; silty clay loam

Bt1—20 to 39 inches; silty clay

Bt2—39 to 54 inches; silty clay

BC—54 to 80 inches; silty clay

Location of representative profile: About 1,200 feet east and 500 feet north of the southwest corner of sec. 2, T. 10 N., R. 11 E.

Additional Components

- Bates and similar soils: 5 percent
- Eram and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

DenC2—Dennis silt loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 920 feet

Mean annual precipitation: 39 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Dennis and similar soils

Extent of component in the map unit: 89 percent

Geomorphic setting: Hill on upland

Landform position: Shoulder and backslope

Parent material: Clayey residuum weathered from shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.4 inches

Depth to the top of the seasonal high water table: 1.0 to 2.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY856OK, Eroded Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 6 inches; silt loam

BA—6 to 14 inches; silty clay loam

Bt1—14 to 26 inches; silty clay

Bt2—26 to 46 inches; silty clay

Bt3—46 to 80 inches; silty clay

Location of representative profile: About 2,550 feet south and 600 feet east of the northwest corner of sec. 14, T. 12 N., R. 11 E.

Additional Components

- Bates and similar soils: 4 percent
- Parsons and similar soils: 4 percent
- Eram and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

DEPD3—Dennis, Eram, and Pharoah soils, 3 to 8 percent slopes, severely eroded

Map Unit Setting

Major land resource area: 112

Elevation range: 720 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Dennis and similar soils

Extent of component in the map unit: 63 percent

Geomorphic setting: Hill on upland

Landform position: Shoulder and backslope

Parent material: Clayey residuum weathered from shale

Slope range: 3 to 8 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.4 inches

Depth to the top of the seasonal high water table: 1.0 to 2.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R112XY856OK, Eroded Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 6 inches; silt loam

BA—6 to 16 inches; silty clay loam

Bt1—16 to 28 inches; clay

Bt2—28 to 42 inches; clay

BC—42 to 64 inches; clay

Location of representative profile: About 2,800 feet east and 1,300 feet north of the southwest corner of sec. 26, T. 10 N., R. 11 E.

Eram and similar soils

Extent of component in the map unit: 20 percent

Geomorphic setting: Hill on upland

Landform position: Backslope and footslope

Parent material: Clayey residuum weathered from sandstone and shale

Slope range: 3 to 8 percent

Runoff: Very high

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Impermeable

Soil Survey of Okfuskee County, Oklahoma

Drainage class: Moderately well drained

Available water capacity: About 5.6 inches

Depth to the top of the seasonal high water table: 1.0 to 2.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R112XY856OK, Eroded Loamy Prairie Pe 62-80

Typical profile:

Ap—0 to 5 inches; silty clay loam

Bt—5 to 20 inches; clay

BC—20 to 34 inches; clay

Cr—34 to 44 inches; bedrock

Location of representative profile: About 2,800 feet east and 1,500 feet north of the southwest corner of sec. 26, T. 10 N., R. 11 E.

Pharoah and similar soils

Extent of component in the map unit: 10 percent

Geomorphic setting: Hill on upland

Landform position: Backslope and footslope

Parent material: Old alluvium or clayey residuum weathered from shale

Slope range: 1 to 3 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Somewhat poorly drained

Available water capacity: About 9.4 inches

Depth to the top of the seasonal high water table: 0.5 foot to 1.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R112XY810OK, Eroded Claypan Prairie Pe 62-80

Typical profile:

A—0 to 7 inches; silt loam

E—7 to 11 inches; silt loam

Bt1—11 to 27 inches; clay

Bt2—27 to 50 inches; clay

Bt3—50 to 61 inches; clay

BC—61 to 81 inches; clay

Location of representative profile: About 2,600 feet south and 450 feet east of the northwest corner of sec. 8, T. 12 N., R 10 E.

Additional Components

- Bates and similar soils: 7 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

DsSC—Darsil-Stephenville complex, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Darsil and similar soils

Extent of component in the map unit: 50 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Sandy residuum weathered from sandstone

Slope range: 3 to 5 percent

Runoff: Medium

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Excessively drained

Available water capacity: About 1.0 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4s

Ecological site number and name—R084AY089OK, Shallow Savannah Pe 48-64

Typical profile:

A—0 to 4 inches; loamy fine sand

E—4 to 12 inches; loamy fine sand

Cr—12 to 15 inches; bedrock

Location of representative profile: About 900 feet south and 1,440 feet west of the northeast corner of sec. 26, T. 13 N., R. 9 E.

Stephenville and similar soils

Extent of component in the map unit: 45 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 3.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 4 inches; fine sandy loam

E—4 to 14 inches; fine sandy loam

Bt—14 to 26 inches; sandy clay loam

Cr—26 to 40 inches; bedrock

Location of representative profile: About 900 feet south and 1,340 feet west of the northeast corner of sec. 26, T. 13 N., R. 9 E.

Additional Components

- Rock outcrop: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

DsSE—Darsil-Stephenville complex, 5 to 12 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Darsil and similar soils

Extent of component in the map unit: 60 percent

Geomorphic setting: Hill on upland

Landform position: Shoulder and backslope

Parent material: Sandy residuum weathered from sandstone

Slope range: 5 to 12 percent

Runoff: High

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Excessively drained

Available water capacity: About 1.5 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY089OK, Shallow Savannah Pe 48-64

Typical profile:

A—0 to 6 inches; loamy fine sand

E—6 to 18 inches; loamy fine sand

Cr—18 to 25 inches; bedrock

Location of representative profile: About 1,000 feet north and 1,500 feet east of the southwest corner of sec. 24, T. 13 N., R. 8 E.

Stephenville and similar soils

Extent of component in the map unit: 35 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Loamy residuum weathered from sandstone

Slope range: 5 to 12 percent

Runoff: Medium

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 3.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 6 inches; fine sandy loam

E—6 to 13 inches; fine sandy loam

Bt1—13 to 20 inches; sandy clay loam

Bt2—20 to 26 inches; sandy clay loam

Cr—26 to 30 inches; bedrock

Location of representative profile: About 1,000 feet north and 1,450 feet east of the southwest corner of sec. 24, T. 13 N., R. 8 E.

Additional Components

- Rock outcrop: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

Ef1B—Eufaula loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Eufaula and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Dune on dune field on terrace in valley

Parent material: Eolian sands

Slope range: 0 to 3 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Rapid

Drainage class: Somewhat excessively drained

Available water capacity: About 5.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY018OK, Deep Sand Savannah Pe 48-64

Typical profile:

A—0 to 10 inches; loamy fine sand

E—10 to 34 inches; loamy fine sand

E and Bt—34 to 80 inches; loamy fine sand

Location of representative profile: About 600 feet north and 800 feet west of the southeast corner of sec. 29, T. 11 N., R. 9 E.

Additional Components

- Dougherty and similar soils: 4 percent
- Konawa and similar soils: 3 percent
- Stidham and similar soils: 3 percent
- Galey and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

Ef1E—Eufaula loamy fine sand, 3 to 12 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Eufaula and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Dune on dune field on terrace in valley

Soil Survey of Okfuskee County, Oklahoma

Parent material: Eolian sands
Slope range: 3 to 12 percent
Runoff: Very low
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Rapid
Slowest permeability class within a depth of 60 inches: Rapid
Drainage class: Somewhat excessively drained
Available water capacity: About 5.2 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e
Ecological site number and name—R084AY018OK, Deep Sand Savannah Pe 48-64

Typical profile:

A—0 to 12 inches; loamy fine sand
E—12 to 50 inches; loamy fine sand
E and Bt—50 to 80 inches; loamy fine sand

Location of representative profile: About 650 feet east and 1,000 feet north of the southwest corner of sec. 7, T. 11 N., R. 9 E.

Additional Components

- Dougherty and similar soils: 4 percent
- Galey and similar soils: 4 percent
- Konawa and similar soils: 4 percent
- Darsil and similar soils: 2 percent
- Weleetka and similar soils: 1 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

EnHE—Endsaw-Hector complex, 5 to 12 percent slopes

Map Unit Setting

Major land resource area: 118B
Elevation range: 720 to 980 feet
Mean annual precipitation: 39 to 41 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 215 to 225 days

Major Component Description

Endsaw and similar soils

Extent of component in the map unit: 55 percent
Geomorphic setting: Hill on upland
Landform position: Backslope
Parent material: Clayey colluvium derived from shale
Slope range: 5 to 12 percent
Runoff: Very high

Soil Survey of Okfuskee County, Oklahoma

Depth to bedrock (paralithic): 40 to 60 inches
Slowest permeability class of the soil: Slow
Slowest permeability class within a depth of 60 inches: Very slow
Drainage class: Moderately well drained
Available water capacity: About 6.2 inches
Depth to the top of the seasonal high water table: 2.0 to 3.0 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e
Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

A—0 to 4 inches; stony fine sandy loam
E—4 to 11 inches; stony fine sandy loam
Bt1—11 to 22 inches; clay
Bt2—22 to 48 inches; clay
Cr—48 to 54 inches; bedrock

Location of representative profile: About 2,000 feet east and 50 feet south of the northwest corner of sec. 1, T. 10 N., R. 12 E.

Hector and similar soils

Extent of component in the map unit: 35 percent
Geomorphic setting: Hill on upland
Landform position: Summit and backslope
Parent material: Loamy residuum weathered from sandstone
Slope range: 5 to 12 percent
Runoff: Very high
Depth to bedrock (lithic): 10 to 20 inches
Slowest permeability class of the soil: Moderately rapid
Slowest permeability class within a depth of 60 inches: Impermeable
Drainage class: Well drained
Available water capacity: About 1.8 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e
Ecological site number and name—R118BY088OK, Shallow Savannah Pe 66-72

Typical profile:

A—0 to 3 inches; very stony fine sandy loam
E—3 to 8 inches; very stony fine sandy loam
Bw—8 to 16 inches; stony fine sandy loam
R—16 to 25 inches; bedrock

Location of representative profile: About 1,800 feet east and 50 feet south of the northwest corner of sec. 1, T. 10 N., R. 12 E.

Additional Components

- Clearview and similar soils: 6 percent
- Rock outcrop: 4 percent



Figure 3.—Native grass in an area of Endsaw-Hector complex, 5 to 12 percent slopes. Endsaw soils are in the foreground, and Hector soils are on the steeper slopes in the background.

Management

Major uses: Improved pastureland and rangeland (fig. 3)

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

EnHG—Endsaw-Hector complex, 12 to 30 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 720 to 980 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Endsaw and similar soils

Extent of component in the map unit: 65 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Clayey colluvium derived from shale

Slope range: 12 to 30 percent

Runoff: Very high

Depth to bedrock (paralithic): 40 to 60 inches

Soil Survey of Okfuskee County, Oklahoma

Slowest permeability class of the soil: Slow
Slowest permeability class within a depth of 60 inches: Very slow
Drainage class: Moderately well drained
Available water capacity: About 6.5 inches
Depth to the top of the seasonal high water table: 2.0 to 3.0 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—7e
Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

A—0 to 4 inches; stony fine sandy loam
E—4 to 14 inches; stony fine sandy loam
Bt1—14 to 21 inches; clay
Bt2—21 to 41 inches; clay
BC—41 to 50 inches; clay
Cr—50 to 60 inches; bedrock

Location of representative profile: About 1,600 feet south and 1,800 feet east of the northwest corner of sec. 11, T. 10 N., R. 12 E.

Hector and similar soils

Extent of component in the map unit: 30 percent
Geomorphic setting: Hill on upland
Landform position: Summit and backslope
Parent material: Loamy residuum weathered from sandstone
Slope range: 12 to 30 percent
Runoff: Very high
Depth to bedrock (lithic): 10 to 20 inches
Slowest permeability class of the soil: Moderately rapid
Slowest permeability class within a depth of 60 inches: Impermeable
Drainage class: Well drained
Available water capacity: About 1.3 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—7e
Ecological site number and name—R118BY088OK, Shallow Savannah Pe 66-72

Typical profile:

A—0 to 3 inches; stony fine sandy loam
E—3 to 6 inches; stony fine sandy loam
Bw—6 to 12 inches; stony fine sandy loam
R—12 to 20 inches; bedrock

Location of representative profile: About 1,700 feet east and 2,100 feet south of the northwest corner of sec. 11, T. 10 N., R. 12 E.

Additional Components

- Rock outcrop: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

EraE—Eram clay loam, 8 to 12 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 920 feet

Mean annual precipitation: 38 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 220 days

Major Component Description

Eram and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Clayey residuum weathered from sandstone and shale

Slope range: 5 to 12 percent

Runoff: Very high

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Moderately well drained

Available water capacity: About 6.3 inches

Depth to the top of the seasonal high water table: 1.0 to 2.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 8 inches; clay loam

Bt—8 to 22 inches; silty clay

BC—22 to 38 inches; silty clay

Cr—38 to 45 inches; bedrock

Location of representative profile: About 1,200 feet west and 100 feet south of the northeast corner of sec. 31, T. 10 N., R. 9 E.

Additional Components

- Bates and similar soils: 6 percent
- Coweta and similar soils: 5 percent
- Dennis and similar soils: 4 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ErCF—Eram-Coweta complex, 8 to 20 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 950 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Eram and similar soils

Extent of component in the map unit: 75 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Clayey residuum weathered from sandstone and shale

Slope range: 8 to 20 percent

Runoff: Very high

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Moderately well drained

Available water capacity: About 6.0 inches

Depth to the top of the seasonal high water table: 1.0 to 2.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 10 inches; silt loam

Bt1—10 to 24 inches; silty clay

Bt2—24 to 35 inches; silty clay

Cr—35 to 40 inches; bedrock

Location of representative profile: About 800 feet south and 1,050 feet west of the northeast corner of sec. 26, T. 12 N., R. 11 E.

Coweta and similar soils

Extent of component in the map unit: 15 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 8 to 20 percent

Runoff: High

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 1.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R112XY087OK, Shallow Prairie Pe 62-80

Typical profile:

A—0 to 8 inches; loam

Bw—8 to 11 inches; gravelly loam

Cr—11 to 14 inches; bedrock

Location of representative profile: About 800 feet south and 1,300 feet west of the northeast corner of sec. 26, T. 12 N., R. 11 E.

Additional Components

- Dennis and similar soils: 4 percent
- Bates and similar soils: 3 percent
- Prue and similar soils: 2 percent
- Rock outcrop: 1 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ErmC—Eram silt loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 790 to 950 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Eram and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Clayey residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Moderately well drained

Available water capacity: About 6.1 inches

Depth to the top of the seasonal high water table: 1.0 to 2.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 9 inches; silt loam
Bt—9 to 20 inches; silty clay
BC—20 to 36 inches; silty clay
Cr—36 to 40 inches; bedrock

Location of representative profile: About 2,000 feet north and 1,600 feet west of the southeast corner of sec. 11, T. 11 N., R. 11 E.

Additional Components

- Bates and similar soils: 5 percent
- Dennis and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ErRE—Eram-Radley complex, 0 to 12 percent slopes

Map Unit Setting

Major land resource area: 112
Elevation range: 750 to 920 feet
Mean annual precipitation: 39 to 41 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 215 to 225 days

Major Component Description

Eram and similar soils

Extent of component in the map unit: 50 percent
Geomorphic setting: Drainageway on upland
Landform position: Backslope
Parent material: Clayey residuum weathered from sandstone and shale
Slope range: 5 to 12 percent
Runoff: Very high
Depth to bedrock (paralithic): 20 to 40 inches
Slowest permeability class of the soil: Slow
Slowest permeability class within a depth of 60 inches: Impermeable
Drainage class: Moderately well drained
Available water capacity: About 6.4 inches
Depth to the top of the seasonal high water table: 1.0 to 2.0 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e
Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 10 inches; silt loam
Bt—10 to 30 inches; silty clay
BC—30 to 38 inches; silty clay
Cr—38 to 50 inches; bedrock

Soil Survey of Okfuskee County, Oklahoma

Location of representative profile: About 1,700 feet south and 100 feet east of the northwest corner of sec. 28, T. 12 N., R. 10 E.

Radley and similar soils

Extent of component in the map unit: 35 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Moderately well drained

Available water capacity: About 11.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 13 inches; silt loam

Bw—13 to 30 inches; silt loam

C—30 to 80 inches; silt loam

Location of representative profile: About 1,800 feet south and 200 feet east of the northwest corner of sec. 28, T. 12 N., R. 10 E.

Additional Components

- Bates and similar soils: 5 percent
- Coweta and similar soils: 3 percent
- Dennis and similar soils: 3 percent
- Tullahassee and similar soils: 2 percent
- Wynona and similar soils: 2 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GadA—Gaddy loamy fine sand, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 890 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Gaddy and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Flood plain on natural levee in valley

Parent material: Sandy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Rapid

Drainage class: Somewhat excessively drained

Available water capacity: About 4.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R080AY068OK, Sandy Bottomland Pe 44-64

Typical profile:

Ap—0 to 9 inches; loamy fine sand

C1—9 to 19 inches; loamy fine sand

C2—19 to 80 inches; stratified fine sand to clay loam

Location of representative profile: About 2,200 feet south and 1,250 feet east of the northwest corner of sec. 18, T. 11 N., R. 9 E.

Additional Components

- Kiamatia and similar soils: 7 percent
- Severn and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GalB—Galey fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Galey and similar soils

Extent of component in the map unit: 95 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Loamy alluvium

Slope range: 0 to 3 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Moderately well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: 4.0 to 6.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

Ap—0 to 7 inches; fine sandy loam

A—7 to 12 inches; fine sandy loam

BA—12 to 19 inches; loam

Bt1—19 to 34 inches; clay loam

Bt2—34 to 54 inches; clay loam

Bt3—54 to 80 inches; sandy clay loam

Location of representative profile: About 1,400 feet south and 200 feet west of the northeast corner of sec. 24, T. 10 N., R. 9 E.

Additional Components

- Porum and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GalC—Galey fine sandy loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Galey and similar soils

Extent of component in the map unit: 97 percent

Geomorphic setting: Terrace on upland

Landform position: Shoulder and backslope

Parent material: Loamy alluvium

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Moderately well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: 4.0 to 6.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

Ap—0 to 6 inches; fine sandy loam

A—6 to 12 inches; fine sandy loam

Bt1—12 to 31 inches; sandy clay loam

Bt2—31 to 43 inches; sandy clay loam

Bt3—43 to 80 inches; sandy clay loam

Location of representative profile: About 150 feet south and 700 feet east of the northwest corner of sec. 1, T. 10 N., R. 9 E.

Additional Components

- Porum and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GalC2—Galey fine sandy loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Galey and similar soils

Extent of component in the map unit: 97 percent

Geomorphic setting: Terrace on upland

Landform position: Shoulder and backslope

Parent material: Loamy alluvium

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Moderately well drained

Available water capacity: About 10.0 inches

Depth to the top of the seasonal high water table: 4.0 to 5.9 feet

Soil Survey of Okfuskee County, Oklahoma

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY876OK, Eroded Sandy Savannah

Pe 48-64

Typical profile:

Ap—0 to 7 inches; fine sandy loam

Bt1—7 to 22 inches; sandy clay loam

Bt2—22 to 44 inches; clay loam

BC—44 to 68 inches; clay loam

C—68 to 79 inches; sandy clay loam

Location of representative profile: About 2,625 feet north and 2,200 feet west of the southeast corner of sec. 32, T. 11 N., R. 10 E.

Additional Components

- Porum and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GdyA—Gaddy loamy fine sand, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 890 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Gaddy and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Point bar on flood plain in valley

Parent material: Sandy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Rapid

Drainage class: Somewhat excessively drained

Available water capacity: About 4.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R080AY068OK, Sandy Bottomland Pe 44-64

Typical profile:

A—0 to 11 inches; loamy fine sand

C1—11 to 22 inches; stratified fine sand to clay loam

C2—22 to 80 inches; stratified fine sand to clay loam

Location of representative profile: About 1,200 feet west and 4,150 feet south of the northeast corner of sec. 24, T. 11 N., R. 9 E.

Additional Components

- Kiomatia and similar soils: 7 percent
- Severn and similar soils: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GhLB—Glentosh and Larton soils, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 690 to 890 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Glentosh and similar soils

Extent of component in the map unit: 60 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Eolian sands

Slope range: 0 to 3 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Rapid

Drainage class: Excessively drained

Available water capacity: About 4.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY020OK, Deep Sand Savannah Pe 66-72

Typical profile:

A—0 to 8 inches; loamy fine sand

C1—8 to 30 inches; loamy fine sand
C2—30 to 52 inches; loamy fine sand
C3—52 to 80 inches; fine sand

Location of representative profile: About 1,400 feet south and 200 feet west of the northeast corner of sec. 24, T. 10 N., R. 12 E.

Larton and similar soils

Extent of component in the map unit: 30 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Eolian sands

Slope range: 0 to 3 percent

Runoff: Very low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 6.6 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY020OK, Deep Sand Savannah Pe 66-72

Typical profile:

A—0 to 25 inches; loamy fine sand

E—25 to 38 inches; loamy fine sand

Bt—38 to 62 inches; sandy clay loam

BC—62 to 80 inches; fine sandy loam

Location of representative profile: About 2,200 feet south and 2,600 feet west of the northeast corner of sec. 13, T. 10 N., R. 10 E.

Additional Components

- Weleetka and similar soils: 10 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GlhE—Glentosh loamy fine sand, 3 to 12 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 690 to 890 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Glentosh and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Terrace on upland

Landform position: Shoulder and backslope

Parent material: Eolian sands

Slope range: 3 to 12 percent

Runoff: Very low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Rapid

Drainage class: Excessively drained

Available water capacity: About 4.2 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY020OK, Deep Sand Savannah Pe 66-72

Typical profile:

A—0 to 5 inches; loamy fine sand

C1—5 to 36 inches; loamy fine sand

C2—36 to 58 inches; loamy fine sand

C3—58 to 80 inches; sand

Location of representative profile: About 450 feet west and 200 feet south of the northeast corner of sec. 13, T. 10 N., R. 10 E.

Additional Components

- Glenpool and similar soils: 4 percent
- Karma and similar soils: 4 percent
- Larton and similar soils: 4 percent
- Hector and similar soils: 2 percent
- Weleetka and similar soils: 1 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

GriC2—Grainola silty clay loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 80A

Elevation range: 820 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 215 days

Major Component Description

Grainola and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Clayey residuum weathered from shale

Slope range: 3 to 5 percent

Runoff: High

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Well drained

Available water capacity: About 6.2 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R080AY810OK, Eroded Claypan Prairie (North)

Pe 44-64

Typical profile:

A—0 to 2 inches; silty clay loam

BA—2 to 8 inches; clay loam

Bt1—8 to 16 inches; clay

Bt2—16 to 39 inches; clay

Cr—39 to 52 inches; bedrock

Location of representative profile: About 800 feet north and 1,050 feet east of the southwest corner of sec. 29, T. 13 N., R. 7 E.

Additional Components

- Masham and similar soils: 5 percent
- Renfrow and similar soils: 5 percent
- Rock outcrop: 3 percent
- Huska and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

HeCC—Hector-Clearview complex, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 720 to 980 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Hector and similar soils

Extent of component in the map unit: 55 percent

Geomorphic setting: Hill on upland

Landform position: Summit

Parent material: Loamy residuum weathered from sandstone

Slope range: 3 to 5 percent

Runoff: High

Depth to bedrock (lithic): 10 to 20 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Well drained

Available water capacity: About 1.7 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4s

Ecological site number and name—R118BY088OK, Shallow Savannah Pe 66-72

Typical profile:

Ap—0 to 6 inches; fine sandy loam

Bw—6 to 14 inches; gravelly fine sandy loam

R—14 to 20 inches; bedrock

Location of representative profile: About 2,500 feet south and 2,500 feet west of the northeast corner of sec. 12, T. 10 N., R. 12 E.

Clearview and similar soils

Extent of component in the map unit: 35 percent

Geomorphic setting: Hill on upland

Landform position: Summit

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock (lithic): 20 to 40 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Somewhat poorly drained

Available water capacity: About 6.0 inches

Depth to the top of the seasonal high water table: 1.5 to 3.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

Ap—0 to 8 inches; fine sandy loam

Bt1—8 to 23 inches; sandy clay loam

Bt2—23 to 36 inches; sandy clay loam

R—36 to 38 inches; bedrock



Figure 4.—An area of Hector-Clearview complex, 3 to 5 percent slopes. Hector soils are on the summit.

Location of representative profile: About 2,300 feet east and 650 feet north of the southwest corner of sec. 25, T. 13 N., R. 10 E.

Additional Components

- Endsaw and similar soils: 6 percent
- Rock outcrop: 4 percent

Management

Major uses: Cropland, improved pastureland, and rangeland (fig. 4)

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

HeCE—Hector-Clearview complex, 5 to 12 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 720 to 980 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Hector and similar soils

Extent of component in the map unit: 68 percent

Geomorphic setting: Hill on upland

Soil Survey of Okfuskee County, Oklahoma

Landform position: Summit

Parent material: Loamy residuum weathered from sandstone

Slope range: 5 to 12 percent

Runoff: Very high

Depth to bedrock (lithic): 10 to 20 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Well drained

Available water capacity: About 1.6 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY088OK, Shallow Savannah Pe 66-72

Typical profile:

A—0 to 5 inches; fine sandy loam

Bw—5 to 13 inches; gravelly fine sandy loam

R—13 to 20 inches; bedrock

Location of representative profile: About 1,700 feet north and 1,750 feet west of the southeast corner of sec. 5, T. 10 N., R. 11 E.

Clearview and similar soils

Extent of component in the map unit: 25 percent

Geomorphic setting: Hill on upland

Landform position: Summit

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 5 to 12 percent

Runoff: Very high

Depth to bedrock (lithic): 20 to 40 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Somewhat poorly drained

Available water capacity: About 4.5 inches

Depth to the top of the seasonal high water table: 1.5 to 3.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

A—0 to 6 inches; fine sandy loam

BA—6 to 12 inches; fine sandy loam

Bt—12 to 23 inches; sandy clay loam

BC—23 to 27 inches; sandy clay loam

R—27 to 30 inches; bedrock

Location of representative profile: About 1,700 feet north and 1,950 feet west of the southeast corner of sec. 5, T. 10 N., R. 11 E.

Additional Components

- Endsaw and similar soils: 7 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KarB—Karma fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 820 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Karma and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Loamy alluvium

Slope range: 0 to 3 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

A1—0 to 9 inches; fine sandy loam

A2—9 to 15 inches; fine sandy loam

Bt1—15 to 29 inches; sandy clay loam

Bt2—29 to 46 inches; sandy clay loam

BC—46 to 80 inches; fine sandy loam

Location of representative profile: About 600 feet south and 700 feet east of the northwest corner of sec. 19, T. 10 N., R. 12 E.

Additional Components

- Larton and similar soils: 6 percent
- Glentosh and similar soils: 3 percent
- Porum and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland (fig. 5)



Figure 5.—An area of Karma fine sandy loam, 0 to 3 percent slopes, is in the foreground. An area of Hector-Clearview complex, 5 to 12 percent slopes, is in the background.

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KarC—Karma fine sandy loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 820 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Karma and similar soils

Extent of component in the map unit: 89 percent

Geomorphic setting: Terrace on upland

Landform position: Shoulder and backslope

Parent material: Loamy alluvium

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Soil Survey of Okfuskee County, Oklahoma

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

Ap—0 to 9 inches; fine sandy loam

E—9 to 13 inches; fine sandy loam

Bt—13 to 34 inches; sandy clay loam

BC—34 to 80 inches; fine sandy loam

Location of representative profile: About 200 feet north and 200 feet west of the southeast corner of sec. 18, T. 10 N., R. 11 E.

Additional Components

- Larton and similar soils: 7 percent
- Glentosh and similar soils: 2 percent
- Porum and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KarD2—Karma fine sandy loam, 3 to 8 percent slopes, eroded

Map Unit Setting

Major land resource area: 118B

Elevation range: 820 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Karma and similar soils

Extent of component in the map unit: 89 percent

Geomorphic setting: Terrace on upland

Landform position: Shoulder and backslope

Parent material: Loamy alluvium

Slope range: 3 to 8 percent

Runoff: Medium

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah
Pe 66-72

Typical profile:

A—0 to 3 inches; fine sandy loam

E—3 to 10 inches; fine sandy loam

Bt1—10 to 38 inches; sandy clay loam

Bt2—38 to 55 inches; sandy clay loam

BC—55 to 80 inches; fine sandy loam

Location of representative profile: About 1,600 feet north and 400 feet east of the southwest corner of sec. 2, T. 10 N., R. 10 E.

Additional Components

- Larton and similar soils: 7 percent
- Glentosh and similar soils: 2 percent
- Porum and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KarE4—Karma fine sandy loam, 3 to 12 percent slopes, gullied

Map Unit Setting

Major land resource area: 118B

Elevation range: 820 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Karma and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Terrace on upland

Landform position: Backslope

Parent material: Loamy alluvium

Slope range: 3 to 12 percent

Runoff: Medium

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah
Pe 66-72

Typical profile:

A—0 to 4 inches; fine sandy loam

E—4 to 13 inches; fine sandy loam

Bt1—13 to 36 inches; sandy clay loam

Bt2—36 to 49 inches; sandy clay loam

BC—49 to 80 inches; fine sandy loam

Location of representative profile: About 1,900 feet west and 1,050 feet south of the northeast corner of sec. 9, T. 10 N., R. 11 E.

Additional Components

- Gullied land: 6 percent
- Glenpool and similar soils: 3 percent
- Kamie and similar soils: 3 percent
- Larton and similar soils: 3 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

**KimA—Kiomatia fine sandy loam, 0 to 1 percent slopes,
occasionally flooded**

Map Unit Setting

Major land resource area: 118B

Elevation range: 660 to 750 feet

Mean annual precipitation: 40 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Kiomatia and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Natural levee on flood plain in valley

Parent material: Sandy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 5.1 inches

Depth to the top of the seasonal high water table: 3.5 to 5.0 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3s

Ecological site number and name—R118BY068OK, Sandy Bottomland Pe 66-72

Typical profile:

A—0 to 7 inches; fine sandy loam

C1—7 to 18 inches; stratified fine sand to loam

C2—18 to 22 inches; stratified fine sand to loam

C3—22 to 80 inches; stratified fine sand to loam

Location of representative profile: About 2,200 feet east and 500 feet north of the southwest corner of sec. 26, T. 10 N., R. 12 E.

Additional Components

- Tullahassee and similar soils: 7 percent
- Severn and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KmfA—Kiomatia fine sandy loam, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 118B

Elevation range: 660 to 750 feet

Mean annual precipitation: 40 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Kiomatia and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Point bar on flood plain in valley

Parent material: Sandy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 5.0 inches

Depth to the top of the seasonal high water table: 3.5 to 5.0 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R118BY068OK, Sandy Bottomland Pe 66-72

Typical profile:

- A—0 to 6 inches; fine sandy loam
- C1—6 to 10 inches; stratified fine sand to loam
- C2—10 to 16 inches; stratified fine sand to loam
- C3—16 to 29 inches; stratified fine sand to loam
- C4—29 to 40 inches; stratified fine sand to loam
- C5—40 to 80 inches; stratified fine sand to loam

Location of representative profile: About 2,000 feet west and 1,140 feet north of the southeast corner of section 26, T. 10 N., R. 12 E.

Additional Components

- Tullahassee and similar soils: 7 percent
- Severn and similar soils: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KoGE4—Konawa-Gullied land complex, 3 to 12 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Konawa and similar soils

Extent of component in the map unit: 65 percent

Geomorphic setting: Terrace on upland

Landform position: Backslope

Parent material: Loamy alluvium

Slope range: 3 to 12 percent

Runoff: Medium

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 8.4 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY876OK, Eroded Sandy Savannah

Pe 48-64

Typical profile:

A—0 to 12 inches; fine sandy loam
E—12 to 20 inches; fine sandy loam
Bt—20 to 36 inches; sandy clay loam
BC—36 to 80 inches; fine sandy loam

Location of representative profile: About 1,200 feet north and 1,000 feet east of the southwest corner of sec. 17, T. 11 N., R. 9 E.

Gullied land

Extent of component in the map unit: 22 percent

Geomorphic setting: Terrace on upland

Landform position: Backslope

Slope range: 3 to 12 percent

Runoff: High

Interpretive groups:

Land capability classification (nonirrigated)—8

Ecological site number and name—none assigned

Location of representative profile: About 1,025 feet north and 800 feet east of the southwest corner of sec. 17, T. 11 N., R. 9 E.

Additional Components

- Porum and similar soils: 8 percent
- Eufaula and similar soils: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KowB—Konawa fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Konawa and similar soils

Extent of component in the map unit: 91 percent

Geomorphic setting: Terrace on upland

Landform position: Summit and shoulder

Parent material: Loamy alluvium

Slope range: 0 to 3 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Soil Survey of Okfuskee County, Oklahoma

Available water capacity: About 9.0 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

Ap—0 to 6 inches; fine sandy loam

A—6 to 11 inches; fine sandy loam

E—11 to 17 inches; loamy fine sand

Bt1—17 to 33 inches; sandy clay loam

Bt2—33 to 52 inches; sandy clay loam

BC—52 to 80 inches; fine sandy loam

Location of representative profile: About 1,100 feet south and 2,350 feet west of the northeast corner of sec. 20, T. 11 N., R. 9 E.

Additional Components

- Eufaula and similar soils: 3 percent
- Galey and similar soils: 3 percent
- Porum and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KowC—Konawa fine sandy loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Konawa and similar soils

Extent of component in the map unit: 92 percent

Geomorphic setting: Terrace on upland

Landform position: Backslope

Parent material: Loamy alluvium

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 8.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Soil Survey of Okfuskee County, Oklahoma

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 11 inches; fine sandy loam

E—11 to 18 inches; fine sandy loam

Bt—18 to 48 inches; sandy clay loam

BC—48 to 80 inches; fine sandy loam

Location of representative profile: About 1,100 feet north and 600 feet west of the southeast corner of sec. 20, T. 11 N., R. 9 E.

Additional Components

- Galey and similar soils: 4 percent
- Eufaula and similar soils: 2 percent
- Porum and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

KowD2—Konawa fine sandy loam, 3 to 8 percent slopes, eroded

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Konawa and similar soils

Extent of component in the map unit: 92 percent

Geomorphic setting: Terrace on upland

Landform position: Backslope

Parent material: Loamy alluvium

Slope range: 3 to 8 percent

Runoff: Medium

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 8.4 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R084AY876OK, Eroded Sandy Savannah
Pe 48-64

Typical profile:

A—0 to 4 inches; fine sandy loam

E—4 to 13 inches; fine sandy loam

Bt—13 to 37 inches; sandy clay loam

BC—37 to 88 inches; fine sandy loam

Location of representative profile: About 300 feet north and 100 feet west of the southeast corner of sec. 18, T. 11 N., R. 9 E.

Additional Components

- Galely and similar soils: 4 percent
- Eufaula and similar soils: 2 percent
- Porum and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

LrtB—Larton loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 720 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Larton and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Eolian sands

Slope range: 0 to 3 percent

Runoff: Very low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 6.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY020OK, Deep Sand Savannah Pe 66-72

Typical profile:

A—0 to 12 inches; loamy fine sand
E—12 to 28 inches; loamy fine sand
Bt1—28 to 42 inches; sandy clay loam
Bt2—42 to 63 inches; sandy clay loam
BC—63 to 80 inches; fine sandy loam

Location of representative profile: About 2,000 feet south and 2,700 feet east of the northwest corner of sec. 13, T. 10 N., R. 9 E.

Additional Components

- Glenpool and similar soils: 5 percent
- Glentosh and similar soils: 5 percent
- Karma and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

LrtD—Larton loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

Major land resource area: 118B
Elevation range: 720 to 920 feet
Mean annual precipitation: 39 to 41 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 215 to 225 days

Major Component Description

Larton and similar soils

Extent of component in the map unit: 85 percent
Geomorphic setting: Terrace on upland
Landform position: Shoulder and backslope
Parent material: Eolian sands
Slope range: 3 to 8 percent
Runoff: Low
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Moderate
Slowest permeability class within a depth of 60 inches: Moderate
Drainage class: Well drained
Available water capacity: About 7.3 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e
Ecological site number and name—R118BY020OK, Deep Sand Savannah Pe 66-72

Typical profile:

A—0 to 6 inches; loamy fine sand
E—6 to 30 inches; loamy fine sand

Bt1—30 to 48 inches; sandy clay loam

Bt2—48 to 80 inches; sandy clay loam

Location of representative profile: About 1,800 feet west and 200 feet north of the southeast corner of sec. 13, T. 10 N., R. 12 E.

Additional Components

- Glenpool and similar soils: 5 percent
- Glentosh and similar soils: 5 percent
- Karma and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

LtgA—Lightning silt loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 660 to 690 feet

Mean annual precipitation: 40 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 220 to 225 days

Major Component Description

Lightning and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Backswamp on flood plain in valley

Parent material: Clayey alluvium

Slope range: 0 to 1 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Poorly drained

Available water capacity: About 10.4 inches

Depth to the top of the seasonal high water table: 0.0 to 1.0 foot

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3w

Ecological site number and name—R112XY045OK, Heavy Bottomland Pe 62-80

Typical profile:

A—0 to 8 inches; silt loam

B_{Ag}—8 to 16 inches; silty clay loam

B_{tg}1—16 to 32 inches; silty clay loam

B_{tg}2—32 to 80 inches; silty clay loam

Location of representative profile: About 2,400 feet west and 900 feet north of the southeast corner of sec. 36, T. 10 N., R. 12 E.

Additional Components

- Mason and similar soils: 5 percent
- Verdigris and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

M-W—Miscellaneous water

Map Unit Setting

Major land resource area: 112

Elevation range: 660 to 980 feet

Mean annual precipitation: 37 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 225 days

Major Component Description

Extent of miscellaneous water in the map unit: 100 percent

Typical profile:

This map unit consists of wastewater. Examples include sewage lagoons and impoundments for industrial wastewater.

Location of representative profile: About 1,850 feet north and 1,175 feet west of the southeast corner of sec. 18, T. 11 N., R. 10 E.

MasA—Mason silt loam, 0 to 1 percent slopes, rarely flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 225 days

Major Component Description

Mason and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Moderately slow

Soil Survey of Okfuskee County, Oklahoma

Drainage class: Moderately well drained

Available water capacity: About 10.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Rare

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—1

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

Ap—0 to 6 inches; loam

A—6 to 14 inches; loam

Bt1—14 to 26 inches; silty clay loam

Bt2—26 to 46 inches; silty clay loam

BC—46 to 65 inches; clay loam

C—65 to 80 inches; silty clay loam

Location of representative profile: About 500 feet west and 2,400 feet north of the southeast corner of sec. 21, T. 10 N., R. 12 E.

Additional Components

- Kiamatia and similar soils: 5 percent
- Severn and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

MaTA—Madill and Tullahassee soils, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 790 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Madill and similar soils

Extent of component in the map unit: 50 percent

Geomorphic setting: Flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 9.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Soil Survey of Okfuskee County, Oklahoma

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 14 inches; fine sandy loam

C1—14 to 19 inches; fine sandy loam

C2—19 to 38 inches; loamy fine sand

C3—38 to 55 inches; fine sandy loam

C4—55 to 80 inches; fine sandy loam

Location of representative profile: About 2,150 feet west and 2,200 feet south of the northeast corner of sec. 16, T. 10 N., R. 11 E.

Tullahassee and similar soils

Extent of component in the map unit: 35 percent

Geomorphic setting: Backswamp on flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: High

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Somewhat poorly drained

Available water capacity: About 9.4 inches

Depth to the top of the seasonal high water table: 0.5 foot to 3.0 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY095OK, Subirrigated Pe 62-80

Typical profile:

A—0 to 13 inches; fine sandy loam

C1—13 to 19 inches; fine sandy loam

C2—19 to 45 inches; fine sandy loam

C3—45 to 80 inches; loamy fine sand

Location of representative profile: About 2,300 feet west and 2,200 feet south of the northeast corner of sec. 16, T. 10 N., R. 11 E.

Additional Components

- Verdigris and similar soils: 5 percent
- Wynona and similar soils: 5 percent
- Boley and similar soils: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

MdIA—Madill fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 790 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Madill and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 8.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R112XY050OK, Loamy Bottomland

Pe 62-80

Typical profile:

A—0 to 13 inches; fine sandy loam

C1—13 to 25 inches; loam

C2—25 to 38 inches; fine sandy loam

C3—38 to 51 inches; loamy fine sand

C4—51 to 80 inches; loamy fine sand

Location of representative profile: About 250 feet west and 1,400 feet south of the northeast corner of sec. 3, T. 10 N., R. 10 E.

Additional Components

- Tullahassee and similar soils: 5 percent
- Verdigris and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

MrwB—Muldrow silty clay loam, 0 to 1 percent slopes, rarely flooded

Map Unit Setting

Major land resource area: 118B

Elevation range: 660 to 790 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Muldrow and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Backswamp on flood plain in valley

Parent material: Clayey alluvium

Slope range: 0 to 1 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.3 inches

Depth to the top of the seasonal high water table: 0.0 to 2.0 feet

Flooding: Rare

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4w

Ecological site number and name—none assigned

Typical profile:

A—0 to 8 inches; silty clay loam

Btg1—8 to 18 inches; silty clay

Btg2—18 to 31 inches; silty clay

BCg—31 to 80 inches; silty clay

Location of representative profile: About 1,700 feet west and 1,200 feet north of the southeast corner of sec. 18, T. 10 N., R. 12 E.

Additional Components

- Severn and similar soils: 8 percent
- Mason and similar soils: 7 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

MshD—Masham silty clay loam, 3 to 8 percent slopes

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 215 days

Major Component Description

Masham and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Clayey residuum weathered from shale

Slope range: 3 to 8 percent

Runoff: Very high

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Well drained

Available water capacity: About 3.4 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R080AY080OK, Shallow Clay Prairie Pe 44-64

Typical profile:

A—0 to 8 inches; silty clay loam

Bw—8 to 20 inches; silty clay

Cr—20 to 25 inches; bedrock

Location of representative profile: About 550 feet west and 660 feet north of the southeast corner of sec. 29, T. 13 N., R. 13 E.

Additional Components

- Lucien and similar soils: 5 percent
- Rock outcrop: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

NviB—Navina loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 80A

Elevation range: 720 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Navina and similar soils

Extent of component in the map unit: 94 percent

Geomorphic setting: Stream terrace in valley

Landform position: Tread

Parent material: Loamy alluvium

Slope range: 1 to 3 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 10.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R080AY056OK, Loamy Prairie Pe 44-64

Typical profile:

A—0 to 14 inches; loam

BA—14 to 19 inches; clay loam

Bt1—19 to 32 inches; clay loam

Bt2—32 to 46 inches; clay loam

Bt3—46 to 80 inches; sandy clay loam

Location of representative profile: About 600 feet east and 100 feet south of the northwest corner of sec. 27, T. 13 N., R. 10 E.

Additional Components

- Bathel and similar soils: 2 percent
- Galey and similar soils: 2 percent
- Konawa and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

NviC2—Navina loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 80A

Elevation range: 720 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Navina and similar soils

Extent of component in the map unit: 99 percent

Geomorphic setting: Stream terrace in valley

Landform position: Riser

Parent material: Loamy alluvium

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 10.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R080AY856OK, Eroded Loamy Prairie Pe 44-64

Typical profile:

A—0 to 6 inches; loam

Bt1—6 to 12 inches; loam

Bt2—12 to 24 inches; clay loam

Bt3—24 to 33 inches; clay loam

Bt4—33 to 48 inches; clay loam

BC—48 to 80 inches; loam

Location of representative profile: About 500 feet east and 700 feet north of the southwest corner of sec. 35, T. 13 N., R. 10 E.

Additional Components

- Bathel and similar soils: 1 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

NzDE—Niotaze-Darsil complex, 5 to 12 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 980 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Niotaze and similar soils

Extent of component in the map unit: 65 percent

Soil Survey of Okfuskee County, Oklahoma

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Clayey residuum weathered from sandstone and shale

Slope range: 5 to 12 percent

Runoff: Very high

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 3.7 inches

Depth to the top of the seasonal high water table: 1.0 to 2.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 2 inches; very cobbly fine sandy loam

E—2 to 6 inches; very cobbly fine sandy loam

Bt—6 to 18 inches; silty clay

BC—18 to 27 inches; silty clay

Cr—27 to 29 inches; bedrock

Location of representative profile: About 500 feet south and 500 feet west of the northeast corner of sec. 14, T. 10 N., R. 8 E.

Darsil and similar soils

Extent of component in the map unit: 20 percent

Geomorphic setting: Hill on upland

Landform position: Summit and shoulder

Parent material: Sandy residuum weathered from sandstone

Slope range: 5 to 8 percent

Runoff: High

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Excessively drained

Available water capacity: About 1.6 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY089OK, Shallow Savannah Pe 48-64

Typical profile:

A—0 to 6 inches; cobbly loamy fine sand

E—6 to 19 inches; loamy fine sand

Cr—19 to 24 inches; bedrock

Location of representative profile: About 350 feet south and 200 feet west of the northeast corner of sec. 14, T. 10 N., R. 8 E.

Additional Components

- Harrah and similar soils: 3 percent
- Newalla and similar soils: 3 percent
- Rock outcrop: 3 percent
- Dougherty and similar soils: 2 percent
- Eufaula and similar soils: 2 percent
- Konawa and similar soils: 2 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

OkeB—Okemah silt loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 750 to 920 feet

Mean annual precipitation: 39 to 40 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Okemah and similar soils

Extent of component in the map unit: 93 percent

Geomorphic setting: Terrace on upland

Landform position: Summit and shoulder

Parent material: Colluvium or clayey alluvium

Slope range: 1 to 3 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.8 inches

Depth to the top of the seasonal high water table: 1.0 to 2.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 18 inches; silt loam

BA—18 to 24 inches; silty clay loam

Bt1—24 to 48 inches; silty clay

Bt2—48 to 70 inches; silty clay

BC—70 to 75 inches; silty clay

Location of representative profile: About 2,400 feet north and 1,600 feet east of the southwest corner of sec. 28, T. 10 N., R. 9 E.

Additional Components

- Parsons and similar soils: 4 percent
- Prue and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

OkrA—Oklared fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 118B

Elevation range: 660 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Oklared and similar soils

Extent of component in the map unit: 95 percent

Geomorphic setting: Flood plain in valley

Parent material: Sandy and loamy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Well drained

Available water capacity: About 9.4 inches

Depth to the top of the seasonal high water table: 3.5 to 5.0 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY050OK, Loamy Bottomland Pe 66-72

Typical profile:

A—0 to 6 inches; fine sandy loam

C1—6 to 14 inches; fine sandy loam

C2—14 to 25 inches; fine sandy loam

C3—25 to 41 inches; stratified loamy fine sand to silt loam

C4—41 to 80 inches; stratified loamy fine sand to silt loam

Location of representative profile: About 1,000 feet east and 400 feet south of the northwest corner of sec. 35, T. 10 N., R. 12 E.

Additional Components

- Severn and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

OPPA—Okemah-Pharoah-Parsons complex, 0 to 1 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 750 to 850 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Okemah and similar soils

Extent of component in the map unit: 45 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Colluvium or clayey alluvium

Slope range: 0 to 1 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.5 inches

Depth to the top of the seasonal high water table: 1.0 to 2.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—1

Ecological site number and name—R112XY056OK, Loamy Prairie Pe 62-80

Typical profile:

A—0 to 9 inches; silt loam

BA—9 to 16 inches; silty clay loam

Bt1—16 to 29 inches; silty clay

Bt2—29 to 40 inches; silty clay

Bt3—40 to 61 inches; silty clay

BC—61 to 80 inches; silty clay

Location of representative profile: About 2,000 feet north and 300 feet east of the southwest corner of sec. 11, T. 11 N., R. 11 E.

Pharoah and similar soils

Extent of component in the map unit: 34 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Clayey residuum weathered from shale

Soil Survey of Okfuskee County, Oklahoma

Slope range: 0 to 1 percent
Runoff: Very high
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Very slow
Slowest permeability class within a depth of 60 inches: Very slow
Drainage class: Somewhat poorly drained
Available water capacity: About 9.7 inches
Depth to the top of the seasonal high water table: 0.5 foot to 1.5 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4w
Ecological site number and name—R112XY010OK, Claypan Prairie Pe 62-80

Typical profile:

Ap—0 to 4 inches; silt loam
A—4 to 7 inches; silt loam
BA—7 to 24 inches; silty clay loam
Bt1—24 to 47 inches; clay
Bt2—47 to 59 inches; clay
2BC—59 to 80 inches; clay

Location of representative profile: About 600 feet west and 1,000 feet north of the southeast corner of sec. 11, T. 11 N, R. 11 E.

Parsons and similar soils

Extent of component in the map unit: 21 percent
Geomorphic setting: Terrace on upland
Landform position: Summit
Parent material: Clayey residuum weathered from shale
Slope range: 0 to 1 percent
Runoff: Very high
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Very slow
Slowest permeability class within a depth of 60 inches: Very slow
Drainage class: Somewhat poorly drained
Available water capacity: About 10.8 inches
Depth to the top of the seasonal high water table: 0.5 foot to 1.5 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3s
Ecological site number and name—R112XY010OK, Claypan Prairie Pe 62-80

Typical profile:

A—0 to 12 inches; silt loam
E—12 to 26 inches; silt loam
Bt1—26 to 41 inches; silty clay
Bt2—41 to 70 inches; silty clay
BC—70 to 80 inches; silty clay

Location of representative profile: About 1,500 feet north and 1,800 feet east of the southwest corner of sec. 11, T. 11 N, R. 11 E.

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ParA—Parsons silt loam, 0 to 1 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 750 to 890 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Parsons and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Clayey residuum weathered from shale

Slope range: 0 to 1 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.5 inches

Depth to the top of the seasonal high water table: 0.5 foot to 1.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3s

Ecological site number and name—R112XY010OK, Claypan Prairie Pe 62-80

Typical profile:

A1—0 to 8 inches; silt loam

A2—8 to 14 inches; silt loam

Bt1—14 to 31 inches; silty clay

Bt2—31 to 51 inches; silty clay

Bt3—51 to 80 inches; silty clay

Location of representative profile: About 600 feet south and 800 feet east of the northwest corner of sec. 12, T. 11 N., R. 11 E.

Additional Components

- Choteau and similar soils: 5 percent
- Okemah and similar soils: 5 percent
- Pharoah and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

PIT—Pits

Map Unit Setting

Major land resource area: 112

Elevation range: 660 to 980 feet

Mean annual precipitation: 37 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 225 days

Major Component Description

Pits

Extent of component in the map unit: 100 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Slope range: 0 to 4 percent

Interpretive groups:

Land capability classification (nonirrigated)—8

Ecological site number and name—none assigned

Location of representative profile: About 1,000 feet north and 400 feet east of the southwest corner of sec. 11, T. 12 N., R. 8 E.

POWD—Pharoah-Oil waste land complex, 1 to 5 percent slopes

Map Unit Setting

Major land resource area: 112

Elevation range: 720 to 850 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Pharoah and similar soils

Extent of component in the map unit: 70 percent

Geomorphic setting: Terrace on upland

Landform position: Summit

Parent material: Clayey residuum weathered from shale

Slope range: 1 to 3 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.0 inches

Depth to the top of the seasonal high water table: 0.5 foot to 1.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4w

Ecological site number and name—R112XY010OK, Claypan Prairie Pe 62-80

Typical profile:

A—0 to 5 inches; silty clay loam

E—5 to 12 inches; silty clay loam

Bt1—12 to 30 inches; silty clay

Bt2—30 to 65 inches; silty clay

BC—65 to 80 inches; silty clay

Location of representative profile: About 2,100 feet north and 2,500 feet west of the southeast corner of sec. 36, T. 12 N., R. 11 E.

Oil waste land

Extent of component in the map unit: 30 percent

Geomorphic setting: Terrace on upland

Landform position: Summit and backslope

Parent material: Clayey residuum weathered from shale

Slope range: 1 to 5 percent

Runoff: Very high

Salt affected: Saline within a depth of 30 inches

Sodium affected: Sodic within a depth of 30 inches

Interpretive groups:

Land capability classification (nonirrigated)—8

Ecological site number and name—none assigned

Location of representative profile: About 2,300 feet north and 2,300 feet west of the southeast corner of sec. 36, T. 12 N., R. 11 E.

Management

Major uses: Improved pastureland and rangeland (fig. 6)

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

PrmC2—Porum fine sandy loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 118B

Elevation range: 790 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Porum and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Terrace on upland



Figure 6.—An area of Oil waste land in the Pharoah-Oil waste land complex, 1 to 5 percent slopes.

Landform position: Backslope and footslope

Parent material: Loamy and clayey alluvium

Slope range: 3 to 5 percent

Runoff: High

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Moderately well drained

Available water capacity: About 10.3 inches

Depth to the top of the seasonal high water table: 2.0 to 3.0 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah

Pe 66-72

Typical profile:

Ap—0 to 7 inches; fine sandy loam

E—7 to 11 inches; fine sandy loam

Bt1—11 to 18 inches; clay

Bt2—18 to 48 inches; clay

Bt3—48 to 80 inches; clay

Location of representative profile: About 2,500 feet west and 500 feet south of the northeast corner of sec. 26, T. 10 N., R. 9 E.

Additional Components

- Kamie and similar soils: 5 percent
- Larton and similar soils: 5 percent
- Weleetka and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

Pu1A—Pulaski fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 890 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Pulaski and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Natural levee on flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Well drained

Available water capacity: About 8.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R084AY050OK, Loamy Bottomland Pe 48-64

Typical profile:

Ap—0 to 8 inches; fine sandy loam

A—8 to 18 inches; fine sandy loam

C1—18 to 33 inches; fine sandy loam

C2—33 to 50 inches; stratified loamy fine sand to loam

C3—50 to 65 inches; stratified loamy fine sand to loam

Location of representative profile: About 700 feet east and 150 feet south of the northwest corner of sec. 35, T. 10 N., R. 8 E.

Additional Components

- Tribbey and similar soils: 5 percent
- Verdigris and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

PuTA—Pulaski and Tribbey soils, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 890 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Pulaski and similar soils

Extent of component in the map unit: 50 percent

Geomorphic setting: Natural levee on flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Well drained

Available water capacity: About 8.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R084AY050OK, Loamy Bottomland Pe 48-64

Typical profile:

A1—0 to 6 inches; fine sandy loam

A2—6 to 12 inches; fine sandy loam

C1—12 to 31 inches; loam

C2—31 to 38 inches; stratified loamy fine sand to loam

C3—38 to 65 inches; stratified loamy fine sand to loam

Location of representative profile: About 1,250 feet north and 375 feet east of the southwest corner of sec. 26, T. 13 N., R. 8 E.

Tribbey and similar soils

Extent of component in the map unit: 35 percent

Geomorphic setting: Backswamp on flood plain in valley

Soil Survey of Okfuskee County, Oklahoma

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: High

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Somewhat poorly drained

Available water capacity: About 9.0 inches

Depth to the top of the seasonal high water table: 0.5 foot to 3.5 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R084AY095OK, Subirrigated Pe 48-64

Typical profile:

A—0 to 7 inches; fine sandy loam

C1—7 to 19 inches; loam

C2—19 to 40 inches; stratified loamy fine sand to loam

Ab—40 to 80 inches; loam

Location of representative profile: About 1,500 feet west and 2,580 feet south of the northeast corner of sec. 14, T. 13 N., R. 8 E.

Additional Components

- Verdigris and similar soils: 10 percent
- Wynona and similar soils: 5 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

RbkA—Roebuck clay, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Roebuck and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Backswamp on flood plain in valley

Parent material: Clayey alluvium

Slope range: 0 to 1 percent

Runoff: High

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow
Drainage class: Somewhat poorly drained
Available water capacity: About 9.3 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: Frequent
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w
Ecological site number and name—R112XY045OK, Heavy Bottomland Pe 62-80

Typical profile:

A—0 to 12 inches; clay
Bw—12 to 38 inches; clay
C1—38 to 48 inches; silty clay
C2—48 to 80 inches; clay

Location of representative profile: About 2,000 feet south and 200 feet west of the northeast corner of sec. 2, T. 13 N., R. 10 E.

Additional Components

- Madill and similar soils: 2 percent
- Oklared and similar soils: 2 percent
- Severn and similar soils: 2 percent
- Tullahassee and similar soils: 2 percent
- Wynona and similar soils: 2 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

RenC—Renfrow silt loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 80A
Elevation range: 850 to 980 feet
Mean annual precipitation: 37 to 39 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 210 to 215 days

Major Component Description

Renfrow and similar soils

Extent of component in the map unit: 85 percent
Geomorphic setting: Hill on upland
Landform position: Summit and backslope
Parent material: Clayey residuum weathered from shale
Slope range: 3 to 5 percent
Runoff: Very high
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Very slow
Slowest permeability class within a depth of 60 inches: Very slow
Drainage class: Well drained

Soil Survey of Okfuskee County, Oklahoma

Available water capacity: About 10.4 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R080AY010OK, Claypan Prairie (North) Pe 44-64

Typical profile:

A—0 to 8 inches; silt loam

BA—8 to 12 inches; silty clay loam

Bt1—12 to 35 inches; silty clay

Bt2—35 to 60 inches; clay

Bt3—60 to 80 inches; clay

Location of representative profile: About 500 feet west and 200 feet south of the northeast corner of sec. 20, T. 12 N., R. 7 E.

Additional Components

- Grainola and similar soils: 5 percent
- Masham and similar soils: 5 percent
- Lucien and similar soils: 3 percent
- Pawhuska and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

SCGC4—Shermore-Clearview-Gullied land complex, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 790 to 920 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Shermore and similar soils

Extent of component in the map unit: 51 percent

Geomorphic setting: Hill on upland

Landform position: Backslope and footslope

Parent material: Colluvium and loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 8.2 inches

Soil Survey of Okfuskee County, Oklahoma

Depth to the top of the seasonal high water table: 1.5 to 3.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah
Pe 66-72

Typical profile:

Ap—0 to 8 inches; fine sandy loam

B—8 to 14 inches; loam

Bt1—14 to 26 inches; sandy clay loam

Bt2—26 to 38 inches; sandy clay loam

Bx—38 to 80 inches; sandy clay loam

Location of representative profile: About 2,000 feet north and 1,200 feet west of the southeast corner of sec. 35, T. 11 N., R. 11 E.

Clearview and similar soils

Extent of component in the map unit: 24 percent

Geomorphic setting: Hill on upland

Landform position: Summit and shoulder

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock (lithic): 20 to 40 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Impermeable

Drainage class: Somewhat poorly drained

Available water capacity: About 5.0 inches

Depth to the top of the seasonal high water table: 1.5 to 3.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah
Pe 66-72

Typical profile:

Ap—0 to 6 inches; fine sandy loam

Bt—6 to 22 inches; sandy clay loam

BC—22 to 30 inches; gravelly sandy clay loam

R—30 to 31 inches; bedrock

Location of representative profile: About 2,200 feet north and 1,200 feet west of the southeast corner of sec. 36, T. 11 N., R. 10 E.

Gullied land

Extent of component in the map unit: 16 percent

Geomorphic setting: Hill on upland

Landform position: Backslope and footslope

Slope range: 3 to 5 percent

Runoff: Very high

Interpretive groups:

Land capability classification (nonirrigated)—8
Ecological site number and name—none assigned

Location of representative profile: About 1,300 feet north and 2,150 feet west of the southeast corner of sec. 35, T. 11 N., R. 11 E.

Additional Components

- Endsaw and similar soils: 3 percent
- Hector and similar soils: 3 percent
- Karma and similar soils: 3 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

SDGD4—Stephenville-Darsil-Gullied land complex, 3 to 8 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 750 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Stephenville and similar soils

Extent of component in the map unit: 34 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone

Slope range: 3 to 8 percent

Runoff: Medium

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 6.2 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY876OK, Eroded Sandy Savannah
Pe 48-64

Typical profile:

Ap—0 to 8 inches; fine sandy loam

Bt1—8 to 28 inches; sandy clay loam

Soil Survey of Okfuskee County, Oklahoma

Bt2—28 to 39 inches; sandy clay loam
Cr—39 to 42 inches; bedrock

Location of representative profile: About 2,300 feet east and 900 feet north of the southwest corner of sec. 35, T. 13 N., R. 8 E.

Darsil and similar soils

Extent of component in the map unit: 28 percent

Geomorphic setting: Hill on upland

Landform position: Shoulder

Parent material: Sandy residuum weathered from sandstone

Slope range: 3 to 8 percent

Runoff: High

Depth to bedrock (paralithic): 10 to 20 inches

Slowest permeability class of the soil: Rapid

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Excessively drained

Available water capacity: About 1.6 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R084AY889OK, Eroded Shallow Savannah

Pe 48-64

Typical profile:

Ap—0 to 8 inches; loamy fine sand

E—8 to 19 inches; loamy fine sand

Cr—19 to 20 inches; bedrock

Location of representative profile: About 2,300 feet east and 100 feet north of the southwest corner of sec. 35, T. 13 N., R. 8 E.

Gullied land

Extent of component in the map unit: 16 percent

Geomorphic setting: Hill on upland

Landform position: Shoulder and backslope

Slope range: 3 to 8 percent

Runoff: High

Interpretive groups:

Land capability classification (nonirrigated)—8

Ecological site number and name—none assigned

Location of representative profile: About 2,000 feet east and 550 feet north of the southwest corner of sec. 35, T. 13 N., R. 8 E.

Additional Components

- Newalla and similar soils: 16 percent
- Harrah and similar soils: 6 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

SDND—Stephenville-Darsil-Newalla complex, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 84A
Elevation range: 720 to 890 feet
Mean annual precipitation: 37 to 39 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 210 to 220 days

Major Component Description

Stephenville and similar soils

Extent of component in the map unit: 40 percent
Geomorphic setting: Hill on upland
Landform position: Summit and backslope
Parent material: Loamy residuum weathered from sandstone
Slope range: 3 to 5 percent
Runoff: Low
Depth to bedrock (paralithic): 20 to 40 inches
Slowest permeability class of the soil: Moderate
Slowest permeability class within a depth of 60 inches: Moderately slow
Drainage class: Well drained
Available water capacity: About 5.7 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e
Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 10 inches; fine sandy loam
Bt1—10 to 24 inches; sandy clay loam
Bt2—24 to 36 inches; sandy clay loam
Cr—36 to 45 inches; bedrock

Location of representative profile: About 1,700 feet north and 1,100 feet east of the southwest corner of sec. 18, T. 13 N., R. 9 E.

Darsil and similar soils

Extent of component in the map unit: 30 percent
Geomorphic setting: Hill on upland
Landform position: Shoulder
Parent material: Sandy residuum weathered from sandstone
Slope range: 3 to 5 percent
Runoff: Medium
Depth to bedrock (paralithic): 10 to 20 inches
Slowest permeability class of the soil: Rapid
Slowest permeability class within a depth of 60 inches: Moderately slow
Drainage class: Excessively drained
Available water capacity: About 1.3 inches
Depth to the top of the seasonal high water table: More than 6 feet

Soil Survey of Okfuskee County, Oklahoma

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4s

Ecological site number and name—R084AY089OK, Shallow Savannah Pe 48-64

Typical profile:

A—0 to 10 inches; loamy fine sand

E—10 to 15 inches; loamy fine sand

Cr—15 to 18 inches; bedrock

Location of representative profile: About 2,650 feet north and 1,100 feet east of the southwest corner of sec. 18, T. 13 N., R. 9 E.

Newalla and similar soils

Extent of component in the map unit: 19 percent

Geomorphic setting: Hill on upland

Landform position: Backslope

Parent material: Loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock (paralithic): 40 to 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Moderately well drained

Available water capacity: About 7.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 8 inches; fine sandy loam

Bt1—8 to 15 inches; clay loam

Bt2—15 to 22 inches; clay

Bt3—22 to 39 inches; clay

2Bt—39 to 50 inches; very gravelly silty clay

Cr—50 to 70 inches; bedrock

Location of representative profile: About 2,400 feet north and 1,100 feet east of the southwest corner of sec. 18, T. 13 N., R. 9 E.

Additional Components

- Harrah and similar soils: 6 percent
- Niotaze and similar soils: 3 percent
- Seminole and similar soils: 2 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

SevA—Severn very fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 118B

Elevation range: 660 to 720 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Severn and similar soils

Extent of component in the map unit: 95 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Well drained

Available water capacity: About 9.7 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 8 inches; very fine sandy loam

C1—8 to 14 inches; stratified loamy very fine sand to silty clay loam

C2—14 to 20 inches; stratified loamy very fine sand to silty clay loam

C3—20 to 38 inches; stratified loamy very fine sand to silty clay loam

C4—38 to 60 inches; stratified loamy very fine sand to silty clay loam

C5—60 to 80 inches; stratified loamy very fine sand to silty clay loam

Location of representative profile: About 2,200 feet east and 100 feet south of the northwest corner of sec. 24, T. 10 N., R. 11 E.

Additional Components

- Oklared and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

ShmC—Shermore fine sandy loam, 3 to 5 percent slopes

Map Unit Setting

Major land resource area: 118B

Elevation range: 750 to 890 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Shermore and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Foothlope

Parent material: Colluvium over loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 9.6 inches

Depth to the top of the seasonal high water table: 1.5 to 3.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY075OK, Sandy Savannah Pe 66-72

Typical profile:

A—0 to 9 inches; fine sandy loam

E—9 to 19 inches; fine sandy loam

Bt1—19 to 38 inches; sandy clay loam

Bt2—38 to 56 inches; sandy clay loam

Bx—56 to 80 inches; sandy clay loam

Location of representative profile: About 1,950 feet south and 50 feet east of the northwest corner of sec. 2, T. 11 N., R. 10 E.

Additional Components

- Clearview and similar soils: 8 percent
- Karma and similar soils: 7 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

ShmC2—Shermore fine sandy loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 118B

Elevation range: 750 to 890 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Shermore and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Footslope

Parent material: Colluvium over loamy residuum weathered from sandstone and shale

Slope range: 3 to 5 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 8.6 inches

Depth to the top of the seasonal high water table: 1.5 to 3.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R118BY875OK, Eroded Sandy Savannah

Pe 66-72

Typical profile:

A—0 to 8 inches; fine sandy loam

Bt1—8 to 19 inches; clay loam

Bt2—19 to 32 inches; clay loam

Bt3—32 to 42 inches; clay loam

Bx—42 to 80 inches; clay loam

Location of representative profile: About 2,800 feet south and 1,850 feet west of the northeast corner of sec. 35, T. 10 N., R. 12 E.

Additional Components

- Clearview and similar soils: 6 percent
- Karma and similar soils: 6 percent
- Okay and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

SOWD—Stephenville-Oil waste land complex, 1 to 8 percent slopes

Map Unit Setting

Major land resource area: 84A
Elevation range: 790 to 920 feet
Mean annual precipitation: 37 to 39 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 210 to 220 days

Major Component Description

Stephenville and similar soils

Extent of component in the map unit: 58 percent
Geomorphic setting: Hill on upland
Landform position: Summit and backslope
Parent material: Loamy residuum weathered from sandstone
Slope range: 1 to 8 percent
Runoff: Medium
Depth to bedrock (paralithic): 20 to 40 inches
Slowest permeability class of the soil: Moderate
Slowest permeability class within a depth of 60 inches: Moderately slow
Drainage class: Well drained
Available water capacity: About 5.1 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e
Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 9 inches; loamy fine sand
Bt1—9 to 23 inches; sandy clay loam
Bt2—23 to 36 inches; sandy clay loam
Cr—36 to 46 inches; bedrock

Location of representative profile: About 2,500 feet north and 2,000 feet east of the southwest corner of sec. 9, T. 12 N., R. 8 E.

Oil waste land

Extent of component in the map unit: 32 percent
Geomorphic setting: Hill on upland
Landform position: Summit and backslope
Parent material: Loamy residuum weathered from sandstone
Slope range: 1 to 8 percent
Runoff: Very high
Salt affected: Saline within a depth of 30 inches
Sodium affected: Sodic within a depth of 30 inches

Interpretive groups:

Land capability classification (nonirrigated)—8
Ecological site number and name—none assigned

Location of representative profile: About 2,600 feet north and 1,800 feet east of the southwest corner of sec. 9, T. 12 N., R. 8 E.

Additional Components

- Darsil and similar soils: 2 percent
- Harrah and similar soils: 2 percent
- Newalla and similar soils: 2 percent
- Seminole and similar soils: 2 percent
- Niotaze and similar soils: 1 percent
- Renfrow and similar soils: 1 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

StdB—Stidham loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 950 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Stidham and similar soils

Extent of component in the map unit: 97 percent

Geomorphic setting: Terrace on upland

Landform position: Summit and shoulder

Parent material: Loamy alluvium

Slope range: 0 to 3 percent

Runoff: Very low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 7.1 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R084AY018OK, Deep Sand Savannah Pe 48-64

Typical profile:

A—0 to 14 inches; loamy fine sand

E—14 to 31 inches; loamy fine sand

Bt—31 to 54 inches; sandy clay loam

BC—54 to 80 inches; fine sandy loam

C—80 to 85 inches; loamy fine sand

Location of representative profile: About 75 feet north and 1,000 feet west of the southeast corner of sec. 20, T. 11 N., R. 9 E.

Additional Components

- Eufaula and similar soils: 3 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

SteB—Stephenville fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Stephenville and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Hill on upland

Landform position: Summit and shoulder

Parent material: Loamy residuum weathered from sandstone

Slope range: 1 to 3 percent

Runoff: Low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 5.5 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3s

Ecological site number and name—R084AY075OK, Sandy Savannah Pe 44-64

Typical profile:

A—0 to 6 inches; fine sandy loam

E—6 to 14 inches; fine sandy loam

Bt1—14 to 26 inches; sandy clay loam

Bt2—26 to 36 inches; sandy clay loam

Cr—36 to 40 inches; bedrock

Location of representative profile: About 1,950 feet east and 1,700 feet south of the northwest corner of sec. 25, T. 13 N., R. 8 E.

Additional Components

- Darsil and similar soils: 5 percent
- Harrah and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

SteC2—Stephenville fine sandy loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 84A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Stephenville and similar soils

Extent of component in the map unit: 85 percent

Geomorphic setting: Hill on upland

Landform position: Summit and backslope

Parent material: Loamy residuum weathered from sandstone

Slope range: 3 to 5 percent

Runoff: Very low

Depth to bedrock (paralithic): 20 to 40 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Well drained

Available water capacity: About 5.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4e

Ecological site number and name—R084AY876OK, Eroded Sandy Savannah
Pe 48-64

Typical profile:

A—0 to 5 inches; fine sandy loam

Bt1—5 to 22 inches; sandy clay loam

Bt2—22 to 33 inches; sandy clay loam

Cr—33 to 43 inches; bedrock

Location of representative profile: About 1,200 feet east and 100 feet south of the northwest corner of sec. 24, T. 11 N., R. 8 E.

Additional Components

- Darsil and similar soils: 5 percent

- Harrah and similar soils: 5 percent
- Newalla and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

SvnA—Severn silt loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 118B

Elevation range: 660 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Severn and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Well drained

Available water capacity: About 10.7 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 16 inches; silt loam

C1—16 to 24 inches; silt loam

C2—24 to 34 inches; silt loam

C3—34 to 42 inches; very fine sandy loam

C4—42 to 80 inches; stratified loamy very fine sand to silty clay loam

Location of representative profile: About 1,700 feet west and 600 feet north of the southeast corner of sec. 27, T. 10 N., R. 12 E.

Additional Components

- Kiomatia and similar soils: 5 percent
- Oklared and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

TlhA—Tulahassee fine sandy loam, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Tulahassee and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Backswamp on flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: High

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Somewhat poorly drained

Available water capacity: About 9.4 inches

Depth to the top of the seasonal high water table: 0.5 foot to 3.0 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY095OK, Subirrigated Pe 62-80

Typical profile:

A—0 to 14 inches; fine sandy loam

C1—14 to 48 inches; stratified fine sandy loam to very fine sandy loam

C2—48 to 80 inches; fine sandy loam

Location of representative profile: About 2,200 feet west and 2,500 feet south of the northeast corner of sec. 9, T. 10 N., R. 11 E.

Additional Components

- Madill and similar soils: 3 percent
- Mason and similar soils: 3 percent
- Verdigris and similar soils: 3 percent
- Wynona and similar soils: 3 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

TlrA—Teller fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

Major land resource area: 80A
Elevation range: 790 to 920 feet
Mean annual precipitation: 37 to 39 inches
Mean annual air temperature: 61 to 63 degrees Fahrenheit
Frost-free period: 210 to 220 days

Major Component Description

Teller and similar soils

Extent of component in the map unit: 100 percent
Geomorphic setting: Stream terrace in valley
Landform position: Tread
Parent material: Loamy alluvium
Slope range: 0 to 1 percent
Runoff: Negligible
Depth to bedrock: More than 60 inches
Slowest permeability class of the soil: Moderate
Slowest permeability class within a depth of 60 inches: Moderate
Drainage class: Well drained
Available water capacity: About 9.8 inches
Depth to the top of the seasonal high water table: More than 6 feet
Flooding: None
Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—1
Ecological site number and name—R080AY073OK, Sandy Prairie Pe 44-64

Typical profile:

Ap—0 to 9 inches; fine sandy loam
A—9 to 16 inches; fine sandy loam
BA—16 to 22 inches; loam
Bt—22 to 36 inches; sandy clay loam
BC—36 to 60 inches; fine sandy loam
C—60 to 80 inches; fine sandy loam

Location of representative profile: About 500 feet west and 2,500 feet north of the southeast corner of sec. 34, T. 10 N., R. 12 E.

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

TlrB—Teller fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Teller and similar soils

Extent of component in the map unit: 100 percent

Geomorphic setting: Stream terrace in valley

Landform position: Tread

Parent material: Loamy alluvium

Slope range: 1 to 3 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 9.9 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2e

Ecological site number and name—R080AY073OK, Sandy Prairie Pe 44-64

Typical profile:

Ap—0 to 6 inches; fine sandy loam

A—6 to 12 inches; fine sandy loam

BA—12 to 17 inches; fine sandy loam

Bt—17 to 44 inches; sandy clay loam

BC—44 to 60 inches; fine sandy loam

C—60 to 80 inches; fine sandy loam

Location of representative profile: About 600 feet north and 1,300 feet east of the southwest corner of sec. 34, T. 10 N., R. 12 E.

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

TlrC2—Teller fine sandy loam, 3 to 5 percent slopes, eroded

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 920 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Teller and similar soils

Extent of component in the map unit: 100 percent

Geomorphic setting: Stream terrace in valley

Landform position: Tread

Parent material: Loamy alluvium

Slope range: 3 to 5 percent

Runoff: Low

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 10.0 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R080AY873OK, Eroded Sandy Prairie

Pe 44-64

Typical profile:

Ap—0 to 7 inches; fine sandy loam

Bt1—7 to 17 inches; clay loam

Bt2—17 to 41 inches; clay loam

Bt3—41 to 54 inches; clay loam

BC—54 to 80 inches; sandy clay loam

Location of representative profile: About 2,000 feet north and 1,800 feet west of the southeast corner of sec. 21, T. 10 N., R. 11 E.

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

UstA—Ustibuck clay, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Ustibuck and similar soils

Extent of component in the map unit: 90 percent

Geomorphic setting: Flood plain in valley

Parent material: Clayey alluvium

Slope range: 0 to 1 percent

Runoff: High

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Very slow

Slowest permeability class within a depth of 60 inches: Very slow

Drainage class: Poorly drained

Available water capacity: About 9.5 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY045OK, Heavy Bottomland Pe 62-80

Typical profile:

A—0 to 10 inches; silty clay

Bss—10 to 31 inches; clay

C1—31 to 49 inches; silty clay

C2—49 to 80 inches; silty clay

Location of representative profile: About 1,800 feet east and 1,900 feet north of the southwest corner of sec. 7, T. 13 N., R. 10 E.

Additional Components

- Pulaski and similar soils: 2 percent
- Severn and similar soils: 2 percent
- Tribbey and similar soils: 2 percent
- Wynona and similar soils: 2 percent
- Yahola and similar soils: 2 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

VrdA—Verdigris silt loam, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Verdigris and similar soils

Extent of component in the map unit: 92 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 11.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Frequent

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—5w

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 19 inches; silt loam

AC—19 to 48 inches; silt loam

C—48 to 80 inches; silt loam

Location of representative profile: About 2,100 feet south and 600 feet east of the northwest corner of sec. 5, T. 10 N., R. 11 E.

Additional Components

- Wynona and similar soils: 8 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

VrgA—Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Verdigris and similar soils

Extent of component in the map unit: 95 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent



Figure 7.—An area of Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded.

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderate

Slowest permeability class within a depth of 60 inches: Moderate

Drainage class: Well drained

Available water capacity: About 11.8 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—2w

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 18 inches; silt loam

AC—18 to 36 inches; silt loam

C—36 to 80 inches; silt loam

Location of representative profile: About 500 feet south and 200 feet west of the northeast corner of sec. 1, T. 11 N., R. 11 E.

Additional Components

- Wynona and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland (fig. 7)

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

W—Water

Map Unit Setting

Major land resource area: 112

Elevation range: 660 to 980 feet

Mean annual precipitation: 37 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 225 days

Major Component Description

Extent of water in the map unit: 100 percent

Typical profile:

This map unit consists of areas of fresh water, including ponds, lakes, and rivers.

Location of representative profile: About 1,050 feet north and 700 feet west of the southeast corner of sec. 11, T. 11 N., R. 9 E.

WeE—Weleetka sandy loam, 2 to 12 percent slopes

Map Unit Setting

Major land resource area: 118

Elevation range: 660 to 790 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 215 to 225 days

Major Component Description

Weleetka and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Stream terrace in valley

Landform position: Riser

Parent material: Reworked loamy eolian deposits

Slope range: 2 to 12 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately slow

Slowest permeability class within a depth of 60 inches: Moderately slow

Drainage class: Very poorly drained

Available water capacity: About 6.9 inches

Depth to the top of the seasonal high water table: 0.0 to 1.5 feet

Flooding: None

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—6e

Ecological site number and name—R118BY094OK, Subirrigated (Non-flooded)

Pe 66-72

Typical profile:

A—0 to 8 inches; sandy loam

Eg1—8 to 17 inches; sandy loam

Eg2—17 to 42 inches; loamy sand

Btg—42 to 54 inches; sandy clay loam
2C—54 to 80 inches; sand

Location of representative profile: About 1,300 feet east and 300 feet south of the northwest corner of sec. 13, T. 10 N., R. 9 E.

Additional Components

- Clearview and similar soils: 3 percent
- Glentosh and similar soils: 3 percent
- Larton and similar soils: 3 percent
- Porum and similar soils: 3 percent

Management

Major uses: Improved pastureland and rangeland

For general and detailed information about managing this map unit, see the sections “Use and Management of the Soils” and “Soil Properties.”

WynA—Wynona silt loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 112

Elevation range: 690 to 750 feet

Mean annual precipitation: 39 to 41 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Wynona and similar soils

Extent of component in the map unit: 88 percent

Geomorphic setting: Flood plain in valley

Parent material: Silty alluvium

Slope range: 0 to 1 percent

Runoff: Very high

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Slow

Slowest permeability class within a depth of 60 inches: Slow

Drainage class: Somewhat poorly drained

Available water capacity: About 10.9 inches

Depth to the top of the seasonal high water table: 0.0 to 2.0 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—4w

Ecological site number and name—R112XY050OK, Loamy Bottomland Pe 62-80

Typical profile:

A—0 to 12 inches; silt loam

Bwg1—12 to 30 inches; silty clay loam

Bwg2—30 to 80 inches; silty clay

Location of representative profile: About 1,100 feet east and 300 feet south of the northwest corner of sec. 5, T. 10 N., R. 12 E.

Additional Components

- Osage and similar soils: 4 percent
- Roebuck and similar soils: 4 percent
- Tullahassee and similar soils: 4 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

YahA—Yahola fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting

Major land resource area: 80A

Elevation range: 790 to 890 feet

Mean annual precipitation: 37 to 39 inches

Mean annual air temperature: 61 to 63 degrees Fahrenheit

Frost-free period: 210 to 220 days

Major Component Description

Yahola and similar soils

Extent of component in the map unit: 95 percent

Geomorphic setting: Flood plain in valley

Parent material: Loamy alluvium

Slope range: 0 to 1 percent

Runoff: Negligible

Depth to bedrock: More than 60 inches

Slowest permeability class of the soil: Moderately rapid

Slowest permeability class within a depth of 60 inches: Moderately rapid

Drainage class: Well drained

Available water capacity: About 8.3 inches

Depth to the top of the seasonal high water table: More than 6 feet

Flooding: Occasional

Ponding: None

Interpretive groups:

Land capability classification (nonirrigated)—3e

Ecological site number and name—R080AY050OK, Loamy Bottomland Pe 44-64

Typical profile:

Ap—0 to 6 inches; fine sandy loam

C1—6 to 16 inches; fine sandy loam

C2—16 to 78 inches; stratified loamy fine sand to loam

Location of representative profile: About 1,500 feet east and 1,400 feet south of the northwest corner of sec. 18, T. 11 N., R. 9 E.

Additional Components

- Severn and similar soils: 5 percent

Management

Major uses: Cropland, improved pastureland, and rangeland

For general and detailed information about managing this map unit, see the sections "Use and Management of the Soils" and "Soil Properties."

Soil Survey of Okfuskee County, Oklahoma

Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
BctB	Bates loam, 1 to 3 percent slopes-----	2,315	0.6
BctC	Bates loam, 3 to 5 percent slopes-----	1,207	0.3
BctC2	Bates loam, 3 to 5 percent slopes, eroded-----	2,222	0.6
BoyA	Boley silt loam, 0 to 1 percent slopes, frequently flooded-----	1,655	0.4
Caaa	Canadian fine sandy loam, 0 to 1 percent slopes, rarely flooded-----	351	*
ClrB	Clearview fine sandy loam, 1 to 3 percent slopes-----	819	0.2
ClrC	Clearview fine sandy loam, 3 to 5 percent slopes-----	382	*
ClrC2	Clearview fine sandy loam, 3 to 5 percent slopes, eroded-----	2,987	0.7
CoBC	Coweta-Bates complex, 3 to 5 percent slopes-----	11,813	2.9
CouB	Choteau silt loam, 1 to 3 percent slopes-----	2,752	0.7
CouC	Choteau silt loam, 3 to 5 percent slopes-----	2,794	0.7
CskB	Chickasha loam, 1 to 3 percent slopes-----	1,599	0.4
DAM	Large dam-----	57	*
DenB	Dennis silt loam, 1 to 3 percent slopes-----	3,339	0.8
DenC	Dennis silt loam, 3 to 5 percent slopes-----	3,032	0.8
DenC2	Dennis silt loam, 3 to 5 percent slopes, eroded-----	7,451	1.9
DEPD3	Dennis, Eram, and Pharoah soils, 3 to 8 percent slopes, severely eroded--	12,728	3.2
DsSC	Darsil-Stephenville complex, 3 to 5 percent slopes-----	17,212	4.3
DsSE	Darsil-Stephenville complex, 5 to 12 percent slopes-----	24,909	6.2
EflB	Eufaula loamy fine sand, 0 to 3 percent slopes-----	1,581	0.4
EflE	Eufaula loamy fine sand, 3 to 12 percent slopes-----	2,987	0.7
EnHE	Endsaw-Hector complex, 5 to 12 percent slopes-----	11,958	3.0
EnHG	Endsaw-Hector complex, 12 to 30 percent slopes-----	17,553	4.4
EraE	Eram clay loam, 8 to 12 percent slopes-----	8,636	2.1
ErCF	Eram-Coweta complex, 8 to 20 percent slopes-----	17,915	4.5
ErmC	Eram silt loam, 3 to 5 percent slopes-----	6,742	1.7
ErRE	Eram-Radley complex, 0 to 12 percent slopes-----	6,000	1.5
GadA	Gaddy loamy fine sand, 0 to 1 percent slopes, occasionally flooded-----	1,252	0.3
GalB	Galey fine sandy loam, 0 to 3 percent slopes-----	1,645	0.4
GalC	Galey fine sandy loam, 3 to 5 percent slopes-----	1,768	0.4
GalC2	Galey fine sandy loam, 3 to 5 percent slopes, eroded-----	1,635	0.4
GdyA	Gaddy loamy fine sand, 0 to 1 percent slopes, frequently flooded-----	1,495	0.4
GhLB	Glentosh and Larton soils, 0 to 3 percent slopes-----	2,865	0.7
GlhE	Glentosh loamy fine sand, 3 to 12 percent slopes-----	3,147	0.8
GriC2	Grainola silty clay loam, 3 to 5 percent slopes, eroded-----	4,689	1.2
HeCC	Hector-Clearview complex, 3 to 5 percent slopes-----	10,599	2.6
HeCE	Hector-Clearview complex, 5 to 12 percent slopes-----	5,686	1.4
KarB	Karma fine sandy loam, 0 to 3 percent slopes-----	1,287	0.3
KarC	Karma fine sandy loam, 3 to 5 percent slopes-----	1,467	0.4
KarD2	Karma fine sandy loam, 3 to 8 percent slopes, eroded-----	1,341	0.3
KarE4	Karma fine sandy loam, 3 to 12 percent slopes, gullied-----	4,043	1.0
KimA	Kiomatia fine sandy loam, 0 to 1 percent slopes, occasionally flooded---	1,225	0.3
KmfA	Kiomatia fine sandy loam, 0 to 1 percent slopes, frequently flooded-----	1,527	0.4
KoGE4	Konawa-Gullied land complex, 3 to 12 percent slopes-----	4,070	1.0
KowB	Konawa fine sandy loam, 0 to 3 percent slopes-----	886	0.2
KowC	Konawa fine sandy loam, 3 to 5 percent slopes-----	1,432	0.4
KowD2	Konawa fine sandy loam, 3 to 8 percent slopes, eroded-----	2,888	0.7
LrtB	Larton loamy fine sand, 0 to 3 percent slopes-----	1,748	0.4
LrtD	Larton loamy fine sand, 3 to 8 percent slopes-----	1,239	0.3
LtgA	Lightning silt loam, 0 to 1 percent slopes, occasionally flooded-----	262	*
M-W	Miscellaneous water-----	56	*
MasA	Mason silt loam, 0 to 1 percent slopes, rarely flooded-----	2,503	0.6
MaTA	Madill and Tullahassee soils, 0 to 1 percent slopes, frequently flooded--	10,597	2.6
MdIA	Madill fine sandy loam, 0 to 1 percent slopes, occasionally flooded-----	194	*
MrwB	Muldrow silty clay loam, 0 to 1 percent slopes, rarely flooded-----	2,146	0.5
MshD	Masham silty clay loam, 3 to 8 percent slopes-----	1,168	0.3
NviB	Navina loam, 1 to 3 percent slopes-----	1,041	0.3
NviC2	Navina loam, 3 to 5 percent slopes, eroded-----	1,990	0.5
NzDE	Niotaze-Darsil complex, 5 to 12 percent slopes-----	17,942	4.5
OkeB	Okemah silt loam, 1 to 3 percent slopes-----	2,929	0.7
OkrA	Oklared fine sandy loam, 0 to 1 percent slopes, occasionally flooded-----	2,291	0.6

See footnote at end of table.

Soil Survey of Okfuskee County, Oklahoma

Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
OPPA	Okemah-Pharoah-Parsons complex, 0 to 1 percent slopes-----	15,456	3.8
ParA	Parsons silt loam, 0 to 1 percent slopes-----	868	0.2
PIT	Pits-----	486	0.1
POWD	Pharoah-Oil waste land complex, 1 to 5 percent slopes-----	4,252	1.1
PrmC2	Porum fine sandy loam, 3 to 5 percent slopes, eroded-----	908	0.2
PuLA	Pulaski fine sandy loam, 0 to 1 percent slopes, occasionally flooded-----	897	0.2
PuTA	Pulaski and Tribbey soils, 0 to 1 percent slopes, frequently flooded-----	7,686	1.9
RbkA	Roebuck clay, 0 to 1 percent slopes, frequently flooded-----	1,627	0.4
RenC	Renfrow silt loam, 3 to 5 percent slopes-----	1,324	0.3
SCGC4	Shermore-Clearview-Gullied land complex, 3 to 5 percent slopes-----	2,888	0.7
SDGD4	Stephenville-Darsil-Gullied land complex, 3 to 8 percent slopes-----	28,279	7.0
SDND	Stephenville-Darsil-Newalla complex, 3 to 5 percent slopes-----	4,495	1.1
SevA	Severn very fine sandy loam, 0 to 1 percent slopes, occasionally flooded-----	4,542	1.1
ShmC	Shermore fine sandy loam, 3 to 5 percent slopes-----	431	0.1
ShmC2	Shermore fine sandy loam, 3 to 5 percent slopes, eroded-----	1,133	0.3
SOWD	Stephenville-Oil waste land complex, 1 to 8 percent slopes-----	1,304	0.3
StdB	Stidham loamy fine sand, 0 to 3 percent slopes-----	206	*
SteB	Stephenville fine sandy loam, 1 to 3 percent slopes-----	1,286	0.3
SteC2	Stephenville fine sandy loam, 3 to 5 percent slopes, eroded-----	5,855	1.5
SvnA	Severn silt loam, 0 to 1 percent slopes, occasionally flooded-----	2,414	0.6
Tlha	Tallahassee fine sandy loam, 0 to 1 percent slopes, frequently flooded---	1,280	0.3
TlrA	Teller fine sandy loam, 0 to 1 percent slopes-----	785	0.2
TlrB	Teller fine sandy loam, 1 to 3 percent slopes-----	796	0.2
TlrC2	Teller fine sandy loam, 3 to 5 percent slopes, eroded-----	362	*
UstA	Ustibuck clay, 0 to 1 percent slopes, frequently flooded-----	3,763	0.9
VrdA	Verdigris silt loam, 0 to 1 percent slopes, frequently flooded-----	9,169	2.3
VrgA	Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded-----	8,716	2.2
W	Water-----	5,329	1.3
WeleE	Weleetka sandy loam, 2 to 12 percent slopes-----	782	0.2
WynA	Wynona silt loam, 0 to 1 percent slopes, occasionally flooded-----	1,571	0.4
Yaha	Yahola fine sandy loam, 0 to 1 percent slopes, occasionally flooded-----	9,576	2.4
	Total-----	402,515	100.0

* Less than 0.1 percent. The combined extent of the soils assigned an asterisk in the "Percent" column is about 0.5 percent of the survey area.

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as rangeland and woodland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and for wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Interpretive ratings help engineers, planners, and others understand how soil properties influence important nonagricultural uses, such as building site development and construction materials. The ratings indicate the most restrictive soil features affecting the suitability of the soils for these uses.

Soils are rated in their natural state. No unusual modification of the soil site or material is made other than that which is considered normal practice for the rated use. Even though soils may have limitations, it is important to remember that engineers and others can modify soil features or can design or adjust the plans for a structure to compensate for most of the limitations. Most of these practices, however, are costly. The final decision in selecting a site for a particular use generally involves weighing the costs of site preparation and maintenance.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

The classification and extent of the soils in this survey area are shown in the tables "Classification of the Soils" and "Acreage and Proportionate Extent of the Soils."

Agronomy

General management concerns affecting crops, hay, and pasture are identified in this section. The system of land capability classification used by the Natural

Resources Conservation Service is explained, and the estimated yields of the main crops and hay and pasture plants are listed for each soil.

Planners of management systems for individual fields or farms should consider obtaining specific information from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils generally are grouped at three levels: capability class, subclass, and unit (*10*). These levels indicate the degree and kinds of limitations affecting mechanized farming systems that produce the more commonly grown field crops, such as corn, small grain, cotton, hay, and field-grown vegetables. Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by Arabic numerals 1 through 8. The numerals indicate progressively greater limitations and narrower choices for practical use.

If properly managed, soils in classes 1, 2, 3, and 4 are suitable for the mechanized production of commonly grown field crops and for pasture and woodland. The degree of the soil limitations affecting the production of cultivated crops increases progressively from class 1 to class 4. The limitations can affect levels of production and the risk of permanent soil deterioration caused by erosion and other factors.

Soils in classes 5, 6, and 7 are generally not suited to the mechanized production of commonly grown field crops without special management, but they are suitable for plants that provide a permanent cover, such as grasses and trees. The severity of the soil limitations affecting crops increases progressively from class 5 to class 7. The local office of the Natural Resources Conservation Service or the Cooperative Extension Service can provide guidance on the use of the soils as cropland.

Areas in class 8 are generally not suitable for crops, pasture, rangeland, or woodland. These areas may have potential for other uses, such as recreational facilities and wildlife habitat.

Capability subclasses identify the dominant kind of limitation in the class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2*e*. The letter *e* shows that the main hazard is the risk of erosion unless a close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class 1 because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use mainly to pasture, rangeland, woodland, wildlife habitat, or recreation.

The capability classification of each map unit is given in the table "Land Capability and Yields per Acre of Crops and Pasture."

Soil Survey of Okfuskee County, Oklahoma

Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land capability	Grain sorghum	Peanuts	Soybeans	Wheat
		<u>Bu</u>	<u>Lbs</u>	<u>Bu</u>	<u>Bu</u>
BctB: Bates-----	3e	60.00	---	30.00	35.00
BctC: Bates-----	3e	45.00	---	20.00	25.00
BctC2: Bates-----	3e	35.00	---	15.00	20.00
BoyA: Boley-----	5w	---	---	---	---
CaaA: Canadian-----	1	60.00	1,800.00	30.00	35.00
ClrB: Clearview-----	3s	---	---	---	25.00
ClrC: Clearview-----	3e	---	---	---	20.00
ClrC2: Clearview-----	4e	---	---	---	15.00
CoBC: Coweta-----	4e	---	---	---	20.00
Bates-----	3e	45.00	---	20.00	25.00
CouB: Choteau-----	2e	65.00	---	30.00	35.00
CouC: Choteau-----	3e	50.00	---	20.00	30.00
CskB: Chickasha-----	2e	40.00	---	---	30.00
DAM: Large dam-----	8	---	---	---	---
DenB: Dennis-----	2e	70.00	1,400.00	35.00	30.00
DenC: Dennis-----	3e	65.00	---	30.00	25.00
DenC2: Dennis-----	3e	50.00	---	20.00	15.00
DEPD3: Dennis-----	6e	---	---	---	---
Eram-----	6e	---	---	---	---
Pharoah-----	6e	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Grain sorghum	Peanuts	Soybeans	Wheat
		<u>Bu</u>	<u>Lbs</u>	<u>Bu</u>	<u>Bu</u>
DsSC:					
Darsil-----	4e	---	---	---	10.00
Stephenville-----	3e	35.00	1,300.00	15.00	20.00
DsSE:					
Darsil-----	6e	---	---	---	---
Stephenville-----	6e	---	---	---	---
EflB:					
Eufaula-----	3e	---	1,100.00	---	20.00
EflE:					
Eufaula-----	6e	---	---	---	---
EnHE:					
Endsaw-----	6e	---	---	---	---
Hector-----	6e	---	---	---	---
EnHG:					
Endsaw-----	7e	---	---	---	---
Hector-----	7e	---	---	---	---
EraE:					
Eram-----	6e	---	---	---	---
ErCF:					
Eram-----	6e	---	---	---	---
Coweta-----	6e	---	---	---	---
ErmC:					
Eram-----	3e	35.00	---	20.00	20.00
ErRE:					
Eram-----	6e	---	---	---	---
Radley-----	5w	---	---	---	---
GadA:					
Gaddy-----	3e	30.00	1,300.00	---	20.00
GalB:					
Galey-----	2e	50.00	1,600.00	---	30.00
GalC:					
Galey-----	3e	40.00	1,500.00	---	25.00
GalC2:					
Galey-----	3e	40.00	1,500.00	---	25.00
GdyA:					
Gaddy-----	5w	---	---	---	---
GhLB:					
Glentosh-----	3e	25.00	---	15.00	15.00
Larton-----	3e	35.00	1,400.00	25.00	25.00

Soil Survey of Okfuskee County, Oklahoma

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Grain sorghum	Peanuts	Soybeans	Wheat
		<u>Bu</u>	<u>Lbs</u>	<u>Bu</u>	<u>Bu</u>
GlhE: Glentosh-----	6e		---	---	
GriC2: Grainola-----	3e	---	---	---	15.00
HeCC: Hector-----	4s	---	---	---	20.00
Clearview-----	3e	---	---	---	20.00
HeCE: Hector-----	6e	---	---	---	---
Clearview-----	6e	---	---	---	---
KarB: Karma-----	2e	55.00	1,600.00	35.00	35.00
KarC: Karma-----	3e	50.00	1,500.00	30.00	30.00
KarD2: Karma-----	4e	---	---	---	20.00
KarE4: Karma-----	6e	---	---	---	---
KimA: Kiomatia-----	3s	---	---	---	20.00
KmfA: Kiomatia-----	5w	---	---	---	---
KoGE4: Konawa-----	6e			---	
Gullied Land-----	8	---	---	---	---
KowB: Konawa-----	2e	50.00	1,700.00	28.00	30.00
KowC: Konawa-----	3e	50.00	1,500.00	26.00	30.00
KowD2: Konawa-----	4e	3.50	---	---	3.00
LrtB: Larton-----	3e	6.00	---	---	---
LrtD: Larton-----	4e	5.00	---	---	---
LtgA: Lightning-----	3w	6.00	---	4.50	---
M-W. Miscellaneous water					

Soil Survey of Okfuskee County, Oklahoma

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Grain sorghum	Peanuts	Soybeans	Wheat
		<u>Bu</u>	<u>Lbs</u>	<u>Bu</u>	<u>Bu</u>
MasA: Mason-----	1	8.00	---	6.00	---
MaTA: Madill-----	5w	6.50	---	---	---
Tullahassee-----	5w	8.00	---	6.00	---
Md1A: Madill-----	2e	7.50	---	---	---
MrwB: Muldrow-----	4w	8.00	---	6.00	---
MshD: Masham-----	4e	3.00	4.00	---	---
NviB: Navina-----	2e	5.50	---	---	5.50
Nvic2: Navina-----	3e	5.00	---	---	5.00
NzDE: Niotaze-----	6e	---	---	---	---
Darsil-----	6e	---	---	---	2.50
OkeB: Okemah-----	2e	6.00	---	4.50	---
OkrA: Oklared-----	3e	8.00	---	6.00	---
OPPA: Okemah-----	1	6.00	---	4.50	---
Pharoah-----	4w	4.50	---	4.00	---
Parsons-----	3s	6.00	---	6.00	---
ParA: Parsons-----	3s	6.00	---	6.00	---
PIT: Pits-----	8	---	---	---	---
POWD: Pharoah-----	4w	4.50	---	4.00	---
Oil waste land-----	8	---	---	---	---
PrmC2: Porum-----	4e	3.50	---	---	---
Pu1A: Pulaski-----	2e	7.00	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Grain sorghum	Peanuts	Soybeans	Wheat
		<u>Bu</u>	<u>Lbs</u>	<u>Bu</u>	<u>Bu</u>
PuTA:					
Pulaski-----	5w	7.00	---	---	---
Tribbey-----	5w	6.00	---	6.00	---
RbkA:					
Roebuck-----	5w	6.50	---	6.50	---
RenC:					
Renfrow-----	3e	---	---	---	---
SCGC4:					
Shermore-----	6e	5.00	---	3.50	---
Clearview-----	6e	4.00	---	6.00	---
Gullied land-----	8	---	---	---	---
SDGD4:					
Stephenville-----	6e	2.50	---	---	3.00
Darsil-----	6e	1.00	---	---	1.50
Gullied land-----	8	---	---	---	---
SDND:					
Stephenville-----	3e	4.50	---	---	5.00
Darsil-----	4s	2.50	---	---	3.00
Newalla-----	3e	5.00	---	---	5.50
SevA:					
Severn-----	3e	8.00	---	---	---
ShmC:					
Shermore-----	3e	6.00	---	4.50	---
ShmC2:					
Shermore-----	3e	5.50	---	4.00	---
SOWD:					
Stephenville-----	4e	3.50	---	---	4.00
Oil waste land-----	8	---	---	---	---
StdB:					
Stidham-----	3e	5.00	---	---	---
SteB:					
Stephenville-----	3s	5.00	---	---	5.00
SteC2:					
Stephenville-----	4e	3.50	---	---	4.00
SvnA:					
Severn-----	3e	8.00	---	---	---
TlhA:					
Tulahassee-----	5w	8.00	---	6.00	---

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Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Grain sorghum	Peanuts	Soybeans	Wheat
		<u>Bu</u>	<u>Lbs</u>	<u>Bu</u>	<u>Bu</u>
TlrA: Teller-----	1	6.50	---	---	6.00
TlrB: Teller-----	2e	6.00	---	---	5.50
TlrC2: Teller-----	3e	4.50	---	---	4.50
UstA: Ustibuck-----	5w	6.00	---	6.00	---
VrdA: Verdigris-----	5w	6.00	---	5.50	---
VrgA: Verdigris-----	2w	6.50	---	6.00	---
W. Water					
We1E: Weleetka-----	6e	6.00	---	6.00	---
WynA: Wynona-----	4w	8.50	---	6.00	---
YahA: Yahola-----	3e	7.00	---	---	---

Estimated Yields of Crops, Hay, and Pasture

The average yields per acre that can be expected of the principal crops under a high level of management are shown in the table "Land Capability and Yields per Acre of Crops and Pasture." In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of each map unit also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small.

Under good pasture management, proper grazing is essential for the production of high-quality forage, stand survival, and erosion control. Proper grazing helps plants to maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation also are important management practices.

A pasture program is needed to provide the desired amount of forage during each month of the year. A study of the growth habits of the different plants is necessary to ensure adequate forage during each month. The months that various kinds of forage plants grow are indicated in figure 8, in the "Range" section. The percent growth that can be safely grazed each month without substantially reducing the total yield for each kind of plant is illustrated.

Yield estimates are often indicated in animal unit months (AUM), or the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about forage yields other than those shown in the table "Land Capability and Yields per Acre of Crops and Pasture."

Prime Farmland

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, State, and Federal levels, as well as individuals, must encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to food, feed, forage, fiber, and oilseed crops. Such soils have

Soil Survey of Okfuskee County, Oklahoma

properties that favor the economic production of sustained high yields of crops. The soils need only to be treated and managed by acceptable farming methods. An adequate moisture supply and a sufficiently long growing season are required. Prime farmland soils produce the highest yields with minimal expenditure of energy and economic resources, and farming these soils results in the least damage to the environment (12).

Prime farmland soils may presently be used as cropland, pasture, rangeland, or woodland or for other purposes. They either are used for food and fiber or are available for these uses. Urban or built-up land, public land, and water areas are not considered prime farmland. Urban or built-up land is any contiguous unit of land 10 acres or more in size that is used for such purposes as housing, industrial, and commercial sites, sites for institutions or public buildings, small parks, golf courses, cemeteries, railroad yards, airports, sanitary landfills, sewage treatment plants, and water-control structures. Public land is land not available for farming in National forests, National parks, military reservations, and State parks.

Prime farmland soils commonly receive an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable, and the level of acidity or alkalinity and the content of salts and sodium are acceptable. The soils have few, if any, rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods, and they are not frequently flooded during the growing season or are protected from flooding. Slopes range from 0 to 8 percent.

Soils that have a high water table, are subject to flooding, or are droughty may qualify as prime farmland where these limitations are overcome by drainage measures, flood control, or irrigation. Onsite evaluation is necessary to determine the effectiveness of corrective measures. More information about the criteria for prime farmland can be obtained at the local office of the Natural Resources Conservation Service.

A recent trend in land use has been the conversion of prime farmland to urban and industrial uses. The loss of prime farmland to other uses puts pressure on lands that are less productive than prime farmland.

About 82,000 acres, or more than 20 percent of the survey area, meets the requirements for prime farmland. The map units in the survey area that meet the requirements for prime farmland are listed in the table "Prime Farmland." On some soils included in the table, measures that overcome limitations are needed. The location of each map unit is shown on the detailed soil maps. The soil qualities that affect use and management are described in the section "Detailed Soil Map Units." This list does not constitute a recommendation for a particular land use.

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Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland)

Map symbol	Soil name
BctB	Bates loam, 1 to 3 percent slopes
BctC	Bates loam, 3 to 5 percent slopes
CaaA	Canadian fine sandy loam, 0 to 1 percent slopes, rarely flooded
ClrB	Clearview fine sandy loam, 1 to 3 percent slopes
ClrC	Clearview fine sandy loam, 3 to 5 percent slopes
CouB	Choteau silt loam, 1 to 3 percent slopes
CouC	Choteau silt loam, 3 to 5 percent slopes
CskB	Chickasha loam, 1 to 3 percent slopes
DenB	Dennis silt loam, 1 to 3 percent slopes
DenC	Dennis silt loam, 3 to 5 percent slopes
ErmC	Eram silt loam, 3 to 5 percent slopes
GalB	Galey fine sandy loam, 0 to 3 percent slopes
GalC	Galey fine sandy loam, 3 to 5 percent slopes
KarB	Karma fine sandy loam, 0 to 3 percent slopes
KarC	Karma fine sandy loam, 3 to 5 percent slopes
KowB	Konawa fine sandy loam, 0 to 3 percent slopes
KowC	Konawa fine sandy loam, 3 to 5 percent slopes
LrtB	Larton loamy fine sand, 0 to 3 percent slopes
LtgA	Lightning silt loam, 0 to 1 percent slopes, occasionally flooded
MasA	Mason silt loam, 0 to 1 percent slopes, rarely flooded
MdlA	Madill fine sandy loam, 0 to 1 percent slopes, occasionally flooded
NviB	Navina loam, 1 to 3 percent slopes
OkeB	Okemah silt loam, 1 to 3 percent slopes
OkrA	Oklared fine sandy loam, 0 to 1 percent slopes, occasionally flooded
OPPA	Okemah-Pharoah-Parsons complex, 0 to 1 percent slopes
ParA	Parsons silt loam, 0 to 1 percent slopes
SDND	Stephenville-Darsil-Newalla complex, 3 to 5 percent slopes
SevA	Severn very fine sandy loam, 0 to 1 percent slopes, occasionally flooded
SOWD	Stephenville-Oil-waste-land complex, 1 to 8 percent slopes
SteB	Stephenville fine sandy loam, 1 to 3 percent slopes
SvnA	Severn silt loam, 0 to 1 percent slopes, occasionally flooded
TlrA	Teller fine sandy loam, 0 to 1 percent slopes
TlrB	Teller fine sandy loam, 1 to 3 percent slopes
VrgA	Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded
YahA	Yahola fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Agricultural Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

The table "Agricultural Waste Management, Parts I and II," shows the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds.

Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of this table, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the table are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

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The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

Overland flow of wastewater is a process in which wastewater is applied to the upper reaches of sloped land and allowed to flow across vegetated surfaces, sometimes called terraces, to runoff-collection ditches. The length of the run generally is 150 to 300 feet. The application rate ranges from 2.5 to 16.0 inches per week. It commonly exceeds the rate needed for irrigation of cropland. The wastewater leaves solids and nutrients on the vegetated surfaces as it flows downslope in a thin film.

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Most of the water reaches the collection ditch, some is lost through evapotranspiration, and a small amount may percolate to the ground water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, and the design and construction of the system. Reaction and the cation-exchange capacity affect absorption. Reaction, salinity, and the sodium adsorption ratio effect plant growth and microbial activity. Slope, permeability, depth to a water table, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

Rapid infiltration of wastewater is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil. The wastewater may eventually reach the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. Depth to a water table, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Permeability and reaction affect performance. Permanently frozen soils are unsuitable for waste treatment.

Slow rate treatment of wastewater is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Most of the treated water may percolate to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

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Agricultural Waste Management, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Somewhat limited Too acid Depth to bedrock	0.11 0.01	Very limited Low adsorption Too acid Depth to bedrock	1.00 0.42 0.01	Somewhat limited Too acid Depth to bedrock	0.42 0.01
BctC: Bates-----	85	Somewhat limited Too acid Depth to bedrock	0.11 0.01	Very limited Low adsorption Too acid Depth to bedrock	1.00 0.42 0.01	Somewhat limited Too acid Too steep for surface application Depth to bedrock	0.42 0.08 0.01
BctC2: Bates-----	85	Somewhat limited Too acid Depth to bedrock	0.11 0.06	Very limited Low adsorption Too acid Depth to bedrock	1.00 0.42 0.06	Somewhat limited Too acid Too steep for surface application Depth to bedrock	0.42 0.08 0.06
BoyA: Boley-----	85	Very limited Flooding Ponding Depth to saturated zone Runoff limitation	1.00 1.00 0.86 0.40	Very limited Flooding Ponding Depth to saturated zone	1.00 1.00 0.86	Very limited Flooding Ponding Depth to saturated zone	1.00 1.00 0.86
CaaA: Canadian-----	95	Somewhat limited Filtering capacity	0.01	Somewhat limited Flooding Filtering capacity	0.40 0.01	Somewhat limited Filtering capacity	0.01
ClrB: Clearview-----	85	Somewhat limited Depth to saturated zone Depth to bedrock Too acid Droughty Filtering capacity	0.84 0.35 0.22 0.11 0.01	Very limited Low adsorption Depth to saturated zone Too acid Depth to bedrock Droughty	1.00 0.84 0.77 0.35 0.11	Somewhat limited Depth to saturated zone Too acid Depth to bedrock Droughty Filtering capacity	0.84 0.77 0.35 0.11 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ClrC: Clearview-----	85	Somewhat limited Depth to saturated zone Too acid Depth to bedrock Droughty Filtering capacity	0.84 0.22 0.10 0.01 0.01	Very limited Low adsorption Depth to saturated zone Too acid Depth to bedrock Droughty	1.00 0.84 0.77 0.10 0.01	Somewhat limited Depth to saturated zone Too acid Depth to bedrock Too steep for surface application Droughty	0.84 0.77 0.10 0.08 0.01
ClrC2: Clearview-----	90	Somewhat limited Depth to saturated zone Depth to bedrock Too acid Droughty Filtering capacity	0.84 0.46 0.22 0.18 0.01	Very limited Low adsorption Depth to saturated zone Too acid Depth to bedrock Droughty	1.00 0.84 0.77 0.46 0.18	Somewhat limited Depth to saturated zone Too acid Depth to bedrock Droughty Too steep for surface application	0.84 0.77 0.46 0.18 0.08
CoBC: Coweta-----	60	Very limited Depth to bedrock Depth to dense layer Droughty Too acid Filtering capacity	1.00 1.00 1.00 0.11 0.01	Very limited Depth to bedrock Low adsorption Droughty Too acid Filtering capacity	1.00 1.00 1.00 0.42 0.01	Very limited Depth to bedrock Droughty Too acid Too steep for surface application Filtering capacity	1.00 1.00 0.42 0.08 0.01
Bates-----	35	Somewhat limited Depth to bedrock Droughty Too acid	0.84 0.32 0.11	Very limited Low adsorption Depth to bedrock Too acid Droughty	1.00 0.84 0.42 0.32	Somewhat limited Depth to bedrock Too acid Droughty Too steep for surface application	0.84 0.42 0.32 0.08
CouB: Choteau-----	100	Very limited Restricted permeability Depth to saturated zone Too acid	1.00 0.68 0.22	Very limited Restricted permeability Too acid Depth to saturated zone	1.00 0.77 0.68	Very limited Restricted permeability Too acid Depth to saturated zone	1.00 0.77 0.68
CouC: Choteau-----	97	Very limited Restricted permeability Depth to saturated zone Too acid	1.00 0.68 0.22	Very limited Restricted permeability Too acid Depth to saturated zone	1.00 0.77 0.68	Very limited Restricted permeability Too acid Depth to saturated zone Too steep for surface application	1.00 0.77 0.68 0.08

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CskB: Chickasha-----	85	Not limited		Very limited Low adsorption	1.00	Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.18	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.67	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.67
DenC: Dennis-----	90	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.18	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.67	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application	1.00 1.00 0.67 0.08
DenC2: Dennis-----	89	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.18	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.67	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application	1.00 1.00 0.67 0.08
DEPD3: Dennis-----	63	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.18	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 0.67	Very limited Depth to saturated zone Restricted permeability Too steep for surface application Too acid	1.00 1.00 0.68 0.67
Eram-----	20	Very limited Depth to saturated zone Restricted permeability Depth to bedrock Too acid Droughty	1.00 1.00 0.16 0.03 0.03	Very limited Depth to saturated zone Low adsorption Restricted permeability Depth to bedrock Too acid	1.00 1.00 1.00 1.00 0.16 0.14	Very limited Depth to saturated zone Restricted permeability Too steep for surface application Depth to bedrock Too acid	1.00 1.00 0.68 0.16 0.14

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DEPD3: Pharoah-----	10	Very limited Restricted permeability Depth to saturated zone Sodium content Runoff limitation Salinity	1.00 1.00 0.68 0.40 0.06	Very limited Restricted permeability Depth to saturated zone Sodium content	1.00 1.00 0.68	Very limited Restricted permeability Depth to saturated zone Sodium content	1.00 1.00 0.68
DsSC: Darsil-----	45	Very limited Filtering capacity Depth to bedrock Droughty	1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Low adsorption	1.00 1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Too steep for surface application	1.00 1.00 1.00 0.08
Stephenville----	40	Somewhat limited Droughty Depth to bedrock Too acid Filtering capacity	0.82 0.80 0.11 0.01	Very limited Low adsorption Droughty Depth to bedrock Too acid Filtering capacity	1.00 0.82 0.80 0.80 0.42 0.01	Somewhat limited Droughty Depth to bedrock Too acid Too steep for surface application Filtering capacity	0.82 0.80 0.42 0.08 0.01
DsSE: Darsil-----	55	Very limited Filtering capacity Depth to bedrock Droughty Slope	1.00 1.00 1.00 0.04	Very limited Droughty Filtering capacity Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00 0.04	Very limited Droughty Filtering capacity Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00 0.22
Stephenville----	25	Somewhat limited Depth to bedrock Droughty Too acid Slope Filtering capacity	0.80 0.77 0.11 0.04 0.01	Very limited Low adsorption Depth to bedrock Droughty Too acid Slope	1.00 0.80 0.77 0.42 0.04	Very limited Too steep for surface application Depth to bedrock Droughty Too acid Too steep for sprinkler application	1.00 0.80 0.77 0.42 0.22

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ef1B: Eufaula-----	88	Very limited Filtering capacity Leaching limitation Too acid	1.00 0.45 0.02	Very limited Filtering capacity Too acid	1.00 0.07	Very limited Filtering capacity Too acid	1.00 0.07
Ef1E: Eufaula-----	85	Very limited Filtering capacity Leaching limitation Too acid	1.00 0.45 0.02 0.02	Very limited Filtering capacity Too acid	1.00 0.07	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.10 0.07
EnHE: Endsaw-----	55	Very limited Restricted permeability Depth to saturated zone Cobble content Too acid Slope	1.00 0.86 0.50 0.18 0.04	Very limited Low adsorption Restricted permeability Depth to saturated zone Too acid Cobble content	1.00 1.00 0.86 0.67 0.50	Very limited Restricted permeability Too steep for surface application Depth to saturated zone Too acid Cobble content	1.00 1.00 0.86 0.67 0.50
Hector-----	30	Very limited Depth to bedrock Large stones on the surface Droughty Runoff limitation Too acid	1.00 1.00 1.00 0.40 0.11	Very limited Droughty Depth to bedrock Low adsorption Large stones on the surface Too acid	1.00 1.00 1.00 1.00 0.42 0.42	Very limited Droughty Depth to bedrock Large stones on the surface Too steep for surface application Too acid	1.00 1.00 1.00 1.00 0.42
EnHG: Endsaw-----	65	Very limited Restricted permeability Slope Depth to saturated zone Cobble content Too acid	1.00 1.00 0.86 0.18 0.18	Very limited Low adsorption Restricted permeability Slope Depth to saturated zone Too acid	1.00 1.00 1.00 0.86 0.67	Very limited Too steep for surface application Restricted permeability Too steep for sprinkler application Depth to saturated zone Too acid	1.00 1.00 1.00 0.86 0.67

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EnHG: Hector-----	20	Very limited Depth to bedrock Large stones on the surface Droughty Slope Runoff limitation	1.00 1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Large stones on the surface Slope	1.00 1.00 1.00 1.00 1.00	Very limited Droughty Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00 1.00 1.00
EraE: Eram-----	85	Very limited Depth to saturated zone Restricted permeability Slope Too acid Depth to bedrock	1.00 1.00 0.04 0.03 0.01	Very limited Depth to saturated zone Low adsorption Restricted permeability Too acid Slope	1.00 1.00 1.00 0.14 0.04	Very limited Depth to saturated zone Restricted permeability Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.22 0.14
ErCF: Eram-----	75	Very limited Depth to saturated zone Restricted permeability Slope Depth to bedrock Too acid	1.00 1.00 0.96 0.10 0.03	Very limited Depth to saturated zone Low adsorption Restricted permeability Slope Too acid	1.00 1.00 1.00 0.96 0.14	Very limited Depth to saturated zone Too steep for surface application Restricted permeability Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.98 0.14
Coweta-----	15	Very limited Depth to bedrock Droughty Depth to dense layer Slope Too acid	1.00 1.00 1.00 0.96 0.11	Very limited Droughty Depth to bedrock Low adsorption Slope Too acid	1.00 1.00 1.00 0.96 0.42	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 0.98 0.42

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ErmC: Eram-----	90	Very limited Depth to saturated zone Restricted permeability Depth to bedrock Too acid	1.00 1.00 0.06 0.03	Very limited Depth to saturated zone Low adsorption Restricted permeability Too acid Depth to bedrock	1.00 1.00 1.00 1.00 0.14 0.06	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application Depth to bedrock	1.00 1.00 0.14 0.08 0.06
ErRE: Eram-----	50	Very limited Depth to saturated zone Restricted permeability Slope Too acid Depth to bedrock	1.00 1.00 0.04 0.03 0.01	Very limited Depth to saturated zone Low adsorption Restricted permeability Too acid Slope	1.00 1.00 1.00 1.00 0.14 0.04	Very limited Depth to saturated zone Restricted permeability Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.22 0.14
Radley-----	25	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
GadA: Gaddy-----	88	Very limited Filtering capacity Flooding Leaching limitation	1.00 0.60 0.45	Very limited Filtering capacity Flooding	1.00 1.00	Very limited Filtering capacity Flooding	1.00 0.60
GalB: Galey-----	95	Somewhat limited Too acid	0.11	Somewhat limited Too acid	0.42	Somewhat limited Too acid	0.42
GalC: Galey-----	97	Somewhat limited Too acid	0.11	Somewhat limited Too acid	0.42	Somewhat limited Too acid Too steep for surface application	0.42 0.08
GalC2: Galey-----	97	Somewhat limited Too acid	0.11	Somewhat limited Too acid	0.42	Somewhat limited Too acid Too steep for surface application	0.42 0.08

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GdyA: Gaddy-----	88	Very limited Filtering capacity Flooding Leaching limitation	1.00 1.00 0.45	Very limited Filtering capacity Flooding	1.00 1.00	Very limited Filtering capacity Flooding	1.00 1.00
GhLB: Glentosh-----	60	Very limited Filtering capacity Leaching limitation Too acid Droughty	1.00 0.45 0.18 0.01	Very limited Filtering capacity Too acid Droughty	1.00 0.67 0.01	Very limited Filtering capacity Too acid Droughty	1.00 0.67 0.01
Larton-----	30	Somewhat limited Leaching limitation Too acid Filtering capacity	0.45 0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01
GlhE: Glentosh-----	85	Very limited Filtering capacity Leaching limitation Too acid Droughty	1.00 0.45 0.18 0.01	Very limited Filtering capacity Too acid Droughty	1.00 0.67 0.01	Very limited Filtering capacity Too steep for surface application Too acid Too steep for sprinkler application Droughty	1.00 1.00 0.67 0.10 0.01
GriC2: Grainola-----	85	Very limited Restricted permeability Runoff limitation Depth to bedrock	1.00 0.40 0.01	Very limited Low adsorption Restricted permeability Depth to bedrock	1.00 1.00 0.01	Very limited Restricted permeability Too steep for surface application Depth to bedrock	1.00 0.08 0.01
HeCC: Hector-----	55	Very limited Depth to bedrock Droughty Runoff limitation Too acid Filtering capacity	1.00 1.00 0.40 0.11 0.01	Very limited Droughty Depth to bedrock Low adsorption Too acid Filtering capacity	1.00 1.00 1.00 0.42 0.01	Very limited Droughty Depth to bedrock Too acid Too steep for surface application Filtering capacity	1.00 1.00 0.42 0.08 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCC: Clearview-----	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.84	Low adsorption	1.00	Depth to saturated zone	0.84
		Too acid	0.22	Depth to saturated zone	0.84	Too acid	0.77
		Depth to bedrock	0.06	Too acid	0.77	Too steep for surface application	0.08
		Filtering capacity	0.01	Depth to bedrock	0.06	Depth to bedrock	0.06
				Filtering capacity	0.01	Filtering capacity	0.01
HeCE: Hector-----	55	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40	Low adsorption	1.00	Too steep for surface application	1.00
		Too acid	0.11	Too acid	0.42	Too acid	0.42
		Slope	0.04	Slope	0.04	Too steep for sprinkler application	0.22
Clearview-----	25	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.84	Low adsorption	1.00	Too steep for surface application	1.00
		Depth to bedrock	0.74	Depth to saturated zone	0.84	Depth to saturated zone	0.84
		Droughty	0.46	Too acid	0.77	Too acid	0.77
		Too acid	0.22	Depth to bedrock	0.74	Depth to bedrock	0.74
		Slope	0.04	Droughty	0.46	Droughty	0.46
KarB: Karma-----	88	Not limited		Not limited		Not limited	
KarC: Karma-----	89	Not limited		Not limited		Somewhat limited	
						Too steep for surface application	0.08
KarD2: Karma-----	89	Not limited		Not limited		Somewhat limited	
						Too steep for surface application	0.68
KarE4: Karma-----	85	Not limited		Not limited		Very limited	
						Too steep for surface application	1.00
						Too steep for sprinkler application	0.10

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KimA: Kiomatia-----	88	Very limited Filtering capacity Flooding Leaching limitation	1.00 0.60 0.45	Very limited Filtering capacity Flooding	1.00 1.00	Very limited Filtering capacity Flooding	1.00 0.60
KmfA: Kiomatia-----	88	Very limited Filtering capacity Flooding Leaching limitation	1.00 1.00 0.45	Very limited Filtering capacity Flooding	1.00 1.00	Very limited Filtering capacity Flooding	1.00 1.00
KoGE4: Konawa-----	65	Somewhat limited Too acid Filtering capacity	0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Very limited Too steep for surface application Too acid Too steep for sprinkler application Filtering capacity	1.00 0.42 0.10 0.01
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Somewhat limited Too acid Filtering capacity	0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01
KowC: Konawa-----	92	Somewhat limited Too acid Filtering capacity	0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Somewhat limited Too acid Too steep for surface application Filtering capacity	0.42 0.08 0.01
KowD2: Konawa-----	92	Somewhat limited Too acid Filtering capacity	0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Somewhat limited Too steep for surface application Too acid Filtering capacity	0.68 0.42 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LrtB: Larton-----	85	Somewhat limited Leaching limitation Too acid Filtering capacity	0.45 0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01
LrtD: Larton-----	85	Somewhat limited Leaching limitation Too acid Filtering capacity	0.45 0.11 0.01	Somewhat limited Too acid Filtering capacity	0.42 0.01	Somewhat limited Too steep for surface application Too acid Filtering capacity	0.68 0.42 0.01
LtgA: Lightning-----	90	Very limited Restricted permeability Depth to saturated zone Flooding Runoff limitation Too acid	1.00 1.00 0.60 0.40 0.02	Very limited Restricted permeability Depth to saturated zone Flooding Too acid	1.00 1.00 1.00 0.07	Very limited Restricted permeability Depth to saturated zone Flooding Too acid	1.00 1.00 0.60 0.07
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Somewhat limited Restricted permeability Too acid	0.41 0.02	Somewhat limited Flooding Restricted permeability Too acid	0.40 0.31 0.07	Somewhat limited Restricted permeability Too acid	0.31 0.07
MaTA: Madill-----	50	Very limited Flooding Filtering capacity	1.00 0.01	Very limited Flooding Filtering capacity	1.00 0.01	Very limited Flooding Filtering capacity	1.00 0.01
Tallahassee-----	30	Very limited Depth to saturated zone Flooding Too acid Filtering capacity	1.00 1.00 0.03 0.01	Very limited Depth to saturated zone Flooding Too acid Filtering capacity	1.00 1.00 0.14 0.01	Very limited Depth to saturated zone Flooding Too acid Filtering capacity	1.00 1.00 0.14 0.01
Md1A: Madill-----	90	Somewhat limited Flooding Filtering capacity	0.60 0.01	Very limited Flooding Filtering capacity	1.00 0.01	Somewhat limited Flooding Filtering capacity	0.60 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MrwB: Muldraw-----	85	Very limited Restricted permeability Depth to saturated zone Runoff limitation	1.00 1.00 0.40	Very limited Restricted permeability Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Restricted permeability Depth to saturated zone	1.00 1.00
MshD: Masham-----	90	Very limited Restricted permeability Depth to dense layer Depth to bedrock Droughty Runoff limitation	1.00 1.00 1.00 0.94 0.40	Very limited Restricted permeability Low adsorption Depth to bedrock Droughty	1.00 1.00 1.00 0.94	Very limited Restricted permeability Depth to bedrock Droughty Too steep for surface application	1.00 1.00 0.94 0.68
NviB: Navina-----	94	Not limited		Not limited		Not limited	
NviC2: Navina-----	99	Not limited		Not limited		Not limited	
NzDE: Niotaze-----	65	Very limited Depth to saturated zone Restricted permeability Cobble content Droughty Depth to bedrock	1.00 1.00 0.87 0.87 0.71	Very limited Depth to saturated zone Low adsorption Restricted permeability Cobble content Droughty	1.00 1.00 1.00 0.87 0.87	Very limited Depth to saturated zone Restricted permeability Too steep for surface application Cobble content Droughty	1.00 1.00 1.00 1.00 0.87 0.87
Darsil-----	20	Very limited Filtering capacity Depth to bedrock Droughty	1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Low adsorption	1.00 1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 0.92 0.02
OkeB: Okemah-----	93	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OkrA: Oklares-----	95	Somewhat limited Flooding Filtering capacity	0.60 0.01	Very limited Flooding Filtering capacity	1.00 0.01	Somewhat limited Flooding Filtering capacity	0.60 0.01
OPPA: Okemah-----	42	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00
Pharoah-----	32	Very limited Restricted permeability Depth to saturated zone Runoff limitation Sodium content Salinity	1.00 1.00 0.40 0.18 0.01	Very limited Restricted permeability Depth to saturated zone Sodium content	1.00 1.00 0.18	Very limited Restricted permeability Depth to saturated zone Sodium content	1.00 1.00 0.18
Parsons-----	21	Very limited Restricted permeability Depth to saturated zone Runoff limitation Too acid	1.00 1.00 0.40 0.11	Very limited Restricted permeability Depth to saturated zone Too acid	1.00 1.00 0.42	Very limited Restricted permeability Depth to saturated zone Too acid	1.00 1.00 0.42
ParA: Parsons-----	85	Very limited Restricted permeability Depth to saturated zone Runoff limitation Too acid	1.00 1.00 0.40 0.11	Very limited Restricted permeability Depth to saturated zone Too acid	1.00 1.00 0.42	Very limited Restricted permeability Depth to saturated zone Too acid	1.00 1.00 0.42
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Very limited Restricted permeability Depth to saturated zone Runoff limitation Sodium content Salinity	1.00 1.00 0.40 0.18 0.01	Very limited Restricted permeability Depth to saturated zone Sodium content	1.00 1.00 0.18	Very limited Restricted permeability Depth to saturated zone Sodium content	1.00 1.00 0.18
Oil waste land--	30	Not rated		Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PrmC2: Porum-----	85	Very limited Restricted permeability Depth to saturated zone Runoff limitation Too acid	1.00 0.86 0.40 0.32	Very limited Restricted permeability Too acid Depth to saturated zone	1.00 0.91 0.86	Very limited Restricted permeability Too acid Depth to saturated zone Too steep for surface application	1.00 0.91 0.86 0.08
Pu1A: Pulaski-----	90	Somewhat limited Flooding Filtering capacity	0.60 0.01	Very limited Flooding Filtering capacity	1.00 0.01	Somewhat limited Flooding Filtering capacity	0.60 0.01
PuTA: Pulaski-----	50	Very limited Flooding Filtering capacity	1.00 0.01	Very limited Flooding Filtering capacity	1.00 0.01	Very limited Flooding Filtering capacity	1.00 0.01
Tribbey-----	30	Very limited Flooding Depth to dense layer Depth to saturated zone Filtering capacity	1.00 1.00 1.00 0.01	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 0.01	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 0.01
RbkA: Roebuck-----	90	Very limited Restricted permeability Flooding Runoff limitation	1.00 1.00 0.40	Very limited Restricted permeability Flooding	1.00 1.00	Very limited Restricted permeability Flooding	1.00 1.00
RenC: Renfrow-----	85	Very limited Restricted permeability Runoff limitation	1.00 0.40	Very limited Restricted permeability	1.00	Very limited Restricted permeability Too steep for surface application	1.00 0.08
SCGC4: Shermore-----	51	Very limited Restricted permeability Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.11 0.01	Very limited Restricted permeability Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.42 0.01	Very limited Restricted permeability Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.42 0.08 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SCGC4: Clearview-----	24	Somewhat limited Depth to saturated zone Depth to bedrock Too acid Droughty Filtering capacity	0.84 0.46 0.22 0.18 0.01	Very limited Low adsorption Depth to saturated zone Too acid Depth to bedrock Droughty	1.00 0.84 0.77 0.46 0.18	Somewhat limited Depth to saturated zone Too acid Depth to bedrock Droughty Too steep for surface application	0.84 0.77 0.46 0.18 0.08
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Somewhat limited Too acid Depth to bedrock Filtering capacity	0.11 0.01 0.01	Very limited Low adsorption Too acid Depth to bedrock Filtering capacity	1.00 0.42 0.01 0.01	Somewhat limited Too steep for surface application Too acid Depth to bedrock Filtering capacity	0.68 0.42 0.01 0.01
Darsil-----	28	Very limited Filtering capacity Depth to bedrock Droughty	1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Low adsorption	1.00 1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Too steep for surface application	1.00 1.00 1.00 0.68
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Somewhat limited Too acid Depth to bedrock Droughty Filtering capacity	0.11 0.06 0.01 0.01	Very limited Low adsorption Too acid Depth to bedrock Droughty Filtering capacity	1.00 0.42 0.06 0.01 0.01	Somewhat limited Too acid Too steep for surface application Depth to bedrock Droughty Filtering capacity	0.42 0.08 0.06 0.01 0.01
Darsil-----	30	Very limited Filtering capacity Depth to bedrock Droughty	1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Low adsorption	1.00 1.00 1.00 1.00	Very limited Droughty Filtering capacity Depth to bedrock Too steep for surface application	1.00 1.00 1.00 0.08

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SDND: Newalla-----	19	Very limited Restricted permeability Runoff limitation Too acid	1.00 0.40 0.08	Very limited Restricted permeability Low adsorption Too acid	1.00 1.00 0.31	Very limited Restricted permeability Too acid Too steep for surface application	1.00 0.31 0.08
SevA: Severn-----	95	Somewhat limited Flooding Filtering capacity	0.60 0.01	Very limited Flooding Filtering capacity	1.00 0.01	Somewhat limited Flooding Filtering capacity	0.60 0.01
ShmC: Shermore-----	85	Very limited Restricted permeability Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.11 0.01	Very limited Restricted permeability Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.42 0.01	Very limited Restricted permeability Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.42 0.08 0.01
ShmC2: Shermore-----	85	Very limited Restricted permeability Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.11 0.01	Very limited Restricted permeability Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.42 0.01	Very limited Restricted permeability Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.42 0.08 0.01
SOWD: Stephenville----	58	Very limited Filtering capacity Droughty Too acid Depth to bedrock	1.00 0.15 0.11 0.06	Very limited Filtering capacity Low adsorption Too acid Droughty Depth to bedrock	1.00 1.00 0.42 0.15 0.06	Very limited Filtering capacity Too acid Too steep for surface application Droughty Depth to bedrock	1.00 0.42 0.32 0.15 0.06
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Very limited Filtering capacity Too acid	1.00 0.18	Very limited Filtering capacity Too acid	1.00 0.67	Very limited Filtering capacity Too acid	1.00 0.67

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SteB: Stephenville----	90	Somewhat limited		Very limited		Somewhat limited	
		Too acid	0.11	Low adsorption	1.00	Too acid	0.42
		Depth to bedrock	0.06	Too acid	0.42	Depth to bedrock	0.06
		Droughty	0.04	Depth to bedrock	0.06	Droughty	0.04
		Filtering capacity	0.01	Droughty	0.04	Filtering capacity	0.01
				Filtering capacity	0.01		
SteC2: Stephenville----	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to bedrock	0.20	Low adsorption	1.00	Too acid	0.42
		Too acid	0.11	Too acid	0.42	Depth to bedrock	0.20
		Droughty	0.09	Depth to bedrock	0.20	Droughty	0.09
		Filtering capacity	0.01	Droughty	0.09	Too steep for surface application	0.08
				Filtering capacity	0.01	Filtering capacity	0.01
SvnA: Severn-----	90	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.60	Flooding	1.00	Flooding	0.60
		Filtering capacity	0.01	Filtering capacity	0.01	Filtering capacity	0.01
Tlha: Tulahassee----	88	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Too acid	0.03	Too acid	0.14	Too acid	0.14
		Filtering capacity	0.01	Filtering capacity	0.01	Filtering capacity	0.01
TlrA: Teller-----	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.01	Filtering capacity	0.01	Filtering capacity	0.01
TlrB: Teller-----	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.01	Filtering capacity	0.01	Filtering capacity	0.01
TlrC2: Teller-----	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.01	Filtering capacity	0.01	Too steep for surface application	0.08
						Filtering capacity	0.01
UstA: Ustibuck-----	90	Very limited		Very limited		Very limited	
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Runoff limitation	0.40				

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
VrdA: Verdigris-----	92	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
VrgA: Verdigris-----	95	Somewhat limited Flooding	0.60	Very limited Flooding	1.00	Somewhat limited Flooding	0.60
W: Water-----	100	Not rated		Not rated		Not rated	
WeIE: Weleetka-----	88	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.41	Too acid	0.91	Too steep for surface	0.92
		Runoff limitation	0.40	Restricted permeability	0.31	application	
		Too acid	0.32			Too acid	0.91
						Restricted permeability	0.31
WynA: Wynona-----	88	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Restricted permeability	1.00	Flooding	1.00	Restricted	1.00
		Flooding	0.60	Restricted permeability	1.00	permeability	
		Too acid	0.11	Too acid	0.42	Flooding	0.60
						Too acid	0.42
YahA: Yahola-----	95	Somewhat limited Flooding	0.60	Very limited Flooding	1.00	Somewhat limited Flooding	0.60
		Filtering capacity	0.01	Filtering capacity	0.01	Filtering capacity	0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid	1.00 0.42
BctC: Bates-----	85	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application	1.00 0.42 0.08
BctC2: Bates-----	85	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted Permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application	1.00 0.42 0.08
BoyA: Boley-----	85	Very limited Flooding Seepage Ponding Depth to saturated zone Too level	1.00 1.00 1.00 0.86 0.50	Very limited Flooding Restricted permeability Ponding Depth to saturated zone	1.00 1.00 1.00 0.86	Very limited Flooding Ponding Depth to saturated zone	1.00 1.00 0.86
CaaA: Canadian-----	95	Very limited Seepage Too level Flooding	1.00 0.50 0.40	Somewhat limited Restricted permeability	0.31	Somewhat limited Filtering capacity	0.01
ClrB: Clearview-----	85	Very limited Seepage Depth to bedrock Depth to saturated zone Too acid	1.00 1.00 0.84 0.77	Very limited Depth to saturated zone Depth to bedrock Restricted permeability	1.00 1.00 1.00	Very limited Depth to bedrock Depth to saturated zone Too acid Filtering capacity	1.00 0.84 0.77 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ClrC: Clearview-----	85	Very limited Seepage Depth to bedrock Depth to saturated zone Too acid	1.00 1.00 0.84 0.77	Very limited Depth to saturated zone Depth to bedrock Restricted permeability	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.77 0.08 0.01
ClrC2: Clearview-----	90	Very limited Seepage Depth to bedrock Depth to saturated zone Too acid	1.00 1.00 0.84 0.77	Very limited Depth to saturated zone Depth to bedrock Restricted permeability	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.77 0.08 0.01
CoBC: Coweta-----	60	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application Filtering capacity	1.00 0.42 0.08 0.01
Bates-----	35	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application	1.00 0.42 0.08
CouB: Choteau-----	100	Very limited Seepage Too acid Depth to saturated zone	1.00 0.77 0.68	Very limited Restricted permeability Depth to saturated zone	1.00 0.68	Somewhat limited Restricted permeability Too acid Depth to saturated zone	0.96 0.77 0.68
CouC: Choteau-----	97	Very limited Seepage Too acid Depth to saturated zone	1.00 0.77 0.68	Very limited Restricted permeability Depth to saturated zone	1.00 0.68	Somewhat limited Restricted permeability Too acid Depth to saturated zone Too steep for surface application	0.96 0.77 0.68 0.08

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CskB: Chickasha-----	85	Very limited Seepage	1.00	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.67	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.96 0.67
DenC: Dennis-----	90	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.67	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application	1.00 0.96 0.67 0.08
DenC2: Dennis-----	89	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.67	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application	1.00 0.96 0.67 0.08
DEPD3: Dennis-----	63	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.67	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Restricted permeability Too steep for surface application Too acid	1.00 0.96 0.68 0.67
Eram-----	20	Very limited Depth to saturated zone Depth to bedrock Seepage Too acid	1.00 1.00 0.69 0.14	Very limited Restricted permeability Depth to saturated zone Depth to bedrock Slope	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Depth to bedrock Restricted permeability Too steep for surface application Too acid	1.00 1.00 0.96 0.68 0.14

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Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DEPD3: Pharoah-----	10	Very limited Seepage Depth to saturated zone Sodium content	1.00 1.00 0.68	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability Sodium content	1.00 1.00 0.68
DsSC: Darsil-----	45	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Filtering capacity Depth to bedrock Too steep for surface application	1.00 1.00 0.08
Stephenville----	40	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application Filtering capacity	1.00 0.42 0.08 0.01
DsSE: Darsil-----	55	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 0.50	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Filtering capacity Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 0.50
Stephenville----	25	Very limited Seepage Depth to bedrock Too steep for surface application Too acid	1.00 1.00 0.50 0.42	Very limited Depth to bedrock Restricted permeability Slope	1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler application Too acid Filtering capacity	1.00 1.00 0.50 0.42 0.01
EflB: Eufaula-----	88	Very limited Seepage Too acid	1.00 0.07	Not limited		Very limited Filtering capacity Too acid	1.00 0.07

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EfLE: Eufaula-----	85	Very limited Seepage Too steep for surface application Too acid	1.00 0.22 0.07	Very limited Slope	1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.22 0.07
EnHE: Endsaw-----	55	Very limited Seepage Depth to saturated zone Too acid Depth to bedrock Too steep for surface application	1.00 0.86 0.67 0.61 0.50	Very limited Restricted permeability Depth to bedrock Slope Depth to saturated zone	1.00 1.00 1.00 0.86	Very limited Too steep for surface application Restricted permeability Depth to saturated zone Too acid Depth to bedrock	1.00 0.96 0.86 0.67 0.61
Hector-----	30	Very limited Seepage Depth to bedrock Stone content Too steep for surface application Too acid	1.00 1.00 0.57 0.50 0.42	Very limited Depth to bedrock Stone content Slope Restricted permeability	1.00 1.00 1.00 0.31	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 0.50 0.42
EnHG: Endsaw-----	65	Very limited Seepage Too steep for surface application Depth to saturated zone Too acid	1.00 1.00 0.86 0.67	Very limited Slope Restricted permeability Depth to bedrock Depth to saturated zone	1.00 1.00 1.00 0.86	Very limited Too steep for surface application Too steep for sprinkler application Restricted permeability Depth to saturated zone Too acid	1.00 1.00 1.00 0.96 0.86 0.67

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EnHG: Hector-----	20	Very limited Seepage Depth to bedrock Too steep for surface application Too acid Stone content	1.00 1.00 1.00 0.42 0.06	Very limited Slope Depth to bedrock Stone content Restricted permeability	1.00 1.00 0.75 0.31	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.42
EraE: Eram-----	85	Very limited Depth to saturated zone Depth to bedrock Seepage Too steep for surface application Too acid	1.00 1.00 0.69 0.50 0.14	Very limited Restricted permeability Depth to saturated zone Depth to bedrock Slope	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Depth to bedrock Too steep for surface application Restricted permeability Too steep for sprinkler application	1.00 1.00 1.00 0.96 0.50
ErCF: Eram-----	75	Very limited Depth to saturated zone Depth to bedrock Too steep for surface application Seepage Too acid	1.00 1.00 1.00 1.00 0.14	Very limited Slope Restricted permeability Depth to saturated zone Depth to bedrock	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Depth to bedrock Too steep for surface application Too steep for sprinkler application Restricted permeability	1.00 1.00 1.00 1.00 0.96
Coweta-----	15	Very limited Seepage Depth to bedrock Too steep for surface application Too acid	1.00 1.00 1.00 0.42	Very limited Slope Depth to bedrock Restricted permeability	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler application Too acid Filtering capacity	1.00 1.00 1.00 0.42 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ErmC: Eram-----	90	Very limited Depth to saturated zone Depth to bedrock Seepage Too acid	1.00 1.00 1.00 0.14	Very limited Restricted permeability Depth to saturated zone Depth to bedrock	1.00 1.00 1.00	Very limited Depth to saturated zone Depth to bedrock Restricted permeability Too acid Too steep for surface application	1.00 1.00 0.96 0.14 0.08
ErRE: Eram-----	50	Very limited Depth to saturated zone Depth to bedrock Seepage Too steep for surface application Too acid	1.00 1.00 1.00 0.50 0.14	Very limited Restricted permeability Depth to saturated zone Depth to bedrock Slope	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Depth to bedrock Too steep for surface application Restricted permeability Too steep for sprinkler application	1.00 1.00 1.00 0.96 0.50
Radley-----	25	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Flooding Restricted permeability	1.00 1.00	Very limited Flooding	1.00
GadA: Gaddy-----	88	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Somewhat limited Flooding	0.60	Very limited Filtering capacity Flooding	1.00 0.60
GalB: Galey-----	95	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid	0.42
GalC: Galey-----	97	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid Too steep for surface application	0.42 0.08
GalC2: Galey-----	97	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid Too steep for surface application	0.42 0.08

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GdyA: Gaddy-----	88	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Flooding	1.00	Very limited Filtering capacity Flooding	1.00 1.00
GhLB: Glentosh-----	60	Very limited Seepage Too acid	1.00 0.67	Not limited		Very limited Filtering capacity Too acid	1.00 0.67
Larton-----	30	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid Filtering capacity	0.42 0.01
GlhE: Glentosh-----	85	Very limited Seepage Too acid Too steep for surface application	1.00 0.67 0.22	Very limited Slope	1.00	Very limited Filtering capacity Too steep for surface application Too acid Too steep for sprinkler application	1.00 1.00 0.67 0.22
GriC2: Grainola-----	85	Very limited Depth to bedrock Seepage	1.00 0.69	Very limited Restricted permeability Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Restricted permeability Too steep for surface application	1.00 0.96 0.08
HeCC: Hector-----	55	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 0.31	Very limited Depth to bedrock Too acid Too steep for surface application Filtering capacity	1.00 0.42 0.08 0.01
Clearview-----	35	Very limited Seepage Depth to bedrock Depth to saturated zone Too acid	1.00 1.00 0.84 0.77	Very limited Depth to saturated zone Depth to bedrock Restricted permeability	1.00 1.00 1.00	Very limited Depth to bedrock Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.77 0.08 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCE: Hector-----	55	Very limited Seepage Depth to bedrock Too steep for surface application Too acid	1.00 1.00 0.50 0.42	Very limited Depth to bedrock Slope Restricted permeability	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler application Too acid Filtering capacity	1.00 1.00 0.50 0.42 0.01
Clearview-----	25	Very limited Seepage Depth to bedrock Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.84 0.77 0.50	Very limited Depth to saturated zone Depth to bedrock Restricted permeability Slope	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Depth to saturated zone Too acid Too steep for sprinkler application	1.00 1.00 0.84 0.77 0.50
KarB: Karma-----	88	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Not limited	
KarC: Karma-----	89	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Somewhat limited Too steep for surface application	0.08
KarD2: Karma-----	89	Very limited Seepage	1.00	Very limited Restricted permeability Slope	1.00 0.50	Somewhat limited Too steep for surface application	0.68
KarE4: Karma-----	85	Very limited Seepage Too steep for surface application	1.00 0.22	Very limited Restricted permeability Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.22
KimA: Kiomatia-----	88	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Depth to saturated zone Restricted permeability Flooding	1.00 1.00 0.60	Very limited Filtering capacity Flooding	1.00 0.60

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KmfA: Kiomatia-----	88	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Very limited Filtering capacity Flooding	1.00 1.00
KoGE4: Konawa-----	65	Very limited Seepage Too acid Too steep for surface application	1.00 0.42 0.22	Very limited Restricted permeability Slope	1.00 1.00	Very limited Too steep for surface application Too acid Too steep for sprinkler application Filtering capacity	1.00 0.42 0.22 0.01
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid Filtering capacity	0.42 0.01
KowC: Konawa-----	92	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid Too steep for surface application Filtering capacity	0.42 0.08 0.01
KowD2: Konawa-----	92	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability Slope	1.00 0.50	Somewhat limited Too steep for surface application Too acid Filtering capacity	0.68 0.42 0.01
LrtB: Larton-----	85	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability	1.00	Somewhat limited Too acid Filtering capacity	0.42 0.01
LrtD: Larton-----	85	Very limited Seepage Too acid	1.00 0.42	Very limited Restricted permeability Slope	1.00 0.50	Somewhat limited Too steep for surface application Too acid Filtering capacity	0.68 0.42 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LtgA: Lightning-----	90	Very limited Flooding Depth to saturated zone Too level Seepage Too acid	 1.00 1.00 0.50 0.39 0.07	Very limited Restricted permeability Depth to saturated zone Flooding	 1.00 1.00 0.60	Very limited Depth to saturated zone Restricted permeability Flooding Too acid	 1.00 1.00 0.60 0.07
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Very limited Seepage Too level Flooding Too acid	 1.00 0.50 0.40 0.07	Very limited Restricted permeability	 1.00	Somewhat limited Restricted permeability Too acid	 0.21 0.07
MaTA: Madill-----	50	Very limited Flooding Seepage Too level	 1.00 1.00 0.50	Very limited Flooding Restricted permeability	 1.00 0.61	Very limited Flooding Filtering capacity	 1.00 0.01
Tallahassee-----	30	Very limited Flooding Seepage Depth to saturated zone Too level Too acid	 1.00 1.00 1.00 0.50 0.14	Very limited Flooding Depth to saturated zone Restricted permeability	 1.00 1.00 0.31	Very limited Depth to saturated zone Flooding Too acid Filtering capacity	 1.00 1.00 1.00 0.14 0.01
MdlA: Madill-----	90	Very limited Flooding Seepage Too level	 1.00 1.00 0.50	Very limited Restricted permeability Flooding	 1.00 0.60	Somewhat limited Flooding Filtering capacity	 0.60 0.01
MrwB: Muldrow-----	85	Very limited Depth to saturated zone Seepage Too level Flooding	 1.00 0.69 0.50 0.40	Very limited Restricted permeability Depth to saturated zone	 1.00 1.00	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00
MshD: Masham-----	90	Very limited Depth to bedrock	 1.00	Very limited Restricted permeability Depth to bedrock Slope	 1.00 1.00 0.50	Very limited Depth to bedrock Restricted permeability Too steep for surface application	 1.00 1.00 0.68

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NviB: Navina-----	94	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Not limited	
NviC2: Navina-----	99	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Not limited	
NzDE: Niotaze-----	65	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too steep for surface application	1.00
		Too acid	0.67	Depth to bedrock	1.00	Restricted permeability	0.96
		Too steep for surface application	0.50	Slope	1.00	Cobble content	0.87
Darsil-----	20	Very limited Seepage	1.00	Very limited Depth to bedrock	1.00	Very limited Filtering capacity	1.00
		Depth to bedrock	1.00	Slope	0.88	Depth to bedrock	1.00
		Too steep for surface application	0.06			Too steep for surface application	0.92
						Too steep for sprinkler application	0.06
OkeB: Okemah-----	93	Very limited Depth to saturated zone	1.00	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Restricted permeability	0.96
OkraA: Oklared-----	95	Very limited Flooding	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Flooding	0.60
		Seepage	1.00	Flooding	0.60	Filtering	0.01
		Too level	0.50	Restricted permeability	0.31	capacity	
OPPA: Okemah-----	42	Very limited Depth to saturated zone	1.00	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone	1.00
		Seepage	1.00	Depth to saturated zone	1.00	Restricted permeability	0.96
		Too level	0.50				

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OPFA: Pharoah-----	32	Very limited Seepage Depth to saturated zone Too level Sodium content	1.00 1.00 0.50 0.18	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Sodium content	1.00 1.00 1.00 0.18
Parsons-----	21	Very limited Seepage Depth to saturated zone Too level Too acid	1.00 1.00 0.50 0.42	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 1.00 0.42
ParA: Parsons-----	85	Very limited Seepage Depth to saturated zone Too level Too acid	1.00 1.00 0.50 0.42	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 1.00 1.00 0.42
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Very limited Depth to saturated zone Sodium content	1.00 0.18	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability Sodium content	1.00 1.00 0.18
Oil waste land--	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Very limited Seepage Too acid Depth to saturated zone	1.00 0.91 0.86	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Restricted permeability Too acid Depth to saturated zone Too steep for surface application	0.96 0.91 0.86 0.08
PuLA: Pulaski-----	90	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Somewhat limited Flooding Restricted permeability	0.60 0.31	Somewhat limited Flooding Filtering capacity	0.60 0.01
PuTA: Pulaski-----	50	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Flooding Restricted permeability	1.00 0.31	Very limited Flooding Filtering capacity	1.00 0.01

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Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PuTA: Tribbey-----	30	Very limited Flooding Seepage Depth to saturated zone Too level	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.61	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 0.01
RbkA: Roebuck-----	90	Very limited Flooding Too level	1.00 0.50	Very limited Flooding Restricted permeability	1.00 1.00	Very limited Flooding Restricted permeability	1.00 1.00
RenC: Renfrow-----	85	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability Too steep for surface application	1.00 0.08
SCGC4: Shermore-----	51	Very limited Seepage Depth to saturated zone Too acid	1.00 0.84 0.42	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Restricted permeability Depth to saturated zone Too acid Too steep for surface application Filtering capacity	0.96 0.84 0.42 0.08 0.01
Clearview-----	24	Very limited Seepage Depth to bedrock Depth to saturated zone Too acid	1.00 1.00 0.84 0.77	Very limited Depth to saturated zone Depth to bedrock Restricted permeability	1.00 1.00 1.00	Very limited Depth to bedrock Depth to saturated zone Too acid Too steep for surface application Filtering capacity	1.00 0.84 0.77 0.08 0.01
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability Slope	1.00 1.00 0.50	Very limited Depth to bedrock Too steep for surface application Too acid Filtering capacity	1.00 0.68 0.42 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SDGD4: Darsil-----	28	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope	1.00 0.50	Very limited Filtering capacity Depth to bedrock Too steep for surface application	1.00 1.00 0.68
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application Filtering capacity	1.00 0.42 0.08 0.01
Darsil-----	30	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Filtering capacity Depth to bedrock Too steep for surface application	1.00 1.00 0.08
Newalla-----	19	Very limited Seepage Depth to bedrock Too acid	1.00 0.42 0.31	Very limited Restricted permeability Depth to bedrock	1.00 1.00	Very limited Restricted permeability Depth to bedrock Too acid Too steep for surface application	1.00 0.42 0.31 0.08
SevA: Severn-----	95	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Somewhat limited Flooding Restricted permeability	0.60 0.31	Somewhat limited Flooding Filtering capacity	0.60 0.01
ShmC: Shermore-----	85	Very limited Seepage Depth to saturated zone Too acid	1.00 0.84 0.42	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Restricted permeability Depth to saturated zone Too acid Too steep for surface application Filtering capacity	0.96 0.84 0.42 0.08 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ShmC2: Shermore-----	85	Very limited Seepage Depth to saturated zone Too acid	1.00 0.84 0.42	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Restricted permeability Depth to saturated zone Too acid Too steep for surface application Filtering capacity	0.96 0.84 0.42 0.08 0.01
SOWD: Stephenville----	58	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability Slope	1.00 1.00 0.12	Very limited Filtering capacity Depth to bedrock Too acid Too steep for surface application	1.00 1.00 0.42 0.32
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Very limited Seepage Too acid	1.00 0.67	Very limited Restricted permeability	1.00	Very limited Filtering capacity Too acid	1.00 0.67
SteB: Stephenville----	90	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Filtering capacity	1.00 0.42 0.01
SteC2: Stephenville----	85	Very limited Seepage Depth to bedrock Too acid	1.00 1.00 0.42	Very limited Depth to bedrock Restricted permeability	1.00 1.00	Very limited Depth to bedrock Too acid Too steep for surface application Filtering capacity	1.00 0.42 0.08 0.01
SvnA: Severn-----	90	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Somewhat limited Flooding Restricted permeability	0.60 0.31	Somewhat limited Flooding Filtering capacity	0.60 0.01

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TlhA: Tulahassee-----	88	Very limited Flooding Seepage Depth to saturated zone Too level Too acid	1.00 1.00 1.00 0.50 0.14	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.31	Very limited Depth to saturated zone Flooding Too acid Filtering capacity	1.00 1.00 1.00 0.14 0.01
TlrA: Teller-----	100	Very limited Seepage Too level	1.00 0.50	Very limited Restricted permeability	1.00	Somewhat limited Filtering capacity	0.01
TlrB: Teller-----	100	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Somewhat limited Filtering capacity	0.01
TlrC2: Teller-----	100	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Somewhat limited Too steep for surface application Filtering capacity	0.08 0.01
UstA: Ustibuck-----	90	Very limited Flooding Too level	1.00 0.50	Very limited Flooding Restricted permeability	1.00 1.00	Very limited Flooding Restricted permeability	1.00 1.00
VrdA: Verdigris-----	92	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Flooding Restricted permeability	1.00 1.00	Very limited Flooding	1.00
VrgA: Verdigris-----	95	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Very limited Restricted permeability Flooding	1.00 0.60	Somewhat limited Flooding	0.60
W: Water-----	100	Not rated		Not rated		Not rated	
WelE: Weleetka-----	88	Very limited Seepage Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.91 0.06	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 0.88	Very limited Filtering capacity Depth to saturated zone Too steep for surface application Too acid Restricted permeability	1.00 1.00 1.00 0.92 0.91 0.21

Soil Survey of Okfuskee County, Oklahoma

Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WynA: Wynona-----	88	Very limited Flooding Seepage Depth to saturated zone Too level Too acid	1.00 1.00 1.00 0.50 0.42	Very limited Restricted permeability Depth to saturated zone Flooding	1.00 1.00 0.60	Very limited Depth to saturated zone Restricted permeability Flooding Too acid	1.00 0.96 0.60 0.42
YahA: Yahola-----	95	Very limited Flooding Seepage Too level	1.00 1.00 0.50	Somewhat limited Flooding Restricted permeability	0.60 0.31	Somewhat limited Flooding Filtering capacity	0.60 0.01

Range

Mark Moseley, Range Conservationist, Natural Resources Conservation Service, helped prepare this section.

Range, grazed forestland, and native pasture provide forage for livestock in the survey area.

Range is defined as land on which the native vegetation (the climax or natural potential plant community) is predominantly grasses, grasslike plants, forbs, and shrubs suitable for grazing and browsing. Range includes natural grasslands, savannahs, many wetlands, some deserts, tundra, and certain shrub and forb communities. Range receives no regular or frequent cultural treatment. The composition and production of the plant community are determined by soil, climate, topography, overstory canopy, and grazing management.

Grazed forestland is defined as land on which the understory includes, as an integral part of the forest plant community, plants that can be grazed without significant impairment of other forest values.

Native pasture is defined as land on which the potential (climax) vegetation is forest but which is used and managed primarily for the production of native forage plants. Native pasture includes cutover forestland and forestland that has been cleared and is managed for native or naturalized forage plants.

Rangeland makes up about 37 percent of the land in Okfuskee County and is located mainly in the western and central parts of the county. There has been a recent trend to reseed some areas of abandoned cropland with a mixture of native grass species or to allow them to naturally reseed to native species. The range is used primarily for grazing by domestic cattle or to produce native hay; however, its importance as wildlife habitat is becoming increasingly important as more landowners choose to lease the hunting rights on their range for an additional source of income.

The range in Okfuskee County originally produced a wide variety of tall grasses and some mid grasses interspersed with an abundance of forbs. The plant communities, however, have changed drastically during the past 130 years. Heavy overgrazing has deteriorated some of the grassland, and the extent of high-quality vegetation has been severely reduced. Many areas are now dominated by poor-quality grasses, and there is a significant increase in the extent of poor-quality forbs and woody shrubs. Eastern red cedar, winged elm, common persimmon, blackjack oak, and post oak have also encroached as a result of the lack of prairie fires since humans have settled the area. However, many small remnant areas of the original plant species still occur where protected. Good grazing management can help to re-establish these areas to high-quality plants.

Okfuskee County has four types of range. The first type is in the far western part of the county around the Paden area, west to the county line, and along the North Canadian River flood plain. The soils of this area are sandy to clayey and shallow to deep to bedrock or alluvial sediments. This area is typified by a rolling plain that is deeply dissected. These soils support a mixture of mostly tall and some mid grasses, and the potential productivity is moderate.

The second type is in the western part of the county and on the terraces of the North Canadian River. The soils of this area are sandy to clayey and shallow to very deep to bedrock or alluvial sediments. This area is typified by a gently rolling plain that is dissected. These soils support tall grasses, and the potential productivity is moderate.

The third type is in the central part of the county on terraces of the North Canadian River and on the flood plain and terraces of the Deep Fork of the Canadian River. The soils of this area are loamy to clayey and moderately deep to very deep to bedrock or alluvial sediments. This area is typified by a gently rolling plain with some rough stony

ridges and low hills. These soils support tall grasses, and the potential productivity is high.

The fourth type is in the southeast and east-central part of the county and on terraces of the North Canadian River. The soils of this area are loamy to clayey. They are mainly shallow to moderately deep but are very deep to bedrock in some places. This area is typified by a gently rolling plain with rough stony ridges and low hills and has the largest amount of relief in the county. These soils support tall grasses, and the potential productivity is low to high.

Approximately 75 percent of the annual production of forage occurs in April through July, following spring and early summer rains. A second smaller growth period occurs in the fall when sufficient moisture is available.

The table "Rangeland Productivity and Characteristic Plant Communities" shows, for each soil, the ecological site; the total annual production of vegetation in favorable, normal, and unfavorable years; the characteristic vegetation; and the average percentage of each species. Explanation of the column headings in this table follows.

An *ecological site* is a distinctive kind of land and vegetation with specific physical characteristics that makes it different from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

Many different ecological sites are in the survey area. Over historical time, the combination of plants best suited to a particular soil and climate became dominant. If the soil is not excessively disturbed, this group of plants is the natural plant community for the site. Natural plant communities are not static but vary slightly from year to year and place to place.

The relationship between soils and vegetation was ascertained during this survey; thus, ecological sites generally can be determined directly from the soil map. Soil properties that affect moisture supply and plant nutrients have the greatest influence on the productivity of range plants. Soil reaction, salt content, and a seasonal high water table are also important. The "Field Office Technical Guide," which is available at the local office of the Natural Resources Conservation Service, can provide specific information about ecological sites.

Total dry-weight production is the amount of vegetation that can be expected to grow annually on well managed rangeland. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruit of woody plants, It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, normal, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are near the historical monthly average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Figure 8 shows a typical growth curve for native vegetation and other forage that represents the percentage of total growth that occurs each month.

Dry weight is the total annual yield per acre of air-dry vegetation. Yields are adjusted to a percent of air-dry moisture content. The relationship of green weight to air-dry weight varies according to such factors as stage of maturity, exposure, amount of shade, recent rains, and unseasonable dry periods.

Characteristic vegetation consists of the grasses, forbs, and shrubs that make up most of the potential natural plant community on each soil. The plants are listed by common name. Under composition, the anticipated percentage of the total annual production is given for each species making up the characteristic vegetation. The amount that can be used as forage depends on the kinds of grazing animals and on the grazing season.

Soil Survey of Okfuskee County, Oklahoma

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
IMPROVED BERMUDAGRASS				5	25	35	20	10	5			
WEeping LOVEGRASS			3	20	25	20	15	6	11			
INTRODUCED BLUESTEM				3	15	26	22	18	10	1		
SMALL GRAIN GRAZEOUT	3	9	29	27	18				1	4	6	3
FORAGE SORGHUM						14	33	33	20			
NATIVE GRASS	1	1	2	10	20	27	16	8	5	2	2	1

Figure 8.—Forage calendar (growth rate) showing percentage of use of annual forage production.

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
BctB: Bates-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
BctC: Bates-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
BctC2: Bates-----	Eroded Loamy Prairie Pe 62-80 R112XY856OK	---	---	---	-----	---
BoyA: Boley-----	Loamy Bottomland Pe 62-80 R112XY050OK	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 10 5 5
Caaa: Canadian-----	Loamy Bottomland Pe 44-64 R080AY050OK	8,500	6,100	4,500	big bluestem----- miscellaneous perennial forbs-- Indiangrass----- miscellaneous perennial grasses eastern gamagrass----- switchgrass----- miscellaneous shrubs-----	25 20 15 15 10 10 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
ClrB: Clearview-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem-----	25
					miscellaneous trees-----	20
					Indiangrass-----	15
					little bluestem-----	10
					blackjack oak-----	5
			miscellaneous perennial forbs--	5		
			miscellaneous perennial grasses	5		
			miscellaneous shrubs-----	5		
			post oak-----	5		
			switchgrass-----	5		
ClrC: Clearview-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem-----	25
					miscellaneous trees-----	20
					Indiangrass-----	15
					little bluestem-----	10
					blackjack oak-----	5
			miscellaneous perennial forbs--	5		
			miscellaneous perennial grasses	5		
			miscellaneous shrubs-----	5		
			post oak-----	5		
			switchgrass-----	5		
ClrC2: Clearview-----	Eroded Sandy Savannah Pe 66-72 R118BY075OK	---	---	---		---
CoBC: Coweta-----	Shallow Prairie Pe 62-80 R112XY087OK	3,000	2,250	1,500	Indiangrass-----	20
					big bluestem-----	20
					switchgrass-----	20
					little bluestem-----	15
					miscellaneous perennial forbs--	10
			miscellaneous perennial grasses	5		
			miscellaneous shrubs-----	5		
			wildrye-----	5		
Bates-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem-----	40
					little bluestem-----	20
					Indiangrass-----	10
					eastern gamagrass-----	10
					miscellaneous perennial grasses	10
			miscellaneous perennial forbs--	5		
			miscellaneous shrubs-----	5		

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
CouB: Choteau-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
CouC: Choteau-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
CskB: Chickasha-----	Loamy Prairie Pe 44-64 R080AY056OK	6,000	4,747	2,500	little bluestem----- Indiangrass----- big bluestem----- switchgrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	25 20 20 15 10 7 3
DAM. Large dam						
DenB: Dennis-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
DenC: Dennis-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
DenC2: Dennis-----	Eroded Loamy Prairie Pe 62-80 R112XY856OK	---	---	---		Pct ---
DEPD3: Dennis-----	Eroded Loamy Prairie Pe 62-80 R112XY856OK	---	---	---		---
Eram-----	Eroded Loamy Prairie Pe 62-80 R112XY856OK	---	---	---		---
Pharoah-----	Eroded Claypan Prairie Pe 62-80 R112XY810OK	---	---	---		---
DsSC: Darsil-----	Shallow Savannah Pe 48-64 R084AY089OK	2,800	2,100	1,400	little bluestem----- big bluestem----- blackjack oak----- Indiangrass----- dropseed----- hairy sunflower----- post oak----- purpletop tridens----- scribner's panicum----- sideoats grama----- switchgrass-----	30 20 10 5 5 5 5 5 5 5 5
Stephenville-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs----- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
DsSE: Darsil-----	Shallow Savannah Pe 48-64 R084AY089OK	2,800	2,100	1,400	little bluestem----- big bluestem----- blackjack oak----- Indiangrass----- dropseed----- hairy sunflower----- post oak----- purpletop tridens----- scribner's panicum----- sideoats grama----- switchgrass-----	30 20 10 5 5 5 5 5 5
Stephenville-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs----- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
Ef1B: Eufaula-----	Deep Sand Savannah Pe 48-64 R084AY018OK	5,000	4,000	3,000	miscellaneous trees----- miscellaneous perennial grasses little bluestem----- miscellaneous shrubs----- Indiangrass----- big bluestem----- miscellaneous perennial forbs----- switchgrass-----	35 20 15 10 5 5 5 5
Ef1E: Eufaula-----	Deep Sand Savannah Pe 48-64 R084AY018OK	5,000	4,000	3,000	miscellaneous trees----- miscellaneous perennial grasses little bluestem----- miscellaneous shrubs----- Indiangrass----- big bluestem----- miscellaneous perennial forbs----- switchgrass-----	35 20 15 10 5 5 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
EnHE: Endsaw-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5
Hector-----	Shallow Savannah Pe 66-72 R118BY088OK	3,500	2,800	1,750	little bluestem----- Indiangrass----- miscellaneous trees----- big bluestem----- miscellaneous perennial grasses miscellaneous perennial forbs--	45 15 15 10 10 5
EnHG: Endsaw-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5
Hector-----	Shallow Savannah Pe 66-72 R118BY088OK	3,500	2,800	1,750	little bluestem----- Indiangrass----- miscellaneous trees----- big bluestem----- miscellaneous perennial grasses miscellaneous perennial forbs--	45 15 15 10 10 5
EraE: Eram-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
ErCF: Eram-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
Coweta-----	Shallow Prairie Pe 62-80 R112XY087OK	3,000	2,250	1,500	Indiangrass----- big bluestem----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- wildrye-----	20 20 20 15 10 5 5 5
ErmC: Eram-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
ErRE: Eram-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5
Radley-----	Loamy Bottomland Pe 62-80 R112XY050OK	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
GadA: Gaddy-----	Sandy Bottomland Pe 44-64 R080AY068OK	5,000	4,000	3,000	switchgrass----- Indiangrass----- miscellaneous perennial forbs-- miscellaneous perennial grasses sand bluestem----- little bluestem----- miscellaneous trees-----	25 15 15 15 15 10 5
GalB: Galey-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
GalC: Galey-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
GalC2: Galey-----	Eroded Sandy Savannah Pe 48-64 R084AY876OK	---	---	---	----- ----- -----	----- ----- -----
GdyA: Gaddy-----	Sandy Bottomland Pe 44-64 R080AY068OK	5,000	4,000	3,000	switchgrass----- Indiangrass----- miscellaneous perennial forbs-- miscellaneous perennial grasses sand bluestem----- little bluestem----- miscellaneous trees-----	25 15 15 15 15 10 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
GhLB: Glentosh-----	Deep Sand Savannah Pe 66-72 R118BY0200K	5,500	5,000	4,500	big bluestem----- miscellaneous trees----- little bluestem----- miscellaneous perennial grasses Indiangrass----- miscellaneous shrubs----- miscellaneous perennial forbs-- switchgrass-----	20 20 15 15 10 10 5 5
Larton-----	Deep Sand Savannah Pe 66-72 R118BY0200K	5,500	5,000	4,500	big bluestem----- miscellaneous trees----- little bluestem----- miscellaneous perennial grasses Indiangrass----- miscellaneous shrubs----- miscellaneous perennial forbs-- switchgrass-----	20 20 15 15 10 10 5 5
GhE: Glentosh-----	Deep Sand Savannah Pe 66-72 R118BY0200K	5,500	5,000	4,500	big bluestem----- miscellaneous trees----- little bluestem----- miscellaneous perennial grasses Indiangrass----- miscellaneous shrubs----- miscellaneous perennial forbs-- switchgrass-----	20 20 15 15 10 10 5 5
GriC2: Grainola-----	Eroded Claypan Prairie (north) Pe 44-64 R080AY8100K	---	---	---	-----	---
HeCC: Hector-----	Shallow Savannah Pe 66-72 R118BY0880K	3,500	2,800	1,750	little bluestem----- Indiangrass----- miscellaneous trees----- big bluestem----- miscellaneous perennial grasses miscellaneous perennial forbs--	45 15 15 10 10 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
HeCC: Clearview-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5
HeCE: Hector-----	Shallow Savannah Pe 66-72 R118BY088OK	3,500	2,800	1,750	little bluestem----- Indiangrass----- miscellaneous trees----- big bluestem----- miscellaneous perennial grasses miscellaneous perennial forbs--	45 15 15 10 10 5
Clearview-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5
KarB: Karma-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
KarC: Karma-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5
KarD2: Karma-----	Eroded Sandy Savannah Pe 66-72 R118BY875OK	---	---	---	-----	---
KarE4: Karma-----	Eroded Sandy Savannah Pe 66-72 R118BY875OK	---	---	---	-----	---
KimA: Kiomatia-----	Sandy Bottomland Pe 66-72 R118BY068OK	5,000	4,000	3,000	switchgrass----- miscellaneous trees----- Indiangrass----- big bluestem----- little bluestem----- miscellaneous perennial grasses beaked panicum----- miscellaneous perennial forbs-- purpletop tridens-----	25 20 10 10 10 5 5 5
KmfA: Kiomatia-----	Sandy Bottomland Pe 66-72 R118BY068OK	5,000	4,000	3,000	switchgrass----- miscellaneous trees----- Indiangrass----- big bluestem----- little bluestem----- miscellaneous perennial grasses beaked panicum----- miscellaneous perennial forbs-- purpletop tridens-----	25 20 10 10 10 5 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
KoGE4: Konawa-----	Eroded Sandy Savannah Pe 48-64 R084AY876OK	---	---	---		---
Gullied land.						
KoWB: Konawa-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
KoWC: Konawa-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5
KoWD2: Konawa-----	Eroded Sandy Savannah Pe 48-64 R084AY876OK	---	---	---		---
LrtB: Larton-----	Deep Sand Savannah Pe 66-72 R118BY020OK	5,500	5,000	4,500	big bluestem----- miscellaneous trees----- little bluestem----- miscellaneous perennial grasses Indiangrass----- miscellaneous shrubs----- miscellaneous perennial forbs-- switchgrass-----	20 20 15 15 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities --Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
LrtD: Larton-----	Deep Sand Savannah Pe 66-72 R118BY0200K	5,500	5,000	4,500	big bluestem----- miscellaneous trees----- little bluestem----- miscellaneous perennial grasses Indiangrass----- miscellaneous shrubs----- miscellaneous perennial forbs-- switchgrass-----	20 20 15 15 10 10 5 5
LtgA: Lightning-----	Heavy Bottomland Pe 62-80 R112XY0450K	8,750	6,250	4,500	prairie cordgrass----- big bluestem----- Indiangrass----- eastern gramagrass----- switchgrass----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- miscellaneous trees-----	30 20 10 10 10 5 5 5 5
M-W. Miscellaneous water						
MasA: Mason-----	Loamy Bottomland Pe 62-80 R112XY0500K	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 10 5 5
MaTA: Madill-----	Loamy Bottomland Pe 62-80 R112XY0500K	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
MaTA: Tullahassee-----	Subirrigated Pe 62-80 R112XY0950K	10,000	7,600	6,000	switchgrass----- big bluestem----- Indiangrass----- miscellaneous perennial forbs-- dropseed----- miscellaneous shrubs----- panicum----- prairie cordgrass----- purpletop tridens----- rush----- sedge----- western wheatgrass----- wildrye-----	20 15 10 10 5 5 5 5 5 5 5
Md1A: Madill-----	Loamy Bottomland Pe 62-80 R112XY0500K	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 5 5
MrwB. Muldrow						
MshD: Masham-----	Shallow Clay Prairie Pe 44-64 R080AY0800K	2,300	1,650	1,000	blue grama----- miscellaneous perennial forbs-- buffalograss----- dropseed----- hairy grama----- lovegrass----- silver bluestem----- hairy tridens----- miscellaneous shrubs----- purple threawn----- scribner's panicum-----	20 15 10 10 10 10 5 5 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
NviB: Navina-----	Loamy Prairie Pe 44-64 R080AY056OK	6,000	4,747	2,500	little bluestem----- Indiangrass----- big bluestem----- switchgrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	25 20 20 15 10 7 3
NviC2: Navina-----	Eroded Loamy Prairie Pe 44-64 R080AY856OK	---	---	---	---	---
NzDE: Niotaze-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
Darsil-----	Shallow Savannah Pe 48-64 R084AY089OK	2,800	2,100	1,400	little bluestem----- big bluestem----- blackjack oak----- Indiangrass----- dropseed----- hairy sunflower----- post oak----- purpletop tridens----- scribner's panicum----- sideoats grama----- switchgrass-----	30 20 10 5 5 5 5 5 5
OkeB: Okemah-----	Loamy Prairie Pe 62-80 R112XY056OK	5,750	4,250	3,000	big bluestem----- little bluestem----- Indiangrass----- eastern gamagrass----- miscellaneous perennial grasses miscellaneous perennial forbs-- miscellaneous shrubs-----	40 20 10 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition		
		Favorable year	Normal year	Unfavorable year				
		Lb/acre	Lb/acre	Lb/acre				
Okra: Oklares-----	Loamy Bottomland Pe 66-72 R118BY0500K	8,000	6,500	5,000	miscellaneous trees-----	20		
					Indiangrass-----	10		
					giant cane-----	10		
					little bluestem-----	10		
					miscellaneous perennial forbs--	10		
					miscellaneous perennial grasses	10		
					switchgrass-----	10		
					Canada wildrye-----	5		
					big bluestem-----	5		
					miscellaneous shrubs-----	5		
			sedge-----	5				
OPPA: Okemah-----	Loamy Prairie Pe 62-80 R112XY0560K	5,750	4,250	3,000	big bluestem-----	40		
					little bluestem-----	20		
					Indiangrass-----	10		
					eastern gamagrass-----	10		
					miscellaneous perennial grasses	10		
					miscellaneous perennial forbs--	5		
					miscellaneous shrubs-----	5		
		Pharoah-----	Claypan Prairie Pe 62-80 R112XY0100K	4,500	2,800	2,000	Indiangrass-----	30
							big bluestem-----	30
							little bluestem-----	15
					miscellaneous perennial forbs--	5		
					miscellaneous perennial grasses	5		
					switchgrass-----	5		
					miscellaneous shrubs-----	3		
					miscellaneous trees-----	3		
					Canada wildrye-----	2		
					dropseed-----	2		
Parsons-----	Claypan Prairie Pe 62-80 R112XY0100K	4,500	2,800	2,000	Indiangrass-----	30		
					big bluestem-----	30		
					little bluestem-----	15		
					miscellaneous perennial forbs--	5		
					miscellaneous perennial grasses	5		
					switchgrass-----	5		
					miscellaneous shrubs-----	3		
					miscellaneous trees-----	3		
					Canada wildrye-----	2		
					dropseed-----	2		

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
ParA: Parsons-----	Claypan Prairie Pe 62-80 R112XY0100K	4,500	2,800	2,000	Indiangrass----- big bluestem----- little bluestem----- miscellaneous perennial forbs-- miscellaneous perennial grasses switchgrass----- miscellaneous shrubs----- miscellaneous trees----- Canada wildrye----- dropseed-----	30 30 15 5 5 5 3 3 2 2
PIT. Pits						
POWD: Pharoah-----	Claypan Prairie Pe 62-80 R112XY0100K	4,500	2,800	2,000	Indiangrass----- big bluestem----- little bluestem----- miscellaneous perennial forbs-- miscellaneous perennial grasses switchgrass----- miscellaneous shrubs----- miscellaneous trees----- Canada wildrye----- dropseed-----	30 30 15 5 5 5 3 3 2 2
Oil waste land.						
PrmC2: Porum-----	Eroded Sandy Savannah Pe 66-72 R118BY8750K	---	---	---		---
PuLA: Pulaski-----	Loamy Bottomland Pe 48-64 R084Y0500K	8,500	6,500	4,500	Indiangrass----- miscellaneous perennial grasses big bluestem----- eastern gamagrass----- little bluestem----- miscellaneous perennial forbs-- switchgrass----- wildrye----- miscellaneous shrubs----- miscellaneous trees-----	15 15 10 10 10 10 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
PutA: Pulaski-----	Loamy Bottomland Pe 48-64 R084AY0500K	8,500	6,500	4,500	Indiangrass----- miscellaneous perennial grasses big bluestem----- eastern gamagrass----- little bluestem----- miscellaneous perennial forbs-- switchgrass----- wildrye----- miscellaneous shrubs----- miscellaneous trees-----	15 15 10 10 10 10 10 10 5 5
Tribbey -----	Subirrigated Pe 48-64 R084AY0950K	11,000	9,000	7,000	switchgrass----- big bluestem----- Indiangrass----- miscellaneous trees----- bulrush----- bundleflower----- dropseed----- prairie cordgrass----- purpletop tridens----- scribner's panicum----- sunflower----- wildrye-----	25 15 10 10 5 5 5 5 5 5 5
RbkA: Roebuck-----	Heavy Bottomland Pe 62-80 R112XY0450K	8,750	6,250	4,500	prairie cordgrass----- big bluestem----- Indiangrass----- eastern gamagrass----- switchgrass----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- miscellaneous trees-----	30 20 10 10 10 5 5 5 5
RenC: Renfrow-----	Claypan Prairie (north) Pe 44-64 R080AY0100K	6,015	4,800	3,485	big bluestem----- little bluestem----- miscellaneous perennial grasses switchgrass----- Indiangrass----- miscellaneous perennial forbs--	30 30 20 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
SCGC4: Shermore-----	Eroded Sandy Savannah Pe 66-72 R118BY875OK	---	---	---		---
Clearview-----	Eroded Sandy Savannah Pe 66-72 R118BY875OK	---	---	---		---
Gullied land.						
SDGD4: Stephenville-----	Eroded Sandy Savannah Pe 48-64 R084AY876OK	---	---	---		---
Darsil-----	Eroded Shallow Savannah Pe 48-64 R084AY889OK	---	---	---		---
Gullied land.						
SDND: Stephenville-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
Darsil-----	Shallow Savannah Pe 48-64 R084AY089OK	2,800	2,100	1,400	little bluestem----- big bluestem----- blackjack oak----- Indiangrass----- dropseed----- hairy sunflower----- post oak----- purpletop tridens----- scribner's panicum----- sideoats grama----- switchgrass-----	30 20 10 5 5 5 5 5 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
SDND: Newalla-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
SevA: Severn-----	Loamy Bottomland Pe 62-80 R112XY050OK	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 10 5 5
ShmC: Shermore-----	Sandy Savannah Pe 66-72 R118BY075OK	4,500	3,500	2,500	big bluestem----- miscellaneous trees----- Indiangrass----- little bluestem----- blackjack oak----- miscellaneous perennial forbs-- miscellaneous perennial grasses miscellaneous shrubs----- post oak----- switchgrass-----	25 20 15 10 5 5 5 5 5
ShmC2: Shermore-----	Eroded Sandy Savannah Pe 66-72 R118BY075OK	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year Lb/acre	Normal year Lb/acre	Unfavorable year Lb/acre		
SOWD: Stephenville----- Oil waste land.	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	4,000	3,000	miscellaneous trees----- miscellaneous perennial grasses little bluestem----- miscellaneous shrubs----- Indiangrass----- big bluestem----- miscellaneous perennial forbs-- switchgrass-----	35 20 15 10 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
		StdB: Stidham----- Oil waste land.	Deep Sand Savannah Pe 48-64 R084AY018OK	5,000	4,000	3,000
SteB: Stephenville-----	Sandy Savannah Pe 44-64 R084AY075OK	5,000	3,900	2,800	little bluestem----- big bluestem----- blackjack oak----- post oak----- Indiangrass----- Scribner panicum----- miscellaneous perennial forbs-- miscellaneous shrubs----- purple lovegrass----- sand lovegrass----- switchgrass-----	25 20 10 10 5 5 5 5 5 5
SteC2: Stephenville-----	Eroded Sandy Savannah Pe 48-64 R084AY876OK	---	---	---	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities --Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
SvNA: Severn-----	Loamy Bottomland Pe 62-80 R112XY0500K	10,000	8,000	6,000	Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----	15 15 15 15 10 10 5 5
TlLA: Tullahassee-----	Subirrigated Pe 62-80 R112XY0950K	10,000	7,600	6,000	switchgrass----- big bluestem----- Indiangrass----- miscellaneous perennial forbs-- dropseed----- miscellaneous shrubs----- panicum----- prairie cordgrass----- purpletop tridens----- rush----- sedge----- western wheatgrass----- wildrye-----	20 15 10 10 5 5 5 5 5 5 5 5
TlRA: Teller-----	Sandy Prairie Pe 44-64 R080AY0730K	4,500	3,250	2,000	sand bluestem----- little bluestem----- miscellaneous perennial grasses Indiangrass----- switchgrass----- miscellaneous perennial forbs-- miscellaneous trees-----	30 25 15 10 10 5 5
TlRB: Teller-----	Sandy Prairie Pe 44-64 R080AY0730K	4,500	3,250	2,000	sand bluestem----- little bluestem----- miscellaneous perennial grasses Indiangrass----- switchgrass----- miscellaneous perennial forbs-- miscellaneous trees-----	30 25 15 10 10 5 5

Soil Survey of Okfuskee County, Oklahoma

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
T1rC2: Teller-----	Eroded Sandy Prairie Pe 44-64 R080AY8730K	---	---	---	---	
UstA: Ustibuck-----	Heavy Bottomland Pe 62-80 R112XY0450K	8,750	6,250	4,500	30 20 10 10 10 5 5 5	
VrdA: Verdigris-----	Loamy Bottomland Pe 62-80 R112XY0500K	10,000	8,000	6,000	15 15 15 15 10 10 5 5	
VrgA: Verdigris-----	Loamy Bottomland Pe 62-80 R112XY0500K	10,000	8,000	6,000	15 15 15 15 10 10 5 5	
W. Water						

Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		
<p>Wela: Weleetka-----</p>	<p>Subirrigated (non- flooded) Pe 66-72 R118BY094OK</p>	7,500	5,600	4,300	<p>big bluestem----- switchgrass----- miscellaneous perennial grasses Indiangrass----- eastern gamagrass----- Maximilian sunflower----- little bluestem----- miscellaneous perennial forbs--</p>	<p>30 20 15 10 10 5 5 5</p>
<p>Wyna: Wynona-----</p>	<p>Loamy Bottomland Pe 62-80 R112XY050OK</p>	10,000	8,000	6,000	<p>Indiangrass----- big bluestem----- prairie cordgrass----- switchgrass----- little bluestem----- miscellaneous perennial forbs-- miscellaneous shrubs----- miscellaneous perennial grasses miscellaneous trees-----</p>	<p>15 15 15 15 10 10 10 5 5</p>
<p>Yaha: Yahola-----</p>	<p>Loamy Bottomland Pe 44-64 R080AY050OK</p>	8,500	6,100	4,500	<p>big bluestem----- miscellaneous perennial forbs-- Indiangrass----- miscellaneous perennial grasses eastern gamagrass----- switchgrass----- miscellaneous shrubs-----</p>	<p>25 20 15 15 10 10 5</p>

Similarity Index

Similarity index is the comparison from 1 to 100 percent of the present plant community to a vegetative state on an ecological site. The Natural Resources Conservation Service uses similarity index two ways.

The first way uses the similarity index to compare the present vegetation on an ecological site to the presumed historic vegetation for that site. This comparison provides the client a basis for learning the extent and direction of changes that have taken place between current vegetation and historic vegetation.

A similarity index of 70 would suggest that the present plant community contains 70 percent of the presumed historic plant community for that site.

The second way uses the similarity index as a measure of how near the current plant community is to the landowner's goal for the land. The management goal for rangeland is not necessarily a similarity index of 100 as compared to the historic plant community. The similarity index can thus represent the percentage of the plant community that resembles a desired plant community.

Abnormal disturbances that change the natural plant community include repeated overuse by livestock, excessive burning, erosion, and plowing. Grazing animals select the most palatable plants. These plants will eventually die out if they are continually grazed. A very severe disturbance can completely destroy the natural community. Under these conditions, the less desirable plants, such as annuals and weedlike plants, can increase in abundance. If the plant community and the soils have not deteriorated significantly, the community eventually can return to predominantly natural plants if proper range management is applied.

Knowledge of the ecological site is necessary as a basis for planning and applying the management needed to maintain or improve the desired plant community for selected uses. Such information is needed to establish management objectives, planned grazing systems, stocking rates, suitable wildlife management practices, potential for recreational uses, and condition of watersheds.

Rangeland Management

Rangeland management requires a knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the similarity index.

Effective range management conserves rainfall, enhances water quality, reduces the hazard of downstream flooding, improves yields, provides forage for livestock and wildlife, enhances recreational opportunities, and protects the soil. The main management concern is recognizing important changes in the plant cover or the range trend. These changes take place gradually and can be overlooked.

Each range manager should evaluate the type of plant community that best supports the ranch and then apply management and ecological principles to achieve the goals. The desired plant community should be within the capabilities of the land.

The primary range management practices used in Okfuskee County include prescribed grazing, stock-water developments, and fences. If undesirable plants become dominant, range seeding, brush management, or prescribed burning are commonly used.

Range management includes four major considerations:

1. *Proper grazing distribution*, which is achieved by allowing livestock to graze all parts of the grazing unit equally.
2. *Selective grazing*, which occurs because animals graze preferred plants to balance their diets. If selective grazing occurs repeatedly, the preferred plants are damaged.
3. *A proper stocking rate*, which is achieved by balancing animal numbers with forage production.

4. *Rest periods* during which grazed plants are given enough rest to recover and to maintain growth.

It is important to remember that forage production is controlled by rainfall while composition is determined by grazing management.

Setting stocking rates is not an exact science because there are influences from grazing management systems, season of use, mix of livestock, and seasonal forage production. Some basic rules, however, can be helpful. To maintain a nutritional cover of plants, about 50 percent of the annual growth of the key, or most important, grazing plants should remain at the end of the grazing season. Plants can be removed not only through grazing by livestock but also through grazing by rodents, insects, and wildlife and through the deterioration caused by climatic variations. Because of these factors, a safe initial stocking rate for livestock should be calculated on the basis of 25 percent of the total annual growth, by weight, of the vegetation.

For example, production on the Loamy Prairie range site in excellent condition for an average season is 3,500 pounds of air-dry grasses, forbs, and woody species. Twenty five percent of this is 875 pounds.

A 1,000-pound cow and her calf is equivalent to one animal unit (AU) and will consume about 2.6 percent of her body weight (26 pounds) of forage per day. So, in one month, an animal unit will consume 790 pounds of native vegetation, depending on the quality and stage of growth of the plants (26 pounds per day times 365 days per year divided by 12 months per year).

Dividing 875 pounds (forage allocation) by 26 pounds (forage required per day for one animal unit) suggests that 1 acre of Loamy Prairie range site with a similarity index of 70 will feed one cow for 33.6 days. To convert forage available from 1 acre to animal unit months (AUM), the available forage (875 pounds) is divided by the amount required to feed an animal unit for 1 month (790 pounds). One acre will provide 1.1 AUM of grazing. Therefore, 10.9 acres will feed one cow for 12 months in this example. Another approach is to calculate the annual forage needs of an animal unit (790 pounds per month times 12 months equals 9,490 pounds). Dividing the 875 pounds of usable forage per acre into the 9,490 pounds needed by the cow reveals that approximately 10.9 acres is needed for one cow annually. Stocking rate calculation should be adjusted for animal size, grazing system, and grazing season.

More information about planning a grazing program is available at the local office of the Natural Resources Conservation Service.

Ecological Sites

Thirty-one ecological sites are recognized in Okfuskee County. The ecological site identifier has eleven characters. The "R" indicates an ecological site. The next four characters identify the major land resource area, the sixth character identifies the major land resource unit subdivision, the next three characters identify the individual ecological site number, and the final two characters identify the State. The ecological site identifier is followed by the proper name for the ecological site. The following paragraphs describe the ecological sites in Okfuskee County and list the plants that are characteristic of each site. Detailed ecological site descriptions are available at the local office of the Natural Resources Conservation Service.

R080AY010OK, Claypan Prairie (North) Pe 44-64.—This site is on uplands in areas of level to gently sloping, deep, loamy soils that have a dense, clayey subsoil. The historic climax vegetation includes little bluestem, big bluestem, switchgrass, dropseed species, indiagrass, Canada wildrye, sideoats grama, and eastern gamagrass. Forbs include Maximilian sunflower, compassplant, western ragweed, Louisiana sagewort, false boneset, rainlily, Carolina larkspur, purple coneflower, and daisy fleabane. Legumes include white prairie cover, prairie clover species, Illinois

bundleflower, littleleaf sensitive-brier, and slimleaf scurfpea. Shrubs and vines include leadplant, ceonthus, smooth sumac, and buckbrush.

R080AY050OK, Loamy Bottomland Pe 44-64.—The site is on flood plains and terraces. The soils are nearly level to sloping, loamy, and very deep. They are subject to stream overflow and runoff from hillsides. The historic climax vegetation includes big bluestem, switchgrass, indiagrass, eastern gamagrass, Florida paspalum, and little bluestem. Cool-season grasses include Canada wildrye, Virginia wildrye, Texas bluegrass, and western wheatgrass. Forbs include Maximilian sunflower, stiff sunflower, and Jerusalem artichoke. Woody species include elm, willow, pecan, oak, cottonwood, green ash, and coralberry.

R080AY056OK, Loamy Bottomland Pe 44-64.—The site is in areas of deep, loamy soils on uplands. The historic climax vegetation includes little bluestem, big bluestem, indiagrass, switchgrass, Canada wildrye, sideoats grama, and blue grama. Legumes include leadplant, wild indigo, scurfpea, and prairie acacia. Woody species are rare.

R080AY068OK, Sandy Bottomland Pe 44-64.—This site is in areas of sandy, droughty soils that subject to wind erosion and are on first and second bottoms. The historic climax vegetation includes sand bluestem, indiagrass, little bluestem, and switchgrass. Woody species include willow and cottonwood.

R080AY073OK, Sandy Prairie Pe 44-64.—This site is in areas of deep, moderately sandy soils on uplands that have hummocky or gently rolling to steeply rolling topography. The historic climax vegetation includes sand bluestem, little bluestem, indiagrass, switchgrass, sideoats grama, and blue grama. Woody species include skunkbush.

R080AY080OK, Shallow Clay Prairie Pe 44-64.—This site is dominantly in areas of severely eroded, gently sloping to strongly sloping, shallow, raw, clayey soils that are underlain by shale. The shale is commonly exposed on the steeper slopes. Natural erosion on this site results in areas of bare soil. The historic climax vegetation includes sideoats grama, little bluestem, and hairy grama.

R080AY810OK, Eroded Claypan Prairie (North) Pe 44-64.—This site is in areas where part or all of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R080AY010OK, Claypan Prairie (North) Pe 44-64" for the historic climax vegetation on the parent site.

R080AY856OK, Eroded Loamy Prairie Pe 44-64.—This site is in areas where part or all of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R080AY056OK, Loamy Prairie Pe 44-64" for the historic climax vegetation on the parent site.

R080AY873OK, Eroded Sandy Prairie Pe 44-64.—This site is in areas where part or all of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R080AY073OK, Sandy Prairie Pe 44-64" for the historic climax vegetation on the parent site.

R084AY018OK, Deep Sand Savannah Pe 48-64.—This site is in areas of nearly level to moderately steep, coarse textured soils on uplands. The historic climax vegetation includes big bluestem, sand bluestem, indiagrass, little bluestem, switchgrass, broadleaf uniola, beaked panicum, purpletop, tall dropseed, Scribner's panicum, and sand lovegrass. Woody species include post oak, blackjack oak, hickory, winged elm, and persimmon.

R084AY050OK, Loamy Bottomland Pe 48-64.—This site is in areas of deep,

loamy soils on bottomlands that are subject to occasional or frequent overflow from streams and runoff from hillsides. The historic climax vegetation includes big bluestem, switchgrass, indiagrass, eastern gamagrass, Florida paspalum, Canada wildrye, Virginia wildrye, Texas bluegrass, and western wheatgrass. Forbs include Maximilian sunflower, stiff sunflower, and Jerusalem artichoke. Woody species include elm, willow, pecan, oak, cottonwood, green ash, and coralberry.

R084AY075OK, Sandy Savannah Pe 44-64.—This site is in areas of gently sloping to steep soils of fine sandy loam that support mid grasses and tall grasses mixed with an overstory of oak. The historic climax vegetation includes sand bluestem, little bluestem, indiagrass, switchgrass, and sideoats grama. Forbs include Maximilian sunflower, ashy sunflower, stiff sunflower, compass plant, daisy fleabane, goldenrod, and numerous others in small amounts. Woody species include post oak, blackjack oak, and hickory.

R084AY089OK, Shallow Savannah Pe 48-64.—This site is in rolling savannahs that have an overstory of post oak and blackjack oak. The historic climax vegetation includes little bluestem, big bluestem, switchgrass, indiagrass, Canada wildrye, hairy grama, tall dropseed, and meadow dropseed. Legumes include lespedeza, roundhead lespedeza, slender lespedeza, prairie clover, and Virginia tephrosia. Woody species include post oak and blackjack oak.

R084AY095OK, Subirrigated Pe 48-64.—This site is on uplands and flood plains. The soils are deep, nearly level to very gently sloping, and sandy. They have a high water table. The historic climax vegetation includes switchgrass, big bluestem, indiagrass, and eastern gamagrass. Woody species include willow and cottonwood.

R084AY876OK, Eroded Sandy Savannah Pe 48-64.—This site is in areas where part or all or part of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R084AY075OK, Sandy Savannah Pe 44-64" for the historic climax vegetation on the parent site.

R084AY889OK, Eroded Shallow Savannah Pe 48-64.—This site is in areas where part or all or part of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R084AY089OK, Shallow Savannah Pe 48-64" for the historic climax vegetation on the parent site.

R112XY010OK, Claypan Prairie Pe 62-80.—This site is in areas of nearly level to moderately sloping soils on uplands. The historic climax vegetation includes little bluestem, big bluestem, switchgrass, indiagrass, meadow dropseed, tall dropseed, and Scribner's panicum. Legumes include prairie scurfpea, Illinois bundleflower, and leadplant. Forbs include blacksampson, gayfeathers, heath aster, ashy sunflower, and wild indigo. Woody species include poison ivy.

R112XY045OK, Heavy Bottomland Pe 62-80.—This site is on bottomlands that are often overflowed. The soils are deep and clayey. The historic climax vegetation includes big bluestem, indiagrass, eastern gamagrass, prairie cordgrass, switchgrass, Canada wildrye, Virginia wildrye, meadow dropseed, and broomsedge bluestem. Forbs include ironweed and white snakeroot. Woody species include elm, ash, oak, walnut, and pecan.

R112XY050OK, Loamy Bottomland Pe 62-80.—This site is on bottomlands. The soils are deep and loamy. The historic climax vegetation includes big bluestem, indiagrass, switchgrass, eastern gamagrass, prairie cordgrass, beaked panicum, Canada wildrye, Virginia wildrye, and swithcane. Legumes include leadplant and bundleflower. Forbs include goldenrod, wholeleaf rosinwood, blacksamsom, and Maximilian sunflower. Woody species include American elm, green ash, pecan, and oak.

R112XY056OK, Loamy Prairie Pe 62-80.—This site is in areas of nearly level to gently rolling soils. The historic climax vegetation includes big bluestem, little bluestem, indiagrass, switchgrass, tall dropseed, sideoats grama, jointtail, and purpletop.

R112XY087OK, Shallow Prairie Pe 62-80.—This site is in areas of rocky sandstone and limestone slopes and ridges in the Bluestem Hills and Cherokee Prairies Major Land Resource Areas. The historic climax vegetation includes little bluestem, big bluestem, indiagrass, switchgrass, Canada wildrye, sideoats grama, tall dropseed, meadow dropseed, blue grama, and buffalograss. Woody species include coralberry, hackberry, winged elm, and persimmon.

R112XY095OK, Subirrigated Pe 62-80.—This site is on nearly level to gently sloping bottomlands, in areas mainly along the major streams and in smaller areas along the smaller tributaries. The historic climax vegetation includes switchgrass, big bluestem, indiagrass, prairie cordgrass, tall dropseed, meadow dropseed, wildryes, western wheatgrass, Illinois bundleflower, Maximilian sunflower, Scribner's panicum, sedges, and rushes. Woody species include cottonwood, buttonbush, and willow.

R112XY810OK, Eroded Claypan Prairie Pe 62-80.—This site is in areas where part or all or part of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R112AY010OK, Claypan Prairie Pe 62-80" for the historic climax vegetation on the parent site.

R112XY856OK, Eroded Loamy Prairie Pe 62-80.—This site is in areas where part or all or part of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R112XY056OK, Loamy Prairie Pe 62-80," "R112XY060OK, Loamy Prairie (Southeast) Pe 62-80," or "R112XY061OK, Loamy Prairie (South) Pe 62-80" for the historic climax vegetation on the parent site.

R118BY020OK, Deep Sand Savannah Pe 66-72.—This site is in areas of nearly level to moderately steep, coarse textured soils. The historic climax vegetation includes indiagrass, big bluestem, little bluestem, switchgrass, Canada wildrye, and Virginia wildrye. Forbs include Virginia tephosia and sunflower species. Woody species include post oak, blackjack oak, red oak, hickory, ash, persimmon, sassafras, coralberry, and willow.

R118BY050OK, Loamy Bottomland Pe 66-72.—This site is in areas of deep, loamy soils on bottomlands. The historic climax vegetation includes big bluestem, indiagrass, switchgrass, eastern gamagrass, prairie cordgrass, beaked panicum, Canada wildrye, Virginia wildrye, and tall dropseed. Forbs include goldenrod, ironweed, wholeleaf rosinwood, leadplant, blacksamson, and Maximilian sunflower. Woody species include American elm, green ash, pecan, and oak species.

R118BY068OK, Sandy Bottomland Pe 66-72.—This site is in areas of sandy soils on first and second bottoms. The historic climax vegetation sand bluestem, indiagrass, little bluestem, and switchgrass. Woody species include cottonwood and willow.

R118BY075OK, Sandy Savannah Pe 66-72.—This site is in areas of nearly level to steep, sandy soils on uplands. The soils support a cover of tall grasses and mid grasses mixed with oak, hickory, and some scrub pine. The historic climax vegetation includes big bluestem, indiagrass, little bluestem, switchgrass, Canada wildrye, Virginia wildrye, and carex species. Woody species include post oak, blackjack oak, southern red oak, hickory, persimmon, sassafras, and pine.

R118BY088OK, Shallow Savannah Pe 66-72.—This site is in areas of rugged topography on low, mountainous ridges. The areas typically are oriented easterly to westerly. The historic climax vegetation includes big bluestem, little bluestem, and indiagrass. Woody species include post oak and blackjack oak.

R118BY094OK, Subirrigated (Non-Flooded) Pe 66-72.—This site is in areas of very deep, nearly level to very gently sloping, sandy, inter-dune soils that have a high water table that is beneficial to plant growth. The historic climax vegetation includes switchgrass, big bluestem, indiagrass, and eastern gamagrass. Woody species include willow and cottonwood.

R118BY875OK, Eroded Sandy Savannah Pe 66-72.—This site is in areas where part or all or part of the A horizon has been removed by erosion. The soil's integrity has been changed. Because of the past erosion and the probability of ongoing erosion, the plant community can be determined only by onsite inspection. The productivity of this site has not been determined. Refer to "R118BY075OK, Sandy Savannah Pe 66-72" for the historic climax vegetation on the parent site.

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Several rows of low- and high-growing broadleaf and coniferous trees and shrubs provide the most protection.

Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Windbreaks are often planted on land that did not originally support trees. Knowledge of how trees perform on such land can be gained only by observing and recording the performance of trees that have been planted and have survived. Many popular windbreak species are not indigenous to the areas in which they are planted.

Each tree or shrub species has certain climatic and physiographic limits. Within these parameters, a tree or shrub may grow well or grow poorly, depending on the characteristics of the soil. Each tree or shrub has definable potential heights in a given physiographic area and under given climatic conditions. Accurate definitions of potential heights are necessary when a windbreak is planned and designed.

The table "Windbreaks and Environmental Plantings" shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in this table are based on measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service or from a nursery.

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings

(Absence of an entry indicates that trees generally do not grow to the given height)

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of—				
	<8	8-15	16-25	26-35	>35
BctB: Bates-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
BctC: Bates-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
BctC2: Bates-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
BoyA. Boley					
CaaA: Canadian-----	sand plum	eastern redbud, oriental arborvitae, Rocky Mountain juniper	Austrian pine, bur oak, common hackberry, lacebark elm, ponderosa pine, green ash, black locust, loblolly pine	---	---
ClrB. Clearview					
ClrC. Clearview					
ClrC2. Clearview					

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	<8	8-15	16-25	26-35	>35
CoBC: Coweta.					
Bates-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
CouB: Choteau-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, Osage-orange, Shumard's oak, red mulberry	Chinese elm, common hackberry, loblolly pine	---
CouC: Choteau-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, Osage-orange, Shumard's oak, red mulberry	Chinese elm, common hackberry, loblolly pine	---
CskB: Chickasha-----	American plum	common lilac, Amur honeysuckle, eastern redbud, oriental arborvitae	bur oak, Osage-orange, ponderosa pine, red mulberry, black locust, common hackberry, lacebark elm	loblolly pine	---
DAM. Large dam					
DenB: Dennis-----	---	American plum, Amur honeysuckle, common lilac, oriental arborvitae	eastern redbud, ponderosa pine, bur oak, Osage-orange, red mulberry	black locust, common hackberry, lacebark elm, loblolly pine	---
DenC: Dennis-----	---	American plum, Amur honeysuckle, common lilac, oriental arborvitae	eastern redbud, ponderosa pine, bur oak, Osage-orange, red mulberry	black locust, common hackberry, lacebark elm, loblolly pine	---

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	<8	8-15	16-25	26-35	>35
DenC2: Dennis-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, Osage-orange, Shumard's oak, red mulberry	Chinese elm, common hackberry, loblolly pine	---
DEPD3: Dennis-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, Osage-orange, Shumard's oak, red mulberry	Chinese elm, common hackberry, loblolly pine	---
Eram----- sand plum		Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
Pharoah. DSSC: Darsil.					
Stephenville----- sand plum		Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
DSSE: Darsil. Stephenville----- sand plum		Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
Ef1B: Eufaula----- sand plum		Rocky Mountain juniper	bur oak, oriental arborvitae, Austrian pine, Osage-orange, common, hackberry, lacebark elm	loblolly pine, black locust, green ash	---
Ef1E: Eufaula----- sand plum		Rocky Mountain juniper	bur oak, oriental arborvitae, Austrian pine, Osage-orange, common hackberry, lacebark elm	loblolly pine, black locust, green ash	---
EnHE. Endsaw-Hector					
EnHG. Endsaw-Hector					
EraE: Eram----- sand plum		Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
ErCF: Eram----- sand plum		Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
Coweta.					

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
ErmC: Eram-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
ErRE: Eram-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	---	---
Radley-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust
GadA: Gaddy-----	sand plum	---	Rocky Mountain juniper, bur oak, oriental arborvitae, ponderosa pine, Austrian pine, Osage-orange, common hackberry, green ash, lacebark elm, loblolly pine	black locust	---
GalB: Galey-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
Galc: Galey-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust
Galc2: Galey-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust
Gdya: Gaddy-----	sand plum	---	Rocky Mountain juniper, bur oak, oriental arborvitae, ponderosa pine, Austrian pine, Osage-orange, common hackberry, green ash, lacebark elm, loblolly pine	black locust	---
GhLB. Glentosh-Larton					
GlHE. Glentosh					
Gric2: Grainola-----	sand plum	eastern redbud, oriental arborvitae, Rocky Mountain juniper	bur oak, common hackberry, lacebark elm, Osage-orange, ponderosa pine, green ash, black locust	---	---
HeCC. Hector-Clearview					

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings -- Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--			
	<8	8-15	16-25	26-35
HeCE. Hector-Clearview				
KarB. Karma				
KarC. Karma				
KarD2. Karma				
KarE4. Karma				
KimA. Kiomatia				
KmfA. Kiomatia				
KOGE4: Konawa-----		shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm
Gullied land.				
KowB: Konawa-----		shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm
KowC: Konawa-----		shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings --Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of-			
	<8	8-15	16-25	26-35
MrWB. Muldrow				
MshD. Masham				
NviB: Navina-----	shrub lespedeza	Amur honeysuckle, American plum	eastern redbud, Scotch pine, Rocky Mountain juniper, oriental arborvitae, red mulberry, Austrian pine, ponderosa pine	Osage-orange, bur oak, common hackberry, green ash, lacebark elm, black locust
Nvic2: Navina-----	shrub lespedeza	Amur honeysuckle, American plum	eastern redbud, Scotch pine, Rocky Mountain juniper, oriental arborvitae, red mulberry, Austrian pine, ponderosa pine	Osage-orange, bur oak, common hackberry, green ash, lacebark elm, black locust
NzDE. Niotaze-Darsil				
OkeB: Okemah-----	---	American plum, Amur honeysuckle, common lilac, oriental arborvitae	eastern redbud, ponderosa pine, bur oak, Osage-orange, red mulberry	black locust, common hackberry, lacebark elm, loblolly pine
Okra. Oklaled				
OPPA: Okemah-----	---	American plum, Amur honeysuckle, common lilac, oriental arborvitae	eastern redbud, ponderosa pine, bur oak, Osage-orange, red mulberry	black locust, common hackberry, lacebark elm, loblolly pine
Pharoah.				

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of-				
	<8	8-15	16-25	26-35	>35
OPPA: Parsons-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, bur oak, Osage-orange, black locust, red mulberry	common hackberry, lacebark elm, loblolly pine	---
ParA: Parsons-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, bur oak, Osage-orange, black locust, red mulberry	common hackberry, lacebark elm, loblolly pine	---
PIT. Pits					
POWD. Pharoah-Oil waste land					
PrmC2. Porum					
PuIA: Pulaski-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust
PutA: Pulaski-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust
Tribbey.					
RbIA: Roebuck-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, bur oak, Osage-orange, black locust, red mulberry	common hackberry, lacebark elm, loblolly pine	---

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
RenC: Renfrow-----	American plum, Amur honeysuckle, common lilac	eastern redbud, oriental arborvitae	bur oak, Osage-orange, ponderosa pine, red mulberry, black locust, common hackberry, lacebark elm	loblolly pine	---
SCGC4. Shermore-Clearview-Gullied land					
SDGD4: Stephenville-----	American plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, common hackberry, lacebark elm, green ash	---	---
Darsil. Gullied land.					
SDND: Stephenville-----	American plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, common hackberry, lacebark elm, green ash	---	---
Darsil. Newalla-----	---	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, bur oak, Osage-orange, black locust, red mulberry	common hackberry, lacebark elm, loblolly pine	---
SevA: Severn----- Chinese	skunkbush sumac	common lilac,	---	Austrian pine	Osage-orange,
ShmC. Shermore		American plum, Amur honeysuckle			elm, American sycamore, eastern cottonwood

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	<8	8-15	16-25	26-35	>35
ShmC2. Shermore					
SOWD: Stephenville-----	----	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, Osage-orange, Shumard's oak, red mulberry	Chinese elm, common hackberry, loblolly pine	----
Oil waste land.					
StdB: Stidham-----	sand plum	eastern redbud, Rocky Mountain juniper	oriental arborvitae, bur oak, Austrian pine, common hackberry, green ash, lacebark elm, Osage-orange	black locust, loblolly pine	----
StEB: Stephenville-----	sand plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, bur oak, common hackberry, lacebark elm, black locust, green ash	----	----
StEC2: Stephenville-----	American plum	Rocky Mountain juniper, eastern redbud	oriental arborvitae, Osage-orange, common hackberry, lacebark elm, green ash	----	----
SvnA: Severn-----	skunkbush sumac	common lilac, American plum, Amur honeysuckle	----	Austrian pine	Osage-orange, Chinese elm, American sycamore, eastern cottonwood
TlHA. Tullahassee					

Soil Survey of Okfuskee County, Oklahoma

Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--			
	<8	8-15	16-25	26-35
TlxA: Teller-----shrub lespedeza	Amur honeysuckle, American plum	eastern redbud, Scotch pine, Rocky Mountain juniper, oriental arborvitae, red mulberry, Austrian pine, ponderosa pine	Osage-orange, bur oak, common hackberry, green ash, lacebark elm, black locust	---
TlxB: Teller-----shrub lespedeza	Amur honeysuckle, American plum	eastern redbud, Scotch pine, Rocky Mountain juniper, oriental arborvitae, red mulberry, Austrian pine, ponderosa pine	Osage-orange, bur oak, common hackberry, green ash, lacebark elm, black locust	---
TlxC2: Teller-----shrub lespedeza	Amur honeysuckle, American plum	eastern redbud, Scotch pine, Rocky Mountain juniper, oriental arborvitae, red mulberry, Austrian pine, ponderosa pine	Osage-orange, bur oak, common hackberry, green ash, lacebark elm, black locust	---
UstA: Ustibuck-----	American plum, Amur honeysuckle, common lilac, eastern redbud, oriental arborvitae	ponderosa pine, bur oak, Osage-orange, black locust, red mulberry	common hackberry, lacebark elm, loblolly pine	---
VrdA: Verdigris-----	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust

Windbreaks and Environmental Plantings --Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of-				
	<8	8-15	16-25	26-35	
VirgA: Verdigris-----	---	shrub lespedeza, Amur honeysuckle, American plum	Rocky Mountain juniper, eastern redbud, ponderosa pine, oriental arborvitae, Scotch pine	Austrian pine, bur oak, Osage-orange, red mulberry, common hackberry, green ash, lacebark elm	black locust >35
W. Water					
WelE. Weleetka					
WynA: Wynona-----	---	American plum, Amur honeysuckle, common lilac, oriental arborvitae	eastern redbud, ponderosa pine, bur oak, Osage-orange, red mulberry	black locust, common hackberry, lacebark elm, loblolly pine	---
YahA: Yahola-----	---	common lilac, shrub lespedeza, Amur honeysuckle, American plum	eastern redbud, Rocky Mountain juniper, oriental arborvitae, Osage-orange, Austrian pine, bur oak	red mulberry, common hackberry, green ash, lacebark elm, black locust	---

Recreation

The soils of the survey area are rated in the table "Recreational Development, Parts I and II," according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the table are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil

properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Not limited		Not limited		Not limited	
BctC: Bates-----	85	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.01
BctC2: Bates-----	85	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.06
BoyA: Boley-----	85	Very limited Flooding Ponding	1.00 1.00	Very limited Ponding Flooding	1.00 0.40	Very limited Flooding Ponding	1.00 1.00
CaaA: Canadian-----	95	Very limited Flooding	1.00	Not limited		Not limited	
ClrB: Clearview-----	85	Not limited		Not limited		Not limited	
ClrC: Clearview-----	85	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.10
ClrC2: Clearview-----	90	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.46
CoBC: Coweta-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope Content of large stones	1.00 0.50 0.03
Bates-----	35	Not limited		Not limited		Somewhat limited Depth to bedrock Slope	0.84 0.50
CouB: Choteau-----	100	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CouC: Choteau-----	97	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability Slope	0.96 0.50
CskB: Chickasha-----	85	Not limited		Not limited		Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.48	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81
DenC: Dennis-----	90	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.48	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.96 0.81 0.50
DenC2: Dennis-----	89	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.48	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.96 0.81 0.50
DEPD3: Dennis-----	63	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.48	Very limited Slope Restricted permeability Depth to saturated zone	1.00 0.96 0.81
Eram-----	20	Somewhat limited Depth to saturated zone Restricted permeability	0.98 0.96	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.75	Very limited Slope Depth to saturated zone Restricted permeability Depth to bedrock Gravel content	1.00 0.98 0.96 0.16 0.06
Pharoah-----	10	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DsSC: Darsil-----	45	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Slope Too sandy	1.00 0.50 0.34
Stephenville----	40	Not limited		Not limited		Somewhat limited Depth to bedrock Slope Content of large stones	0.80 0.50 0.03
DsSE: Darsil-----	55	Very limited Depth to bedrock Too sandy Slope	1.00 0.34 0.04	Very limited Depth to bedrock Too sandy Slope	1.00 0.34 0.04	Very limited Depth to bedrock Slope Too sandy	1.00 1.00 0.34
Stephenville----	25	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Slope Depth to bedrock Content of large stones	1.00 0.80 0.03
EflB: Eufaula-----	88	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96
EflE: Eufaula-----	85	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Very limited Slope Too sandy	1.00 0.96
EnHE: Endsaw-----	55	Somewhat limited Restricted permeability Slope Content of large stones	0.96 0.04 0.01	Somewhat limited Restricted permeability Slope Content of large stones	0.96 0.04 0.01	Very limited Slope Content of large stones Restricted permeability Gravel content	1.00 0.99 0.96 0.56
Hector-----	30	Very limited Depth to bedrock Content of large stones Slope	1.00 0.32 0.04	Very limited Depth to bedrock Content of large stones Slope	1.00 0.32 0.04	Very limited Depth to bedrock Slope Content of large stones Gravel content	1.00 1.00 1.00 0.23
EnHG: Endsaw-----	65	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability Content of large stones Gravel content	1.00 0.96 0.88 0.68

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EnHG: Hector-----	20	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.02	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.02	Very limited Slope Depth to bedrock Content of large stones Gravel content	1.00 1.00 1.00 0.50
EraE: Eram-----	85	Somewhat limited Depth to saturated zone Restricted permeability Slope	0.98 0.96 0.04	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.96 0.75 0.04	Very limited Slope Depth to saturated zone Restricted permeability Gravel content Depth to bedrock	1.00 0.98 0.96 0.06 0.01
ErCF: Eram-----	75	Somewhat limited Depth to saturated zone Slope Restricted permeability	0.98 0.96 0.96	Somewhat limited Slope Restricted permeability Depth to saturated zone	0.96 0.96 0.75	Very limited Slope Depth to saturated zone Restricted permeability Depth to bedrock Gravel content	1.00 0.98 0.96 0.10 0.06
Coweta-----	15	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.03
ErmC: Eram-----	90	Somewhat limited Depth to saturated zone Restricted permeability	0.98 0.96	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.75	Somewhat limited Depth to saturated zone Restricted permeability Slope Depth to bedrock Gravel content	0.98 0.96 0.50 0.06 0.06
ErRE: Eram-----	50	Somewhat limited Depth to saturated zone Restricted permeability Slope	0.98 0.96 0.04	Somewhat limited Restricted permeability Depth to saturated zone Slope	0.96 0.75 0.04	Very limited Slope Depth to saturated zone Restricted permeability Gravel content Depth to bedrock	1.00 0.98 0.96 0.06 0.01
Radley-----	25	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GadA: Gaddy-----	88	Very limited Flooding Too sandy	1.00 0.79	Somewhat limited Too sandy	0.79	Somewhat limited Too sandy Flooding	0.79 0.60
GalB: Galey-----	95	Not limited		Not limited		Not limited	
GalC: Galey-----	97	Not limited		Not limited		Somewhat limited Slope	0.50
GalC2: Galey-----	97	Not limited		Not limited		Somewhat limited Slope	0.50
GdyA: Gaddy-----	88	Very limited Flooding Too sandy	1.00 0.79	Somewhat limited Too sandy Flooding	0.79 0.40	Very limited Flooding Too sandy	1.00 0.79
GhLB: Glentosh-----	60	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87
Larton-----	30	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92
GlhE: Glentosh-----	85	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Very limited Slope Too sandy	1.00 0.87
GriC2: Grainola-----	85	Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.41	Somewhat limited Slope Restricted permeability Content of large stones Gravel content Depth to bedrock	0.50 0.41 0.05 0.02 0.01
HeCC: Hector-----	55	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope Gravel content	1.00 0.50 0.06
Clearview-----	35	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.06
HeCE: Hector-----	55	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.06

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCE: Clearview-----	25	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Slope Depth to bedrock	1.00 0.74
KarB: Karma-----	88	Not limited		Not limited		Not limited	
KarC: Karma-----	89	Not limited		Not limited		Somewhat limited Slope	0.50
KarD2: Karma-----	89	Not limited		Not limited		Very limited Slope	1.00
KarE4: Karma-----	85	Not limited		Not limited		Very limited Slope	1.00
KimA: Kiomatia-----	88	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
KmfA: Kiomatia-----	88	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
KoGE4: Konawa-----	65	Not limited		Not limited		Very limited Slope	1.00
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Not limited		Not limited		Not limited	
KowC: Konawa-----	92	Not limited		Not limited		Somewhat limited Slope	0.50
KowD2: Konawa-----	92	Not limited		Not limited		Very limited Slope	1.00
LrtB: Larton-----	85	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92
LrtD: Larton-----	85	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Very limited Slope Too sandy	1.00 0.92

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LtgA: Lightning-----	90	Very limited Depth to saturated zone Flooding Restricted permeability	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Restricted permeability Flooding	1.00 1.00 0.60
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Very limited Flooding Restricted permeability	1.00 0.21	Somewhat limited Restricted permeability	0.21	Somewhat limited Restricted permeability	0.21
MaTA: Madill-----	50	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
Tallahassee----	30	Very limited Flooding Depth to saturated zone	1.00 0.81	Somewhat limited Depth to saturated zone Flooding	0.48 0.40	Very limited Flooding Depth to saturated zone	1.00 0.81
Md1A: Madill-----	90	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
MrwB: Muldrow-----	85	Very limited Depth to saturated zone Flooding Restricted permeability	1.00 1.00 1.00	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00
MshD: Masham-----	90	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Very limited Slope Depth to bedrock Restricted permeability	1.00 1.00 0.45
NviB: Navina-----	94	Not limited		Not limited		Not limited	
NviC2: Navina-----	99	Not limited		Not limited		Not limited	

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NzDE: Niotaze-----	65	Somewhat limited Depth to saturated zone Restricted permeability Slope Content of large stones Gravel content	0.98 0.41 0.04 0.02 0.01	Somewhat limited Depth to saturated zone Restricted permeability Slope Content of large stones Gravel content	0.75 0.41 0.04 0.02 0.01	Very limited Slope Gravel content Content of large stones Depth to saturated zone Depth to bedrock	1.00 1.00 1.00 0.98 0.71
Darsil-----	20	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Slope Too sandy	1.00 1.00 0.34
OkeB: Okemah-----	93	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.48	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81
OkrA: Oklared-----	95	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
OPPA: Okemah-----	42	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.48	Somewhat limited Restricted permeability Depth to saturated zone	0.96 0.81
Pharoah-----	32	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00
Parsons-----	21	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00
ParA: Parsons-----	85	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
POWD: Pharoah-----	70	Very limited Depth to saturated zone	1.00	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone	1.00
		Restricted permeability	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
Oil waste land--	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability Slope	0.50
Pu1A: Pulaski-----	90	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
PuTA: Pulaski-----	50	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
Tribbey-----	30	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
RbkA: Roebuck-----	90	Very limited Flooding	1.00	Very limited Restricted permeability	1.00	Very limited Flooding	1.00
		Restricted permeability	1.00	Too clayey	1.00	Restricted permeability	1.00
		Too clayey	1.00	Flooding	0.40	Too clayey	1.00
RenC: Renfrow-----	85	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Slope Restricted permeability	0.50 0.45
SCGC4: Shermore-----	51	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability Slope Gravel content	0.96 0.50 0.06
Clearview-----	24	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.46
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Not limited		Not limited		Very limited Slope Content of large stones Depth to bedrock	1.00 0.03 0.01

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SDGD4: Darsil-----	28	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Slope Too sandy	1.00 1.00 0.34
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Not limited		Not limited		Somewhat limited Slope Depth to bedrock Content of large stones	0.50 0.06 0.03
Darsil-----	30	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Too sandy	1.00 0.34	Very limited Depth to bedrock Slope Too sandy	1.00 0.50 0.34
Newalla-----	19	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Slope Restricted permeability	0.50 0.45
SevA: Severn-----	95	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
ShmC: Shermore-----	85	Not limited		Not limited		Somewhat limited Slope Gravel content	0.50 0.06
ShmC2: Shermore-----	85	Not limited		Not limited		Somewhat limited Slope Gravel content	0.50 0.06
SOWD: Stephenville----	58	Somewhat limited Too sandy	0.79	Somewhat limited Too sandy	0.79	Somewhat limited Slope Too sandy Depth to bedrock Content of large stones	0.88 0.79 0.06 0.03
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87
SteB: Stephenville----	90	Not limited		Not limited		Somewhat limited Content of large stones	0.03

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SteC2: Stephenville----	85	Not limited		Not limited		Somewhat limited Slope Depth to bedrock Content of large stones	0.50 0.20 0.03
SvnA: Severn-----	90	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
Tlha: Tulahassee----	88	Very limited Flooding Depth to saturated zone	1.00 0.81	Somewhat limited Depth to saturated zone Flooding	0.48 0.40	Very limited Flooding Depth to saturated zone	1.00 0.81
TlrA: Teller-----	100	Not limited		Not limited		Not limited	
TlrB: Teller-----	100	Not limited		Not limited		Not limited	
TlrC2: Teller-----	100	Not limited		Not limited		Somewhat limited Slope	0.50
UstA: Ustibuck-----	90	Very limited Flooding Too clayey Restricted permeability	1.00 0.50 0.45	Somewhat limited Too clayey Restricted permeability Flooding	0.50 0.45 0.40	Very limited Flooding Too clayey Restricted permeability	1.00 0.50 0.45
VrdA: Verdigris-----	92	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
VrgA: Verdigris-----	95	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
W: Water-----	100	Not rated		Not rated		Not rated	
WelE: Weleetka-----	88	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Slope	1.00 1.00
WynA: Wynona-----	88	Very limited Depth to saturated zone Flooding Restricted permeability	1.00 1.00 0.96	Very limited Depth to saturated zone Restricted permeability	1.00 0.96	Very limited Depth to saturated zone Restricted permeability Flooding	1.00 0.96 0.60

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
YahA: Yahola-----	95	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Not limited		Not limited		Somewhat limited Depth to bedrock	0.01
BctC: Bates-----	85	Not limited		Not limited		Somewhat limited Depth to bedrock	0.01
BctC2: Bates-----	85	Not limited		Not limited		Somewhat limited Depth to bedrock	0.06
BoyA: Boley-----	85	Very limited Ponding Flooding	1.00 0.40	Very limited Ponding Flooding	1.00 0.40	Very limited Flooding Ponding	1.00 1.00
CaaA: Canadian-----	95	Not limited		Not limited		Not limited	
ClrB: Clearview-----	85	Not limited		Not limited		Somewhat limited Depth to bedrock	0.35
ClrC: Clearview-----	85	Not limited		Not limited		Somewhat limited Depth to bedrock	0.10
ClrC2: Clearview-----	90	Not limited		Not limited		Somewhat limited Depth to bedrock	0.46
CoBC: Coweta-----	60	Not limited		Not limited		Very limited Depth to bedrock Droughty Content of large stones	1.00 0.49 0.03
Bates-----	35	Not limited		Not limited		Somewhat limited Depth to bedrock	0.84
CouB: Choteau-----	100	Not limited		Not limited		Not limited	
CouC: Choteau-----	97	Not limited		Not limited		Not limited	
CskB: Chickasha-----	85	Not limited		Not limited		Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DenB: Dennis-----	91	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.48
DenC: Dennis-----	90	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.48
DenC2: Dennis-----	89	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.48
DEPD3: Dennis-----	63	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.48
Eram-----	20	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Depth to bedrock	0.75 0.16
Pharoah-----	10	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
DsSC: Darsil-----	45	Somewhat limited Too sandy	0.34	Somewhat limited Too sandy	0.34	Very limited Depth to bedrock Droughty	1.00 1.00
Stephenville----	40	Not limited		Not limited		Somewhat limited Depth to bedrock Content of large stones Droughty	0.80 0.03 0.01
DsSE: Darsil-----	55	Somewhat limited Too sandy	0.34	Somewhat limited Too sandy	0.34	Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
Stephenville----	25	Not limited		Not limited		Somewhat limited Depth to bedrock Slope Content of large stones	0.80 0.04 0.03
EflB: Eufaula-----	88	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.13
EflE: Eufaula-----	85	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.25

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EnHE: Endsaw-----	55	Somewhat limited Content of large stones	0.01	Somewhat limited Content of large stones	0.01	Somewhat limited Content of large stones Slope	0.99 0.04
Hector-----	30	Somewhat limited Content of large stones	0.32	Somewhat limited Content of large stones	0.32	Very limited Depth to bedrock Droughty Content of large stones Slope	1.00 1.00 1.00 0.04
EnHG: Endsaw-----	65	Somewhat limited Slope	0.68	Not limited		Very limited Slope Content of large stones	1.00 0.88
Hector-----	20	Somewhat limited Slope Content of large stones	0.68 0.02	Somewhat limited Content of large stones	0.02	Very limited Depth to bedrock Droughty Slope Content of large stones	1.00 1.00 1.00 1.00
EraE: Eram-----	85	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Slope Depth to bedrock	0.75 0.04 0.01
ErCF: Eram-----	75	Very limited Water erosion Depth to saturated zone	1.00 0.44	Very limited Water erosion Depth to saturated zone	1.00 0.44	Somewhat limited Slope Depth to saturated zone Depth to bedrock	0.96 0.75 0.10
Coweta-----	15	Not limited		Not limited		Very limited Depth to bedrock Droughty Slope Content of large stones	1.00 1.00 0.96 0.03
ErmC: Eram-----	90	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Depth to bedrock	0.75 0.06
ErRE: Eram-----	50	Very limited Water erosion Depth to saturated zone	1.00 0.44	Very limited Water erosion Depth to saturated zone	1.00 0.44	Somewhat limited Depth to saturated zone Slope Depth to bedrock	0.75 0.04 0.01

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ErRE: Radley-----	25	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
GadA: Gaddy-----	88	Somewhat limited Too sandy	0.79	Somewhat limited Too sandy	0.79	Somewhat limited Flooding Droughty	0.60 0.20
GalB: Galey-----	95	Not limited		Not limited		Not limited	
GalC: Galey-----	97	Not limited		Not limited		Not limited	
GalC2: Galey-----	97	Not limited		Not limited		Not limited	
GdyA: Gaddy-----	88	Somewhat limited Too sandy Flooding	0.79 0.40	Somewhat limited Too sandy Flooding	0.79 0.40	Very limited Flooding Droughty	1.00 0.25
GhLB: Glentosh-----	60	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.56
Larton-----	30	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Somewhat limited Droughty	0.06
GlhE: Glentosh-----	85	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.61
GriC2: Grainola-----	85	Not limited		Not limited		Somewhat limited Content of large stones Depth to bedrock	0.05 0.01
HeCC: Hector-----	55	Not limited		Not limited		Very limited Depth to bedrock Droughty	1.00 1.00
Clearview-----	35	Not limited		Not limited		Somewhat limited Depth to bedrock	0.06
HeCE: Hector-----	55	Not limited		Not limited		Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
Clearview-----	25	Not limited		Not limited		Somewhat limited Depth to bedrock Slope	0.74 0.04
KarB: Karma-----	88	Not limited		Not limited		Not limited	

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KarC: Karma-----	89	Not limited		Not limited		Not limited	
KarD2: Karma-----	89	Not limited		Not limited		Not limited	
KarE4: Karma-----	85	Not limited		Not limited		Not limited	
KimA: Kiomatia-----	88	Not limited		Not limited		Somewhat limited Flooding Droughty	0.60 0.11
KmfA: Kiomatia-----	88	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding Droughty	1.00 0.14
KoGE4: Konawa-----	65	Not limited		Not limited		Not limited	
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Not limited		Not limited		Not limited	
KowC: Konawa-----	92	Not limited		Not limited		Not limited	
KowD2: Konawa-----	92	Not limited		Not limited		Not limited	
LrtB: Larton-----	85	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Not limited	
LrtD: Larton-----	85	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Not limited	
LtgA: Lightning-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Not limited		Not limited		Not limited	
MaTA: Madill-----	50	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MaTA: Tullahassee-----	30	Somewhat limited Flooding Depth to saturated zone	0.40 0.11	Somewhat limited Flooding Depth to saturated zone	0.40 0.11	Very limited Flooding Depth to saturated zone	1.00 0.48
Md1A: Madill-----	90	Not limited		Not limited		Somewhat limited Flooding	0.60
MrwB: Muldrow-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
MshD: Masham-----	90	Not limited		Not limited		Very limited Depth to bedrock Droughty	1.00 0.14
NviB: Navina-----	94	Not limited		Not limited		Not limited	
NviC2: Navina-----	99	Not limited		Not limited		Not limited	
NzDE: Niotaze-----	65	Somewhat limited Depth to saturated zone Content of large stones	0.44 0.02	Somewhat limited Depth to saturated zone Content of large stones	0.44 0.02	Very limited Content of large stones Depth to saturated zone Depth to bedrock Slope Droughty	1.00 0.75 0.71 0.04 0.03
Darsil-----	20	Somewhat limited Too sandy	0.34	Somewhat limited Too sandy	0.34	Very limited Depth to bedrock Droughty	1.00 1.00
OkeB: Okemah-----	93	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.48
OkrA: Oklared-----	95	Not limited		Not limited		Somewhat limited Flooding	0.60
OPPA: Okemah-----	42	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.48
Pharoah-----	32	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OPFA: Parsons-----	21	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
ParA: Parsons-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Oil waste land--	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Not limited		Not limited		Not limited	
PuLA: Pulaski-----	90	Not limited		Not limited		Somewhat limited Flooding	0.60
PuTA: Pulaski-----	50	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
Tribbey-----	30	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding Depth to saturated zone	1.00 0.19
RbkA: Roebuck-----	90	Very limited Too clayey Flooding	1.00 0.40	Very limited Too clayey Flooding	1.00 0.40	Very limited Flooding Too clayey	1.00 1.00
RenC: Renfrow-----	85	Not limited		Not limited		Not limited	
SCGC4: Shermore-----	51	Not limited		Not limited		Not limited	
Clearview-----	24	Not limited		Not limited		Somewhat limited Depth to bedrock	0.46
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Not limited		Not limited		Somewhat limited Content of large stones Depth to bedrock	0.03 0.01

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SDGD4: Darsil-----	28	Somewhat limited Too sandy	0.34	Somewhat limited Too sandy	0.34	Very limited Depth to bedrock Droughty	1.00 1.00
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Not limited		Not limited		Somewhat limited Depth to bedrock Content of large stones	0.06 0.03
Darsil-----	30	Somewhat limited Too sandy	0.34	Somewhat limited Too sandy	0.34	Very limited Depth to bedrock Droughty	1.00 1.00
Newalla-----	19	Not limited		Not limited		Not limited	
SevA: Severn-----	95	Not limited		Not limited		Somewhat limited Flooding	0.60
ShmC: Shermore-----	85	Not limited		Not limited		Not limited	
ShmC2: Shermore-----	85	Not limited		Not limited		Not limited	
SOWD: Stephenville----	58	Somewhat limited Too sandy	0.79	Somewhat limited Too sandy	0.79	Somewhat limited Depth to bedrock Content of large stones	0.06 0.03
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.01
SteB: Stephenville----	90	Not limited		Not limited		Somewhat limited Depth to bedrock Content of large stones	0.06 0.03
SteC2: Stephenville----	85	Not limited		Not limited		Somewhat limited Depth to bedrock Content of large stones	0.20 0.03
SvnA: Severn-----	90	Not limited		Not limited		Somewhat limited Flooding	0.60

Soil Survey of Okfuskee County, Oklahoma

Recreational Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TlhA: Tulahassee-----	88	Somewhat limited Flooding Depth to saturated zone	0.40 0.11	Somewhat limited Flooding Depth to saturated zone	0.40 0.11	Very limited Flooding Depth to saturated zone	1.00 0.48
TlrA: Teller-----	100	Not limited		Not limited		Not limited	
TlrB: Teller-----	100	Not limited		Not limited		Not limited	
TlrC2: Teller-----	100	Not limited		Not limited		Not limited	
UstA: Ustibuck-----	90	Somewhat limited Too clayey Flooding	0.50 0.40	Somewhat limited Too clayey Flooding	0.50 0.40	Very limited Flooding Too clayey	1.00 1.00
VrdA: Verdigris-----	92	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
VrgA: Verdigris-----	95	Not limited		Not limited		Somewhat limited Flooding	0.60
W: Water-----	100	Not rated		Not rated		Not rated	
WeleE: Weleetka-----	88	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
WynA: Wynona-----	88	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
YahA: Yahola-----	95	Not limited		Not limited		Somewhat limited Flooding	0.60

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for sanitary facilities, building site development, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Sanitary Facilities

The table "Sanitary Facilities, Parts I and II," shows the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for

the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A trench sanitary landfill is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime. Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area. After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage	1.00 0.53
BctC: Bates-----	85	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage Slope	1.00 0.53 0.32
BctC2: Bates-----	85	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage Slope	1.00 0.53 0.32
BoyA: Boley-----	85	Very limited Flooding Depth to saturated zone Ponding Restricted permeability	1.00 1.00 1.00 0.72	Very limited Flooding Ponding Depth to saturated zone Seepage	1.00 1.00 0.81 0.28
CaaA: Canadian-----	95	Very limited Filtering capacity Flooding	1.00 0.40	Very limited Seepage Flooding	1.00 0.40
ClrB: Clearview-----	85	Very limited Depth to bedrock Depth to saturated zone Restricted permeability	1.00 1.00 0.72	Very limited Depth to hard bedrock Depth to saturated zone Seepage	1.00 1.00 0.28
ClrC: Clearview-----	85	Very limited Depth to bedrock Depth to saturated zone Restricted permeability	1.00 1.00 0.72	Very limited Depth to hard bedrock Seepage Depth to saturated zone Slope	1.00 1.00 1.00 0.32

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
ClrC2: Clearview-----	90	Very limited Depth to bedrock Depth to saturated zone Restricted permeability	1.00 1.00 0.72	Very limited Depth to hard bedrock Depth to saturated zone Slope Seepage	1.00 1.00 0.32 0.28
CoBC: Coweta-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 0.53 0.32
Bates-----	35	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage Slope	1.00 0.53 0.32
CouB: Choteau-----	100	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Seepage	0.96 0.53
CouC: Choteau-----	97	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Seepage Slope	0.96 0.53 0.32
CskB: Chickasha-----	85	Somewhat limited Restricted permeability Depth to bedrock	0.46 0.30	Somewhat limited Seepage	0.53
DAM: Large dam-----	100	Not rated		Not rated	
DenB: Dennis-----	91	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Seepage Depth to saturated zone	0.53 0.06
DenC: Dennis-----	90	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Seepage Slope Depth to saturated zone	0.53 0.32 0.06

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
DenC2: Dennis-----	89	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Slope Depth to saturated zone	0.32 0.06
DEPD3: Dennis-----	63	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Slope Depth to saturated zone	0.92 0.06
Eram-----	20	Very limited Restricted permeability Depth to bedrock Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Depth to saturated zone	1.00 0.92 0.01
Pharoah-----	10	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
DsSC: Darsil-----	45	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 0.32 0.28
Stephenville-----	40	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 0.32
DsSE: Darsil-----	55	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 1.00
Stephenville-----	25	Very limited Depth to bedrock Restricted permeability Slope	1.00 0.46 0.04	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 1.00
EflB: Eufaula-----	88	Very limited Filtering capacity	1.00	Very limited Seepage	1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Ef1E: Eufaula-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 1.00
EnHE: Endsaw-----	55	Very limited Restricted permeability Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.86 0.04	Very limited Slope Depth to saturated zone Depth to soft bedrock	1.00 0.81 0.61
Hector-----	30	Very limited Depth to bedrock Slope Content of large stones	1.00 0.04 0.01	Very limited Depth to hard bedrock Seepage Slope Content of large stones	1.00 1.00 0.02
EnHG: Endsaw-----	65	Very limited Restricted permeability Depth to saturated zone Slope Depth to bedrock	1.00 1.00 1.00 0.78	Very limited Slope Depth to saturated zone Seepage Depth to soft bedrock	1.00 0.81 0.53 0.42
Hector-----	20	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00
EraE: Eram-----	85	Very limited Restricted permeability Depth to bedrock Depth to saturated zone Slope	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Slope Depth to saturated zone	1.00 1.00 0.01
ErCF: Eram-----	75	Very limited Restricted permeability Depth to bedrock Depth to saturated zone Slope	1.00 1.00 1.00 0.96	Very limited Depth to soft bedrock Slope Depth to saturated zone	1.00 1.00 0.01
Coweta-----	15	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Depth to soft bedrock Slope	1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
ErmC: Eram-----	90	Very limited Restricted permeability Depth to bedrock Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Depth to saturated zone	1.00 0.32 0.01
ErRE: Eram-----	50	Very limited Restricted permeability Depth to bedrock Depth to saturated zone Slope	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Slope Depth to saturated zone	1.00 1.00 0.01
Radley-----	25	Very limited Flooding Restricted permeability	1.00 0.46	Very limited Flooding Seepage	1.00 0.53
GadA: Gaddy-----	88	Very limited Flooding Filtering capacity	1.00 1.00	Very limited Flooding Seepage	1.00 1.00
GalB: Galey-----	95	Somewhat limited Restricted permeability Depth to saturated zone	0.46 0.40	Somewhat limited Seepage	0.53
GalC: Galey-----	97	Somewhat limited Restricted permeability Depth to saturated zone	0.46 0.40	Somewhat limited Seepage Slope	0.53 0.32
GalC2: Galey-----	97	Somewhat limited Restricted permeability Depth to saturated zone	0.46 0.40	Somewhat limited Seepage Slope	0.53 0.32
GdyA: Gaddy-----	88	Very limited Flooding Filtering capacity	1.00 1.00	Very limited Flooding Seepage	1.00 1.00
GhLB: Glentosh-----	60	Very limited Filtering capacity	1.00	Very limited Seepage	1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
GhLB: Larton-----	30	Somewhat limited Restricted permeability	0.46	Very limited Seepage	1.00
GlhE: Glentosh-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 1.00
GriC2: Grainola-----	85	Very limited Restricted permeability Depth to bedrock	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 0.32
HeCC: Hector-----	55	Very limited Depth to bedrock	1.00	Very limited Depth to hard bedrock Seepage Slope	1.00 1.00 0.32
Clearview-----	35	Very limited Depth to bedrock Depth to saturated zone Restricted permeability	1.00 1.00 0.72	Very limited Depth to hard bedrock Depth to saturated zone Slope Seepage	1.00 1.00 0.32 0.28
HeCE: Hector-----	55	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to hard bedrock Seepage Slope	1.00 1.00 1.00
Clearview-----	25	Very limited Depth to bedrock Depth to saturated zone Restricted permeability Slope	1.00 1.00 0.72 0.04	Very limited Depth to hard bedrock Depth to saturated zone Slope Seepage	1.00 1.00 1.00 0.28
KarB: Karma-----	88	Somewhat limited Restricted permeability	0.46	Very limited Seepage	1.00
KarC: Karma-----	89	Somewhat limited Restricted permeability	0.46	Very limited Seepage Slope	1.00 0.32
KarD2: Karma-----	89	Somewhat limited Restricted permeability	0.46	Very limited Seepage Slope	1.00 0.92

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
KarE4: Karma-----	85	Somewhat limited Restricted permeability	0.46	Very limited Slope Seepage	1.00 1.00
KimA: Kiomatia-----	88	Very limited Flooding Filtering capacity Depth to saturated zone	1.00 1.00 0.94	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 0.39
KmfA: Kiomatia-----	88	Very limited Flooding Filtering capacity Depth to saturated zone	1.00 1.00 0.94	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 0.39
KoGE4: Konawa-----	65	Not limited		Very limited Seepage Slope	1.00 1.00
Gullied land-----	22	Not rated		Not rated	
KowB: Konawa-----	91	Not limited		Very limited Seepage	1.00
KowC: Konawa-----	92	Not limited		Very limited Seepage Slope	1.00 0.32
KowD2: Konawa-----	92	Not limited		Very limited Seepage Slope	1.00 0.92
LrtB: Larton-----	85	Somewhat limited Restricted permeability	0.46	Very limited Seepage	1.00
LrtD: Larton-----	85	Somewhat limited Restricted permeability	0.46	Very limited Seepage Slope	1.00 0.92
LtgA: Lightning-----	90	Very limited Flooding Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding	1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
M-W: Miscellaneous water-	100	Not rated		Not rated	
MasA: Mason-----	90	Very limited Restricted permeability Flooding	1.00 0.40	Somewhat limited Seepage Flooding	0.53 0.40
MaTA: Madill-----	50	Very limited Flooding	1.00	Very limited Flooding Seepage	1.00 1.00
Tullahassee-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
Md1A: Madill-----	90	Very limited Flooding Restricted permeability	1.00 0.46	Very limited Flooding Seepage	1.00 1.00
MrwB: Muldrow-----	85	Very limited Restricted permeability Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
MshD: Masham-----	90	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Slope	1.00 0.92
NviB: Navina-----	94	Somewhat limited Restricted permeability	0.46	Somewhat limited Seepage	0.53
Nvic2: Navina-----	99	Somewhat limited Restricted permeability	0.46	Somewhat limited Seepage	0.53
NzDE: Niotaze-----	65	Very limited Restricted permeability Depth to bedrock Depth to saturated zone Slope	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Depth to saturated zone Slope	1.00 1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
NzDE: Darsil-----	20	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 1.00
OkeB: Okemah-----	93	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone	0.06
OkrA: Oklared-----	95	Very limited Flooding Depth to saturated zone	1.00 0.94	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 0.39
OPPA: Okemah-----	42	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone	0.06
Pharoah-----	32	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
Parsons-----	21	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Seepage	0.53
ParA: Parsons-----	85	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Seepage	0.53
PIT: Pits-----	100	Not rated		Not rated	
POWD: Pharoah-----	70	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
Oil waste land-----	30	Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
PrmC2: Porum-----	85	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 0.32
PulA: Pulaski-----	90	Very limited Flooding	1.00	Very limited Flooding Seepage	1.00 1.00
PuTA: Pulaski-----	50	Very limited Flooding	1.00	Very limited Flooding Seepage	1.00 1.00
Tribbey-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
RbkA: Roebuck-----	90	Very limited Flooding Restricted permeability	1.00 1.00	Very limited Flooding	1.00
RenC: Renfrow-----	85	Very limited Restricted permeability	1.00	Somewhat limited Slope	0.32
SCGC4: Shermore-----	51	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Seepage Slope	1.00 0.53 0.32
Clearview-----	24	Very limited Depth to bedrock Depth to saturated zone Restricted permeability	1.00 1.00 0.72	Very limited Depth to hard bedrock Depth to saturated zone Slope Seepage	1.00 1.00 0.32 0.28
Gullied land-----	16	Not rated		Not rated	
SDGD4: Stephenville-----	34	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Slope Seepage	1.00 0.92 0.53

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
SDGD4: Darsil-----	28	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 0.92
Gullied land-----	16	Not rated		Not rated	
SDND: Stephenville-----	40	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage Slope	1.00 0.53 0.32
Darsil-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 0.32
Newalla-----	19	Very limited Restricted permeability Depth to bedrock	1.00 0.78	Somewhat limited Seepage Depth to soft bedrock Slope	0.53 0.42 0.32
SevA: Severn-----	95	Very limited Flooding	1.00	Very limited Flooding Seepage	1.00 1.00
ShmC: Shermore-----	85	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Seepage Depth to saturated zone Slope	1.00 1.00 0.32
ShmC2: Shermore-----	85	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Seepage Slope	1.00 0.53 0.32
SOWD: Stephenville-----	58	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Slope Seepage	1.00 0.68 0.53
Oil waste land-----	32	Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
StdB: Stidham-----	97	Very limited Filtering capacity Restricted permeability	1.00 0.46	Very limited Seepage	1.00
SteB: Stephenville-----	90	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage	1.00 1.00
SteC2: Stephenville-----	85	Very limited Depth to bedrock Restricted permeability	1.00 0.46	Very limited Depth to soft bedrock Seepage Slope	1.00 0.53 0.32
SvnA: Severn-----	90	Very limited Flooding	1.00	Very limited Flooding Seepage	1.00 1.00
TlhA: Tullahassee-----	88	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
TlrA: Teller-----	100	Somewhat limited Restricted permeability	0.46	Very limited Seepage	1.00
TlrB: Teller-----	100	Somewhat limited Restricted permeability	0.46	Very limited Seepage	1.00
TlrC2: Teller-----	100	Somewhat limited Restricted permeability	0.46	Very limited Seepage Slope	1.00 0.32
UstA: Ustibuck-----	90	Very limited Flooding Restricted permeability	1.00 1.00	Very limited Flooding	1.00
VrdA: Verdigris-----	92	Very limited Flooding Restricted permeability	1.00 0.46	Very limited Flooding Seepage	1.00 0.53

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
VrgA: Verdigris-----	95	Very limited Flooding Restricted permeability	1.00 0.46	Very limited Flooding Seepage	1.00 0.53
W: Water-----	100	Not rated		Not rated	
WelE: Weleetka-----	88	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00	Very limited Seepage Depth to saturated zone Slope	1.00 1.00 1.00
WynA: Wynona-----	88	Very limited Flooding Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
YahA: Yahola-----	95	Very limited Flooding	1.00	Very limited Flooding Seepage	1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Very limited Depth to bedrock Too clayey	1.00 0.50	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Too clayey	1.00 0.50
BctC: Bates-----	85	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
BctC2: Bates-----	85	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
BoyA: Boley-----	85	Very limited Flooding Ponding Depth to saturated zone	1.00 1.00 0.86	Very limited Flooding Ponding Depth to saturated zone	1.00 1.00 0.86	Very limited Ponding Depth to saturated zone	1.00 0.47
CaaA: Canadian-----	95	Very limited Seepage Flooding	1.00 0.40	Very limited Seepage Flooding	1.00 0.40	Very limited Seepage	1.00
ClrB: Clearview-----	85	Very limited Depth to saturated zone Depth to bedrock Too clayey	1.00 1.00 0.50	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Too clayey Depth to saturated zone	1.00 0.50 0.44
ClrC: Clearview-----	85	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Depth to saturated zone	1.00 0.44
ClrC2: Clearview-----	90	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Depth to saturated zone	1.00 0.44
CoBC: Coweta-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
Bates-----	35	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CouB: Choteau-----	100	Very limited Too clayey Depth to saturated zone	1.00 0.68	Somewhat limited Depth to saturated zone	0.68	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.24
CouC: Choteau-----	97	Very limited Too clayey Depth to saturated zone	1.00 0.68	Somewhat limited Depth to saturated zone	0.68	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.24
CskB: Chickasha-----	85	Very limited Depth to bedrock	1.00	Not limited		Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.96
DenC: Dennis-----	90	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.96
DenC2: Dennis-----	89	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.96
DEPD3: Dennis-----	63	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.96
Eram-----	20	Very limited Depth to saturated zone Depth to bedrock Too clayey	1.00 1.00 1.00	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Too clayey Hard to compact Depth to saturated zone	1.00 1.00 1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DEPD3: Pharoah-----	10	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
DsSC: Darsil-----	45	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 0.50
Stephenville----	40	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
DsSE: Darsil-----	55	Very limited Depth to bedrock Seepage Too sandy Slope	1.00 1.00 1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Seepage Too sandy Slope	1.00 1.00 0.50 0.04
Stephenville----	25	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04
EflB: Eufaula-----	88	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Seepage Too sandy	1.00 0.50
EfLE: Eufaula-----	85	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Seepage Too sandy	1.00 0.50
EnHE: Endsaw-----	55	Very limited Depth to bedrock Too clayey Depth to saturated zone Slope	1.00 1.00 0.86 0.04	Somewhat limited Depth to saturated zone Depth to bedrock Slope	0.86 0.61 0.04	Very limited Too clayey Hard to compact Depth to bedrock Depth to saturated zone Slope	1.00 1.00 0.61 0.47 0.04
Hector-----	30	Very limited Depth to bedrock Seepage Slope Content of large stones	1.00 1.00 0.04 0.01	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Seepage Slope Content of large stones	1.00 0.52 0.04 0.01

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EnHG: Endsaw-----	65	Very limited Depth to bedrock Too clayey Slope Depth to saturated zone	1.00 1.00 1.00 0.86	Very limited Slope Depth to saturated zone Depth to bedrock	1.00 0.86 0.42	Very limited Too clayey Hard to compact Slope Depth to saturated zone Depth to bedrock	1.00 1.00 1.00 0.47 0.42
Hector-----	20	Very limited Depth to bedrock Seepage Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Seepage	1.00 1.00 0.52
EraE: Eram-----	85	Very limited Depth to saturated zone Depth to bedrock Too clayey Slope	1.00 1.00 1.00 0.04	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.04	Very limited Depth to bedrock Too clayey Hard to compact Depth to saturated zone Slope	1.00 1.00 1.00 1.00 0.04
ErCF: Eram-----	75	Very limited Depth to saturated zone Depth to bedrock Too clayey Slope	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.96	Very limited Depth to bedrock Too clayey Hard to compact Depth to saturated zone Slope	1.00 1.00 1.00 1.00 0.96
Coweta-----	15	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Depth to bedrock Slope	1.00 0.96	Very limited Depth to bedrock Slope	1.00 0.96
ErmC: Eram-----	90	Very limited Depth to saturated zone Depth to bedrock Too clayey	1.00 1.00 1.00	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Too clayey Hard to compact Depth to saturated zone	1.00 1.00 1.00 1.00
ErRE: Eram-----	50	Very limited Depth to saturated zone Depth to bedrock Too clayey Slope	1.00 1.00 1.00 0.04	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.04	Very limited Depth to bedrock Too clayey Hard to compact Depth to saturated zone Slope	1.00 1.00 1.00 1.00 0.04
Radley-----	25	Very limited Flooding	1.00	Very limited Flooding	1.00	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GadA: Gaddy-----	88	Very limited Flooding Seepage Too sandy	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Very limited Too sandy Seepage	1.00 1.00
GalB: Galey-----	95	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
GalC: Galey-----	97	Not limited		Not limited		Not limited	
GalC2: Galey-----	97	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
GdyA: Gaddy-----	88	Very limited Flooding Seepage Too sandy	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Very limited Too sandy Seepage	1.00 1.00
GhLB: Glentosh-----	60	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Seepage Too sandy	1.00 0.50
Larton-----	30	Not limited		Very limited Seepage	1.00	Somewhat limited Seepage	0.22
GlhE: Glentosh-----	85	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Seepage Too sandy	1.00 0.50
GriC2: Grainola-----	85	Very limited Depth to bedrock Too clayey	1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Too clayey Hard to compact	1.00 1.00 1.00
HeCC: Hector-----	55	Very limited Depth to bedrock Seepage	1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage	1.00 0.52
Clearview-----	35	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Depth to saturated zone	1.00 0.44
HeCE: Hector-----	55	Very limited Depth to bedrock Seepage Slope	1.00 1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Seepage Slope	1.00 0.52 0.04

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCE: Clearview-----	25	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.04	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.04	Very limited Depth to bedrock Depth to saturated zone Slope	1.00 0.44 0.04
KarB: Karma-----	88	Very limited Seepage	1.00	Not limited		Somewhat limited Seepage	0.22
KarC: Karma-----	89	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.22
KarD2: Karma-----	89	Very limited Seepage	1.00	Not limited		Not limited	
KarE4: Karma-----	85	Very limited Seepage	1.00	Not limited		Somewhat limited Seepage	0.22
KimA: Kiomatia-----	88	Very limited Flooding Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Too sandy Seepage	1.00 1.00
KmfA: Kiomatia-----	88	Very limited Flooding Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Too sandy Seepage	1.00 1.00
KoGE4: Konawa-----	65	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.52
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.52
KowC: Konawa-----	92	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.52
KowD2: Konawa-----	92	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.52
LrtB: Larton-----	85	Not limited		Very limited Seepage	1.00	Somewhat limited Seepage	0.22

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LrtD: Larton-----	85	Not limited		Very limited Seepage	1.00	Not limited	
LtgA: Lightning-----	90	Very limited Flooding Depth to saturated zone Too clayey	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Hard to compact Too clayey	1.00 1.00 1.00 0.50
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Somewhat limited Too clayey Flooding	0.50 0.40	Somewhat limited Flooding	0.40	Somewhat limited Too clayey	0.50
MaTA: Madill-----	50	Very limited Flooding Too sandy Seepage	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Too sandy Seepage	0.50 0.22
Tallahassee----	30	Very limited Flooding Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Depth to saturated zone Seepage Too sandy	0.96 0.52 0.50
Md1A: Madill-----	90	Very limited Flooding Too sandy Seepage	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Too sandy Seepage	0.50 0.22
MrwB: Muldrow-----	85	Very limited Depth to saturated zone Too clayey Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
MshD: Masham-----	90	Very limited Depth to bedrock Too clayey	1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Too clayey Hard to compact	1.00 1.00 1.00
NviB: Navina-----	94	Not limited		Not limited		Somewhat limited Too clayey	0.50
NviC2: Navina-----	99	Not limited		Not limited		Somewhat limited Too clayey	0.50

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NzDE: Niotaze-----	65	Very limited Depth to saturated zone Depth to bedrock Too clayey Slope	1.00 1.00 1.00 0.04	Very limited Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.04	Very limited Depth to bedrock Too clayey Hard to compact Depth to saturated zone Slope	1.00 1.00 1.00 1.00 0.04
Darsil-----	20	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 0.50
OkeB: Okemah-----	93	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.96
OkrA: Oklared-----	95	Very limited Flooding Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Seepage Too sandy	0.52 0.50
OPPA: Okemah-----	42	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.96
Pharoah-----	32	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
Parsons-----	21	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
ParA: Parsons-----	85	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
POWD: Pharoah-----	70	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
Oil waste land--	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact Depth to saturated zone	1.00 1.00 0.47
Pu1A: Pulaski-----	90	Very limited Flooding Seepage Too sandy	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Seepage Too sandy	0.52 0.50
PuTA: Pulaski-----	50	Very limited Flooding Seepage Too sandy	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Seepage Too sandy	0.52 0.50
Tribbey-----	30	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Depth to saturated zone Seepage	0.86 0.22
RbkA: Roebuck-----	90	Very limited Flooding Too clayey	1.00 1.00	Very limited Flooding	1.00	Very limited Too clayey Hard to compact	1.00 1.00
RenC: Renfrow-----	85	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
SCGC4: Shermore-----	51	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.44
Clearview-----	24	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to saturated zone Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Depth to saturated zone	1.00 0.44
Gullied land----	16	Not rated		Not rated		Not rated	

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SDGD4: Stephenville----	34	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
Darsil-----	28	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 0.50
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
Darsil-----	30	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage Too sandy	1.00 1.00 0.50
Newalla-----	19	Very limited Depth to bedrock Too clayey	1.00 1.00	Somewhat limited Depth to bedrock	0.42	Very limited Too clayey Hard to compact Depth to bedrock	1.00 1.00 0.42
SevA: Severn-----	95	Very limited Flooding Seepage Too clayey	1.00 1.00 0.50	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Seepage Too clayey	0.52 0.50
ShmC: Shermore-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.44
ShmC2: Shermore-----	85	Very limited Depth to saturated zone Too clayey	1.00 0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Too clayey Depth to saturated zone	0.50 0.44
SOWD: Stephenville----	58	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Very limited Seepage	1.00	Very limited Seepage	1.00	Not limited	
SteB: Stephenville----	90	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
SteC2: Stephenville----	85	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00

Soil Survey of Okfuskee County, Oklahoma

Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SvnA: Severn-----	90	Very limited Flooding Seepage Too clayey	1.00 1.00 0.50	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Seepage Too clayey	0.52 0.50
TlhA: Tullahassee----	88	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Depth to saturated zone Seepage	0.96 0.52
TlrA: Teller-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.52
TlrB: Teller-----	100	Very limited Seepage	1.00	Not limited		Not limited	
TlrC2: Teller-----	100	Very limited Seepage Too clayey	1.00 0.50	Not limited		Somewhat limited Seepage Too clayey	0.52 0.50
UstA: Ustibuck-----	90	Very limited Flooding Too clayey	1.00 1.00	Very limited Flooding	1.00	Very limited Too clayey Hard to compact	1.00 1.00
VrdA: Verdigris-----	92	Very limited Flooding	1.00	Very limited Flooding	1.00	Not limited	
VrgA: Verdigris-----	95	Very limited Flooding	1.00	Very limited Flooding	1.00	Not limited	
W: Water-----	100	Not rated		Not rated		Not rated	
WeLE: Weleetka-----	88	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 0.50
WynA: Wynona-----	88	Very limited Flooding Depth to saturated zone Too clayey	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
YahA: Yahola-----	95	Very limited Flooding Seepage	1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Seepage	0.52

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. The table "Building Site Development, Parts I and II," shows the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and

grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Not limited		Somewhat limited Depth to soft bedrock	0.01	Not limited	
BctC: Bates-----	85	Not limited		Somewhat limited Depth to soft bedrock	0.01	Not limited	
BctC2: Bates-----	85	Not limited		Somewhat limited Depth to soft bedrock	0.06	Not limited	
BoyA: Boley-----	85	Very limited Flooding Ponding Shrink-swell	1.00 1.00 0.50	Very limited Flooding Ponding Depth to saturated zone Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Ponding Shrink-swell	1.00 1.00 0.50
CaaA: Canadian-----	95	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
ClrB: Clearview-----	85	Somewhat limited Depth to hard bedrock	0.35	Very limited Depth to hard bedrock Depth to saturated zone	1.00 1.00	Somewhat limited Depth to hard bedrock	0.35
ClrC: Clearview-----	85	Somewhat limited Depth to hard bedrock	0.10	Very limited Depth to hard bedrock Depth to saturated zone	1.00 1.00	Somewhat limited Depth to hard bedrock	0.10
ClrC2: Clearview-----	90	Somewhat limited Depth to hard bedrock	0.46	Very limited Depth to hard bedrock Depth to saturated zone	1.00 1.00	Somewhat limited Depth to hard bedrock	0.46
CoBC: Coweta-----	60	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock	1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CoBC: Bates-----	35	Not limited		Somewhat limited Depth to soft bedrock	0.84	Not limited	
CouB: Choteau-----	100	Not limited		Very limited Shrink-swell Depth to saturated zone	1.00 0.99	Not limited	
CouC: Choteau-----	97	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.99	Very limited Shrink-swell	1.00
CskB: Chickasha-----	85	Not limited		Not limited		Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.81
DenC: Dennis-----	90	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.81
DenC2: Dennis-----	89	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.81
DEPD3: Dennis-----	63	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.81 0.50
Eram-----	20	Very limited Shrink-swell Depth to saturated zone	1.00 0.98	Very limited Depth to saturated zone Shrink-swell Depth to soft bedrock	1.00 1.00 0.15	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.98 0.50
Pharoah-----	10	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DsSC: Darsil-----	45	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock	1.00
Stephenville----	40	Not limited		Somewhat limited Depth to soft bedrock	0.79	Not limited	
DsSE: Darsil-----	55	Somewhat limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 1.00
Stephenville----	25	Somewhat limited Slope	0.04	Somewhat limited Depth to soft bedrock Slope	0.79 0.04	Very limited Slope	1.00
Ef1B: Eufaula-----	88	Not limited		Not limited		Not limited	
Ef1E: Eufaula-----	85	Not limited		Not limited		Very limited Slope	1.00
EnHE: Endsaw-----	55	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Depth to saturated zone Slope	1.00 1.00 0.04	Very limited Shrink-swell Slope	1.00 1.00
Hector-----	30	Very limited Depth to hard bedrock Slope Content of large stones	1.00 0.04 0.01	Very limited Depth to hard bedrock Slope Content of large stones	1.00 0.04 0.01	Very limited Depth to hard bedrock Slope Content of large stones	1.00 1.00 0.01
EnHG: Endsaw-----	65	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Hector-----	20	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EraE: Eram-----	85	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.98 0.04	Very limited Depth to saturated zone Shrink-swell Slope Depth to soft bedrock	1.00 1.00 1.00 0.04 0.01	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.98
ErCF: Eram-----	75	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.98 0.96	Very limited Depth to saturated zone Shrink-swell Slope Depth to soft bedrock	1.00 1.00 1.00 0.96 0.10	Very limited Slope Shrink-swell Depth to saturated zone	1.00 1.00 0.98
Coweta-----	15	Somewhat limited Depth to soft bedrock Slope	1.00 0.96	Very limited Depth to soft bedrock Slope	1.00 1.00 0.96	Very limited Slope Depth to soft bedrock	1.00 1.00
ErmC: Eram-----	90	Very limited Shrink-swell Depth to saturated zone	1.00 0.98	Very limited Depth to saturated zone Shrink-swell Depth to soft bedrock	1.00 1.00 1.00 0.06	Very limited Shrink-swell Depth to saturated zone	1.00 0.98
ErRE: Eram-----	50	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.98 0.04	Very limited Depth to saturated zone Shrink-swell Slope Depth to soft bedrock	1.00 1.00 1.00 0.04 0.01	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.98
Radley-----	25	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
GadA: Gaddy-----	88	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
GalB: Galey-----	95	Not limited		Somewhat limited Depth to saturated zone	0.15	Not limited	
GalC: Galey-----	97	Not limited		Somewhat limited Depth to saturated zone	0.15	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GalC2: Galey-----	97	Not limited		Somewhat limited Depth to saturated zone	0.15	Not limited	
GdyA: Gaddy-----	88	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
GhLB: Glentosh-----	60	Not limited		Not limited		Not limited	
Larton-----	30	Not limited		Not limited		Not limited	
GlhE: Glentosh-----	85	Not limited		Not limited		Very limited Slope	1.00
GriC2: Grainola-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.01	Very limited Shrink-swell	1.00
HeCC: Hector-----	55	Very limited Depth to hard bedrock	1.00	Very limited Depth to hard bedrock	1.00	Very limited Depth to hard bedrock	1.00
Clearview-----	35	Somewhat limited Depth to hard bedrock	0.06	Very limited Depth to hard bedrock Depth to saturated zone	1.00 1.00	Somewhat limited Depth to hard bedrock	0.06
HeCE: Hector-----	55	Very limited Depth to hard bedrock Slope	1.00 0.04	Very limited Depth to hard bedrock Slope	1.00 0.04	Very limited Depth to hard bedrock Slope	1.00 1.00
Clearview-----	25	Somewhat limited Depth to hard bedrock Slope	0.74 0.04	Very limited Depth to hard bedrock Depth to saturated zone Slope	1.00 1.00 0.04	Very limited Slope Depth to hard bedrock	1.00 0.74
KarB: Karma-----	88	Not limited		Not limited		Not limited	
KarC: Karma-----	89	Not limited		Not limited		Not limited	
KarD2: Karma-----	89	Not limited		Not limited		Somewhat limited Slope	0.50

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KarE4: Karma-----	85	Not limited		Not limited		Very limited Slope	1.00
KimA: Kiomatia-----	88	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.47	Very limited Flooding	1.00
KmfA: Kiomatia-----	88	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.47	Very limited Flooding	1.00
KoGE4: Konawa-----	65	Not limited		Not limited		Very limited Slope	1.00
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Not limited		Not limited		Not limited	
KowC: Konawa-----	92	Not limited		Not limited		Not limited	
KowD2: Konawa-----	92	Not limited		Not limited		Somewhat limited Slope	0.50
LrtB: Larton-----	85	Not limited		Not limited		Not limited	
LrtD: Larton-----	85	Not limited		Not limited		Somewhat limited Slope	0.50
LtgA: Lightning-----	90	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
MaTA: Madill-----	50	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MaTA: Tullahassee-----	30	Very limited Flooding Depth to saturated zone	1.00 0.81	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.81
Md1A: Madill-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
MrwB: Muldrow-----	85	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00
MshD: Masham-----	90	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00	Very limited Shrink-swell Slope	1.00 0.50
NviB: Navina-----	94	Not limited		Not limited		Not limited	
NviC2: Navina-----	99	Not limited		Not limited		Not limited	
NzDE: Niotaze-----	65	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.98 0.04	Very limited Depth to saturated zone Shrink-swell Depth to soft bedrock Slope	1.00 1.00 1.00 0.71 0.04	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.98
Darsil-----	20	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock Slope	1.00 0.88
OkeB: Okemah-----	93	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.81
OkrA: Oklared-----	95	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.47	Very limited Flooding	1.00
OPPA: Okemah-----	42	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.81

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OPFA: Pharoah-----	32	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
Parsons-----	21	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone	1.00
ParA: Parsons-----	85	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
Oil waste land--	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 1.00	Very limited Shrink-swell	1.00
PuLA: Pulaski-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
PuTA: Pulaski-----	50	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
Tribbey-----	30	Very limited Flooding Depth to saturated zone	1.00 0.39	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.39
RbkA: Roebuck-----	90	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00
RenC: Renfrow-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
SCGC4: Shermore-----	51	Not limited		Very limited Depth to saturated zone	1.00	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SCGC4: Clearview-----	24	Somewhat limited Depth to hard bedrock	0.46	Very limited Depth to hard bedrock Depth to saturated zone	1.00 1.00	Somewhat limited Depth to hard bedrock	0.46
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Not limited		Somewhat limited Depth to soft bedrock	0.01	Somewhat limited Slope	0.50
Darsil-----	28	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock Slope	1.00 0.50
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Not limited		Somewhat limited Depth to soft bedrock	0.06	Not limited	
Darsil-----	30	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock	1.00
Newalla-----	19	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
SevA: Severn-----	95	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
ShmC: Shermore-----	85	Not limited		Very limited Depth to saturated zone	1.00	Not limited	
ShmC2: Shermore-----	85	Not limited		Very limited Depth to saturated zone	1.00	Not limited	
SOWD: Stephenville----	58	Not limited		Somewhat limited Depth to soft bedrock	0.06	Somewhat limited Slope	0.12
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Not limited		Not limited		Not limited	
SteB: Stephenville----	90	Not limited		Somewhat limited Depth to soft bedrock	0.06	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SteC2: Stephenville----	85	Not limited		Somewhat limited Depth to soft bedrock	0.20	Not limited	
SvnA: Severn-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
TlhA: Tullahassee----	88	Very limited Flooding Depth to saturated zone	1.00 0.81	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.81
TlrA: Teller-----	100	Not limited		Not limited		Not limited	
TlrB: Teller-----	100	Not limited		Not limited		Not limited	
TlrC2: Teller-----	100	Not limited		Not limited		Not limited	
UstA: Ustibuck-----	90	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00
VrdA: Verdigris-----	92	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
VrgA: Verdigris-----	95	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
W: Water-----	100	Not rated		Not rated		Not rated	
We1E: Weleetka-----	88	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Slope	1.00 0.88
WynA: Wynona-----	88	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00
YahA: Yahola-----	95	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Not limited		Somewhat limited Cutbanks cave Depth to soft bedrock	0.10 0.01	Somewhat limited Depth to bedrock	0.01
BctC: Bates-----	85	Not limited		Somewhat limited Cutbanks cave Depth to soft bedrock	0.10 0.01	Somewhat limited Depth to bedrock	0.01
BctC2: Bates-----	85	Not limited		Very limited Cutbanks cave Depth to soft bedrock	1.00 0.06	Somewhat limited Depth to bedrock	0.06
BoyA: Boley-----	85	Very limited Flooding Low strength Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Ponding Depth to saturated zone Flooding Cutbanks cave Too clayey	1.00 1.00 1.00 0.80 0.10 0.01	Very limited Flooding Ponding	1.00 1.00
CaaA: Canadian-----	95	Somewhat limited Flooding	0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
ClrB: Clearview-----	85	Somewhat limited Depth to hard bedrock	0.35	Very limited Depth to hard bedrock Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Somewhat limited Depth to bedrock	0.35
ClrC: Clearview-----	85	Somewhat limited Depth to hard bedrock	0.10	Very limited Depth to hard bedrock Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Somewhat limited Depth to bedrock	0.10

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ClrC2: Clearview-----	90	Somewhat limited Depth to hard bedrock	0.46	Very limited Depth to hard bedrock Cutbanks cave Depth to saturated zone Depth to dense layer	1.00 1.00 1.00 0.50	Somewhat limited Depth to bedrock	0.46
CoBC: Coweta-----	60	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty Content of large stones	1.00 0.49 0.03
Bates-----	35	Not limited		Somewhat limited Depth to soft bedrock Cutbanks cave	0.84 0.10	Somewhat limited Depth to bedrock	0.84
CouB: Choteau-----	100	Very limited Low strength	1.00	Somewhat limited Depth to saturated zone Cutbanks cave	0.99 0.10	Not limited	
CouC: Choteau-----	97	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Depth to saturated zone Cutbanks cave	0.99 0.10	Not limited	
CskB: Chickasha-----	85	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.48 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Somewhat limited Depth to saturated zone	0.48
DenC: Dennis-----	90	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Somewhat limited Depth to saturated zone	0.48

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DenC2: Dennis-----	89	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Somewhat limited Depth to saturated zone	0.48
DEPD3: Dennis-----	63	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Somewhat limited Depth to saturated zone	0.48
Eram-----	20	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.75	Very limited Depth to saturated zone Depth to dense layer Depth to soft bedrock Too clayey Cutbanks cave	1.00 0.50 0.15 0.12 0.10	Somewhat limited Depth to saturated zone Depth to bedrock	0.75 0.16
Pharoah-----	10	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00
DsSC: Darsil-----	45	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Stephenville----	40	Not limited		Somewhat limited Depth to soft bedrock Depth to dense layer Cutbanks cave	0.79 0.50 0.10	Somewhat limited Depth to bedrock Content of large stones Droughty	0.80 0.03 0.01
DsSE: Darsil-----	55	Somewhat limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave Slope	1.00 0.50 0.10 0.04	Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DsSE: Stephenville----	25	Somewhat limited Slope	0.04	Somewhat limited Depth to soft bedrock Depth to dense layer Cutbanks cave Slope	0.79 0.50 0.10 0.04	Somewhat limited Depth to bedrock Slope Content of large stones Droughty	0.80 0.04 0.03 0.01
EflB: Eufaula-----	88	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.13
EflE: Eufaula-----	85	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.25
EnHE: Endsaw-----	55	Very limited Low strength Shrink-swell Slope	1.00 1.00 0.04	Very limited Depth to saturated zone Too clayey Depth to dense layer Cutbanks cave Slope	1.00 0.50 0.50 0.10 0.04	Somewhat limited Content of large stones Slope	0.99 0.04
Hector-----	30	Very limited Depth to hard bedrock Slope Content of large stones	1.00 0.04 0.01	Very limited Depth to hard bedrock Cutbanks cave Slope Content of large stones	1.00 0.10 0.04 0.01	Very limited Depth to bedrock Droughty Content of large stones Slope	1.00 1.00 1.00 0.04
EnHG: Endsaw-----	65	Very limited Low strength Shrink-swell Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone Too clayey Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.50 0.10	Very limited Slope Content of large stones	1.00 0.88
Hector-----	20	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10	Very limited Depth to bedrock Droughty Slope Content of large stones	1.00 1.00 1.00 1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EraE: Eram-----	85	Very limited Low strength Shrink-swell Depth to saturated zone Slope	1.00 1.00 0.75 0.04	Very limited Depth to saturated zone Depth to dense layer Too clayey Cutbanks cave Slope	1.00 0.50 0.12 0.10 0.04	Somewhat limited Depth to saturated zone Slope Depth to bedrock	0.75 0.04 0.01
ErCF: Eram-----	75	Very limited Low strength Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.96 0.75	Very limited Depth to saturated zone Slope Depth to dense layer Too clayey Cutbanks cave	1.00 0.96 0.50 0.12 0.10	Somewhat limited Slope Depth to saturated zone Depth to bedrock	0.96 0.75 0.10
Coweta-----	15	Somewhat limited Depth to soft bedrock Slope	1.00 0.96	Very limited Depth to soft bedrock Slope Depth to dense layer Cutbanks cave	1.00 0.96 0.50 0.10	Very limited Depth to bedrock Droughty Slope Content of large stones	1.00 1.00 0.96 0.03
ErmC: Eram-----	90	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.75	Very limited Depth to saturated zone Depth to dense layer Too clayey Cutbanks cave Depth to soft bedrock	1.00 0.50 0.12 0.10 0.06	Somewhat limited Depth to saturated zone Depth to bedrock	0.75 0.06
ErRE: Eram-----	50	Very limited Low strength Shrink-swell Depth to saturated zone Slope	1.00 1.00 0.75 0.04	Very limited Depth to saturated zone Depth to dense layer Too clayey Cutbanks cave Slope	1.00 0.50 0.12 0.10 0.04	Somewhat limited Depth to saturated zone Slope Depth to bedrock	0.75 0.04 0.01
Radley-----	25	Very limited Flooding Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
GadA: Gaddy-----	88	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding Droughty	0.60 0.20

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GalB: Galey-----	95	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10	Not limited	
GalC: Galey-----	97	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10	Not limited	
GalC2: Galey-----	97	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10	Not limited	
GdyA: Gaddy-----	88	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding Droughty	1.00 0.25
GhLB: Glentosh-----	60	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.56
Larton-----	30	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.06
GlhE: Glentosh-----	85	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.61
GriC2: Grainola-----	85	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Depth to dense layer Too clayey Cutbanks cave Depth to soft bedrock	0.50 0.28 0.10 0.01	Somewhat limited Content of large stones Depth to bedrock	0.05 0.01
HeCC: Hector-----	55	Very limited Depth to hard bedrock	1.00	Very limited Depth to hard bedrock Cutbanks cave	1.00 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Clearview-----	35	Somewhat limited Depth to hard bedrock	0.06	Very limited Depth to hard bedrock Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Somewhat limited Depth to bedrock	0.06

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCE: Hector-----	55	Very limited Depth to hard bedrock Slope	1.00 0.04	Very limited Depth to hard bedrock Cutbanks cave Slope	1.00 0.10 0.04	Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
Clearview-----	25	Somewhat limited Depth to hard bedrock Slope	0.74 0.04	Very limited Depth to hard bedrock Depth to saturated zone Depth to dense layer Cutbanks cave Slope	1.00 1.00 0.50 0.10 0.04	Somewhat limited Depth to bedrock Slope	0.74 0.04
KarB: Karma-----	88	Somewhat limited Low strength	0.22	Somewhat limited Cutbanks cave	0.10	Not limited	
KarC: Karma-----	89	Somewhat limited Low strength	0.22	Somewhat limited Cutbanks cave	0.10	Not limited	
KarD2: Karma-----	89	Somewhat limited Low strength	0.22	Somewhat limited Cutbanks cave	0.10	Not limited	
KarE4: Karma-----	85	Somewhat limited Low strength	0.22	Somewhat limited Cutbanks cave	0.10	Not limited	
KimA: Kiomatia-----	88	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to saturated zone	1.00 0.60 0.47	Somewhat limited Flooding Droughty	0.60 0.11
KmfA: Kiomatia-----	88	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to saturated zone	1.00 0.80 0.47	Very limited Flooding Droughty	1.00 0.14
KoGE4: Konawa-----	65	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
KowC: Konawa-----	92	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KowD2: Konawa-----	92	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
LrtB: Larton-----	85	Not limited		Very limited Cutbanks cave	1.00	Not limited	
LrtD: Larton-----	85	Not limited		Very limited Cutbanks cave	1.00	Not limited	
LtgA: Lightning-----	90	Very limited Shrink-swell Depth to saturated zone Flooding Low strength	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Very limited Depth to saturated zone Flooding	1.00 0.60
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Very limited Low strength Shrink-swell Flooding	1.00 0.50 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
MaTA: Madill-----	50	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding	1.00
Tullahassee-----	30	Very limited Flooding Depth to saturated zone	1.00 0.48	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone	1.00 0.48
MdlA: Madill-----	90	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
MrwB: Muldrow-----	85	Very limited Low strength Shrink-swell Depth to saturated zone Flooding	1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 0.10 0.03	Very limited Depth to saturated zone	1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MshD: Masham-----	90	Very limited Low strength Shrink-swell	1.00 1.00	Very limited Depth to soft bedrock Depth to dense layer Too clayey Cutbanks cave	1.00 0.50 0.28 0.10	Very limited Depth to bedrock Droughty	1.00 0.14
NviB: Navina-----	94	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
NviC2: Navina-----	99	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
NzDE: Niotaze-----	65	Very limited Low strength Shrink-swell Depth to saturated zone Slope	1.00 1.00 0.75 0.04	Very limited Depth to saturated zone Depth to soft bedrock Too clayey Cutbanks cave Slope	1.00 0.71 0.12 0.10 0.04	Very limited Content of large stones Depth to saturated zone Depth to bedrock Slope Droughty	1.00 0.75 0.71 0.04 0.03
Darsil-----	20	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
OkeB: Okemah-----	93	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Somewhat limited Depth to saturated zone	0.48
OkrA: Oklared-----	95	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to saturated zone	1.00 0.60 0.47	Somewhat limited Flooding	0.60
OPPA: Okemah-----	42	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Somewhat limited Depth to saturated zone	0.48
Pharoah-----	32	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OPFA: Parsons-----	21	Very limited Depth to saturated zone Low strength	1.00 0.22	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.28 0.10	Very limited Depth to saturated zone	1.00
ParA: Parsons-----	85	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.28 0.10	Very limited Depth to saturated zone	1.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00
Oil waste land--	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Very limited Low strength Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 0.10 0.03	Not limited	
PuLA: Pulaski-----	90	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
PuTA: Pulaski-----	50	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding	1.00
Tribbey-----	30	Very limited Flooding Depth to saturated zone	1.00 0.19	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone	1.00 0.19
RbkA: Roebuck-----	90	Very limited Shrink-swell Flooding Low strength	1.00 1.00 1.00	Very limited Cutbanks cave Flooding Too clayey	1.00 0.80 0.28	Very limited Flooding Too clayey	1.00 1.00
RenC: Renfrow-----	85	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SCGC4: Shermore-----	51	Not limited		Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Not limited	
Clearview-----	24	Somewhat limited Depth to hard bedrock	0.46	Very limited Depth to hard bedrock Cutbanks cave Depth to saturated zone Depth to dense layer	1.00 1.00 1.00 0.50	Somewhat limited Depth to bedrock	0.46
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Not limited		Somewhat limited Depth to dense layer Cutbanks cave Depth to soft bedrock	0.50 0.10 0.01	Somewhat limited Content of large stones Depth to bedrock	0.03 0.01
Darsil-----	28	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Not limited		Somewhat limited Depth to dense layer Cutbanks cave Depth to soft bedrock	0.50 0.10 0.06	Somewhat limited Depth to bedrock Content of large stones	0.06 0.03
Darsil-----	30	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Newalla-----	19	Very limited Low strength Shrink-swell	1.00 1.00	Very limited Cutbanks cave Too clayey Depth to dense layer	1.00 0.50 0.50	Not limited	
SevA: Severn-----	95	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ShmC: Shermore-----	85	Not limited		Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Not limited	
ShmC2: Shermore-----	85	Not limited		Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Not limited	
SOWD: Stephenville----	58	Not limited		Somewhat limited Depth to dense layer Cutbanks cave Depth to soft bedrock	0.50 0.10 0.06	Somewhat limited Depth to bedrock Content of large stones	0.06 0.03
Oil waste land--	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.01
SteB: Stephenville----	90	Not limited		Somewhat limited Depth to dense layer Cutbanks cave Depth to soft bedrock	0.50 0.10 0.06	Somewhat limited Depth to bedrock Content of large stones	0.06 0.03
SteC2: Stephenville----	85	Not limited		Somewhat limited Depth to dense layer Depth to soft bedrock Cutbanks cave	0.50 0.20 0.10	Somewhat limited Depth to bedrock Content of large stones	0.20 0.03
SvnA: Severn-----	90	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
Tlha: Tulahassee----	88	Very limited Flooding Depth to saturated zone	1.00 0.48	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.80 0.10	Very limited Flooding Depth to saturated zone	1.00 0.48
TlrA: Teller-----	100	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	

Soil Survey of Okfuskee County, Oklahoma

Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TlrB: Teller-----	100	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
TlrC2: Teller-----	100	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
UstA: Ustibuck-----	90	Very limited Shrink-swell Flooding Low strength	1.00 1.00 1.00	Very limited Cutbanks cave Flooding Too clayey	1.00 0.80 0.28	Very limited Flooding Too clayey	1.00 1.00
VrdA: Verdigris-----	92	Very limited Flooding Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
VrgA: Verdigris-----	95	Very limited Flooding Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
W: Water-----	100	Not rated		Not rated		Not rated	
WeLE: Weleetka-----	88	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00
WynA: Wynona-----	88	Very limited Flooding Low strength Shrink-swell Depth to saturated zone	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave Too clayey	1.00 1.00 0.60 0.10 0.03	Very limited Depth to saturated zone Flooding	1.00 0.60
YahA: Yahola-----	95	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60

Construction Materials

The table "Construction Materials, Parts I and II," gives information about the soils as potential sources of gravel, sand, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand and *gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In the table, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good*, *fair*, or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

The soils are rated *good*, *fair*, or *poor* as potential sources of topsoil, reclamation material, and roadfill. The features that limit the soils as sources of these materials are specified in the table. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil, reclamation material, or roadfill. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also

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evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

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Construction Materials, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
BctB: Bates-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
BctC: Bates-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
BctC2: Bates-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
BoyA: Boley-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
CaaA: Canadian-----	95	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
ClrB: Clearview-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
ClrC: Clearview-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
ClrC2: Clearview-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
CoBC: Coweta-----	60	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Bates-----	35	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00

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Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
CouB: Choteau-----	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CouC: Choteau-----	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CskB: Chickasha-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DAM: Large dam-----	100	Not rated		Not rated	
DenB: Dennis-----	91	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DenC: Dennis-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DenC2: Dennis-----	89	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DEPD3: Dennis-----	63	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Eram-----	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Pharoah-----	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DsSC: Darsil-----	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
Stephenville-----	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DsSE: Darsil-----	55	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.02

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
DsSE: Stephenville-----	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ef1B: Eufaula-----	88	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.08
Ef1E: Eufaula-----	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.08
EnHE: Endsaw-----	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hector-----	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
EnHG: Endsaw-----	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hector-----	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
EraE: Eram-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ErCF: Eram-----	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Coweta-----	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ErmC: Eram-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ErRE: Eram-----	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
ErRE: Radley-----	25	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
GadA: Gaddy-----	88	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.00 0.06
GalB: Galey-----	95	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
GalC: Galey-----	97	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
GalC2: Galey-----	97	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
GdyA: Gaddy-----	88	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.00 0.06
GhLB: Glentosh-----	60	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Thickest layer Bottom layer	 0.07 0.11
Larton-----	30	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.00 0.07
GlhE: Glentosh-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Thickest layer Bottom layer	 0.07 0.29
GriC2: Grainola-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
HeCC: Hector-----	55	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Clearview-----	35	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
HeCE: Hector-----	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Clearview-----	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KarB: Karma-----	88	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KarC: Karma-----	89	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KarD2: Karma-----	89	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KarE4: Karma-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KimA: Kiomatia-----	88	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
KmfA: Kiomatia-----	88	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
KoGE4: Konawa-----	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Gullied land-----	22	Not rated		Not rated	
KowB: Konawa-----	91	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KowC: Konawa-----	92	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KowD2: Konawa-----	92	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
LrtB: Larton-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
LrtD: Larton-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.00 0.07
LtgA: Lightning-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
M-W: Miscellaneous water-	100	Not rated		Not rated	
MasA: Mason-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
MaTA: Madill-----	50	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.00 0.09
Tullahassee-----	30	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Thickest layer Bottom layer	 0.00 0.09
MdlA: Madill-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.09 0.09
MrwB: Muldrow-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
MshD: Masham-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
NviB: Navina-----	94	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Nvic2: Navina-----	99	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
NzDE:					
Niotaze-----	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Darsil-----	20	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.02
OkeB:					
Okemah-----	93	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OkrA:					
Oklared-----	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OPPA:					
Okemah-----	42	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Pharoah-----	32	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Parsons-----	21	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ParA:					
Parsons-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PIT:					
Pits-----	100	Not rated		Not rated	
POWD:					
Pharoah-----	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Oil waste land-----	30	Not rated		Not rated	
PrmC2:					
Porum-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PuLA:					
Pulaski-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
PuTA: Pulaski-----	50	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Tribbey-----	30	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Bottom layer Thickest layer	 0.00 0.08
RbkA: Roebuck-----	90	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
RenC: Renfrow-----	85	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
SCGC4: Shermore-----	51	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Clearview-----	24	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Gullied land-----	16	Not rated		Not rated	
SDGD4: Stephenville-----	34	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Darsil-----	28	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Thickest layer Bottom layer	 0.00 0.02
Gullied land-----	16	Not rated		Not rated	
SDND: Stephenville-----	40	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
Darsil-----	30	Poor Bottom layer Thickest layer	 0.00 0.00	Fair Thickest layer Bottom layer	 0.00 0.02
Newalla-----	19	Poor Thickest layer Bottom layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00
SevA: Severn-----	95	Poor Bottom layer Thickest layer	 0.00 0.00	Poor Bottom layer Thickest layer	 0.00 0.00

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
ShmC: Shermore-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ShmC2: Shermore-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SOWD: Stephenville-----	58	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Oil waste land-----	32	Not rated		Not rated	
StdB: Stidham-----	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
SteB: Stephenville-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SteC2: Stephenville-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SvnA: Severn-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TlhA: Tulahassee-----	88	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
TlrA: Teller-----	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TlrB: Teller-----	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TlrC2: Teller-----	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
UstA: Ustibuck-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
VrdA: Verdigris-----	92	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
VrgA: Verdigris-----	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
W: Water-----	100	Not rated		Not rated	
WelE: Weleetka-----	88	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.39
WynA: Wynona-----	88	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
YahA: Yahola-----	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

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Construction Materials, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Fair Too acid Organic matter content low Depth to bedrock	 0.84 0.88 0.99	Poor Depth to bedrock	 0.00	Fair Depth to bedrock	 0.99
BctC: Bates-----	85	Fair Too acid Depth to bedrock	 0.84 0.99	Poor Depth to bedrock	 0.00	Fair Depth to bedrock	 0.99
BctC2: Bates-----	85	Fair Too acid Organic matter content low Depth to bedrock	 0.84 0.88 0.93	Poor Depth to bedrock	 0.00	Fair Depth to bedrock	 0.93
BoyA: Boley-----	85	Fair Water erosion	 0.90	Poor Low strength Shrink-swell Wetness depth	 0.00 0.64 0.89	Fair Wetness depth	 0.89
CaaA: Canadian-----	95	Fair Organic matter content low	 0.50	Good		Good	
ClrB: Clearview-----	85	Fair Organic matter content low Depth to bedrock Too acid Droughty Water erosion	 0.12 0.65 0.68 0.89 0.99	Poor Depth to bedrock Wetness depth	 0.00 0.44	Fair Wetness depth Depth to bedrock	 0.44 0.65
ClrC: Clearview-----	85	Fair Organic matter content low Too acid Depth to bedrock Water erosion Droughty	 0.12 0.68 0.90 0.99 0.99	Poor Depth to bedrock Wetness depth	 0.00 0.44	Fair Wetness depth Depth to bedrock	 0.44 0.90

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ClrC2: Clearview-----	90	Fair Organic matter content low Depth to bedrock Too acid Droughty Water erosion	0.12 0.54 0.68 0.82 0.99	Poor Depth to bedrock Wetness depth	0.00 0.68	Fair Depth to bedrock Wetness depth	0.54 0.68
CoBC: Coweta-----	60	Poor Depth to bedrock Droughty Too acid	0.00 0.00 0.84	Poor Depth to bedrock	0.00	Poor Depth to bedrock Rock fragments	0.00 0.87
Bates-----	35	Fair Depth to bedrock Droughty Too acid	0.16 0.68 0.84	Poor Depth to bedrock	0.00	Fair Depth to bedrock	0.16
CouB: Choteau-----	100	Fair Organic matter content low Too acid Water erosion	0.50 0.54 0.90	Poor Low strength Shrink-swell Wetness depth	0.00 0.71 0.98	Fair Wetness depth	0.98
CouC: Choteau-----	97	Fair Organic matter content low Too acid Water erosion	0.50 0.54 0.90	Poor Low strength Shrink-swell Wetness depth	0.00 0.53 0.98	Fair Wetness depth	0.98
CskB: Chickasha-----	85	Fair Organic matter content low Water erosion	0.88 0.99	Good		Good	
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Poor Too clayey Too acid Organic matter content low Water erosion	0.00 0.54 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	0.00 0.04 0.36	Poor Too clayey Wetness depth	0.00 0.04
DenC: Dennis-----	90	Poor Too clayey Too acid Organic matter content low Water erosion	0.00 0.54 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	0.00 0.04 0.35	Poor Too clayey Wetness depth	0.00 0.04

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Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DenC2: Dennis-----	89	Poor Too clayey Too acid Organic matter content low Water erosion	0.00 0.54 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	0.00 0.04 0.17	Poor Too clayey Wetness depth	0.00 0.04
DEPD3: Dennis-----	63	Poor Too clayey Too acid Organic matter content low Water erosion	0.00 0.54 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	0.00 0.04 0.20	Poor Too clayey Wetness depth	0.00 0.04
Eram-----	20	Poor Too clayey Depth to bedrock Too acid Droughty Water erosion	0.00 0.84 0.95 0.97 0.99	Poor Low strength Depth to bedrock Shrink-swell Wetness depth	0.00 0.00 0.12 0.14	Poor Too clayey Wetness depth Depth to bedrock	0.00 0.14 0.84
Pharoah-----	10	Poor Too clayey Organic matter content low Sodium content Water erosion	0.00 0.12 0.40 0.68	Poor Low strength Shrink-swell Wetness depth	0.00 0.00 0.00	Poor Too clayey Wetness depth Sodium content Salinity	0.00 0.00 0.40 0.50
DsSC: Darsil-----	50	Poor Wind erosion Droughty Depth to bedrock Organic matter content low Too sandy	0.00 0.00 0.00 0.12 0.41	Poor Depth to bedrock	0.00	Poor Depth to bedrock Too sandy Rock fragments	0.00 0.41 0.88
Stephenville-----	45	Fair Droughty Depth to bedrock Too acid Organic matter content low	0.18 0.21 0.54 0.88	Poor Depth to bedrock	0.00	Fair Depth to bedrock Too acid	0.21 0.98
DsSE: Darsil-----	60	Poor Wind erosion Droughty Depth to bedrock Organic matter content low Too sandy	0.00 0.00 0.00 0.12 0.41	Poor Depth to bedrock	0.00	Poor Depth to bedrock Too sandy Rock fragments Slope	0.00 0.41 0.88 0.96
Stephenville-----	35	Fair Depth to bedrock Droughty Too acid Organic matter content low	0.21 0.23 0.54 0.88	Poor Depth to bedrock	0.00	Fair Depth to bedrock Slope	0.21 0.96

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EflB: Eufaula-----	88	Poor Too sandy Wind erosion Organic matter content low Too acid	0.00 0.00 0.12 0.97	Good		Poor Too sandy	0.00
EflE: Eufaula-----	85	Poor Too sandy Wind erosion Organic matter content low Too acid	0.00 0.00 0.12 0.97	Good		Poor Too sandy	0.00
EnHE: Endsaw-----	55	Poor Too clayey Too acid Organic matter content low	0.00 0.50 0.88	Poor Low strength Shrink-swell Depth to bedrock Wetness depth	0.00 0.16 0.39 0.89	Poor Too clayey Too acid Wetness depth Slope Rock fragments	0.00 0.88 0.89 0.96 0.96
Hector-----	35	Poor Droughty Depth to bedrock Stone content Organic matter content low Too acid	0.00 0.00 0.00 0.12 0.50	Poor Depth to bedrock Stone content	0.00 0.43	Poor Depth to bedrock Rock fragments Too acid Slope	0.00 0.12 0.88 0.96
EnHG: Endsaw-----	65	Poor Too clayey Too acid Organic matter content low	0.00 0.32 0.88	Poor Low strength Shrink-swell Slope Depth to bedrock Wetness depth	0.00 0.26 0.32 0.58 0.89	Poor Too clayey Slope Too acid Wetness depth Rock fragments	0.00 0.00 0.88 0.89 0.96
Hector-----	30	Poor Droughty Depth to bedrock Organic matter content low Stone content Too acid	0.00 0.00 0.12 0.25 0.50	Poor Depth to bedrock Slope Stone content	0.00 0.32 0.94	Poor Depth to bedrock Slope Rock fragments Too acid	0.00 0.00 0.12 0.88
EraE: Eram-----	85	Poor Too clayey Too acid Depth to bedrock Water erosion	0.00 0.95 0.99 0.99	Poor Low strength Depth to bedrock Shrink-swell Wetness depth	0.00 0.00 0.12 0.14	Poor Too clayey Wetness depth Slope Depth to bedrock	0.00 0.14 0.96 0.99

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ErCF: Eram-----	75	Poor Too clayey Depth to bedrock Too acid Water erosion	0.00 0.90 0.95 0.99	Poor Low strength Depth to bedrock Shrink-swell Wetness depth	0.00 0.00 0.12 0.14	Poor Too clayey Slope Wetness depth Depth to bedrock	0.00 0.04 0.14 0.90
Coweta-----	15	Poor Droughty Depth to bedrock Too acid	0.00 0.00 0.84	Poor Depth to bedrock	0.00	Poor Depth to bedrock Slope Rock fragments	0.00 0.04 0.90
ErmC: Eram-----	90	Poor Too clayey Depth to bedrock Too acid Water erosion	0.00 0.93 0.95 0.99	Poor Low strength Depth to bedrock Shrink-swell Wetness depth	0.00 0.00 0.12 0.14	Poor Too clayey Wetness depth Depth to bedrock	0.00 0.14 0.93
ErRE: Eram-----	50	Poor Too clayey Too acid Depth to bedrock Water erosion	0.00 0.95 0.99 0.99	Poor Low strength Depth to bedrock Shrink-swell Wetness depth	0.00 0.00 0.12 0.14	Poor Too clayey Wetness depth Slope Depth to bedrock	0.00 0.14 0.96 0.99
Radley-----	35	Fair Organic matter content low	0.50	Poor Low strength Shrink-swell	0.00 0.90	Good	
GadA: Gaddy-----	100	Poor Wind erosion Too sandy Organic matter content low	0.00 0.09 0.88	Good		Fair Too sandy	0.09
GalB: Galey-----	95	Fair Organic matter content low Too acid	0.12 0.84	Good		Good	
GalC: Galey-----	97	Fair Organic matter content low Too acid	0.12 0.84	Good		Good	
GalC2: Galey-----	97	Fair Organic matter content low Too acid	0.12 0.84	Good		Good	
GdyA: Gaddy-----	100	Poor Wind erosion Too sandy Organic matter content low	0.00 0.09 0.88	Good		Fair Too sandy	0.09

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GhLB: Glentosh-----	60	Poor Wind erosion Too sandy Organic matter content low Too acid Droughty	0.00 0.00 0.12 0.68 0.99	Good		Poor Too sandy	0.00
Larton-----	30	Poor Too sandy Wind erosion Too acid Organic matter content low	0.00 0.00 0.54 0.88	Good		Poor Too sandy	0.00
GlhE: Glentosh-----	85	Poor Wind erosion Too sandy Organic matter content low Too acid Droughty	0.00 0.00 0.12 0.68 0.99	Good		Poor Too sandy	0.00
GriC2: Grainola-----	85	Poor Too clayey Organic matter content low Water erosion Depth to bedrock	0.00 0.12 0.99 0.99	Poor Low strength Depth to bedrock Shrink-swell	0.00 0.00 0.12	Poor Too clayey Depth to bedrock	0.00 0.99
HeCC: Hector-----	55	Poor Droughty Depth to bedrock Organic matter content low Too acid	0.00 0.00 0.12 0.50	Poor Depth to bedrock	0.00	Poor Depth to bedrock Rock fragments Too acid	0.00 0.28 0.88
Clearview-----	35	Fair Organic matter content low Too acid Depth to bedrock Water erosion	0.12 0.68 0.93 0.99	Poor Depth to bedrock Wetness depth	0.00 0.44	Fair Wetness depth Depth to bedrock	0.44 0.93
HeCE: Hector-----	68	Poor Droughty Depth to bedrock Organic matter content low Too acid	0.00 0.00 0.12 0.50	Poor Depth to bedrock	0.00	Poor Depth to bedrock Rock fragments Too acid Slope	0.00 0.28 0.88 0.96

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCE: Clearview-----	25	Fair Organic matter content low Depth to bedrock Droughty Too acid Water erosion	0.12 0.26 0.54 0.68 0.99	Poor Depth to bedrock Wetness depth	0.00 0.44	Fair Depth to bedrock Wetness depth Slope	0.26 0.44 0.96
KarB: Karma-----	88	Fair Organic matter content low	0.12	Good		Good	
KarC: Karma-----	89	Fair Organic matter content low Water erosion	0.12 0.99	Good		Good	
KarD2: Karma-----	89	Fair Organic matter content low	0.12	Fair Low strength	0.78	Good	
KarE4: Karma-----	85	Fair Organic matter content low	0.12	Good		Good	
KimA: Kiomatia-----	90	Fair Organic matter content low	0.08	Good		Good	
KmfA: Kiomatia-----	90	Fair Organic matter content low	0.08	Good		Good	
KoGE4: Konawa-----	65	Fair Organic matter content low Too acid	0.32 0.84	Good		Good	
Gullied land-----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Fair Organic matter content low Too acid	0.32 0.84	Good		Good	
KowC: Konawa-----	92	Fair Organic matter content low Too acid	0.32 0.84	Good		Good	

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KowD2: Konawa-----	92	Fair Organic matter content low Too acid	0.32 0.84	Good		Good	
LrtB: Larton-----	85	Poor Too sandy Wind erosion Organic matter content low Too acid	0.00 0.00 0.12 0.54	Good		Poor Too sandy	0.00
LrtD: Larton-----	85	Poor Too sandy Wind erosion Too acid Organic matter content low	0.00 0.00 0.54 0.88	Good		Poor Too sandy	0.00
LtgA: Lightning-----	90	Fair Too clayey Organic matter content low Too acid Water erosion	0.02 0.12 0.68 0.90	Poor Wetness depth Low strength Shrink-swell	0.00 0.00 0.00	Poor Wetness depth Too clayey	0.00 0.01
M-W: Miscellaneous water-	100	Not rated		Not rated		Not rated	
MasA: Mason-----	100	Fair Organic matter content low Too acid Water erosion	0.88 0.97 0.99	Poor Low strength Shrink-swell	0.00 0.91	Good	
MaTA: Madill-----	50	Fair Organic matter content low Too sandy	0.88 0.92	Good		Fair Too sandy	0.92
Tullahassee-----	35	Fair Organic matter content low Too acid	0.50 0.95	Fair Wetness depth	0.29	Fair Wetness depth	0.29
MdlA: Madill-----	90	Fair Organic matter content low	0.12	Good		Good	

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MrwB: Muldraw-----	90	Poor Too clayey Organic matter content low Water erosion	 0.00 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	 0.00 0.00 0.12	Poor Too clayey Wetness depth	 0.00 0.00
MshD: Masham-----	90	Poor Too clayey Depth to bedrock Droughty Organic matter content low Water erosion	 0.00 0.00 0.06 0.12 0.90	Poor Depth to bedrock Low strength Shrink-swell	 0.00 0.00 0.12	Poor Too clayey Depth to bedrock	 0.00 0.00
NviB: Navina-----	94	Fair Organic matter content low Water erosion	 0.88 0.99	Good		Good	
NviC2: Navina-----	99	Fair Organic matter content low Water erosion	 0.88 0.99	Good		Good	
NzDE: Niotaze-----	65	Poor Too clayey Organic matter content low Droughty Depth to bedrock Too acid	 0.00 0.12 0.13 0.29 0.74	Poor Low strength Depth to bedrock Shrink-swell Wetness depth	 0.00 0.00 0.12 0.14	Poor Too clayey Wetness depth Depth to bedrock Slope Rock fragments	 0.00 0.14 0.29 0.96 0.99
Darsil-----	20	Poor Wind erosion Droughty Depth to bedrock Organic matter content low Too sandy	 0.00 0.00 0.00 0.12 0.41	Poor Depth to bedrock	 0.00	Poor Depth to bedrock Too sandy Rock fragments	 0.00 0.41 0.88
OkeB: Okemah-----	93	Fair Organic matter content low Water erosion	 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	 0.00 0.29 0.46	Fair Wetness depth	 0.29
OkrA: Oklared-----	95	Fair Organic matter content low	 0.12	Good		Good	

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OPPA: Okemah-----	45	Poor Too clayey Organic matter content low Water erosion	0.00 0.88 0.90	Poor Low strength Shrink-swell Wetness depth	0.00 0.20 0.29	Poor Too clayey Wetness depth	0.00 0.29
Pharoah-----	34	Fair Too clayey Organic matter content low Water erosion Sodium content	0.01 0.12 0.68 0.90	Poor Low strength Shrink-swell Wetness depth	0.00 0.00 0.00	Poor Wetness depth Too clayey Salinity Sodium content	0.00 0.00 0.88 0.90
Parsons-----	21	Fair Water erosion Too acid Organic matter content low	0.68 0.84 0.88	Poor Low strength Wetness depth Shrink-swell	0.00 0.00 0.64	Poor Wetness depth	0.00
ParA: Parsons-----	85	Poor Too clayey Water erosion Too acid Organic matter content low	0.00 0.68 0.84 0.88	Poor Low strength Wetness depth Shrink-swell	0.00 0.00 0.23	Poor Too clayey Wetness depth	0.00 0.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Poor Too clayey Organic matter content low Water erosion Sodium content	0.00 0.12 0.68 0.90	Poor Low strength Shrink-swell Wetness depth	0.00 0.00 0.00	Poor Too clayey Wetness depth Salinity Sodium content	0.00 0.00 0.88 0.90
Oil waste land-----	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Poor Too clayey Organic matter content low Too acid Water erosion	0.00 0.12 0.54 0.99	Poor Low strength Shrink-swell Wetness depth	0.00 0.30 0.89	Poor Too clayey Wetness depth Too acid	0.00 0.89 0.98
PulA: Pulaski-----	90	Fair Organic matter content low	0.50	Good		Good	
PuTA: Pulaski-----	50	Fair Organic matter content low	0.50	Good		Good	

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PuTA: Tribbey-----	35	Poor Organic matter content low	0.00	Fair Wetness depth	0.53	Fair Wetness depth	0.53
RbkA: Roebuck-----	90	Poor Too clayey Organic matter content low	0.00 0.88	Poor Shrink-swell Low strength	0.00 0.00	Poor Too clayey	0.00
RenC: Renfrow-----	85	Poor Too clayey Water erosion Organic matter content low	0.00 0.68 0.88	Poor Low strength Shrink-swell	0.00 0.15	Poor Too clayey	0.00
SCGC4: Shermore-----	51	Fair Organic matter content low Too acid Water erosion	0.12 0.54 0.99	Fair Wetness depth	0.91	Fair Wetness depth Rock fragments Too acid	0.91 0.97 0.98
Clearview-----	24	Fair Organic matter content low Depth to bedrock Too acid Droughty Water erosion	0.12 0.54 0.68 0.82 0.99	Poor Depth to bedrock Wetness depth	0.00 0.38	Fair Wetness depth Depth to bedrock	0.38 0.54
Gullied land-----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville-----	34	Fair Too acid Organic matter content low Depth to bedrock	0.54 0.88 0.99	Poor Depth to bedrock	0.00	Fair Too acid Depth to bedrock	0.98 0.99
Darsil-----	28	Poor Wind erosion Droughty Depth to bedrock Organic matter content low Too sandy	0.00 0.00 0.00 0.12 0.41	Poor Depth to bedrock	0.00	Poor Depth to bedrock Too sandy Rock fragments	0.00 0.41 0.88
Gullied land-----	16	Not rated		Not rated		Not rated	
SDND: Stephenville-----	40	Fair Too acid Organic matter content low Depth to bedrock Droughty	0.54 0.88 0.93 0.99	Poor Depth to bedrock	0.00	Fair Depth to bedrock Too acid	0.93 0.98

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SDND: Darsil-----	30	Poor Wind erosion Droughty Depth to bedrock Too sandy Organic matter content low	0.00 0.00 0.00 0.41 0.88	Poor Depth to bedrock	0.00	Poor Depth to bedrock Too sandy	0.00 0.41
Newalla-----	19	Poor Too clayey Organic matter content low Too acid Water erosion	0.00 0.12 0.88 0.90	Poor Low strength Shrink-swell Depth to bedrock	0.00 0.28 0.58	Poor Too clayey Hard to reclaim (rock fragments)	0.00 0.82
SevA: Severn-----	95	Fair Organic matter content low	0.88	Good		Good	
ShmC: Shermore-----	85	Fair Organic matter content low Too acid Water erosion	0.12 0.54 0.99	Fair Wetness depth	0.91	Fair Wetness depth Rock fragments Too acid	0.91 0.97 0.98
ShmC2: Shermore-----	85	Fair Organic matter content low Too acid Water erosion	0.12 0.54 0.99	Fair Wetness depth	0.91	Fair Wetness depth Rock fragments Too acid	0.91 0.97 0.98
SOWD: Stephenville-----	58	Poor Wind erosion Too acid Droughty Organic matter content low Depth to bedrock	0.00 0.54 0.85 0.88 0.93	Poor Depth to bedrock	0.00	Fair Depth to bedrock Too acid	0.93 0.98
Oil waste land-----	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Poor Wind erosion Too sandy Organic matter content low Too acid	0.00 0.00 0.50 0.74	Good		Poor Too sandy	0.00
SteB: Stephenville-----	90	Fair Too acid Organic matter content low Depth to bedrock Droughty	0.54 0.88 0.93 0.96	Poor Depth to bedrock	0.00	Fair Depth to bedrock Too acid	0.93 0.98

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SteC2: Stephenville-----	85	Fair Too acid Depth to bedrock Organic matter content low Droughty	0.54 0.79 0.88 0.91	Poor Depth to bedrock	0.00	Fair Depth to bedrock Too acid	0.79 0.98
SvnA: Severn-----	90	Fair Organic matter content low	0.88	Good		Good	
TlhA: Tulahassee-----	88	Fair Organic matter content low Too acid	0.50 0.95	Fair Wetness depth	0.29	Fair Wetness depth	0.29
TlrA: Teller-----	100	Fair Organic matter content low	0.88	Good		Good	
TlrB: Teller-----	100	Fair Organic matter content low	0.88	Good		Good	
TlrC2: Teller-----	100	Fair Organic matter content low	0.88	Good		Good	
UstA: Ustibuck-----	92	Poor Too clayey Water erosion	0.00 0.90	Poor Wetness depth Shrink-swell Low strength	0.00 0.00 0.00	Poor Wetness depth Too clayey	0.00 0.00
VrdA: Verdigris-----	92	Fair Organic matter content low	0.88	Poor Low strength Shrink-swell	0.00 0.95	Good	
VrgA: Verdigris-----	95	Fair Organic matter content low	0.88	Poor Low strength Shrink-swell	0.00 0.94	Good	
W: Water-----	100	Not rated		Not rated		Not rated	
WelE: Weleetka-----	88	Fair Too sandy Too acid	0.02 0.54	Poor Wetness depth	0.00	Poor Wetness depth Too sandy Too acid	0.00 0.02 0.98

Soil Survey of Okfuskee County, Oklahoma

Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WynA: Wynona-----	88	Fair Too clayey Too acid Organic matter content low Water erosion	0.12 0.74 0.88 0.90	Poor Low strength Wetness depth Shrink-swell	0.00 0.00 0.17	Poor Wetness depth Too clayey	0.00 0.09
YahA: Yahola-----	95	Fair Organic matter content low	0.12	Good		Good	

Water Management

The table "Water Management" gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Soil Survey of Okfuskee County, Oklahoma

Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BctB: Bates-----	90	Somewhat limited Seepage Depth to bedrock	0.72 0.01	Very limited Piping Thin layer	0.99 0.52	Very limited Depth to water	1.00
BctC: Bates-----	85	Somewhat limited Seepage Depth to bedrock	0.72 0.02	Somewhat limited Piping Thin layer	0.99 0.56	Very limited Depth to water	1.00
BctC2: Bates-----	85	Somewhat limited Seepage Depth to bedrock	0.72 0.03	Very limited Piping Thin layer	0.99 0.66	Very limited Depth to water	1.00
BoyA: Boley-----	85	Somewhat limited Seepage	0.54	Very limited Ponding Depth to saturated zone Piping	1.00 0.86 0.06	Very limited Depth to water	1.00
CaaA: Canadian-----	95	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00
ClrB: Clearview-----	85	Somewhat limited Depth to bedrock Seepage	0.83 0.54	Very limited Piping Depth to saturated zone Thin layer	1.00 0.84 0.83	Very limited Depth to hard bedrock Slow refill Cutbanks cave Depth to water	1.00 0.46 0.10 0.07
ClrC: Clearview-----	85	Somewhat limited Depth to bedrock Seepage	0.69 0.54	Very limited Piping Depth to saturated zone Thin layer	1.00 0.84 0.70	Very limited Depth to hard bedrock Slow refill Cutbanks cave Depth to water	1.00 0.46 0.10 0.07
ClrC2: Clearview-----	90	Somewhat limited Depth to bedrock Seepage	0.86 0.54	Somewhat limited Piping Thin layer Depth to saturated zone	0.99 0.86 0.84	Very limited Depth to hard bedrock Cutbanks cave Slow refill Depth to water	1.00 1.00 1.00 0.07
CoBC: Coweta-----	60	Somewhat limited Depth to bedrock Seepage	0.50 0.04	Very limited Thin layer Piping	1.00 1.00	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CoBC: Bates-----	35	Somewhat limited Seepage Depth to bedrock	0.72 0.26	Very limited Piping Thin layer	1.00 0.96	Very limited Depth to water	1.00
CouB: Choteau-----	100	Somewhat limited Seepage	0.72	Somewhat limited Depth to saturated zone Piping	0.68 0.01	Very limited Depth to water	1.00
CouC: Choteau-----	97	Somewhat limited Seepage	0.72	Somewhat limited Depth to saturated zone Piping	0.68 0.01	Very limited Depth to water	1.00
CskB: Chickasha-----	85	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.89	Very limited Depth to water	1.00
DAM: Large dam-----	100	Not rated		Not rated		Not rated	
DenB: Dennis-----	91	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
DenC: Dennis-----	90	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
DenC2: Dennis-----	89	Not limited		Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
DEPD3: Dennis-----	63	Not limited		Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
Eram-----	20	Somewhat limited Depth to bedrock	0.05	Very limited Depth to saturated zone Thin layer	1.00 0.74	Very limited Depth to water	1.00
Pharoah-----	10	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 1.00	Very limited Slow refill Cutbanks cave Salty water	1.00 0.10 0.06
DsSC: Darsil-----	45	Somewhat limited Depth to bedrock	0.78	Very limited Thin layer Seepage	1.00 0.02	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DsSC: Stephenville-----	40	Somewhat limited Seepage Depth to bedrock	0.72 0.23	Somewhat limited Thin layer	0.95	Very limited Depth to water	1.00
DsSE: Darsil-----	55	Somewhat limited Seepage Depth to bedrock	0.54 0.53	Very limited Thin layer Seepage	1.00 0.02	Very limited Depth to water	1.00
Stephenville-----	25	Somewhat limited Seepage Depth to bedrock	0.72 0.23	Somewhat limited Thin layer	0.95	Very limited Depth to water	1.00
Ef1B: Eufaula-----	88	Very limited Seepage	1.00	Somewhat limited Seepage	0.08	Very limited Depth to water	1.00
Ef1E: Eufaula-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.08	Very limited Depth to water	1.00
EnHE: Endsaw-----	55	Somewhat limited Depth to bedrock	0.01	Somewhat limited Depth to saturated zone Thin layer	0.86 0.16	Very limited Depth to water	1.00
Hector-----	30	Very limited Depth to bedrock	1.00	Very limited Thin layer Content of large stones	1.00 0.01	Very limited Depth to water	1.00
EnHG: Endsaw-----	65	Somewhat limited Slope Depth to bedrock	0.15 0.01	Somewhat limited Depth to saturated zone Thin layer Piping	0.86 0.11 0.02	Very limited Depth to water	1.00
Hector-----	20	Very limited Depth to bedrock Slope	1.00 0.15	Very limited Thin layer	1.00	Very limited Depth to water	1.00
EraE: Eram-----	85	Somewhat limited Depth to bedrock	0.02	Very limited Depth to saturated zone Thin layer	1.00 0.58	Very limited Depth to water	1.00
ErCF: Eram-----	75	Somewhat limited Depth to bedrock Slope	0.04 0.02	Very limited Depth to saturated zone Thin layer	1.00 0.70	Very limited Depth to water	1.00
Coweta-----	15	Somewhat limited Depth to bedrock Slope	0.80 0.02	Very limited Thin layer Piping	1.00 1.00	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ErmC: Eram-----	90	Somewhat limited Depth to bedrock	0.03	Very limited Depth to saturated zone Thin layer	1.00 0.66	Very limited Depth to water	1.00
ErRE: Eram-----	50	Somewhat limited Depth to bedrock	0.02	Very limited Depth to saturated zone Thin layer	1.00 0.58	Very limited Depth to water	1.00
Radley-----	25	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.69	Very limited Depth to water	1.00
GadA: Gaddy-----	88	Very limited Seepage	1.00	Somewhat limited Seepage	0.06	Very limited Depth to water	1.00
GalB: Galey-----	95	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
GalC: Galey-----	97	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
GalC2: Galey-----	97	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
GdyA: Gaddy-----	88	Very limited Seepage	1.00	Somewhat limited Seepage	0.06	Very limited Depth to water	1.00
GhLB: Glentosh-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.11	Very limited Depth to water	1.00
Larton-----	30	Very limited Seepage	1.00	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
GlhE: Glentosh-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.29	Very limited Depth to water	1.00
Gric2: Grainola-----	85	Somewhat limited Depth to bedrock	0.01	Somewhat limited Thin layer	0.52	Very limited Depth to water	1.00
HeCC: Hector-----	55	Very limited Depth to bedrock Seepage	1.00 0.02	Very limited Thin layer	1.00	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeCC: Clearview-----	35	Somewhat limited Depth to bedrock Seepage	0.66 0.54	Very limited Piping Depth to saturated zone Thin layer	0.99 0.84 0.66	Very limited Depth to hard bedrock Slow refill Cutbanks cave Depth to water	1.00 0.46 0.10 0.07
HeCE: Hector-----	55	Very limited Depth to bedrock Seepage	1.00 0.02	Very limited Thin layer	1.00	Very limited Depth to water	1.00
Clearview-----	25	Somewhat limited Depth to bedrock Seepage	0.93 0.54	Very limited Piping Thin layer Depth to saturated zone	1.00 0.94 0.84	Very limited Depth to hard bedrock Cutbanks cave Depth to water	1.00 0.10 0.07
KarB: Karma-----	88	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
KarC: Karma-----	89	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
KarD2: Karma-----	89	Very limited Seepage	1.00	Very limited Piping	0.99	Very limited Depth to water	1.00
KarE4: Karma-----	85	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
KimA: Kiomatia-----	88	Very limited Seepage	1.00	Somewhat limited Seepage	0.04	Very limited Cutbanks cave Depth to water	1.00 0.90
KmfA: Kiomatia-----	88	Very limited Seepage	1.00	Somewhat limited Seepage	0.06	Very limited Cutbanks cave Depth to water	1.00 0.90
KoGE4: Konawa-----	65	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00
Gullied land----	22	Not rated		Not rated		Not rated	
KowB: Konawa-----	91	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00
KowC: Konawa-----	92	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KowD2: Konawa-----	92	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00
LrtB: Larton-----	85	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00
LrtD: Larton-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
LtgA: Lightning-----	90	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.58	Very limited Depth to water	1.00
M-W: Miscellaneous water-----	100	Not rated		Not rated		Not rated	
MasA: Mason-----	90	Somewhat limited Seepage	0.04	Somewhat limited Piping	0.83	Very limited Depth to water	1.00
MaTA: Madill-----	50	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.09	Very limited Depth to water	1.00
Tallahassee-----	30	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.09	Very limited Cutbanks cave	1.00
Md1A: Madill-----	90	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.09	Very limited Depth to water	1.00
MrwB: Muldrow-----	85	Not limited		Very limited Depth to saturated zone	1.00	Very limited Slow refill Cutbanks cave	1.00 0.10
MshD: Masham-----	90	Somewhat limited Depth to bedrock	0.45	Very limited Thin layer	1.00	Very limited Depth to water	1.00
NviB: Navina-----	94	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
Nvic2: Navina-----	99	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NzDE: Niotaze-----	65	Somewhat limited Depth to bedrock Seepage	0.19 0.02	Very limited Depth to saturated zone Thin layer Piping	1.00 0.93 0.01	Somewhat limited Slow refill Cutbanks cave	0.98 0.10
Darsil-----	20	Somewhat limited Seepage Depth to bedrock	0.54 0.50	Very limited Thin layer Seepage	1.00 0.02	Very limited Depth to water	1.00
OkeB: Okemah-----	93	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
OkraA: Oklared-----	95	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.01	Very limited Cutbanks cave Depth to water	1.00 0.90
OPPA: Okemah-----	42	Not limited		Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
Pharoah-----	32	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 1.00	Very limited Slow refill Cutbanks cave Salty water	1.00 0.10 0.06
Parsons-----	21	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping	1.00 0.02	Very limited Depth to water	1.00
ParA: Parsons-----	85	Not limited		Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
PIT: Pits-----	100	Not rated		Not rated		Not rated	
POWD: Pharoah-----	70	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 1.00	Very limited Slow refill Cutbanks cave Salty water	1.00 0.10 0.06
Oil waste land---	30	Not rated		Not rated		Not rated	
PrmC2: Porum-----	85	Somewhat limited Seepage	0.04	Somewhat limited Depth to saturated zone Piping	0.86 0.05	Somewhat limited Slow refill Cutbanks cave Depth to water	0.96 0.10 0.06

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Pu1A: Pulaski-----	90	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.03	Very limited Depth to water	1.00
PuTA: Pulaski-----	50	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
Tribbey-----	30	Very limited Seepage	1.00	Very limited Piping Depth to saturated zone Seepage	1.00 1.00 0.08	Very limited Cutbanks cave Depth to water	1.00 0.01
RbkA: Roebuck-----	90	Not limited		Somewhat limited Hard to pack	0.90	Very limited Depth to water	1.00
RenC: Renfrow-----	85	Not limited		Not limited		Very limited Depth to water	1.00
SCGC4: Shermore-----	51	Somewhat limited Seepage	0.72	Somewhat limited Piping Depth to saturated zone	0.95 0.84	Somewhat limited Slow refill Cutbanks cave Depth to water	0.28 0.10 0.07
Clearview-----	24	Somewhat limited Depth to bedrock Seepage	0.86 0.54	Somewhat limited Piping Thin layer Depth to saturated zone	0.99 0.86 0.84	Very limited Depth to hard bedrock Cutbanks cave Slow refill Depth to water	1.00 1.00 1.00 0.07
Gullied land----	16	Not rated		Not rated		Not rated	
SDGD4: Stephenville----	34	Somewhat limited Seepage Depth to bedrock	0.72 0.01	Somewhat limited Thin layer	0.52	Very limited Depth to water	1.00
Darsil-----	28	Somewhat limited Seepage Depth to bedrock	0.54 0.50	Very limited Thin layer Seepage	1.00 0.02	Very limited Depth to water	1.00
Gullied land----	16	Not rated		Not rated		Not rated	
SDND: Stephenville----	40	Somewhat limited Seepage Depth to bedrock	0.72 0.03	Somewhat limited Thin layer	0.66	Very limited Depth to water	1.00
Darsil-----	30	Somewhat limited Depth to bedrock	0.66	Very limited Thin layer Seepage	1.00 0.02	Very limited Depth to water	1.00
Newalla-----	19	Somewhat limited Depth to bedrock	0.01	Somewhat limited Thin layer	0.11	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SevA: Severn-----	95	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.01	Very limited Depth to water	1.00
ShmC: Shermore-----	85	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 0.84	Somewhat limited Slow refill Cutbanks cave Depth to water	0.28 0.10 0.07
ShmC2: Shermore-----	85	Somewhat limited Seepage	0.72	Somewhat limited Piping Depth to saturated zone	0.95 0.84	Somewhat limited Slow refill Cutbanks cave Depth to water	0.28 0.10 0.07
SOWD: Stephenville-----	58	Somewhat limited Seepage Depth to bedrock	0.72 0.03	Somewhat limited Thin layer	0.66	Very limited Depth to water	1.00
Oil waste land---	32	Not rated		Not rated		Not rated	
StdB: Stidham-----	97	Very limited Seepage	1.00	Somewhat limited Seepage	0.09	Very limited Depth to water	1.00
SteB: Stephenville-----	90	Somewhat limited Seepage Depth to bedrock	0.72 0.03	Somewhat limited Thin layer	0.66	Very limited Depth to water	1.00
SteC2: Stephenville-----	85	Somewhat limited Seepage Depth to bedrock	0.72 0.06	Somewhat limited Thin layer	0.77	Very limited Depth to water	1.00
SvnA: Severn-----	90	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
TlhA: Tulahassee-----	88	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.06	Somewhat limited Cutbanks cave	0.10
TlrA: Teller-----	100	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
TlrB: Teller-----	100	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
TlrC2: Teller-----	100	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00

Soil Survey of Okfuskee County, Oklahoma

Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UstA: Ustibuck-----	90	Not limited		Somewhat limited Hard to pack	0.84	Very limited Depth to water	1.00
VrdA: Verdigris-----	92	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.63	Very limited Depth to water	1.00
VrgA: Verdigris-----	95	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.63	Very limited Depth to water	1.00
W: Water-----	100	Not rated		Not rated		Not rated	
WeLE: Weleetka-----	88	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.39	Very limited Cutbanks cave	1.00
WynA: Wynona-----	88	Not limited		Very limited Depth to saturated zone	1.00	Very limited Slow refill Cutbanks cave	1.00 0.10
YahA: Yahola-----	95	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classification, and the physical and chemical properties of the major layers of each soil. Pertinent soil and water features also are given.

Engineering Index Properties

The table "Engineering Index Properties" gives estimates of the engineering classification and of the range of index properties for the major layers of each soil in the survey area. Most soils have layers of contrasting properties within the upper 5 or 6 feet.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given in the series descriptions in this survey.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as 15 percent, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the system adopted by the American Association of State Highway and Transportation Officials (1) and the Unified soil classification system (2).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, SP-SM.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil

Soil Survey of Okfuskee County, Oklahoma

that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

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Engineering Index Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index	
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40			200
	In											
BctB: Bates-----	0-12	Loam	CL-ML, ML, CL	A-4, A-6	0	0	90-100	85-100	75-95	55-75	20-40	3-15
	12-19	Loam, clay loam, sandy clay loam	SM, SC, CL, ML	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	19-33	Clay loam, loam, sandy clay loam	SM, SC, ML, CL	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	33-39	Clay loam, loam, sandy clay loam, gravelly sandy clay loam, gravelly clay loam, gravelly loam	CL, SC, SC-SM	A-2, A-4, A-6	0	0-15	55-80	45-80	35-75	15-65	20-35	5-15
	39-45	Bedrock			---	---	---	---	---	---	---	---
BctC: Bates-----	0-12	Loam	CL, CL-ML, ML	A-4, A-6	0	0	90-100	85-100	75-95	55-75	20-40	3-15
	12-18	Loam, clay loam, sandy clay loam	CL, SM, ML, SC	A-7, A-4, A-6	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	18-28	Sandy clay loam, clay loam, clay loam	CL, ML, SC, SM	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	28-38	Sandy clay loam, clay loam, loam	SM, SC, CL, ML	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	38-42	Bedrock			---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>											
BctC2: Bates-----	0-6 6-12	Loam Loam, clay loam, sandy clay loam	ML, CL-ML, CL SM, SC, CL, ML	A-4, A-6 A-4, A-6, A-7	0 0	0 0	90-100 85-100	85-100 85-100	75-95 70-95	55-75 35-80	20-40 25-45	3-15 3-20
	12-26	Loam, sandy clay loam, clay loam	SC, SM, CL, ML	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	26-36	Gravelly sandy clay loam, clay loam, loam, sandy clay loam, clay loam, loam, sandy clay loam, gravelly clay loam, gravelly loam	SC-SM, SC, CL A-2, A-4, A-6		0	0-15	55-80	45-80	35-75	15-65	20-35	5-15
	36-40	Bedrock			---	---	---	---	---	---	---	---
BoYA: Boley-----	0-6 6-42	Silt loam Silt loam, silty clay loam	CL CL	A-4, A-6 A-4, A-6, A-7	0 0	0 0	100 100	100 100	96-100 96-100	80-97 80-98	30-37 30-50	8-13 8-25
	42-48	Silt loam, silty clay loam, silty clay	CL, CH	A-4, A-6, A-7	0	0	100	100	96-100	80-99	30-60	8-34
	48-73	Silty clay, silt loam, silty clay loam	CL, CH	A-4, A-6, A-7	0	0	100	100	96-100	80-99	30-60	8-34
	73-88	Silty clay loam, silt loam, silty clay	CL, CH	A-4, A-6, A-7	0	0	100	100	96-100	80-99	30-60	8-34

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200			
	In				Pct	Pct					Pct		
Caaa: Canadian----	0-8	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	8-14	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	14-30	Fine sandy loam, loam, sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-85	14-29	NP-7
	30-65	Fine sandy loam, loam, loamy fine sand	CL-ML, ML, SC-SM, SM	A-2, A-3, A-4	0	0	100	100	100	82-100	5-85	0-29	NP-7
ClrB: Clearview---	0-3	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	3-8	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	8-14	Loam, fine sandy loam	SC-SM, SM, CL-ML, ML	A-4, A-6	0	0	100	100	100	94-100	36-90	14-35	NP-13
	14-23	Clay loam, sandy clay loam, loam	CL, SC	A-4, A-6	0	0	100	100	100	90-100	36-85	25-40	7-18
	23-31	Clay loam, sandy clay loam, loam	CL, SC	A-4, A-6	0	0	100	100	100	90-100	36-85	25-40	7-18
	31-40	Bedrock			---	---	---	---	---	---	---	---	---
ClrC: Clearview---	0-8	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	8-13	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	13-23	Loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-4, A-6	0	0	100	100	100	94-100	36-90	14-35	NP-13
	23-35	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	100	100	100	90-100	36-85	25-40	7-18
	35-40	Bedrock			---	---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40			200
	In				Pct	Pct			Pct			
ClrC2: Clearview---	0-6	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	6-19	Sandy clay loam, clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	19-26	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	26-30	Gravelly sandy clay loam, gravelly clay loam, gravelly loam, sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	100	75-100	72-100	27-85	25-40	7-18
	30-40	Bedrock			---	---	---	---	---	---	---	---
CoBC: Coweta-----	0-11	Loam	CL, CL-ML, ML	A-4	0	0-15	90-100	85-100	80-90	55-85	15-31	NP-10
	11-19	Gravelly loam, loam, fine sandy loam, gravelly fine sandy loam, clay loam, gravelly clay loam	CL, ML, SC, SM	A-2, A-4, A-6	0	0-25	60-95	55-90	50-90	20-80	15-35	2-15
	19-25	Bedrock			---	---	---	---	---	---	---	---
	0-11	Loam	CL, CL-ML, ML	A-4, A-6	0	0	90-100	85-100	75-95	55-75	20-40	3-15
	11-14	Loam, clay loam, sandy clay loam	CL, ML, SC, SM	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
Bates-----	14-25	Loam, clay loam, sandy clay loam	CL, ML, SC, SM	A-4, A-6, A-7	0	0	85-100	85-100	70-95	35-80	25-45	3-20
	25-30	Bedrock			---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties --Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
											Pct		
CouB: Choteau-----	In												
	0-9	Loam	CL	A-4, A-6	0	0	100	100	96-100	80-97	30-37	8-13	
	9-18	Loam	CL	A-4, A-6	0	0	100	100	96-100	80-97	30-37	8-13	
	18-24	Loam, silt loam	CL	A-4, A-6	0	0	100	100	96-100	65-97	30-37	8-14	
	24-32	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	100	96-100	80-98	33-43	12-20	
32-48	Silty clay, clay loam, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34		
48-80	Silty clay, clay loam, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34		
CouC: Choteau-----	0-16	Loam	CL	A-4, A-6	0	0	100	100	96-100	80-97	30-37	8-13	
	16-20	Loam, silt loam	CL	A-4, A-6	0	0	100	100	96-100	65-97	30-37	8-14	
	20-26	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	100	96-100	80-98	33-43	12-20	
	26-47	Silty clay, clay loam, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34	
	47-72	Silty clay, clay loam, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34	
CskB: Chickasha---	0-7	Loam	CL	A-4, A-6	0	0	100	100	96-100	50-97	22-35	8-14	
	7-23	Loam, clay loam, sandy clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18	
	23-37	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18	
	37-59	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18	
	59-65	Bedrock			---	---	---	---	---	---	---	---	
DAM. Large dam													

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
											Pct		
	In												
DenB: Dennis-----	0-8	Silt loam	CL, ML, CL-ML	A-4, A-6	0	0	100	100	100	96-100	65-97	22-37	2-14
	8-15	Silt loam, loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	100	96-100	75-97	22-37	2-14
	15-22	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	100	100	96-100	80-98	33-42	12-19
	22-50	Silty clay, clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	100	100	96-100	80-99	37-60	16-34
	50-62	Silty clay loam, silty clay, clay, clay loam	CH, CL	A-6, A-7	0	0	100	100	100	98-100	90-99	37-60	16-34
	62-83	Silty clay loam, silty clay, clay, clay loam	CH, CL	A-6, A-7	0	0	100	100	100	98-100	90-99	37-60	16-34
DenC: Dennis-----	0-12	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	100	96-100	65-97	22-37	2-14
	12-16	Silt loam, loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	100	96-100	75-97	22-37	2-14
	16-20	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	100	100	96-100	80-98	33-42	12-19
	20-39	Silty clay, clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	100	100	96-100	80-99	37-60	16-34
	39-54	Silty clay, clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	100	100	96-100	80-99	37-60	16-34
	54-80	Silty clay, clay, silty clay loam, clay loam	CL, CH	A-6, A-7	0	0	100	100	100	96-100	80-99	37-60	16-34

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index
			Unified	AASTHO	>10 inches	3-10 inches	4	10	40		
	In										
Denc2: Dennis-----	0-6 6-14	Silt loam Silty clay loam, clay loam	ML, CL-ML, CL CL	A-4, A-6 A-6, A-7	0 0	0 0	100 100	100 100	96-100 96-100	22-37 33-42	2-14 12-19
	14-26	Silty clay, clay, silty clay loam, clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	37-60	16-34
	26-46	Silty clay, clay, silty clay loam, clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	37-60	16-34
	46-80	Silty clay, clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	37-60	16-34
DEPD3: Dennis-----	0-6 6-16	Silt loam Silty clay loam, clay loam	ML, CL, CL-ML CL	A-4, A-6 A-6, A-7	0 0	0 0	100 100	100 100	96-100 96-100	22-37 33-42	2-14 12-19
	16-28	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	37-60	16-34
	28-42	Clay, silty clay, silty clay loam, clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	37-60	16-34
	42-64	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	37-60	16-34
Eram-----	0-5 5-20	Silty clay loam Clay, silty clay, clay loam	CL CH, CL	A-6, A-7 A-6, A-7	0 0	0 0	75-100 95-100	75-100 95-100	70-98 80-99	33-50 37-60	12-26 16-34
	20-34	Clay, silty clay, clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	80-99	37-60	16-34
	34-44	Bedrock			---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
											Pct		
<u>In</u>													Pct
DEPD3: Pharoah-----	0-7	Silt loam	CL	A-4, A-6	0	0	100	100	96-100	80-97	30-37	8-13	
	7-11	Silt loam	CL	A-4, A-6	0	0	100	100	96-100	80-97	30-37	8-13	
	11-27	Clay, silty clay	CL, CH	A-7	0	0	100	100	96-100	90-99	41-70	26-45	
	27-50	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45	
	50-61	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45	
	61-81	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45	
<u>DsSC:</u>													
Darsil-----	0-4	Loamy fine sand	SM	A-2	0	0	98-100	98-100	85-100	15-35	0-14	NP	
	4-12	Loamy fine sand, fine sand	SM, SP-SM	A-2, A-3	0	0	75-100	70-100	50-100	3-35	0-14	NP	
	12-15	Bedrock			---	---	---	---	---	---	---	---	
<u>Stephenville</u>													
Darsil-----	0-4	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0-15	83-100	83-100	80-100	11-60	14-26	NP-7	
	4-14	Fine sandy loam, loamy fine sand	SC-SM, SM, ML, CL-ML	A-2, A-4	0	0-15	85-100	85-100	76-100	12-60	0-26	NP-7	
	14-26	Sandy clay loam, fine sandy loam	SC-SM, SC, CL, CL-ML	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16	
	26-40	Bedrock			---	---	---	---	---	---	---	---	
<u>DsSE:</u>													
Darsil-----	0-6	Loamy fine sand	SM	A-2	0	0	98-100	98-100	85-100	15-35	0-14	NP	
	6-18	Loamy fine sand, fine sand	SM, SP-SM	A-2, A-3	0	0	75-100	70-100	50-100	3-35	0-14	NP	
	18-25	Bedrock			---	---	---	---	---	---	---	---	

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties --Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
DsSE: Stephenville	0-6	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0-15	83-100	83-100	80-100	11-60	14-26	NP-7
	6-13	Fine sandy loam, loamy fine sand	SM, SC-SM, ML, CL-ML	A-2, A-4	0	0-15	85-100	85-100	76-100	12-60	0-26	NP-7
	13-20	Sandy clay loam, fine sandy loam	CL-ML, CL, SC, SC-SM	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	20-26	Sandy clay loam, fine sandy loam	SC, CL, SC-SM, CL-ML	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	26-30	Bedrock			---	---	---	---	---	---	---	---
Ef1B: Eufaula-----	0-10 10-34	Loamy fine sand Loamy fine sand, fine sand	SM SP-SM, SM	A-2 A-2, A-3	0 0	0 0	100 100	100 100	90-100 82-100	15-35 3-35	0-14 0-14	NP NP-4
	34-80	Loamy fine sand, fine sandy loam	ML, SC-SM, SM, SP-SM	A-2, A-3, A-4	0	0	100	100	82-100	3-60	0-26	NP-7
Ef1E: Eufaula-----	0-12 12-50	Loamy fine sand Loamy fine sand, fine sand	SM SM, SP-SM	A-2 A-2, A-3	0 0	0 0	100 100	100 100	90-100 82-100	15-35 3-35	0-14 0-14	NP NP-4
	50-80	Loamy fine sand, fine sandy loam	SC-SM, SP-SM, SM, ML	A-2, A-3, A-4	0	0	100	100	82-100	3-60	0-26	NP-7
EnHE: Endsaw-----	0-4	Stony fine sandy loam	SM, SC-SM, CL-ML, ML	A-2, A-4	0-5	15-35	65-95	60-90	50-80	20-55	14-26	NP-7
	4-11	Stony fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-5	15-35	65-95	60-90	50-80	20-55	14-26	NP-7
	11-22	Clay, silty clay	CH, CL	A-7	0	0-5	75-100	70-98	68-96	65-95	41-60	18-32
	22-48	Clay, silty clay	CH, CL	A-7	0	0-5	75-100	70-98	68-96	65-95	41-60	18-32
	48-54	Bedrock			---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquidity limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200			
EnHE: Hector-----	<u>In</u>												
	0-3	Very stony fine sandy loam	GC-GM, GM, SC-SM, SM	A-2, A-4	20-40	0-30		50-95	50-95	40-65	30-50	0-25	NP-7
	3-8	Very stony fine sandy loam	GM, SM, SC-SM, GC-GM	A-2, A-4	20-40	0-30		50-95	50-95	40-65	30-50	0-25	NP-7
	8-16	Stony fine sandy loam, gravelly fine sandy loam, gravelly loam	GC-GM, SM, SC-SM, GM	A-2, A-4	0-5	0-10		55-100	55-95	50-70	30-50	0-25	NP-7
	16-25	Bedrock			0	---		---	---	---	---	---	---
EnHG: Endsaw-----													
	0-4	Stony fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-5	15-35		65-95	60-90	50-80	20-55	14-26	NP-7
	4-14	Stony fine sandy loam	CL-ML, SM, SC-SM, ML	A-2, A-4	0-5	15-35		65-95	60-90	50-80	20-55	14-26	NP-7
	14-21	Clay, silty clay	CH, CL	A-7	0	0-5		75-100	70-98	68-96	65-95	41-60	18-32
	21-41	Clay, silty clay	CH, CL	A-7	0	0-5		75-100	70-98	68-96	65-95	41-60	18-32
	41-50	Clay, silty clay	CL, CH	A-7	0	0-5		75-100	70-98	68-96	65-95	41-60	18-32
	50-60	Bedrock			---	---		---	---	---	---	---	---
Hector-----													
	0-3	Stony fine sandy loam	GC-GM, SM, SC-SM, GM	A-2, A-4	20-40	0-30		50-95	50-95	40-65	30-50	0-25	NP-7
	3-6	Stony fine sandy loam	SM, GC-GM, GM, SC-SM	A-2, A-4	20-40	0-30		50-95	50-95	40-65	30-50	0-25	NP-7
	6-12	Stony fine sandy loam, gravelly fine sandy loam, gravelly loam	GC-GM, SM, SC-SM, GM	A-2, A-4	0-5	0-10		55-100	55-95	50-70	30-50	0-25	NP-7
	12-20	Bedrock			0	---		---	---	---	---	---	---
EraE: Eram-----													
	0-8	Clay loam	CL	A-6, A-7	0	0		75-100	75-100	75-100	70-98	33-50	12-26
	8-22	Silty clay, clay, clay loam	CH, CL	A-6, A-7	0	0		95-100	95-100	95-100	80-99	37-60	16-34
	22-38	Silty clay, clay, clay loam	CH, CL	A-6, A-7	0	0		95-100	95-100	95-100	80-99	37-60	16-34
	38-45	Bedrock			---	---		---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AASTHO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
ErCF: Eram-----	0-10	Silt loam	CL	A-4, A-6	0	0	75-100	75-100	75-100	68-90	30-37	8-13
	10-24	Silty clay, clay, clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	95-100	80-99	37-60	16-34
	24-35	Silty clay, clay, clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	95-100	80-99	37-60	16-34
	35-40	Bedrock			---	---	---	---	---	---	---	---
Coweta-----	0-8	Loam	CL, CL-ML, ML	A-4	0	0-15	90-100	85-100	80-90	55-85	15-31	NP-10
	8-11	Gravelly loam, gravelly clay loam, gravelly fine sandy loam	CL, ML, SC, SM	A-2, A-4, A-6	0	0-25	60-95	55-90	50-90	20-80	15-35	2-15
	11-14	Bedrock			---	---	---	---	---	---	---	---
ErmC: Eram-----	0-9	Silt loam	CL	A-4, A-6	0	0	75-100	75-100	75-100	68-90	30-37	8-13
	9-20	Silty clay, clay, clay loam	CH, CL	A-7, A-6	0	0	95-100	95-100	95-100	80-99	37-60	16-34
	20-36	Silty clay, clay, clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	95-100	80-99	37-60	16-34
	36-40	Bedrock			---	---	---	---	---	---	---	---
ErRE: Eram-----	0-10	Silt loam	CL	A-4, A-6	0	0	75-100	75-100	75-100	68-90	30-37	8-13
	10-30	Silty clay, clay, clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	95-100	80-99	37-60	16-34
	30-38	Silty clay, clay, clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	95-100	80-99	37-60	16-34
	38-50	Bedrock			---	---	---	---	---	---	---	---
Radley-----	0-13	Silt loam	CL-ML, CL	A-4, A-6	0	0	100	100	96-100	80-97	25-35	7-15
	13-30	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	80-98	28-43	8-21
	30-80	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	80-98	28-43	8-21

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
GadA: Gaddy-----	0-9 9-19 19-80	Loamy fine sand Loamy fine sand Stratified fine sand to clay loam	SP-SM, SM SM, SP-SM SM, ML, SP-SM, CL	A-2, A-3 A-2, A-3 A-2, A-3, A-4, A-6	0 0 0	0 0 0	100 100 100	98-100 98-100 98-100	80-100 80-100 80-100	5-35 5-35 5-90	0-14 0-14 0-40	NP NP NP-18
GalB: Galey-----	0-7 7-12 12-19 19-34 34-54 54-80	Fine sandy loam Fine sandy loam Loam Clay loam, sandy clay loam, fine sandy loam Clay loam, sandy clay loam, fine sandy loam Sandy clay loam, clay loam, fine sandy loam	ML, CL-ML, SC-SM, SM CL-ML, ML, SC-SM, SM ML, CL-ML, SC-SM, SM CL, SC, CL-ML, SC-SM CL, SC-SM, SC, CL-ML CL, CL-ML, SC, SC-SM	A-4 A-4 A-4 A-4, A-6, A-7	0 0 0 0	0 0 0 0	100 100 100 100	100 100 100 100	94-100 94-100 94-100 90-100	36-60 36-60 36-60 36-90	14-26 14-26 14-26 14-43	NP-7 NP-7 NP-7 NP-20
GalC: Galey-----	0-6 6-12 12-31 31-43 43-80	Fine sandy loam Fine sandy loam Sandy clay loam, fine sandy loam, clay loam Sandy clay loam, fine sandy loam, clay loam Sandy clay loam, fine sandy loam, clay loam	ML, SM, SC-SM, CL-ML SM, ML, CL-ML, SC-SM SC-SM, SC, CL-ML, CL SC-SM, SC, CL, CL-ML CL, CL-ML, SC, SC-SM	A-4 A-4 A-4, A-6, A-7	0 0 0	0 0 0	100 100 100	100 100 100	94-100 94-100 90-100	36-60 36-60 36-90	14-26 14-26 14-43	NP-7 NP-7 NP-20

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40			200
	In				Pct	Pct				Pct		
GalC2: Galey-----	0-7	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	7-22	Sandy clay loam, fine sandy loam, clay loam	SC, CL, CL-ML, SC-SM	A-4, A-6, A-7	0	0	100	100	90-100	36-90	14-43	NP-20
	22-44	Clay loam, sandy clay loam, fine sandy loam	SC, CL, SC-SM, CL-ML	A-4, A-6, A-7	0	0	100	100	90-100	36-90	14-43	NP-20
	44-68	Clay loam, sandy clay loam, fine sandy loam	SC-SM, SC, CL-ML, CL	A-4, A-6, A-7	0	0	100	100	90-100	36-90	14-43	NP-20
	68-79	Sandy clay loam, fine sandy loam, clay loam	SC-SM, SC, CL, CL-ML	A-4, A-6, A-7	0	0	100	100	90-100	36-90	14-43	NP-20
GdyA: Gaddy-----	0-11	Loamy fine sand	SM, SP-SM	A-2, A-3	0	0	100	98-100	80-100	5-35	0-14	NP
	11-22	Stratified fine sand to clay loam	SP-SM, SM, ML, CL	A-2, A-3, A-4, A-6	0	0	100	98-100	80-100	5-90	0-40	NP-18
	22-80	Stratified fine sand to clay loam	SM, CL, ML, SP-SM	A-2, A-3, A-4, A-6	0	0	100	98-100	80-100	5-90	0-40	NP-18
GhLB: Glentosh----	0-8	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	8-30	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	100	82-100	3-35	0-14	NP
	30-52	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	100	82-100	3-35	0-14	NP
	52-80	Fine sand, loamy fine sand, sand	SP-SM, SM	A-2, A-3	0	0	100	100	82-100	3-35	0-14	NP

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
GhLB: Larton-----	0-25	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	25-38	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	38-62	Sandy clay loam, loam, fine sandy loam	SM, SC, CL-ML, ML	A-4, A-6	0	0	100	100	90-100	36-90	14-37	NP-16
	62-80	Fine sandy loam	SC, CL	A-4, A-6	0	0	100	100	90-100	36-65	25-37	7-16
GhLE: Glentosh-----	0-5	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	5-36	Loamy fine sand, fine sand, fine sand, fine sand, sand	SP-SM, SM	A-2, A-3	0	0	100	100	82-100	3-35	0-14	NP
	36-58	Loamy fine sand, fine sand, fine sand, sand	SP-SM, SM	A-2, A-3	0	0	100	100	82-100	3-35	0-14	NP
	58-80	Sand, fine sand, loamy fine sand	SM, SP-SM	A-2, A-3	0	0	100	100	82-100	3-35	0-14	NP
GrIC2: Grainola-----	0-2	Silty clay loam	CL	A-6, A-7	0-6	0-10	80-100	75-100	72-100	60-98	33-43	12-20
	2-8	Clay loam, silty clay, clay	CL, SC, CH	A-6, A-7	0-6	0-10	80-100	75-100	72-100	49-98	37-60	15-34
	8-16	Clay, silty clay, clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
	16-39	Clay, silty clay, clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
39-52	Bedrock			---	---	---	---	---	---	---	---	
HeCC: Hector-----	0-6	Fine sandy loam	SC-SM, SM, ML, CL-ML	A-4	0	0	80-100	75-100	70-95	40-75	15-25	NP-7
	6-14	Gravelly fine sandy loam, fine sandy loam, gravelly loam	SM, ML, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-15	55-100	55-100	35-95	20-65	15-25	NP-7
	14-20	Bedrock			0	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
HeCC: Clearview---	0-8	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	8-23	Sandy clay loam, clay loam, loam	SC, CL	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	23-36	Sandy clay loam, clay loam, loam	CL, SC	A-6, A-4	0	0	100	100	90-100	36-85	25-40	7-18
	36-38	Bedrock			---	---	---	---	---	---	---	---
HeCE: Hector-----	0-5	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	80-100	75-100	70-95	40-75	15-25	NP-7
	5-13	Gravelly fine sandy loam, fine sandy loam, gravelly loam	SM, GC-GM, GM, ML	A-1-b, A-2, A-4	0-5	0-15	55-100	55-100	35-95	20-65	15-25	NP-7
	13-20	Bedrock			0	---	---	---	---	---	---	---
Clearview---	0-6	Fine sandy loam	ML, SM, SC-SM, CL-ML	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	6-12	Fine sandy loam, loam	SC-SM, CL-ML, ML, SM	A-4, A-6	0	0	100	100	94-100	36-90	14-35	NP-13
	12-23	Sandy clay loam, clay loam, loam	SC, CL	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	23-27	Sandy clay loam, clay loam, loam, gravelly sandy clay loam, gravelly clay loam, gravelly loam	SC, CL	A-4, A-6	0	0	100	75-100	72-100	27-85	25-40	7-18
	27-30	Bedrock			---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200			
	In				Pct	Pct					Pct		
KarB: Karma-----													
	0-9	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	9-15	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	15-29	Sandy clay loam, clay loam	SC, CL	A-4, A-6	0	0	100	100	100	90-100	36-90	25-40	7-20
	29-46	Sandy clay loam, clay loam	SC, CL	A-4, A-6	0	0	100	100	100	90-100	36-90	25-40	7-20
KarC: Karma-----	46-80	Fine sandy loam, loam, sandy clay loam	CL, CL-ML, ML, SM	A-4, A-6	0	0	100	100	100	90-100	36-85	15-37	NP-16
	0-9	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	9-13	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	13-34	Sandy clay loam, clay loam	SC, CL	A-4, A-6	0	0	100	100	100	90-100	36-90	25-40	7-20
	34-80	Fine sandy loam, loam, sandy clay loam	CL, SM, ML, CL-ML	A-4, A-6	0	0	100	100	100	90-100	36-85	15-37	NP-16
KarD2: Karma-----	0-3	Fine sandy loam	SC-SM, SM, ML, CL-ML	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	3-10	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	100	94-100	36-60	14-26	NP-7
	10-38	Sandy clay loam, clay loam	CL, SC	A-4, A-6	0	0	100	100	100	90-100	36-90	25-40	7-20
	38-55	Sandy clay loam, clay loam	SC, CL	A-4, A-6	0	0	100	100	100	90-100	36-90	25-40	7-20
	55-80	Fine sandy loam, loam, sandy clay loam	SM, CL-ML, ML, CL	A-4, A-6	0	0	100	100	100	90-100	36-85	15-37	NP-16

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40			200
	In				Pct	Pct				Pct		
KarE4: Karma-----												
	0-4	Fine sandy loam	SC-SM, SM, CL-ML, ML	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	4-13	Fine sandy loam	ML, CL-ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	13-36	Sandy clay loam, clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-90	25-40	7-20
	36-49	Sandy clay loam, clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-90	25-40	7-20
KimA: Kiomatia-----	49-80	Fine sandy loam, loam, sandy clay loam	ML, SM, CL-ML, CL	A-4, A-6	0	0	100	100	90-100	36-85	15-37	NP-16
	0-7	Fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	80-100	30-45	16-26	NP-7
	7-18	Stratified fine sand to loam	SC-SM, SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
	18-22	Stratified fine sand to loam	SM, SC-SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
	22-80	Stratified fine sand to loam	SC-SM, SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
KmfA: Kiomatia-----	0-6	Fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	80-100	30-45	16-26	NP-7
	6-10	Stratified fine sand to loam	SM, SC-SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
	10-16	Stratified fine sand to loam	SC-SM, SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
	16-29	Stratified fine sand to loam	SM, SC-SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
	29-40	Stratified fine sand to loam	SC-SM, SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5
	40-80	Stratified fine sand to loam	SC-SM, SM	A-2-4	0	0	100	95-100	80-100	13-30	16-22	NP-5

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
	In				Pct	Pct						Pct	
KOGE4: Konawa-----	0-12	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7	
	12-20	Fine sandy loam, loamy fine sand, fine sand	CL-ML, ML, SC-SM, SM	A-2, A-3, A-4	0	0	100	98-100	82-100	3-60	0-26	NP-7	
	20-36	Sandy clay loam, fine sandy loam, fine sandy loam	SC, SM, ML, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16	
	36-80	Fine sandy loam, sandy clay loam, loamy fine sand	SC-SM, SM, ML, CL-ML	A-2, A-4, A-6	0	0	100	98-100	90-100	15-65	0-37	NP-16	
Gullied land.													
KOWB: Konawa-----	0-6	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7	
	6-11	Fine sandy loam	SM, CL-ML, SC-SM, ML	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7	
	11-17	Loamy fine sand, fine sandy loam, fine sand	SM, CL-ML, ML, SC-SM	A-2, A-3, A-4	0	0	100	98-100	82-100	3-60	0-26	NP-7	
	17-33	Sandy clay loam, fine sandy loam	CL, ML, SC, SM	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16	
	33-52	Sandy clay loam, fine sandy loam	CL, SM, SC, ML	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16	
	52-80	Fine sandy loam, sandy clay loam, loamy fine sand	SM, CL-ML, ML, SC-SM	A-2, A-4, A-6	0	0	100	98-100	90-100	15-65	0-37	NP-16	

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number--			Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct				Pct		
KowC: Konawa-----	0-11	Fine sandy loam	CL-ML, SM, SC-SM, ML	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7
	11-18	Fine sandy loam, loamy fine sand, fine sand	SM, CL-ML, ML, SC-SM	A-2, A-3, A-4	0	0	100	98-100	82-100	3-60	0-26	NP-7
	18-48	Sandy clay loam, fine sandy loam, fine sand	CL, SM, SC, ML	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16
	48-80	Fine sandy loam, sandy clay loam, loamy fine sand	SM, CL-ML, ML, SC-SM	A-2, A-4, A-6	0	0	100	98-100	90-100	15-65	0-37	NP-16
	0-4	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7
KowD2: Konawa-----	4-13	Fine sandy loam, loamy fine sand, fine sand	ML, CL-ML, SC-SM, SM	A-2, A-3, A-4	0	0	100	98-100	82-100	3-60	0-26	NP-7
	13-37	Sandy clay loam, fine sandy loam, fine sand	SM, SC, ML, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16
	37-88	Fine sandy loam, sandy clay loam, loamy fine sand	SM, ML, SC-SM, CL-ML	A-2, A-4, A-6	0	0	100	98-100	90-100	15-65	0-37	NP-16
	0-12	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	12-28	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
LrtB: Larton-----	28-42	Sandy clay loam, loam, fine sandy loam	CL-ML, ML, SC, SM	A-4, A-6	0	0	100	100	90-100	36-90	14-37	NP-16
	42-63	Sandy clay loam, loam, fine sandy loam	SM, CL-ML, ML, SC	A-4, A-6	0	0	100	100	90-100	36-90	14-37	NP-16
	63-80	Fine sandy loam	SC, CL	A-4, A-6	0	0	100	100	90-100	36-65	25-37	7-16

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number --			Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
LrtD:	<u>In</u>											
Larton-----	0-6	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	6-30	Loamy fine sand	SM	A-2	0	0	100	100	90-100	15-35	0-14	NP
	30-48	Sandy clay loam, loam, fine sandy loam	CL-ML, SC, SM, ML	A-4, A-6	0	0	100	100	90-100	36-90	14-37	NP-16
	48-80	Sandy clay loam	SC, CL	A-4, A-6	0	0	100	100	90-100	36-65	25-37	7-16
LtgA:												
Lightning---	0-8	Silt loam	CL	A-4, A-6	0	0	100	100	96-100	80-98	30-37	8-13
	8-16	Silty clay loam, silt loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	90-98	30-42	8-19
	16-32	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	32-80	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45
M-W:												
Miscellaneous water												
MasA:												
Mason-----	0-6	Loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	96-100	70-97	22-37	2-14
	6-14	Loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	96-100	70-97	22-37	2-14
	14-26	Silty clay loam, clay loam, silt loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	75-98	30-43	8-20
	26-46	Silty clay loam, clay loam, silt loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	75-98	30-43	8-20
	46-65	Clay loam, silty clay loam, silt loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	75-98	30-43	8-20
	65-80	Silty clay loam, clay loam, silt loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	75-98	30-43	8-20

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Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquidity limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
MaTA:	<u>In</u>											
Madill-----	0-14	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	100	100	94-100	36-60	15-26	NP-7
	14-19	Fine sandy loam, loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	19-38	Loamy fine sand, fine sandy loam, sandy loam, loam	CL-ML, SM, SC-SM, ML	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	38-55	Fine sandy loam, loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	55-80	Fine sandy loam, loam, loamy fine sand	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0	100	100	90-100	15-85	0-29	NP-7
Tulahassee-												
	0-13	Fine sandy loam	CL-ML, ML, SM, SC-SM	A-4	0	0	100	100	94-100	36-85	14-26	NP-7
	13-19	Fine sandy loam, loam	ML, CL-ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	19-45	Fine sandy loam, loam	CL-ML, SM, SC-SM, ML	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	45-80	Loamy fine sand, fine sandy loam, loam	ML, CL-ML, SM, SC-SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
MdIA:												
Madill-----	0-13	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	100	100	94-100	36-60	15-26	NP-7
	13-25	Loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	25-38	Fine sandy loam, loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	38-51	Loamy fine sand, loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0	0	100	100	90-100	15-85	0-29	NP-7
	51-80	Loamy fine sand, loam, fine sandy loam	SC-SM, CL-ML, ML, SM	A-2, A-4	0	0	100	100	90-100	15-85	0-29	NP-7

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
MrwB: Muldrow-----												
	0-8	Silty clay loam	CL	A-6, A-7	0	0	100	100	96-100	80-98	33-50	12-26
	8-18	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
	18-31	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
MshD: Masham-----	31-80	Silty clay, silty clay loam, clay	CH, MH, CL, ML	A-6, A-7	0	0	100	100	96-100	80-99	37-60	12-34
	0-8	Silty clay loam	CL	A-6, A-7	0	0	90-100	85-100	80-100	70-98	37-50	15-26
	8-20	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	90-100	90-100	85-100	80-99	37-60	15-34
	20-25	Bedrock			---	---	---	---	---	---	---	---
NviB: Navina-----	0-14	Loam	CL	A-4, A-6	0	0	100	100	96-100	50-97	22-35	8-14
	14-19	Clay loam, loam, sandy clay loam	ML, CL, SC, SM	A-4, A-6, A-7	0	0	100	100	94-100	36-85	14-43	NP-20
	19-32	Clay loam, loam, sandy clay loam	SM, CL, ML, SC	A-4, A-6, A-7	0	0	100	100	94-100	36-85	14-43	NP-20
	32-46	Clay loam, sandy clay loam, fine sandy loam	SC, SM, ML, CL	A-4, A-6, A-7	0	0	100	98-100	94-100	36-85	14-43	NP-20
	46-80	Sandy clay loam, loam, fine sandy loam	SM, CL-ML, ML, SC-SM	A-4, A-6, A-7	0	0	100	98-100	94-100	36-85	14-43	NP-18

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
NviC2: Navina-----												
		Loam	CL	A-4, A-6	0	100	100	100	96-100	50-97	22-35	8-14
	0-6	Loam	CL	A-4, A-6	0	100	100	100	96-100	50-97	22-35	8-14
	6-12	Clay loam, loam, sandy	CL, SM, SC, ML	A-4, A-6, A-7	0	100	100	100	94-100	36-85	14-43	NP-20
	12-24	clay loam	SM, SC, CL, ML	A-4, A-6, A-7	0	100	98-100	94-100	36-85	14-43	NP-20	
	24-33	clay loam, sandy clay loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-4, A-6, A-7	0	100	98-100	94-100	36-85	14-43	NP-18	
	33-48	Clay loam, fine sandy loam, sandy clay loam, loam	CL-ML, SC-SM, SM, ML	A-4, A-6, A-7	0	100	98-100	94-100	36-85	14-43	NP-18	
	48-80	Loam, sandy clay loam, fine sandy loam	CL-ML, SC-SM, SM, ML	A-4, A-6, A-7	0	100	98-100	94-100	36-85	14-43	NP-18	
NzDE: Niotaze-----												
	0-2	Very cobbly fine sandy loam	GM, GC-GM, SC-SM, SM	A-1, A-4, A-2-4,	0	25-50	50-75	35-60	15-45	0-26	NP-7	
	2-6	Very cobbly fine sandy loam	SC-SM, SM, GM, GC-GM	A-1, A-4, A-2-4	0	25-50	50-75	35-60	15-45	0-26	NP-7	
	6-18	Silty clay, silty clay loam, clay	CL, CH	A-6, A-7-6	0	95-100	95-100	90-100	37-60	15-34		
	18-27	Silty clay, silty clay loam, clay	CL, CH	A-6, A-7-6	0	95-100	95-100	90-100	37-60	15-34		
	27-29	Bedrock			---	---	---	---	---	---	---	---
Darsil-----												
	0-6	Cobbly loamy fine sand	SM	A-2	0	98-100	85-100	15-35	0-14	NP		
	6-19	Loamy fine sand, fine sand	SM, SP-SM	A-2, A-3	0	75-100	70-100	50-100	3-35	0-14	NP	
	19-24	Bedrock			---	---	---	---	---	---	---	

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number --			Liquidity limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>											
OkeB: Okemah-----	0-18 18-24	Silt loam Silty clay loam, silt loam	CL CL	A-4, A-6 A-4, A-6, A-7	0 0	0 0	100 100	100 100	96-100 98-100	80-97 80-98	30-37 30-50	8-13 8-25
	24-48	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
	48-70	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
	70-75	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
OkrA: Oklared-----	0-6	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	6-14	Fine sandy loam, very fine sandy loam, loam	SM, CL, ML, SC	A-4	0	0	100	98-100	94-100	36-97	14-31	NP-10
	14-25	Fine sandy loam, very fine sandy loam, loam	CL, SC, SM, ML	A-4	0	0	100	98-100	94-100	36-97	14-31	NP-10
	25-41	Stratified loamy fine sand to silt loam	CL, SM, SC, ML	A-2, A-4	0	0	100	98-100	90-100	15-97	0-31	NP-10
	41-80	Stratified loamy fine sand to silt loam	ML, CL, SC, SM	A-2, A-4	0	0	100	98-100	90-100	15-97	0-31	NP-10

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40			200
	In											
OPPA: Okemah-----	0-9 9-16	Silt loam Silty clay loam, silt loam	CL CL	A-4, A-6 A-4, A-6, A-7	0 0	0 0	100 100	100 100	96-100 98-100	80-97 80-98	30-37 30-50	8-13 8-25
	16-29	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
	29-40	Silty clay, clay, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
	40-61	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
	61-80	Silty clay, clay, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	90-99	37-60	15-34
Pharoah-----	0-4 4-7 7-24	Silt loam Silt loam Silty clay loam, silty clay	CL CL CH, CL	A-4, A-6 A-4, A-6 A-6, A-7	0 0 0	0 0 0	100 100 100	100 100 100	96-100 96-100 98-100	80-97 80-97 90-99	30-37 30-37 37-60	8-13 8-13 15-34
	24-47	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	47-59	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	59-80	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45
Parsons-----	0-12 12-26 26-41	Silt loam Silt loam, loam Silty clay, silty clay loam, clay	CL-ML, ML, CL ML, CL-ML, CL CH, CL	A-4, A-6 A-4, A-6 A-6, A-7	0 0 0	0 0 0	100 100 100	96-100 96-100 96-100	96-100 96-100 96-100	80-97 80-97 80-99	22-37 22-37 37-60	2-13 2-14 15-34
	41-70	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
	70-80	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number --			Liquidity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
												Pct
	<u>In</u>											
ParA: Parsons-----	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	96-100	96-100	80-97	22-37	2-13
	8-14	Silt loam, loam	CL, CL-ML, ML	A-4, A-6	0	0	100	96-100	96-100	80-97	22-37	2-14
	14-31	Silty clay, silty clay loam, clay	CL, CH	A-6, A-7	0	0	100	96-100	96-100	80-99	37-60	15-34
	31-51	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	100	96-100	96-100	80-99	37-60	15-34
	51-80	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	100	96-100	96-100	80-99	37-60	15-34
PIT. Pits												
POWD: Pharcoah-----	0-5	Silty clay loam	CL	A-6, A-7	0	0	100	100	98-100	90-98	33-50	12-25
	5-12	Silty clay loam	CL	A-6, A-7	0	0	100	100	98-100	90-98	33-50	12-25
	12-30	Silty clay, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	98-100	90-99	37-60	15-34
	30-65	Silty clay, clay	CL, CH	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	65-80	Silty clay, clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-70	26-45
Oil waste land.												

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties --Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquidity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>											
PrmC2: Porum-----	0-7	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0	0	100	100	94-100	36-60	NP-7
	7-11	Fine sandy loam	SC-SM, CL-ML, ML, SM	A-4	0	0	0	100	100	94-100	36-60	NP-7
	11-18	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	0	100	100	96-100	80-99	15-34
	18-48	Clay, silty clay, silty clay loam, clay loam, sandy clay loam	CH, CL	A-6, A-7	0	0	0	100	100	96-100	80-99	15-34
	48-80	Clay, silty clay loam, clay loam, sandy clay loam	SC, CL	A-4, A-6, A-7	0	0	0	100	100	90-100	36-98	7-26
PuLA: Pulaski-----	0-8	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	0	100	100	98-100	36-60	NP-7
	8-18	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	0	100	100	98-100	36-60	NP-7
	18-33	Fine sandy loam, loam	CL-ML, SC-SM, SM, ML	A-4	0	0	0	100	100	98-100	36-85	NP-7
	33-50	Stratified loamy fine sand to loam	CL-ML, SM, SC-SM, ML	A-2, A-4	0	0	0	100	100	98-100	15-85	NP-7
	50-65	Stratified loamy fine sand to loam	ML, CL-ML, SC-SM, SM	A-2, A-4	0	0	0	100	100	98-100	15-85	NP-7
PuTA: Pulaski-----	0-6	Fine sandy loam	ML, SM, SC-SM, CL-ML	A-4	0	0	0	100	100	98-100	36-60	NP-7
	6-12	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	0	100	100	98-100	36-60	NP-7
	12-31	Loam, fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	0	100	100	98-100	36-85	NP-7
	31-38	Stratified loamy fine sand to loam	ML, SC-SM, SC-SM, SM, ML, CL-ML	A-2, A-4	0	0	0	100	100	98-100	15-85	NP-7
	38-65	Stratified loamy fine sand to loam	SM, SC-SM, CL-ML, ML	A-2, A-4	0	0	0	100	100	98-100	15-85	NP-7

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquidity index	
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
PuTA: Tribbey-----	0-7	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7
	7-19	Loam, fine sandy loam, loamy very fine sand	CL-ML, SM, SC-SM, ML	A-4	0	0	100	98-100	90-100	15-85	0-29	NP-7
	19-40	Stratified loamy fine sand to loam	SM, SC-SM, CL-ML, ML	A-2, A-4	0	0	100	98-100	90-100	15-85	0-29	NP-7
	40-80	Loam, clay loam, fine sandy loam	SM, ML, CL-ML, CL	A-4, A-6	0	0	100	98-100	94-100	36-90	14-40	NP-18
RbkA: Roebuck-----	0-12	Clay	CL, CH	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	12-38	Clay, silty clay, clay loam	CL, CH	A-7	0	0	100	100	96-100	80-99	41-70	26-45
	38-48	Silty clay, clay, clay loam	CL, CH	A-7	0	0	100	100	96-100	80-99	41-70	26-45
	48-80	Clay, silty clay, clay loam	CH, CL	A-7	0	0	100	100	96-100	80-99	41-70	26-45
RenC: Renfrow-----	0-8	Silt loam	CL	A-4, A-6	0	0	100	100	96-100	65-97	30-37	8-14
	8-12	Silty clay loam, clay loam, silt loam	CL	A-6, A-7	0	0	100	100	96-100	80-98	30-50	15-26
	12-35	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
	35-60	Clay, silty clay, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34
60-80	Clay, silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	96-100	80-99	37-60	15-34	

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
SCGC4: Shermore----	0-8	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0	0	75-100	75-100	70-100	27-60	14-26	NP-7
	8-14	Loam, clay loam, sandy clay loam	CL, SC	A-2, A-4, A-6	0	0	75-100	75-100	67-100	27-90	25-40	7-18
	14-26	Sandy clay loam, clay loam, loam	CL, SC	A-2, A-4, A-6	0	0	75-100	75-100	67-100	27-90	25-40	7-18
	26-38	Sandy clay loam, clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	75-100	75-100	67-100	27-90	25-40	7-18
	38-80	Sandy clay loam, clay loam, loam	CL, SC	A-2, A-4, A-6	0	0	85-100	85-100	67-100	27-90	25-40	7-18
Clearview---	0-6	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	100	100	94-100	36-60	14-26	NP-7
	6-22	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	22-30	Gravelly sandy clay loam, clay loam, clay loam, sandy clay loam, gravelly clay loam, gravelly loam	SC, CL	A-4, A-6	0	0	100	75-100	72-100	27-85	25-40	7-18
Gullied land.	30-31	Bedrock			---	---	---	---	---	---	---	---
SDGD4: Stephenville	0-8	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0-15	83-100	83-100	80-100	11-60	14-26	NP-7
	8-28	Sandy clay loam, fine sandy loam	SC-SM, CL-ML, SC, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	28-39	Sandy clay loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	39-42	Bedrock			---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AASTHO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
SDGD4: Darsil-----	0-8 8-19	Loamy fine sand Loamy fine sand, fine sand	SM SM, SP-SM	A-2 A-2, A-3	0 0	0 0	98-100 75-100	98-100 70-100	85-100 50-100	15-35 3-35	0-14 0-14	NP NP
Gullied land.	19-20	Bedrock			---	---	---	---	---	---	---	---
SDND: Stephenville	0-10	Fine sandy loam	SC-SM, SM, ML, CL-ML	A-2, A-4	0	0-15	83-100	83-100	80-100	11-60	14-26	NP-7
	10-24	Sandy clay loam, fine sandy loam	SC-SM, SC, CL-ML, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	24-36	Sandy clay loam, fine sandy loam	CL-ML, CL, SC-SM, SC	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	36-45	Bedrock			---	---	---	---	---	---	---	---
Darsil-----	0-10 10-15	Loamy fine sand Loamy fine sand, fine sand	SM SP-SM, SM	A-2 A-2, A-3	0 0	0 0	98-100 75-100	98-100 70-100	85-100 50-100	15-35 3-35	0-14 0-14	NP NP
	15-18	Bedrock			---	---	---	---	---	---	---	---
Newalla-----	0-8	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7
	8-15	Clay loam, sandy clay loam	SC, CL	A-4, A-6	0	0	100	100	96-100	36-85	25-40	7-18
	15-22	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	80-99	41-60	18-34
	22-39	Clay, silty clay	CH, CL	A-7	0	0	100	100	96-100	80-99	41-60	18-34
	39-50	Very gravelly silty clay, sandy clay, silty clay	CL, SC, CH, GC	A-2, A-6, A-7	0	0	40-100	35-100	30-100	15-99	35-60	14-34
	50-70	Bedrock			---	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40		
	In				Pct	Pct				Pct	
SevA: Severn-----	0-8	Very fine sandy loam	ML, CL-ML, CL	A-4	0	0	100	100	94-100	14-31	NP-10
	8-14	Stratified loamy very fine sand to silty clay loam	SM, CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	94-100	0-42	NP-19
	14-20	Stratified loamy very fine sand to silty clay loam	CL-ML, CL, ML, SM	A-4, A-6, A-7	0	0	100	100	94-100	0-42	NP-19
	20-38	Stratified loamy very fine sand to silty clay loam	CL, CL-ML, SM, ML	A-4, A-6, A-7	0	0	100	100	94-100	0-42	NP-19
	38-60	Stratified loamy very fine sand to silty clay loam	SM, ML, CL, CL-ML	A-4, A-6, A-7	0	0	100	100	94-100	0-42	NP-19
	60-80	Stratified loamy very fine sand to silty clay loam	SM, CL, ML, CL-ML	A-4, A-6, A-7	0	0	100	100	94-100	0-42	NP-19
ShmC: Shermore-----	0-9	Fine sandy loam	SC-SM, SM, ML, CL-ML	A-2, A-4	0	0	75-100	75-100	70-100	14-26	NP-7
	9-19	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	75-100	75-100	70-100	14-26	NP-7
	19-38	Sandy clay loam, clay loam, loam	CL, SC	A-2, A-4, A-6	0	0	75-100	75-100	67-100	25-40	7-18
	38-56	Sandy clay loam, clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	75-100	75-100	67-100	25-40	7-18
	56-80	Sandy clay loam, clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	85-100	85-100	67-100	25-40	7-18

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plas- ticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
ShmC2: Shermore-----												
	0-8	Fine sandy loam	CL-ML, SM, SC-SM, ML	A-2, A-4	0	0	75-100	75-100	70-100	27-60	14-26	NP-7
	8-19	Clay loam, sandy clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	75-100	75-100	67-100	27-90	25-40	7-18
	19-32	Clay loam, sandy clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	75-100	75-100	67-100	27-90	25-40	7-18
	32-42	Clay loam, sandy clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	75-100	75-100	67-100	27-90	25-40	7-18
SOWD: Stephenville	42-80	Clay loam, sandy clay loam, loam	SC, CL	A-2, A-4, A-6	0	0	85-100	85-100	67-100	27-90	25-40	7-18
	0-9	Loamy fine sand	SM, SP-SM	A-2	0	0-15	83-100	83-100	76-100	12-35	0-14	NP
	9-23	Sandy clay loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	23-36	Sandy clay loam, fine sandy loam	CL-ML, SC, SC-SM, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
Oil waste land.	36-46	Bedrock			---	---	---	---	---	---	---	---
StdB: Stidham-----	0-14	Loamy fine sand	SM	A-2	0	0	100	98-100	90-100	15-35	0-14	NP
	14-31	Loamy fine sand, fine sand	SM, SP-SM	A-2, A-3	0	0	100	98-100	82-100	3-35	0-14	NP
	31-54	Sandy clay loam, fine sandy loam	SC-SM, SC, CL-ML, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16
	54-80	Fine sandy loam, sandy clay loam	SC, SC-SM, CL-ML, CL	A-4, A-6	0	0	100	98-100	90-100	36-65	14-37	NP-16
	80-85	Loamy fine sandy, fine sandy loam	ML, SM, SC-SM, CL-ML	A-2, A-4, A-6	0	0	100	98-100	90-100	15-60	0-37	NP-16

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties --Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquidity limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>											
SteB: Stephenville	0-6	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0-15	83-100	83-100	80-100	11-60	14-26	NP-7
	6-14	Fine sandy loam, loamy fine sand	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0-15	85-100	85-100	76-100	12-60	0-26	NP-7
	14-26	Sandy clay loam, fine sandy loam	CL, SC, CL-ML, SC-SM	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	26-36	Sandy clay loam, fine sandy loam	SC-SM, CL, CL-ML, SC	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	36-40	Bedrock			---	---	---	---	---	---	---	---
SteC2: Stephenville	0-5	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0-15	83-100	83-100	80-100	11-60	14-26	NP-7
	5-22	Sandy clay loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	22-33	Sandy clay loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	98-100	90-100	36-65	20-37	7-16
	33-43	Bedrock			---	---	---	---	---	---	---	---
SvnA: Severn-----	0-16	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	94-100	65-90	14-31	NP-10
	16-24	Silt loam	ML, CL-ML, CL	A-4	0	0	100	100	94-100	65-90	14-31	NP-10
	24-34	Silt loam	ML, CL-ML, CL	A-4	0	0	100	100	94-100	65-90	14-31	NP-10
	34-42	Very fine sandy loam	CL, CL-ML, ML	A-4	0	0	100	100	94-100	65-90	14-31	NP-10
	42-80	Stratified loamy very fine sand to silty clay loam	SM, CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	94-100	36-97	0-42	NP-19
TlhA: Tullahassee-	0-14	Fine sandy loam	SM, CL-ML, ML, SC-SM	A-4	0	0	100	100	94-100	36-85	14-26	NP-7
	14-48	Stratified fine sandy loam to very fine sandy loam, loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	94-100	36-85	14-29	NP-7
	48-80	Fine sandy loam, loam	SM, SC-SM, ML, CL-ML	A-4	0	0	100	100	94-100	36-85	14-29	NP-7

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>											
TlrA: Teller-----	0-9	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0	0	0	100	98-100	94-100	36-60	NP-7
	9-16	Fine sandy loam	SC-SM, CL-ML, ML, SM	A-4	0	0	0	100	98-100	94-100	36-60	NP-7
	16-22	Loam	SM, SC-SM, ML, CL-ML	A-4	0	0	0	100	98-100	94-100	36-60	NP-7
	22-36	Sandy clay loam, clay loam	SC, CL	A-4, A-6	0	0	0	100	100	90-100	36-85	7-18
	36-60	Fine sandy loam, very fine sandy loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	0	100	98-100	94-100	36-85	NP-13
	60-80	Fine sandy loam, very fine sandy loam, loam	SC, SM, ML, CL	A-4, A-6	0	0	0	100	98-100	94-100	36-85	NP-13
TlrB: Teller-----	0-6	Fine sandy loam	ML, SC-SM, SM, CL-ML	A-4	0	0	0	100	98-100	94-100	36-60	NP-7
	6-12	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	0	100	98-100	94-100	36-60	NP-7
	12-17	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0	0	100	98-100	94-100	36-60	NP-7
	17-44	Sandy clay loam, clay loam	CL, SC	A-4, A-6	0	0	0	100	100	90-100	36-85	7-18
	44-60	Fine sandy loam, very fine sandy loam, loam	SM, SC, ML, CL	A-4, A-6	0	0	0	100	98-100	94-100	36-85	NP-13
	60-80	Fine sandy loam, very fine sandy loam, loam	SM, ML, CL, SC	A-4, A-6	0	0	0	100	98-100	94-100	36-85	NP-13

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --				Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
TlrC2: Teller-----												
	0-7	Fine sandy loam	SM, SC-SM, ML, CL-ML	A-4	0	0	100	98-100	94-100	36-60	14-26	NP-7
	7-17	Clay loam, sandy clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	17-41	Clay loam, sandy clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
	41-54	Clay loam, sandy clay loam	SC, CL	A-4, A-6	0	0	100	100	90-100	36-85	25-40	7-18
UstA: Ustibuck----	0-10	Silty clay	CH, CL	A-7	0	0	100	100	96-100	90-99	41-60	18-34
	10-31	Clay, silty clay, silty clay loam	CL, CH	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	31-49	Silty clay, silty clay loam, clay	CL, CH	A-7	0	0	100	100	96-100	90-99	41-70	26-45
	49-80	Silty clay, silty clay loam, clay	CL, CH	A-7	0	0	100	100	96-100	90-99	41-70	26-45
VrdA: Verdigris---	0-19	Silt loam	CL	A-4, A-6	0	0	100	100	96-100	65-97	26-37	8-16
	19-48	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	80-98	28-43	9-21
	48-80	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	80-98	28-43	9-21

Soil Survey of Okfuskee County, Oklahoma

Engineering Index Properties -- Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number --			Liquid limit	Plasticity index
			Unified	AAASHTO	>10 inches	3-10 inches	4	10	40		
	<u>In</u>					<u>Pct</u>	<u>Pct</u>			<u>Pct</u>	
VrgA: Verdigris---	0-18 18-36	Silt loam Silt loam, silty clay loam	CL	A-4, A-6 A-4, A-6, A-7	0	0	100	100	96-100 96-100	26-37 28-43	8-16 9-21
	36-80	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	96-100	28-43	9-21
W. Water											
WeLE: Weleetka----	0-8 8-17	Sandy loam Sandy loam, loamy sand, loamy fine sand	SM, ML, SC-SM SM, SC-SM, ML	A-4 A-2, A-4	0 0	0	100 100	98-100 98-100	94-100 90-100	36-60 15-60	NP-4 NP-4
	17-42	Loamy sand, loamy fine sand, sandy loam	ML, SM, SC-SM	A-2, A-4	0	0	100	98-100	90-100	15-60	NP-4
	42-54	Sandy clay loam, sandy loam, loam	SM, SC, ML, CL	A-4, A-6	0	0	100	98-100	94-100	36-85	NP-16
	54-80	Sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	100	98-100	82-98	3-35	NP
WynA: Wynona-----	0-12 12-30	Silt loam Silty clay loam, silty clay	CL CL, CH	A-4, A-6 A-6, A-7	0 0	0	100 100	100 100	96-100 98-100	80-97 90-99	8-13 12-34
	30-80	Silty clay, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	98-100	90-99	12-34
YahA: Yahola-----	0-6 6-16	Fine sandy loam Fine sandy loam, loam, very fine sandy loam	SM, SC-SM, CL-ML, ML SM, SC-SM, ML, CL-ML	A-4 A-4	0 0	0	100 100	98-100 98-100	94-100 94-100	36-60 36-85	NP-7 NP-10
	16-78	Stratified loamy fine sand to loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0	100	98-100	90-100	15-97	NP-10

Engineering Index Test Data

The table “Engineering Index Test Data of Selected Soils” shows laboratory test data for several pedons sampled at carefully selected sites in the survey area. For information on pedons that are representative of the series, refer to the section “Classification of the Soils.” The soil samples were tested by the Oklahoma Department of Transportation, Materials Division.

The testing methods generally are those of the American Association of State Highway and Transportation Officials (AASHTO) or the American Society for Testing and Materials (ASTM).

The tests and methods are AASHTO classification—M 145 (AASHTO), D 3282 (ASTM); Unified classification—D 2487 (ASTM); mechanical analysis—T 88 (AASHTO), D 2217 (ASTM); liquid limit—T 89 (AASHTO), D 423 (ASTM); plasticity index—T 90 (AASHTO), D 424 (ASTM); D 1883 (ASTM); and shrinkage—T 92 (AASHTO), D 427 (ASTM).

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Engineering Index Test Data of Selected Soils

(Dashes indicate that data were not available. RN means report number; HO, horizon; MAX, maximum dry density; OPT, optimum moisture; LL, liquid limit; PI, plasticity index; AA, AASHTO; UN, Unified; and NP, nonplastic)

Soil name and sample number*	Parent material	RN	Depth	Horizon	Shrinkage			Percentage passing sieve--			Percentage smaller than			LL	PI	Classification	
					Limit	Ratio	No. 10	No. 40	No. 200	0.05 mm	0.005 mm	0.002 mm	Pct			AA	Unified
Boley (S910K-107-010)	Alluvium	6494 6489	In 0-6 A 6-41 C1-C3			20	1.69	100	100	96	75	13	10	28	5	A-4	---
Clearview (S910K-107-005)	Residuum from sandstone	6497 6498	0-10 A 17-29 B			---	---	100	98	41	33	10	7	NP	NP	A-4	---
Coweta (S910K-107-003)	Residuum from sandstone	6485	0-19 A&Bw			---	---	99	97	26	23	8	6	NP	NP	A-2-4	---
Endsaw (S910K-107-007)	Residuum from sandstone and shale	6492 6496	0-11 A 15-19 2B			---	---	78	68	34	27	9	7	NP	NP	A-2-4	---
Eram (S910K-107-002)	Residuum from sandstone and shale	6486 6487	0-10 A 10-30 B&2			16	1.79	93	85	63	55	25	22	35	14	A-6	---
Hector (S910K-107-006)	Residuum from sandstone	6488	0-10 A			---	---	98	97	40	33	10	7	NP	NP	A-4	---
Pharoah (S910K-107-001)	Residuum from shale	6483 6484	0-7 Ap 7-24 BA&Bt			17	1.78	100	98	92	82	28	22	36	17	A-6	---
Verdigris (S910K-107-008)	Alluvium	6490 6493	0-17 Ap&A1 23-34 Bw1			17	1.80	100	100	86	72	22	18	27	7	A-4	---

* Location of sampled pedons are as follows:

Boley (S910K-107-010); about 2,500 feet west and 1,100 feet south of the northeast corner of sec. 16, T. 10 N., R. 12 E.
 Clearview (S910K-107-005); about 1,850 feet south and 1,210 feet west of the northeast corner of sec. 25, T. 11 N., R. 11 E.
 Coweta (S910K-107-003); about 1,750 feet west and 1,100 feet north of the southeast corner of sec. 23, T. 12 N., R. 11 E.
 Endsaw (S910K-107-007); about 3,200 feet north and 1,450 feet west of the southeast corner of sec. 29, T. 10 N., R. 12 E.
 Eram (S910K-107-002); about 1,350 feet south and 1,700 feet west of the northeast corner of sec. 26, T. 12 N., R. 11 E.
 Hector (S910K-107-006); about 1,830 feet south and 1,300 feet west of the northeast corner of sec. 25, T. 11 N., R. 11 E.
 Pharoah (S910K-107-001); about 600 feet west and 1,000 feet north of the southeast corner of sec. 11, T. 11 N., R. 11 E.
 Verdigris (S910K-107-008); about 600 feet east and 1,050 feet north of the southwest corner of sec. 28, T. 10 N., R. 12 E.

Physical Properties

The table "Physical Properties of the Soils" shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given in the series descriptions.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. The estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. The estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay greatly affect the fertility and physical condition of the soil. They determine the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earth-moving operations.

Moist bulk density is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $\frac{1}{3}$ -bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In the table "Physical Properties of the Soils," the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The estimates indicate the rate of downward movement of water when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each major soil layer. The capacity varies, depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or

crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $1/3$ - or $1/10$ -bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table "Physical Properties of Soils," the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

Erosion factors are shown in the table as the K factor (K_w and K_f) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor K_w indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor K_f indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups.—Wind erodibility is directly related to the percentage of dry, nonerodible surface soil aggregates larger than 0.84 millimeter in diameter. From this percentage, the wind erodibility index factor (I) is determined. This factor is an expression of the stability of the soil aggregates, or the extent to which they are broken down by tillage and the abrasion caused by windblown soil particles. Soils are assigned to wind erodibility groups (WEG) having similar percentages of dry soil aggregates larger than 0.84 millimeter.

Wind erodibility groups are made up of soils that have similar properties affecting their resistance to soil blowing in cultivated areas. The groups indicate the susceptibility to soil blowing. Soils are grouped according to the following distinctions:

WEG 1. Very fine sand, fine sand, sand, and coarse sand.

WEG 2. Loamy very fine sand, loamy fine sand, loamy sand, loamy coarse sand, ash, and sapric organic soil material.

WEG 3. Very fine sandy loam, fine sandy loam, sandy loam, and coarse sandy loam.

WEG 4. Clay, silty clay, and noncalcareous clay loam and silty clay loam with more than 35 percent clay.

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WEG 4L. Calcareous loam, silt loam, clay loam, and silty clay loam characterized by a strongly or violently effervescent reaction to cold dilute (1N) HCl.

WEG 5. Noncalcareous loam and silt loam with less than 20 percent clay and sandy clay loam, sandy clay, and hemic organic soil material.

WEG 6. Noncalcareous loam and silt loam with more than 20 percent clay and noncalcareous clay loam with less than 35 percent clay.

WEG 7. Silt, noncalcareous silty clay loam with less than 35 percent clay, and fibric organic soil material.

WEG 8. Soils that are not susceptible to soil blowing because of rock fragments on the surface or because of surface wetness.

Wind erodibility index is a numerical value indicating the susceptibility of soil to soil blowing, or the tons per acre per year that can be expected to be lost to soil blowing. There is a close correlation between soil blowing and the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence soil blowing.

Additional information about wind erodibility groups and K, Kf, T, and I factors can be obtained at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity		Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
	In	Pct						In/in	Pct			Kw	Kf	T		
BctB:																
Bates-----	0-12	22-53	27-50	15-27	1.40-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	3	5	56		
	12-19	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	19-33	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	33-39	20-80	0-53	18-30	1.35-1.45	0.6-2	0.14-0.19	0.0-2.9	0.5-1.0	.20	.43					
	39-45	---	---	---	---	0.2-0.6	---	---	---	---	---					
BctC:																
Bates-----	0-12	22-53	27-50	15-27	1.40-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	3	5	56		
	12-18	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	18-28	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	28-38	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	38-42	---	---	---	---	0.2-0.6	---	---	---	---	---					
BctC2:																
Bates-----	0-6	22-53	27-50	15-27	1.40-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	3	5	56		
	6-12	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	12-26	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32					
	26-36	20-80	0-53	18-30	1.35-1.45	0.6-2	0.14-0.19	0.0-2.9	0.5-1.0	.20	.43					
	36-40	---	---	---	---	0.2-0.6	---	---	---	---	---					
BoyA:																
Boley-----	0-6	0-15	52-82	18-27	1.25-1.50	0.6-2	0.16-0.24	0.0-2.9	0.5-2.0	.43	.43	5	5	56		
	6-42	0-15	50-82	18-40	1.30-1.75	0.2-2	0.16-0.24	3.0-5.9	0.5-2.0	.37	.37					
	42-48	0-20	40-82	18-45	1.30-1.75	0.2-2	0.16-0.24	6.0-8.9	0.5-2.0	.37	.37					
	48-73	0-20	40-82	18-45	1.30-1.75	0.2-2	0.16-0.24	6.0-8.9	0.5-2.0	.37	.37					
	73-88	0-20	40-82	18-45	1.30-1.75	0.2-2	0.16-0.24	6.0-8.9	0.5-2.0	.37	.37					
CaaA:																
Canadian-----	0-8	43-85	0-50	5-18	1.40-1.65	2-6	0.10-0.15	0.0-2.9	1.0-3.0	.20	.20	5	3	86		
	8-14	43-85	0-50	5-18	1.40-1.65	2-6	0.10-0.15	0.0-2.9	1.0-3.0	.20	.20					
	14-30	32-85	0-50	10-18	1.35-1.70	2-6	0.10-0.20	0.0-2.9	0.0-2.0	.20	.20					
	30-65	32-90	0-50	5-18	1.40-1.70	2-20	0.07-0.20	0.0-2.9	0.0-1.0	.20	.20					
ClrB:																
Clearview-----	0-3	43-85	0-50	12-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-2.0	.32	.32	2	3	86		
	3-8	43-85	0-50	12-18	1.40-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.32	.32					
	8-14	32-85	0-50	12-20	1.35-1.70	0.2-2	0.13-0.20	0.0-2.9	0.5-1.0	.37	.37					
	14-23	20-80	0-53	20-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37					
	23-31	20-80	0-53	20-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37					
	31-40	---	---	---	---	0.0000-0.6	---	---	---	---	---					

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
	In	Pct									Kw	T			
ClrC: Clearview-----	0-8	43-85	0-50	12-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-2.0	.32	.32	2	3	86	
	8-13	43-85	0-50	12-18	1.40-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.32	.32				
	13-23	32-85	0-50	12-20	1.35-1.70	0.2-2	0.13-0.20	0.0-2.9	0.5-1.0	.37	.37				
	23-35	20-80	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37				
	35-40	---	---	---	1.85-2.35	0.0000-0.6	---	---	---	---	---				
ClrC2: Clearview-----	0-6	43-85	0-50	12-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-2.0	.32	.32	2	3	86	
	6-19	20-80	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37				
	19-26	20-80	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37				
	26-30	20-80	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37				
	30-40	---	---	---	1.85-2.35	0.0000-0.6	---	---	---	---	---				
CoBC: Coweta-----	0-11	22-53	27-50	15-26	1.30-1.55	2-6	0.13-0.20	0.0-2.9	1.0-3.0	.32	.37	2	6	48	
	11-19	20-85	0-53	10-30	1.45-1.70	0.6-2	0.09-0.18	0.0-2.9	0.0-1.0	.28	.37				
	19-25	---	---	---	1.85-2.35	0.2-0.6	---	---	---	---	---				
Bates-----	0-11	22-53	27-50	15-27	1.40-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	3	5	56	
	11-14	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32				
	14-25	20-80	0-53	18-35	1.30-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.32				
	25-30	---	---	---	---	0.2-0.6	---	---	---	---	---				
	0-9	22-53	27-50	18-27	1.30-1.50	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.43	.43	5	6	48	
CouB: Choteau-----	9-18	22-53	27-50	18-27	1.30-1.50	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.43	.43				
	18-24	0-53	27-82	18-27	1.30-1.65	0.6-2	0.15-0.20	0.0-2.9	1.0-3.0	.43	.43				
	24-32	0-45	15-65	27-40	1.30-1.75	0.2-0.6	0.15-0.22	3.0-5.9	0.5-2.0	.37	.37				
	32-48	0-45	15-65	35-45	1.30-1.75	0.06-0.2	0.14-0.22	6.0-8.9	0.0-1.0	.37	.37				
	48-80	0-45	15-65	35-45	1.30-1.75	0.06-0.2	0.14-0.22	6.0-8.9	0.0-1.0	.37	.37				
CouC: Choteau-----	0-16	22-53	27-50	18-27	1.30-1.50	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.43	.43	5	6	48	
	16-20	0-53	27-82	18-27	1.30-1.65	0.6-2	0.15-0.20	0.0-2.9	1.0-3.0	.43	.43				
	20-26	0-45	15-65	27-40	1.30-1.75	0.2-0.6	0.15-0.22	3.0-5.9	0.5-2.0	.37	.37				
	26-47	0-45	15-65	35-45	1.30-1.75	0.06-0.2	0.14-0.22	6.0-8.9	0.0-1.0	.37	.37				
	47-72	0-45	15-65	35-45	1.30-1.75	0.06-0.2	0.14-0.22	6.0-8.9	0.0-1.0	.37	.37				
CskB: Chickasha-----	0-7	22-53	27-50	15-26	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.37	.37	4	6	48	
	7-23	20-80	0-53	18-30	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.5-1.0	.32	.32				
	23-37	20-80	0-53	18-30	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.5-1.0	.32	.32				
	37-59	20-80	0-53	18-30	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.5-1.0	.32	.32				
	59-65	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---				

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density g/cc	Permeability (Ksat) In/hr	Available water capacity In/in	Linear extensibility Pct	Organic matter Pct	Erosion factors		Wind erodibility group	Wind erodibility index
	In	Pct									Kw	T		
DAM. Large dam DenB: Dennis-----	0-8	15-50	50-85	10-27	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.43	.43	5	56	
	8-15	15-53	27-85	10-27	1.30-1.65	0.6-2	0.15-0.20	0.0-2.9	1.0-2.0	.43	.43			
	15-22	15-45	20-57	27-35	1.30-1.75	0.2-0.6	0.15-0.22	3.0-5.9	0.5-1.0	.37	.37			
	22-50	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	50-62	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	62-83	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
DenC: Dennis-----	0-12	15-50	50-85	10-27	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.43	.43	5	56	
	12-16	15-53	27-85	10-27	1.30-1.65	0.6-2	0.15-0.20	0.0-2.9	1.0-2.0	.43	.43			
	16-20	15-45	20-57	27-35	1.30-1.75	0.2-0.6	0.15-0.22	3.0-5.9	0.5-1.0	.37	.37			
	20-39	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	39-54	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	54-80	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
DenC2: Dennis-----	0-6	15-50	50-85	10-27	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.43	.43	5	56	
	6-14	15-45	20-57	27-35	1.30-1.75	0.2-0.6	0.15-0.22	3.0-5.9	0.5-1.0	.37	.37			
	14-26	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	26-46	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	46-80	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
DEPD3: Dennis-----	0-6	15-50	50-85	10-27	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.43	.43	4	56	
	6-16	15-45	20-57	27-35	1.30-1.75	0.2-0.6	0.15-0.22	3.0-5.9	0.5-1.0	.37	.37			
	16-28	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	28-42	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
	42-64	0-65	0-65	35-55	1.30-1.75	0.06-0.2	0.12-0.20	6.0-8.9	0.5-1.0	.37	.37			
Eram-----	0-5	0-20	40-73	27-40	1.25-1.55	0.2-0.6	0.15-0.22	3.0-5.9	1.0-3.0	.32	.37	2	38	
	5-20	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37			
	20-34	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37			
	34-44	---	---	---	1.85-2.35	0.0000-0.2	---	---	---	---	---			
Pharoah-----	0-7	0-32	50-73	18-27	1.20-1.40	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.49	.49	5	48	
	7-11	0-32	50-73	18-27	1.20-1.40	0.6-2	0.16-0.24	0.0-2.9	1.0-2.0	.49	.49			
	11-27	0-65	0-60	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49	.49			
	27-50	0-65	0-60	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49	.49			
	50-61	0-65	0-60	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49	.49			
	61-81	0-65	0-60	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49	.49			

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
	In	Pct									Kw	T	Kf		
DsSC:															
Darsil-----	0-4	70-90	0-30	0-30	1-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-3.0	.17	.17	2	2	134
	4-12	70-100	0-30	0-30	1-10	1.50-1.75	6-20	0.04-0.11	0.0-2.9	0.0-0.5	.17	.17			
	12-15	---	---	---	---	1.85-2.00	0.2-2	---	---	---	---	---			
Stephenville---	0-4	43-85	0-50	0-50	10-20	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	3	86
	4-14	43-90	0-50	0-50	5-15	1.40-1.70	2-20	0.07-0.19	0.0-2.9	0.0-0.5	.20	.20			
	14-26	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	26-40	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---			
DsSE:															
Darsil-----	0-6	70-90	0-30	0-30	1-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-3.0	.17	.17	2	2	134
	6-18	70-100	0-30	0-30	1-10	1.50-1.75	6-20	0.04-0.11	0.0-2.9	0.0-0.5	.17	.17			
	18-25	---	---	---	---	1.85-2.00	0.2-2	---	---	---	---	---			
Stephenville---	0-6	43-85	0-50	0-50	10-20	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	3	86
	6-13	43-90	0-50	0-50	5-15	1.40-1.70	2-20	0.07-0.19	0.0-2.9	0.0-0.5	.20	.20			
	13-20	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	20-26	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	26-30	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---			
Ef1B:															
Eufaula-----	0-10	70-90	0-30	0-30	2-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	10-34	70-100	0-30	0-30	2-10	1.45-1.65	6-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.15			
	34-80	50-100	0-30	0-30	2-12	1.40-1.75	6-20	0.05-0.19	0.0-2.9	0.0-0.5	.17	.17			
Ef1E:															
Eufaula-----	0-12	70-90	0-30	0-30	2-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	12-50	70-100	0-30	0-30	2-10	1.45-1.65	6-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.15			
	50-80	50-90	0-30	0-30	2-12	1.40-1.75	6-20	0.05-0.19	0.0-2.9	0.0-0.5	.17	.17			
EnHE:															
Endsaw-----	0-4	43-85	0-50	0-50	12-20	1.30-1.60	0.6-2	0.06-0.19	0.0-2.9	0.5-1.0	.15	.32	4	8	0
	4-11	43-85	0-50	0-50	12-20	1.30-1.60	0.6-2	0.06-0.19	0.0-2.9	0.5-1.0	.15	.32			
	11-22	0-65	0-60	0-60	40-60	1.35-1.60	0.06-0.2	0.08-0.18	6.0-8.9	0.5-1.0	.28	.32			
	22-48	0-65	0-60	0-60	40-60	1.35-1.60	0.06-0.2	0.08-0.18	6.0-8.9	0.5-1.0	.28	.32			
	48-54	---	---	---	---	1.85-2.00	0.0015-0.06	---	---	---	---	---			
Hector-----	0-3	43-85	0-50	0-50	5-20	1.30-1.60	2-6	0.08-0.12	0.0-2.9	0.5-2.0	.17	.28	1	8	0
	3-8	43-85	0-50	0-50	5-20	1.30-1.60	2-6	0.08-0.12	0.0-2.9	0.5-2.0	.17	.28			
	8-16	22-85	0-50	0-50	10-25	1.30-1.60	2-6	0.08-0.15	0.0-2.9	0.0-0.5	.17	.32			
	16-25	---	---	---	---	---	0.0000-0.2	0.00-0.00	---	---	---	---			

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility		Organic matter	Erosion factors		Wind erodibility group	Wind erodibility index
	In	Pct							In/in	Pct		Kw	T		
EnHG: Endsaw	0-4	43-85	0-50	12-20	1.30-1.60	0.6-2	0.06-0.19	0.0-2.9	0.5-1.0	.15	.32	4	8	0	
	4-14	43-85	0-50	12-20	1.30-1.60	0.6-2	0.06-0.19	0.0-2.9	0.5-1.0	.15	.32				
	14-21	0-65	0-60	40-60	1.35-1.60	0.06-0.2	0.08-0.18	6.0-8.9	0.5-1.0	.28	.32				
	21-41	0-65	0-60	40-60	1.35-1.60	0.06-0.2	0.08-0.18	6.0-8.9	0.5-1.0	.28	.32				
	41-50	0-65	0-60	40-60	1.35-1.60	0.06-0.2	0.08-0.18	6.0-8.9	0.5-1.0	.28	.32				
	50-60	---	---	---	---	1.85-2.00	0.0015-0.06	---	---	---	---	---			
Hector	0-3	43-85	0-50	5-20	1.30-1.60	2-6	0.08-0.12	0.0-2.9	0.5-2.0	.17	.28	1	8	0	
	3-6	43-85	0-50	5-20	1.30-1.60	2-6	0.08-0.12	0.0-2.9	0.5-2.0	.17	.28				
	6-12	32-85	0-50	10-25	1.30-1.60	2-6	0.08-0.15	0.0-2.9	0.0-0.5	.17	.32				
	12-20	---	---	---	---	0.0000-0.2	0.00-0.00	---	---	---	---				
EraF: Eram	0-8	20-40	15-45	27-40	1.25-1.55	0.2-0.6	0.15-0.22	3.0-5.9	1.0-3.0	.32	.37	3	7	38	
	8-22	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
	22-38	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
	38-45	---	---	---	1.85-2.35	0.0000-0.2	---	---	---	---	---				
	0-10	15-32	50-73	18-26	1.30-1.50	0.2-2	0.16-0.24	0.0-2.9	1.0-3.0	.37	.43	3	6	48	
Coweta	10-24	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
	24-35	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
	35-40	---	---	---	1.85-2.35	0.0000-0.2	---	---	---	---	---				
	0-8	22-53	27-50	15-26	1.30-1.55	2-6	0.13-0.20	0.0-2.9	1.0-3.0	.32	.37	2	6	48	
ErmC: Eram	8-11	20-80	0-53	10-30	1.45-1.70	0.6-2	0.09-0.18	0.0-2.9	0.0-1.0	.28	.37				
	11-14	---	---	---	1.85-2.35	0.2-0.6	---	---	---	---	---				
	0-9	0-32	50-82	18-26	1.30-1.50	0.2-2	0.16-0.24	0.0-2.9	1.0-3.0	.37	.43	3	6	48	
	9-20	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
ERB: Eram	20-36	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
	36-40	---	---	---	1.85-2.35	0.0000-0.2	---	---	---	---	---				
	0-10	0-32	50-82	18-26	1.30-1.50	0.2-2	0.16-0.24	0.0-2.9	1.0-3.0	.37	.43	3	6	48	
	10-30	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
Radley	30-38	0-65	0-60	35-55	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	1.0-2.0	.37	.37				
	38-50	---	---	---	1.85-2.35	0.0000-0.2	---	---	---	---	---				
	0-13	0-32	50-82	15-27	1.25-1.50	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.32	.32	5	6	48	
	13-30	0-15	50-82	18-35	1.30-1.75	0.6-2	0.16-0.24	3.0-5.9	0.0-1.0	.32	.32				
	30-80	0-15	50-82	18-35	1.30-1.75	0.6-2	0.16-0.24	3.0-5.9	0.0-1.0	.32	.32				

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity		Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
	In	Pct						In/in	Pct			Kw	Kf	T		
GadA: Gaddy-----	0-9	70-90	0-30	0-50	5-15	1.35-1.50	6-20	0.07-0.11	0.0-2.9	0.0-0.5	.17	.17	5	2	134	
	9-19	70-90	0-30	0-50	5-15	1.35-1.50	6-20	0.07-0.11	0.0-2.9	0.0-0.5	.17	.17				
	19-80	20-90	0-53	0-53	5-35	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.5-1.0	.17	.17				
GalB: Galey-----	0-7	43-85	0-50	0-50	5-15	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	5	3	86	
	7-12	43-85	0-50	0-50	5-15	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24				
	12-19	32-53	27-50	0-53	5-15	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24				
	19-34	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
	34-54	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
54-80	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32					
GalC: Galey-----	0-6	43-85	0-50	0-50	5-15	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	5	3	86	
	6-12	43-85	0-50	0-50	5-15	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24				
	12-31	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
	31-43	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
	43-80	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
GalC2: Galey-----	0-7	43-85	0-50	0-50	5-15	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	5	3	86	
	7-22	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
	22-44	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
	44-68	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
	68-79	20-80	0-53	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.0-0.5	.32	.32				
GdyA: Gaddy-----	0-11	70-90	0-30	0-30	5-15	1.35-1.50	6-20	0.07-0.11	0.0-2.9	0.0-0.5	.17	.17	5	2	134	
	11-22	20-100	0-53	0-53	5-35	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.5-1.0	.17	.17				
	22-80	20-100	0-53	0-53	5-35	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.5-1.0	.17	.17				
GhLB: Glentosh-----	0-8	70-90	0-30	0-30	5-12	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.15	.15	5	1	134	
	8-30	70-100	0-30	0-30	5-12	1.50-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.15	.15				
	30-52	70-100	0-30	0-30	5-12	1.50-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.15	.15				
	52-80	70-100	0-30	0-30	5-12	1.50-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.15	.15				
Larton-----	0-25	70-90	0-30	0-30	5-10	1.45-1.65	2-6	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20	5	2	134	
	25-38	70-90	0-30	0-30	5-10	1.45-1.65	2-6	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20				
	38-62	20-80	0-53	0-53	15-25	1.40-1.70	0.6-6	0.10-0.19	0.0-2.9	0.0-0.5	.24	.24				
	62-80	43-85	0-50	0-50	15-25	1.45-1.70	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.32	.32				

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors		Wind erodibility group	Wind erodibility index
	In	Pct									Kw	T		
GlbE: Glentosh-----	0-5	70-90	0-30	0-30	5-12	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.15	.15	1	134
	5-36	70-100	0-30	0-30	5-12	1.50-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.15	.15		
	36-58	70-100	0-30	0-30	5-12	1.50-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.15	.15		
	58-80	70-100	0-30	0-30	5-12	1.50-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.15	.15		
GriC2: Grainola-----	0-2	0-20	40-73	0-60	27-35	1.30-1.55	0.2-0.6	0.15-0.22	3.0-5.9	0.5-1.0	.37	.37	2	38
	2-8	0-65	0-60	0-60	35-60	1.30-1.70	0.06-0.2	0.10-0.20	6.0-8.9	0.0-0.5	.37	.37		
	8-16	0-65	0-60	0-60	35-60	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	0.0-0.5	.37	.37		
	16-39	0-65	0-60	0-60	35-60	1.30-1.70	0.06-0.2	0.12-0.20	6.0-8.9	0.0-0.5	.37	.37		
HeCC: Hector-----	0-6	43-85	0-50	0-50	5-20	1.30-1.60	2-6	0.10-0.14	0.0-2.9	0.5-2.0	.28	.28	1	56
	6-14	22-85	0-50	0-50	10-25	1.30-1.60	2-6	0.08-0.15	0.0-2.9	0.0-0.5	.17	.28		
	14-20	---	---	---	---	---	0.0000-0.2	0.00-0.00	---	---	---	---		
	0-8	43-85	0-50	0-53	12-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-2.0	.32	.37	2	86
HeCE: Hector-----	8-23	20-80	0-53	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37		
	23-36	20-80	0-53	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37		
	36-38	---	---	---	---	---	0.0000-0.6	---	---	---	---	---		
	0-5	43-85	0-50	0-50	5-20	1.30-1.60	2-6	0.10-0.14	0.0-2.9	0.5-2.0	.28	.28	1	56
Clearview-----	5-13	22-85	0-50	0-50	10-25	1.30-1.60	2-6	0.08-0.15	0.0-2.9	0.0-0.5	.17	.28		
	13-20	---	---	---	---	---	0.0000-0.2	0.00-0.00	---	---	---	---		
	0-6	43-85	0-50	0-50	12-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-2.0	.32	.37	2	86
	6-12	32-85	0-50	0-50	12-20	1.35-1.70	0.2-2	0.13-0.20	0.0-2.9	0.5-1.0	.37	.37		
KarB: Karma-----	12-23	20-80	0-53	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37		
	23-27	20-80	0-53	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37		
	27-30	---	---	---	---	---	0.0000-0.6	---	---	---	---	---		
	0-9	43-85	0-50	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	86
KarC: Karma-----	9-15	43-85	0-50	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24		
	15-29	20-80	0-53	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32	.32		
	29-46	20-80	0-53	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32	.32		
	46-80	22-85	0-50	0-50	10-24	1.30-1.70	0.6-6	0.13-0.20	0.0-2.9	0.0-0.5	.37	.37		
KarC: Karma-----	0-9	43-85	0-50	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	86
	9-13	43-85	0-50	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24		
	13-34	20-80	0-53	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32	.32		
	34-80	20-85	0-53	0-53	10-24	1.30-1.70	0.6-6	0.13-0.20	0.0-2.9	0.0-0.5	.37	.37		

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity		Linear extensi- bility	Organic matter	Erosion factors		Wind erodi- bility group	Wind erodi- bility index
	In	Pct						In/in	Pct			Kw	T		
KarD2: Karma	0-3	43-85	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	5	.24	3	86	
	3-10	43-85	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24		.24			
	10-38	20-80	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32		.32			
	38-55	20-80	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32		.32			
	55-80	22-85	0-50	10-24	1.30-1.70	0.6-6	0.13-0.20	0.0-2.9	0.0-0.5	.37		.37			
KarE4: Karma	0-4	43-85	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24	4	.24	3	86	
	4-13	43-85	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.24		.24			
	13-36	20-80	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32		.32			
	36-49	20-80	0-53	24-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.0-0.5	.32		.32			
	49-80	22-80	0-50	10-24	1.30-1.70	0.6-6	0.13-0.20	0.0-2.9	0.0-0.5	.37		.37			
KimA: Kiomatia	0-7	43-85	0-50	5-15	1.30-1.60	0.6-2	0.10-0.15	0.0-2.9	0.3-1.0	.17	5	.17	3	86	
	7-18	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	18-22	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	22-80	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	0-6	43-85	0-50	5-15	1.30-1.60	0.6-2	0.10-0.15	0.0-2.9	0.3-1.0	.17	5	.17	3	86	
KmfA: Kiomatia	6-10	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	10-16	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	16-29	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	29-40	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
	40-80	32-100	0-50	2-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.1-0.3	.17		.17			
KOGF4: Konawa	0-12	43-85	0-50	8-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	4	.24	3	86	
	12-20	43-100	0-50	2-15	1.40-1.75	0.6-2	0.05-0.19	0.0-2.9	0.3-1.0	.32		.32			
	20-36	45-80	0-27	18-30	1.45-1.70	0.6-6	0.13-0.19	0.0-2.9	0.1-0.7	.24		.24			
	36-80	45-90	0-30	7-30	1.40-1.70	2-6	0.07-0.19	0.0-2.9	0.1-0.7	.20		.20			
	0-6	43-85	0-50	8-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	5	.24	3	86	
KowB: Konawa	6-11	43-85	0-50	8-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24		.24			
	11-17	43-100	0-50	2-15	1.40-1.75	0.6-2	0.05-0.19	0.0-2.9	0.3-1.0	.32		.32			
	17-33	45-80	0-27	18-30	1.45-1.70	0.6-6	0.13-0.19	0.0-2.9	0.1-0.7	.24		.24			
	33-52	45-80	0-27	18-30	1.45-1.70	0.6-6	0.13-0.19	0.0-2.9	0.1-0.7	.24		.24			
	52-80	45-90	0-30	7-30	1.40-1.70	2-6	0.07-0.19	0.0-2.9	0.1-0.7	.20		.20			
Gullied land.															

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity		Linear extensi- bility	Organic matter	Erosion factors		Wind erodi- bility group	Wind erodi- bility index
	In	Pct						In/in	Pct			Kw	T		
KowC: Konawa	0-11	43-85	0-50	8-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	5	3	86	
	11-18	43-100	0-30	2-15	1.40-1.75	0.6-2	0.05-0.19	0.0-2.9	0.3-1.0	.32	.32				
	18-48	45-80	0-27	18-30	1.45-1.70	0.6-6	0.13-0.19	0.0-2.9	0.1-0.7	.24	.24				
	48-80	45-90	0-30	7-30	1.40-1.70	2-6	0.07-0.19	0.0-2.9	0.1-0.7	.20	.20				
KowD2: Konawa	0-4	43-85	0-50	8-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	5	3	86	
	4-13	43-100	0-50	2-15	1.40-1.75	0.6-2	0.05-0.19	0.0-2.9	0.3-1.0	.32	.32				
	13-37	45-85	0-50	18-30	1.45-1.70	0.6-6	0.13-0.19	0.0-2.9	0.1-0.7	.24	.24				
	37-88	45-90	0-30	7-30	1.40-1.70	2-6	0.07-0.19	0.0-2.9	0.1-0.7	.20	.20				
LrtB: Larton	0-12	70-90	0-30	5-10	1.45-1.65	2-6	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20	5	2	134	
	12-28	70-90	0-30	5-10	1.45-1.65	2-6	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20				
	28-42	22-85	0-50	15-25	1.40-1.70	0.6-6	0.10-0.19	0.0-2.9	0.0-0.5	.24	.24				
	42-63	22-85	0-50	15-25	1.40-1.70	0.6-6	0.10-0.19	0.0-2.9	0.0-0.5	.24	.24				
	63-80	43-85	0-50	15-25	1.45-1.70	0.6-2	0.10-0.16	0.0-2.9	0.0-0.5	.32	.32				
LrtD: Larton	0-6	70-90	0-30	5-10	1.45-1.65	2-6	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20	5	2	134	
	6-30	70-90	0-30	5-10	1.45-1.65	2-6	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20				
	30-48	22-85	0-50	15-25	1.40-1.70	0.6-6	0.10-0.19	0.0-2.9	0.0-0.5	.24	.24				
	48-80	45-80	0-27	20-27	1.45-1.70	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.32	.32				
LtGA: Lightning	0-8	15-32	52-82	20-26	1.30-1.50	0.06-0.6	0.16-0.24	0.0-2.9	0.5-1.0	.43	.43	5	6	48	
	8-16	0-45	20-82	20-35	1.30-1.75	0.2-0.6	0.18-0.22	3.0-5.9	0.5-1.0	.37	.37				
	16-32	0-65	0-65	35-55	1.35-1.65	0.0015-0.06	0.12-0.22	9.0-25.0	0.0-0.5	.37	.37				
	32-80	0-65	0-65	35-55	1.35-1.65	0.0015-0.06	0.12-0.22	9.0-25.0	0.0-0.5	.37	.37				
M-W. Miscellaneous water															
MasA: Mason	0-6	22-53	27-50	12-27	1.30-1.65	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.37	.37	5	5	56	
	6-14	22-53	27-50	12-27	1.30-1.65	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.37	.37				
	14-26	0-45	20-82	20-35	1.30-1.75	0.2-0.6	0.15-0.20	3.0-5.9	0.5-1.0	.37	.37				
	26-46	0-45	20-82	20-35	1.30-1.75	0.2-0.6	0.15-0.20	3.0-5.9	0.5-1.0	.37	.37				
	46-65	0-45	20-82	20-35	1.30-1.75	0.2-0.6	0.15-0.20	3.0-5.9	0.5-1.0	.37	.37				
	65-80	0-45	20-82	20-35	1.30-1.75	0.2-0.6	0.15-0.20	3.0-5.9	0.5-1.0	.37	.37				

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors		Wind erodi- bility group	Wind erodi- bility index
	In	Pct									Kw	T		
MaTA:														
Madill-----	0-14	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20	5	3	86
	14-19	32-85	0-50	10-18	1.35-1.70	0.6-6	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	19-38	32-100	0-50	10-18	1.35-1.70	0.6-6	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	38-55	32-85	0-50	10-18	1.35-1.70	0.6-6	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	55-80	32-90	0-50	5-18	1.35-1.70	0.6-6	0.07-0.19	0.0-2.9	0.0-0.5	.32	.32			
Tullahassee----														
	0-13	43-85	0-50	10-18	1.30-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20	5	3	86
	13-19	32-85	0-50	5-18	1.35-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.20	.20			
	19-45	32-85	0-50	5-18	1.35-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.20	.20			
	45-80	32-90	0-50	5-18	1.35-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.20	.20			
MdIA:														
Madill-----	0-13	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20	5	3	86
	13-25	32-85	0-50	10-18	1.35-1.70	0.6-6	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	25-38	32-85	0-50	10-18	1.35-1.70	0.6-6	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	38-51	32-90	0-50	5-18	1.35-1.70	0.6-6	0.07-0.19	0.0-2.9	0.0-0.5	.32	.32			
	51-80	32-90	0-50	5-18	1.35-1.70	0.6-6	0.07-0.19	0.0-2.9	0.0-0.5	.32	.32			
MrWB:														
Muldrow-----	0-8	0-20	40-73	30-40	1.30-1.60	0.2-0.6	0.18-0.22	3.0-5.9	1.0-3.0	.43	.43	5	4	86
	8-18	0-65	0-65	35-50	1.35-1.70	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43			
	18-31	0-65	0-65	35-50	1.35-1.70	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43			
	31-80	0-65	0-65	35-50	1.35-1.70	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43			
MshD:														
Masham-----	0-8	0-20	40-73	35-39	1.30-1.55	0.06-0.2	0.15-0.22	3.0-5.9	0.5-2.0	.43	.43	2	4L	86
	8-20	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.10-0.22	6.0-8.9	0.0-0.5	.37	.37			
	20-25	---	---	---	1.85-2.00	0.0000-0.2	---	---	---	---	---			
NviB:														
Navina-----	0-14	22-53	27-50	15-26	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	14-19	20-80	0-53	18-35	1.30-1.70	0.6-2	0.11-0.20	0.0-2.9	1.0-3.0	.37	.37			
	19-32	20-80	0-53	18-35	1.30-1.70	0.6-2	0.11-0.20	0.0-2.9	1.0-3.0	.37	.37			
	32-46	20-80	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.5-1.0	.32	.32			
	46-80	22-85	0-50	10-35	1.40-1.70	0.6-2	0.13-0.20	0.0-2.9	0.5-1.0	.24	.24			
NviC2:														
Navina-----	0-6	22-53	27-50	15-26	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	6-12	22-53	27-50	15-26	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.37	.37			
	12-24	20-80	0-53	18-35	1.30-1.70	0.6-2	0.11-0.20	0.0-2.9	1.0-3.0	.37	.37			
	24-33	20-80	0-53	18-35	1.30-1.70	0.6-2	0.13-0.20	0.0-2.9	0.5-1.0	.32	.32			
	33-48	22-85	0-53	10-35	1.40-1.70	0.6-2	0.13-0.20	0.0-2.9	0.5-1.0	.24	.24			
	48-80	22-80	0-50	10-35	1.40-1.70	0.6-2	0.13-0.20	0.0-2.9	0.5-1.0	.24	.24			

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity		Linear extensibility	Organic matter	Erosion factors		Wind erodibility group	Wind erodibility index
	In	Pct						In/in	Pct			Kw	T		
NzDE: Niotaze-----	0-2	43-85	0-50	5-20	1.35-1.45	0.6-6	0.06-0.11	0.0-2.9	0.5-1.0	.64	3	.20	.64	8	0
	2-6	43-85	0-50	5-20	1.35-1.45	0.6-6	0.06-0.11	0.0-2.9	0.5-1.0	.64		.20	.64		
	6-18	0-65	0-65	35-55	1.35-1.45	0.06-0.2	0.10-0.20	6.0-8.9	0.0-0.5	.28		.28	.28		
	18-27	0-65	0-65	35-55	1.35-1.45	0.06-0.2	0.10-0.20	6.0-8.9	0.0-0.5	.28		.28	.28		
	27-29	---	---	---	---	---	0.00-0.00	---	---	---	---	---	---	---	
Darsil-----	0-6	70-90	0-30	1-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-3.0	.17	2	.17	.17	2	134
	6-19	70-100	0-30	1-10	1.50-1.75	6-20	0.04-0.11	0.0-2.9	0.0-0.5	.17		.17	.17		
	19-24	---	---	---	1.85-2.00	0.2-2	---	---	---	---	---	---	---		
OkeB: Okemah-----	0-18	0-32	50-82	20-27	1.40-1.65	0.2-2	0.16-0.24	0.0-2.9	1.0-3.0	.43	5	.43	.43	6	48
	18-24	0-32	45-82	20-35	1.40-1.70	0.2-0.6	0.16-0.24	3.0-5.9	1.0-3.0	.43		.43	.43		
	24-48	0-65	0-65	35-55	1.35-1.70	0.06-0.2	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
	48-70	0-65	0-65	35-55	1.35-1.70	0.06-0.2	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
	70-75	0-65	0-65	35-55	1.35-1.70	0.06-0.2	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
OkrA: Oklaled-----	0-6	43-85	0-50	10-18	1.30-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	5	.20	.20	3	86
	6-14	32-85	0-50	10-18	1.30-1.70	2-6	0.07-0.24	0.0-2.9	0.0-1.0	.32		.32	.32		
	14-25	32-85	0-50	10-18	1.30-1.70	2-6	0.07-0.24	0.0-2.9	0.0-1.0	.32		.32	.32		
	25-41	0-90	0-85	5-18	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.0-0.5	.32		.32	.32		
	41-80	0-90	0-85	5-18	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.0-0.5	.32		.32	.32		
OPFA: Okemah-----	0-9	0-32	50-82	20-27	1.40-1.65	0.2-2	0.16-0.24	0.0-2.9	1.0-3.0	.43	5	.43	.43	6	48
	9-16	0-32	45-82	20-35	1.40-1.70	0.2-0.6	0.16-0.24	3.0-5.9	1.0-3.0	.43		.43	.43		
	16-29	0-65	0-65	35-55	1.35-1.70	0.06-0.2	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
	29-40	0-65	0-65	35-55	1.35-1.70	0.06-0.2	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
	40-61	0-65	0-65	35-55	1.35-1.70	0.06-0.2	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
Pharoah-----	0-4	0-32	50-82	18-27	1.20-1.40	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.49	5	.49	.49	6	48
	4-7	0-32	50-82	18-27	1.20-1.40	0.6-2	0.16-0.24	0.0-2.9	1.0-3.0	.49		.49	.49		
	7-24	0-65	0-65	30-55	1.45-1.65	0.0015-0.06	0.14-0.22	6.0-8.9	1.0-2.0	.49		.49	.49		
	24-47	0-65	0-65	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49		.49	.49		
	47-59	0-65	0-65	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49		.49	.49		
Parsons-----	0-12	0-32	50-82	15-25	1.25-1.50	0.6-2	0.16-0.24	0.0-2.9	0.5-4.0	.49	3	.49	.49	6	48
	12-26	0-53	27-82	15-25	1.30-1.65	0.6-2	0.16-0.24	0.0-2.9	0.5-1.0	.49		.49	.49		
	26-41	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
	41-70	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		
	70-80	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43		.43	.43		

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth In	Sand Pct	Silt Pct	Clay Pct	Moist bulk density g/cc	Permeability (Ksat) In/hr	Available water capacity In/in	Linear extensibility Pct	Organic matter Pct	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
ParA:														
Parsons-----	0-8	0-32	50-82	15-25	1.25-1.50	0.6-2	0.16-0.24	0.0-2.9	0.5-4.0	.49	.49	3	6	48
	8-14	0-53	27-82	15-25	1.30-1.65	0.6-2	0.16-0.24	0.0-2.9	0.5-1.0	.49	.49			
	14-31	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43			
	31-51	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43			
	51-80	0-65	0-65	35-60	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43			
PIT.														
Pits														
POWD:														
Pharoah-----	0-5	0-20	40-73	27-40	1.30-1.50	0.06-0.2	0.18-0.22	3.0-5.9	1.0-3.0	.43	.43	5	4	86
	5-12	0-20	40-65	27-40	1.30-1.50	0.06-0.2	0.18-0.22	3.0-5.9	1.0-3.0	.43	.43			
	12-30	0-20	40-65	30-55	1.45-1.65	0.0015-0.06	0.14-0.22	6.0-8.9	1.0-2.0	.49	.49			
	30-65	0-65	0-60	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49	.49			
	65-80	0-65	0-60	40-60	1.40-1.60	0.0015-0.06	0.12-0.18	9.0-25.0	0.0-0.5	.49	.49			
Oil waste land.														
PrmC2:														
Porum-----	0-7	43-85	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32	5	3	86
	7-11	43-85	0-50	10-18	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	11-18	0-65	0-65	35-45	1.30-1.75	0.06-0.2	0.12-0.22	6.0-8.9	0.0-0.5	.37	.37			
	18-48	0-65	0-65	35-45	1.30-1.75	0.06-0.2	0.12-0.22	6.0-8.9	0.0-0.5	.37	.37			
	48-80	0-65	0-65	30-45	1.30-1.75	0.2-0.6	0.17-0.22	3.0-5.9	0.0-0.5	.32	.32			
Pu1A:														
Pulaski-----	0-8	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20	5	3	86
	8-18	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20			
	18-33	32-85	0-50	10-18	1.30-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.32	.32			
	33-50	32-90	0-50	5-18	1.30-1.70	2-6	0.07-0.20	0.0-2.9	0.0-1.0	.32	.32			
	50-65	32-90	0-50	5-18	1.30-1.70	2-6	0.07-0.20	0.0-2.9	0.0-1.0	.32	.32			
Pu7A:														
Pulaski-----	0-6	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20	5	3	86
	6-12	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20			
	12-31	32-85	0-50	10-18	1.30-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.32	.32			
	31-38	32-90	0-50	5-18	1.30-1.70	2-6	0.07-0.20	0.0-2.9	0.0-1.0	.32	.32			
	38-65	32-90	0-50	5-18	1.30-1.70	2-6	0.07-0.20	0.0-2.9	0.0-1.0	.32	.32			
Tribbey-----														
	0-7	43-85	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	5	3	86
	7-19	32-90	0-50	10-18	1.65-1.75	2-6	0.07-0.20	0.0-2.9	0.0-0.5	.24	.24			
	19-40	32-90	0-50	5-18	1.35-1.75	2-6	0.07-0.20	0.0-2.9	0.0-0.5	.24	.24			
	40-80	20-53	0-53	15-30	1.35-1.70	0.6-6	0.13-0.20	0.0-2.9	0.0-0.0	.24	.24			

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors		Wind erodibility group	Wind erodibility index
	In	Pct									In/hr	In/in		
RbkA:														
Roebuck-----	0-12	0-65	0-40	0-40	40-60	1.25-1.45	0.0015-0.06	0.12-0.18	9.0-25.0	1.0-3.0	.32	.32	5	86
	12-38	0-65	0-60	0-60	35-60	1.30-1.75	0.0015-0.06	0.12-0.20	9.0-25.0	0.5-1.0	.32	.32		
	38-48	0-65	0-60	0-60	35-60	1.30-1.70	0.0015-0.06	0.12-0.20	9.0-25.0	0.0-0.5	.32	.32		
	48-80	0-65	0-60	0-60	35-60	1.30-1.70	0.0015-0.06	0.12-0.20	9.0-25.0	0.0-0.5	.32	.32		
RenC:														
Renfrow-----	0-8	0-32	0-50	0-82	18-26	1.25-1.55	0.6-2	0.15-0.24	0.0-2.9	1.0-3.0	.49	.49	5	48
	8-12	0-45	15-65	15-65	22-40	1.30-1.75	0.2-0.6	0.15-0.24	3.0-5.9	0.5-2.0	.43	.43		
	12-35	0-65	0-65	0-65	35-55	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43		
	35-60	0-65	0-65	0-65	35-55	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43		
	60-80	0-65	0-65	0-65	35-55	1.30-1.75	0.0015-0.06	0.12-0.22	6.0-8.9	0.5-1.0	.43	.43		
SCGC4:														
Shermore-----	0-8	43-85	0-50	0-50	10-15	1.40-1.65	2-6	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24	3	86
	8-14	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37		
	14-26	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37		
	26-38	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37		
	38-80	20-80	0-53	0-53	18-38	1.55-1.75	0.06-0.2	0.05-0.10	0.0-2.9	0.0-0.5	.32	.37		
Clearview-----														
	0-6	43-85	0-50	0-50	12-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-2.0	.32	.32	1	86
	6-22	20-80	0-53	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37		
	22-30	20-80	0-53	0-53	18-32	1.30-1.70	0.2-2	0.14-0.20	0.0-2.9	0.0-0.5	.37	.37		
	30-31	---	---	---	---	1.85-2.35	0.0000-0.6	---	---	---	---	---		
Gullied land.														
SDGD4:														
Stephenville---	0-8	43-85	0-50	0-50	10-20	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	2	86
	8-28	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32		
	28-39	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32		
	39-42	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---		
Darsil-----														
	0-8	70-90	0-30	0-30	1-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-3.0	.17	.17	1	134
	8-19	70-100	0-30	0-30	1-10	1.50-1.75	6-20	0.04-0.11	0.0-2.9	0.0-0.5	.17	.17		
	19-20	---	---	---	---	1.85-2.00	0.2-2	---	---	---	---	---		
Gullied land.														
SDND:														
Stephenville---	0-10	43-85	0-50	0-50	10-20	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	86
	10-24	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32		
	24-36	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32		
	36-45	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---		

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity		Linear extensibility	Organic matter	Erosion factors			Wind erodibility index	
	In	Pct						In/in	Pct			Kw	Kf	T		
SDND:																
Darsil-----	0-10	70-90	0-30	0-30	1-10	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-3.0	.17	.17	2	2	134	
	10-15	70-100	0-30	0-30	1-10	1.50-1.75	6-20	0.04-0.11	0.0-2.9	0.0-0.5	.17	.17				
	15-18	---	---	---	---	1.85-2.00	0.2-2	---	---	---	---	---				
Newalla-----																
	0-8	43-85	0-50	0-50	7-17	1.40-1.65	0.6-2	0.13-0.19	0.0-2.9	0.5-3.0	.37	.37	4	3	86	
	8-15	20-80	0-53	0-53	20-35	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.5-1.0	.43	.43				
	15-22	0-65	0-60	0-60	40-60	1.30-1.60	0.0015-0.06	0.12-0.18	6.0-8.9	0.0-0.5	.37	.37				
	22-39	0-65	0-60	0-60	40-60	1.30-1.60	0.0015-0.06	0.12-0.18	6.0-8.9	0.0-0.5	.37	.37				
	39-50	0-65	0-60	0-60	40-60	1.30-1.65	0.0015-0.06	0.04-0.18	6.0-8.9	0.0-0.5	.37	.37				
	50-70	---	---	---	---	1.85-2.00	0.0015-0.06	---	---	---	---	---				
SevA:																
Severn-----	0-8	43-85	0-50	0-50	8-17	1.25-1.55	2-6	0.13-0.24	0.0-2.9	0.5-1.0	.32	.32	5	4L	86	
	8-14	15-90	0-85	0-85	8-35	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.5-1.0	.32	.32				
	14-20	15-90	0-85	0-85	8-35	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.5-1.0	.32	.32				
	20-38	15-90	0-85	0-85	8-35	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.5-1.0	.32	.32				
	38-60	15-90	0-85	0-85	8-35	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.5-1.0	.32	.32				
	60-80	15-90	0-85	0-85	8-35	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.5-1.0	.32	.32				
ShmC:																
Shermore-----	0-9	43-85	0-50	0-50	10-15	1.40-1.65	2-6	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24	4	3	86	
	9-19	43-85	0-50	0-50	10-15	1.40-1.65	2-6	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24				
	19-38	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37				
	38-56	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37				
	56-80	20-80	0-53	0-53	18-38	1.55-1.75	0.06-0.2	0.05-0.10	0.0-2.9	0.0-0.5	.32	.37				
ShmC2:																
Shermore-----	0-8	43-85	0-50	0-50	10-15	1.40-1.65	2-6	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24	4	3	86	
	8-19	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37				
	19-32	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37				
	32-42	20-80	0-53	0-53	18-35	1.45-1.70	0.6-2	0.16-0.20	0.0-2.9	0.0-0.5	.37	.37				
	42-80	20-80	0-53	0-53	18-38	1.55-1.75	0.06-0.2	0.05-0.10	0.0-2.9	0.0-0.5	.32	.37				
SOWD:																
Stephenville---	0-9	70-90	0-30	0-30	5-15	1.45-1.50	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20	3	2	134	
	9-23	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32				
	23-36	45-80	0-27	0-27	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32				
	36-46	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---				
Oil waste land.																

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth		Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity		Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
	In	Pct						In/in	Pct			Kw	Kf	T		
StdB: Stidhan-----	0-14	70-90	0-30	0-30	5-12	1.45-1.65	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.20	.20	5	2	134	
	14-31	70-100	0-30	0-30	5-12	1.45-1.65	6-20	0.05-0.11	0.0-2.9	0.5-1.0	.20	.20				
	31-54	45-80	0-27	0-27	18-35	1.40-1.70	0.6-2	0.13-0.19	0.0-2.9	0.0-1.0	.32	.32				
	54-80	45-80	0-27	0-27	18-35	1.40-1.70	0.6-2	0.13-0.19	0.0-2.9	0.0-1.0	.32	.32				
	80-85	50-90	0-30	0-30	10-20	1.45-1.70	0.6-6	0.07-0.19	0.0-2.9	0.0-0.5	.32	.32				
StEB: Stephenville---	0-6	43-85	0-50	0-50	10-20	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	3	86	
	6-14	43-90	0-50	0-50	5-15	1.40-1.70	2-20	0.07-0.19	0.0-2.9	0.0-0.5	.20	.20				
	14-26	43-85	0-50	0-50	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32				
	26-36	43-85	0-50	0-50	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32				
	36-40	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---				
StEC2: Stephenville---	0-5	43-85	0-50	0-50	10-20	1.40-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.24	.24	3	3	86	
	5-22	43-85	0-50	0-50	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32				
	22-33	43-85	0-50	0-50	18-35	1.35-1.75	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32				
	33-43	---	---	---	---	1.85-2.00	0.2-0.6	---	---	---	---	---				
	---	---	---	---	---	---	---	---	---	---	---	---				
SvNA: Severn-----	0-16	0-15	67-85	67-85	8-17	1.25-1.55	2-6	0.13-0.24	0.0-2.9	0.5-1.0	.32	.32	5	4L	86	
	16-24	0-15	67-85	67-85	8-17	1.25-1.55	2-6	0.13-0.24	0.0-2.9	0.5-1.0	.32	.32				
	24-34	0-15	67-85	67-85	8-17	1.25-1.55	2-6	0.13-0.24	0.0-2.9	0.5-1.0	.32	.32				
	34-42	43-85	0-50	0-50	8-17	1.25-1.55	2-6	0.13-0.24	0.0-2.9	0.5-1.0	.32	.32				
	42-80	15-90	0-85	0-85	8-35	1.35-1.70	2-6	0.07-0.24	0.0-2.9	0.5-1.0	.32	.32				
TlIA: Tullahassee---	0-14	43-85	0-30	0-30	10-18	1.30-1.65	2-6	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20	5	3	86	
	14-48	43-85	0-30	0-30	5-18	1.35-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.20	.20				
	48-80	32-85	0-50	0-50	5-18	1.35-1.70	2-6	0.13-0.19	0.0-2.9	0.0-1.0	.20	.20				
	---	---	---	---	---	---	---	---	---	---	---	---				
	---	---	---	---	---	---	---	---	---	---	---	---				
TlIA: Teller-----	0-9	43-85	0-30	0-30	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	1.0-3.0	.24	.24	5	3	86	
	9-16	43-85	0-30	0-30	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	1.0-3.0	.24	.24				
	16-22	32-53	27-50	27-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	1.0-3.0	.24	.24				
	22-36	20-80	0-53	0-53	18-30	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.5-1.0	.32	.32				
	36-60	22-85	0-50	0-50	10-20	1.30-1.70	2-6	0.13-0.20	0.0-2.9	0.5-1.0	.32	.32				
60-80	22-85	0-50	0-50	10-20	1.30-1.70	2-6	0.13-0.20	0.0-2.9	0.5-1.0	.32	.32					
TlIB: Teller-----	0-6	43-85	0-30	0-30	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	1.0-3.0	.24	.24	5	3	86	
	6-12	43-85	0-50	0-50	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	1.0-3.0	.24	.24				
	12-17	43-85	0-30	0-30	10-18	1.40-1.65	2-6	0.13-0.19	0.0-2.9	1.0-3.0	.24	.24				
	17-44	20-80	0-53	0-53	20-30	1.30-1.70	0.6-2	0.14-0.20	0.0-2.9	0.5-1.0	.32	.32				
	44-60	22-85	0-50	0-50	10-20	1.30-1.70	2-6	0.13-0.20	0.0-2.9	0.5-1.0	.32	.32				
60-80	22-85	0-50	0-50	10-20	1.30-1.70	2-6	0.13-0.20	0.0-2.9	0.5-1.0	.32	.32					

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of the Soils--Continued

Map symbol and soil name	Depth In	Sand Pct	Silt Pct	Clay Pct	Moist bulk density g/cc	Permeability (Ksat) In/hr	Available water capacity In/in	Linear extensibility Pct	Organic matter Pct	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
TlrC2: Teller-----	0-7 7-17 17-41 41-54 54-80	43-85 20-80 20-80 20-80 22-85	0-30 0-53 0-53 0-53 0-50	10-18 20-30 20-30 20-30 10-27	1.40-1.65 1.30-1.70 1.30-1.70 1.30-1.70 1.30-1.70	2-6 0.6-2 0.6-2 0.6-2 2-6	0.13-0.19 0.14-0.20 0.14-0.20 0.14-0.20 0.13-0.20	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.5-1.0 0.5-1.0 0.5-1.0	.24 .32 .32 .32 .32	.24 .32 .32 .32 .32	5	3	86
UstA: Ustibuck-----	0-10 10-31 31-49 49-80	0-20 0-65 0-65 0-65	40-60 0-65 0-65 0-65	40-60 35-60 35-60 35-60	1.25-1.45 1.35-1.60 1.35-1.60 1.35-1.60	0.0015-0.06 0.0015-0.06 0.0015-0.06 0.0015-0.06	0.14-0.20 0.12-0.20 0.12-0.20 0.12-0.20	6.0-8.9 9.0-25.0 9.0-25.0 9.0-25.0	1.0-3.0 1.0-3.0 1.0-3.0 1.0-3.0	.43 .37 .37 .37	.43 .37 .37 .37	5	4	86
VrdA: Verdigris-----	0-19 19-48 48-80	0-15 0-15 0-15	52-85 50-85 50-85	15-27 18-35 18-35	1.30-1.55 1.40-1.70 1.40-1.70	0.6-2 0.6-2 0.6-2	0.15-0.24 0.16-0.24 0.16-0.24	0.0-2.9 3.0-5.9 3.0-5.9	2.0-4.0 0.5-1.0 0.5-1.0	.32 .32 .32	.32 .32 .32	5	6	48
VirGA: Verdigris-----	0-18 18-36 36-80	0-15 0-15 0-15	52-85 50-82 52-85	15-27 18-35 18-35	1.30-1.55 1.40-1.70 1.40-1.70	0.6-2 0.6-2 0.6-2	0.15-0.24 0.16-0.24 0.16-0.24	0.0-2.9 3.0-5.9 3.0-5.9	2.0-4.0 0.5-1.0 0.5-1.0	.32 .32 .32	.32 .32 .32	5	6	48
W. Water														
WelE: Weleetka-----	0-8 8-17 17-42 42-54 54-80	43-85 43-90 43-90 22-80 0-100	0-50 0-50 0-50 0-50 0-30	10-18 3-12 3-12 18-35 3-10	1.40-1.65 1.40-1.75 1.40-1.75 1.35-1.70 1.50-1.75	6-20 6-20 6-20 0.2-0.6 6-20	0.10-0.16 0.06-0.16 0.06-0.16 0.10-0.19 0.02-0.10	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	0.5-2.0 0.5-2.0 0.5-2.0 0.5-1.0 0.5-1.0	.20 .20 .20 .37 .17	.20 .20 .20 .37 .17	4	3	86
WynA: Wynona-----	0-12 12-30 30-80	0-15 0-20 0-20	52-82 40-65 40-65	18-27 30-45 30-45	1.25-1.50 1.30-1.75 1.30-1.75	0.6-2 0.06-0.2 0.06-0.2	0.16-0.24 0.14-0.22 0.14-0.22	0.0-2.9 6.0-8.9 6.0-8.9	1.0-3.0 0.5-1.0 0.5-1.0	.43 .37 .37	.43 .37 .37	5	6	48
YahA: Yahola-----	0-6 6-16 16-78	43-85 32-85 32-90	0-30 0-50 0-50	10-18 5-18 5-18	1.40-1.65 1.30-1.70 1.30-1.70	2-6 2-6 2-6	0.13-0.19 0.13-0.20 0.07-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.20 .32 .32	.20 .32 .32	5	3	86

Physical Analyses of Selected Soils

The results of physical analyses of several pedons are given in the table "Physical Properties of Selected Soils, Parts I and II." The data are for soils sampled at carefully selected sites. The pedons are representative of the series described in this survey. Soil samples were analyzed by the Soil Survey Laboratory, Lincoln, Nebraska.

Most determinations, except for those for grain-size analysis and bulk density, were made on soil material smaller than 2 millimeters in diameter. Measurements reported as percent or quantity of unit weight were calculated on an oven-dry basis. The methods used in obtaining the data are indicated in the list that follows. The codes in parentheses refer to published methods.

Clay—(fraction less than 0.002 mm) pipette extraction, weight percentages of all material less than 2 mm (3A1).

Silt—(0.002-0.05 mm fraction) pipette extraction, weight percentages of all material less than 2 mm (3A1).

Sand—(0.05-2.0 mm fraction) weight percentages of material less than 2 mm (3A1).

Bulk density—of less than 2 mm material, saran-coated clods field moist (4A1a), $\frac{1}{3}$ bar (4A1d), oven-dry (4A1h).

Water-retention difference—between $\frac{1}{3}$ bar and 15 bars for whole soil (4C1).

Water retained—pressure extraction, percentage of oven-dry weight of less than 2 mm material; $\frac{1}{3}$ or $\frac{1}{10}$ bar (4B1), 15 bars (4B2).

Linear extensibility—change in clod dimension based on whole soil (4D).

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of Selected Soils, Part I

(The symbol < means less than; > means more than. TR means trace. Dashes indicate that analyses were not made)

Soil name and sample number*	Horizon	Depth	Particle-size distribution										
			Clay (<0.002)	Silt			Sand				Coarse (0.5-1mm)	Very coarse (2.0-1.0mm)	
				Total silt (0.002-0.05mm)	Fine (0.002-0.02mm)	Coarse (0.02-0.05mm)	Total sand (0.05-2.0mm)	Very fine (0.05-0.10mm)	Fine (0.10-0.25mm)	Medium (0.25-0.50mm)			
-----Percent-----													
Boley:													
(S91OK-107-010)	A	0-6	15.2	62.9	18.9	44.0	21.9	20.9	0.7	0.2	0.1	0.1	TR
	C1	6-12	17.8	62.6	19.2	43.4	19.6	18.6	0.9	0.1	TR	TR	TR
	C2	12-22	17.9	67.3	21.2	46.1	14.8	14.4	0.3	0.1	---	---	TR
	C3	22-41	18.0	65.1	18.1	47.0	16.9	15.6	1.3	TR	TR	TR	---
	2A	41-48	26.3	71.3	30.8	40.5	2.4	2.3	0.1	TR	TR	TR	---
	2AC	48-56	41.6	57.2	36.1	21.1	1.2	1.1	0.1	TR	TR	TR	---
	3A1	56-66	43.2	51.3	32.2	19.1	5.5	3.4	1.9	0.2	TR	TR	---
	3C	66-72	43.0	50.6	24.1	26.5	6.4	5.6	0.7	0.1	TR	TR	TR
	4C	72-86	33.1	58.0	25.8	32.2	8.9	7.4	1.3	0.1	0.1	0.1	---
Clearview:													
(S91OK-107-005)	Ap	0-4	6.3	24.8	9.5	15.3	68.9	17.7	44.7	5.8	0.2	0.2	0.5
	A	4-10	9.8	26.4	12.2	14.2	63.8	15.1	42.1	5.9	0.3	0.3	0.4
	B	10-17	15.4	27.3	12.8	14.5	57.3	13.2	37.6	6.0	0.3	0.3	0.2
	B	17-29	19.2	25.3	12.2	13.1	55.5	11.8	37.4	5.7	0.3	0.3	0.3
	BC	29-35	19.8	23.8	12.5	11.3	56.4	12.9	34.0	5.3	1.6	1.6	2.6
Coweta:													
(S91OK-107-003)	A	0-12	7.2	16.0	5.6	10.4	76.8	24.9	50.0	1.2	0.5	0.5	0.2
	Bw	12-19	7.2	14.8	5.5	9.3	78.0	27.4	49.2	0.9	0.4	0.4	0.1
Dennis:													
(S91OK-107-004)	Ap	0-5	17.5	51.9	19.4	32.6	30.6	17.8	6.4	2.4	2.4	2.4	1.6
	A	5-14	19.5	53.9	21.5	32.4	26.6	14.5	5.8	2.3	2.5	2.5	1.5
	BA	14-18	23.7	51.3	22.1	29.2	25.0	13.4	5.2	2.0	2.4	2.4	2.0
	B	18-23	44.0	38.9	19.2	19.7	17.1	9.4	3.8	1.1	1.3	1.3	1.5
	B	23-36	48.2	39.0	22.2	16.9	12.8	7.1	3.0	1.0	1.0	1.0	0.7
	B	36-49	49.2	37.7	21.6	16.1	13.1	6.6	2.5	0.7	0.8	0.8	2.5
	Bt4	49-73	48.0	38.0	20.5	17.6	14.0	8.0	3.2	0.8	0.7	0.7	1.3
Endsaw:													
(S91OK-107-007)	A1	0-4	11.3	36.1	15.5	20.6	52.6	19.6	23.2	4.5	2.7	2.7	2.6
	A2	4-11	10.1	32.6	15.2	17.4	57.3	21.9	25.3	4.9	2.9	2.9	2.3
	E	11-15	13.8	32.5	13.8	18.7	53.7	21.2	24.6	3.5	1.8	1.8	2.6
	2B	15-19	61.1	30.5	19.9	10.6	8.4	4.6	2.5	0.5	0.3	0.3	0.5
	2B	19-25	55.7	34.2	22.2	12.0	10.1	8.2	0.9	0.2	0.3	0.3	0.5
	2B	25-34	54.0	42.7	30.7	12.0	3.3	2.3	0.4	0.2	0.2	0.2	0.2
	2BC	34-42	47.5	50.6	39.2	11.4	1.9	0.7	0.4	0.3	0.4	0.4	0.1
	2Cr1	42-56	45.7	51.7	42.0	9.7	2.6	0.9	0.5	0.4	0.4	0.4	0.4
	2Cr2	56-63	37.2	60.5	45.4	15.1	2.3	1.3	0.1	0.3	0.3	0.3	0.4

See footnote at end of table.

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of Selected Soils, Part I--Continued

Soil name and sample number*	Horizon	Depth	Particle-size distribution									
			Clay (<0.002)	Silt			Sand				Coarse (0.5-1mm)	Very coarse (2.0-1.0mm)
				Total silt (0.002-0.05mm)	Fine (0.002-0.02mm)	Coarse (0.02-0.05mm)	Total sand (0.05-2.0mm)	Very fine (0.05-0.10mm)	Fine (0.10-0.25mm)	Medium (0.25-0.50mm)		
-----Percent-----												
Eram:												
(S91OK-107-002)	A	0-10	21.5	36.4	16.2	20.2	42.1	20.3	11.6	2.2	3.5	4.5
	B	10-19	56.6	36.1	22.9	13.2	7.3	3.9	1.8	0.7	0.7	0.2
	B	19-28	52.8	42.0	28.5	13.5	5.2	2.1	0.9	0.5	0.8	0.9
	B	28-37	46.6	49.5	32.9	16.6	3.9	2.0	0.4	0.4	0.5	0.6
	BC	37-46	45.1	50.9	35.8	15.1	4.0	2.0	0.3	0.4	0.7	0.6
	Cr	46-67	41.2	46.1	32.5	13.6	12.7	9.2	1.5	0.7	0.8	0.5
Hector:												
(S91OK-107-006)	A1	0-5	7.7	24.3	11.7	12.6	68.0	14.5	45.2	7.2	0.4	0.7
	A2	5-10	8.2	24.2	11.3	12.9	67.6	13.6	46.2	7.2	0.3	0.3
	C/A	10-18	9.6	22.6	10.7	11.9	67.8	11.9	46.5	8.0	0.3	1.1
Pharoah:												
(S91OK-107-001)	Ap	0-4	21.0	62.0	29.3	32.7	17.0	10.7	3.2	1.2	1.0	0.9
	A	4-7	24.4	58.8	28.8	30.0	16.8	10.9	3.2	1.3	0.7	0.7
	Btn1	7-12	30.9	56.0	27.4	28.6	13.1	8.0	2.7	1.0	0.8	0.6
	Btn2	12-24	46.6	46.2	26.7	19.5	7.2	4.5	1.5	0.6	0.3	0.3
	B	24-37	49.6	43.5	26.6	16.9	6.9	4.6	1.0	0.5	0.4	0.4
	B	37-47	53.1	40.5	25.8	14.7	6.4	3.9	1.3	0.4	0.4	0.4
	B	47-59	57.2	36.9	25.2	11.7	5.9	2.9	1.2	0.4	0.6	0.8
	2BC	59-74	60.7	37.3	33.0	4.3	2.0	0.8	0.5	0.3	0.3	0.1
	2Cr	74-85	49.9	47.1	42.4	4.7	3.0	1.3	0.6	0.7	0.3	0.1
Verdigris:												
(S91OK-107-008)	Ap	0-7	12.6	57.0	18.4	38.6	30.4	24.3	5.5	0.4	0.1	0.1
	A1	7-17	21.1	51.3	19.2	32.1	27.6	23.4	4.0	0.2	TR	TR
	A2	17-23	23.0	48.4	18.7	29.7	28.6	22.8	5.3	0.3	0.1	0.1
	Bw1	23-34	23.9	48.2	18.2	30.0	27.9	21.6	6.0	0.3	TR	TR
	Bw2	34-43	23.9	47.4	18.4	29.0	28.7	21.6	6.5	0.5	0.1	TR
	Bw3	43-53	25.2	46.9	20.6	26.3	27.9	20.8	6.0	1.0	0.1	---
	Bw4	53-65	27.3	44.8	21.9	22.9	27.9	17.9	8.2	1.6	0.1	0.1
	Bw5	65-82	26.1	42.3	20.8	21.5	31.6	16.1	10.8	3.5	0.6	0.6

See footnote at end of tale.

Physical Properties of Selected Soils, Part I--Continued

Soil name and sample number*	Hori- zon	Depth	Particle-size distribution									
			Clay (<0.002)	Silt			Sand					
				Total silt (0.002- 0.05mm)	Fine (0.002- 0.02mm)	Coarse (0.02- 0.05mm)	Total sand (0.05- 2.0mm)	Very fine (0.05- 0.10mm)	Fine (0.10- 0.25mm)	Medium (0.25- 0.50mm)	Coarse (0.5- 1mm)	Very coarse (2.0- 1.0mm)
-----Percent-----												
In												
Weleetka: (S91OK-107-009)	A	0-8	13.2	19.4	7.6	11.8	67.4	2.8	16.5	39.5	8.5	0.1
	EG1	8-17	8.0	16.3	5.5	10.8	75.7	3.3	19.5	43.8	9.0	0.1
	EG2	17-42	4.1	13.4	4.8	8.6	82.5	3.3	20.9	48.8	9.4	0.1
	BtG	42-54	17.0	16.5	8.5	8.0	66.5	2.4	19.6	36.9	7.4	0.2
	2C	54-80	---	---	---	---	---	---	---	---	---	---

* Location of sampled pedons are as follows:

Boley (S91OK-107-010); about 2,500 feet west and 1,100 feet south of the northeast corner of sec. 16, T. 10 N., R. 12 E. This pedon is the typical pedon for the BoyA map unit in the survey area.

Clearview (S91OK-107-005); about 1,850 feet south and 1,210 feet west of the northeast corner of sec. 25, T. 11 N., R. 11 E. This pedon is not the typical pedon for the Official Series Description and the taxonomic unit, but it is used to support data for the ClrB map unit in the survey area.

Coweta (S91OK-107-003); about 1,750 feet west and 1,100 feet north of the southeast corner of sec. 23, T. 12 N., R. 11 E. The soil reaction is slightly lower than and the base saturation in the surface horizon is slightly lower than what the series allows; however, this pedon is a similar soil and is used to support data in the CoCB map unit in the survey area.

Dennis (S91OK-107-004); about 1,100 feet east and 650 feet north of the southwest corner of sec. 14, T. 11 N., R. 11 E. This pedon has colors redder than those allowed in the Official Series Description; however, this pedon is a similar soil and is used to support data in the DenB map unit in the survey area.

Endsaw (S91OK-107-007); about 3,200 feet north and 1,450 feet west of the southeast corner of sec. 29, T. 10 N., R. 12 E. This pedon is not the typical pedon for the Official Series Description and the taxonomic unit; however, it is used to support data for the EnHG map unit in the survey area.

Eram (S91OK-107-002); about 1,350 feet south and 1,700 feet west of the northeast corner of sec. 26, T. 12 N., R. 11 E. This pedon has reaction in the surface layer that is slightly lower than and a depth to bedrock that is slightly deeper than what is allowed in the Official Series Description; however, this pedon is a similar soil and is used to support data in the ErcF map unit in the survey area.

Hector (S91OK-107-006); about 1,830 feet south and 1,300 feet west of the northeast corner of sec. 25, T. 11 N., R. 11 E. This pedon has reaction in the Bw horizon that is slightly higher than and base saturation that is slightly higher than what is allowed in the Official Series Description; however, this pedon is a similar soil and is used to support data in the HeCC map unit in the survey area.

Pharoah (S91OK-107-001); about 600 feet west and 1,000 feet north of the southeast corner of sec. 11, T. 11 N., R. 11 E. This pedon is the typical pedon for the Official Series Description and the Pharoah part of the map unit OPFA in the survey area.

Verdigris (S91OK-107-008); about 600 feet east and 1,050 feet north of the southwest corner of sec. 28, T. 10 N., R. 12 E. This pedon does not have an irregular decrease in organic carbon and has mollic colors thinner than what is allowed in the Official Series Description. This pedon is a similar soil and is used to support data in the VrCA map unit in the survey area.

Weleetka (S91OK-107-009); about 1,300 feet east and 300 feet south of the northwest corner of sec. 13, T. 10 N., R. 9 E. This pedon is the typical pedon for the Official Series Description and the WeLE map unit in the survey area.

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of Selected Soils, Part II

(Dashes indicate that analyses were not made)

Soil name and sample number*	Hori- zon	Depth	Bulk density		Water retention difference 1/3 bar 15 bar (cm/cm)	Water content		COLE
			1/3 bar	Oven- dry		1/3 bar	15 bar	
		In	g/cm3	g/cm3		----Pct----		
Boley: (S91OK-107-010)	A	0-6	1.36	1.42	0.24	24.4	7.0	0.015
	C1	6-12	1.56	1.59	0.22	21.7	7.3	0.006
	C2	12-22	1.46	1.50	0.17	19.3	7.8	0.009
	C3	22-41	1.43	1.45	0.25	25.0	7.8	0.005
	2A	41-48	1.40	1.53	0.27	26.8	7.5	0.030
	2AC	48-56	1.37	1.52	0.21	26.2	10.9	0.035
	3A1	56-66	1.38	1.53	0.13	26.5	16.8	0.035
	3C	66-72	1.40	1.70	0.12	27.7	19.1	0.067
	4C	72-86	1.37	1.68	0.14	29.2	19.1	0.070
Clearview: (S91OK-107-005)	Ap	0-4	1.44	1.46	0.16	14.5	3.0	0.005
	A	4-10	1.59	1.60	0.10	10.1	3.6	0.002
	B	10-17	1.63	1.67	0.12	12.6	5.4	0.008
	B	17-29	1.59	1.63	0.12	14.2	6.6	0.008
	BC	29-35	---	---	---	---	7.5	----
Coweta: (S91OK-107-003)	A	0-12	1.39	1.41	0.12	12.6	3.7	0.005
	Bw	12-19	1.50	1.50	0.09	9.5	3.4	----
Dennis: (S91OK-107-004)	Ap	0-5	1.30	1.38	0.19	23.4	8.6	0.020
	A	5-14	1.42	1.50	0.19	23.2	8.8	0.018
	BA	14-18	1.41	1.51	0.16	22.4	10.2	0.021
	B	18-23	1.36	1.79	0.17	30.1	17.3	0.091
	B	23-36	1.47	1.91	0.12	26.7	18.3	0.090
	B	36-49	1.45	1.94	0.13	28.2	19.0	0.098
	Bt4	49-73	1.46	1.87	0.11	27.0	19.2	0.085
Endsaw: (S91OK-107-007)	A1	0-4	1.07	1.15	0.12	25.0	6.4	0.015
	A2	4-11	---	---	---	---	4.1	----
	E	11-15	---	---	---	---	4.8	----
	2B	15-19	1.28	1.63	0.16	33.9	21.3	0.080
	2B	19-25	1.43	1.72	0.09	26.1	19.4	0.057
	2B	25-34	1.47	1.86	0.11	26.5	18.1	0.072
	2BC	34-42	1.46	1.74	0.15	27.6	16.0	0.052
	2Cr1	42-56	1.70	1.98	0.04	19.6	15.9	0.032
	2Cr2	56-63	1.77	2.00	0.04	16.1	12.8	0.025
Eram: (S91OK-107-002)	A	0-10	1.31	1.40	0.08	20.2	10.1	0.013
	B	10-19	1.23	1.34	0.03	22.0	19.9	0.029
	B	19-28	1.54	1.89	0.09	24.1	18.1	0.070
	B	28-37	1.59	1.83	0.08	21.1	16.0	0.044
	BC	37-46	1.59	1.84	0.08	21.7	15.2	0.038
	Cr	46-67	1.66	1.91	0.06	19.2	14.1	0.034
Hector: (S91OK-107-006)	A1	0-5	1.43	1.47	0.13	13.2	3.7	0.009
	A2	5-10	1.66	1.68	0.11	10.2	3.0	0.004
	C/A	10-18	---	---	---	---	3.4	----

See footnote at end of table.

Soil Survey of Okfuskee County, Oklahoma

Physical Properties of Selected Soils, Part II--Continued

Soil name and sample number*	Hori- zon	Depth	Bulk density		Water retention	Water content		COLE
			1/3 bar	Oven- dry	difference 1/3 bar 15 bar (cm/cm)	1/3 bar	15 bar	
		In	g/cm3	g/cm3		----Pct----		
Pharoah: (S91OK-107-001)	Ap	0-4	1.35	1.47	0.19	24.0	9.7	0.029
	A	4-7	1.45	1.59	0.19	23.4	10.5	0.031
	Btn1	7-12	1.45	1.67	0.15	23.0	12.8	0.048
	Btn2	12-24	1.47	1.90	0.10	24.2	17.1	0.089
	B	24-37	1.45	1.98	0.14	27.5	17.5	0.109
	B	37-47	1.44	1.95	0.13	27.8	18.5	0.106
	B	47-59	1.41	1.92	0.14	29.2	19.4	0.107
	2BC	59-74	1.55	1.84	0.05	23.2	20.0	0.056
	2Cr	74-85	1.64	1.99	0.07	21.5	17.4	0.066
Verdigris: (S91OK-107-008)	Ap	0-7	1.49	1.56	0.18	18.3	5.9	0.015
	A1	7-17	1.38	1.47	0.16	19.6	8.3	0.021
	A2	17-23	1.49	1.59	0.17	20.5	9.0	0.122
	Bw1	23-34	1.50	1.62	0.17	20.9	9.8	0.026
	Bw2	34-43	1.51	1.64	0.17	20.8	9.5	0.028
	Bw3	43-53	1.57	1.72	0.14	19.2	10.2	0.031
	Bw4	53-65	1.58	1.73	0.13	18.8	10.8	0.031
	Bw5	65-82	1.60	1.76	0.14	19.7	10.8	0.031
Weleetka: (S91OK-107-009)	A	0-8	0.87	1.07	0.33	46.1	8.1	0.071
	EG1	8-17	1.89	1.91	0.11	8.8	3.1	0.004
	EG2	17-42	1.88	1.89	0.10	6.3	1.0	0.002
	BtG	42-54	1.82	1.88	0.09	11.5	6.5	0.011
	2C	54-80	---	---	---	---	11.7	---

* Location of sampled pedons is given at the end of the table
"Physical Properties of Selected Soils, Part I."

Chemical Properties

The table "Chemical Properties of the Soils" shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given in the series descriptions in this survey.

Cation-exchange capacity is the total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. Soils having a high cation-exchange capacity can retain cations. The ability to retain cations helps to prevent the pollution of ground water.

Effective cation-exchange capacity refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have a pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the soil. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Gypsum is given as the percent, by weight, of hydrated calcium sulfates in the soil. Gypsum is partially soluble in water and can be dissolved and removed by water. Soils that have a high content of gypsum (more than 10 percent) may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter (decisiemens per meter) at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of the soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio is the measure of sodium relative to calcium and magnesium in the water extract from saturated soil paste. Soils having a sodium adsorption ratio of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
		meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
BctB:								
Bates-----	0-12	10-25	---	5.1-6.5	0	0	0	0
	12-19	10-20	---	5.1-6.5	0	0	0	0
	19-33	10-20	---	5.1-6.5	0	0	0	0
	33-39	10-25	---	5.1-6.5	0	0	0	0
	39-45	---	---	---	---	---	---	---
BctC:								
Bates-----	0-12	10-25	---	5.1-6.5	0	0	0	0
	12-18	10-20	---	5.1-6.5	0	0	0	0
	18-28	10-20	---	5.1-6.5	0	0	0	0
	28-38	10-20	---	5.1-6.5	0	0	0	0
	38-42	---	---	---	---	---	---	---
BctC2:								
Bates-----	0-6	10-25	---	5.1-6.5	0	0	0	0
	6-12	10-20	---	5.1-6.5	0	0	0	0
	12-26	10-20	---	5.1-6.5	0	0	0	0
	26-36	10-25	---	5.1-6.5	0	0	0	0
	36-40	---	---	---	---	---	---	---
BoyA:								
Boley-----	0-6	11-17	---	6.1-8.4	0	0	0	0
	6-42	11-24	---	5.6-8.4	0	0	0	0
	42-48	11-27	---	5.6-8.4	0	0	0	0
	48-73	11-27	---	5.6-8.4	0	0	0	0
	73-88	11-27	---	5.6-8.4	0	0	0	0
CaaA:								
Canadian-----	0-8	3.0-11	---	5.6-7.8	0	0	0	0
	8-14	3.0-11	---	5.6-7.8	0	0	0	0
	14-30	6.0-11	---	6.1-8.4	0	0	0	0
	30-65	3.0-11	---	6.1-8.4	0	0	0	0
ClrB:								
Clearview-----	0-3	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	3-8	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	8-14	8.0-13	---	4.5-6.5	0	0	0.0-2.0	0
	14-23	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	23-31	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	31-40	---	---	---	---	---	---	---
ClrC:								
Clearview-----	0-8	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	8-13	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	13-23	8.0-13	---	4.5-6.5	0	0	0.0-2.0	0
	23-35	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	35-40	---	---	---	---	---	---	---
ClrC2:								
Clearview-----	0-6	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	6-19	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	19-26	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	26-30	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	30-40	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
CoBC:								
Coweta-----	0-11	10-16	---	5.1-6.5	0	0	0	0
	11-19	7.0-18	---	5.1-6.5	0	0	0	0
	19-25	---	---	---	---	---	---	---
Bates-----	0-11	10-25	---	5.1-6.5	0	0	0	0
	11-14	10-20	---	5.1-6.5	0	0	0	0
	14-25	10-20	---	5.1-6.5	0	0	0	0
	25-30	---	---	---	---	---	---	---
CouB:								
Choteau-----	0-9	11-17	---	4.5-6.5	0	0	0	0
	9-18	11-17	---	4.5-6.5	0	0	0	0
	18-24	11-14	---	4.5-6.0	0	0	0	0
	24-32	16-21	16-21	4.5-6.0	0	0	0	0
	32-48	21-27	---	5.1-7.8	0	0	0	0
	48-80	21-27	---	5.1-7.8	0	0	0	0
CouC:								
Choteau-----	0-16	11-17	---	4.5-6.5	0	0	0	0
	16-20	11-14	---	4.5-6.0	0	0	0	0
	20-26	16-21	16-21	4.5-6.0	0	0	0	0
	26-47	21-27	---	5.1-7.8	0	0	0	0
	47-72	21-27	---	5.1-7.8	0	0	0	0
CskB:								
Chickasha-----	0-7	10-16	---	5.6-7.3	0	0	0	0
	7-23	11-18	---	5.6-7.3	0	0	0	0
	23-37	11-18	---	5.6-8.4	0	0	0	0
	37-59	11-18	---	5.6-8.4	0	0	0	0
	59-65	---	---	---	---	---	---	---
DAM. Large dam								
DenB:								
Dennis-----	0-8	7.0-17	---	5.1-6.0	0	0	0	0
	8-15	7.0-17	---	5.1-6.0	0	0	0	0
	15-22	17-21	17-21	4.5-6.0	0	0	0	0
	22-50	21-33	---	5.1-8.4	0	0	0	0
	50-62	21-33	---	5.1-8.4	0	0	0	0
	62-83	21-33	---	5.1-8.4	0	0	0	0
DenC:								
Dennis-----	0-12	7.0-17	---	5.1-6.0	0	0	0	0
	12-16	7.0-17	---	5.1-6.0	0	0	0	0
	16-20	17-21	17-21	4.5-6.0	0	0	0	0
	20-39	21-33	---	5.1-8.4	0	0	0	0
	39-54	21-33	---	5.1-8.4	0	0	0	0
	54-80	21-33	---	5.1-8.4	0	0	0	0
DenC2:								
Dennis-----	0-6	7.0-17	---	5.1-6.0	0	0	0	0
	6-14	17-21	17-21	4.5-6.0	0	0	0	0
	14-26	21-33	---	5.1-8.4	0	0	0	0
	26-46	21-33	---	5.1-8.4	0	0	0	0
	46-80	21-33	---	5.1-8.4	0	0	0	0

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
DEPD3:								
Dennis-----	0-6	7.0-17	---	5.1-6.0	0	0	0	0
	6-16	17-21	17-21	4.5-6.0	0	0	0	0
	16-28	21-33	---	5.1-8.4	0	0	0	0
	28-42	21-33	---	5.1-8.4	0	0	0	0
	42-64	21-33	---	5.1-8.4	0	0	0	0
Eram-----								
	0-5	17-24	---	5.6-6.5	0	0	0	0
	5-20	21-33	---	5.1-8.4	0	0	0	0
	20-34	21-33	---	5.1-8.4	0	0	0	0
	34-44	---	---	---	---	---	---	---
Pharoah-----								
	0-7	11-17	---	5.1-7.8	0	0	0.0-4.0	2-4
	7-11	11-17	---	5.1-7.8	0	0	0.0-4.0	2-4
	11-27	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
	27-50	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
	50-61	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
	61-81	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
DsSC:								
Darsil-----	0-4	1.0-6.0	---	5.1-7.8	0	0	0	0
	4-12	1.0-6.0	---	5.1-7.8	0	0	0	0
	12-15	---	---	---	---	---	---	---
Stephenville-----								
	0-4	7.0-12	---	5.1-6.5	0	0	0	0
	4-14	4.0-10	---	5.1-6.5	0	0	0	0
	14-26	11-21	11-21	4.5-6.0	0	0	0	0
	26-40	---	---	---	---	---	---	---
DsSE:								
Darsil-----	0-6	1.0-6.0	---	5.1-7.8	0	0	0	0
	6-18	1.0-6.0	---	5.1-7.8	0	0	0	0
	18-25	---	---	---	---	---	---	---
Stephenville-----								
	0-6	7.0-12	---	5.1-6.5	0	0	0	0
	6-13	4.0-10	---	5.1-6.5	0	0	0	0
	13-20	11-21	11-21	4.5-6.0	0	0	0	0
	20-26	11-21	11-21	4.5-6.0	0	0	0	0
	26-30	---	---	---	---	---	---	---
EflB:								
Eufaula-----	0-10	2.0-7.0	---	5.1-7.3	0	0	0	0
	10-34	2.0-7.0	---	5.1-7.3	0	0	0	0
	34-80	2.0-8.0	---	5.1-7.3	0	0	0	0
EflE:								
Eufaula-----	0-12	2.0-7.0	---	5.1-7.3	0	0	0	0
	12-50	2.0-7.0	---	5.1-7.3	0	0	0	0
	50-80	2.0-8.0	---	5.1-7.3	0	0	0	0
EnHE:								
Endsaw-----	0-4	8.0-13	---	5.1-6.0	0	0	0	0
	4-11	8.0-13	---	5.1-6.0	0	0	0	0
	11-22	24-36	24-36	4.5-5.5	0	0	0	0
	22-48	24-36	24-36	4.5-5.5	0	0	0	0
	48-54	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
		In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm
EnHE:								
Hector-----	0-3	5.0-15	---	5.1-6.5	0	0	0	0
	3-8	5.0-15	---	5.1-6.5	0	0	0	0
	8-16	5.0-15	5.0-15	4.5-5.5	0	0	0	0
	16-25	---	---	---	0	0	0	0
EnHG:								
Endsaw-----	0-4	8.0-13	---	5.1-6.0	0	0	0	0
	4-14	8.0-13	---	5.1-6.0	0	0	0	0
	14-21	24-36	24-36	4.5-5.5	0	0	0	0
	21-41	24-36	24-36	4.5-5.5	0	0	0	0
	41-50	24-36	24-36	4.5-5.5	0	0	0	0
	50-60	---	---	---	---	---	---	---
Hector-----	0-3	5.0-15	---	5.1-6.5	0	0	0	0
	3-6	5.0-15	---	5.1-6.5	0	0	0	0
	6-12	5.0-15	5.0-15	4.5-5.5	0	0	0	0
	12-20	---	---	---	0	0	0	0
EraE:								
Eram-----	0-8	17-24	---	5.6-6.5	0	0	0	0
	8-22	21-33	---	5.1-8.4	0	0	0	0
	22-38	21-33	---	5.1-8.4	0	0	0	0
	38-45	---	---	---	---	---	---	---
ErCF:								
Eram-----	0-10	11-16	---	5.6-6.5	0	0	0	0
	10-24	21-33	---	5.1-8.4	0	0	0	0
	24-35	21-33	---	5.1-8.4	0	0	0	0
	35-40	---	---	---	---	---	---	---
Coweta-----	0-8	10-16	---	5.1-6.5	0	0	0	0
	8-11	7.0-18	---	5.1-6.5	0	0	0	0
	11-14	---	---	---	---	---	---	---
ErmC:								
Eram-----	0-9	11-16	---	5.6-6.5	0	0	0	0
	9-20	21-33	---	5.1-8.4	0	0	0	0
	20-36	21-33	---	5.1-8.4	0	0	0	0
	36-40	---	---	---	---	---	---	---
ErRE:								
Eram-----	0-10	11-16	---	5.6-6.5	0	0	0	0
	10-30	21-33	---	5.1-8.4	0	0	0	0
	30-38	21-33	---	5.1-8.4	0	0	0	0
	38-50	---	---	---	---	---	---	---
Radley-----	0-13	10-17	---	5.6-7.3	0	0	0	0
	13-30	11-21	---	5.6-7.3	0	0	0	0
	30-80	11-21	---	5.6-7.3	0	0	0	0
GadA:								
Gaddy-----	0-9	4.0-10	---	7.4-8.4	0-2	0	0	0
	9-19	4.0-10	---	7.4-8.4	0-2	0	0	0
	19-80	4.0-10	---	7.9-8.4	1-5	0	0	0

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium	Gypsum	Salinity	Sodium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate			adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
GalB:								
Galey-----	0-7	4.0-10	---	5.1-6.5	0	0	0	0
	7-12	4.0-10	---	5.1-6.5	0	0	0	0
	12-19	4.0-10	---	5.1-6.5	0	0	0	0
	19-34	11-21	---	5.1-7.3	0	0	0	0
	34-54	11-21	---	5.1-7.3	0	0	0	0
	54-80	11-21	---	5.1-7.3	0	0	0	0
GalC:								
Galey-----	0-6	4.0-10	---	5.1-6.5	0	0	0	0
	6-12	4.0-10	---	5.1-6.5	0	0	0	0
	12-31	11-21	---	5.1-7.3	0	0	0	0
	31-43	11-21	---	5.1-7.3	0	0	0	0
	43-80	11-21	---	5.1-7.3	0	0	0	0
GalC2:								
Galey-----	0-7	4.0-10	---	5.1-6.5	0	0	0	0
	7-22	11-21	---	5.1-7.3	0	0	0	0
	22-44	11-21	---	5.1-7.3	0	0	0	0
	44-68	11-21	---	5.1-7.3	0	0	0	0
	68-79	11-21	---	5.1-7.3	0	0	0	0
GdyA:								
Gaddy-----	0-11	4.0-10	---	7.4-8.4	0-2	0	0	0
	11-22	4.0-10	---	7.9-8.4	1-5	0	0	0
	22-80	4.0-10	---	7.9-8.4	1-5	0	0	0
GhLB:								
Glentosh-----	0-8	4.0-8.0	---	5.1-6.0	0	0	0	0
	8-30	4.0-8.0	---	4.5-6.5	0	0	0	0
	30-52	4.0-8.0	---	4.5-6.5	0	0	0	0
	52-80	4.0-8.0	---	4.5-6.5	0	0	0	0
Larton-----	0-25	4.0-7.0	---	5.1-6.5	0	0	0	0
	25-38	4.0-7.0	---	5.1-6.5	0	0	0	0
	38-62	10-15	10-15	4.5-6.0	0	0	0	0
	62-80	10-15	---	5.1-6.5	0	0	0	0
GlhE:								
Glentosh-----	0-5	4.0-8.0	---	5.1-6.0	0	0	0	0
	5-36	4.0-8.0	---	4.5-6.5	0	0	0	0
	36-58	4.0-8.0	---	4.5-6.5	0	0	0	0
	58-80	4.0-8.0	---	4.5-6.5	0	0	0	0
GriC2:								
Grainola-----	0-2	17-21	---	6.6-8.4	0-2	0	0	0
	2-8	21-36	---	7.9-8.4	0-5	0	0	0
	8-16	21-36	---	7.9-8.4	0-10	0	0	0
	16-39	21-36	---	7.9-8.4	0-10	0	0	0
	39-52	---	0.0-0.0	---	0	0	---	0
HeCC:								
Hector-----	0-6	5.0-15	---	5.1-6.5	0	0	0	0
	6-14	5.0-15	5.0-15	4.5-5.5	0	0	0	0
	14-20	---	---	---	0	0	0	0

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
		In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm
HeCC:								
Clearview-----	0-8	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	8-23	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	23-36	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	36-38	---	---	---	---	---	---	---
HeCE:								
Hector-----	0-5	5.0-15	---	5.1-6.5	0	0	0	0
	5-13	5.0-15	5.0-15	4.5-5.5	0	0	0	0
	13-20	---	---	---	0	0	0	0
Clearview-----	0-6	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	6-12	8.0-13	---	4.5-6.5	0	0	0.0-2.0	0
	12-23	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	23-27	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	27-30	---	---	---	---	---	---	---
KarB:								
Karma-----	0-9	7.0-11	---	5.6-7.8	0	0	0	0
	9-15	7.0-11	---	5.6-7.8	0	0	0	0
	15-29	15-21	---	5.6-7.8	0	0	0	0
	29-46	15-21	---	5.6-7.8	0	0	0	0
	46-80	7.0-15	---	5.6-7.8	0	0	0	0
KarC:								
Karma-----	0-9	7.0-11	---	5.6-7.8	0	0	0	0
	9-13	7.0-11	---	5.6-7.8	0	0	0	0
	13-34	15-21	---	5.6-7.8	0	0	0	0
	34-80	7.0-15	---	5.6-7.8	0	0	0	0
KarD2:								
Karma-----	0-3	7.0-11	---	5.6-7.8	0	0	0	0
	3-10	7.0-11	---	5.6-7.8	0	0	0	0
	10-38	15-21	---	5.6-7.8	0	0	0	0
	38-55	15-21	---	5.6-7.8	0	0	0	0
	55-80	7.0-15	---	5.6-7.8	0	0	0	0
KarE4:								
Karma-----	0-4	7.0-11	---	5.6-7.8	0	0	0	0
	4-13	7.0-11	---	5.6-7.8	0	0	0	0
	13-36	15-21	---	5.6-7.8	0	0	0	0
	36-49	15-21	---	5.6-7.8	0	0	0	0
	49-80	7.0-15	---	5.6-7.8	0	0	0	0
KimA:								
Kiomatia-----	0-7	2.0-7.0	---	6.1-8.4	0-5	0	0	0
	7-18	1.0-7.0	---	6.1-8.4	0-5	0	0	0
	18-22	1.0-7.0	---	6.1-8.4	0-5	0	0	0
	22-80	1.0-7.0	---	6.1-8.4	0-5	0	0	0
KmfA:								
Kiomatia-----	0-6	2.0-7.0	---	6.1-8.4	0-5	0	0	0
	6-10	1.0-7.0	---	6.1-8.4	0-5	0	0	0
	10-16	1.0-7.0	---	6.1-8.4	0-5	0	0	0
	16-29	1.0-7.0	---	6.1-8.4	0-5	0	0	0
	29-40	1.0-7.0	---	6.1-8.4	0-5	0	0	0
	40-80	1.0-7.0	---	6.1-8.4	0-5	0	0	0

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium	Gypsum	Salinity	Sodium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate			adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
KoGE4:								
Konawa-----	0-12	6.0-11	---	5.1-6.5	0	0	0	0
	12-20	2.0-10	---	5.1-6.5	0	0	0	0
	20-36	11-18	---	5.1-7.3	0	0	0	0
	36-80	5.0-18	---	5.1-6.5	0	0	0	0
Gullied land.								
KowB:								
Konawa-----	0-6	6.0-11	---	5.1-6.5	0	0	0	0
	6-11	6.0-11	---	5.1-6.5	0	0	0	0
	11-17	2.0-10	---	5.1-6.5	0	0	0	0
	17-33	11-18	---	5.1-7.3	0	0	0	0
	33-52	11-18	---	5.1-7.3	0	0	0	0
	52-80	5.0-18	---	5.1-6.5	0	0	0	0
KowC:								
Konawa-----	0-11	6.0-11	---	5.1-6.5	0	0	0	0
	11-18	2.0-10	---	5.1-6.5	0	0	0	0
	18-48	11-18	---	5.1-7.3	0	0	0	0
	48-80	5.0-18	---	5.1-6.5	0	0	0	0
KowD2:								
Konawa-----	0-4	6.0-11	---	5.1-6.5	0	0	0	0
	4-13	2.0-10	---	5.1-6.5	0	0	0	0
	13-37	11-18	---	5.1-7.3	0	0	0	0
	37-88	5.0-18	---	5.1-6.5	0	0	0	0
LrtB:								
Larton-----	0-12	4.0-7.0	---	5.1-6.5	0	0	0	0
	12-28	4.0-7.0	---	5.1-6.5	0	0	0	0
	28-42	10-15	10-15	4.5-6.0	0	0	0	0
	42-63	10-15	10-15	4.5-6.0	0	0	0	0
	63-80	10-15	---	5.1-6.5	0	0	0	0
LrtD:								
Larton-----	0-6	4.0-7.0	---	5.1-6.5	0	0	0	0
	6-30	4.0-7.0	---	5.1-6.5	0	0	0	0
	30-48	10-15	10-15	4.5-6.0	0	0	0	0
	48-80	10-15	---	5.1-6.5	0	0	0	0
LtgA:								
Lightning-----	0-8	12-16	---	5.1-7.3	0	0	0	0
	8-16	12-21	---	4.5-6.5	0	0	0	0
	16-32	21-33	---	4.5-6.5	0	0	0	0
	32-80	21-33	---	5.1-8.4	0	0	0	0
M-W. Miscellaneous water								
MasA:								
Mason-----	0-6	8.0-17	---	5.1-7.3	0	0	0	0
	6-14	8.0-17	---	5.1-7.3	0	0	0	0
	14-26	12-21	---	5.6-7.3	0	0	0	0
	26-46	12-21	---	5.6-7.3	0	0	0	0
	46-65	12-21	---	5.6-7.3	0	0	0	0
	65-80	12-21	---	4.5-7.8	0	0	0	0

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
MaTA:								
Madill-----	0-14	7.0-11	---	5.6-7.3	0	0	0	0
	14-19	7.0-11	---	5.6-7.3	0	0	0	0
	19-38	7.0-11	---	5.6-7.3	0	0	0	0
	38-55	7.0-11	---	5.6-7.3	0	0	0	0
	55-80	4.0-11	---	5.6-8.4	0	0	0	0
Tallahassee-----	0-13	7.0-11	---	5.6-6.5	0	0	0	0
	13-19	4.0-11	---	5.6-6.5	0	0	0	0
	19-45	4.0-11	---	5.6-6.5	0	0	0	0
	45-80	4.0-11	---	5.6-6.5	0	0	0	0
Md1A:								
Madill-----	0-13	7.0-11	---	5.6-7.3	0	0	0	0
	13-25	7.0-11	---	5.6-7.3	0	0	0	0
	25-38	7.0-11	---	5.6-7.3	0	0	0	0
	38-51	4.0-11	---	5.6-8.4	0	0	0	0
	51-80	4.0-11	---	5.6-8.4	0	0	0	0
MrwB:								
Muldrow-----	0-8	18-24	---	5.1-7.3	0	0	0	0
	8-18	21-30	---	6.1-7.8	0	0	0	0
	18-31	21-30	---	6.1-7.8	0	0	0	0
	31-80	21-30	---	6.6-8.4	0	0	0	0
MshD:								
Masham-----	0-8	21-24	---	7.9-8.4	0-5	0	0	0
	8-20	21-36	---	7.9-8.4	0-5	0	0	0
	20-25	---	---	---	---	---	---	---
NviB:								
Navina-----	0-14	10-16	---	5.6-7.8	0	0	0	0
	14-19	11-21	---	5.6-7.8	0	0	0	0
	19-32	11-21	---	5.6-7.8	0	0	0	0
	32-46	11-21	---	6.6-7.8	0	0	0	0
	46-80	7.0-21	---	6.6-7.8	0	0	0	0
NviC2:								
Navina-----	0-6	10-16	---	5.6-7.8	0	0	0	0
	6-12	10-16	---	5.6-7.8	0	0	0	0
	12-24	11-21	---	5.6-7.8	0	0	0	0
	24-33	11-21	---	6.6-7.8	0	0	0	0
	33-48	7.0-21	---	6.6-7.8	0	0	0	0
	48-80	7.0-21	---	6.6-7.8	0	0	0	0
NzDE:								
Niotaze-----	0-2	4.0-12	---	5.1-6.0	0	0	0	0
	2-6	4.0-12	---	5.1-6.0	0	0	0	0
	6-18	21-33	---	4.5-6.5	0	0	0	0
	18-27	21-33	---	4.5-7.3	0	0	0	0
	27-29	---	---	---	0	0	0	0
Darsil-----	0-6	1.0-6.0	---	5.1-7.8	0	0	0	0
	6-19	1.0-6.0	---	5.1-7.8	0	0	0	0
	19-24	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium	Gypsum	Salinity	Sodium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate			adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
OkeB:								
Okemah-----	0-18	12-17	---	5.6-7.3	0	0	0	0
	18-24	12-21	---	5.6-7.3	0	0	0	0
	24-48	21-33	---	5.6-7.8	0	0	0	0
	48-70	21-33	---	5.6-7.8	0	0	0	0
	70-75	21-33	---	6.6-8.4	0-2	0-2	0	0
OkrA:								
Oklared-----	0-6	7.0-11	---	7.4-8.4	0-5	0	0	0
	6-14	7.0-11	---	7.4-8.4	0-5	0	0	0
	14-25	7.0-11	---	7.4-8.4	0-5	0	0	0
	25-41	4.0-11	---	7.4-8.4	0-5	0	0	0
	41-80	4.0-11	---	7.4-8.4	0-5	0	0	0
OPPA:								
Okemah-----	0-9	12-17	---	5.6-7.3	0	0	0	0
	9-16	12-21	---	5.6-7.3	0	0	0	0
	16-29	21-33	---	5.6-7.8	0	0	0	0
	29-40	21-33	---	5.6-7.8	0	0	0	0
	40-61	21-33	---	6.6-8.4	0-2	0-2	0	0
	61-80	21-33	---	6.6-8.4	0-2	0-2	0	0
Pharoah-----	0-4	11-17	---	5.1-7.8	0	0	0.0-4.0	2-4
	4-7	11-17	---	5.1-7.8	0	0	0.0-4.0	2-4
	7-24	18-33	---	5.6-8.4	0	0	2.0-8.0	4-8
	24-47	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
	47-59	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
	59-80	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
Parsons-----	0-12	10-15	---	5.1-6.5	0	0	0	0
	12-26	10-15	---	5.1-6.5	0	0	0	0
	26-41	21-36	---	5.1-7.8	0	0	0	0
	41-70	21-36	---	5.1-7.8	0	0	0	0
	70-80	21-36	---	5.1-7.8	0	0	0	0
ParA:								
Parsons-----	0-8	10-15	---	5.1-6.5	0	0	0	0
	8-14	10-15	---	5.1-6.5	0	0	0	0
	14-31	21-36	---	5.1-7.8	0	0	0	0
	31-51	21-36	---	5.1-7.8	0	0	0	0
	51-80	21-36	---	5.1-7.8	0	0	0	0
PIT. Pits								
POWD:								
Pharoah-----	0-5	11-17	---	5.1-7.8	0	0	0.0-4.0	2-4
	5-12	11-17	---	5.1-7.8	0	0	0.0-4.0	2-4
	12-30	18-33	---	5.6-8.4	0	0	2.0-8.0	4-8
	30-65	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
	65-80	24-36	---	6.6-8.4	0	0-2	4.0-8.0	4-13
Oil waste land.								

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium	Gypsum	Salinity	Sodium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate			adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
PrmC2:								
Porum-----	0-7	7.0-11	7.0-11	4.5-6.0	0	0	0	0
	7-11	7.0-11	7.0-11	4.5-6.0	0	0	0	0
	11-18	21-27	21-27	4.5-6.0	0	0	0	0
	18-48	21-27	21-27	4.5-6.0	0	0	0	0
	48-80	18-27	---	5.6-7.8	0	0	0	0
Pu1A:								
Pulaski-----	0-8	7.0-11	---	5.6-7.3	0	0	0	0
	8-18	7.0-11	---	5.6-7.3	0	0	0	0
	18-33	7.0-11	---	5.6-7.3	0	0	0	0
	33-50	4.0-11	---	5.6-8.4	0	0	0	0
	50-65	4.0-11	---	5.6-8.4	0	0	0	0
PuTA:								
Pulaski-----	0-6	7.0-11	---	5.6-7.3	0	0	0	0
	6-12	7.0-11	---	5.6-7.3	0	0	0	0
	12-31	7.0-11	---	5.6-7.3	0	0	0	0
	31-38	4.0-11	---	5.6-8.4	0	0	0	0
	38-65	4.0-11	---	5.6-8.4	0	0	0	0
Tribbey-----	0-7	7.0-11	---	5.6-8.4	0	0	0	0
	7-19	7.0-11	---	5.6-8.4	0	0	0	0
	19-40	4.0-11	---	5.6-8.4	0	0	0	0
	40-80	10-18	---	6.6-8.4	0	0	0	0
RbkA:								
Roebuck-----	0-12	24-36	---	6.1-8.4	0	0	0	0
	12-38	21-36	---	6.1-8.4	0	0	0	0
	38-48	21-36	---	6.1-8.4	0	0	0	0
	48-80	21-36	---	6.1-8.4	0	0	0	0
RenC:								
Renfrow-----	0-8	11-16	---	6.1-7.8	0	0	0	0
	8-12	14-24	---	6.1-7.8	0	0	0	0
	12-35	21-33	---	6.1-8.4	0	0	0.0-2.0	0-4
	35-60	21-33	---	6.1-8.4	0	0	0.0-2.0	0-4
	60-80	21-33	---	6.6-8.4	0	0	0.0-2.0	0-4
SCGC4:								
Shermore-----	0-8	7.0-10	---	5.1-6.5	0	0	0	0
	8-14	11-21	11-21	4.5-6.0	0	0	0	0
	14-26	11-21	11-21	4.5-6.0	0	0	0	0
	26-38	11-21	11-21	4.5-6.0	0	0	0	0
	38-80	11-23	11-23	4.5-6.0	0	0	0	0
Clearview-----	0-6	8.0-11	---	4.5-6.5	0	0	0.0-2.0	0
	6-22	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	22-30	11-17	---	4.5-7.3	0	0	0.0-2.0	0
	30-31	---	---	---	---	---	---	---
Gullied land.								
SDGD4:								
Stephenville-----	0-8	7.0-12	---	5.1-6.5	0	0	0	0
	8-28	11-21	11-21	4.5-6.0	0	0	0	0
	28-39	11-21	11-21	4.5-6.0	0	0	0	0
	39-42	---	---	---	---	---	---	---

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium	Gypsum	Salinity	Sodium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate			adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
SDGD4:								
Darsil-----	0-8	1.0-6.0	---	5.1-7.8	0	0	0	0
	8-19	1.0-6.0	---	5.1-7.8	0	0	0	0
	19-20	---	---	---	---	---	---	---
Gullied land.								
SDND:								
Stephenville----	0-10	7.0-12	---	5.1-6.5	0	0	0	0
	10-24	11-21	11-21	4.5-6.0	0	0	0	0
	24-36	11-21	11-21	4.5-6.0	0	0	0	0
	36-45	---	---	---	---	---	---	---
Darsil-----	0-10	1.0-6.0	---	5.1-7.8	0	0	0	0
	10-15	1.0-6.0	---	5.1-7.8	0	0	0	0
	15-18	---	---	---	---	---	---	---
Newalla-----	0-8	5.0-11	---	4.5-7.3	0	0	0	0
	8-15	12-21	---	4.5-7.3	0	0	0	0
	15-22	24-36	---	4.5-8.4	0-2	0	0	0-4
	22-39	24-36	---	4.5-8.4	0-2	0	0	0-4
	39-50	24-36	---	7.4-8.4	0-2	0	0	0-8
	50-70	---	---	---	---	---	---	---
SevA:								
Severn-----	0-8	6.0-11	---	7.4-8.4	0-2	0	0	0
	8-14	6.0-21	---	7.9-8.4	0-2	0	0	0
	14-20	6.0-21	---	7.9-8.4	0-2	0	0	0
	20-38	6.0-21	---	7.9-8.4	0-2	0	0	0
	38-60	6.0-21	---	7.9-8.4	0-2	0	0	0
	60-80	6.0-21	---	7.9-8.4	0-2	0	0	0
ShmC:								
Shermore-----	0-9	7.0-10	---	5.1-6.5	0	0	0	0
	9-19	7.0-10	---	5.1-6.5	0	0	0	0
	19-38	11-21	11-21	4.5-6.0	0	0	0	0
	38-56	11-21	11-21	4.5-6.0	0	0	0	0
	56-80	11-23	11-23	4.5-6.0	0	0	0	0
ShmC2:								
Shermore-----	0-8	7.0-10	---	5.1-6.5	0	0	0	0
	8-19	11-21	11-21	4.5-6.0	0	0	0	0
	19-32	11-21	11-21	4.5-6.0	0	0	0	0
	32-42	11-21	11-21	4.5-6.0	0	0	0	0
	42-80	11-23	11-23	4.5-6.0	0	0	0	0
SOWD:								
Stephenville----	0-9	4.0-10	---	5.1-6.5	0	0	0	0
	9-23	11-21	11-21	4.5-6.0	0	0	0	0
	23-36	11-21	11-21	4.5-6.0	0	0	0	0
	36-46	---	---	---	---	---	---	---
Oil waste land.								

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
StdB:								
Stidham-----	0-14	4.0-8.0	---	5.1-6.0	0	0	0	0
	14-31	4.0-8.0	---	5.1-6.0	0	0	0	0
	31-54	11-21	---	5.1-6.0	0	0	0	0
	54-80	11-21	---	5.1-6.0	0	0	0	0
	80-85	7.0-18	---	5.1-6.0	0	0	0	0
SteB:								
Stephenville----	0-6	7.0-12	---	5.1-6.5	0	0	0	0
	6-14	4.0-10	---	5.1-6.5	0	0	0	0
	14-26	11-21	11-21	4.5-6.0	0	0	0	0
	26-36	11-21	11-21	4.5-6.0	0	0	0	0
	36-40	---	---	---	---	---	---	---
SteC2:								
Stephenville----	0-5	7.0-12	---	5.1-6.5	0	0	0	0
	5-22	11-21	11-21	4.5-6.0	0	0	0	0
	22-33	11-21	11-21	4.5-6.0	0	0	0	0
	33-43	---	---	---	---	---	---	---
SvnA:								
Severn-----	0-16	6.0-11	---	7.4-8.4	0-2	0	0	0
	16-24	6.0-11	---	7.4-8.4	0-2	0	0	0
	24-34	6.0-11	---	7.4-8.4	0-2	0	0	0
	34-42	6.0-11	---	7.4-8.4	0-2	0	0	0
	42-80	6.0-21	---	7.9-8.4	0-2	0	0	0
TlhA:								
Tullahassee-----	0-14	7.0-11	---	5.6-6.5	0	0	0	0
	14-48	4.0-11	---	5.6-6.5	0	0	0	0
	48-80	4.0-11	---	5.6-6.5	0	0	0	0
TlrA:								
Teller-----	0-9	7.0-11	---	5.6-7.3	0	0	0	0
	9-16	7.0-11	---	5.6-7.3	0	0	0	0
	16-22	7.0-11	---	5.6-7.3	0	0	0	0
	22-36	11-18	---	5.6-7.3	0	0	0	0
	36-60	7.0-13	---	6.1-7.8	0	0	0	0
	60-80	7.0-13	---	5.6-8.4	0	0	0	0
TlrB:								
Teller-----	0-6	7.0-11	---	5.6-7.3	0	0	0	0
	6-12	7.0-11	---	5.6-7.3	0	0	0	0
	12-17	7.0-11	---	5.6-7.3	0	0	0	0
	17-44	11-18	---	5.6-7.3	0	0	0	0
	44-60	7.0-13	---	6.1-7.8	0	0	0	0
	60-80	7.0-13	---	5.6-8.4	0	0	0	0
TlrC2:								
Teller-----	0-7	7.0-11	---	5.6-7.3	0	0	0	0
	7-17	11-18	---	5.6-7.3	0	0	0	0
	17-41	11-18	---	5.6-7.3	0	0	0	0
	41-54	11-18	---	5.6-7.3	0	0	0	0
	54-80	7.0-13	---	6.1-7.8	0	0	0	0

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
UstA:								
Ustibuck-----	0-10	24-36	---	6.6-7.3	0	0	0	0
	10-31	21-36	---	6.6-8.4	0	0	0	0
	31-49	21-36	---	6.6-8.4	0-10	0	0	0
	49-80	21-36	---	6.6-8.4	0-10	0	0	0
VrdA:								
Verdigris-----	0-19	10-17	---	5.6-7.3	0	0	0	0
	19-48	11-21	---	5.6-7.3	0	0	0	0
	48-80	11-21	---	5.6-7.3	0	0	0	0
VrgA:								
Verdigris-----	0-18	10-17	---	5.6-7.3	0	0	0	0
	18-36	11-21	---	5.6-7.3	0	0	0	0
	36-80	11-21	---	5.6-7.3	0	0	0	0
W. Water								
We1E:								
Weleetka-----	0-8	7.0-11	7.0-11	4.5-6.0	0	0	0	0
	8-17	3.0-8.0	3.0-8.0	5.1-6.0	0	0	0	0
	17-42	3.0-8.0	3.0-8.0	5.1-6.0	0	0	0	0
	42-54	11-21	11-21	4.5-6.0	0	0	0	0
	54-80	3.0-7.0	---	4.5-6.5	0	0	0	0
WynA:								
Wynona-----	0-12	11-17	---	5.6-6.5	0	0	0	0
	12-30	18-27	---	5.1-6.0	0	0	0	0
	30-80	18-27	---	5.1-6.0	0	0	0	0
YahA:								
Yahola-----	0-6	7.0-11	---	7.4-8.4	0-1	0	0	0
	6-16	4.0-11	---	7.9-8.4	1-5	0	0	0
	16-78	4.0-11	---	7.9-8.4	1-5	0	0	0

Chemical Analyses of Selected Soils

The results of chemical analysis of several pedons are given in the table "Chemical Properties of Selected Soils." The data are for soils sampled at carefully selected sites. The pedons are representative of the series described in this survey. Soil samples were analyzed by the Soil Survey Laboratory, Lincoln, Nebraska.

Most determinations, except for those for grain-size analysis and bulk density, were made on soil material smaller than 2 millimeters in diameter. Measurements reported as percent or quantity of unit weight were calculated on an oven-dry basis. The methods used in obtaining the data are indicated in the list that follows. The codes in parentheses refer to published methods.

Organic carbon—wet combustion. Walkley-Black modified acid-dichromate, ferric sulfate titration (6A1c).

Extractable cations—ammonium acetate pH 7.0, atomic absorption; calcium (6N2e), magnesium (6O2d), sodium (6P2b), potassium (6Q2b).

Extractable acidity—barium chloride-triethanolamine IV (6H5a).

Cation-exchange capacity—ammonium acetate, pH 7.0, steam distillation (5A8b).

Cation-exchange capacity—sum of cations (5A3a).

Base saturation—sum of cations, TEA, pH 8.2 (5C3).

Base saturation—ammonium acetate, pH 7.0 (5C1).

Reaction (pH)—calcium chloride (8C1f).

Reaction (pH)—1:1 water dilution (8C1f).

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of Selected Soils

(TR means trace. Absence of an entry indicates that data were not estimated)

Soil name and sample number*	Depth	Horizon	Organic carbon	Extractable bases (Ammonium acetate)			Extractable acidity	Cation-exchange capacity		Base saturation		pH		
				Ca	Mg	Na K		Sum of cations	Ammonium acetate	Sum of cations	Ammonium acetate	CaCl2 H2O 1:2	H2O 1:1	
-----Milliequivalents per 100 grams of soil-----														
Boley:	In													
(S91OK-107-010)	0-6	A	1.06	7.7	1.8	---	0.2	2.7	12.4	10.2	78	95	5.8	6.2
	6-12	C1	0.85	8.0	2.1	0.1	0.1	3.2	13.5	11.1	76	93	5.4	6.0
	12-22	C2	0.60	7.5	2.1	0.1	0.2	2.5	12.4	10.5	80	94	5.4	6.0
	22-41	C3	0.55	7.1	2.1	0.2	0.1	2.9	12.4	10.0	77	95	5.1	5.8
	41-48	2A	0.99	11.0	2.6	0.3	0.2	4.7	18.8	15.5	75	91	5.1	5.9
	48-56	2AC	1.39	21.4	3.6	0.4	0.4	5.6	31.4	25.1	82	100	6.2	6.7
	56-66	3A1	1.32	36.4	3.7	0.5	0.5	4.6	45.7	27.5	90	100	7.0	7.4
	66-72	3C	0.71	21.1	4.9	0.9	0.5	5.7	33.1	27.9	83	98	6.3	7.0
	72-86	4C	0.40	14.9	4.2	1.2	0.3	3.6	24.2	20.0	85	100	6.6	7.4
Clearview:	0-4	Ap	0.82	2.9	0.5	---	0.2	2.8	6.4	4.7	56	77	4.9	5.2
(S91OK-107-005)	4-10	A	0.43	3.1	0.4	0.5	0.1	1.9	6.0	4.8	68	85	5.2	5.7
	10-17	B	0.26	4.0	0.8	---	0.2	2.9	7.9	6.1	63	82	5.2	5.8
	17-29	B	0.20	3.5	1.4	TR	0.1	3.5	8.5	6.9	59	72	4.9	5.5
	29-35	BC	0.25	3.5	1.8	0.1	0.2	4.5	10.1	8.1	55	69	4.9	5.6
Coweta:	0-12	A	0.98	2.0	0.6	TR	0.1	5.8	8.5	5.6	32	48	4.4	4.9
(S91OK-107-003)	12-19	Bw	0.53	0.7	0.2	TR	TR	5.2	6.1	4.3	15	21	4.3	4.8
Dennis:	0-5	Ap	1.85	9.1	2.7	TR	0.3	5.8	17.9	15.6	68	78	5.0	5.4
(S91OK-107-004)	5-14	A	1.10	8.6	3.0	0.1	0.1	4.8	16.6	14.5	71	81	5.1	5.7
	14-18	BA	0.72	8.2	3.8	0.4	0.2	5.9	18.5	15.7	68	80	5.0	5.8
	18-23	B	0.68	14.7	8.0	1.1	0.3	7.7	31.8	27.9	76	86	5.1	5.8
	23-36	B	0.39	17.1	9.3	1.9	0.4	5.0	33.7	29.6	85	97	5.9	6.7
	36-49	B	0.18	18.9	10.1	2.6	0.3	2.8	34.7	31.3	92	100	6.4	7.2
	49-73	Bt4	0.12	19.3	10.0	3.2	0.4	2.6	35.5	30.9	93	100	6.8	7.4
Endsaw:	0-4	A1	2.20	5.3	1.7	TR	0.1	7.3	14.4	10.4	49	68	4.9	5.4
(S91OK-107-007)	4-11	A2	0.51	1.1	0.9	TR	---	4.4	6.4	5.3	31	38	4.5	5.2
	11-15	E	0.24	0.8	1.3	TR	---	4.0	6.1	5.5	34	38	4.4	5.0
	15-19	2B	0.30	3.3	8.7	0.5	0.3	22.7	35.5	29.9	36	43	4.1	4.9
	19-25	2B	0.21	3.7	9.2	0.6	0.3	18.2	32.0	27.9	43	49	4.2	5.1
	25-34	2B	0.19	5.7	12.5	0.8	0.3	11.4	30.7	27.0	63	71	4.3	5.2
	34-42	2BC	0.21	6.7	12.2	0.9	0.2	5.4	25.4	22.0	79	91	4.7	5.6
	42-56	2Cr1	0.25	8.4	12.0	1.3	0.2	3.4	25.3	21.1	87	100	5.8	6.7
	56-63	2Cr2	0.22	8.7	10.1	1.3	0.1	1.7	21.9	18.5	92	100	6.4	7.3

See footnote at end of table.

Soil Survey of Okfuskee County, Oklahoma

Chemical Properties of Selected Soils--Continued

Soil name and sample number*	Depth	Horizon	Extractable bases (Ammonium acetate)			Extractable acidity	Cation-exchange capacity		Base saturation		pH		
			Ca	Mg	Na		K	Sum of cations	Ammonium acetate	Sum of cations		Ammonium acetate	
In													
-----Milliequivalents per 100 grams of soil-----													
Eram: (S91OK-107-002)	0-10	A	1.94	3.2	0.1	0.2	8.1	18.5	14.8	56	70	4.8	5.3
	10-19	B	0.83	10.7	0.2	0.3	11.3	33.3	30.2	66	73	4.7	5.7
	19-28	B	0.47	12.2	2.6	0.3	6.0	31.5	27.8	81	92	5.6	6.5
	28-37	B	0.38	10.8	4.2	0.2	3.7	27.3	23.0	86	100	6.1	7.0
	37-46	BC	0.29	7.8	10.8	4.5	0.1	2.7	25.9	21.7	90	6.5	7.3
	46-67	Cr	0.21	6.6	9.3	4.8	0.1	1.7	22.5	18.1	92	6.5	7.3
	Hector:												
	0-5	A1	0.98	2.7	0.6	TR	2.8	6.8	5.0	59	80	5.2	5.6
	5-10	A2	0.33	1.9	0.4	0.1	1.8	4.3	3.6	58	69	5.2	5.7
	10-18	C/A	0.31	2.1	0.5	TR	1.8	4.5	3.7	60	73	5.2	5.7
Pharoah:													
0-4	Ap	1.86	8.3	5.2	0.5	0.3	6.7	21.0	17.7	68	81	5.0	5.8
4-7	A	1.38	9.8	5.8	0.7	0.3	6.0	22.6	18.5	73	90	5.1	6.0
7-12	Btn1	1.11	11.0	7.6	1.3	0.3	5.8	26.0	22.5	78	90	5.1	6.1
12-24	Btn2	0.72	15.0	12.2	2.7	0.5	5.6	36.0	31.2	84	97	5.7	6.5
24-37	B	0.57	14.6	13.8	4.0	0.4	3.9	36.7	32.0	89	100	6.1	6.6
37-47	B	0.36	14.9	15.1	4.9	0.4	3.7	39.0	33.1	91	100	6.2	6.7
47-59	B	0.22	14.2	16.6	5.5	0.4	2.7	39.4	34.0	93	100	6.4	6.9
59-74	2BC	0.18	16.6	15.7	5.5	0.4	2.1	40.3	29.6	95	100	6.9	7.3
74-85	2Cr	0.15	---	12.8	4.2	0.3	---	---	21.4	100	100	7.5	7.6
Verdigris:													
0-7	Ap	1.37	7.0	2.3	TR	0.3	1.6	11.2	9.6	86	100	5.6	6.0
7-17	A1	0.68	8.5	2.3	0.1	0.2	1.9	13.0	11.6	85	96	6.0	6.5
17-23	A2	0.61	8.5	1.9	0.1	0.2	3.2	13.9	12.2	77	88	5.3	6.0
23-34	Bw1	0.49	8.2	2.2	0.1	0.2	2.9	13.6	12.3	79	87	5.1	5.9
34-43	Bw2	0.35	7.2	2.6	0.1	0.2	4.1	14.2	12.0	71	84	4.9	5.5
43-53	Bw3	0.26	7.7	3.3	0.2	0.2	4.1	15.5	13.1	74	87	4.9	5.6
53-65	Bw4	0.19	8.1	4.1	0.2	0.3	3.4	16.1	14.4	79	88	5.2	5.8
65-82	Bw5	0.15	8.0	4.0	0.2	0.3	3.3	16.0	14.3	79	89	5.2	5.9
Weleetka:													
0-8	A	2.56	1.3	0.5	TR	TR	11.0	12.8	6.8	14	26	4.0	4.6
8-17	EG1	0.50	0.7	0.3	---	0.1	3.3	4.4	3.5	25	31	4.0	4.7
17-42	EG2	0.07	TR	0.1	TR	TR	1.1	1.2	0.7	8	14	3.9	4.0
42-54	BtG	0.12	1.8	1.1	TR	0.2	4.3	7.4	6.0	42	52	3.7	4.5
54-80	2C	0.02	----	0.1	---	TR	1.5	1.6	0.5	6	20	4.7	5.0

* Location of sampled pedons are as follows:

Boley (S91OK-107-010); about 2,500 feet west and 1,100 feet south of the northeast corner of sec. 16, T. 10 N., R. 12 E. This pedon is the typical pedon for the Boya map unit in the survey area.

Clearview (S91OK-107-005); about 1,850 feet south and 1,210 feet west of the northeast corner of sec. 25, T. 11 N., R. 11 E. This pedon is not the typical pedon for the Official Series Description and the taxonomic unit, but it is used to support data for the ClrB map unit in the survey area.

Chemical Properties of Selected Soils--Continued

- Coweta (S910K-107-003); about 1,750 feet west and 1,100 feet north of the southeast corner of sec. 23, T. 12 N., R. 11 E. The soil reaction is slightly lower than and the base saturation in the surface horizon is slightly lower than what the series allows; however, this pedon is a similar soil and is used to support data in the CoBC map unit in the survey area.
- Dennis (S910K-107-004); about 1,100 feet east and 650 feet north of the southwest corner of sec. 14, T. 11 N., R. 11 E. This pedon has colors redder than those allowed in the Official Series Description; however, this pedon is a similar soil and is used to support data in the DenB map unit in the survey area.
- Endsaw (S910K-107-007); about 3,200 feet north and 1,450 feet west of the southeast corner of sec. 29, T. 10 N., R. 12 E. This pedon is not the typical pedon for the Official Series Description and the taxonomic unit, but it is used to support data for the EnHG map unit in the survey area.
- Eram (S910K-107-002); about 1,350 feet south and 1,700 feet west of the northeast corner of sec. 26, T. 12 N., R. 11 E. This pedon has reaction in the surface layer that is slightly lower than and has bedrock at a slightly greater depth than what is allowed in the Official Series Description. This pedon, however, is a similar soil and is used to support data in the ErCF map unit in the survey area.
- Hector (S910K-107-006); about 1,830 feet south and 1,300 feet west of the northeast corner of sec. 25, T. 11 N., R. 11 E. This pedon has reaction in the Bw horizon that is slightly higher than and has base saturation slightly higher than what is allowed in the Official Series Description. This pedon, however, is a similar soil and is used to support data in the HeCC map unit in the survey area.
- Pharoah (S910K-107-001); about 600 feet west and 1,000 feet north of the southeast corner of sec. 11, T. 11 N., R. 11 E. This pedon is the typical pedon for the Official Series Description and the taxonomic unit, the Pharoah part of map unit OPFA.
- Verdigris (S910K-107-008); about 600 feet east and 1,050 feet north of the southwest corner of sec. 28, T. 10 N., R. 12 E. This pedon does not have a irregular decrease in organic carbon and has mollic colors thinner than what is allowed in the Official Series Description. This pedon is a similar soil and is used to support data in the VrGA map unit in the survey area.
- Weleetka (S910K-107-009); about 1,300 feet east and 300 feet south of the northwest corner of sec. 13, T. 10 N., R. 9 E. This pedon is the typical pedon for the Official Series Description and the taxonomic unit, the WeLE map unit.

Water Features

The table "Water Features" gives estimates of several important water features used in land use planning that involves engineering considerations. These features are described in the following paragraphs.

Hydrologic soil groups are groups of soils that, when saturated, have the same runoff potential under similar storm and ground cover conditions. The soil properties that affect the runoff potential are those that influence the minimum rate of infiltration in a bare soil after prolonged wetting and when the soil is not frozen. These properties include the depth to a seasonal high water table, the intake rate, permeability after prolonged wetting, and the depth to a very slowly permeable layer. The influences of ground cover and slope are treated independently and are not taken into account in hydrologic soil groups.

In the definitions of the hydrologic soil groups, the infiltration rate is the rate at which water enters the soil at the surface and is controlled by surface conditions. The transmission rate is the rate at which water moves through the soil and is controlled by properties of the soil layers.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist chiefly of very deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clayey soils that have a high shrink-swell potential, soils that have a permanent high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table "Water Features" indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation.

The frequency of ponding generally is expressed as none, rare, occasional, or frequent. None means no reasonable possibility of ponding. The chance of ponding is nearly 0 percent in any year. Rare means that ponding is unlikely but is possible under unusual weather conditions. The chance of ponding is nearly 0 percent to 5 percent in any year (ponding occurs nearly 0 times to 5 times in 100 years). Occasional means that ponding is expected infrequently under usual weather conditions. The chance of ponding is 5 to 50 percent in any year (ponding occurs 5 to 50 times in 100 years). Frequent means that ponding is likely to occur often under usual weather conditions. The chance of ponding is more than 50 percent in any year (ponding occurs more than 50 times in 100 years).

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Duration is expressed as very brief (less than 2 days), brief (2 to 7 days), long (7 to 30 days), and very long (more than 30 days). The time of year that ponding is most likely to occur is expressed in months. About two-thirds to three-fourths of all ponding occurs during the stated period.

The information on ponding is based on evidence of ponded areas as indicated by debris along high water lines and by other signs of maximum water height.

Also considered are local information about the extent and level of ponding and the relation of each soil on the landscape to historic ponding. Information on the extent of ponding based on soil data is less specific than that provided by detailed engineering surveys that delineate areas that are subject to ponding at specific frequency levels.

Flooding, the temporary covering of the soil surface by flowing water, is caused by overflow from streams or by runoff from adjacent slopes.

The table gives the frequency and duration of flooding and the time of year when flooding is most likely to occur. Frequency, duration, and probable dates of occurrence are estimated.

Frequency generally is expressed as none, rare, occasional, or frequent. None means no reasonable possibility of flooding. The chance of flooding is nearly 0 percent in any year. Rare means that flooding is unlikely but is possible under unusual weather conditions. The chance of flooding is nearly 0 percent to 5 percent in any year (flooding occurs nearly 0 times to 5 times in 100 years). Occasional means that flooding is expected infrequently under usual weather conditions. The chance of flooding is 5 to 50 percent in any year (flooding occurs 5 to 50 times in 100 years). Frequent means that flooding is likely to occur often under usual weather conditions. The chance of flooding is more than 50 percent in any year (flooding occurs more than 50 times in 100 years).

Duration is expressed as very brief (less than 2 days), brief (2 to 7 days), long (7 to 30 days), and very long (more than 30 days). The time of year that flooding is most likely to occur is expressed in months. About two-thirds to three-fourths of all flooding occurs during the stated period.

The information on flooding is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and level of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

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Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding		Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
BctB: Bates-----	B	Jan-Dec	---	---	---	---	---	None	None
BctC: Bates-----	B	Jan-Dec	---	---	---	---	---	None	None
BctC2: Bates-----	B	Jan-Dec	---	---	---	---	---	None	None
BoyA: Boley-----	D	January	1.0-4.0	3.0-5.0	0.0-1.0	Long	---	Frequent	None
		February	1.0-4.0	3.0-5.0	0.0-1.0	Long	---	Frequent	None
		March	1.0-4.0	3.0-5.0	0.0-1.0	Long	---	Frequent	None
		April	1.0-4.0	3.0-5.0	0.0-1.0	Long	---	Frequent	Frequent
		May	1.0-4.0	3.0-5.0	---	---	---	None	Frequent
		June	1.0-4.0	3.0-5.0	---	---	---	None	Frequent
		July	---	---	---	---	---	None	Frequent
		August	---	---	---	---	---	None	Frequent
		September	---	---	---	---	---	None	Frequent
		October	---	---	---	---	---	None	Frequent
		November	1.0-4.0	3.0-5.0	0.0-1.0	Long	---	Frequent	None
		December	1.0-4.0	3.0-5.0	0.0-1.0	Long	---	Frequent	None
Caaa: Canadian-----	B	Jan-Mar	---	---	---	---	---	None	None
		April	---	---	---	---	---	None	Rare
		May	---	---	---	---	---	None	Rare
		June	---	---	---	---	---	None	Rare
		July	---	---	---	---	---	None	Rare
		August	---	---	---	---	---	None	Rare
		September	---	---	---	---	---	None	Rare
		October	---	---	---	---	---	None	Rare
		November	---	---	---	---	---	None	Rare
		December	---	---	---	---	---	None	Rare

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding			Flooding		
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	Duration	Frequency
			Ft			Ft			Ft		
ClrB: Clearview-----	B	January	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		February	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		March	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		April	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		May	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		Jun-Oct	---	---	---	---	None	---	None	---	None
		November	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		December	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		January	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		February	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		March	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		April	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
ClrC: Clearview-----	B	May	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		Jun-Oct	---	---	---	---	None	---	None	---	None
		November	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		December	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		January	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		February	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		March	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		April	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		May	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		Jun-Oct	---	---	---	---	None	---	None	---	None
		November	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		December	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
ClrC2: Clearview-----	B	January	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		February	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		March	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		April	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		May	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		Jun-Oct	---	---	---	---	None	---	None	---	None
		November	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		December	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		January	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		February	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		March	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		April	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
CoBC: Coweta-----	C	May	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		Jun-Oct	---	---	---	---	None	---	None	---	None
		November	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
Bates-----	B	December	1.5-3.5	1.5-3.5	---	---	None	---	None	---	None
		Jan-Dec	---	---	---	---	None	---	None	---	None
		Jan-Dec	---	---	---	---	None	---	None	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
CouB: Choteau-----	C	January	2.5-3.0	5.0-6.0	---	---	---	---	None
		February	2.5-3.0	5.0-6.0	---	---	---	---	None
		March	2.5-3.0	5.0-6.0	---	---	---	---	None
		April	2.5-3.0	5.0-6.0	---	---	---	---	None
		May-Nov	---	---	---	---	---	---	None
		December	2.5-3.0	5.0-6.0	---	---	---	---	None
CouC: Choteau-----	C	January	2.5-3.0	5.0-6.0	---	---	---	---	None
		February	2.5-3.0	5.0-6.0	---	---	---	---	None
		March	2.5-3.0	5.0-6.0	---	---	---	---	None
		April	2.5-3.0	5.0-6.0	---	---	---	---	None
		May-Nov	---	---	---	---	---	---	None
		December	2.5-3.0	5.0-6.0	---	---	---	---	None
CskB: Chickasha-----	B	Jan-Dec	---	---	---	---	---	---	None
DAM. Large dam									
DenB: Dennis-----	C	January	1.0-2.5	1.1-2.5	---	---	---	---	None
		February	1.0-2.5	1.1-2.5	---	---	---	---	None
		March	1.0-2.5	1.1-2.5	---	---	---	---	None
		April	1.0-2.5	1.1-2.5	---	---	---	---	None
		May-Nov	---	---	---	---	---	---	None
		December	1.0-2.5	1.1-2.5	---	---	---	---	None
DenC: Dennis-----	C	January	1.0-2.5	1.1-2.5	---	---	---	---	None
		February	1.0-2.5	1.1-2.5	---	---	---	---	None
		March	1.0-2.5	1.1-2.5	---	---	---	---	None
		April	1.0-2.5	1.1-2.5	---	---	---	---	None
		May-Nov	---	---	---	---	---	---	None
		December	1.0-2.5	1.1-2.5	---	---	---	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
DenC2: Dennis-----	C	January	1.0-2.5	1.1-2.5	---				
		February	1.0-2.5	1.1-2.5	---	None	---	None	None
		March	1.0-2.5	1.1-2.5	---	None	---	None	None
		April	1.0-2.5	1.1-2.5	---	None	---	None	None
		May-Nov	---	---	---	None	---	None	None
		December	1.0-2.5	1.1-2.5	---	None	---	None	None
DEPD3: Dennis-----	C	January	1.0-2.5	1.1-2.5	---				
		February	1.0-2.5	1.1-2.5	---	None	---	None	None
		March	1.0-2.5	1.1-2.5	---	None	---	None	None
		April	1.0-2.5	1.1-2.5	---	None	---	None	None
		May-Nov	---	---	---	None	---	None	None
		December	1.0-2.5	1.1-2.5	---	None	---	None	None
Eram-----	C	January	1.0-2.0	1.6-3.5	---				
		February	1.0-2.0	1.6-3.5	---	None	---	None	None
		March	1.0-2.0	1.6-3.5	---	None	---	None	None
		April	1.0-2.0	1.6-3.5	---	None	---	None	None
		May-Oct	---	---	---	None	---	None	None
		November	1.0-2.0	1.6-3.5	---	None	---	None	None
December	1.0-2.0	1.6-3.5	---	None	---	None	None		
Pharoah-----	D	January	0.5-1.5	0.5-2.0	---				
		February	0.5-1.5	0.5-2.0	---	None	---	None	None
		March	0.5-1.5	0.5-2.0	---	None	---	None	None
		April	0.5-1.5	0.5-2.0	---	None	---	None	None
		May	0.5-1.5	0.5-2.0	---	None	---	None	None
		Jun-Nov	---	---	---	None	---	None	None
December	0.5-1.5	0.5-2.0	---	None	---	None	None		
DsSC: Darsil-----	C	Jan-Dec	---	---	---	None	---	None	None
		Jan-Dec	---	---	---	None	---	None	None
Stephenville-----	B	Jan-Dec	---	---	---	None	---	None	None
		Jan-Dec	---	---	---	None	---	None	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
DsSE: Darsil-----	C	Jan-Dec	---	---	---	---	---	---	None
Stephenville-----	B	Jan-Dec	---	---	---	---	---	---	None
Ef1B: Eufaula-----	A	Jan-Dec	---	---	---	---	---	---	None
Ef1E: Eufaula-----	A	Jan-Dec	---	---	---	---	---	---	None
EnHE: Endsaw-----	C	January February Mar-Nov December	2.0-3.0 2.0-3.0 --- 2.0-3.0	3.5-5.0 3.5-5.0 --- 3.5-5.0	---	---	---	---	None None None None
Hector-----	D	Jan-Dec	---	---	---	---	---	---	None
EnHG: Endsaw-----	C	January February Mar-Nov December	2.0-3.0 2.0-3.0 --- 2.0-3.0	3.5-5.0 3.5-5.0 --- 3.5-5.0	---	---	---	---	None None None None
Hector-----	D	Jan-Dec	---	---	---	---	---	---	None
EraE: Eram-----	C	January February March April May-Oct November December	1.0-2.0 1.0-2.0 1.0-2.0 1.0-2.0 --- 1.0-2.0 1.0-2.0	1.6-3.5 1.6-3.5 1.6-3.5 1.6-3.5 --- 1.6-3.5 1.6-3.5	---	---	---	---	None None None None None None None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding			Flooding		
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency		
			Ft			Ft			Ft		
ErCF: Eram-----	C	January	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		February	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		March	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		April	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		May-Oct	---	---	---	---	None	---	None	---	None
		November	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		December	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		Jan-Dec	---	---	---	---	None	---	None	---	None
		January	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		February	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		March	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		April	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
May-Oct	---	---	---	---	None	---	None	---	None		
November	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None		
December	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None		
ErRE: Eram-----	C	January	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		February	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		March	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		April	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		May-Oct	---	---	---	---	None	---	None	---	None
		November	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		December	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		January	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		February	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		March	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		April	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None
		May-Oct	---	---	---	---	None	---	None	---	None
November	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None		
December	1.0-2.0	1.6-3.5	---	---	None	---	None	---	None		
Radley-----	B	January	---	---	---	---	None	---	None	Very brief	Frequent
		February	---	---	---	---	None	---	None	Very brief	Frequent
		March	---	---	---	---	None	---	None	Very brief	Frequent
		April	---	---	---	---	None	---	None	Very brief	Frequent
		May	---	---	---	---	None	---	None	Very brief	Frequent
		June	---	---	---	---	None	---	None	Very brief	Frequent
		July	---	---	---	---	None	---	None	Very brief	Frequent
		Aug-Nov	---	---	---	---	None	---	None	Very brief	Frequent
		December	---	---	---	---	None	---	None	Very brief	Frequent
		January	---	---	---	---	None	---	None	Very brief	Frequent
		February	---	---	---	---	None	---	None	Very brief	Frequent
		March	---	---	---	---	None	---	None	Very brief	Frequent

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
GadA: Gaddy-----	A	Jan-Feb	---	---	---	---	None	---	None
		March	---	---	---	---	None	Very brief	Occasional
		April	---	---	---	---	None	Very brief	Occasional
		May	---	---	---	---	None	Very brief	Occasional
		June	---	---	---	---	None	Very brief	Occasional
		July	---	---	---	---	None	Very brief	Occasional
		August	---	---	---	---	None	Very brief	Occasional
		September	---	---	---	---	None	Very brief	Occasional
		October	---	---	---	---	None	Very brief	Occasional
		Nov-Dec	---	---	---	---	None	Very brief	Occasional
GalB: Galey-----	B	Jan-Feb	---	---	---	---	None	---	None
		March	4.0-6.0	5.0-6.0	---	---	None	---	None
		April	4.0-6.0	5.0-6.0	---	---	None	---	None
		May	4.0-6.0	5.0-6.0	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
GalC: Galey-----	B	Jan-Feb	---	---	---	---	None	---	None
		March	4.0-6.0	5.0-6.0	---	---	None	---	None
		April	4.0-6.0	5.0-6.0	---	---	None	---	None
		May	4.0-6.0	5.0-6.0	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
GalC2: Galey-----	B	Jan-Feb	---	---	---	---	None	---	None
		March	4.0-5.9	5.0-6.0	---	---	None	---	None
		April	4.0-6.0	5.0-6.0	---	---	None	---	None
		May	4.0-6.0	5.0-6.0	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
GdyA: Gaddy-----	A	Jan-Feb March April May June July August September October Nov-Dec	---	---	---	---	---	---	None None None None None None None None None None
GhLB: Glentosh-----	A	Jan-Dec	---	---	---	---	---	---	None
Larton-----	A	Jan-Dec	---	---	---	---	---	---	None
GhBE: Glentosh-----	A	Jan-Dec	---	---	---	---	---	---	None
GriC2: Grainola-----	D	Jan-Dec	---	---	---	---	---	---	None
HeCC: Hector-----	D	Jan-Dec	---	---	---	---	---	---	None
Clearview-----	B	January February March April May Jun-Oct November December	1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 ---	1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 ---	---	---	---	None None None None None None None None	

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
HeCE: Hector-----	D	Jan-Dec	---	---	---			---	None
Clearview-----	B	January	1.5-3.5	1.5-3.5	---			---	None
		February	1.5-3.5	1.5-3.5	---			---	None
		March	1.5-3.5	1.5-3.5	---			---	None
		April	1.5-3.5	1.5-3.5	---			---	None
		May	1.5-3.5	1.5-3.5	---			---	None
		Jun-Oct	---	---	---			---	None
		November	1.5-3.5	1.5-3.5	---			---	None
		December	1.5-3.5	1.5-3.5	---			---	None
KarB: Karna-----	B	Jan-Dec	---	---	---			---	None
KarC: Karna-----	B	Jan-Dec	---	---	---			---	None
KarD2: Karna-----	B	Jan-Dec	---	---	---			---	None
KarE4: Karna-----	B	Jan-Dec	---	---	---			---	None
KimA: Kiomatia-----	A	January	3.5-5.0	>6.0	---			---	None
		February	3.5-5.0	>6.0	---			Brief	Occasional
		March	3.5-5.0	>6.0	---			Brief	Occasional
		April	3.5-5.0	>6.0	---			Brief	Occasional
		May	3.5-5.0	>6.0	---			Brief	Occasional
		June	3.5-5.0	>6.0	---			Brief	Occasional
		July	3.5-5.0	>6.0	---			---	None
		Aug-Dec	---	---	---			---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
KmfA: Kiomatia-----	A	January	3.5-5.0	>6.0	---	---	---	---	None
		February	3.5-5.0	>6.0	---	---	Brief	---	Frequent
		March	3.5-5.0	>6.0	---	---	Brief	---	Frequent
		April	3.5-5.0	>6.0	---	---	Brief	---	Frequent
		May	3.5-5.0	>6.0	---	---	Brief	---	Frequent
		June	3.5-5.0	>6.0	---	---	Brief	---	Frequent
		July	3.5-5.0	>6.0	---	---	---	---	None
		Aug-Dec	---	---	---	---	---	---	None
KofE4: Konawa-----	B	Jan-Dec	---	---	---	---	---	None	
									None
Gullied land.									
KowB: Konawa-----	B	Jan-Dec	---	---	---	---	---	None	
									None
KowC: Konawa-----	B	Jan-Dec	---	---	---	---	---	None	
									None
KowD2: Konawa-----	B	Jan-Dec	---	---	---	---	---	None	
									None
LrtB: Larton-----	A	Jan-Dec	---	---	---	---	---	None	
									None
LrtD: Larton-----	A	Jan-Dec	---	---	---	---	---	None	
									None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding		
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency	
			Ft	Ft	Ft					
LtGA: Lightning-----	D	January	0.0-1.0	0.5-1.2	---			Very brief	Occasional	
		February	0.0-1.0	0.5-1.2	---			Very brief	Occasional	
		March	0.0-1.0	0.5-1.2	---			Very brief	Occasional	
		April	0.0-1.0	0.5-1.2	---			Very brief	Occasional	
		May	---	---	---			Very brief	Occasional	
		June	---	---	---			Very brief	Occasional	
		July	---	---	---			Very brief	Occasional	
		Aug-Oct	---	---	---			---	None	
		November	0.0-1.0	0.5-1.2	---			---	None	
		December	0.0-1.0	0.5-1.2	---			---	None	
M-W. Miscellaneous water		Jan-Mar	---	---	---			Very brief	None	
		April	---	---	---			Very brief	Rare	
		May	---	---	---			Very brief	Rare	
		June	---	---	---			Very brief	Rare	
		July	---	---	---			Very brief	Rare	
		August	---	---	---			Very brief	Rare	
		September	---	---	---			Very brief	Rare	
		October	---	---	---			Very brief	Rare	
		November	---	---	---			Very brief	Rare	
		December	---	---	---			---	None	
MaSA: Mason-----	B	January	---	---	---			Very brief	None	
		February	---	---	---			Very brief	None	
		March	---	---	---			Very brief	None	
		April	---	---	---			Very brief	None	
		May	---	---	---			Very brief	None	
		June	---	---	---			Very brief	None	
		July	---	---	---			Very brief	None	
		Aug-Dec	---	---	---			---	None	
MaTA: Madill-----	B	January	---	---	---			Very brief	None	
		February	---	---	---			Very brief	Frequent	
		March	---	---	---			Very brief	Frequent	
		April	---	---	---			Very brief	Frequent	
		May	---	---	---			Very brief	Frequent	
		June	---	---	---			Very brief	Frequent	
		July	---	---	---			Very brief	Frequent	
		Aug-Dec	---	---	---			---	None	

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding			Flooding			
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	Duration	Frequency	
			Ft	Ft	Ft							
MatA: Tullahassee-----	C	January	0.5-3.0	>6.0	---	---	---	None	---	None	---	None
		February	0.5-3.0	>6.0	---	---	---	None	---	None	---	None
		March	0.5-3.0	>6.0	---	---	Long	None	Long	Frequent	Long	Frequent
		April	0.5-3.0	>6.0	---	---	---	None	Long	Frequent	Long	Frequent
		May	0.5-3.0	>6.0	---	---	---	None	Long	Frequent	Long	Frequent
		June	---	---	---	---	---	None	Long	Frequent	Long	Frequent
		July	---	---	---	---	---	None	Long	Frequent	Long	Frequent
		August	---	---	---	---	---	None	Long	Frequent	Long	Frequent
		Sep-Oct	---	---	---	---	---	None	---	None	---	None
		November	0.5-3.0	>6.0	---	---	---	None	---	None	---	None
		December	0.5-3.0	>6.0	---	---	---	None	---	None	---	None
MdIA: Madill-----	B	January	---	---	---	---	---	None	---	None	---	None
		February	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		March	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		April	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		May	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		June	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		July	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		Aug-Dec	---	---	---	---	---	None	---	None	---	None
MrWB: Muldrow-----	D	January	0.0-2.0	>6.0	---	---	---	None	---	None	---	None
		February	0.0-2.0	>6.0	---	---	---	None	---	None	---	None
		March	0.0-2.0	>6.0	---	---	---	None	---	None	---	None
		April	---	---	---	---	---	None	Very brief	Rare	Very brief	Rare
		May	---	---	---	---	---	None	Very brief	Rare	Very brief	Rare
		June	---	---	---	---	---	None	Very brief	Rare	Very brief	Rare
		July	---	---	---	---	---	None	Very brief	Rare	Very brief	Rare
		August	---	---	---	---	---	None	Very brief	Rare	Very brief	Rare
		September	0.0-2.0	>6.0	---	---	---	None	Very brief	Rare	Very brief	Rare
		October	0.0-2.0	>6.0	---	---	---	None	Very brief	Rare	Very brief	Rare
		November	0.0-2.0	>6.0	---	---	---	None	Very brief	Rare	Very brief	Rare
		December	0.0-2.0	>6.0	---	---	---	None	---	None	---	None
MshD: Masham-----	D	Jan-Dec	---	---	---	---	---	None	---	None	---	None
NviB: Navina-----	B	Jan-Dec	---	---	---	---	---	None	---	None	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft	Duration	Frequency	Duration	Frequency
Nvic2: Navina-----	B	Jan-Dec	---	---	---	---	None	---	None
NzDE: Niotaze-----	C	January	1.0-2.0	1.5-3.3	---	---	None	---	None
		February	1.0-2.0	1.5-3.3	---	---	None	---	None
		March	1.0-2.0	1.5-3.3	---	---	None	---	None
		April	1.0-2.0	1.5-3.3	---	---	None	---	None
		May	1.0-2.0	1.5-3.3	---	---	None	---	None
		June	1.0-2.0	1.5-3.3	---	---	None	---	None
		Jul-Oct	---	---	---	---	None	---	None
		November	1.0-2.0	1.5-3.3	---	---	None	---	None
		December	1.0-2.0	1.5-3.3	---	---	None	---	None
Darsil-----	C	Jan-Dec	---	---	---	---	None	---	None
OkeB: Okemah-----	C	January	1.0-2.5	1.5-2.5	---	---	None	---	None
		February	1.0-2.5	1.5-2.5	---	---	None	---	None
		March	1.0-2.5	1.5-2.5	---	---	None	---	None
		April	1.0-2.5	1.5-2.5	---	---	None	---	None
		May-Oct	---	---	---	---	None	---	None
		November	1.0-2.5	1.5-2.5	---	---	None	---	None
		December	1.0-2.5	1.5-2.5	---	---	None	---	None
OkraA: Oklares-----	B	January	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		February	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		March	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		April	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		May	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		June	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		July	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		August	3.5-5.0	>6.0	---	---	None	Very brief	Occasional
		September	3.5-5.0	>6.0	---	---	None	---	None
		October	3.5-5.0	>6.0	---	---	None	---	None
		November	3.5-5.0	>6.0	---	---	None	---	None
		December	3.5-5.0	>6.0	---	---	None	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
OPPA: Okemah-----	C	January	1.0-2.5	1.5-2.5	---				
		February	1.0-2.5	1.5-2.5	---				None
		March	1.0-2.5	1.5-2.5	---				None
		April	1.0-2.5	1.5-2.5	---				None
		Mar-Oct	---	---	---				None
		November	1.0-2.5	1.5-2.5	---				None
		December	1.0-2.5	1.5-2.5	---				None
		January	0.5-1.5	0.5-2.0	---				None
		February	0.5-1.5	0.5-2.0	---				None
		March	0.5-1.5	0.5-2.0	---				None
		April	0.5-1.5	0.5-2.0	---				None
		May	0.5-1.5	0.5-2.0	---				None
Pharoah-----	D	Jun-Nov	---	---	---				None
		December	0.5-1.5	0.5-2.0	---				None
		January	0.5-1.5	0.5-2.0	---				None
		February	0.5-1.5	0.5-2.0	---				None
		March	0.5-1.5	0.5-2.0	---				None
		April	0.5-1.5	0.5-2.0	---				None
		May	0.5-1.5	0.5-2.0	---				None
		Jun-Nov	---	---	---				None
		December	0.5-1.5	0.5-2.0	---				None
		January	0.5-1.5	0.5-2.0	---				None
		February	0.5-1.5	0.5-2.0	---				None
		Parsons-----	D	January	0.5-1.5	1.0-2.5	---		
February	0.5-1.5			1.0-2.5	---				None
March	0.5-1.5			1.0-2.5	---				None
April	0.5-1.5			1.0-2.5	---				None
May-Nov	---			---	---				None
December	0.5-1.5			1.0-2.5	---				None
January	0.5-1.5			1.0-2.5	---				None
February	0.5-1.5			1.0-2.5	---				None
March	0.5-1.5			1.0-2.5	---				None
April	0.5-1.5			1.0-2.5	---				None
May-Nov	---			---	---				None
December	0.5-1.5			1.0-2.5	---				None
ParA: Parsons-----	D	January	0.5-1.5	1.0-2.5	---				None
		February	0.5-1.5	1.0-2.5	---				None
		March	0.5-1.5	1.0-2.5	---				None
		April	0.5-1.5	1.0-2.5	---				None
		May-Nov	---	---	---				None
		December	0.5-1.5	1.0-2.5	---				None
		January	0.5-1.5	1.0-2.5	---				None
		February	0.5-1.5	1.0-2.5	---				None
		March	0.5-1.5	1.0-2.5	---				None
		April	0.5-1.5	1.0-2.5	---				None
		May-Nov	---	---	---				None
		December	0.5-1.5	1.0-2.5	---				None
PIT. Pits		January	---	---	---				None
		February	---	---	---				None
		March	---	---	---				None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding			Flooding		
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency		
			Ft	Ft	Ft						
POWD: Pharoah-----	D	January	0.5-1.5	0.5-2.0	---	---	None	---	None		
		February	0.5-1.5	0.5-2.0	---	---	None	---	None		
		March	0.5-1.5	0.5-2.0	---	---	None	---	None		
		April	0.5-1.5	0.5-2.0	---	---	None	---	None		
		May	0.5-1.5	0.5-2.0	---	---	None	---	None		
		Jun-Nov	---	---	---	---	None	---	None		
		December	0.5-1.5	0.5-2.0	---	---	None	---	None		
Oil waste land-----	D	Jan-Dec	---	---	---	---	None	---	None		
PrmC2: Porum-----	D	January	2.0-3.0	>6.0	---	---	None	---	None		
		February	2.0-3.0	>6.0	---	---	None	---	None		
		March	2.0-3.0	>6.0	---	---	None	---	None		
		April	2.0-3.0	>6.0	---	---	None	---	None		
		May-Nov	---	---	---	---	None	---	None		
		December	2.0-3.0	>6.0	---	---	None	---	None		
PulA: Pulaski-----	B	Jan-Feb	---	---	---	---	None	---	None		
		March	---	---	---	---	None	Very brief	Occasional		
		April	---	---	---	---	None	Very brief	Occasional		
		May	---	---	---	---	None	Very brief	Occasional		
		June	---	---	---	---	None	Very brief	Occasional		
		July	---	---	---	---	None	Very brief	Occasional		
		August	---	---	---	---	None	Very brief	Occasional		
		September	---	---	---	---	None	Very brief	Occasional		
		October	---	---	---	---	None	Very brief	Occasional		
		Nov-Dec	---	---	---	---	None	Very brief	Occasional		
									---	None	

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding			Flooding			
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency			
			Ft	Ft	Ft							
PuTA: Pulaski-----	B	Jan-Feb	---	---	---	---	---	None	---	None	---	None
		March	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		April	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		May	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		June	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		July	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		August	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		September	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		October	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		November	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		December	---	---	---	---	---	None	Very brief	Very brief	Very brief	Frequent
		Nov-Dec	---	---	---	---	---	None	---	---	---	None
Tribbey-----	C	January	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		February	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		March	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		April	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		May	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		June	---	---	---	---	---	None	Brief	Brief	Brief	Frequent
		July	---	---	---	---	---	None	Brief	Brief	Brief	Frequent
		August	---	---	---	---	---	None	Brief	Brief	Brief	Frequent
		September	---	---	---	---	---	None	Brief	Brief	Brief	Frequent
		October	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		November	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
		December	0.5-3.5	>6.0	---	---	---	None	Brief	Brief	Brief	Frequent
RbKA: Roebuck-----	D	January	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		February	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		March	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		April	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		May	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		June	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		July	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		August	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		September	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		October	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		November	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
		December	---	---	---	---	---	None	Very long	Very long	Very long	Frequent
Jan-Dec	---	---	---	---	---	None	---	---	---	None		
RenC: Renfrow-----	D	Jan-Dec	---	---	---	---	---	None	---	---	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Surface water depth	Ponding			Flooding			
			Upper limit	Lower limit	Ft		Duration	Frequency	Duration	Frequency			
			Ft	Ft	Ft								
SCGC4: Shermore-----	B	January	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	
		February	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	
		March	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	
		April	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	
		May	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	
		June	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	
		Jul-Oct	---	---	---	---	---	---	---	---	---	---	---
		November	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	---
		December	1.5-3.5	2.0-4.0	---	---	---	---	---	---	---	---	---
		January	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		February	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		March	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
Clearview-----	B	April	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	
		May	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	
		Jun-Oct	---	---	---	---	---	---	---	---	---	---	---
		November	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		December	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		January	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		February	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		March	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		April	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		May	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
		Jun-Oct	---	---	---	---	---	---	---	---	---	---	---
		November	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---
December	1.5-3.5	1.5-3.5	---	---	---	---	---	---	---	---	---		
Gullied land.		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
SDGD4: Stephenville-----	B	Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
Darsil-----	C	Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
Gullied land.		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
SDND: Stephenville-----	B	Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
Darsil-----	C	Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	
Newalla-----	D	Jan-Dec	---	---	---	---	---	---	---	---	---	---	
		Jan-Dec	---	---	---	---	---	---	---	---	---	---	

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
SevA: Severn-----	B	January February March April May June July August September October Nov-Dec	Ft ---	Ft ---	Ft ---	---	---	Brief Brief Brief Brief Brief Brief Brief Brief Brief Brief ---	Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional None
ShmC: Shermore-----	B	January February March April May June Jul-Oct November December	1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 --- 1.5-3.5 1.5-3.5	2.0-4.0 2.0-4.0 2.0-4.0 2.0-4.0 2.0-4.0 2.0-4.0 --- 2.0-4.0 2.0-4.0	---	---	---	---	None None None None None None None None None None
ShmC2: Shermore-----	B	January February March April May June Jul-Oct November December	1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 1.5-3.5 --- 1.5-3.5 1.5-3.5	2.0-4.0 2.0-4.0 2.0-4.0 2.0-4.0 2.0-4.0 2.0-4.0 --- 2.0-4.0 2.0-4.0	---	---	---	---	None None None None None None None None None
SOWD: Stephenville-----	B	Jan-Dec	---	---	---	---	---	---	None
Oil waste land-----	D	Jan-Dec	---	---	---	---	---	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
StdB: Stidham-----	B	Jan-Dec	---	---	---	---	---	---	None
StdB: Stephenville-----	B	Jan-Dec	---	---	---	---	---	---	None
StdC2: Stephenville-----	B	Jan-Dec	---	---	---	---	---	---	None
SvnA: Severn-----	B	January February March April May June July August September October Nov-Dec	---	---	---	---	---	Brief Brief Brief Brief Brief Brief Brief Brief Brief Brief Brief	Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional Occasional None
Tlba: Tullahassee-----	C	January February March April May June July August Sep-Oct November December	0.5-3.0 0.5-3.0 0.5-3.0 0.5-3.0 0.5-3.0 --- --- --- --- 0.5-3.0 0.5-3.0	>6.0 >6.0 >6.0 >6.0 >6.0 --- --- --- --- >6.0 >6.0	---	---	---	None None None None None None None None None None None	None None Frequent Frequent Frequent Frequent Frequent Frequent None None None
Tlra: Teller-----	B	Jan-Dec	---	---	---	---	---	---	None

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table			Ponding			Flooding			
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	Duration	Frequency	
			Ft	Ft	Ft							
TlrB: Teller-----	B	Jan-Dec	---	---	---	---	---	None	---	None	---	None
TlrC2: Teller-----	B	Jan-Dec	---	---	---	---	---	None	---	None	---	None
UstA: Ustibuck-----	D	January	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		February	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		March	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		April	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		May	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		June	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		July	---	---	---	---	---	None	Very long	Frequent	Very long	Frequent
		Aug-Dec	---	---	---	---	---	None	---	None	---	None
VrdA: Verdigris-----	B	January	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
		February	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
		March	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
		April	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
		May	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
		June	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
		Jul-Nov	---	---	---	---	---	None	---	None	---	None
		December	---	---	---	---	---	None	Very brief	Frequent	Very brief	Frequent
VrgA: Verdigris-----	B	January	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		February	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		March	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		April	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		May	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		June	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
		Jul-Nov	---	---	---	---	---	None	---	None	---	None
		December	---	---	---	---	---	None	Very brief	Occasional	Very brief	Occasional
W. Water												

Soil Survey of Okfuskee County, Oklahoma

Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table		Surface water depth	Ponding		Flooding			
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency		
			Ft	Ft	Ft						
WeLE: Weleetka-----	D	January	0.0-1.5	>6.0	---						
		February	0.0-1.5	>6.0	---			None	None		
		March	0.0-1.5	>6.0	---			None	None		
		April	0.0-1.5	>6.0	---			None	None		
		May	0.0-1.5	>6.0	---			None	None		
		June	0.0-1.5	>6.0	---			None	None		
		July	0.0-1.5	>6.0	---			None	None		
		August	0.0-1.5	>6.0	---			None	None		
		September	0.0-1.5	>6.0	---			None	None		
		October	0.0-1.5	>6.0	---			None	None		
		November	0.0-1.5	>6.0	---			None	None		
		December	0.0-1.5	>6.0	---			None	None		
WynA: Wynona-----	C	January	0.0-2.0	>6.0	---						
		February	0.0-2.0	>6.0	---			None	Occasional		
		March	0.0-2.0	>6.0	---			None	Occasional		
		April	0.0-2.0	>6.0	---			None	Occasional		
		May	---	---	---			None	Occasional		
		June	---	---	---			None	Occasional		
		July	---	---	---			None	Occasional		
		Aug-Oct	---	---	---			None	Occasional		
		November	0.0-2.0	>6.0	---			None	None		
		December	0.0-2.0	>6.0	---			None	None		
		YahA: Yahola-----	B	Jan-Mar	---	---	---				
				April	---	---	---			None	None
May	---			---	---			None	Occasional		
June	---			---	---			None	Occasional		
July	---			---	---			None	Occasional		
August	---			---	---			None	Occasional		
September	---			---	---			None	Occasional		
October	---			---	---			None	Occasional		
Nov-Dec	---			---	---			None	Occasional		
									None	None	
									None	None	

Soil Features

The table "Soil Features" gives estimates of several important soil features used in land use planning that involves engineering considerations. These features are described in the following paragraphs.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table "Soil Features" shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage mainly to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that dissolves or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil.

Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than steel in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as low, moderate, or high, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion is also expressed as low, moderate, or high. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Soil Survey of Okfuskee County, Oklahoma

Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Initial <u>In</u>	Total <u>In</u>		Uncoated steel	Concrete
BctB: Bates-----	Bedrock (paralithic)	20-40	0	---	---	Low	Moderate
BctC: Bates-----	Bedrock (paralithic)	20-40	0	---	---	Low	Moderate
BctC2: Bates-----	Bedrock (paralithic)	20-40	0	---	---	Low	Moderate
BoyA: Boley-----	---	---	0	---	None	High	Low
CaaA: Canadian-----	---	---	0	---	None	Low	Low
ClrB: Clearview-----	Bedrock (lithic)	20-40	0	---	None	Moderate	High
ClrC: Clearview-----	Bedrock (lithic)	20-40	0	---	None	Moderate	High
ClrC2: Clearview-----	Bedrock (lithic)	20-40	0	---	None	Moderate	High
CoBC: Coweta-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
Bates-----	Bedrock (paralithic)	20-40	0	---	---	Low	Moderate
CouB: Choteau-----	---	---	0	---	None	High	Moderate
CouC: Choteau-----	---	---	0	---	None	High	Moderate
CskB: Chickasha-----	Bedrock (paralithic)	40-60	0	---	None	Moderate	Moderate
DAM. Large dam							
DenB: Dennis-----	---	---	0	---	None	High	Moderate
DenC: Dennis-----	---	---	0	---	None	High	Moderate
DenC2: Dennis-----	---	---	0	---	None	High	Moderate

Soil Survey of Okfuskee County, Oklahoma

Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
DEPD3: Dennis-----	---	---	0	---	None	High	Moderate
Eram-----	Bedrock (paralithic)	20-40	0	---	None	High	Moderate
Pharoah-----	---	---	0	---	None	High	High
DsSC: Darsil-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
DsSE: Darsil-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
EflB: Eufaula-----	---	---	0	---	None	Low	Moderate
EflE: Eufaula-----	---	---	0	---	None	Low	Moderate
EnHE: Endsaw-----	Bedrock (paralithic)	40-60	0	---	None	High	High
Hector-----	Bedrock (lithic)	10-20	0	---	None	Low	Moderate
EnHG: Endsaw-----	Bedrock (paralithic)	40-60	0	---	None	High	High
Hector-----	Bedrock (lithic)	10-20	0	---	None	Low	Moderate
EraE: Eram-----	Bedrock (paralithic)	20-40	0	---	None	High	Moderate
ErCF: Eram-----	Bedrock (paralithic)	20-40	0	---	None	High	Moderate
Coweta-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
ErmC: Eram-----	Bedrock (paralithic)	20-40	0	---	None	High	Moderate
ErRE: Eram-----	Bedrock (paralithic)	20-40	0	---	None	High	Moderate
Radley-----	---	---	0	---	Low	Low	Low

Soil Survey of Okfuskee County, Oklahoma

Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Initial <u>In</u>	Total <u>In</u>		Uncoated steel	Concrete
GadA: Gaddy-----	---	---	0	---	None	Low	Low
GalB: Galey-----	---	---	0	---	None	Moderate	Moderate
GalC: Galey-----	---	---	0	---	None	Moderate	Moderate
GalC2: Galey-----	---	---	0	---	None	Moderate	Moderate
GdyA: Gaddy-----	---	---	0	---	None	Low	Low
GhLB: Glentosh-----	---	---	0	---	None	Low	High
Larton-----	---	---	0	---	None	Low	Moderate
GlhE: Glentosh-----	---	---	0	---	None	Low	High
GriC2: Grainola-----	Bedrock (paralithic)	20-40	0	---	None	High	Low
HeCC: Hector-----	Bedrock (lithic)	10-20	0	---	None	Low	Moderate
Clearview-----	Bedrock (lithic)	20-40	0	---	None	Moderate	High
HeCE: Hector-----	Bedrock (lithic)	10-20	0	---	None	Low	Moderate
Clearview-----	Bedrock (lithic)	20-40	0	---	None	Moderate	High
KarB: Karma-----	---	---	0	---	None	Low	Moderate
KarC: Karma-----	---	---	0	---	None	Low	Moderate
KarD2: Karma-----	---	---	0	---	None	Low	Moderate
KarE4: Karma-----	---	---	0	---	None	Low	Moderate
KimA: Kiomatia-----	---	---	0	---	None	Low	Low
KmfA: Kiomatia-----	---	---	0	---	None	Low	Low
KoGE4: Konawa-----	---	---	0	---	None	Moderate	Moderate
Gullied land.							

Soil Survey of Okfuskee County, Oklahoma

Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Initial <u>In</u>	Total <u>In</u>		Uncoated steel	Concrete
KowB: Konawa-----	---	---	0	---	None	Moderate	Moderate
KowC: Konawa-----	---	---	0	---	None	Moderate	Moderate
KowD2: Konawa-----	---	---	0	---	None	Moderate	Moderate
LrtB: Larton-----	---	---	0	---	None	Low	Moderate
LrtD: Larton-----	---	---	0	---	None	Low	Moderate
LtgA: Lightning-----	---	---	0	---	None	High	Moderate
M-W. Miscellaneous water							
MasA: Mason-----	---	---	0	---	None	Moderate	Moderate
MaTA: Madill-----	---	---	0	---	None	Low	Moderate
Tullahassee-----	---	---	0	---	None	Moderate	Moderate
MdlA: Madill-----	---	---	0	---	None	Low	Moderate
MrwB: Muldrow-----	---	---	0	---	None	High	Moderate
MshD: Masham-----	Bedrock (paralithic)	10-20	0	---	None	High	Low
NviB: Navina-----	---	---	0	---	None	Moderate	Low
NviC2: Navina-----	---	---	0	---	None	Moderate	Low
NzDE: Niotaze-----	Bedrock (paralithic)	20-40	0	---	Low	High	Moderate
Darsil-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
OkeB: Okemah-----	---	---	0	---	None	High	Moderate
Okra: Oklared-----	---	---	0	---	None	Moderate	Low

Soil Survey of Okfuskee County, Oklahoma

Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Initial <u>In</u>	Total <u>In</u>		Uncoated steel	Concrete
OPPA:							
Okemah-----	---	---	0	---	None	High	Moderate
Pharoah-----	---	---	0	---	None	High	High
Parsons-----	---	---	0	---	None	High	Moderate
ParA:							
Parsons-----	---	---	0	---	None	High	Moderate
PIT. Pits							
POWD:							
Pharoah-----	---	---	0	---	None	High	High
Oil waste land.							
PrmC2:							
Porum-----	---	---	0	---	None	High	High
PuLA:							
Pulaski-----	---	---	0	---	None	Low	Moderate
PuTA:							
Pulaski-----	---	---	0	---	None	Low	Moderate
Tribbey-----	---	---	0	---	None	High	Low
RbkA:							
Roebuck-----	---	---	0	---	None	High	Low
RenC:							
Renfrow-----	---	---	0	---	None	High	Low
SCGC4:							
Shermore-----	---	---	0	---	None	Moderate	High
Clearview-----	Bedrock (lithic)	20-40	0	---	None	Moderate	High
Gullied land.							
SDGD4:							
Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
Darsil-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
Gullied land.							
SDND:							
Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
Darsil-----	Bedrock (paralithic)	10-20	0	---	None	Low	Moderate
Newalla-----	Bedrock (paralithic)	40-60	0	---	None	High	Moderate

Soil Survey of Okfuskee County, Oklahoma

Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Initial <u>In</u>	Total <u>In</u>		Uncoated steel	Concrete
SevA: Severn-----	---	---	0	---	None	Low	Low
ShmC: Shermore-----	---	---	0	---	None	Moderate	High
ShmC2: Shermore-----	---	---	0	---	None	Moderate	High
SOWD: Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
Oil waste land.							
StdB: Stidham-----	---	---	0	---	None	Moderate	Moderate
SteB: Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
SteC2: Stephenville-----	Bedrock (paralithic)	20-40	0	---	None	Moderate	Moderate
SvnA: Severn-----	---	---	0	---	None	Low	Low
TlhA: Tullahassee-----	---	---	0	---	None	Moderate	Moderate
TlrA: Teller-----	---	---	0	---	None	Low	Moderate
TlrB: Teller-----	---	---	0	---	None	Low	Moderate
TlrC2: Teller-----	---	---	0	---	None	Low	Moderate
UstA: Ustibuck-----	---	---	0	---	None	High	Low
VrdA: Verdigris-----	---	---	0	---	Low	Low	Low
VrgA: Verdigris-----	---	---	0	---	Low	Low	Low
W. Water							
WeLE: Weleetka-----	---	---	0	---	None	High	High
WynA: Wynona-----	---	---	0	---	None	High	Moderate
YahA: Yahola-----	---	---	0	---	None	Low	Low

References

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Glossary

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alkali (sodic) soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

Alluvium. Material, such as gravel, sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Area reclaim (in tables). An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The geomorphic component that forms the steepest inclined surface and principal element of many hillsides. Backslopes in profile are commonly steep, are linear, and may or may not include cliff segments.

Badland. Steep or very steep, commonly nonstony, barren land dissected by many intermittent drainage channels. Badland is most common in semiarid and arid regions where streams are entrenched in soft geologic material. Local relief generally ranges from 25 to 500 feet. Runoff potential is very high, and geologic erosion is active.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

- Bedding planes.** Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.
- Bedrock.** The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
- Bench terrace.** A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.
- Blowout.** A shallow depression from which all or most of the soil material has been removed by wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts the water table is exposed.
- Bottom land.** The normal flood plain of a stream, subject to flooding.
- Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.
- Breaks.** The steep and very steep broken land at the border of an upland summit that is dissected by ravines.
- Brush management.** Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.
- Butte.** An isolated small mountain or hill with steep or precipitous sides and a top variously flat, rounded, or pointed that may be a residual mass isolated by erosion or an exposed volcanic neck.
- Calcareous soil.** A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.
- Caliche.** A more or less cemented deposit of calcium carbonate in soils of warm-temperate, subhumid to arid areas. Caliche occurs as soft, thin layers in the soil or as hard, thick beds directly beneath the solum, or it is exposed at the surface by erosion.
- Canyon.** A long, deep, narrow, very steep-sided valley with high, precipitous walls in an area of high local relief.
- Capillary water.** Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.
- Catena.** A sequence of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.
- Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- Cation-exchange capacity.** The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- Cemented.** Material in an air-dry test specimen that does not slake after being immersed in water for 1 hour. Cemented soil material has a brittle, hard consistence caused by some cementing agent other than clay. Calcium carbonate, silica, or oxides or salts of iron and aluminum are common cementing materials.
- Channeled.** Refers to a drainage area in which natural meandering or repeated branching and convergence of a streambed have created deeply incised cuts, either active or abandoned, in alluvial material.
- Channery soil material.** Soil material that is, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

- Chemical treatment.** Control of unwanted vegetation through the use of chemicals.
- Chiseling.** Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.
- Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- Clay depletions.** Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.
- Clayey soil.** Silty clay, sandy clay, or clay.
- Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Claypan.** A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.
- Climax plant community.** The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
- Closed depression.** A low area completely surrounded by higher ground and having no natural outlet.
- Coarse fragments.** Mineral or rock particles larger than 2 millimeters in diameter.
- Coarse textured soil.** Sand or loamy sand.
- Cobble (or cobblestone).** A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
- Cobbly soil material.** Material that is 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
- Colluvium.** Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.
- Complex slope.** Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.
- Complex, soil.** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
- Compressible** (in tables). Excessive decrease in volume of soft soil under load.
- Concretions.** Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.
- Conglomerate.** A coarse-grained, clastic rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.
- Conservation cropping system.** Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

- Conservation tillage.** A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.
- Consistence, soil.** Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."
- Consolidated sandstone.** Sandstone that disperses within a few hours when fragments are placed in water. The fragments are extremely hard or very hard when dry, are not easily crushed, and cannot be textured by the usual field method.
- Consolidated shale.** Shale that disperses within a few hours when fragments are placed in water. The fragments are extremely hard or very hard when dry and are not easily crushed.
- Consolidated siltstone.** Siltstone that disperses within a few hours when fragments are placed in water. The fragments are extremely hard or very hard when dry and are not easily crushed.
- Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.
- Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
- Coppice dune.** A small dune of fine-grained soil material stabilized around shrubs or small trees.
- Corrosion.** Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.
- Cover crop.** A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.
- Cropping system.** Growing crops according to a planned system of rotation and management practices.
- Crop residue management.** Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.
- Cuesta.** A hill or ridge that has a gentle slope on one side and a steep slope on the other; specifically, an asymmetric, homoclinal ridge capped by resistant rock layers of slight or moderate dip.
- Cutbanks cave** (in tables). The walls of excavations tend to cave in or slough.
- Decreasers.** The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.
- Deep soil.** A soil that is 40 to 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Deferred grazing.** Postponing grazing or resting grazing land for a prescribed period.
- Dense layer** (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.
- Depth, soil.** Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep soils, 20 to 40 inches; shallow soils, 10 to 20 inches; and very shallow soils, less than 10 inches.
- Depth to rock** (in tables). Bedrock is too near the surface for the specified use.

- Dip slope.** A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.
- Diversion (or diversion terrace).** A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.
- Drainage class (natural).** Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized— *excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained*. These classes are defined in the “Soil Survey Manual.”
- Drainage, surface.** Runoff, or surface flow of water, from an area.
- Drainageway.** An area of ground at a lower elevation than the surrounding ground and in which water collects and is drained to a closed depression or lake or to a drainageway at a lower elevation. A drainageway may or may not have distinctly incised channels at its upper reaches or throughout its course.
- Draw.** A small stream valley that generally is more open and has broader bottom land than a ravine or gulch.
- Dune.** A mound, ridge, or hill of loose, windblown granular material (generally sand), either bare or covered with vegetation.
- Eluviation.** The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.
- Endosaturation.** A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.
- Eolian soil material.** Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.
- Ephemeral stream.** A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.
- Episaturation.** A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.
- Erosion.** The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.
Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.
Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.
- Escarpment.** A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.
- Excess fines (in tables).** Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.
- Excess lime (in tables).** Excess carbonates in the soil that restrict the growth of some plants.
- Excess salts (in tables).** Excess water-soluble salts in the soil that restrict the growth of most plants.
- Excess sodium (in tables).** Excess exchangeable sodium in the soil. The resulting poor physical properties restrict the growth of plants.

- Fallow.** Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.
- Fast intake** (in tables). The rapid movement of water into the soil.
- Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.
- Fibric soil material (peat).** The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.
- Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called normal field capacity, normal moisture capacity, or capillary capacity .
- Fine textured soil.** Sandy clay, silty clay, or clay.
- First bottom.** The normal flood plain of a stream, subject to frequent or occasional flooding.
- Flaggy soil material.** Material that is, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.
- Flagstone.** A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.
- Flood plain.** A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.
- Fluvial.** Of or pertaining to rivers; produced by river action, as a fluvial plain.
- Footslope.** The inclined surface at the base of a hill.
- Forb.** Any herbaceous plant not a grass or a sedge.
- Fragile** (in tables). A soil that is easily damaged by use or disturbance.
- Genesis, soil.** The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.
- Gilgai.** Commonly, a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope. Typically, the microrelief of clayey soils that shrink and swell considerably with changes in moisture content.
- Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.
- Grassed waterway.** A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.
- Gravel.** Rounded or angular fragments of rock as much as 3 inches (7.6 centimeters) in diameter. An individual piece is a pebble.
- Gravelly soil material.** Material that is 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter. Very gravelly soil material has 35 to 60 percent of these rock fragments, and extremely gravelly soil material has more than 60 percent.
- Green manure crop (agronomy).** A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.
- Ground water.** Water filling all the unblocked pores of the material below the water table.
- Gully.** A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is

one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Gypsum. A mineral consisting of hydrous calcium sulfate.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Heavy metal. Inorganic substances that are solid at ordinary temperatures and are not soluble in water. They form oxides and hydroxides that are basic. Examples are copper, iron, cadmium, zinc, manganese, lead, and arsenic.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential.

The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table,

the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Increasesers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasesers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements.

Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Knoll. A small, low, rounded hill rising above adjacent landforms.

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loamy soil. Coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam, loam, silt loam, silt, clay loam, sandy clay loam, or silty clay loam.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Low strength. The soil is not strong enough to support loads.

Masses. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Mesa. A broad, nearly flat-topped and commonly isolated upland mass characterized by summit widths that are more than the heights of bounding erosional scarps.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

Microhigh. An area that is 2 to 12 inches higher than the adjacent microlow.

Microlow. An area that is 2 to 12 inches lower than the adjacent microhigh.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately deep soil. A soil that is 20 to 40 inches deep over bedrock or to other material that restricts the penetration of plant roots.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Natric horizon. A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.

Neutral soil. A soil having a pH value between 6.6 and 7.3. (See Reaction, soil.)

Nodules. Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Oxbow. The horseshoe-shaped channel of a former meander, remaining after the stream formed a cutoff across a narrow meander neck.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, hardpan, fragipan, claypan, plowpan, and traffic pan.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Pebble. See Gravel.

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher-lying areas of the erosion surface.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The downward movement of water through the soil.

Percs slowly (in tables). The slow movement of water through the soil adversely affects the specified use.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated hydraulic conductivity,” which is defined in the “Soil Survey Manual.” In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as “permeability.” Terms describing permeability, measured in inches per hour, are as follows:

Extremely slow	0.00 to 0.01 inch
Very slow	0.01 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plateau. An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and separated from them on one or more sides by escarpments.

Playa. The generally dry and nearly level lake plain that occupies the lowest parts of closed depressional areas. Temporary flooding occurs primarily in response to precipitation and runoff.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poor filter (in tables). Because of rapid or very rapid permeability, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse-grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Poor outlets (in tables). Refers to areas where surface or subsurface drainage outlets are difficult or expensive to install.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Range condition. The present composition of the plant community on a range site in relation to the potential natural plant community for that site. Range condition is expressed as excellent, good, fair, or poor on the basis of how much the present plant community has departed from the potential.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannahs, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Range site. An area of rangeland where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. A range site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other range sites in kind or proportion of species or total production.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Red beds. Sedimentary strata that are mainly red and are made up largely of sandstone and shale.

Redoximorphic concentrations. Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

Reduced matrix. A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

- Regolith.** The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.
- Relict stream terrace.** One of a series of platforms in or adjacent to a stream valley that formed prior to the current stream system.
- Relief.** The elevations or inequalities of a land surface, considered collectively.
- Residuum (residual soil material).** Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.
- Ridge.** A long, narrow elevation of the land surface. It generally is sharp crested and forms an extended upland between valleys.
- Rill.** A steep-sided channel resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery.
- Riser.** The relatively short, steeply sloping area below a terrace tread that grades to a lower terrace tread or base level.
- Riverwash.** Unstable areas of sandy, silty, clayey, or gravelly sediments. These areas are flooded, washed, and reworked by rivers so frequently that they support little or no vegetation.
- Road cut.** A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
- Rock fragments.** Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
- Rock outcrop.** Exposures of bare bedrock other than lava flows and rock-lined pits.
- Rooting depth (in tables).** Shallow root zone. The soil is shallow over a layer that greatly restricts roots.
- Root zone.** The part of the soil that can be penetrated by plant roots.
- Rubble land.** Areas that have more than 90 percent of the surface covered by stones or boulders. Voids contain no soil material and virtually no vegetation other than lichens. The areas commonly are at the base of mountain slopes, but some are on mountain slopes as deposits of cobbles, stones, and boulders left by Pleistocene glaciation or by periglacial phenomena.
- Runoff.** The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.
- Saline soil.** A soil containing soluble salts in an amount that impairs the growth of plants. A saline soil does not contain excess exchangeable sodium.
- Salinity.** The electrical conductivity of a saline soil. It is expressed, in millimhos per centimeter, as follows:
- | | |
|----------------------------|--------------|
| Nonsaline | 0 to 2 |
| Very slightly saline | 2 to 4 |
| Slightly saline | 4 to 8 |
| Moderately saline | 8 to 16 |
| Strongly saline | more than 16 |
- Sand.** As a soil separate, individual rock or mineral fragments ranging from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.
- Sandstone.** Sedimentary rock containing dominantly sand-sized particles.
- Sandy soil.** Sand or loamy sand.
- Sapric soil material (muck).** The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.
- Saturation.** Wetness characterized by zero or positive pressure of the soil water.

Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

- Scarification.** The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.
- Second bottom.** The first terrace above the normal flood plain (or first bottom) of a river.
- Sediment.** Solid, clastic material, both mineral and organic, that is in suspension, is being transported or has been moved from its site of origin by water, wind, ice, or mass wasting, and has come to rest on the earth's surface either above or below sea level.
- Sedimentary plain.** An extensive nearly level to gently rolling or moderately sloping area that is underlain by sedimentary bedrock and that has a slope of 0 to 8 percent.
- Sedimentary rock.** Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.
- Sedimentary uplands.** Land areas of bedrock formed from water- or wind-deposited sediments. They are higher on the landscape than the flood plain.
- Seepage** (in tables). The movement of water through the soil. Seepage adversely affects the specified use.
- Semiconsolidated sedimentary beds.** Soft geologic sediments that disperse when fragments are placed in water. The fragments are hard or very hard when dry. Determining the texture by the usual field method is difficult.
- Sequum.** A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
- Series, soil.** A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- Shale.** Sedimentary rock formed by the hardening of a clay deposit.
- Shallow soil.** A soil that is 10 to 20 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Sheet erosion.** The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- Shoulder slope.** The uppermost inclined surface at the top of a hillside. It is the transition zone from the backslope to the summit of a hill or mountain. The surface is dominantly convex in profile and erosional in origin.
- Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- Silica.** A combination of silicon and oxygen. The mineral form is called quartz.
- Silt.** As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- Siltstone.** Sedimentary rock made up of dominantly silt-sized particles.
- Similar soils.** Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.
- Sinkhole.** A depression in the landscape where limestone has been dissolved.
- Slickensides.** Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the

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steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

Slick spot. A small area of soil having a puddled, crusted, or smooth surface and an excess of exchangeable sodium. The soil generally is silty or clayey, is slippery when wet, and is low in productivity.

Slippage (in tables). Soil mass susceptible to movement downslope when loaded, excavated, or wet.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey the following slope classes are recognized:

Nearly level	0 to 1 percent
Very gently sloping	1 to 3 percent
Gently sloping	3 to 5 percent
Moderately sloping	5 to 8 percent
Strongly sloping	8 to 12 percent
Moderately steep	12 to 20 percent
Steep	20 to 45 percent
Very steep	45 percent and higher

Classes for complex slopes are as follows:

Nearly level	0 to 3 percent
Gently undulating	1 to 5 percent
Undulating	1 to 8 percent
Gently rolling	5 to 12 percent
Rolling	5 to 15 percent
Hilly	8 to 30 percent
Steep	20 to 45 percent
Very steep	45 percent and higher

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables). The slow movement of water into the soil.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of the soil.

Sodic (alkali) soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

Sodicity. The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium adsorption ratio (SAR) of a saturation extract, or the ratio of Na^+ to $\text{Ca}^{++} + \text{Mg}^{++}$. The degrees of sodicity and their respective ratios are:

Slight	less than 13:1
Moderate	13 to 30:1
Strong	more than 30:1

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and

ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Species. A single, distinct kind of plant or animal having certain distinguishing characteristics.

Stone line. A concentration of coarse fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stratified. Arranged in strata, or layers. The term refers to geologic material. Layers in soils that result from the processes of soil formation are called horizons; those inherited from the parent material are called strata.

Strath terrace. A surface cut formed by the erosion of hard or semiconsolidated bedrock and thinly mantled with stream deposits.

Stream channel. The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel. It originally formed near the level of the stream and is the dissected remnants of an abandoned flood plain, streambed, or valley floor that were produced during a former stage of erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to soil blowing and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are: platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), and granular. Structureless soils are either single grain (each grain by itself, as in dune sand) or massive (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Technically, the E horizon. Generally refers to a leached horizon

lighter in color and lower in content of organic matter than the overlying surface layer.

- Summer fallow.** The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.
- Summit.** A general term for the top, or highest level, of an upland feature, such as a hill or mountain. It commonly refers to a higher area that has a gentle slope and is flanked by steeper slopes.
- Surface layer.** The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."
- Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.
- Tailwater.** The water directly downstream of a structure.
- Terrace.** An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field is generally built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.
- Terrace (geologic).** An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.
- Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."
- Thin layer** (in tables). Otherwise suitable soil material too thin for the specified use.
- Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- Toeslope.** The outermost inclined surface at the base of a hill; part of a footslope.
- Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.
- Toxicity** (in tables). Excessive amount of toxic substances, such as sodium or sulfur, that severely hinder establishment of vegetation or severely restrict plant growth.
- Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- Trafficability.** The degree to which a soil is capable of supporting vehicular traffic across a wide range in soil moisture conditions.
- Tread.** The relatively flat terrace surface that was cut or built by stream or wave action.
- Unstable fill** (in tables). Risk of caving or sloughing on banks of fill material.
- Upland (geology).** Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.
- Valley.** An elongated depressional area primarily developed by stream action.
- Valley fill.** Alluvium deposited by heavily loaded streams.
- Variation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- Very deep soil.** A soil that is more than 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Very shallow soil.** A soil that is less than 10 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Well graded.** Refers to soil material consisting of coarse-grained particles that are well

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distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an oven-dry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

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